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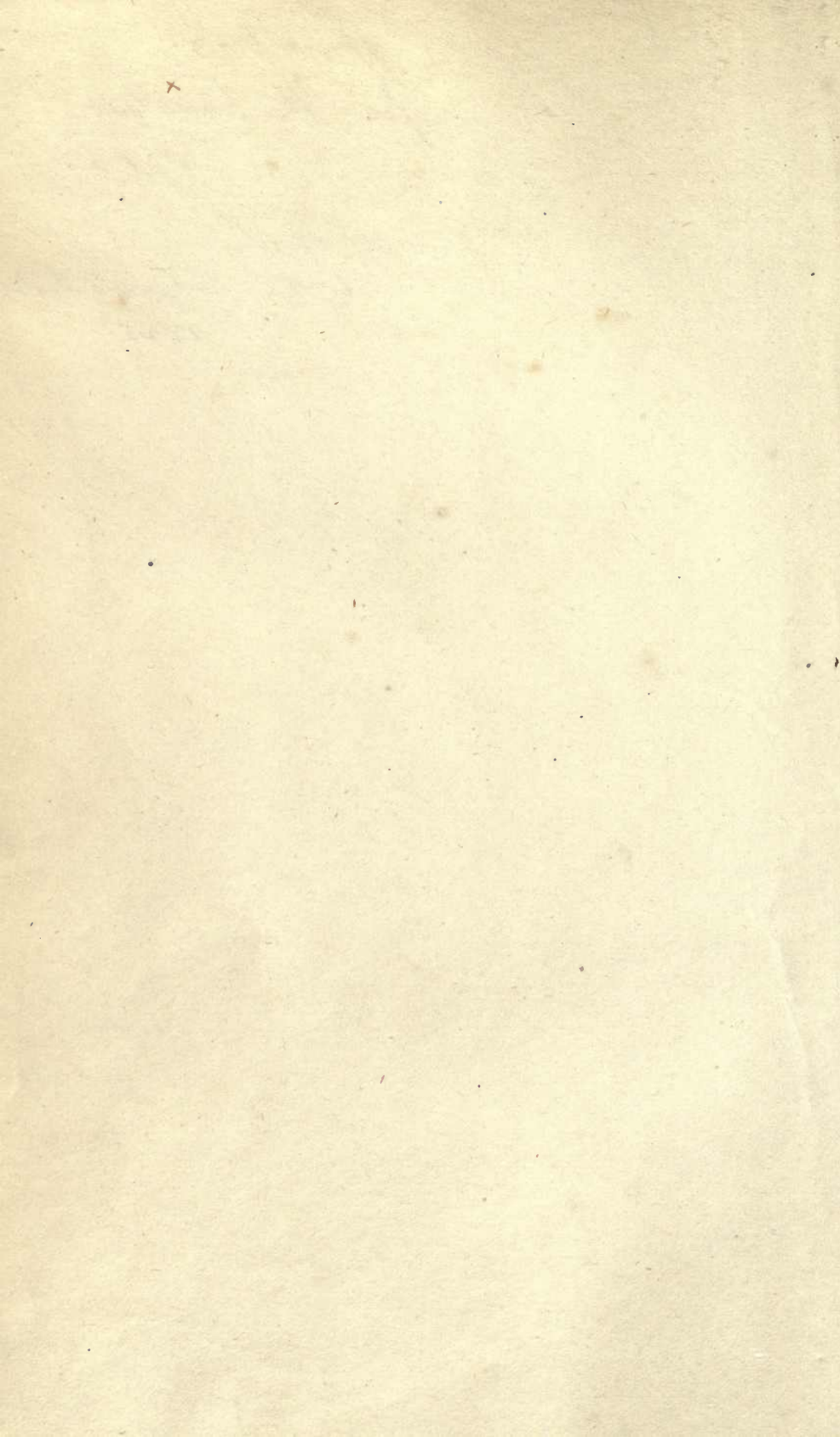
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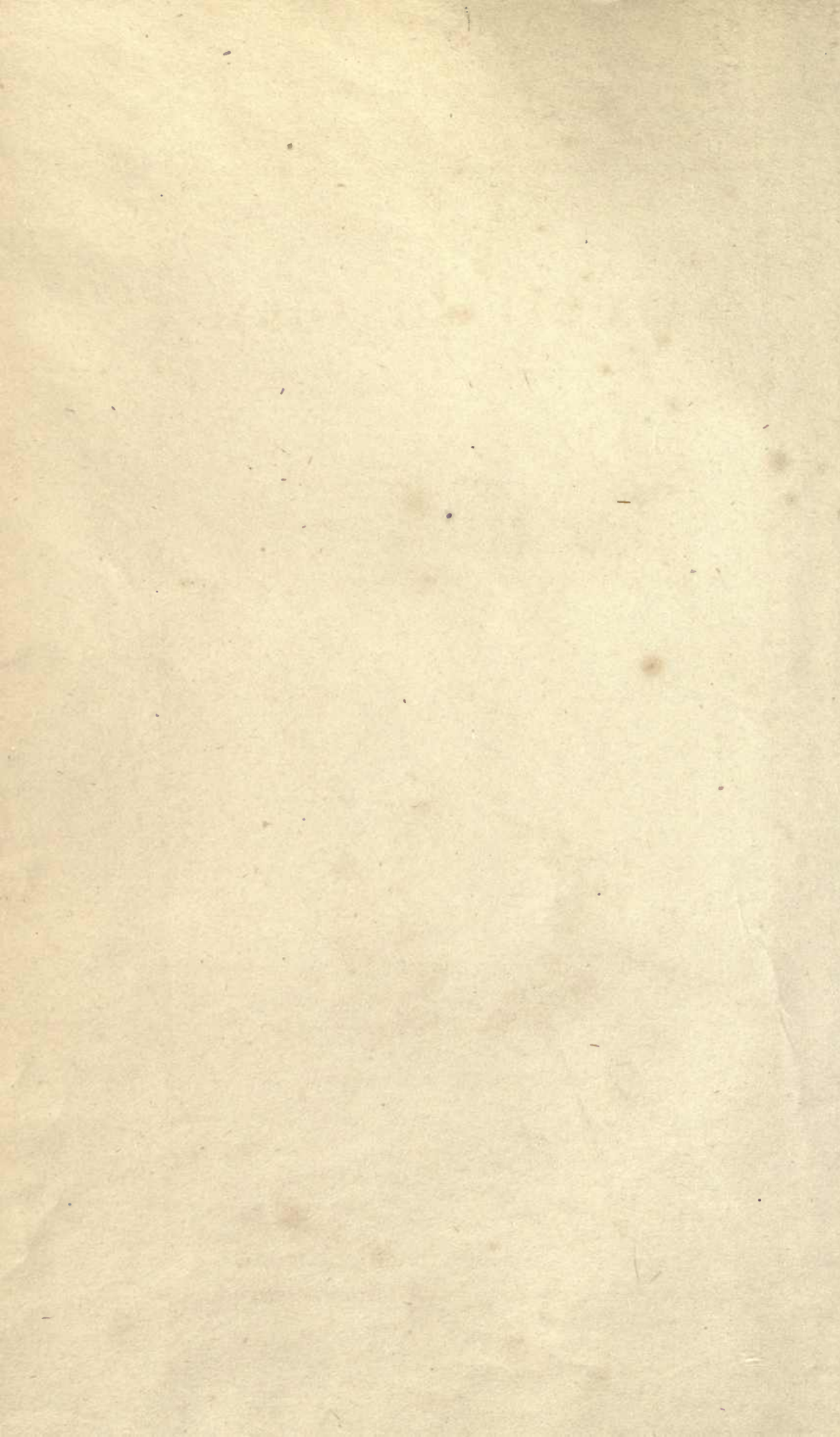
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NATURAL HISTORY

FIFTY-SEVEN

TWO



PLINY'S
NATURAL HISTORY.

IN
THIRTY-SEVEN BOOKS.

A TRANSLATION
ON THE BASIS OF THAT BY DR. PHILEMON HOLLAND,
ED. 1601.

WITH CRITICAL AND EXPLANATORY NOTES.

VOL. I.



Edited by the *Wernerian Club*.

PRINTED FOR THE CLUB
BY
GEORGE BARCLAY, CASTLE STREET, LEICESTER SQUARE.

1847-48.

P. LINNÆI
NATURAL HISTORY.

THIRTY SEVEN BOOKS.

A TRANSLATION

ON THE BASIS OF THAT BY DR. ERICSSON HOLLAND
RIP. 1807.

WITH ORIGINAL AND SUPPLEMENTARY NOTES.

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PURSUANT to a Resolution to the following effect, passed at a meeting of the Committee held on Wednesday, 3rd February, 1847:—

“ The best thanks of the Club are hereby presented to —

JONATHAN COUCH, Esq. F.L.S., *the Superintending Editor of this Publication, and Translator of the Work.*

Also to the following Gentlemen, viz. :—

In the Department of Astronomy,

SIR JOHN F. W. HERSCHEL, BART. F.R.S.

In the Department of Classical Literature,

REV. GEORGE MUNFORD, M.A.

W. G. V. BARNEWALL, Esq. M.A.

REV. T. FULCHER, B.A.

In the Departments of Antiquities and Geography,

JONATHAN COUCH, Esq. F.L.S.

C. J. B. ALDIS, Esq. M.D.

OCTAVIUS A. FERRIS, Esq.

CHARLES MOXON, Esq.

For the Editorial Assistance rendered by them in the preparation of the accompanying Work.”



PREFACE,

INCLUDING A

MEMOIR OF THE AUTHOR.

CAIUS PLINIUS SECUNDUS, usually called the Elder, to distinguish him from his nephew of the same name, who was equally eminent in letters, but in a different field, was born of an illustrious family of Verona, in the 23rd year of the Christian era.

According to the custom of Roman youths, he served in the army, where he was honoured with the regards of Titus, son of Vespasian, and afterwards emperor, to whom he dedicated his great work on the "History of Nature."

To one of his inclinations and tastes, the military career was probably little suited; yet every Roman was called on to enter it, whatever department of the public service he might afterwards occupy. With the army in Germany he acquired distinction. On his return to Rome he was enrolled in the College of Augurs — a post which favoured his philosophic in-

quiries ; and he was subsequently appointed Procurator, or Vice-Governor, in Spain.

It has been remarked, that none labour more strenuously in any favourite pursuit than those whose time appears absorbed in the necessary affairs of life ; none are so idle as those whose business is slight enough to afford leisure for every occupation. Of this truth history furnishes no example more striking than is visible in the varied pursuits, the diligence, and the research of Pliny ; while there can be no doubt also but that his public services acquired additional value from the wide range which his mind embraced, and the rich stores of knowledge which it was his habit to accumulate and arrange.

Such was the spirituality of his nature, that bodily requirements—much more bodily indulgences—seemed extinct in him. His relaxation from official business was a change of labour. The greater portion of his nights was devoted to study ; his very meals were an abstraction ; for, lest he should forget the higher aim of existence, his amanuensis read to him in their progress ; and, instead of walking, he drove in the chariot—his secretary beside him—to save time and escape distraction from his contemplations. So numerous and valued were his extracts, remarks, and annotations, that Lartius Lutinius offered the philosopher a sum equivalent to more than three thousand pounds sterling for the possession of them ; but they were more nobly bequeathed to his beloved and distinguished nephew. In the vast realms of Nature and Art no object was indifferent to him ; in the province of the Fine Arts, the accuracy of his judgment and the fidelity of his details seemed only to be outmea-

sured by the extent of his acquirement ; and as a history, a critique, and a catalogue, nothing more precious in letters than his 34th, 35th and 36th books, has escaped the ruin in which the fall of the Roman empire had nearly involved all of enlightenment that had grown up and flourished with it. To his humanity and scientific curiosity combined, he became one of the most memorable martyrs that stand on record.

The events of the day that closed his mortal career, in the 79th year of the Christian era, are minutely and touchingly detailed to Tacitus the historian, in one of the most elegant of the epistles penned by a nephew who was the worthy inheritor of the wealth, the fame, and the virtues of his uncle. The body was found three days after its destruction by the eruptions of Vesuvius, and interred at Misenum, in face of the fleet which he had quitted for the prosecution of his physical investigations. For the emulation of those who delight to

“ Look from nature up to nature’s God,”

as the best eulogy that can be pronounced on Pliny himself, and, at the same time, as a sentiment evincing his nephew’s exalted mind, the subjoined extract of the memorable letter cannot be too often and too long remembered : — “ *Equidem beatos puto, quibus Deorum datum est, aut facere scribenda, aut scribere legenda; beatissimos vero quibus utrumque.*”

No impulse short of an intense love of nature could have actuated a man so deeply engaged in the high offices of the state to snatch at every fragment of his time — as his nephew, in a letter to a friend, describes him — and appropriate it to forming a digest of

the scattered rays of natural knowledge. The subject was scarcely popular with his countrymen; and its materials were to be sifted from Greek writers of every school, with a toil and patience which few can duly estimate. The abstracts thus made filled one hundred and sixty closely written volumes, and though the sentiments, or, as we should now term them, the theories, of his authors were not a little discordant, he was well able to separate their matter from their opinions; and, if sometimes found to have hastily adopted hypotheses for facts, it must be remembered that there existed then no standard for the test of fact—that what he had abstracted had the sanction of venerable names—and that the period of sound criticism comes in only when vast stores of facts and incidents have been collected; and Pliny was then the most diligent accumulator for a riper age. To him belongs the glory of having harvested the materials for future science. Where attempts at explanation were made, occult causes, in the ignorance of experiment, were the only resource; and even the great Galileo took refuge in “Nature’s abhorrence of a vacuum,” for the only solution he could give of an operation which now admits of such rational explanation. Even the errors of these authors are a portion of the “History of Nature,” and Pliny’s record of them becomes valuable, where otherwise his narrative tempts only to a smile.

The light of modern science clears away the mist; yet few, even of ourselves, are privileged, from our higher sphere of advancement, to look down contemptuously on the erroneous conjectures or superstitious feelings exemplified in this cyclopædia of the Roman naturalist: for too many such failings are still

visible amongst ourselves, and these from a wrong and sometimes cherished bias in us, which were only an inability to penetrate more deeply in themselves.

To Pliny's especial honour be it mentioned (and instances of the merit will be frequently referred to in the notes), wherever a rational explanation of natural appearances can be given, he uniformly prefers it to the traditionary and the vulgar, however the latter may have been interwoven with the religion of the state, to which, on other occasions, he paid the homage which it required: a practice like this demanded no ordinary courage, when it might easily have provoked the charge of scepticism and profanity; and his escape from this may not, perhaps, unreasonably be traced to the support he obtained for his remarks from Greek authors, to whom, in points of speculation, the Romans peculiarly deferred.

By many it was feared, that if what the people were accustomed to worship as deities were shewn to their understandings as only natural influences, they might sink into atheism, and the little restraint which this worship exercised over their morals have been entirely dissipated. The Rationalism of the philosophers thus appeared a formidable evil; and the prevalence of the notion that certain remarkable natural causes productive of great good or great evil, according to our limited judgment, were deities themselves, is amply illustrated by the fact, that it was triumphantly asked of the first Christians to *shew* their God; and much of the contempt, persecution, and reproach of atheism they incurred, may have had its origin in this seeming incapacity to conform to this demand.

To modern eyes, Pliny's mode of conducting his

investigations has changed its aspect ; and his credulity is gravely urged against him as a crime which his exposure of much error and superstition is not thought sufficient to outweigh. Some of the matters which he announces, it is true, might well have shaken the strongest tendency to belief : and Herodotus, when reporting similar occurrences which had been narrated to him, is known to have carefully separated between what was given on the authority of others, and on his own responsibility. On the other hand, it must be borne in mind, that a proneness to belief in the case of natural wonders was the feature of the age ; and had these been omitted, the author would have incurred censure on this ground—an accusation, the reverse, doubtless, of what is now advanced, but which would, nevertheless, have affected his character for fidelity.

There is, moreover, reason to believe that he has softened down much of the wonderful which he extracted from other authors, and the following coincidence may be regarded as giving confirmation to this estimate of Pliny's discretion. When Aulus Gellius landed at Brundisium, on his passage from Athens to Rome, he found on the book-stalls some bundles of Greek works, which he read with eager curiosity. But, with every disposition to credit the authorities, he calls some of the narratives of Aristeas, Isigonius, Ctesias, Onesicritus, Polystephanus, and Hegesias, unheard of and incredible. Accordingly, in making extracts from these volumes, which bore marks of having been much read, it would appear that he passed by those incidents which were most absurd, and selected such only as he deemed worthy of further inquiry. The selections thus made are found remarkably to corre-

spend with those which Pliny has introduced in his own work.

Narratives of similar stamp and character gained equal credit in Europe during the middle ages: the famous traveller, Maundeville, believed what he narrated, and found, as he expected, readers ready to believe him; and the more so, perhaps, for the marvels which the history of his tour contains. Indeed, in the infancy of observation, when the Causes of Natural Phenomena were little known, so much was seen as to render every thing probable, and so little understood, that any explanation was alike satisfactory.

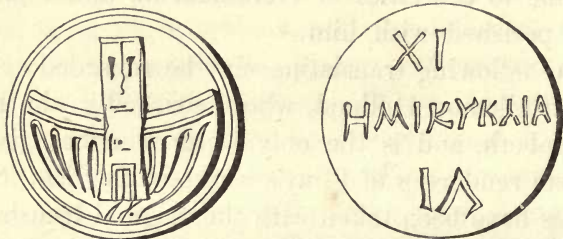
Rapid as is the foregoing sketch of the great naturalist's life and character, enough, it is hoped, has been glanced at to commend the revival of the volume before us, and to secure for its author among ourselves a reverence as great as is the undying interest given by his name to the cities of Herculaneum and Pompeii, which perished with him.

The following translation may be regarded as that of Dr. Philemon Holland, who flourished in the reign of Elizabeth, and is the only writer who has given a complete rendering of Pliny's works in English. Some liberties have been taken with the original translation. An attempt has been made to reduce its verbosity, and to approximate it more closely to the brevity and terseness of the Latin text; while the Editor has been at the same time studious of not interfering unnecessarily with the simplicity of style by which writers of that day were distinguished. The notes are given by various members of the Club, to whom application has been severally made by the general Editor, according to the department in which each may be found most

competent. The contributions have received the approval of the Committee, and been specially acknowledged in each volume.

The first and thirty-third books of Pliny were translated by Dr. Bostock in 1828, as specimens of a new version, which, but for his death, would in all probability have been completed. Of the notes appended to these sample chapters, such use has been made as subserves the purposes of our republishing Pliny in English; but, in the main, they are found to be more critical than explanatory.

The *Warnerian Club*.



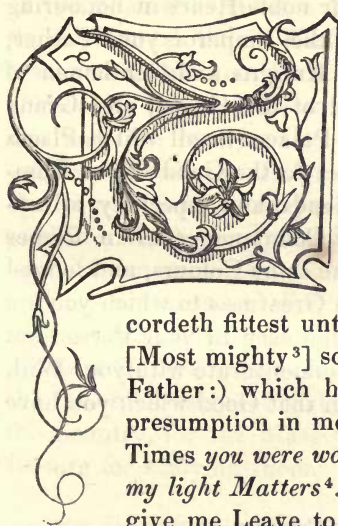
Bone Ticket of Admission to the Amphitheatre, found at Pompeii.



THE FIRST BOOK
OF THE
NATURAL HISTORY.

By C. PLINIUS SECUNDUS.

The Preface to Vespasian¹, his [friend] C. Plinius Secundus sendeth greeting.



THESE Books, containing the History of Nature, which a few days since I brought to Light (a new work among the Romans, your Citizens), I purpose by this Epistle of mine to present and consecrate unto you, most gentle Prince (for this Title² ac-

cordeth fittest unto you, seeing that the Name of [Most mighty³] sorteth well with the Age of your Father :) which haply might seem boldness and presumption in me, but that I know how at other Times *you were wont to have some good Opinion of my light Matters*⁴. Where, by the Way, you must give me Leave to soften a little the Verses which

¹ Titus.

² *Suavissimus.*

³ *Maximus.*

⁴ " *Namque tu solebas,
Meas esse aliquid putare nugas.*"

I borrow of my Tent-fellow, *Catullus* (to this Term of Camps¹ you are no Stranger): for he, as you know well, changing the former Syllables of his Verses², one for another, made himself somewhat more harsh than he would seem to be unto the fine Ears of his familiar Friends, the *Veranioli* and *Fabulli*. And I would be thought by this my intrusive Writing to you, to satisfy one point, which, as you complained in your Answer of late to another bold Letter of mine, I had not performed, that is, that all the World might see (as it were upon Record) how the Empire is managed by you and your Father equally: and notwithstanding this Imperial Majesty whereunto you are called, yet is your Manner of conversing with your old Friends affable, and the same that always heretofore it had been. For although you have triumphed with him for your noble Victories, fulfilled the Office of Censor, and also six times that of Consul³, shared the Authority of Tribune, Patrons, and Protectors of the Commons of Rome, together with him: although, I say, you have otherwise shewed your noble Heart in honouring and gracing both the Court of the Emperor your Father, and also the whole State of the Knights and Gentlemen of Rome, whilst you were Captain of the Guard, and Grand Master of his House and royal Palace (in all which Places you demeaned yourself in respect to the Good of the Commonwealth), yet to all your Friends, and especially to myself, you have borne the same Countenance as in former Times, when we served under the same Colours, and lodged together in one Tent. In all the Greatness to which you are elevated, there is no other Change seen in your Person but this: That your Power is now commensurate with your Will, and you are able now to perform that Good which you have ever intended.

¹ *Conterraneun.*

² It seemeth that *Pliny* read thus in *Catullus*:

“*Tu putare namque,
Nugus esse aliquid meus solebas.*”

which, indeed, was but an hard composition and couching of the words.

³ *Series*, or rather *Septies*; out of *Suetonius*.

And however this great Majesty resplendent in you on every Side, in regard of those high Dignities, may induce the World at large to reverence your Person, yet I for my part am aided only with the strength of Confidence to shew my Duty in a more familiar manner than others: and, therefore, this my Boldness you will impute unto your own Courtesy; and if it be a Fault in me, you will seek your Pardon from yourself. I have laid Bashfulness aside, but to no Purpose. For although your Gentleness and Humanity induce me to draw near to your Presence, yet you appear in other respects in great Majesty: for the Sublimity of your Mind, your high Attainments, set me as far behind as if the Lictors marched before you. Was there ever any Man, whose Words passed from him more powerfully, and who more truly might be said to flash forth as Lightning the Force of Eloquence? What Tribune was ever known more effectually to move the People with agreeable Language? How admirably you thundered out the Praise of the worthy Acts of your Father! What a Testimony of Love to your Brother! How skilful in Poetry! How ingeniously you find means to imitate your Brother¹ in this respect²! But who is able boldly to give sufficient Estimate of these Gifts? How may any One enter into the due Consideration of them without Fear of the exact Judgment of your Wit, especially being challenged therunto as you are? For the case of such as publish a Work in general is unlike theirs who dedicate it by Name to yourself. For had I set forth this my Book without any personal Dedication, I might have said, Sir, why should a mighty Commander and General³ busy himself to read such Matters? These Treatises were written for the lower Classes, for rude Husbandmen and Peasants of the Country, for the Mass of Artisans, and those who had Leisure for studying them. Why should you make yourself

¹ For *Domitian Vespasian* was reputed an excellent Poet.

² The sense of the passage, as seen by supplying the ellipsis of the original, is this: "With what testimony of love you set forth the praises of your brother to the full."—*Wern. Club.*

³ Imperator.

a Censor of this Work? When I first thought of this Enterprise of mine, I never reckoned you in the Number of those Judges that should stoop to pass sentence upon these Writings. It is a common case, and incident to Men of deep Learning, that their Judgment be rejected in this behalf. Even that illustrious Orator, *M. Tullius*, who for Wit and Learning had not his Fellow, useth the Benefit of this Liberty: and (whereat we may well marvel) maintaineth the Action by an Advocate, taking Example (for his Defence) from *Lucilius*: for in one Part of his Works thus he saith, *I wish not the learned Persius to read these Books of mine*; but I prefer *Lælius Decimus*. Now if such a one as *Lucilius*, who was the first that durst control the Writings of others, had reason thus to say; if *Cicero* borrowed the same Speech in his Treatise of the Republic¹, how much greater Cause have I to decline the Censure of a competent Judge? But I am cut off from this refuge, in that I expressly make choice of you in this Dedication of my Work: for it is one Thing to have a Judge, either selected by Plurality of Voices, or cast upon a Man by drawing Lots; and another Thing to choose and nominate him from all others: and there is great Difference between that Provision which we make for a Guest solemnly bidden and invited, and the sudden Entertainment which is ready for a Stranger who

¹ This work of Cicero, entitled "De Republicâ," is more than once referred to by Pliny. The high standard of morals which it upheld caused it to be much respected by the most eminent Fathers of the Latin Church: insomuch that it is thought to have suggested to St. Augustine the idea of his celebrated work, "De Civitate Dei." During the dark ages, however, the Treatise "De Republicâ" was so completely lost, that upon the revival of letters, not a single manuscript of it could be any where discovered. At length, about thirty years since, a large portion of it was found by Angelo Mai, then Librarian of the Vatican, in a parchment manuscript. The parchment had been washed, and again used for a manuscript; but the original writing was so far from having been entirely effaced by the ablution, that the large Roman letters were soon rendered legible again by the aid of a peculiar process. The recovered portion of this valuable work, being about one-third of the entire Treatise, was printed in London in one volume, 8vo. 1823.—*Wern. Club.*

cometh to our House unlooked for. *Cato*, that professed Enemy of Ambition, who took as great Contentment in those Estates and Dignities which he refused as in them which he enjoyed, attained to such a good Name of uprightness, that when in the hottest Contention about the Election of Magistrates, they that contested for these Offices put into his Hands their Money upon Trust, as an Assurance of their Integrity and Fidelity in this respect; they professed that they did it in Testimony of their Opinion of his Equity and Innocence: whereupon ensued that noble and memorable Exclamation of *M. Cicero* in these Words: "Oh! happy *M. Portius*, whom no Man would ever venture to solicit to any thing contrary to right!" When *L. Scipio*, surnamed *Asiaticus*, appealed to the Tribunes, and besought their lawful Favour (among whom, *C. Gracchus* was one, a Man whom he took for his mortal Enemy), he exclaimed, "That his very Enemies, if they were his Judges, could not choose but give Sentence on his Side." Thus every Man maketh him the supreme Judge of his Cause, whom himself hath chosen: which Manner of Choice the Latins call an Appeal (*Provocatio*). As for yourself, who are set in the most eminent Place, and endued with the highest Eloquence and deepest Learning, it is no Wonder if those who do their Duty unto you approach with the utmost Respect and Reverence: in which regard, exceeding Care above all Things would be had, that whatsoever is said or dedicated unto you, may become your Person, and be worthy your Acceptance. And yet the Gods reject not the humble Prayers of country Peasants, yea, and of many Nations, who offer nothing but Milk unto them: and such as have no Incense, find grace with the Oblation of a Cake made only of Meal and Salt; and never was any Man blamed for his Devotion to the Gods, if he offered according to his best Ability.

I may be more challenged for my inconsiderate Boldness, in that I would seem to present these Books unto you, compiled of such slender Matter: for in them can be comprised no great Ability (which otherwise in me was ever meagre), neither admit they any Digressions, Orations, and Discourses,

nor wonderful Incidents and variable Issues; nor any other Circumstances that may be agreeable to rehearse, or pleasant to hear. The Nature of all Things in this World, that is to say, Matters concerning our ordinary Life, are here delineated; and that in barren Terms, without any Show of Phrases: and what I have noted concern the commonest Points thereof, so that I am to deliver the Matter either in rustic, or foreign, nay, even barbarous Language, such as may not well be uttered, but with Apology to the Reader.

Moreover, the Way that I have pursued hath not been trodden before by other Writers; being indeed so strange, that no one would willingly travel therein. No Latin Author among us hath hitherto ventured upon the same Argument, no Grecian whatsoever hath handled all: and that because most study rather to pursue Matters of Delight and Pleasure. It may be confessed, that others have made profession of doing so, but they have done it with such Subtilty and Deepness, that their Efforts lie as if buried in Darkness. I, therefore, take upon me to gather a complete Body of Arts and Sciences (which the Greeks call *ἐγκυκλιὰ παιδείας*), that are either altogether unknown or have been rendered doubtful through too great Refinement of Ingenuity; other Matters are dealt with in such long Discourses, that they are rendered tedious to the Readers. It is a difficult Enterprise to make old Matters new, to give Authority and Credit to Novelties, to polish that which is obsolete, to set a Lustre upon that which is dim, to grace Things disdained, to procure Belief to Matters doubtful, and, in one Word, to reduce all to their own Nature. And to make the Attempt only, although it be not effected, is a fair and magnificent Enterprise. I am confidently of opinion, that the greatest Credit belongs to those learned Men who have forced their Way through all Difficulties, and have preferred the Profit of instructing to the Grace of pleasing, the Gratification of mere Desire of pleasing the present Age; and this I have aimed at, not in this Work only, but in other of my Books. And I wonder at *T. Livius*, a very celebrated Writer, who, in a Preface to one of his Books of the Roman History,

which he compiled from the Foundation of Rome, thus protested: That he had gotten Glory enough by his former Writing, and might now be at ease, but that his Mind was so little able to abide Repose, that it could not subsist but in labour. But, surely, in finishing those Chronicles, he should have respected the Glory of a People of Conquerors, who had advanced the Honour of the Roman Name, rather than displayed his own Praise: his Merit had been the greater to have continued his History for Love of the Subject, rather than his private Pleasure; to have preferred the Gratification of Rome to his own mere Pleasure. As touching myself (forasmuch as *Domitius Piso* saith, "That Books ought to be Treasuries, and not bare Writings"), I will be bold to say, that in Thirty-six Books I have comprised 20,000 Things that are worthy of Consideration, and these I have collected out of about 2000 Volumes that I have diligently read (and of which there are few that Men otherwise learned have ventured to meddle with, for the deep Matter therein contained), and those written by one hundred several excellent Authors; besides a Multitude of other Matters, which either were unknown to our former Writers, or Experience has lately ascertained. And yet we cannot doubt but there are many Things which we have overlooked: for we are Men, and employed in a Multiplicity of Affairs; and we follow these Studies at vacant Times; that is to say, by Night Season only; so that you may know, that to accomplish this we have neglected no Time which was due to your Service. The Days we assign to your Person; we sleep only to satisfy Nature, contenting ourselves with this Reward, that whilst we study (as *Varro* saith) these Things, we gain so many Hours to our Life; for surely we live then only when we are awake. Considering those Occasions and Hindrances, I had no Reason to promise much; but as you have emboldened me to dedicate my Books to you, yourself supply whatever in me is wanting; not that I place Dependency on the Worth of the Work; so much as that by this Means it will be better esteemed, for many Things there be that appear

the more precious only because they are consecrated in the sacred Temples.

We, indeed, have written of you all—your Father, yourself, and your Brother, in an adequate Volume, which we compiled touching the History of our Times, beginning at the Place where *Aufidius Bassus* ended. If you inquire of me, Where that History is? I answer, That it is long since finished, and by this Time is justified and approved by your Deeds: otherwise I was determined to leave it unto my Heir, and I gave Order that it should be published only after my Death, to remove the Suspicion that it had been written to obtain some selfish End. And by so doing, I do both them a great Favour, who, perhaps, were inclined to publish the like Chronicle; and Posterity, also, who, I well know, will compete with us as we have done with our Predecessors. A sufficient Argument of this my Mind you shall have by this, that in the Front of these Books now in Hand, I have set down the Names of those Writers whose Help I have used in the compiling of them: for I am of Opinion, that it is the Part of an honest Man, and one that has a Claim to any Modesty, to confess by whom he hath profited; and not as many of those Persons have done, whom I have alleged for my Authors. For, to tell you the Truth, in conferring them together about this Work of mine, I have met with some of our modern Writers, who, Word for Word, have copied out whole Books of old Authors, and never vouchsafed so much as the Naming of them; but have taken their Labours to themselves. And this they have not done in the Spirit to imitate and match them, as *Virgil* did *Homer*: much less have they shewed the Simplicity and Openness of *Cicero*, who, in his Books on the Commonwealth, professeth himself to follow *Plato*; in his consolatory Epistle written to his Daughter, he saith, “I follow *Crantor*,” and *Panætius* likewise, in his Treatise concerning Offices. Which Volumes of his (as you know well) deserve not only to be handled, but read daily, and committed entirely to Memory. It is the Part of a base and servile Mind

to choose rather to be taken in a Theft, than to bring Home borrowed Goods, or to repay a due Debt; especially when the Interest thereof hath gained a Man as much as the Principal.

In the Titles and Inscriptions of Books, the Greeks have a happy Art. Thus one has been entitled *Κηρίον*, whereby they would give us to understand of a Honeycomb: others¹ *Κήρας Αμαλθείας*, that is to say, the Horn of Plenty; so that whosoever readeth these goodly Titles must hope for some great Matters; and as the Proverb goes, look to drink there a Draught of Hen's Milk². You shall have, moreover, their Books set out with these glorious Inscriptions! The Muses, The Pandects³, Enchiridion⁴, *Λειμῶν*⁵, *Γινακίστιον*⁶: so that one might even consent to forfeit a Recognisance or Obligation in a Court of Law, to turn over the Leaf. But let a Man enter into them, and behold, what a Nothing shall he find within! As for our Countrymen, they are gross in Comparison of them in giving Titles to their Books: for they come with their Antiquities, Examples, and Arts; and those also be such Authors as are of finest Invention amongst them. *Valerius*, who (as I take it) was named *Antias*, both for that he was a Citizen of Antium, and also because his Ancestors were so called, was the first that gave to a Book the Title of *Lucubratio*, or Night Study. *Varro* terms some of his Satires *Sesculyxes* and *Flexibulæ*. *Diodorus*, among the Greeks, laid aside such empty Titles, and entitled his Book, *Bibliotheca*, or, a Library. *Apion*⁷, the Grammarian, whom *Tiberius*

¹ To wit, *Helius Melissus*.

² "Lac gallinaceum summa felicitate olim usurpabatur."—STRABO, lib. xiv. "Eos, qui Sami fœcunditatem laudabant, ei proverbium accommodasse tradit, quo aiunt *φρεσω ορνιθων γαλα*."—DALECHAMPIUS.—*Wern. Club*.

"Proverbium de re singulari et admodum rara."—*Note in Valpy*, p. 18.—*Wern. Club*.

³ Containing all things, as *Tyro Tullius* did.

⁴ A Manual to be carried always in Hand.

⁵ Meadow.

⁶ A Table or Index.

⁷ *Apion*, sometimes called *Appion*, was an Egyptian, but he had a great desire to be regarded as of Greek extraction. His works were numerous, and among them was one on all the wonders he had seen or

Cæsar called the Cymbal of the World (whereas, indeed, he deserved to be rather named the Drum of public Fame), was so vainglorious, that he professed to confer Immortality on all those whom he mentioned in his Writings. I am not ashamed I have not devised a prettier Title for my Book; yet because I would not be thought altogether to condemn the Greeks, I am willing to be regarded in this Behalf like those excellent Masters in Greece for Painting and Statuary, whom you shall find in these Reports of mine, to have entitled their rare and perfect Pieces of Work (which the more we look upon, the more we admire) with Half-Titles and imperfect Inscriptions, in this Manner: *Apelles worked at this Picture*¹: or, *Polycletus undertook this Image*: as if they were but begun and never finished, and laid out of their Hands: which was done (no doubt) to this End, that for all the Diversity of Men's Judgments scrutinising their Work, yet the Artificer thereby had Recourse to an Apology, as if he meant to have amended any Thing therein amiss, in Case he had not been prevented. These noble Workmen, therefore,

heard of in Egypt. It seems to have been his practice to regard every thing in proportion to the wonders it would enable him to relate. He is the sole authority for some curious facts in Natural History; which Pliny seems to have taken from him. Aulus Gellius admits that he was prone greatly to embellish the truth; and Josephus has given evidence of his emptiness and scurrility, which he poured out abundantly against the Jews, to whom he bore a mortal antipathy. He had an opportunity of displaying this in an address before the Emperor Caligula, when he represented their refusal to worship him as a god as a proof of their disaffection to his person and government; by which he excited the indignation of the emperor against the illustrious Philo and his companions. His notoriety for reviling and noisy opposition was such as to cause his name to be selected by a Christian writer of the third century, who assumed the name of Clement of Rome, as the fictitious opponent of St. Peter, in a disputation concerning the Christian religion: as mentioned by Eusebius and Lardner. His conceit appears from what Pliny says of him; and it would have been to him the deepest mortification, could he have been told that he would only be known to posterity through the mention made of him by his opponents. He is sometimes called Plistonicus and Polyhistor.—*Wern. Club.*

¹ *Apelles fuciebat.*

shewed great Modesty, that the Inscriptions on their Works were as if they had been their last Pieces, and their Perfection was hindered by their Death: for there were not known (I believe) above three which had their absolute Titles written upon them in this Form: *Ille fecit*, or, This *Apelles* finished: and those Pictures I will specify in the proper Place. By which it appeared evidently, that the said three Pictures were so fully finished, that the Workman was highly satisfied with their Perfection, and feared the Censure of no Man: no Marvel, then, if all three were so much admired throughout the World, and every Man desired to be Master of them.

For myself, I confess that many more Things may be added, not to this Story alone, but to all the Books that I have published before: which I say, because I would anticipate those Fault-finders and Scourgers¹ of *Homer* (for surely that is their very Name); because I hear say there be certain Stoic Philosophers, professed Logicians, and Epicureans also (for at the Hands of Critics I never looked for any other), who are in Labour to be delivered of somewhat against my Books which I have published on Grammar: and the Space of Ten Years has produced nothing but Abortion, when the Elephant is not so long in producing her young one. But this does not trouble me; for I am not ignorant that a Woman wrote against *Theophrastus*², though he was a Man of such Eloquence that from thence he obtained his divine Name, *Theophrastus*: from whence arose this Proverb, "Then go choose a Tree to hang thyself."³ I cannot refrain, but I

¹ *Homeromastiges.*

² Her name was Leontium, and she studied philosophy under Epicurus, where she became more celebrated for her talents than her virtue. The elegancy of her style is praised by Cicero.—*Wern. Club.*

³ There is a passage in Plutarch's "Life of Antony," which shews how lamentably the antients were addicted to the crime of suicide, and at the same time illustrates this proverb. It is thus translated by Langhorne:—"Once, in an assembly of the people, he (Timon of Athens) mounted the rostrum, and the novelty of the thing occasioned an universal silence and expectation: at length he said, 'People of Athens, there is a fig-tree in my yard, on which many worthy citizens have hanged themselves; and

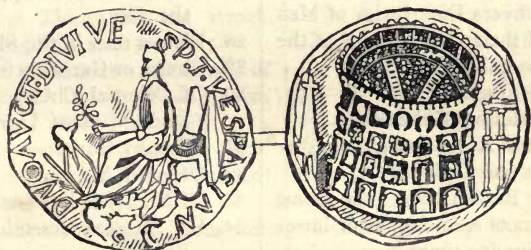
must set down the very Words of *Cato* the Censor, so pertinent to this purpose; whereby it may appear, that even *Cato* himself, who wrote of Military Discipline, who had been trained to War under *Scipio Africanus*, or rather, indeed, under *Hannibal*; who, in the end, could not endure *Africanus* himself, but was able to control him in martial Affairs; and who, besides having the Conduct, as Emperor, of the Roman Army, achieved the Superiority over his Enemies in the Field, and returned with Victory: this *Cato* could not avoid such Slanderers; but knowing that there would be many of them ready to purchase to themselves some Reputation by reproving the Knowledge and Skill of others, brake out into a certain Speech against them: and what was it? "I know well" (says he, in that Book) "that if these Writings be published to the World, many will step forth to cavil at them, and those soonest who are themselves void of all Praise. But I let their Words flow by." It was well said by *Plancus*, when being informed that *Asinius Pollio* was framing certain Orations against him, which should be published either by himself or his Children, after the Decease of *Plancus*, that they might not be answered by him; he remarked: "That none but Bugbears¹ fight with the Dead:" with which Word he gave those Orations such a Rebuff, that (by the Judgment of the Learned) none were

as I have determined to build on the spot, I thought it necessary to give this public notice, that such as choose to have recourse to this tree for the aforesaid purpose, may repair to it before it is cut down."—*Wern. Club.*

¹ *Bugbears. Larvæ.*—It was supposed that the soul of man, when freed from the bonds of the body, and not obliged to perform its functions, became a kind of demon, and this was denominated generally *Lemur*. Of these *Lemures*, those who were kind to their families, and preserved them in peace, were called *Lares familiares*, or domestic *Lares*; but those who, for punishment of their crimes committed during life, were condemned to continual wandering, without finding a place of rest, frightening good men and plaguing the wicked, were denominated *Larvæ*. The sarcasm consisted in comparing *Asinius Pollio* to such a perturbed spirit. In the singular number, *Larva* signifies a mask, used to terrify children.—*Wern. Club.*

accounted more Impudent than they. Therefore, feeling myself secure against these Busy-bodies, (and verily *Cato* hath given such Fellows a proper Name when he called them *Vitilitigatores*, by a Term elegantly compounded of Vices and Quarrels: for to say a Truth, what do they else but pick Quarrels and make Brawls?) I will proceed in my intended Purpose.

To conclude my Epistle: knowing that for the Good of the Commonwealth you ought to be spared in any private Business of your own, and especially in perusing these long Volumes of mine; to prevent such a Trouble, therefore, I have adjoined to this Epistle, and prefixed before these Books, the Summary or Contents of every one: and carefully have I endeavoured, that you should not need to read them throughout to ascertain their Contents; whereby all others also, after your Example, may ease themselves of the like Labour: and as any Man is desirous to know this or that, he may readily find in what Place to meet with the same. This Plan I learned of *Valerius Sorranus*, one of our own Latin Writers, who hath done the like before me in those Books which he entitled *Εποπτιδων*.



Brass coin of *T. Vespasian*, in the possession of *Mr. Couch*.



IN THE SECOND BOOK

IS CONTAINED THE

DISCOURSE OF THE WORLD, OF CELESTIAL IMPRESSIONS AND
METEORS, AS ALSO OF THOSE THAT APPEAR IN THE
AIR, AND UPON EARTH.

CHAP.

1. Whether the World be limited?
and whether there be but one?
2. The Form of the World.
3. The Motion of Heaven.
4. Why the World is called Mundus?
5. Of the Four Elements.
6. Of the Seven Planets.
7. Concerning God.
8. The Nature of the fixed Stars
and Planets: their Revolution.
9. The Nature of the Moon.
10. The Eclipse of Sun and Moon:
also of the Night.
11. The Magnitude of Stars.
12. The divers Discoveries of Men
and their Observations of the
Celestial Bodies.
13. Of Eclipses.
14. The Motion of the Moon.
15. General Rules concerning Pla-
nets and Lights.
16. The Reason why the same
Planets seem higher or lower
at sundry times.
17. General Rules concerning the
Planets.
18. What is the Cause that Planets
change their Colours?
19. The Course of the Sun: his Mo-
tion: and whence proceedeth
the Inequality of Days.
20. Why Lightnings are assigned
to *Jupiter*.

CHAP.

21. The Distances between the
Planets.
22. The Harmony of Stars.
23. The Geometry of the World.
24. Of Stars appearing suddenly.
25. Of Comets and other prodi-
gious Appearances in the
Sky: their Nature, Situa-
tion, and Kinds.
26. The Opinion of *Hipparchus* of
the Stars, Torches, Lamps,
Pillars or Beams of Fire,
burning Darts, Gapings of
the Sky: with Instances.
27. Strange Colours appearing in
the Sky.
28. Flames seen in the Sky.
29. Circles or Garlands in the Sky.
30. Of Celestial Circles and Gar-
lands of short Duration.
31. Of many Suns.
32. Of many Moons.
33. Of Nights as light as Day.
34. Of Meteors resembling fiery
Shields.
35. A wonderful Appearance in
the Sky.
36. The extraordinary Shooting of
Stars.
37. Of the Stars named *Castor* and
Pollux.
38. Of the Air.
39. Of certain set Times and Sea-
sons.

CHAP.

40. The Power of the Dog-Star.
41. The Influences of Stars according to the Seasons and Degrees of the Signs.
42. The Causes of Rain, Wind, and Clouds.
43. Of Thunder and Lightning.
44. Whereupon cometh the Redoubling of the Voice, called Echo.
45. Of Winds again.
46. Considerations on the Nature of Winds.
47. The Kinds of Winds.
48. Of sudden Blasts.
49. Other strange Kinds of Tempests.
50. In what Regions there fall no Thunderbolts.
51. Divers Sorts of Lightnings, and wondrous Accidents by them occasioned.
52. The Observations [of the Tuscans in old Time] about Lightning.
53. Of causing Lightning.
54. General Rules concerning Lightning.
55. What Things are not struck by Lightning.
56. Of monstrous Showers of Milk, Blood, Flesh, Iron, Wool, Brick, and Tile.
57. The rattling of Armour: and the Sound of Trumpets heard from the Sky.
58. Of Stones falling from the Sky.
59. Of the Rainbow.
60. Of Hail, Snow, Frost, Mists, and Dew.
61. Of Shapes represented in the Clouds.
62. The particular Properties of the Sky in certain Places.
63. The Nature of the Earth.
64. The Figure of the Earth.

CHAP.

65. Of the Antipodes: and whether there be such. Also, of the Roundness of the Water.
66. How the Water resteth upon the Earth.
67. Of Seas and Rivers of Navigation.
68. What Parts of the Earth be habitable.
69. That the Earth is in the Midst of the World.
70. Whence proceedeth the Inequality in the Rising of the Stars. Of the Eclipse: where it is, and why.
71. The Reason of Daylight upon Earth.
72. A Discourse thereof according to the Gnomon: also of the first Sun-dial.
73. Where and when no Shadows are cast.
74. Where the Shadows fall opposite twice in the Year.
75. Where the Days are longest, and where shortest.
76. Likewise of Dials.
77. The divers Observations and Acceptations of the Day.
78. Reasons of the Difference of Nations.
79. Of the Earthquake.
80. Of Openings in the Earth.
81. Signs of an Earthquake.
82. Helps against approaching Earthquakes.
83. Strange Wonders seen only once in the Earth.
84. Miraculous Accidents of Earthquakes.
85. In what Parts the Seas went back
86. Islands appearing new out of the Sea.
87. What Islands have thus shewed, and at what Times.
88. Into what Lands the Seas have forcibly broken.

CHAP.	CHAP.
89. What Islands have been joined to the Continent.	98. Wonderful Things in the Sea.
90. What Lands have become all Sea.	99. The Power of the Moon over Sea and Land.
91. Of Lands that have been swallowed up of themselves.	100. The Power of the Sun: and why the Sea is salt.
92. What Cities have been overflowed by the Sea.	101. Also of the Nature of the Moon.
93. Wonderful Things of Lands.	102. Where the Sea is deepest.
94. Of Lands that always suffer Earthquake.	103. Remarkable Observations of the Waters, of Fountains, and Rivers.
95. Of Islands that float continually.	104. Remarkable Things in Fire and Water jointly together: also of Maltha.
96. In what Countries it never raineth: also, of Miracles, as well of the Earth as other Elements, accumulated together.	105. Of Naphtha.
97. The Reason of the Sea-tides, as well ebbing as flowing, and where the Sea floweth extraordinarily.	106. Of Places that burn continually.
	107. Wonders of Fire alone.
	108. The Dimension of the Earth, in length and breadth.
	109. The harmonical Circumference of the World.

In Sum, there are in this Book, of Histories and Observations, Four Hundred and Eighteen in Number.

LATIN AUTHORS ABSTRACTED IN THIS BOOK:

*M. Varro, Sulpitius Gallus, Tiberius Cæsar the Emperor, Q. Tubero, Tullius Tiro, L. Piso, T. Livius, Cornelius Nepos, Statius, Sebosus, Cælius Antipater, Fabianus, Antias, Mutianus, Cecina (who wrote of the Tuscan Learning), Tarquitiuſ, L. Aquila, and Sergiuſ Pauluſ*¹.

FOREIGN AUTHORS:

Plato, Hipparchuſ, Timæuſ, Sogenicenſ, Petoſiriſ, Necepuſ, Pythagoraſ, Poſidouſiuſ, Anaximander, Epigenenſ, Gnomonicuſ, Euclidenſ, Cæranuſ Philoſophuſ, Eudoxuſ, Democrituſ, Criſodemuſ, Thraſylluſ, Serapion, Dicæarchuſ, Archimedenſ, Oneſicrituſ, Eratoſthenenſ, Pytheuſ, Herodotuſ, Ariſtoteleſ, Cteſiaſ, Artemidoruſ Ephieſiuſ, Iſidoruſ Characenuſ, Theopompuſ.

¹ *Sergiuſ Pauluſ.* There can be no doubt that this writer on Natural Philoſophy—whoſe workſ are loſt—is the ſame perſon that iſ mentioned in the 13th Chapter of the Actſ of the Apoſtleſ; and from the nature of hiſ purſuitſ we are enabled to perceive the reaſon why, at one time, he waſ the patron of Elymaſ the Sorcerer. The greater portion of the Impoſtorſ of thoſe dayſ were accuſtomed to found their claimſ to regard on their acquaintance with ſome branchſ of Philoſophy, in which Sergiuſ Pauluſ waſ an inquiring ſtudent. We do not find the name of the Sorcerer among the numerous authorſ referred to by Pliny.—*Wern. Club.*



THE SECOND BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY

C. PLINIUS SECUNDUS.

CHAPTER I.

Whether the World be finite, and but one.



HE World¹, and that which, by another Name, Men have thought Good to call Heaven (under the Compass of which all Things are covered), we ought to believe, in all Reason, to be a Divine Power, eternal, immense, without Beginning, and never to perish. What is beyond the Compass

¹ The Author manifests a philosophic, as well as pious spirit, in beginning his work with a reference to Divine power; but in giving this idea of the nature of the world, and representing it as a separate and independent divinity, he adopts an ancient speculative opinion derived from the Oriental philosophy, in preference to the popular opinion of his country, which is selected by Ovid in his Introduction to the "Metamorphoses;" and which ascribed the creation of the world to an already existing or eternal God—"whichever God he was:" though not to the highest in rank of the Heathen Mythology; for the latter is represented as descended from previously existing, or humanly deified, parents, and consequently was of a subsequent age. The knowledge of the Great Eternal having been left

thereof, neither is it fit for Men to search, nor within Man's Understanding to conceive. Sacred it is, everlasting, infinite, all in all, or rather itself all and absolute : limited, yet seeming infinite : in all Motions, certain ; though in Appearance uncertain : comprehending in itself all both without and within : Nature's Work, and yet very Nature itself. It is Madness that some have thought in their Mind to measure it ; yea, and durst in Writing set down the Dimensions thereof : that others again, by Occasion hereupon taken, or on this founded, have taught, That there are Worlds in-

to slip from the minds of learned Heathens, through their speculations into occult causes, and the wrapping up of religion from the inquiries of the vulgar, as being too high for their comprehension, they were led to the conception of what, in fact, was no more than a mere abstraction, and destitute of all proper personality : a simple, unconscious fatality, with little volition : and, in truth, no better than a diffusive æther, or, as it would now be denominated, galvanic influence. The philosophy of Pythagoras was derived from the East ; "But it was this," says Lord Bacon ("Natural History," 10th century), "which did first plant a monstrous imagination, which afterwards was, by the school of Plato and others, watered and nourished. It was, that the world was one, entire, perfect, living creature ; insomuch as Apollonius of Tyana, a Pythagorean prophet, affirmed that the ebbing and flowing of the sea was the respiration of the world, drawing in water as breath, and putting it forth again. They went on, and inferred, that if the world were a living creature, it had a soul and spirit ; which also they held, calling it '*spiritus mundi*,' the spirit or soul of the world. By which they did not intend God (for they did admit of a deity besides), but only the soul, or essential form, of the universe. This foundation being laid, they might build upon it what they would ; for in a living creature, though never so great (as, for example, in a great whale), the sense and the effects of any one part of the body instantly make a transcurtion throughout the whole body. So that by this they did insinuate, that no distance of place, nor want nor indisposition of matter, could hinder magical operations ; but that, for example, we mought here in Europe have sense and feeling of that which was done in China ; and likewise we mought work any effect without and against matter ; and this not holden by the co-operation of angels or spirits, but only by the unity and harmony of nature." This was the occult cause, to which all the otherwise unaccountable operations of nature might easily be referred. We have a curious instance of such a method of explanation at the end of the ninety-third chapter of this book.

— *Wern. Club.*

numerable: as if we are to believe so many Natures as there are Heavens: or if all were reduced to one, yet there should be so many Suns and Moons, with the Rest also of those immeasurable and innumerable Stars in that one: as though in this plurality of Worlds we should not always meet with the same Question still at every Turn of our Thought, for Want of some End to rest upon: or, if this infiniteness could possibly be assigned to Nature, the Work-mistress of all; the same might not be understood more easily in that one Heaven which we see; so great a Work as it is. Now surely it is more than Madness to quit this, and to keep seeking without, as if all Things within were well and clearly known already: as if any Man could take the Measure of another Thing, who knoweth not his own: or the Mind of Man might see those Things which the World itself may not receive.

CHAPTER II.

Of the Figure of the World.

THAT the Form of the World is round¹, in the Figure of a perfect Globe, its Name in the first Place, and the Consent of all Men agreeing to call it in Latin *Orbis* (a Globe), as also many natural Reasons, evidently shew. For not only because such a Figure every Way falleth and bendeth upon itself, is able to uphold itself, includeth and containeth itself, having need of no joints for this purpose, as finding in any Part thereof no End or Beginning: or because this Form agreeth best to that Motion, whereby continually it must turn about (as hereafter will appear): but also because the Eyesight doth approve the same; because, look which Way soever you will, it appeareth convex, and even on all sides; a Thing not incident to any other Figure.

¹ That it was an oblate spheroid, flattened at the poles, was little likely to be known by observers, however acute, whose opinion of the uninhabitable nature of the frigid and torrid zones would lead them to limit their practical inquiries to the temperate. The good sense of Pliny induced him to prefer the opinion of the rotundity of the globe, to that of Epicurus, that it was an extended plane.—*Wern. Club.*

CHAPTER III.

The Motion of the World.

THAT the World thus framed, in a continued Circuit, with unspeakable Swiftmess turneth round in the Space of four-and-twenty Hours, the ordinary Rising and Setting of the Sun leaves no Room to doubt. Whether it being in Height exceedingly great, and therefore the Sound of so huge a Frame, whilst it is whirled about unceasingly, cannot be heard with our Ears, I cannot easily imagine: no more, by Hercules! than I may vouch the Ringing of the Stars that are driven round therewith, and roll their own Spheres: or determine, that as the Heaven moveth, it represents a pleasant and incredibly sweet Harmony: although to us within, by Day and Night, it seemeth to roll on in Silence. That there is imprinted on it the Figures of living Creatures, and of all Kinds of Things besides without Number, as also that the Body thereof is not all over smooth and slippery (as we see in Birds' Eggs), which excellent Authors have termed *Tenerum*, is shewn by Arguments; for by the Fall of natural Seeds of all Things from thence, and those for the most Part mixed one with another, there are produced in the World, and in the Sea especially, an immense Number of monstrous Shapes. Besides this, our Sight testifieth the same; for in one Place there appeareth the Resemblance of a Chariot, in another of a Bear, or a Bull, and of a Letter (Δ), and principally the middle Circle over our Head, where it is more white than the Rest.

CHAPTER IV.

Why the World is called Mundus.

FOR my own Part, I am ruled by the general Consent of all Nations. For, the World, which the Greeks, by the Name of Ornament, called *Κοσμος*, we, for the perfect Neatness and absolute Elegance thereof, have termed *Mundus*. And we have named the Sky *Cælum*, because it is engraven,

according as *M. Varro* interpreteth it. And the Order of Things therein contributes to this, and especially the defined Circle called *Signifer*, or the Zodiac, divided by the Forms of Twelve living Creatures, through which is the Sun's Track ; preserving the same Course for so many Ages.

CHAPTER V.

*Of the four Elements*¹.

I SEE no doubt regarding the Number of the Elements, that they are four. The highest, Fire : from whence are those bright Eyes of so many shining Stars. The next, Spirit, which the Greeks and our Countrymen by one Name called Air : this Element is vital, and it soon passeth through all, and is intrinsically mixed in the Whole : by the Power whereof, the Earth hangeth suspended in the midst, together with the fourth Element, of Water. Thus, by a mutual embracing of each other, divers Natures are linked together : and so the light Elements are restrained by the heavier, that they do not fly off : and, on the contrary, the massier are held up, that they fall not down, by means of the lighter, which seek to mount aloft. So, through an equal Endeavour to the Contrary, each of them holds its own, bound as it were by the restless Circuit of the World itself : which, running evermore upon itself, the Earth falleth to be lowest, and in the Middle of the Whole : and the same hanging steadily by the Pole of the Universe, poiseth those Elements by which it hangeth. Thus it alone resteth unmovable, whilst the whole Frame of the World turneth

¹ The idea here conveyed of the existence of four elements, which enclose each other, each heavier one in succession subsiding below the other, is more fully expressed by Ovid, in his account of the creation of the world at the beginning of the first book of his "Metamorphoses." The opinion was generally entertained, of these elements being the constituents of all things, until modern chemical analysis demonstrated that themselves are compounded of other and more simple elements. Yet the language of the ancient opinion has not altogether ceased from use, even at the present time.—*Wern. Club.*

about it : and as it is united by all, so all of them rest upon the same.

CHAPTER VI.

Of the seven Planets.

BETWEEN the Earth and Sky, there hang in the Air above-named, seven Stars, divided one from another at distinct Distances ; and these, on account of their variable Motion, we call Wandering Planets ; whereas, indeed, none wander less than they. In the midst of them the Sun taketh his Course, as being the greatest and most powerful of all : the very Ruler, not of Times and Seasons only, and of the Earth, but also of the Stars and Sky itself. We ought to believe this Sun¹ to be the very Life and (to speak more plainly) the Soul of the whole World, and the principal Governance of Nature ; and, considering his Operations, nothing less than a divine Power. He it is that giveth Light to all Things, and scatters their Darkness : he hideth the other Stars ; he ordereth the Seasons in their alternative Course ; he tempereth the Year, which ariseth ever fresh again for the Good of the World. He disperseth the Sadness of the Sky, and clearth the Cloudiness of the Mind of Man ; to other Stars, likewise, he lendeth his own Light. Most excellent and glorious he is, as seeing all, and hearing all ; as, I see, is the Opinion of *Homer*² (the Prince of Learning) regarding him alone.

¹ We find the ascription of Divinity to be the last resource in explaining the operation of a hidden cause in nature. A false divinity was, therefore, the foundation of errors in philosophy ; and the latter again reacted on the former.—*Wern. Club.*

² Pliny here refers to a passage in the eleventh book of the “Odyssey,” where Ulysses descends into Hell, and meets with Tiresias, who, in recounting the future fortunes of the hero, says : “ You shall find feeding the oxen and fat sheep of the sun, who sees and hears all things :” or, more diffusively, by Pope ; where —

“ Graze numerous herds along the verdant shores ;
 Though hunger press, yet fly the dangerous prey ;
 The herds are sacred to the god of day,
 Who all surveys with his extensive eye,
 Above, below, on earth and in the sky.”

Wern. Club.

CHAPTER VII.

Of God.

I SUPPOSE, therefore, that to seek after any Shape of God¹, and to assign a Form and Image to him, is a Proof of Man's Folly. For God, whosoever he be (if haply there be any other, but the World itself), and in what Part soever resident, all Sense He is, all Sight, all Hearing: He is the whole of the Life and of the Soul, all of Himself. And to believe that there be Gods innumerable, and those according to Men's Virtues and Vices, as Chastity, Concord, Understanding, Hope, Honour, Clemency, Faith; or (as *Democritus* was of Opinion) that there are two Gods only, that is, Punishment and Benefit: these Conceits render Men's idle Negligence the greater. But frail and wearisome mortal Men, remembering their own Infirmary, have digested these Things apart, to the End that each one might from thence choose to worship that whereof he stood most in need. And hence it is, that in different Nations we find the Gods named diversely: and in the same Region there are innumerable Gods. The infernal Powers, likewise, and Diseases, yea, and many Plagues, have been ranged in Divisions, and reckoned for Gods; which, with

¹ In this chapter the author openly asserts his disbelief of the truth of the established system of religion of his country; and his manner of doing this sufficiently shews the confidence he felt, of finding sympathy in his scepticism among the learned and refined classes of society. This system was, indeed, singularly destitute of evidence; and the reasons he gives for his disbelief shew it to have been as absurd to the eye of examination as it was unsupported by argument. That the chief deities of the Heathens were no more than deceased men who had benefited the world in their lives, or at least acquired human respect, is asserted by many other ancient authors; but it is to be regretted that the author should so far join in the error as from it to find occasion for thereby mixing up with it the flattery of a court. The treatise of Cicero, "On the Nature of the Gods," and the remarks of Pliny, are proofs that the ancient Heathens were not slow to discern the errors of the popular system of religion, though they were incapable of discovering or appreciating the true.—*Wern. Club.*

trembling Fear, we have desired to pacify. This Superstition hath caused a Fane to be dedicated to Fever, in the Palatine Mount, by Order of the State; and likewise an Altar to *Orbona*, near the Temple of the *Lares*: besides another erected to Bad Fortune on the Esquiline. By this it may be conceived that there are a greater Number of Gods in Heaven than of Men upon Earth, since every one makes as many Gods as he pleases, fitting himself with *Juno*es and *Genii* for his Patrons. There are certain Nations that account Beasts, and even some filthy Things, for Gods; yea, and many other Matters more shameful to be spoken: swearing by stinking Meats, by Garlic, and such-like. But, surely, to believe that Gods have contracted Marriage, and that in so long a Time no Children should be born to them: also that some are aged, and ever grey-headed: others, again, young and always Children: that they be black of Complexion, winged, lame, hatched of Eggs, living and dying on each alternate Day; are mere childish Fooleries. But it exceedeth all Impudency to imagine Adulteries among them: and presently, also, scolding, and Malice; and more than that, how there be Gods that are Patrons of Theft and Wickedness. He is a God to a Man that helpeth Him: and this is the true Way to everlasting Glory. In this Way went the Romans in old Time: and in this Track, at this Day, goeth, with heavenly Pace, *Vespasian Augustus*, with his Children; the most mighty Ruler of the whole World: relieving the afflicted State of the Empire. And this is the most ancient Manner of Requital to such Benefactors, that they should be enrolled with the Gods. And hereof came the Names as well of all other Gods, as of the Stars (which I have mentioned before), in Recognisance of Men's good Deserts. As for *Jupiter* and *Mercury*, and others ranged among the Gods, who doubteth that they were called otherwise among themselves? and who confesseth not how these be celestial Denominations, to express and interpret their Nature?

To suppose that the sovereign Power, whatsoever it is, should exercise Care over Mankind, is ridiculous. For can we choose but believe that the Godhead must be polluted

with so base and manifold a Ministry? And hardly can it be judged, whether it be better for Mankind to believe that the Gods have Regard of us, or that they have none; considering that some Men have no Respect and Reverence for the Gods, and others so much that their Superstition is a Shame to them. These are devoted to them by foreign Ceremonies: they wear their Gods upon their Fingers in Rings, yea, they worship Monsters: they forbid some Meats; and yet they devise others. They impose upon them hard Charges, not suffering them to rest and sleep in quiet. They choose neither Marriages, nor Children, nor any one Thing else, but by the Allowance of sacred Rites. Others are so godless, that in the very Capitol they use Deceit, and forswear themselves even by the Thunder of *Jupiter*. And as some speed well with their Irreligion, so others suffer from their own holy Ceremonies.

Between these Opinions, Men have found out a Medium of Divine Power, to the End that there should be a still more uncertain Conjecture regarding God. For throughout the whole World, in every Place, at all Times, and in all Men's Mouths, Fortune alone is called upon: she only is named; she alone is blamed and accused. None but she is thought upon; she only is praised, she only is rebuked; yea, and worshipped with railing: and even when she is taken to be mutable: and of the most sort supposed also to be blind: roving, inconstant, uncertain, variable, and favouring the Unworthy: whatever is spent and lost, whatever is gotten:¹ and in all Men's Accounts she makes up the Book. Even the very Chance of Lots is taken for a God, by which God himself is shewn to be uncertain.

There is another Sort that reject Fortune, but attribute Events to their Stars, and the ascendant of their Nativity: affirming that the same shall ever happen which once hath been decreed by God: so that he for ever after may remain at Rest. And this Opinion now takes deep Root, insomuch as both the learned and the ignorant Multitude agree to it.

¹ "Won and gotten," to balance "spent and lost."

From hence proceed the Admonitions of Lightnings, the Foreknowledge by Oracles, the Predictions of Aruspices, yea, and other contemptible Things, as Auguries of Sneezing, and stumbling with the Foot. *Divus Augustus Cæsar* hath recorded that his left-foot Shoe was untowardly put on before the right, on that very Day when he had like to have suffered in a Mutiny among his Soldiers.

Thus all these Things entangle silly Mortals, so that this only point remaineth certain—that Nothing is certain: neither is there any Thing more wretched and proud than Man. For all living Creatures beside take Care only for their Food: wherein Nature's Goodness of itself is sufficient: which one Point is to be preferred before all good Things whatsoever, inasmuch as they never think of Glory, Riches, Ambition, nor, beyond all the rest, of Death. However, the Belief that in these Matters the Gods have care of Men's Estate, is profitable to the Course of Life: as also that the Punishment of Malefactors will come, though late (whilst God is busily occupied in so huge a Frame of the World), but that it never misseth in the End: and that Man was not made so near in Degree unto God, for this, that he should be almost as base as the brute Beasts. Moreover, the chief Comfort that Man hath, for his Imperfections in Nature, is this, that even God himself cannot do all Things. For neither is He able to work his own Death, if even He desired it, as He hath given to Man as his best Gift when he is weary of the Miseries of his Life; nor endow Mortals with everlasting Life; nor recall the Dead to Life again; nor bring to pass that one who lived did not live; nor he that bore honourable Offices, has not borne them. Nay, He hath no Power over Things past, save only Oblivion: no more than He is able to effect (to come with Arguments to prove our Fellowship therein with God) that twice ten should not make twenty: and many similar Things. Whereby is evidently proved the Power of Nature, and how it is she only which we call God. I thought it not impertinent thus to digress to these Points, by Reason of ordinary Questions regarding the Essence of God.

CHAPTER VIII.

Of the Nature of Planets, and their Circuit.

LET us return now to the Rest of Nature's Works. The Stars, which we said were fixed in the World, are not (as the common Sort thinketh) assigned to every one of us; namely, the bright for the rich; the less for the poor: the dim for the weak and feeble: neither shine they out more or less, according to the Fortune of every one, nor arise they each one together with that Person unto whom they are appropriated; and die likewise with the same: nor yet as they set and fall, do they signify that any Body is dead. There is not so great a Society between Heaven and us, that, together with the Necessity of our Death, the Light of the Stars should fade. When they are thought to fall, they do but shoot from them a Quantity of Fire out of that Abundance of Nutriment which they have gotten by the Attraction of Moisture unto them: like as we also observe in lighted Lamps with the Liquor of Oil¹. The celestial Bodies, which frame the World, and are compact together, have an immortal Nature: and their Power extendeth much to the Earth: which by their Operations, Light and Greatness, might be known, though they are so subtle; as we shall in due Place make Demonstration. The Manner likewise of the heavenly Circles shall be shewn more fitly in our "Geographical Treatise of the Earth;" forasmuch as the Consideration thereof appertaineth wholly thereunto: only we will not put off the Devisers of the Zodiac, wherein the Signs are placed.

The Obliquity of this, *Anaximander* the Milesian is reported to have observed first, and thereby opened the Passage to Astronomy, and the Knowledge of these Things: and this happened in the fifty-eighth Olympiad. Afterwards *Cleostratus* marked the Signs therein; and those first of *Aries* and *Sagittarius*. As for the Sphere itself, *Atlas* devised it long before. For the present we will leave the Body of

¹ See note 2, p. 63.

the starry Heaven, and treat of all the rest between it and the Earth.

The Planet which they call *Saturn*¹ is the highest, and therefore seemeth to be least : also he performeth his Revolution in the greatest Circle of all : and it is certain, that in thirty Years' Space he returneth again to the Point of his first Place. Moreover, the Motion of all the Planets, and also of the Sun and Moon, go a contrary Course to that of the starry Heaven ; namely, to the left hand [*i. e.* eastward] ; whereas the said Sky itself always hasteneth to the right [*i. e.* westward]. And whereas in that continual turning with exceeding Celerity, those Planets be lifted up aloft, and hurried by it into the West, and there set : yet by a contrary Motion of their own, they pass every one through their several Ways eastward ; and this because that the Air, rolling ever one Way, and to the same Part, by the continual turning of the Heaven, should not grow stagnant whilst the Globe thereof resteth idle ; but should be minutely divided by the violent adverse Action of these Stars. The Planet *Saturn* is of a cold and frozen Nature, but the Circle of *Jupiter* is much lower than it, and therefore his Revolution is performed with a more speedy Motion, in twelve Years. The third, of *Mars*, which some call *Hercules*, is fiery and ardent, by Reason of the Sun's Vicinity, and runneth his Race in about two Years. And it is by the exceeding Heat of *Mars*, and the Cold of *Saturn*, that *Jupiter*, who is placed betwixt, is well tempered of them both, and so becometh salutary. Next to them is the Course of the Sun, consisting of 360 Parts [or Degrees] : but that the Observation of the Shadows which he casteth may return again to their former Marks, five Days be added to every Year, with the fourth Part of a Day over and above. Whereupon, in every fifth Year one odd Day is added to the Rest ; to the End that the Reckoning of the Seasons may agree with the

¹ The planets since discovered — two of them, *Herschel*, or *Uranus*, and the new, and as yet unnamed, star, still more remote than it, and the others exceedingly small — must have been beyond the reach of ancient observation, from ignorance of the telescope.—*Wern. Club.*

Course of the Sun. Beneath the Sun there is a large Star called *Venus*, which wandereth this Way and that, by turns; and by her Names testifieth her Emulation of the Sun and Moon. For while she anticipateth the Morning, and riseth Orientally, she taketh the Name of *Lucifer*, as a second Sun hastening the Day. Contrariwise, when she shineth from the West, lengthening the Daylight, and supplying the Place of the Moon, she is named *Vesper*. This Nature of hers, *Pythagoras* of Samos first found out, about the 42nd Olympiad; which was the 142nd Year after the Foundation of Rome. Now this Planet, in Greatness, exceedeth all the other Stars: and so shining also, that the Beams of this Star only cast Shadows upon the Earth. And hereupon cometh such great Diversity of the Names thereof; for some have called it *Juno*, others *Isis*, and others the Mother of the Gods. By the natural Efficacy of this Star all Things are generated on Earth. For whether she rise in the East or West, she sprinkleth all the Earth with prolific Dew, and not only filleth the same with Seed, but stirreth up to increase the Nature of all living Creatures. This Planet goeth through the Circle of the Zodiac in 348 Days, departing from the Sun never above 46 Degrees, as *Timæus* was of Opinion. Next unto it, but Nothing of that Bigness and Power, is the Star *Mercury*, of some called *Apollo*: carried along in an inferior Circle, after the like Manner, but in a swifter Course by nine Days; shining sometimes before the Sun rising, at others after his setting, never farther distant from him than 23 Degrees, as both the same *Timæus* and *Sosigenes* teach. And therefore these two Planets have a peculiar Consideration from others, and not common with the rest above-named. For those are seen from the Sun a fourth, yea, and third Part of the Sky: oftentimes also in Opposition against the Sun. And all of them have other greater Circuits of full Revolution, which are to be spoken in of the Discourse of the great Year¹.

¹ The enumeration of the planets here given is on the Ptolemaic system of astronomy, which supposes the earth to be fixed in the centre of

CHAPTER IX.

Of the Moon's Nature.

BUT the Moon, being the last of all, most familiar with the Earth, and devised by Nature for the Remedy of Darkness, exceedeth the Admiration of all the rest. She with her changing in many Shapes, hath troubled much the Minds of Beholders, angry because that of this Star, the nearest of all, they should be the most ignorant; growing as it doth, or else wasting continually. One while she bended into Horns; another while divided in the half, and again moulded into a rounded Figure: spotted sometime, and soon after, on a sudden, exceeding bright: one while large and full, and suddenly nothing to be seen. Sometime shining all Night long, and at others late ere she riseth; she also helpeth the Sun's Light some Part of the Day; eclipsed, and yet visible in that Eclipse. The same at the Month's End lieth hidden, at which Time (it is supposed) she laboureth not. At one Time she is below, and presently aloft: and that not after one Manner, but one while reaching up to the highest Heaven, and another while close to the Mountains; now mounted to the North, and again brought down to the South. Which several Motions in her, the first Man that observed was *Endymion*: and hence sprung the Report that he was enamoured of the Moon. We are not thankful, as we ought to be, to those who by their Labour and Care have given us Light in this Light; but we are delighted rather (such is the wicked Disposition of Man) to record in Chronicles, Bloodshed and Murders: that Men's mischievous Deeds should be known, while we are ignorant of the World itself. The Moon being next to the Centre, and therefore of least Compass, performeth the same Course in seven-and-twenty Days, and one-third Part of a Day: which *Saturn*, the highest Planet, runneth (as we said before) in thirty Years. After

their orbits; and which, in ancient times, was commonly received without dispute.—*Wern. Club.*

this, remaining in conjunction with the Sun two Days, forth she goeth, and by the thirtieth Day, at the most, returneth to the same Point again : the Mistress, if I may so say, and the Teacher of all Things that may be known in the Sky. By her means are we taught that the Year ought to be divided into twelve Months : forasmuch as the Moon overtaketh the Sun so many Times before he returneth to the Point where he began his Course. Likewise that she loseth her Light (as the Rest of the Planets) by the Brightness of the Sun when she approacheth near. For she shineth by borrowing of him her Light, much like to that which we see in the Reflexion of the Sunbeams from the Water. And hereupon it is that she, by her more mild and imperfect Power dissolveth, and also increaseth, so much Moisture;¹ which the Sunbeams may consume. Hence it cometh also, that her Light is not equal in Sight, because it is only when she is opposite to the Sun that she appeareth full : but in all other days she sheweth no more to the Earth than she conceiveth from the Sun. In Time of Conjunction, she is not seen at all : for that whilst she is turned away, all the Draught of Light she casteth back again from whence she received it. That these Stars are fed with earthly Moisture, is evident by the Moon ; which, so long as she appeareth by the Half, never sheweth any Spots, because as yet she hath not her full Power of Light sufficient to draw Humour unto her. For these Spots be nothing else but the Dregs of the Earth, caught up with other Moisture among the Vapours.²

¹ Lucretius supposes that all animals, and all the stars, are fed by exhalations from earth and air. Lucian also expresses the same idea. And as Pliny was of an adverse sect to the Epicureans, and consequently did not derive it from them, we may suppose the opinion to have been generally received. See the beginning of chapter lxxviii.—*Wern. Club.*

² The reader will, of course, accept of these remarks and explanations, as well of the moon as of the other planets, as descriptive of the condition of the astronomical philosophy of the day ; which it is, at least, amusing to compare with the results of modern observation.—*Wern. Club.*

CHAPTER X.

*Of Eclipses of the Sun and Moon: and of the Night*¹.

THE Eclipse of the Moon and Sun is a Thing throughout the universal Contemplation of Nature most marvellous, and resembling a Prodigy, and shews the Magnitude and Shadow of these two Planets. For it is evident that the Sun is hidden by the Intervention of the Moon; and the Moon again by the Opposition of the Earth: as also that the one doth equal the other, in that the Moon, by her Interposition, bereaveth

¹ The opinions of the ancients on the subject of Eclipses were two-fold:—that of the vulgar was built on the supposition that certain sorcerers, working by magic art, were able to draw this planet from her orbit, even to the earth, to accomplish their nefarious purposes in inflicting injury on particular persons or on communities. They were supposed to have a further object in view, by compelling her to deposit on some appropriate herbs a foam that was useful in magic arts: as we learn from Apuleius and Lucan. Horace represents his witch Canidia as thus engaged, in his 5th and 17th Epodes. Under these circumstances the moon was supposed to labour in agony; and the method taken to relieve her throes, and prevent her total extinction, was by making such a clamour that the verse or influence might not ascend to her sphere; and by not hearing, her dread might be relieved. Livy speaks of this clamour as an ordinary occurrence (lib. xxvi.); but it does not seem to have been an official proceeding. Another opinion was founded on the doctrines of Divinity, and therefore formed a portion of the religion of the state: the phenomena being regularly observed, reported, and registered by constituted officers. According to this idea, every unusual appearance in the sky was a portent of some coming event—usually of an awful nature—and which it became the priesthood to avert, by those processions, sacrifices, and supplications, that were appointed in the sacred books, as appropriate to each appearance. It was no small effort of courage, as well as skill, in the philosophers whose names are given by Pliny, to venture to inquire into the nature and causes of phenomena which must have appeared inscrutable to one portion of the public, and too sacred to be meddled with to the other. The operation of both opinions appears in the narrative that Plutarch gives of the proceedings of Paulus Emilius, preparatory to the battle with the Macedonians, where, while the aid of the philosopher, Sulpitius Gallus, was used to remove their fears, his own office of augur was not neglected to work on their superstitious confidence.—*Wern. Club.*

the Earth of the Sun's Rays, and the Earth again doth the like by the Moon. Neither is the Night any Thing else but the Shade of the Earth. The Figure of this Shadow resembleth a Pyramid pointed forward, or a Top turned upside down: namely, when it falleth upon it with its sharp End, and goeth not beyond the Heights of the Moon; for no other Star is in that Manner darkened: and such a Figure as this always endeth in a Point. And that Shadows grow to Nothing in a great Distance, appeareth by the exceeding high Flight of some Birds. So the Confines of these Shadows is the utmost Bound of the Air, and the Beginning of Æther. Above the Moon all is pure and lightsome continually. And we in the Night see the Stars as other Lights from out of Darkness. For these Causes also the Moon is eclipsed only in the Night. But the Reason why the Sun and Moon are not both in the Eclipse at set Times and Monthly, is the Obliquity of the Zodiac, and the wandering Turnings of the Moon (as hath been said): and because these Planets do not always in their Motion meet just in the Points of the ecliptic Line, that is, in the Head or Tail of the Dragon.

CHAPTER XI.

Of the Magnitude of Stars.

It is this Reason that lifteth up Men's Minds into Heaven: and as if they looked down from thence, discovereth unto them the Magnitude of the three greatest Parts of Nature. For the Sun's Light could not wholly be taken away from the Earth, by the Moon coming between, if the Earth were bigger than the Moon. But the Immensity of the Sun is more certainly known, both by the Shadow of the Earth and the Body of the Moon: so that it is needless to inquire into the Magnitude thereof, either by the Proof of Eyesight, or by Conjecture of the Mind. How immeasurable it is, appeareth by this, that Trees which are planted in Limits from East to West, cast Shadows equal in Proportion; although they are many Miles asunder in Length: as if the Sun were in the Midst of them all. This appeareth

also at the Time of the Equinox in all Regions of the same Meridian, when the Sun shineth directly over Men's Heads, and causeth no Shadow. In like Manner, the Shadows of them that dwell northerly under the solstitial Circle, fall all at Noontide, northward, but at Sunrising, westward; which could not be possible unless the Sun were far greater than the Earth. Moreover, when he riseth, he surpasseth in breadth the Mountain Ida, encompassing the same at large both on the right Hand and the left, which only is from being so far distant. The Eclipse of the Moon sheweth also the Magnitude of the Sun, by an infallible Demonstration; as his own Eclipse declareth the Littleness of the Earth. For as there are of Shadows three Forms, and it is evident, that if the dark material Body which casteth a Shadow be equal in Bigness to the Light, then the Shadow is fashioned like a Pillar, and hath no Point at the End: if it be greater, it yieldeth a Shadow like a Top standing upon the Point, so as the lower Part thereof is narrowest, and then the Shadow likewise is of infinite length: but if the Body be less than the Light, then is represented a pyramidal Figure, falling out sharp-pointed in the Top; which Manner of Shadow appeareth in the Moon's Eclipse: it is, without doubt, therefore, that the Sun is much larger than the Earth, as the same is seen by the silent Proofs of Nature itself. For why, in dividing the Times of the Year, departeth the Sun from us in the Winter? even because by means of the Night's length he may refresh the Earth, which otherwise he would have burnt up: for, notwithstanding this, he burneth it in some measure, from his excessive Greatness.

CHAPTER XII.

The Inventions of Men in the Observation of the Heavens.

THE first Roman that published the true Reason of both Eclipses was *Sulpitius Gallus*, who afterwards was Consul with *M. Marcellus*: but at that Time being a Tribune, the Day preceding that on which King *Perseus* was vanquished by *Paulus*, he was brought by the General into open Audi-

ence before the whole Army, to foretel the Eclipse which was about to happen : whereby he delivered the Army from Anxiety ; and presently after he compiled a Book of the same. But among the Greeks, *Thales Milesius*¹ was the first that investigated it ; who, in the fourth Year of the 48th Olympiad did foreshew the Sun's Eclipse that happened in the Reign of *Halyattes*, and in the 170th Year after the Foundation of the City of Rome. After them, *Hipparchus* compiled his "Ephemerides," containing the Course and Aspects of both these Planets, for six hundred Years ensuing : comprehending also the Months according to the Reckonings of sundry Nations, the Days, the Hours, the Situation of Places, the Aspects, and Latitudes of divers Towns and Countries ; as the World will bear him witness : and that no less assuredly, than if he had been privy to Nature's Counsels. Great Persons and excellent these were, doubtless, who, above the Reach of the Capacity of mortal Men, found out the Reason of the Course of such mighty Stars and divine Powers : and whereas the Mind of Men was before at a Loss, fearing in these Eclipses of the Stars some great Violence, or the Death of the Planets, they secured them in that behalf : in which dreadful Fear stood *Stesichorus* and *Pindarus* the Poets (notwithstanding their lofty Style), and particularly at the Eclipse of the Sun, as will appear by their Poems. As for the Moon, Mortals imagine that at that Time by Charms she is enchanted, and therefore help her by dissonant ringing of Basins. In this Terror, *Nicias*, the General of the Athenians (as a Man ignorant of the Cause), feared to set sail with his Fleet out of

¹ The minuteness of observation displayed by these illustrious philosophers, from whom Pliny has borrowed his materials, appears to imply the existence of instruments of no small accuracy, though we have no account of their possessing such. Of the telescope, we have evidence that they were ignorant.

As the account given by Pliny of ancient astronomy will be read chiefly for its curiosity, we have no need to do more than refer to modern treatises on the subject for correction of what is mistaken.
—*Wern. Club.*

the Harbour, and thus greatly distressed the State of his Country. Be ye prosperous, then, for your excellency, O noble Interpreters of the Heavens! capable of Nature's Works, and the Devisers of that Reason whereby ye have subdued both Gods and Men. For who is he that, seeing these Things, and the ordinary Labours (since that this Term is now taken up) of the Stars, would not bear with his own Infirmary, and excuse this Necessity of being born to die? Now, for this present, I will briefly and summarily touch those principal Points which are acknowledged concerning the said Eclipses, having lightly rendered a Reason thereof in the proper Places: for neither doth such proving and arguing of these Matters belong properly to our purposed Work; neither is it less Wonder to be able to yield the Reasons and Causes of all Things than to be constant in some.

CHAPTER XIII.

Of Eclipses.

IT is certain, that all Eclipses in 222 Months have their Revolutions, and return to their former Points: as also that the Sun's Eclipse never happeneth but either in the last of the old, or first of the new, Moon; which they call the Conjunction: and that the Moon is never eclipsed but in the full, and always somewhat anticipateth the former Eclipse. Moreover, that every Year both Planets are eclipsed at certain Days and Hours under the Earth. Neither be these Eclipses seen in all Places when they are above the Earth, by Reason sometimes of cloudy Weather, but more often, for that the Globe of the Earth hindereth the Sight of the Convexity of the Heaven. Within these two hundred Years it was found out by the Sagacity of *Hipparchus*, that the Moon sometime was eclipsed twice in five Months' Space, and the Sun likewise in seven. Also that the Sun and Moon twice in thirty Days were darkened above the Earth: though this was not seen equally in all Quarters, but by Men in divers Places: and that which is most surprising in this Wonder, is, that when it is agreed that the Moon's Light is dimmed

by the Shadow of the Earth, at one Time this Eclipse happeneth in the West, and at another in the East : as also, by what Reason it happeneth, that seeing after the Sun is up, that Shadow which hideth the Light of the Moon must needs be under the Earth : it fell out once, that the Moon was eclipsed in the West, and both Planets were seen at once above the Ground. For that in twelve Days both these Lights were missing, and neither Sun nor Moon were seen : it happened in our Time, when both the *Vespasians* (Emperors) were Consuls, the Father the third Time, and the Son the second.

CHAPTER XIV.

Of the Moon's Motion.

It is clear that the Moon, always in her increasing, hath her Horns turned from the Sun toward the East : but in her decrease, contrariwise westward ; and also that she shineth (the first Day of her Appearance) three quarters and the twenty-fourth Part of one Hour, and so riseth in Proportion the second Day forward unto the full : likewise decreasing in the same Manner to the Change. She is also always hidden in the Change within fourteen Degrees of the Sun. By which Argument we collect, that the Magnitude of the other Planets is greater than that of the Moon, because they appear when they be but seven Degrees off. But the Cause why they shew less, is their Altitude : like the fixed Stars, which by Reason of the Sun's Brightness are not seen in the Daytime : whereas, indeed, they shine as well by Day as Night : and that is manifestly proved by Eclipses of the Sun, and by exceeding deep Pits¹, for so they are to be seen by Daylight.

¹ In the absence or imperfection of optical instruments, this expedient was necessarily resorted to, for the purpose here stated ; but the improvement of the telescope has superseded this contrivance. There was formerly, at the Royal Observatory at Greenwich, a well of this kind, a hundred feet in depth, with a winding staircase of stone leading to the bottom ; it is now arched over.—*Wern. Club.*

CHAPTER XV.

General Rules concerning the Motions and Lights of other Planets.

THOSE three Planets which we say are above the Sun, are hidden when they go their Course with him. They rise in the Morning, and never depart farther than eleven Degrees. Afterwards meeting with his Rays, they are covered: and in their triple Aspect retrograde, they make their Morning Stations 120 Degrees off, which are called the first: and by and by, in a contrary Aspect, 180 Degrees off, they rise in the Evening, and appear as Evening Stars. In like Sort approaching from another Side within 120 Degrees, they make their evening Station, which also they call the second, until he overtake them within twelve Degrees; and so hide them: and these are called the Evening Settings. The Planet *Mars*, as he is nearer to the Sun, feeleth the Sunbeams by a quadrant Aspect, from ninety Degrees: whereupon that Motion took the Name called the first and second Nonagenary, from both Risings. The same Planet keepeth this stationary Residence six Months in the Signs: whereas otherwise, of his own Nature, he would do it but two Months. But the other Planets in both Stations continue not four Months each. The other two inferior Planets are hidden after the same Manner in the evening Conjunction: and leaving the Sun in as many Degrees, they make their morning Rising: and from the farthest Bounds of their Distance, they follow after the Sun: and after they have once overtaken him, they set again in the Morning, and so outgo him. And by and by keeping the same Distance, in the Evening they rise again unto the same Limits which we named before, from whence they return to the Sun, and by the evening Setting they be hidden. The Star *Venus* likewise maketh two Stations, according to the two Manners of her Appearance, Morning and Evening, when she is in farthest Bounds of her Distance. But *Mercury* keepeth his Stations so small awhile, that they cannot be observed. This

is the Order, as well of the Appearances of the Planets as of their Occultations and their mere Motion, enfolded within many strange Wonders. For they change their Magnitudes and Colours, and sometimes they approach to the North, sometimes they go back toward the South, and, all on a sudden, they appear one while nearer to the Earth, and another while to the Heaven: wherein, if we shall deliver many Points otherwise than former Writers, yet we confess, that for these Matters we are beholden unto them, who first made Demonstration of seeking out the Ways thereto: and therefore let no Man despair of profiting and going forward in Knowledge from Age to Age. For, these strange Motions fall out upon many Causes. The first is by Reason of those Circles in the Stars, which the Greeks call *Absides*: for we are compelled to use the Greek Terms. Each one of the Planets hath a particular Circle by itself, and these different from those of the starry Heaven: because the Earth from those two Points which they call Poles, is the Centre of the Heaven, as also of the Zodiac, situated obliquely between them. All which Things are certainly known to be so beyond Question by the Compass. And therefore from every Centre there arise their own *Absides*, and so they have diverse Circuits and different Motions, because of necessity the interior *Absides* must be shorter.

CHAPTER XVI.

Why the same Planets seem sometimes higher, and sometimes lower.

THE highest *Absides*, therefore, from the Centre of the Earth are of *Saturn*, in the Sign *Scorpio*: of *Jupiter* in *Virgo*: of *Mars* in *Leo*: of the Sun in *Gemini*: of *Venus* in *Sagittarius*: of *Mercury* in *Capricorn*: and in the Middle of the said Signs: and contrariwise the said Planets in the same Degrees of the opposite Signs are lowest and nearest to the Centre of the Earth. So it happeneth that they seem to move more slowly when they go their highest Circuit: not for that natural Motions do either hasten or slacken, which

be certain and several to every one, but because the Lines which are drawn from the Top of the *Absis* must needs approach each other about the Centre, as the Spokes in Wheels: and the same Motion, by Reason of the Nearness of the Centre, seemeth in one Place greater, in another less. The other Cause of their Sublimities is, for that in other Signs they have the *Absides* elevated highest from the Centre of their own eccentric Circles. Thus *Saturn* is in the greatest Height in the 20th Degree of *Libra*, *Jupiter* in the 15th of *Cancer*, *Mars* in the 28th of *Capricorn*, the Sun in the 29th of *Aries*, *Venus* in the 16th of *Pisces*, *Mercury* in the 15th of *Virgo*, and the Moon in the 4th of *Taurus*. The third Reason of their Altitude is not taken from their Circles, but understood by the Convexity of the Sky, for that these Planets seem to the Eye, as they rise and fall, to mount up or settle downward through the air. To this is united another Cause also, which is, the Zodiac Obliquity and Latitude of the Planets, in Regard of the Ecliptic: for through it the Stars which we called wandering do take their Course. Neither is there any Place inhabited upon Earth, but that which lieth under it. For all the Rest without the Poles are desert. Only the Planet *Venus* goeth beyond the Circle of the Zodiac, two Degrees: which is supposed to be the efficient Cause, that certain living Creatures are bred even in the desert Parts of the World. The Moon likewise rangeth throughout all the Breadth of it, but never goeth out of it. Next after these the Star *Mercury* hath the largest Scope in the Zodiac, but yet so, as of twelve Degrees (for that is the Breadth thereof) he wandereth but eight, and those not equally, but two in the midst, four above, and two beneath. Then the Sun in the midst, goeth always between the two Extremities of the Zodiac; but in his declining Course he seemeth to wind unequally, after the Manner of Serpents. *Mars* leaveth the ecliptic Line four half Degrees, *Jupiter* two Degrees and a half, *Saturn* two, like as the Sun. Thus you see the Manner of the Latitudes, as they descend southward, or ascend northward. And upon this is the Reason grounded of the third Opinion of them, who imagine that

the Planets do rise and mount from the Earth upward into Heaven. For very many have thought, although untruly, that they climb in this Manner. But to the End that they may be confuted, we must lay open an immense Subtlety, which containeth all those Causes and Reasons abovesaid. First, therefore, this is admitted, that these Stars in their Evening Setting are nearest to the Earth, both in Latitude and Altitude: and when they be farthest from the Earth, as well in Latitude as Elevation, they appear in the Morning before the Sun: as also that then they are Stationaries in the middle Points of the Latitudes, which they call Ecliptics. Likewise it is acknowledged, that so long as the Planets are near to the Earth, their Motion increaseth: and as they depart on high it decreaseth. And this Reason is confirmed principally by the Elevations of the Moon. And it is beyond a Doubt, that every Planet in its Morning Rising riseth every Day higher than the former. The superior three above the Sun diminish from their first Stations unto the second. Which being so, it will plainly appear, that every Planet rising before the Sun ascendeth to the Latitudes: so that from the Time they begin, their Motion increaseth by little and little more sparely. But in the first Stations, they are at the highest Altitude: for then first the Numbers begin to be withdrawn, and the Planets to go backward; whereof a particular Reason may be given in this Manner: the Planets being smitten in that Part whereof we spoke, they are both restrained by the triangular Beams or trine Aspect of the Sun, to hold on a direct Course, and are raised up aloft by the fiery Power of the said Sun. This cannot immediately be understood by our Eyesight: and so they are supposed to stand, and hence the Name of Stations is derived. Then proceedeth forward the Violence of the Sun's Beams, and the Vapour thereof, by Repercussion, forceth them to go backward. And much more is this perceived in their Evening Rising, when the Sun is wholly against them, and they be driven to the very Top of their *Absides*, and so not seen at all, because they are at the highest, and are carried on by their least Motion, which is so much the

less, when it happeneth in the highest Signs of their *Absides*. From the evening Rising the Latitude descendeth, for now the Motion less diminisheth, but yet increaseth not before the second Stations: because they are forced to descend by Reason of the Sunbeams coming from the other Side; and the same Force beareth them downward to the Earth, which by the former triangular Aspect raised them aloft toward Heaven. Of so much Importance is it whether these Beams come from beneath or above. The same happeneth much more in the Evening Setting. This is an Explanation of the Motions of the superior Planets; but the Theory of the rest is more difficult, and hath by no Man before us been delivered.

CHAPTER XVII.

General Rules concerning the Planets.

FIRST, therefore, let us set down the Cause why *Venus* never departeth from the Sun more than forty-six Degrees, and *Mercury* not above twenty-three: and why oftentimes they retire back unto the Sun within that Space. To be resolved in this Point, we must remark, that both of them have their *Absides* turned opposite to the rest, as being seated under the Sun: and so much of their Circles is underneath, as the forenamed were above; and therefore farther off they cannot be, because the Curvature of their *Absides* in that Place hath no greater Longitude. Therefore both Margins of their *Absides*, by a like Proportion, keep Mean, and their Course is limited: but the short Spaces of their Longitudes they compensate by the wandering of their Latitudes. But what is the Reason that they reach not always to forty-six Degrees, and to twenty-three? They do so truly: but here the Explanation fails. For it is apparent, that their *Absides* also move, because they never overpass the Sun. And therefore when their Margins from either Side are perceived to fall upon the very Point, then the Planets also are understood to reach unto their longest Distances: but when their Margins be short so many Degrees, the Stars themselves are thought to return more speedily in their Retro-

gradation than in their direct Course forward, though their utmost Extremity is ever the same. And from hence is the Reason understood of the contrary Motions of these two Planets. For the superior Planets move most swiftly in the Evening Setting, but these most slowly. They be highest above the Earth, when they move slowest; and these, when they go swiftest: for as in the former the Nearness of the Centre hasteneth them, so, in these, the Extremity of the Circle: they, from their Morning Rising, begin to slacken their Celerity; but these to increase it: they return back from their Morning Station to their Evening Mansion; but *Venus*, contrariwise, is retrograde from the Evening Station to that of the Morning. But, she from the Morning Rising beginneth to climb the Latitude: but to follow the Altitude and the Sun from the Morning Station: as being most swift and at the highest in the Morning Setting. Moreover she beginneth to digress in Latitude, and to diminish her Motion, from the Morning Rising: but to be retrograde, and to digress in Altitude, from the Evening Station. Again, the Planet *Mercury* rising in the Morning, beginneth both Ways to climb, but to digress in Latitude from the Evening Rising: and when the Sun hath overtaken him within the Distance of fifteen Degrees, he standeth still for four Days almost immovable. Presently, he descendeth from his Altitude, and goeth back from the Evening Setting to that of the Morning. This Star only, and the Moon, descend in as many Days as they ascend. But *Venus* ascendeth up to her Station in fifteen Days and a little more. Again, *Saturn* and *Jupiter* are twice as long descending, and *Mars* four Times. So great Variety is in their Nature, but the Reason thereof is evident. For they which go against the Vapour of the Sun do also descend with Difficulty. Many Secrets more of Nature, and Laws whereunto she is obedient, might be shewn about these Things. As, for Example: the Planet *Mars*, whose Course, of all others, can be least observed, never maketh Station but in quadrate Aspect: and *Jupiter*, in triangular Aspect; and very seldom separated from the Sun sixty Degrees, which Number maketh six angled Forms of

the Heaven (that is, it is the sixth Part of the Heaven): neither doth *Jupiter* shew his rising in any, save only two Signs, *Cancer* and *Leo*. The Planet *Mercury* seldom hath his Evening Rising in *Pisces*, but very often in *Virgo*; and the Morning Rising in *Libra*. In like Manner, the Morning Rising is in *Aquarius*, but very seldom in *Leo*. Neither becometh he retrograde in *Taurus* and *Gemini*: and in *Cancer*, not under the twenty-fifth Degree. As for the Moon, she entereth not twice in Conjunction with the Sun in any other Sign but *Gemini*: and sometime hath no Conjunction at all, and that only in *Sagittarius*. As for the last and first of the Moon, to be seen in the same Day or Night, happeneth in no other Sign but in *Aries*, and few Men have had the Chance to see it. And hereupon came *Linceus* to be so famous for his Eyesight. Also, the Planets *Saturn* and *Mars* appear not in the Heaven at the most 170 Days: *Jupiter* 36, or at least ten Days wanting: *Venus* 69, or when least, 52: *Mercury* 13, or at least, 17.

CHAPTER XVIII.

What is the Cause that the Planets alter their Colours?

THE Reason of the Planet's Altitudes is it that tempereth their Colours, for they take the Likeness of the Air, into which they enter; and the Circle of another Planet's Motion coloureth them as they approach either Way, ascending or descending. The colder setteth a pale Colour, the hotter a red, and the windy a fearful Hue. Only the Points and Conjunctions of the *Absides*, and the utmost Circumferences, shew a dark black. Each Planet hath a several Colour; *Saturn* is white, *Jupiter* clear and bright, *Mars* a fiery red, *Venus* glowing, when *Lucifer*; when Occidental, or *Vesper*, resplendent; *Mercury* sparkling, the Moon pleasant, the Sun when he riseth, burning, afterwards radiating¹. Upon

¹ Many of the colours here mentioned are only optical deceptions, but that of the planet *Mars* must proceed from something inherent in the planet itself, or the atmosphere by which it is surrounded; for while

these Causes the Sight is entangled, and discovereth those Stars also which are fixed in the Sky. For one while a Number of them appear about the Half-moon, when in a clear and calm Night she gently beautifieth them; and at another they are seen but here and there, insomuch that we may wonder how they are fled upon the full Moon, which hideth them; or when the Beams either of the Sun or other abovesaid have dazzled our Sight. Yea, the Moon herself perceiveth the Sun's Beams, as they come upon her: for those Rays that come sidelong, according to the Convexity of the Sky, give but an obscure Light to the Moon, in Comparison of them that fall directly with straight Angles. And, therefore, in the quadrangular Aspect of the Sun she appeareth divided in Half; in the triangular she is well near environed, but her Circle is half empty; but in Opposition she appeareth full. And again, as she is in the Wane, she representeth the same Forms, decreasing by Quarters as she increased: with like Aspects as the other three Planets above the Sun.

CHAPTER XIX.

The Reason of the Sun's Motion, and the Inequality of Days.

THE Sun himself hath four Differences in his Course: twice in the Year, in Spring and Autumn, making the Night equal to the Day; for then he falleth on the Centre of the Earth, in the eighth Degree of *Aries* and *Libra*. Twice likewise he exchangeth the Compass of his Race: to lengthen the Day from the *Bruma*, or Midwinter, in the eighth Degree of *Capricorn*; and again to lengthen the Night from the summer Solstice, being in as many Degrees of *Cancer*. The Cause of unequal Days is the Obliquity of the Zodiac: when the one Half of the World is at all Times above and under the Earth. But those Signs which mount upright in their

it reflects to us a red tinge, the light it obtains from the sun is the same with that which comes to us from the sun, and in which the prismatic rays produce a colourless mixture.—*Wern. Club.*

Rising, hold Light in a longer Tract, and make the Days longer: whereas they which arise obliquely pass away in shorter Time.

CHAPTER XX.

Why Lightnings are attributed to Jupiter.

Most Men are ignorant of that Secret which, by great Study of the Heavens, Men of deep Learning have found out: namely, that it is the Fires of the three uppermost Planets, which, falling to the Earth, carry the Name of Lightnings; but those especially which are seated in the midst, because participating in the excessive Cold and Moisture from the upper Circle, and the immoderate Heat from the lower, by this Means he dischargeth the Superfluity: and hereupon it is commonly said, that *Jupiter* darteth Lightnings¹. Therefore, as out of burning Wood a Coal of Fire flieth forth with a Crack, so from a Star is spit out this celestial Fire, carrying with it Presages of future Things: so that it sheweth Divine Operations, even in these Portions which are cast away as superfluous. And this most commonly happeneth when the Air is troubled; either because the collected Moisture stirreth that Abundance to fall; or because it is disquieted, as it were, with a Birth from a pregnant Star.

¹ Much of the religious system of the ancients was founded on the persuasion that every appearance of lightning and thunder, as well as other aërial phenomena, were direct manifestations of Divine interposition in the affairs of men; and a college of officers (augurs) was appointed to observe, record, report, and explain such appearances, for the guidance of the state in its most important proceedings. From a slight expression of Pliny in the course of this chapter, it appears that he hesitated to deny this popular idea in a direct manner: in apprehension, perhaps, of laying himself open to the charge of infidelity. But by implication, he expresses his disbelief of what was so generally credited; for the ascribing to the natural effect of *Jupiter* as a planet, what was believed by the priests and the state to be a voluntary action of *Jupiter*, the supreme deity, can be regarded as little better than a subterfuge. For a natural explanation of thunder and lightning, such as it is, the reader is referred to chapter xliii. of this book; and for other curious particulars, to the chapters l.-lv. — *Wern. Club.*

CHAPTER XXI.

The Distances of the Planets.

MANY have endeavoured to find out the Distance and Elevation of the Planets from the Earth, and have set down in Writing, that the Sun is distant from the Moon eighteen Degrees, as the Moon is also from the Earth. But *Pythagoras*, a Man of much Sagacity, hath collected, that there are 126,000 Stadia¹ from the Earth to the Moon, and a double Distance from her to the Sun, and from thence to the twelve Signs three Times so much. Of which Opinion was also our countryman, *Gallus Sulpitius*.

CHAPTER XXII.

Of the Music of the Planets.

BUT *Pythagoras* at the same Time uses the Terms of Music, by calling the Space between the Earth and the Moon a Tone; saying, that from her to *Mercury* is Half a Tone: and from him to *Venus* about the same Space. But from her to the Sun so much and a Half more: but from the Sun to *Mars* a Tone, that is to say, as much as from the Earth to the Moon. From him to *Jupiter* Half a Tone: likewise from him to *Saturn* Half a Tone: and so from thence to the Zodiac so much and a Half more. Thus are composed seven Tunes, which Harmony they call Diapason; that is to say, the Universality of Consent. In this, *Saturn* moveth by the Doric Tune; *Mercury* by Phthongus, *Jupiter* by the Phrygian, and the Rest likewise: a Subtlety more pleasant than needful².

¹ The Stadium differed in different countries; but the standard may be fixed at a furlong; as may be seen in chapter xxiii. One hundred and twenty-five paces make a stadium. In the larger numbers, therefore, it has been sometimes judged best to translate the equivalent expressions into miles. — *Wern. Club*.

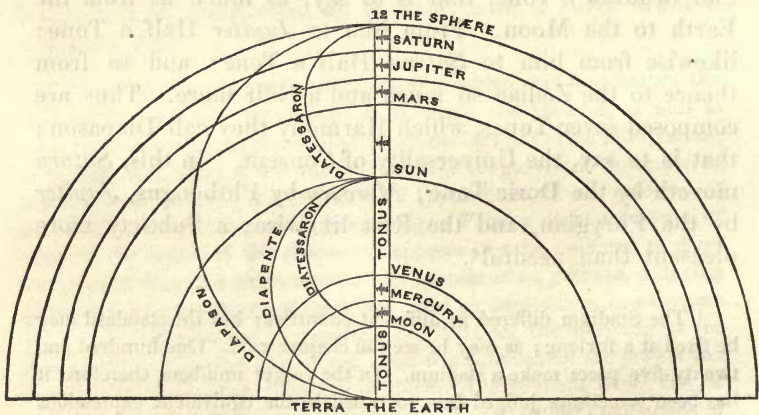
² Ideas of the harmony of creation seem to have entered deeply into the opinions of *Pythagoras*, on the system of creation, and especially on

CHAPTER XXIII.

The Geometry of the World.

A STADIUM maketh of our Paces 125, that is to say, 625 Feet. *Posidonius* saith, that from the Earth it is no less than forty Stadia to that Height wherein thick Weather, Winds, and Clouds are formed. Above this, the Air is pure, clear, and light, without any troubled Darkness. But from the cloudy Region to the Moon is 2,000,000 Stadia: from thence to the Sun, 5000. By means of which Interval it cometh to pass, that so exceeding great as the Sun is, he burneth not

the order and distances of the planets, the motions of which he appears to have compared to the graceful and measured dances of the ancients to the sound of the harp. But, as often happens, when philosophers confine their views of Nature to a single aspect, what has a shadow of truth in itself becomes, when thus interpreted, egregious trifling. The supposition enounced is, that not only are the motions performed according to musical time, but the intervals between the chords (of each planet's path) are properly measured by their relative tones. The following diagram, taken from the notes to Dalechamp's edition of Pliny, will more clearly represent the ideas of this eminent Greek philosopher:—



The tone or unit of Pythagoras is taken for 125,000 stadia, or 15,625 miles.—*Wern. Club.*

the Earth. Many there be, however, who have taught that the Clouds are elevated to the Height of 900 Stadia. These Points are undiscovered, and beyond Man's Reach ; but they may now be delivered to others, as they have been taught : in which, notwithstanding, one infallible Reason of a geometrical Collection cannot be rejected, if a man would search deep into these Matters. Neither need a Man to seek an exact Measure hereof (for to desire that is a foolish Idleness), but only to make an Estimate of Probability. For, whereas it is clear by the Course of the Sun, that the Circle through which he passeth containeth three hundred, threescore, and almost six Degrees ; and it is a Rule that the Diameter formeth a third Part of the Circumference, and little less than a seventh Part of a third : it is plain, that deducting one Half thereof (because the Earth, situated in the Centre, cometh between), about the sixth Part of this great Circuit which he maketh about the Earth (so far as our Mind doth comprehend), is the very Height from the Earth up to the Sun, but the twelfth Part to the Moon, because she runneth so much a shorter Circuit than the Sun ; whereby it appeareth, that she is in the Midst between the Earth and the Sun. It is a Wonder to see how far the Presumption of the Heart of Man will proceed when instigated by some little Success, as in the abovenamed Matter. The Reason whereof ministereth plenteous Occasion of Impudency, for they who dared to give a Guess at the Space between the Sun and the Earth are so bold as to do the like from thence to Heaven. For, presuming that the Sun is in the Midst, they have at their Fingers' Ends the very Measure of the whole World. For how many seven Parts the Diameter hath, so many twenty-two Parts hath the whole Circle : as if they had gotten the certain Measure of the Heaven by the Plumb-line. The Egyptians, according to the Reckoning which *Petosiris* and *Necepsos* have invented, do collect, that every Degree in the Circle of the Moon, which is the least (as hath been said) of all other, containeth thirty-three Stadia, and somewhat more ; in *Saturn*, the greatest of all, double as much ; and in the Sun, which we said was the midst, the Half of both Mea-

tures. And this Computation hath very great Importance, for he that will reckon the Distances between the Circle of *Saturn* and the Zodiac, by this Calculation shall multiply an infinite Number of Stadia.

CHAPTER XXIV.

Of Sudden Stars.

THERE remain yet a few Points concerning the World: for in the very Heaven there be Stars that suddenly appear, whereof there are many Kinds¹.

CHAPTER XXV.

Of Comets and Celestial Prodigies, their Nature, Situation, and Kinds.

THESE Stars which the Greeks call *Cometas*, our Romans term *Crinitas* (hairy): dreadful, with bloody Hair, and shagged like the Bush of Hair upon the Top of the Head. The same Greeks call those Stars *Pogonias*², which from the lower Part have a Mane hanging down like a long Beard. Those

¹ This important fact in astronomy, that stars have suddenly appeared, remained for a time visible in a fixed position, and then have either become of less apparent brightness or disappeared altogether, is established by the observations of modern as well as ancient astronomers; and to ascertain beyond doubt whether such a phenomenon might be repeated, was the first motive for which a map of the heavens and a catalogue of the known stars were constructed. Hipparchus (chap. xxvi.) is the first that is known to have observed this phenomenon; a detection of the occurrence is no slight proof of the minuteness of inquiry of the ancient astronomers. But it is to be remarked, that Pliny classes meteors and shooting stars, not only with comets, but also among the more permanent or fixed stars.—*Wern. Club.*

² The various names and comparisons here applied to what, for the most part, are mere meteoric appearances have probably a reference to the classification by which the augurs divided them, for the purposes of divination; for certainly a strong imagination is required to discern any likeness between these ærial appearances and those material objects from which they derive their names.—*Wern. Club.*

named *Acontia*, shake like a Spear, signifying great swiftness. This was it whereof *Tiberius Cæsar*, the Emperor, wrote an excellent Poem in his fifth Consulship; the last that ever was seen to this Day. The same, if they be shorter and sharp-pointed at the Top, are called *Xiphias*, which are the palest of all, and glittering like a Sword, but without any Rays: which another Kind of them, named *Disceus* (resembling a Disc or Quoit, whereof it beareth the Name, but in Colour like to Amber), putteth forth here and there out of its Margin. *Pitheus* is in the Form of Tuns environed in the Cavity of a smoky Light. *Cerantias* resembleth a Horn: and such an one appeared when Greece fought the Battle of Salamis. *Lampadias* is like to burning Torches: and *Hippeus* to Horses' Manes, very swift in Motion, and revolving in a Globe. There is also a white Comet with silver Hair, so bright and shining that it can hardly be looked at; and in Man's Shape it sheweth the very Image of a God. Moreover, there be blazing Stars that become all shaggy, compassed round with a hairy Fringe like a Mane. One of these, appearing in the Form a Mane, changed into that of a Spear, in the hundred and eighth Olympiad, and the three hundred and ninety-eighth Year from the Foundation of Rome. It hath been observed, that the shortest Time of their Appearance is seven Days, and the longest eighty Days. Some of them move like the Planets; others are immovably fixed. Almost all are seen under the very North Star; some in no certain Part thereof, but especially in that white which hath taken the Name of the Milky¹ Way. *Aristotle* saith², that

¹ Galaxy.

² The author is here referring to those appearances which are now denominated shooting stars; and which, in ancient times, were believed to be the very things the modern name denotes. St. John refers, figuratively, to this idea (Book of Revelation, vi. 13): "And the stars of heaven fell unto the earth." Modern opinion has varied greatly with regard to the nature and cause of these appearances; and the diversity of explanation is a proof how little satisfactory any of them is judged to be. There have been times, chiefly in the autumn, and at long intervals, when these meteors have been particularly abundant, and it appears that Aristotle refers to such a luminous shower; the rarity of which may be

many are seen together; a Thing that no Man but he hath known, so far as I can learn. They signify boisterous Winds, and very hot Weather. They are seen also in Winter, and about the South Pole: but in that Place without any Beams. A terrible one likewise was seen by the People in Ethiopia and Egypt, which the King who reigned in that Age, named *Typhon*. It resembled Fire, and was twisted like a Wreath, hideous to the Sight; and not to be counted a Star, but truly a Ball of Fire. Sometimes the Planets and other Stars are spread over with Hairs; but a Comet¹ is never seen in the West Part of the Heaven.

A fearful Star, for the most Part, this Comet is, and not easily expiated²: as it appeared by the late civil Troubles when *Octavius* was Consul: as also a second Time by the War of *Pompey* and *Cæsar*. And in our Days about the Time that *Claudius Cæsar* was poisoned, and left the Empire to *Domitius Nero*; in the Time of whose Reign there was another almost continually seen, and always terrible. It is thought to be material for Presage, to observe into what Quarters it shooteth, or what Star's Power and Influence it receiveth: also what Similitudes it resembleth, and in what Parts it first shineth out. For if it be like unto Flutes (*Tibiæ*), it portendeth somewhat to Musicians: if it appear in the obscene Organs of the Signs, it threatens filthy Per-

concluded from Pliny's incredulity. Modern theory would refer this abundance of shooting stars to a very limited period of the month of November; but on the only occasion in which the Editor was an observer of a very remarkable quantity, the observation was made on the second or third day of October; when, in a ride of more than two hours, the sky was never free from them; although no more than three were visible at any one time.—*Wern. Club.*

¹ Dalechamp remarks, that in this observation Pliny has mistaken the meaning of Aristotle, whom he is copying. The latter says, that a comet disappears, or is dissipated, before it sinks so low as the horizon.—*Wern. Club.*

² This expiation was the business of the priests; and in the affair of a comet could only be judged to have taken effect when the awful manifestation had disappeared: and consequently not until after a considerable period.—*Wern. Club.*

sons. It regards Men of Talents and Learning, if it put forth a triangular or four-square Figure, with even Angles, to any Situations of the fixed Stars. It sprinkleth Poison, if seen in the Head of the Dragon, either North or South.

In one only Place of the whole World, namely, in a Temple at Rome, a Comet is worshipped: even that which by *Divus Augustus Cæsar* himself was judged fortunate to him: who, when it began to appear, acted in Person as Overseer in those Games which he made to *Venus Genetrix*, not long after the Death of his father, *Cæsar*, in the College by him erected. For, that Joy of his he testified in these Words: *In those very Days of my Games, there was seen a Comet for seven Days together, in that Region of the Sky which is under the North Star. It arose about the eleventh Hour of the Day, bright and clear, and evidently seen in all Lands. By that Star it was signified (as the common Sort believed) that the Soul of (Julius) Cæsar was received among the Divine powers of the immortal Gods. In which regard, that Mark of a Star was set on the Head of the Statue of Julius Cæsar, which soon after we dedicated in the Forum.* These Words he published abroad: but in a more inward Joy to himself, he interpreted that this Comet¹ was made for

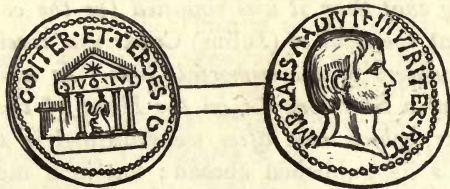
¹ It is a strong proof of the popular bias at that time, as well as of the political tact of Augustus, that he was so far able to dissipate the apprehensions usually entertained on the appearance of a comet, as to convert the phenomenon into a prognostic of especial good to his government; and to associate with it, what he wished them to believe of the Divine adoption of his deceased uncle, the Dictator. The latter had, indeed, already given him some examples of the art of overruling a portent, when its understood meaning did not correspond with his wishes; and Suetonius observes, that no ominous presage could ever deter or divert him from the prosecution of his designs. That this celestial phenomenon, which appeared about an hour before sunset, and was seen for seven successive days, excited much attention, appears from Ovid (*"Metamorphoses,"* b. xv.), who speaks of it as if he wished to avoid the dreaded name of Comet, a word which, in the original, Pliny also does not use:—

“Dumque tulit, lumen capere, atque ignescere sensit,
Emisitque sinu. Lunâ volat altius illa,
Flammiferumque trahens spatioso limite crinem
Stella micat.”

him, and that himself was born in it. And if we may confess a Truth, a happy Presage that was to the whole World. Some there be who believe that these Stars be perpetual, and go their Course round; but are not seen, unless they be left

“ (She) bore it upwards to its native skies :
 Glowing with newborn fire she saw it rise :
 Forth springing from her bosom, up it flew,
 And kindling as it soar'd, a (sparkling star it) grew ;
 Above the lunar sphere it took its flight,
 And shot behind it a long trail of light.”

But the particular object of Augustus seems to have been to connect this appearance of a star with his family in their claim of Divine honour, as being directly descended from the goddess Venus, whose particular ensign this was. Dalechamp mentions a Roman coin, bearing on the obverse the head and inscription of the deified Cæsar, and, on the reverse, a temple of Venus, with a star, and a statue of Cæsar in the augural dress, and an



(From a Coin in the British Museum.)

altar for offerings and vows, with the inscription, “Divo Julio.” It was because of this alleged consanguinity to the goddess, that at his funeral the Repository was made in the form of the temple of this divinity. The origin of this story of the star of Venus may be traced to a Phœnician or Trojan source; for we find, in the Fragments of Sanchoniatho, the following account:—“But travelling about the world, she found a star falling from the sky; which she, taking up, consecrated in the Holy Island Tyre. And the Phœnicians say, that *Astarte* is she who is amongst the Greeks called *Aphrodite*.”—(Bishop Cumberland’s Trans. p. 36.) This Tyrian or Trojan deity was the Marine Venus, and is to be distinguished from Venus Urania, the heavenly, the greatest; who, according to Cicero, (N. D. iii. 23.) and other authority, was the Syrian *Astarte*, and the *Ashteroth* of sacred Scripture; whose ensigns were: on her head, the horns of a bull; about her, thunderbolts; and round her, many stars. Lucian, describing her statue, which he had seen, says: “She had a splendid stone on her head, which was called *λυχνις*, which in the night gave much light to the temple, but shone weakly in the day-time, and looked like fire. Nor were these, the Roman deities Venus and Juno, the only powers that were designated by a star. The prophet Amos (chap. v. 26)

by the Sun. Others, again, are of opinion, that they are produced casually by some Humour and the Power of Fire, and thereby do consume away.

CHAPTER XXVI.

The Opinion of Hipparchus concerning the Stars. Also, historical Examples of Torches, Lamps, Beams, Fiery Darts, Opening of the Firmament.

HIPPARCHUS, the aforesaid Philosopher (a man never sufficiently praised, as being he that more than any other proved the Affinity of Stars with Men; affirming also, that our Souls were Parcel of Heaven), discovered and observed a new Star produced in his Time, and by the Motion thereof on the Day it first shone, he was led into a doubt, whether it happened not very often that new Stars should arise? and whether those Stars also moved not, which we imagine to be fixed? The same Man went so far, that he attempted (a Thing even hard for God to perform) to deliver unto Posterity the exact Number of the Stars. He brought the said Stars within the Compass of Rule, by devising certain Instruments to take their several Places, and set out their Magnitudes: that thereby it might be easily discerned, not only whether the old died, and new were born, but also whether they moved, and which Way they took their Course? likewise, whether they increased or decreased? Thus he left the Inheritance of the Sky unto all Men, if any one haply could be found able to enter upon it as lawful Heir.

There be also certain flaming Torches shining out in the Sky, though they are never seen but when they fall. Such an one was that which, at the Time that *Germanicus Cæsar* exhibited a Show of Gladiators, passed at Noontide in the

refers to a male deity, that, so early as the days of Moses, was worshipped in a portable shrine by the people of Israel, and by them probably derived from Egypt. A star thus became associated with the idea of Divine benignity; and how widely so, appears from the history of the Magi, who came from the East to Jerusalem, to seek out the Desire of all Nations, in pursuance of a prophecy that must have been of the highest antiquity.
— *Wern. Club.*

Sight of all the People. And there are two Sorts of them. One is *Lampades*, which they call plain Torches; and the other, *Bolides*, or Lances, such as the Mutinians saw in their Calamity. They differ, in that those Lamps or Torches form long Trains, of which the forepart only is on Fire. But *Bolis* burneth all over, and draweth a longer Tail. There shine out, after the same Manner, certain Beams, which the Greeks call *Docus*; which appeared when the Lacedemonians, being vanquished in a Sea-fight, lost the Dominion of Greece. The Firmament also is seen to open; and this they name *Chasma*.

CHAPTER XXVII.

Of the strange Colours of the Sky.

THERE appeareth in the Sky also a Resemblance of Blood¹, and (than which Nothing is more dreadful to Mortals) a burning, falling from Heaven to Earth: as it happened in the third Year of the hundred and seventh Olympiad, when King *Philip* terrified all Greece. And these Things I suppose to come at certain Times by Course of Nature, like other Things; and not, as the most Part

¹ Showers of blood have been recorded in chronicles of various ages; and in those turbulent times it was never difficult to find some public evil which such unwonted phenomena might be supposed to have foretold. By modern inquiry these appearances have been ascribed to the excrements of a mighty swarm of butterflies—to the extraordinary abundance of an animalcula, called *Oscillatoria Vubesuns*—and to the red vegetable *Protococcus Nivalis*, swept up by winds from the snow, on which it naturally grows. None of these explanations, however, appear to answer so completely to Pliny's account, as the following; to which the Editor was once a witness. On the 15th of February, 1837, when the weather had long been damp, misty, and rather windy—the direction of the wind being South of West—at a quarter of an hour after five in the evening, there came in a mist, of a bright red colour; which attracted attention, through a window, by the glare of light it diffused. On proceeding to examine it in the open air, it was observed to have become of a pink colour; and presently passing into violet, it settled into a grey; in which tint it remained until the evening hid it from view. No refraction of sunbeams can be allowed to account for this appearance; for the sun had long before been hidden by intervening hills from the valley in which this beautiful coloured mist appeared.—*Wern. Club.*

think, of sundry Causes, which the Wit of ingenious Men is able to devise. They have, indeed, been Forerunners of exceeding great Miseries; but I suppose those Calamities to have happened, not because these Appearances were seen, but these were procreated to foretell the Accidents that ensued afterward. Now, it is because they fall out so seldom, that the Reason of them is hidden, as is the Case with the Rising of Planets abovesaid, the Eclipses, and many other Things.

CHAPTER XXVIII.

Of the Flame of Heaven.

LIKEWISE there are seen Stars with the Sun¹ all Day long: yea, and very often about the Compass of the Sun, other Flames, like unto Garlands of Ears of Corn: also, Circles of various Colours, such as those were when *Augustus Cæsar*, in the Prime of his Youth, entered the City of Rome after the Decease of his Father, to take upon him his great Name.

CHAPTER XXIX.

Of Celestial Crowns.²

ALSO the same Garlands appear about the Moon, and the brighter Stars which are fixed in the Firmament. Round

¹ The only star seen near the sun at mid-day is the planet Venus:—

“ No stars beside their radiance can display
 In Phœbus' presence, the dread lord of day;
 E'en Cynthia's self, the regent of the night,
 Is quite obscur'd by his emergent light;
 But Venus only, as if more divine,
 With Phœbus dares in partnership to shine.”

Wern. Club.

² None of the appearances in this and the following chapters, to the 37th, can be regarded as unusual; and the explanation of them is to be found in the fact, of the refraction of the light by peculiar conditions of the air. Records of those things would scarcely have been found in the books of the augurs, if some political object had not been mixed with the report of the occurrences. It is well known that during the Republican days of Rome, the reckoning of dates by the years of the consuls was the common order of chronology. The consulship of L. Opimius and Q. Fabius Maximus was in the 630th year of Rome, and 123 years before

about the Sun there was seen an Arch, when *Lu. Opimius* and *Q. Fabius* were Consuls; and a Circle, when *L. Porcius* and *M. Acilius* were Consuls.

CHAPTER XXX.

Of Sudden Circles.

THERE appeared a Circle of red Colour, when *L. Julius* and *P. Rutilius* were Consuls. Moreover, there are strange Eclipses of the Sun, continuing longer than ordinary; which happened when *Cæsar* the Dictator was slain. In the Wars of *Antony* also, the Sun continued almost a whole Year, with a pale and wan Colour.

CHAPTER XXXI.

Many Suns.

AGIN, many Suns are seen at once, neither above nor beneath the Body of the true Sun, but obliquely: never near, nor directly against, the Earth; neither in the Night, but when the Sun either riseth or setteth. Once they are reported to have been seen at Noon-day in the Bosphorus, and they continued from Morning to the Evening. Three Suns together our Ancestors have often beheld; as, for instance, when *Sp. Posthumius* with *Q. Mutius*, *Q. Martius* with *M. Porcius*, *M. Antonius* with *P. Dolabella*, and *Mar. Lepidus* with *L. Plancus*, were Consuls. And our Age hath seen the like in the Time of *Divus Cl. Cæsar's* Sovereignty and joint-Consulship, with *Cornelius Orfitus*, his Colleague. More than three we never to this Day find to have been seen together.

the Christian era. That the former of these consuls was capable of any violence or fraud, to secure political preponderance, appears from his history in connexion with the Gracchi. He was openly accused of forging portents; and when one of his lictors had knocked down Tiberius Gracchus, whose person as tribune was sacred, in the riots that followed he offered a reward, of its weight in gold, for the head of his opponent. The bribe was successful: the head was found to weigh 17lbs. 8oz.; and to shew his pious gratitude for the result, as well, perhaps, as to divert public attention, he built a temple to Concord.—*Wern. Club.*

CHAPTER XXXII.

Many Moons.

THREE MOONS also appeared at once, when *Cn. Domitius* and *C. Fannius* were Consuls; and these most Men call Night Suns.

CHAPTER XXXIII.

Daylight in the Night.

OUT of the Firmament by Night, there was seen a Light¹, when *C. Cælius* and *Cn. Papyrius* were Consuls; and oftentimes besides, so as the Night seemed as light as the Day.

CHAPTER XXXIV.

Burning Shields.

A BURNING Shield ran sparkling from the West to the East, at the Sun's Setting, when *L. Valerius* and *C. Marius* were Consuls.

CHAPTER XXXV.

A strange Sight in the Sky.

By Report there was once seen, and never but once, when *Cn. Octavius* and *C. Scribonius* were Consuls, a Spark to fall from a Star: and as it approached the Earth it waxed greater, and after it came to the Bigness of the Moon, it shone out and gave Light, as in a cloudy Day: then, being retired again into the Sky, it became a burning Lamp (*Lampas*). This, *Licinius Syllanus*, the Pro-consul, saw, together with his Attendants.

¹ This remarkable phenomenon is rarely noticed in modern times, and is in itself rare; but one or two instances have been related by living witnesses. On one occasion, in a very dark night, two or three individuals, scarcely able to grope their way, were surprised at finding themselves able to see every object as clearly as in a moderate daylight. They were so much astonished and alarmed at the sudden brightness, that, being engaged in an exploit, in which they had no desire of recognition, they were glad to hurry off with hasty expedition.—*Wern. Club.*

CHAPTER XXXVI.

The extraordinary Shooting of Stars in the Sky.

STARS are also seen to shoot hither and thither, but never to any purpose: for, from the same Quarter where they appear, there rise terrible Winds, and after them Tempests both by Sea and Land.

CHAPTER XXXVII.

Of the Stars called Castor and Pollux¹.

I HAVE seen myself, in the Camp, from the Sentinels in the Night-watch, the Resemblance of Lightning to fix on the Spears set before the Rampart. They settle also upon the Yards, and other Parts of the Ship, at Sea: making a Kind of vocal Sound, and shifting their Places as Birds do which fly from Bough to Bough. They are dangerous when they come singly, for they sink those Ships on which they alight;

¹ Luminous meteors are mostly seen at night; since daylight is too powerful to allow them to be seen. They have not been studied as the subject deserves; and hence the futility of the explanations generally given to their causes. There is little doubt, that they differ greatly in nature. Some are undoubtedly electric; as may be judged from their sudden explosion, sometimes with signs of great violence. The appearances termed *Castor* and *Pollux*, and among modern sailors *Corbisant*, or *Corpo Santo*, is exceedingly rare on land, and in the British seas; but common in warmer latitudes than Britain. Light of, perhaps, the same nature, is sometimes seen on the ears of animals, as the horse, when travelling in stormy weather. Pliny speaks of being himself an eye-witness to the settling of meteors on the military spears; and there is a record of a similar appearance in the sixth volume (p. 38) of Hearne's edition of Leland's Itinerary: "In the yere of our Lord 1098, Corborant, admiral to the Soudan of Perce, was faught with at Antioche, and discumfited by the Christianes. The night cumming on yn the chace of this bataile, and waxing dark, the Christianes beyng 4 miles from Antioche, God willing the saufte of the Christianes, shewid a white starre or molette of fyve pointes on the Christen host, which to every manne's sighte did lighte and arrest upon the standard of Alboyn the 3rd, there shining excessively."—*Wern. Club.*

or they set them on Fire if they fall upon the Bottom of the Keel. But if the Pair appear, they are salutary, and foretel a prosperous Voyage; for by their coming, it is supposed that the dreadful and threatening Meteor called *Helena*, is driven away. And therefore it is, that Men assign this mighty Power to *Castor* and *Pollux*, and invoke them as Gods at Sea. Men's Heads, also, in the Evening are seen to shine round about; which presageth some great Matter. Of all these Things there is no certain Reason to be given; but they are hidden in the Majesty of Nature.

CHAPTER XXXVIII.

Of the Air.

HITHERTO we have treated of the World itself, and the Stars. It remaineth now to speak of other memorable Things observed in the Sky. For even that Part also have our Forefathers called *Cælum*, or the Sky, which otherwise they name the Air: even all that Portion which seeming like a void and empty Place, yieldeth this vital Spirit whereby all Things do live. This Region is seated beneath the Moon, and far under that Planet (as I observe it is, in Manner, by all Men agreed upon). And mingling together an infinite Portion of the superior celestial Nature of Air, with very much of earthly Vapours, it doth participate confusedly of both. From hence proceed Clouds, Thunders, and those terrible Lightnings. From hence come Hail, Frosts, Rain, Storms, and Whirlwinds: from hence arise most of the Calamities of mortal Men, and the continual War that Nature maketh with herself. For these gross Exhalations, as they mount upward to the Heaven, are beaten back by the Violence of the Stars: and the same again draw up to them those Matters, which of their own Accord ascend not. For thus we see, that Showers of Rain fall, Mists arise, Rivers are dried up, Hail-storms come down amain, the Sunbeams scorch the ground, and drive it every where to the midst: but the same again unbroken, and not loosing their Force, rebound and take up with them whatso-

ever they are able. Vapours fall from aloft, and return again on high: forcible Winds come empty, but return with a Booty. So many living Creatures draw their Breath from above: but the same laboureth contrariwise, and the Earth infuseth into the Air a Spirit as if it were empty. Thus, while Nature goeth to and fro, as forced by some Engine, by the Swiftness of the Heaven the Fire of Discord is kindled. Neither can she stand to the Fight, but being continually carried away she is rolled about, and as she spreadeth about the Earth, with an immeasurable Globe of the Heaven, so ever and anon through the Clouds she frameth another Sky. And this is that Region where the Winds reign. And therefore their Kingdom principally is there where they execute their Forces. For Thunderbolts and Lightnings most Men attribute to their Violence. Nay, and so it is supposed that sometimes it raineth Stones, which may be taken up first by the Wind; and many similar Appearances. Wherefore many Matters besides are to be treated of together.

CHAPTER XXXIX.

Of Ordinary Seasons.

IT is manifest that of Seasons, as also of other Things, some Causes be certain; others, casual; or, such as yet the Reason thereof is unknown. For who doubteth that Summers and Winters, and those alternative Seasons which we observe by yearly Course, are occasioned by the Motion of the Planets? As, therefore, the Sun's Nature is understood by tempering and ordering the Year, so the rest of the Stars have every one their peculiar Power, and the same effectual to perform their own Nature. Some are fruitful to bring forth Moisture, that is turned into liquid Rain: others to yield an Humour either congealed into Frosts, or gathered and thickened into Snow, or else frozen into Hail: some afford Winds; others Warmth: some hot and scorching Vapours; some, Dews; and others, Cold. Neither ought these Stars to be esteemed no more than they shew in Sight, seeing that none of them is less than the Moon; as may

appear by the Reason of their exceeding Height. All of them, then, every one in its own Motion, exercise their several Natures: which appeareth manifestly by *Saturn* especially, who setteth open the Gates for Rain and Showers to pass. And not only the seven Wandering Stars possess this Power, but many of them also that are fixed in the Firmament; so often as they be either driven by the Approach of those Planets, or provoked by the Casting and Influence of their Beams: like as we find it happeneth in the seven Stars called *Suculæ*, which the Grecians, of Rain, name *Hyades* (because they ever bring foul Weather). Howbeit some of their own Nature, and at certain set Times, do cause Rain; as the Rising of the Kids. The Star *Arcturus* very rarely appeareth without some tempestuous Hail¹.

CHAPTER XL.

The Power of the Dog-Star.

WHO knoweth not, that when the Dog-Star ariseth, the Heat of the Sun is fiery and burning? the effects of which Star are felt exceeding much upon the Earth. The Seas at his Rising do rage, the Wines in Cellars are troubled, standing Waters are moved. A wild Beast there is in Egypt, called *Orix*², which the Egyptians say, doth stand full against

¹ It is scarcely necessary to warn the modern reader, that throughout these observations on the weather, an influence is ascribed to the rising of certain stars, from no better cause than the coincidence of the occurrences. — *Wern. Club.*

² Pliny mentions this animal in book x. c. 73; and again in book xi. c. 46; but modern naturalists have failed to identify it with any creature known at the present time. Indeed, there is reason to believe that more than one creature has been thus designated by the ancients; for it has been described as having only one horn; which would make it either a species of rhinoceros, or the animal resembling a stag or horse, so often spoken of under the name of Unicorn. It has also been compared to an ox; and four horns have been ascribed to it. But, more precisely, it is said to be white, with horns and a beard; which renders it probable that it was of the goat kind. As the religion of the ancient Heathens was merely ceremonial, the imputing to the creature, in the practice of sneezing, an act of adoration to *Anubis*, or the *Dog-Star*, one of the chief deities of the

the Dog-Star when it riseth, looking wistly upon it, and testifieth by sneezing, a Kind of Worship. As for Dogs, no Man doubteth but all the Time of the canicular Days they are most ready to run mad.

CHAPTER XLI.

That the Stars have their several Influences in sundry Parts of the Signs, and at divers Times.

MOREOVER¹, the Parts of certain Signs have their peculiar Force, as appeareth in the autumnal Equinox, and in Mid-Winter; at which Time we perceive that the Sun maketh Tempests. And this is proved, not only by Rains and Storms,

Egyptians, will appear less absurd than at the first mention would appear. For a similar reason Pliny ascribes religion to elephants, and even poultry.

In his 28th book, the Author (ch. 2) has some observations on the superstition of the Romans, relative to the act of sneezing; and it is not a little remarkable, that a similar practice, of imprecating a blessing in such case, is not even now uncommon among ourselves.—*Wern. Club.*

¹ In this chapter there is a confusion of cause and effect that is difficult to unravel; and which can only be accounted for by involving what are undoubtedly natural influences—in modern times easily explained—with occult causes, the bounds of which the ancients were not able to define. The influence of the sun's heat on currents of air, constituting winds and tempests, and even its simple action on the texture of a membrane, are thus confounded with the powers which the Signs of the Zodiac were supposed to exert on the functions of the organs or regions of the human body. According to this philosophy, each of the twelve signs exerted a peculiar influence on a distinct portion; beginning with the head, which was governed by *Aries*; and proceeding downward by regular spaces, each opposite sign in the Annual Circle became the monarch of its season, until the *Twins*, opposite to *Aries*, displayed their power over the feet. To the reproach of modern science, these imaginary influences, which derived their origin in popular opinion, from a supposed sympathetic connexion of the spirit pervading these signs—a portion of the great soul of the world (Note to ch. 1), and therefore a portion of a very ancient idolatry—maintains its place in the popular almanacs, published under the superintendence of a public company especially instituted for the promotion of an improved literature.—*Wern. Club.*

but by many Experiments in Men's Bodies, and Accidents to Plants in the Country. For some Men are struck by the Planet, and blasted : others are troubled at certain Times in their Bowels, Sinews, Head, and Mind. The Olive Tree, the White Poplar, and Willows, turn their Leaves about at Midsummer, at the Solstice. And contrariwise, in Midwinter, the Herb Pennyroyal flowereth fresh, even as it hangs dry within the House. At which Time all Parchments are so stretched with the Wind that they burst. A Man might marvel hereat who marketh not by daily Experience, that one Herb called Heliotropium¹, looketh toward the Sun, ever as he goeth, turning with him at all hours, notwithstanding he be shadowed under a Cloud. It is certain also, that the Bodies of Oysters, Mussels, Cockles, and all Shell-fishes, grow and waste by the Power of the Moon ; and some have found out by diligent Search, that the Fibres in the Livers of Rats and Mice answer in Number to the Days of the Moon's Age : also that the very little Creature, the Emmet, feeleth the Power of this Planet, and always in the Change of the Moon ceaseth from Work. It is the more Shame to Man to be ignorant, especially seeing that he must confess, that some labouring Beasts have certain Diseases in their Eyes, which with the Moon do grow and decay. Howbeit the excessive Greatness of the Heaven and exceeding Height thereof, divided as it is into seventy-two Signs, make for him, and serve for his Excuse. These Signs are the Resemblances of Things, or living Creatures, into which the skilful Astronomers have digested the Firmament. For Example, in the Tail of *Taurus* there be seven, which they have named *Vergiliæ*²; in the Forehead other seven called *Suculæ* : and *Böotes* who followeth after the great Bear (*Septentriones*).

¹ This plant is again referred to (b. xxii. c. 21) as a good countryman's weather-glass. It is a question whether it belong to the genus *Heliotropium* of Linnæus, or be not rather the *Caltha Palustris*, or Marsh Marygold.—*Wern. Club.*

² Better known by the name of *Pleiades*.—*Wern. Club.*

CHAPTER XLII.

The Causes of Rain, Showers, Winds, and Clouds.

I CANNOT deny, but without these Causes there arise Rains and Winds: for it is certain there is exhaled from the Earth a Mist, sometimes moist, at other Times smoky, by Reason of hot Vapours. Also, that Clouds are produced by Vapours which are gone up on high, or else of the Air gathered into a watery Liquor: that they be thick, and of a bodily Consistence, we collect by no doubtful Argument, considering that they overshadow the Sun, which otherwise may be seen through Water; as they know well that dive to any good Depth.

CHAPTER XLIII.

*Of Thunder and Lightning.*¹

I WOULD not deny, therefore, that the fiery Impressions from Stars above, may fall upon these Clouds, such as we oftentimes see to shoot in clear and fair Weather: by the forcible Stroke whereof, good Reason it is, that the Air should be mightily shaken, seeing that Darts when they are discharged, make a Noise as they fly. But when they encounter a Cloud, there ariseth a Vapour with a dissonant Sound (as when a red-hot Iron maketh an Hissing when thrust into Water), and Smoke rolls up in Waves. Hence Storms are bred. And if this Flatus, or Vapour, do struggle within the Cloud, Thunder is given out; if it break through still burning, then flieth out the Thunderbolt: if it be a

¹ An attempt to explain the cause of thunder and lightning could scarcely be otherwise than futile, in the entire absence of a knowledge of the existence of such a matter as electricity. But any attempt at a natural explanation was an effort of courage, and far in advance of the popular opinion. On this account the Author is entitled to pardon, when, at the conclusion of the chapter he finds himself disposed to make some concession, in admitting it to be possible, that some of these phenomena were premonitory, and direct from the gods.—*Wern. Club.*

longer Time in struggling, then Lightning-flashes are seen. With these the Cloud is cloven; with the other, burst in sunder. The Thunders are the Blows given by the Fires beating hard upon the Clouds: and therefore presently the fiery Rifts of those Clouds do flash and shine. It is possible, also, that the Wind, elevated from the Earth, being repelled, and kept down by the Stars, and so restrained within a Cloud, may thunder, while Nature choketh the rumbling Sound all the while it striveth; but sendeth forth a Crash when it breaketh out, as we see in a Bladder puffed up with Wind. Likewise it may be, that the same Wind or Spirit is set on Fire by Attrition, as it violently passeth headlong down. It may also be stricken by the Conflict of the Clouds, as if two Stones hit one against another; and so the Flashes sparkle forth. But all these are Accidents. And from hence come those insignificant and vain Lightnings, which have no natural Cause. With these are Mountains and Seas smitten: and of this Kind be all other Explosions that do no Hurt to living Creatures. Those that come from above, and of fixed Causes, yea, and from their proper Stars, foretel future Events. In like Manner, it may be that the Winds, or rather Blasts, proceed from a dry Exhalation of the Earth, void of all Moisture: neither will I deny that they arise from Waters breathing out an Air, which neither can thicken into a Mist, nor gather into Clouds: also they may be driven by the Impulsion of the Sun, because the Wind is conceived to be Nothing else but the flowing of the Air, and that by many means. For some we see to rise out of Rivers, Snows, and Seas, even when they be still and calm: as also others out of the Earth, which Winds they name *Altani*. And those verily when they come back again from the Sea, are called *Tropæi*: if they go onward, *Apogæi*.

CHAPTER XLIV.

What is the Reason of the Resounding of the Echo.

BUT the Windings of Hills, and their close Turnings, their many Tops, their Ridges also bending like an Elbow,

and arched, as it were, into Shoulders, together with the Hollows of Vallies, do cut unequally the Air that reboundeth from them : which is the Cause of reciprocal Voices called Echoes, answering one another in many Places.

CHAPTER XLV.

Of Winds again.

THERE are, again, certain Caves¹ which breed Winds without end : such as that one which is in the Edge of Dalmatia, gaping with a wide Mouth, and leading to a deep Cavern : into which, if there be cast any Matter of light Weight, be the Day never so calm, there ariseth presently a Tempest like a Whirlwind. The Place's Name is Senta. Moreover, in the Province Cyrenaica there is reported to be a Rock consecrated to the South-wind, which without Profanation may not be touched with Man's Hand ; but if it be, presently the South-wind doth arise and cast up Heaps of Sand. Also in many Houses there be hollow Places devised by Man's Hand for the Receipt of Wind ; which being enclosed with Shade, gather their Blasts. Whereby we may see how all Winds have a Cause. But great Difference there is between such Blasts and Winds. As for these, they be settled, and continually blowing ; which, not some particular Places, but whole Lands do feel ; which are not light Gales nor stormy Puffs of the Sea, named *Auræ* and *Procellæ*, but properly

¹ That there is an intimate connexion between the interior of the earth and the atmosphere, operating in the production or direction of the nature or force of winds, is exceedingly probable ; although the particular instances here given are either imaginary, or strangely misinterpreted. A simple change in the pressure of the atmosphere — a meteorological phenomenon of which the ancients were ignorant, from not being aware that air possessed positive weight — will account for many of these sudden gusts from caverns ; and for those hollow murmurs that have been popularly remarked in hilly countries, before the approach of a storm ; and the utility of these outbursts will appear when we remember, that without them, poisonous exhalations, as marsh miasmata, and carbonic acid gas, would be suffered to accumulate, to the destruction of a neighbourhood.—*Wern. Club.*

called Winds, by the masculine Name *Venti*: which, whether they arise by the continual Motion of the Heaven, and the contrary Course of the Planets; or whether this Wind be that Spirit of Nature that engendereth all Things, wandering to and fro, as it were, in some Womb; or rather the Air, beaten and driven by the unlike Influences of the Planets, and the Multiplicity of their Beams: or whether all Winds come from their own nearer Stars; or rather fall from them that be fixed in the Firmament: plain it is, that they are guided by an ordinary Law of Nature, not altogether unknown, although it be not yet thoroughly known.

CHAPTER XLVI.

The Natures and Observations of the Winds.

MORE than twenty of the old Greek Writers have recorded their Observations of the Winds. I marvel so much the more, that the World being so at Discord, and divided into Kingdoms, that is to say, dismembered; so many Men have employed their Care to seek after these Things, so difficult to be found out; and the more especially in Time of Wars, and amid those Places where was no safe Abode; and especially when Pirates, those common Enemies to Mankind, held well near all Passages of Communication: I marvel, also, that at this Day each Man in his own Tract of Country obtaineth more Knowledge of some Things by their Commentaries, who never set Foot there, than he doth by the Skill and Information of home-born Inhabitants; whereas now in Time of such blessed and joyous Peace, and under a Prince who taketh such Delight in the Progress of the State and of all good Arts, no new Thing is learned by farther Inquisition; nay, nor so much as the Inventions of old Writers are thoroughly understood. And verily it cannot be said, that greater Rewards were in those Days given, considering that the Bounty of Fortune was dispersed: and in truth, most of these learned Men sought out these Secrets for no other Regard than to do good to Posterity. But now Men's Customs are waxed old and decay: and notwith-

standing that the Fruit of Learning be as great as ever it was, yet Men are become idle in this behalf. The Seas are open to all, an infinite Multitude of Sailors have discovered all Coasts whatsoever; they sail through and arrive familiarly at every Shore; but all is for Gain, nothing for the Sake of Knowledge. Their Minds altogether blinded, and bent upon nothing but Covetousness, never consider that the same might with more Safety be performed by Science. And therefore, seeing there be so many thousand Sailors that hazard themselves on the Seas, I will treat of the Winds more curiously than, perhaps, would otherwise be necessary to the present Work.

CHAPTER XLVII.

Many Sorts of Winds.

THE Ancients observed four Winds¹ only, according to so many Quarters of the World (and therefore *Homer* nameth no more): a feeble Reason this, as soon after it was judged. The Age ensuing added eight more, and they were on the other Side in their Conceit, too subtle and concise. The modern Sailors have found a Mean between both: and they put unto that short Number of the first, four Winds and no more; which they took out of the latter. Therefore every Quarter of the Heaven hath two Winds to itself. From the equinoctial Sun-rising bloweth the East Wind, *Subsolanus*: from the Rising thereof in Midwinter the South-east, *Vulturnus*. The former of these two the Greeks call *Apeliotes*, and the latter *Eurus*. From the Midday riseth the South Wind: and from the Sun-setting in Midwinter the South-west, *Africus*. They also name these two, *Notus* and *Libs*. From the equinoctial going down of the Sun, the West Wind,

¹ The impression of this precise number of winds appears to have been popular; and is referred to in the Book of Revelation by St. John, vii. 1: "I saw four angels standing on the four corners of the earth, holding the four winds of the earth." Pliny evidently supposes that the winds were not simply determined according to the quarter from which they blew, but by separate and inherent qualities of heat, moisture, violence, health, or sickness.—*Wern. Club.*

Favonius, cometh: but from that in Summer, the North-west, *Corus*: and by the Greeks they are termed *Zephyrus* and *Argestes*. From the North bloweth the North Wind, *Septentrio*: between which and the Sunrising in Summer is the North-east Wind, *Aquilo*, named *Aparctias* and *Boreas* by the Greeks. A greater Reckoning than this for Number is brought in by some, who have thrust in four more between: namely, *Thracias* between the North and the Summer Setting of the Sun; in like Manner *Cæcias*, in the midst between the North-east, *Aquilo*, and that of the Sunrising in the equinoctial, *Sub-solanus*. Also, after the Sunrising in Summer, *Phæniceas* in the midst, between the South-east and the South. Last of all, between the South and the South-west, *Lybonotus*, just in the midst, compounded of them both, namely, between the Meridian and the Sun-setting in Winter. But here they did not end. For others have set one more, called *Mese*, between the North-east Wind *Boreas* and *Cæcias*: also *Euronotus*, between the South and South-west Winds. Besides all these, there be some Winds peculiar to every Nation, and which pass not beyond one certain Region: as, namely, *Scyros* among the Athenians, declining a little from *Argestes*; a Wind unknown to other Parts of Greece. In some other Place it is more aloft, and the same then is called *Olympias* (as coming from the Mountain Olympus). But the usual Manner of Speech understandeth by all these Names *Argestes* only. Some call *Cæcias* by the Name of *Hellespontias*, and give the same Winds in sundry Places divers Names. In the Province, likewise, of Narbonne, the most notorious Wind is *Circius*, and for violence inferior to none, driving directly before it, very often, the Current at Ostia into the Ligurian Sea. The same Wind is not only unknown in all other Parts of the Heaven, but reacheth not so much as to Vienna, a City in the same Province. As great and boisterous a Wind as this is otherwise, yet it meets with a Restraint before it come thither, and is kept within narrow Bounds by the Opposition of a small Hill. *Fabianus* also avoucheth, that the South Winds enter not so far as into Egypt. Whereby the Law of Nature sheweth itself plainly, that even Winds have their Times and Limits appointed.

To proceed, then, the Spring openeth the Sea for Sailors: in the Beginning whereof, the West Winds mitigate the Winter Weather at the Time when the Sun is in the 25th Degree of *Aquarius*, and that is the sixth Day before the Ides of February. And this Order holdeth for the most Part with all other Winds, which I will set down one after another: so that in every Leap Year we anticipate and reckon one Day sooner, and then again keep the same Rule throughout all the four Years following. Some call *Favonius* (which beginneth to blow about the seventh Day before the Calends of March) by the Name of *Chelidonius*, upon the Sight of the first Swallows¹: but many name it *Orinthias*, coming the seventy-first Day after the shortest Day in Winter; by occasion of the coming of Birds: which Wind bloweth for nine Days. Opposite to *Favonius* is the Wind which we called *Sub-solanus*. Unto this Wind is attributed the Rising of the *Vergiliae*, or Seven Stars, in as many Degrees of *Taurus*, six Days before the Ides of May; which Time is a southerly Constitution: and to this Wind the North is contrary. Moreover, in the hottest Season of the Summer the Dog-star ariseth, when the Sun entereth into the first Degree of *Leo*, which commonly is the fifteenth Day before the Calends of August. Before the Rising of this Star for eight Days' Space, or thereabout, the North-east Winds blow; which the Greeks call *Prodromi*, or Forerunners. And two Days after it is risen, the same Winds hold still more stiffly for the Space of forty Days, which they name *Etesia*. The Sun's

¹ Ovid ("Fasti") says, on the day which is equivalent to about the 25th of February:—

" Fallimur ? an veris prænuntia venit hirundo ?
Et metuit, nequa versa recurrat hyems ?"

" Am I deceived ? is that the swallow's wing ?
That flits along, the herald of the spring.
Fearful of cold, she still seeks shelter here ;
And dreads that winter may reclaim the year."

In *Sardinia* it is noted on the last day of the same month, in the "Calendar of the Transactions of the Royal Academy of Brussels." But these are early appearances; and in general this bird arrives in *Italy* in the first ten days of *March*.—*Wern. Club*.

Vapour, redoubled by the Hotness of that Star, is thought to be assuaged by them: and no Winds keep their set Times better than they. Next after them come the South Winds again, which are usually up, until the Star *Arcturus* riseth, and that is eleven Days before the autumnal Equinox. With it entereth *Corus*, and thus *Corus* beginneth the Autumn; and to this *Vulturnus* is contrary. After that Equinox about four-and-forty Days, the *Vergiliæ* go down and begin Winter, which Season usually falleth upon the third Day before the Ides of November. This is the Winter North-east Wind, which is far unlike to that in Summer, opposite and contrary to *Africus*. Seven Days before the Midwinter Day, and as much after, the Sea is allayed and calm for the Sitting and Hatching of the Birds *Halciones*¹, from which these Days took the Name *Alcionis*: the Time behind belongs to Winter. And yet these boisterous Seasons, full of Tempests, shut not up the Sea: for Pirates at first forced Men, with Peril of Death, to run headlong upon their Death, and to hazard themselves in Winter Seas; and now Covetousness compels them to do the like.

The coldest Winds of all other are those which, we said, blow from the North, and together with them their Neighbour, *Corus*. These Winds allay all others, and drive away Clouds. Moist Winds are *Africus*, and especially the South Wind of Italy, called *Auster*. Men report also, that *Cæcias* in Pontus gathereth to itself Clouds. *Corus* and *Vulturnus* are dry, but only when they cease. The North-east and the North produce Snow. The North Wind also bringeth Hail, as doth *Corus*. The South Wind is exceeding hot. *Vulturnus* and *Favonius* be warm. They also be drier than the East:

¹ Ovid relates the fable of the origin of the Halcyon, or Alcyon, "Metamorphoses," book xi. fable 10; and Pliny describes the bird in his book x. c. 32. Ælian also speaks of it, book i. c. 36; and he describes the wonders of the nest, b. ix. c. 17, in a manner which the ancients generally appear to have regarded as substantially true; but it is scarcely necessary to remark, that modern observation has not corroborated this belief in any particular. In book xxxii. c. 8, Pliny speaks of a medicine which was supposed to be prepared from the nest of the Alcyon, or Kingfisher.—*Wern. Club.*

and generally all Winds from the North and West are drier than from the South and East. Of all Winds the Northern is most healthful: the Southern Wind is noisome, and the rather when it is dry; haply, because that when it is moist it is the colder. During the Time that it bloweth, living Creatures are thought to be less hungry. The *Etesia* give over ordinarily in the Night, and arise at the third hour of the Day. In Spain and Asia they blow from the East: but in Pontus, from the North: in other Quarters, from the South. They blow also after the Midwinter, when they be called *Orinthia*; but those are more mild, and continue fewer Days. Two there be that change their Nature with their Place: the South Wind in Africa bringeth fair Weather, and the North Wind there is cloudy. All Winds keep their Course in Order for the more Part, or else when one ceaseth the contrary beginneth. When some are laid and the next to them arise, they go about from the left Hand to the right, according to the Sun. Of their Manner and Order monthly, the fourth Day after the Change of the Moon doth most commonly determine. The same Winds will serve to sail contrary Ways, by means of setting out the Sails: so as many Times in the Night, Ships in sailing run one against another. The South Wind raiseth greater Billows than the North: for that the South Wind ariseth below, from the Bottom of the Sea; the other descends from on high. And, therefore, after Southern Winds, Earthquakes are most hurtful. The South Wind in the Night Time is more boisterous, the Northern Wind in the Day. The Winds blowing from the East continue longer than those from the West. The Northern Winds give over commonly with an odd Number: which Observation serveth to good use in many other Parts of natural Things, and therefore the male Winds are judged by the odd Number. The Sun both raiseth and also allayeth the Winds. At rising and setting he causeth them to blow: at Noontide he represseth them in Summer. And therefore at Mid-day or Midnight commonly the Winds are allayed; for both Cold and Heat, if they be immoderate, do consume them. Also, Rain doth lay the Winds: and most commonly from thence they are looked for to blow, where Clouds break and lay

open the Sky. And *Eudoxus* is of opinion (if we list to observe the least Revolutions) that after the End of every fourth Year, not only all Winds, but, for the most Part, other Tempests and Constitutions of the Weather, return again to the same Course as before. And always the *Lustrum*¹ or Computation of the five Years, beginneth at the Leap Year, when the Dog-star doth arise. And thus much concerning general Winds.

CHAPTER XLVIII.

Of Sudden Blasts.

Now will we speak of sudden Blasts: which being raised (as hath been said before) by Exhalations of the Earth, and cast down again, in the meanwhile appear of many Fashions, enclosed within a thin Course of Clouds. For such as be wandering and rushing in Manner of Land-floods (as some Men were of opinion, as we have shewed), bring forth Thunder and Lightning. But if they come with a greater Force and Violence, and cleave a dry Cloud asunder, they breed a Storm, which of the Greeks is called *Ecnephias*: but if the Breach be not great, so that the Wind be constrained to revolve in his Descent without Fire, that is to say, Lightning, it makes a Whirlwind called *Typhon*, that is to say, the vibrated *Ecnephias*. This snatches with it a Piece broken out of a congealed cold Cloud, turning and rolling it round, and with that Weight maketh its own Fall more heavy, and changeth from Place to Place with a vehement Whirling. It is the greatest Danger that Sailors have, breaking not only their Yards, but also wrecking the very Ships to twisted Fragments: and yet a small Matter is the Remedy for it, namely, the casting of Vinegar out against it as it cometh; which is of very cold Nature. The same Storm beating upon a Thing is itself smitten back again with Violence, and snatcheth up whatever it meeteth in the Way aloft into the Sky, carrying it back, and swallowing it up on high. But if it break out from a greater Hole of the said Cloud, by it so

¹ This space of time came round at the beginning of every fifth year; at which period, originally, the census was taken, and the taxes fixed until the recurrence of the same period.—*Wern. Club.*

borne down, and yet not altogether so broad, as the above-named Storm *Procella* doth, nor without a Crack, they call this boisterous Wind *Turbo*, which overthroweth all that is near it. The same, if it be more hot and catching Fire as it rageth, is named *Prester*; burning and laying along whatsoever it encountereth.

CHAPTER XLIX.

Other prodigious Kinds of Tempests.

No *Typhon* cometh from the North, nor any *Ecnephas* with Snow, or while Snow lieth on the Ground. If this tempestuous Wind when it broke the Cloud, burned fiercely, having Fire of its own before, and caught it not afterward, it is true Lightning; and differeth from *Prester* only as Flame from a Coal of Fire. Again, *Prester* spreadeth widely with a Flash; the other gathereth into a Globe with Violence. *Vortex* differeth from *Turben* in flying back: and as much as a Crash from a Crack. The Storm *Procella* differs from them both in Breadth, and rather scattereth than breaketh the Cloud. There riseth also a dark Mist, resembling a monstrous Beast; and this is ever a terrible Cloud to Sailors. Another, likewise, is called a Pillar¹, when the Humour is so thick and congealed that it standeth compact of itself. Of the same Sort also is that Cloud which draweth Water to it, as it were, into a long Pipe.

CHAPTER L.

In what Lands Lightnings fall not.

IN Winter and Summer seldom are there any Lightnings, because of contrary Causes: for in Winter the Air is condensed, and thickened with a deeper Course of Clouds: and all the Exhalations from the Earth being chilled and frozen hard, extinguish what fiery Vapour soever otherwise they receive: which is the Reason that Scythia, and other frozen Countries

¹ The Author clearly means what, in modern times, is denominated a Water-spout: a phenomenon not uncommon in the Mediterranean Sea, and in other warm climates; but exceedingly rare, if at all occurring, in northern regions.—*Wern. Club.*

thereabout, are free from Lightnings. And Egypt¹, likewise, from a contrary Cause, is exempt from Lightnings, the Reason being its excessive Heat : for the hot and dry Exhalations of the Earth gather into very slender, thin, and weak Clouds. But in the Spring and Autumn, Lightnings are more rife ; because in both those Seasons the Causes as well of Summer as Winter are corrupt. And this is the Reason that Lightnings are common in Italy ; for the Air being more movable, by Reason of a milder Winter and a cloudy Summer, is always of the Temperature of Spring or Autumn. In those Parts, also, of Italy, which lie off from the North, and incline to Warmth (as, namely, in the Tract about Rome and Campania), there is Lightning in Winter and Summer alike, which happeneth in no other Part thereof.

CHAPTER LI.

Sundry Sorts of Lightnings, and Wonders thereof.

VERY many Kinds of Lightning are set down by Authors. Those that come dry burn not, but only disperse. They that come moist do not burn, but blast and embrown. A third Kind there is, which they call Bright and Clear ; and that is of a wonderful Nature, whereby Tuns are drawn dry, and their Sides, Hoops, and Heads never touched, nor any other Token thereof is left behind. Gold, Copper, and Silver² are

¹ The circumstance that Egypt is naturally exempt from lightning, must have greatly heightened the terrors of the Seventh Plague with which God visited this land in the days of the Exodus. But though very rare, thunder and lightning are not unknown in Egypt, at least in modern times. Thevenot mentions a man who was killed by lightning at Cairo, when he was there ; — but such a circumstance had never been known before. Rain, and even hail, have also been seen ; but all these phenomena are less severe than in other countries. — *Wern. Club.*

² The facts here mentioned must have appeared as unaccountable as stupendous, before the modern discoveries of Franklin and others, relative to the attractions of the electric fluid : the existence of which, as an agent of Nature, was not dreamt of in the philosophy of Pliny and the ancient observers. — *Wern. Club.*

melted in the Bags, and the Bags themselves unscorched; and not even the Wax of the Seal defaced. *Martia*, a noble Lady of Rome, being great with Child, was struck with Lightning: the Child she went with was killed within her, and she survived without any Harm. Among the *Catiline* Prodigies it is found upon Record, that *M. Herennius* (a Counsellor of the incorporate Town Pompeianum) was in a fair and clear Day smitten with Lightning.

CHAPTER LII.

Of Observations touching Lightning.

It is held in the Writings of the ancient Tuscans¹, that there be nine Gods that send forth Lightnings, and those of eleven Sorts: for *Jupiter* (say they) casteth three at once. The Romans have observed two of them, and no more; attributing those in the Day-time to *Jupiter*, and those of the Night to *Summanus* or *Pluto*. And these verily be more rare, for the Cause before-named; namely, the Coldness of the Air above. In Etruria, they suppose that some Lightnings break out of the Earth, which they call *Infera*, or *Infernal*; and such be made in Midwinter. And these they take to be earthly, and of all most mischievous and execrable: neither be those general and universal Lightnings, nor proceeding from the Stars, but from a very near and more troubled Cause. And this is an evident Argument for Distinction, that all such as fall from the upper Sky strike obliquely: but those which they call earthly, smite straight. But the Reason why these are thought to issue from the Earth is, because they fall from out of a Matter nearer to the Earth; forasmuch as they leave no Marks of a Stroke

¹ This people was famed for the study of prognostications from natural appearances: an art they had probably derived from Egypt or Assyria, and which the neighbouring nations learned from them. It consisted in minutely observing every unusual occurrence, and in deducing thence, according to rules known only to the proper authorities, the will of the gods, or the indications of a fixed necessity. This science is farther spoken of in the seventh book. — *Wern. Club.*

behind: which are occasioned by Force not from beneath, but coming full against. Such as have searched more closely into these Matters are of opinion that these Lightnings come from the Planet *Saturn*, as the burning Lightning from *Mars*; and with such Lightning was Volsinii (a very wealthy City of the Tuscans), entirely burnt to Ashes. The Tuscans call those Lightnings familiar which presage the Fortune of some Race, and are significant during their whole Life: and such are they that come first to any Man, after he is newly entered into his own Family. However, their Judgment is, that these private Lightnings do not portend for above ten Years: unless they happen either upon the Day of first Marriage, or on a Birth-day. Public Lightnings be not of Force above thirty Years, except they chance at the very Time that Towns or Colonies be erected and planted.

CHAPTER LIII.

Of calling out Lightnings.

It appeareth upon Record in Chronicles, that by certain Sacrifices and Prayers¹, Lightnings may be either compelled

¹ There are many proofs of imposture in these ancient ceremonies; but when modern science is able to produce some of the effects ascribed to these Etrurian priests, it seems just to conclude that they may have possessed the secret of a method of drawing the electric fluid from the sky. The danger attending a failure in the requisite proceedings, as in the case of Tullius Hostilius, would necessarily confine the practice to an instructed few; whose credit for sanctity would, therefore, be highly exalted. Ovid, in his third book of the "Fasti," obscurely intimates the acquaintance of Numa with such arts:—

"Jupiter huc veniet, valida perductus ab arte . . .
 . . . quid agant, quæ carmina dicant,
 Quoque trahant superis sedibus arte Jovem."

"To thee, by powerful art compelled,
 Shall Jupiter approach . . .

. . . . And then they tell
 What deeds, what powerful charms, the Man must use,
 To draw the God compell'd from seats above."

The secret consisted in Numa's being a scholar of Pythagoras, and studying

"Quæ sit rerum Natura."

or obtained by Entreaty. There is an ancient Report in Etruria, that such a Lightning was procured by Entreaty, when there entered into the City Volsinii (after all the Territory about it was destroyed) a Monster, which they named *Volta*. Also, that another was called forth by *Porsenna*, their King. Moreover, *L. Piso* (a Writer of good Credit) reporteth in his first Book of Annals, that *Numa* before him performed the same Act many a Time: and when *Tullius Hostilius* would have imitated him (for that he observed not all the Ceremonies accordingly), he was himself struck with Lightning. And for this Purpose, we have sacred Groves, Altars, and Sacrifices. And among the *Jupiters* surnamed *Statores*, *Tonantes*, and *Feretrii*, we have heard that one also was called *Elicius*. Men's Opinions are various concerning this Point, and every Man according to his own Liking. To believe that Nature may be compelled, is a very audacious Opinion: but it is as senseless on the other Side to make her Benefits of no effect; considering that in the Interpretation of Lightning, Science hath thus far proceeded as to foretell when they will come at a prescribed Day: and whether they will frustrate the Dangers pronounced, or rather open other Destinies, which lie hidden in innumerable public and private Experiments of both Kinds. And therefore (since it hath so pleased Nature) let some of these Things be certain, others doubtful: some proved, and others condemned. As for us, we will not omit the Rest which in these Matters are worth Remembrance.

CHAPTER LIV.

General Rules of Lightning.

THAT the Lightning is seen before the Thunderclap is heard, although they come indeed jointly together, is certain. And no Wonder, for Light is more rapid than Sound. And yet Nature doth so modulate, that the Stroke and Sound shall accord together. But when there is a Noise¹,

¹ Ovid refers to this also, as the popular opinion. But silent lightning in a clear sky was judged to be unaccountable, except as coming from the gods. Hence Horace, though disposed to the doctrines of Epicurus, found

it is a Sign of the Lightning proceeding of some natural Cause, and not sent by some God : and yet a Breath cometh before the Thunderbolt : and hereupon it is, that every Thing is shaken and blasted before it is smitten : neither is any Man struck, who either saw the Lightning before, or heard the Thunderclap. Those Lightnings that are on the left Hand are supposed to be prosperous, for that the East is the left Side of the World : but the Coming thereof is not so much regarded as the Return : whether it be that the Fire leap back after the Stroke given ; or whether after the Deed done and Fire spent, the Spirit abovesaid retire back again. In that respect the Tuscans have divided the Heaven into sixteen Parts. The first is from the North to the Sun's Rising in the Equinoctial Line : the second, to the Meridian Line, or the South : the third, to the Sun-setting in the Equinoctial : and the fourth taketh up all the Rest from the said West to the North Star. These Quarters again they have parted each into four Regions : of which eight from the Sun-rising they called the Left ; and as many again from the contrary Part, the Right. Those Lightnings are most dreadful which from the Sun-setting reach into the North : and therefore it is of much importance from whence Lightnings come, and whither they go : the best Thing observed in them, is when they return into the easterly Parts. And, therefore, when they come from that principal Part of the Sky, and return again into the same, it portends the highest Good : and such was the Sign given (by report) to *Sylla* the Dictator. In all other Parts of the World, they be less fortunate or dreadful. They believe that there be Lightnings, which to utter abroad is held unlawful ; as also is to give Ear unto them, unless they be declared either to Parents or to a Friend. How great is the Folly of this Observation was found at Rome upon the blasting of *Juno's* Temple by *Scaurus*, the Consul, who soon after was President of the Senate. It lightneth without Thunder, more in the Night

his confidence staggered by this phenomenon ; and Suetonius informs us, that it was viewed by Titus as a portent of evil to himself, just before his death ; and his spirits became proportionally depressed. — *Wern. Club.*

than by Day. Of all Creatures, Man only it doth not always kill; the Rest it despatcheth instantly. This Honour we see Nature hath given to him; whereas many great Beasts surpass him in Strength. All other Creatures smitten with Lightning fall down upon the contrary Side; Man only (unless he turn upon the Parts stricken) dieth not. Those that are smitten from above upon the Head, sink down directly. He that is struck watching, is found dead with his Eyes close shut: but whoever is smitten sleeping, is found with his Eyes open. A Man thus coming by his Death, may not by Law be burned: Religion hath taught that he ought to be buried in the Earth. No living Creature is set on Fire by Lightning, unless it is breathless first. The Wounds of them that be smitten with Lightning are colder than all the Body besides.

CHAPTER LV.

What Things are not Smitten with Lightning.

OF all those Things which grow out of the Earth, Lightning blasteth not the Bay-tree; nor doth it enter at any Time above five Feet deep into the Ground: and, therefore, Men fearful of Lightning, suppose the deeper Caves to be the most safe: or else Booths made of Skins of Beasts, which they call Sea-Calves¹; for of all Creatures in the Sea, this alone is not subject to the Stroke of Lightning: like as of all Birds, the Eagle (which for this Cause is feigned to be the Armour-bearer of *Jupiter*, for this Kind of Weapon). In Italy, between Tarracina and the Temple of *Feronia*, they gave over in Time of War to build Towers; for not one of them escaped being overthrown with Lightning.

¹ Seals (Phocæ) are the creatures here intended; and, probably, not any particular species. Suetonius informs us, that Augustus Cæsar, who was greatly afraid of thunder, was accustomed to carry the skin of a seal along with him, wherever he went. Tiberius always wore a crown of bay-leaves on his head, with the same object. — *Wern. Club.*

CHAPTER LVI.

Of strange and prodigious Rain¹, of Milk, Blood, Flesh, Iron, Wool, Tiles, and Bricks.

BESIDES these Things in this lower Region under Heaven, we find recorded on Monuments that it rained Milk and Blood when *M. Acilius* and *C. Porcius* were Consuls. And many Times beside it rained Flesh; as, namely, whilst *L. Volumnius* and *Serv. Sulpitius* were Consuls: and what of it the Fowls of the Air carried not away, never putrified. In like Manner, it rained Iron in Lucania, the Year before that in which *M. Crassus* was slain by the Parthians; and

¹ A coloured mist has been mentioned, in a note to chap. xxvii. Ruysch mentions a flight of butterflies in 1543, which sprinkled the herbage, roofs of houses, and human clothing, with drops of their dung, like blood. A similar circumstance in England, recorded by Pennius, was supposed to have presaged the plague. There are sufficient modern proofs that living fishes, frogs, and other creatures or materials, have fallen in showers: in the former instance, remote from the sea or any great river. These things can only be explained by supposing them to have been first taken up by some whirlwind, or sudden gust; and it is not unlikely that the ashes of a volcano were the materials of some of these showers. Ovid, by poetic license, accumulates all the bad omens on record or in tradition, in the alarming prognostications of the death of Julius Cæsar ("Metamorphoses," b. xv.); and it may be a principal reason why Pliny specifies the times of these occurrences, to shew that Ovid's narrative is only a poetic fiction.

The following translation of a paragraph in the "Museum Wormianum" (p. 17, *De Terris Miraculosis*), is a specimen of the manner in which such extraordinary events were regarded, even at a very modern date:—"In the year 1619, when the preposterous fashion of neck-bands, kerchiefs, and other female ornaments of linen, dyed of cerulean blue, invaded Denmark, and in spite of the remonstrances of the ministers of God obstinately persisted, by adding pride to luxury, Almighty God, that he might by all means declare how abhorrent this sin was to him, and recall mortals to repentance by a miracle, in many places of Scania rained down abundantly a kind of earth of a blue colour, very similar to a sort sold by the dealers in spices. A small quantity of this was given to me at the time by my good friend, Dr. Finckins, professor of medicine at Copenhagen, &c." It probably proceeded from Hecla.—*Wern. Club.*

together with him all the Lucani his Soldiers, of whom there were many in his Army. That which came down in this Rain resembled in some sort Sponges: and the Aruspices gave Warning to take Heed of Wounds from above. But in the Year that *L. Paulus* and *C. Marcellus* were Consuls, it rained Wool about the Castle Carissa, near to which, a Year after, *T. Annius Milo* was slain. At the Time that the same *Milo* pleaded his own Cause at the Bar, there fell a Rain of Tiles and Bricks, as is related in the Records of that Year.

CHAPTER LVII.

Of the Rustling of Armour, and the Sound of Trumpets heard from Heaven.

IN the Time of the Cimbrian Wars, we have been told that Armour was heard to rustle, and the Trumpet to sound, out of Heaven. And this happened very often, both before and after those Wars. But in the third Consulship of *Marius*, the Amerines and Tudertes saw Men in Arms in the Sky¹, rushing one against another, from the East and West; and those of the West were discomfited. That the very Firmament itself should be on Fire is no Wonder, for often it hath been seen when Clouds have caught any great deal of Fire.

CHAPTER LVIII.

Of Stones falling from the Sky².

THE Greeks greatly celebrate *Anaxagoras Clazomenius*, who, by the Learning that he had in Astronomy, foretold in

¹ This was probably the *Aurora Borealis*, or Northern Lights; a phenomenon rarely seen so far to the South. It is, perhaps, the same that is referred to by Josephus, in his narrative of the terrors sent by God before the fatal siege of Jerusalem. The account of what was seen in the county of Cumberland, immediately preceding the invasion of England by the Pretender, will shew how nearly aërial appearances may approach to realities.—*Wern. Club.*

² For a long time the fall from the sky, of what are denominated Meteorolites, was deemed too preposterous to be believed; but since the

the second Year of the Seventy-eighth Olympiad, what Time a Stone would fall from the Sun: and the same happened accordingly, in the Daytime, in a Part of Thracia, near the River Ægos; which Stone is shewed at this Day as big as a Wain-load, carrying a burnt Colour: at which Time a Comet also burned by Night. Which if any Man believe that it was fore-signified, he must needs also confess, that this fore-telling by *Anaxagoras* was more miraculous than the Thing itself: and that it destroyed the Knowledge of Nature's Works, and confounds all Things, if we should believe that either the Sun were a Stone, or that ever any Stone were in it. But, that Stones fall often, no Man will make any doubt. In the public Place of Exercise in Abydos, there is one at this Day upon the same Cause preserved, and held in great Reverence: it is but of small size, yet it is reported to be the same that *Anaxagoras* foretold to be about to fall in the midst of the Earth. There is one revered also at Cassandria, which was called *Potidæa*, a Colony from thence deducted. I myself have seen another in the Territory of the Vocantians, which was brought thither but a little before.

CHAPTER LIX.

Of the Rainbow.

THOSE which we call Rainbows, are seen often without any Wonder, or betokening Portent: for they foretel not so much

facts are no longer doubted, the instances recorded by Pliny become valuable evidences of their antiquity. A still more ancient instance is found in the Book of Joshua, x. 11, where, in the conquest of Canaan, the Lord threw down great stones from heaven on the enemy, and discomfited them. The miraculous nature of this last transaction does not remove it from the class of natural occurrences; for Nature itself is only an instrument in the hands of its Creator. With regard to the prognostication of *Anaxagoras*, it can only be taken to signify the high reputation of this philosopher; which led the public to believe that they could not attribute too much to his insight into the occurrences of Nature. There is reason to suppose that some of the images which were said to have fallen down from Jupiter (Acts of the Apostles, xix. 35) were derived from this source.—*Wern. Club.*

as rainy or fair Days, in a Manner that we can trust them. But it is manifest that the Sunbeams striking upon an hollow Cloud, when their Edge is repelled, are beaten back against the Sun: and thus ariseth a Variety of Colours by the Mixture of Clouds, Air, and fiery Light. Certainly, they never are known but opposite to the Sun; nor at any Time otherwise than in Form of a Semicircle; nor yet in the Night Season, although *Aristotle* saith¹ there was a Rainbow seen by Night: however he confesseth, that it could not possibly be but at the full of the Moon. They happen for the most Part in Winter, chiefly from the Autumnal Equinox, as the Days decrease. But as Days grow longer after the Spring Equinox, they be not seen, no more than about the Summer Solstice, when the Days are longest. But in Bruma, that is to say, when they be shortest, they appear often. The same appear aloft when the Sun is low; and below, when he is aloft. Also, they be of narrower Compass when the Sun either riseth or setteth, but their Body spreadeth broad: and at Noon they are narrower, but wider in Circumference. In Summer they be not seen about Noon, but after the Autumnal Equinox at all hours; and never more than two at once. The Rest of the same Nature, I see few Men do make any doubt of.

CHAPTER LX.

Of Hail, Snow, Frost, Mist, and Dew.

HAIL is formed of Rain, congealed into Ice: and Snow of the same Humour grown together, but not so hard. Frost is made of Dew frozen. In Winter Snows fall, and not Hail. It haileth oftener in the Daytime than in the Night; yet Hail sooner melteth by far than Snow. Mists be not seen either in Summer, or in very cold Weather. Dews shew not either in Frost or in hot Seasons, neither when there is Wind; but

¹ A rainbow by night is so far from being rare, that it is only the difference of climate that will explain why *Aristotle* and *Pliny* speak so doubtfully about it. It is usually void of colour.—*Wern. Club.*

only after a calm and clear Night. Frosts dry up moisture ; for when the Ice is thawed the like Proportion of Water is not found.

CHAPTER LXI.

Of the Shapes of Clouds.

A VARIETY of Colours and Shapes are seen in Clouds, according as the Fire intermingled therein is either more or less.

CHAPTER LXII.

Of the Properties of Weather in various Places.

MOREOVER there are many Properties of the Weather peculiar to certain Places. The Nights in Africa be dewy in Winter ; in Italy, about Locri and the Lake Velinus, there is not a Day but a Rainbow is seen. At Rhodes and Syracuse, the Air is never so cloudy, but one Hour or other the Sun shineth out. But such Things as these shall be related more fitly in due Place. Thus much of the Air.

CHAPTER LXIII.

Of the Nature of the Earth.

THE Earth followeth next : unto which alone of all Parts of the World, for her especial Benefits, we have given the reverend Name of Mother¹. For like as the Heaven is the

¹ The earth was so commonly termed *Mother* by Greek and Roman writers, in prose and verse, that it is unnecessary to refer to particular instances. And it is not to be regarded as merely a poetic metaphor or idle declamation, for it was their belief that the earliest origin of mankind was from the ground, by an inherent property ; as explained by Lucretius in his Second Book on the "Nature of Things : " so that each primitive nation arose from its own soil. And even the renewal of the earth with inhabitants after the flood, from the stones cast by Deucalion and Pyrrha, was not popularly regarded as a fable ; although it is probable that a mystical meaning was also supposed to be couched in the narrative. But by Pliny this idea of maternity was extended more widely through his adoption of the Pythagorean notion of the earth's being a living

(Mother) of God, even so is she of Men. She it is that taketh us when we are coming into the World, nourisheth us when we are new born : and once being come abroad, ever sustaineth us : and at the last, when we are rejected of all the World besides, she embraceth us : then most of all, like a kind Mother, she covereth us all over in her Bosom : by no Merit more sacred than by it, wherewith she maketh us sacred¹; even bearing our Tombs and Titles, continuing our Name, and extending our Memory against the Shortness of our Age: whose last Power we, in our Anger, wish to be heavy unto our Enemy², and yet she is heavy to none; as if we were ignorant that she alone is never angry with any Man. Waters ascend into Clouds; they harden into Hail, swell into Waves, and hasten headlong into Torrents. The Air is thickened into Clouds, and rageth with Storms. But She is bountiful, mild, and indulgent; ready at all Times to attend, as a Handmaid, upon the Good of Mortals. See what she breeds being forced! nay, what she yieldeth of her own accord! what odoriferous Smells, and pleasant Tastes! what Juices, what soft Things, what Colours! how faithfully doth she repay, with Usury, that which was credited out unto her! Finally, what Things doth she nourish for our sake! for hurtful Creatures, when the vital Breath was to blame in giving them Life, she could not refuse to receive, after they

being; and as such, feeling and producing, by a kind of intelligence, all the effects of pleasure or pain that can be ascribed to a sensitive being.
—*Wern. Club.*

¹ To few things were the ancients more sensitive than to the honour or unhappiness of interment after death. In various parts of the sacred Scriptures the exposure of the inanimate body is threatened as a dreadful calamity; as in the instance of Goliath to David (1 Sam. xvii. 44); and its infliction was felt to be a reproach, by both Israelites and Philistines, in the case of Saul (1 Sam. xxxi. 12, 13). The instance of Elpenor, in the eleventh book of the "Odyssey," and of Antigone, in the celebrated Greek play of "Sophocles," are proofs how strongly the same feeling existed in Greece. An ancient law of the Romans said: "Where the body is interred, let the spot be sacred."—*Wern. Club.*

² "*Sit tibi terra levis,*" was the earnestly expressed wish of the Romans over the ashes of their friends; and that it might lie heavy on their foes, was an equally grave denunciation.—*Wern. Club.*

were sown in her; and being once bred, to sustain them. That they proved venomous the Fault was to be laid upon the Parents that engendered them, and not to her. For she entertaineth no more a Serpent¹ after it hath stung a Man: nay, she requireth punishment for them that are slow and negligent of themselves to seek it. She bringeth forth medicinal Herbs, and evermore produces Something good for Man. Moreover, it may be believed, that in compassion to us, she appointed Poisons², that when we were weary of Life, cursed Famine (most adverse of all others to the Merits of the Earth) should not consume us with pining Consumption; that lofty Precipices should not dash our Bodies to pieces; nor the preposterous Punishment by the Halter distort our Necks, and stop that Breath which we seek to be rid of: last of all, that we might not seek our Death in the Sea, and so be Food for Fishes; nor yet the Edge of the Sword mangle our Body, and so inflict extreme Pain. It is, therefore, in Compassion to us that she hath brought forth that by which, in one gentle and easy Draught, we might die without any Hurt of our Body, and without diminishing one Drop of our Blood: without grievous Pain, and like them that be athirst: that being in this Manner dead, neither Fowl of the Air, nor wild Beast, prey upon our Bodies, but

¹ We have not met with any thing to support this strange opinion of Pliny, unless the following from Sir T. Browne's "Vulgar Errors" may be thought to do so:—"Some veins of the earth, and also whole regions, not only destroy the life of venomous creatures, but also prevent their productions."—*Wern. Club.*

² It was among the most awful of the customs of the Heathen, that suicide was resorted to by even the most excellent men, on very slight occasions. Not only are there instances where diseases of no great severity were regarded as authorising this last resource, but on the least disappointment or failure of success in a public undertaking it was considered as a point of honour, and an instance of commendable courage; of which the case of the illustrious stoic Brutus, at Philippi, is an eminent instance. Pliny seems not to have imagined that no substance in nature is really a poison, and that the plants and minerals so denominated are only injurious when wrongly or too powerfully administered; their more concentrated strength, when properly used, only rendering them the better instruments of good.—*Wern. Club.*

that he should be reserved for the Earth, who perished by himself and for himself: and, to confess the Truth, the Earth had bred the Remedy of all Miseries, however we have made it a Poison to our Life. For in the same Manner we also employ Iron, which we cannot possibly be without. And yet we should not do justly to complain, if she had brought it forth to do hurt. Surely to this only Part of Nature we are unthankful, as though she served not Man's Turn for all Dainties; not for Reproach to be misused. She is thrown into the Sea, or to let in Arms of the Sea, eaten away with Water. With Iron Tools, with Wood, Fire, Stone, Burthens of Corn, she is tormented every Hour: and all this much more for our Pleasures than to serve us with Food and Necessaries. And yet these Misusages which she abideth above, and in her outward Skin, may seem in some Sort tolerable. But we pierce into her very Bowels in search of Veins of Gold and Silver, Copper and Lead. And to seek out Gems and some little Stones, we sink Pits deep in the Ground. Thus we pluck the very Bowels from her to wear on our Finger one Gem to fulfil our Pleasure. How many Hands are worn with digging, that one Joint of our Finger may shine! Surely, if there were any infernal Spirits beneath, ere this Time these Mines (to feed Covetousness and Luxury) would have brought them above Ground. Do we wonder, then, if she hath brought forth some Things hurtful? But savage Beasts (I think) preserve her; they keep sacrilegious Hands from doing her Injury. Dig we not amongst Dragons and Serpents? and, together with Veins of Gold, handle we not the Roots of poisonous Herbs? Nevertheless, this Goddess we find the more appeased for all this Misusage, because the End of all this Wealth tendeth to Wickedness, to Murders, and Wars, and her whom we drench with our Blood, we cover also with unburied Bones. Which, nevertheless, as if she did reproach us for this Fury, she herself covereth in the End, and hideth even the Wickedness of Mortals. Among other Imputations of an unthankful Mind, I may allege this also, that we be ignorant of her Nature.

CHAPTER LXIV.

Of the Form of the Earth.

THE first Thing that offereth itself to be considered, is her Figure, in which by a general Consent we all agree. For surely we utter nothing more commonly than the round Ball¹ of the Earth; and confess that it is a Globe enclosed within two Poles. But yet the Form is not that of a perfect Globe, considering so great Height of Mountains, and such Extent of Plains; nevertheless, if the Compass thereof might be taken by Lines, the End of those Lines would meet just in Circuit, and prove the Figure to be an accurate Circle. And this the very Consideration of natural Reason doth convince, although there were not those Causes which we alleged about the Heaven. For in it the hollow Convexity declineth upon itself, and on every Side resteth upon the Centre thereof, which is that of the Earth. But this being solid and compact, ariseth as if it swelled, and is stretched without. The Heaven inclineth toward the Centre, but the Earth goeth from the Centre; whilst the World, with continual Volubility and turning about it, driveth the huge Globe thereof into the Form of a round Ball.

¹ The Egyptian Cosmogony, as delivered by Diodorus Siculus, describes the earth as "rolled within itself, and turned continually;" although a subsequent idea was founded on its being merely an extended surface, where the earth was inclosed within a field of waters, which was again encompassed with darkness and impenetrable mist. But after what Pliny has said in this, and the immediately following chapters, on the form of the earth, and the proofs he has given of its being a globe, it seems surprising that a contrary opinion should have prevailed, even to comparatively modern times; and especially among men accustomed to regard every thing delivered by the ancients as unquestionably true. This perversity can only be accounted for by having made a religious dogma of the contrary idea, on the authority of some ill-understood passages of Scripture.—*Wern. Club.*

CHAPTER LXV.

Of the Antipodes, whether there be any such. Also of the Roundness of Water.

THERE is here great Debate between learned Men ; and contrariwise of the ignorant Multitude : for they hold, that Men are overspread on all Parts upon the Earth, and stand one against another, Foot to Foot : also that the Summit of the Heaven is alike unto all : and in what Part soever Men be, they still tread after the same Manner in the midst. But the common Sort ask, How, then, it happeneth, that they who are opposite against us, do not fall into Heaven ? as if there were not a Reason also ready, That the Antipodes again should wonder why we also fell not off ? Now there is Reason that cometh between, carrying a Probability with it, even to the untaught Multitude, that in a Globe of the Earth, with many Ascents, as if its Figure resembled a Nut of the Pine Tree ; yet, nevertheless, it may be well inhabited in every Place. But what Good doth all this, when another great Wonder ariseth ? namely, that itself hangeth, and falleth not with us : as if the Power of that Spirit¹ especially enclosed in the World were doubted : or that any Thing could fall when Nature is repugnant thereto, and affordeth no Place whither to fall : for as there is no Seat of Fire, but in Fire ; of Water, but in Water ; of Air and Spirit, but in Air ; even so there is no Room for Earth but in Earth, seeing all the Elements besides are ready to repel it from them. Nevertheless, it is wonderful still how it should become a Globe, considering so great Flatness of Plains and Seas. Of which Opinion, *Dicearchus* (a Man of the first Rank in Learning,) is a Favourer ; who, to satisfy the curious Inquiry of Kings, had a Commission to take the Measure of Mountains : of which he said that Pelion, the highest, was a Mile-and-a-half high by the Plumb-line ; and collected thereby,

¹ What we now know to arise from the power of gravity, Pliny ascribes to the *Anima Mundi*, or vivifying effect of the soul of the world ; with him, an answer to all difficulties.—*Wern. Club.*

that its Proportion was Nothing in Comparison of the universal Rotundity of the Whole. But to me this was an uncertain Guess of his, since I am not ignorant that certain Tops of the Alps, for a long Tract, arise not under fifty Miles in Height.

But this is it that the common People resist the most, if they should be forced to believe that the Form of Water also gathereth itself round at the Top. And yet there is Nothing in the Nature of Things more evident to the Sight; for the Drops every where, not only as they hang, appear like little round Balls; but also if they light upon Dust, or rest upon the Down of Leaves, we see them keep a perfect Roundness. Also in Cups that are filled brimful, the middle Part in the Top swelleth most. Which Things, considering the Thinness of the Fluid, and its Softness settling upon itself, are sooner found out by Reason than the Eye. And this is more wonderful, that when Cups are filled to the full, if a very little more Liquor be added, the overplus will run over all about: but it falleth out the contrary, if you put in any solid Weights, even if it were to the Weight of Twenty Denarii. The Reason is, that Things received within, lift up the Liquor aloft to the Top, but poured upon the Tumour that beareth aloft above the Edges, it must needs glide off. The same is the Reason why the Land cannot be seen by them that stand on the Deck of a Ship, but very plainly at the same time from the Top of the Masts. Also as a Ship goeth off from the Land, if any Thing that shineth be fastened on the Top of the Mast, it seemeth to go down into the Sea by little and little, until at last it is hidden entirely. Last of all, the very Ocean, which we confess to be the utmost Bound environing the whole Globe: by what other Figure could it hold together, since there is no Bank beyond it to keep it in? And this also cometh to be a Wonder how it happeneth, although the Sea grow to be round, that the utmost Edge thereof falleth not down? Against which, if that the Seas were plain, and of the Form they seem to be, the Greek Philosophers, to their own great Joy and Glory, prove by geometrical Demonstration, that it cannot possibly be that the Water should fall. For seeing that Waters run naturally

from above to the lower Parts, and that all Men confess that this is their Nature, and no Man doubteth that the Water of the Sea hath always come on any Shore so far as the Sloping would have suffered: doubtless it appeareth, that the lower a Thing is, the nearer it is to the Centre; and that all the Lines which from thence are sent out to the next Waters, are shorter than those which from the first Waters reach to the utmost Extremity of the Sea. Hereupon the whole Water, from every Part thereof, bendeth to the Centre, and therefore falleth not away, because it inclineth naturally to the inner Parts. And this we must believe, that Nature, the Work-mistress, framed it so: to the End that the Earth, which being dry could not by itself, without some Moisture, keep any Consistence; and the Fluid, likewise, which could not abide, unless the Earth upheld it, might mutually embrace one another; the one opening all the Creeks, and the other running wholly into the other, by the Means of secret Veins within, without, and above, like Bands to clasp it; yea, and so break out at the Tops of the Hills: whither being partly carried by a Spirit, and partly expressed by the Weight of the Earth, it mounteth, as it were, in Pipes: and so far is it from Danger of falling away, that it leapeth up to the highest and loftiest Things. By which Reason it is evident, why the Seas do not increase, although so many Rivers daily run into them.

CHAPTER LXVI.

How the Water is united to the Earth.

THE Earth, therefore, in its whole Globe, is in the midst thereof hemmed in with the Sea, that flows round about it. And this needeth not to be sought out by Argument, for it is known already by Experience.

CHAPTER LXVII.

Navigation upon the Sea and great Rivers.

FROM Gades and the Pillars of *Hercules*, the whole of the West Sea is at this Day sailed over in the whole Compass of

Spain and France. But the North Ocean was for the most Part discovered, under the Conduct of *Divus Augustus Cæsar*¹, who, with a Fleet, compassed Germany, and as far as to the Cape of the Cimbrians: and from thence having viewed the vast Sea, or taken Knowledge thereof by Report, he passed to the Scythian Climate and those cold Coasts abounding with too much Moisture. For which Cause there is no likelihood, that in those Parts the Seas are at an End, where the Power of Moisture predominates. And near it, from the East, out of the Indian Sea, that whole Part under the same Clime which bendeth toward the Caspian Sea, was sailed throughout by the Macedonian Armies, when *Seleucus* and *Antiochus* reigned, who commanded that *Seleucida* and *Antiochida* should bear their Names. About the Caspian Sea, also, many Coasts of the Ocean have been discovered; and by Piecemeal, rather than all at once, the North of one Side or other hath been sailed or rowed over. But to put all out of Conjecture, there is a great Argument collected by the *Palus Mæotis*, whether it be a Gulf of that Ocean (as many have believed) or an overflowing of the same, divided from it by a narrow Piece of the Continent. In another Side of *Gades*, from the same, West, a great Part of the South Gulf, round about *Mauritania*, is at this Day sailed. And, indeed, the greater Part of it, as well as of the East, also the Victories of *Alexander* the Great encompassed on every Side, as far as to the Arabian Gulf. Wherein, when *Caius Cæsar* the son of *Augustus* warred in those Parts, the Marks are reported to have been seen remaining from the Spaniards' Shipwreck. *Hanno*, likewise, in the Time that the Power of Carthage flourished, sailed round from *Gades* to the utmost Bounds of *Arabia*², and set down that Voyage in Writing:

¹ This can only refer to an expedition, mentioned by Suetonius in his life of the Emperor Claudius, of Drusus, the son of Livia; who, while commanding in the Rhetian and German wars, was the first of the Romans that navigated the Northern Ocean.—*Wern. Club.*

² The only fragment of the geographical knowledge of the Carthaginians that has come down to our times is the "Periplus" of Hanno. It is printed in Hudson's "*Geographiæ Veteris Scriptores Græciæ*," 4 vols.

like as also *Himilco*, at the same Time, was sent out to discover the remote Coasts of Europe. Moreover, *Cornelius Nepos* writeth, that in his Time a certain *Eudoxus*¹, when he fled from King *Lathyrus*, departed out of the Arabian Gulf,

8vo. Leipsic; and has been investigated by three competent geographers. First, by Bougainville, who conceives Hanno to have reached the Gulf of Benin; next, by Major Rennell, who carries his course only to a little beyond Sierra Leone; and lastly, by M. Gosselin, who insists upon terminating it about the river Nun. According to these authorities, Pliny has greatly extended the voyage of Hanno, when he says he reached the *utmost bounds of Arabia*. Herodotus does not seem to have been informed of this voyage of Hanno, he merely says ("Melpomene," xliii.):—"The Carthaginians affirm, that they ascertained that Libya is surrounded by the sea."—*Wern. Club.*

¹ Strabo has thrown some discredit on the voyage of Eudoxus to make the circuit of Africa: but he does not seem to adduce any argument strong enough to controvert the general belief of antiquity, that repeated attempts were made by Eudoxus to explore the unknown coasts of the African continent. He was a native of Cyzicus, and employed first by Ptolemy Euergetes, and afterwards at his own instigation, in several maritime expeditions. A digest of the narratives of Strabo respecting these voyages of Eudoxus, may be seen in Murray's "Encyclopædia of Geography," p. 14.

That the circumnavigation of Africa was really accomplished, even prior to the time of Herodotus, we learn from "Melpomene," xliii. "For Libya is clearly surrounded by the sea, except so much of it as borders on Asia; this, Neco, king of the Egyptians, was the first we know of to demonstrate. That prince, having ceased his excavations for the canal leading out of the Nile into the Arabian Gulf, despatched certain natives of Phœnicia on shipboard, with orders to sail back through the Pillars of Hercules, even into the North Sea, and so make good their return into Egypt. The Phœnicians of consequence having departed out of the Erythrean Sea, proceeded on their voyage in the Southern Sea: when it was autumn, they would push ashore, and sowing the land, whatever might be the part of Libya they had reached, await the harvest time: having reaped their corn, they used to continue their voyage: thus, after the lapse of two years, having in the third doubled the Pillars of Hercules, they came back into Egypt; and stated what is not credible to me, but may be so, perhaps, to some, that in their circumnavigation of Libya they had the sun on the right. Thus was Libya first known to be surrounded by the sea."—*LAURENT'S Herodotus.*

"Herodotus," says Murray, "seems inclined to credit this information, unless on the ground of one general statement, — that they had the sun

and held on his Course as far as Gades. And *Cælius Antipater*, long before him, reporteth, that he saw the Man who had sailed from Spain to Ethiopia, in pursuit of Merchandise. The same *Nepos* maketh Report concerning the compassing about of the North, that unto *Qu. Metellus Celer* (Colleague to *C. Afranius* in the Consulship, but at that Time Proconsul in Gaul) certain Indians were given by a King of the Suevians¹, who, as they sailed out of India, for Traffic, as Mer-

on the right; which being the very thing that should have happened, and disbelieved only through his ignorance, strongly fortifies our inclination to credit the story.”—*Wern. Club.*

¹ At an early period the Phœnicians, and probably the Greeks, did not scruple to entrap, and sell for slaves, strangers and others who had never kindled their resentment. In the fourteenth book of the “*Odyssey*,” Ulysses represents himself as having narrowly escaped a snare of this kind; and as the whole narrative is an artful fiction, intended to have the appearance of truth to an Ithacan peasant, the practice of kidnapping slaves could not then have appeared incredible to any inhabitant of that island:—

“ A false Phœnician, of insidious mind,
 Versed in vile arts, and foe to humankind,
 With semblance fair invites me to his home;
 I seized the proffer (ever fond to roam):
 Domestic in his faithless roof I stay’d,
 Till the swift sun his annual circle made.
 To Libya then he meditates the way;
 With guileful art a stranger to betray,
 And sell to bondage in a foreign land:
 Much doubting, yet compell’d, I quit the strand.

* * * * *

* * * but Jove’s intent
 Was yet to save the oppress’d and innocent.”—*POPE.*

Tacitus (“*Agricola*,” cap. xxviii.) mentions an instance of shipwrecked persons having been treated as pirates, and sold into slavery. He is speaking of a cohort of the Usipians serving in Britain, who, having left the island in three light galleys, became the sport of winds and waves. In this distress they sailed round the extremity of the island, and, through want of skill in navigation, were wrecked on the Continent, where they were treated as pirates, first by the Suevians, and afterwards by the Frisians. Being sold to slavery, and in the way of commerce turned over to different masters, some of them reached the Roman settlements on the banks of the Rhine, and there grew famous for their sufferings, and the

chants, were driven by tempestuous Weather, and cast upon Germany. Thus the Seas flowing on every Side about this divided Globe, bereave us of a Part of the World: so that neither from thence hither, nor from hence thither, is there a Passage. The Contemplation of this, serving to discover the Vanity of Men, seemeth to require that I should submit to the Eye, how great this is, whatever it be; and wherein there is nothing sufficient to satisfy the Appetite of every Man.

CHAPTER LXVIII.

What Portion of the Earth is habitable.

Now, in the first Place, it seems to be computed as if the Earth were the just Half of the Globe, and that no Portion of it were cut off by the Ocean: which notwithstanding, clasping round about all the midst thereof, yielding forth and receiving again all other Waters, and what Exhalations go out into Clouds, and feeding the very Stars, so many as they be, and of such great magnitude; what a mighty Space will it be thought to take up, and how little can there be left for men to inhabit! Surely the possession of so vast a Mass must be excessive and infinite. Add to this, that of that which is left, the Heaven hath taken away the greater Part. For whereas there be of the Heaven five Parts, which they

bold singularity of their voyage.— See the “Agricola” of Tacitus, cap. xxviii., translated by Murphy.

It would even appear that such distressed strangers were deemed a proper sacrifice to the gods: Herodotus reports it as a tradition (book ii.) that when Hercules, in his journeyings, arrived in Egypt, the Egyptians crowned him with a garland, and designed to sacrifice him to Jupiter, if he had not delivered himself by his great strength. The objection of the historian to this story, on the ground of the unbloody sacrifices of the Egyptians, is sufficiently answered by the fact that they were in the habit of sacrificing red-haired men to their evil deity. Again, in his fourth book, he says, that the Taurians, a people of Scythia, were accustomed to sacrifice to a virgin all strangers that suffered shipwreck on their coast, and all Grecian sailors they were able to seize. The people of Israel, on the contrary, were commanded by their law kindly to welcome strangers; for they themselves had been strangers in a foreign land.—*Wern. Club.*

call Zones¹: all that lieth under the two utmost, on both Sides about the Poles, namely, the one which is called *Sep-
tentrion*, or the North, and the other over against it, named
the South, is overcharged with extreme Cold and perpetual
Frost. In both Zones it is always dim, and because the
Aspect of the milder Planets is diverted from thence, the
Light that is, sheweth but little, and appeareth white with the
Frost only. But the Middle of the Earth, in which the Sun
keepeth his Course, scorched and burnt with Flames, is pre-
sently parched with its hot Gleams². Those two only on
either Side, between this burnt Zone and the two frozen, are
Temperate: and even those have not a Passage one to the

¹ The poetical account of Ovid, in his "Metamorphoses," expresses the belief of the ancients in this division.—*Wern. Club.*

² Whatever acquaintance with the remote regions of the earth the Phœnicians and Carthaginians might have acquired, was concealed from the rest of mankind with mercantile jealousy; and every thing relative to the course of their navigation was not only a mystery of trade, but a secret of state. Hence the ignorance of geography manifested by Pliny and other writers, long after these celebrated voyagers had effected the circumnavigation of Africa. Polybius, whose history was written about 150 years B. C., and who was particularly distinguished by his attention to geographical researches, affirms that it was not known, in his time, whether Africa was a continued continent stretching to the south, or whether it was encompassed by the sea. Strabo mentions, indeed, the voyage of Eudoxus, but treats it as a fabulous tale: and Ptolemy, the most inquisitive and learned of all the ancient geographers, was equally unacquainted with any parts of Africa situated a few degrees beyond the Equinoctial Line; for he supposes that this great continent was not surrounded by the sea, but that it stretched, without interruption, towards the South Pole; and he so far mistakes its true figure, that he describes it as becoming broader and broader as it advances towards the South.

The notion of the ancients concerning such an excessive degree of heat in the Torrid Zone as rendered it uninhabitable, and their persisting in this error long after they began to have some commercial intercourse with several parts of India lying within the Tropics, is very extraordinary. Pliny, in this chapter, falls in with both these errors: and Cicero ("Somnium Scipionis") holds the same opinion,—and other authorities might be adduced.—See the Notes to Robertson's "History of America," where he attempts to account for the apparent inconsistency of the ancients with respect to their theory and experience.—*Wern. Club.*

other, by Reason of the burning Heat of the Planet. Thus the Heaven hath taken from the Earth three Parts: and what the Ocean hath plucked from it besides, is uncertain. And even that one Portion remaining unto us, I know not whether it be not even in greater Danger. For the same Ocean entering (as we will shew) into many Creeks, keepeth a Roaring against the other Seas within the Earth, and so near cometh unto them, that the Arabian Gulf is not from the Egyptian Sea above 115 Miles: the Caspian likewise from the Pontic no more than 375. And the same floweth between, and entereth into so many Arms, as thereby it divideth Africa, Europe, and Asia asunder. What a Quantity of the Land it taketh up may be reckoned at this Day by the Measure of so many Rivers and Marshes. Add thereto the Lakes and Pools: and take also from the Earth the high Mountains, bearing their Heads aloft into the Sky, so as hardly the Eye can reach their Heights; with the Woods and steep Descents of the Valleys, the Wildernesses, and Wilds left desert for a thousand Causes. These, so many Pieces of the Earth, or rather as most have written, this little Point of the World (for surely the Earth is nothing else in Comparison of the whole) is the only Matter and Seat of our Glory: here we seek for Honours, here we exercise our Dominion: here we covet Wealth: here all Mankind is set upon Turbulence: here we raise Wars even between Citizens of the same Country: and with mutual Murders we make more Room in the Earth. And to let pass the public Fury of Nations abroad, this is it wherein we drive out our Neighbours on our Borders, and by Stealth dig Turf from our Neighbour's Soil to put it unto our own: and when a Man hath extended his Lands, and gotten Countries to himself far and near, what a goodly deal of the Earth doth he enjoy! but if he extends his Bounds to the full of his Covetousness, what Portion thereof shall he hold when at last he is dead?

CHAPTER LXIX.

That the Earth is in the midst of the World.

THAT the Earth is in the midst of the whole World, appeareth by undoubted Reasons: but most evidently by the equal Hours of the Equinox. For, unless it were in the midst, the Instruments called *Dioptræ* have proved that Nights and Days could not be found equal: and those Instruments, above all other, confirm the same: seeing that in the Equinox, by the same Line, both Rising and Setting of the Sun are seen; but the Summer Sun rising, and the Winter setting, by their own several Lines. Which could by no means happen if the Earth resteth not in the Centre.

CHAPTER LXX.

Of the Unequal Rising of the Stars: of the Eclipse, both where and how it cometh.

THERE are three Circles closed within the Zones aforementioned, which distinguish the Inequalities of the Days: which are, the (Summer) Solstitial Tropic, from the highest Part of the Zodiac, in regard of us, toward the North Clime; and against it, another called the Winter Tropic, toward the Southern Pole: and in like Manner the Equinoctial, which goeth in the midst of the Zodiac Circle. The Cause of the rest, which we wonder at, is in the Figure of the Earth itself, which, together with the Water, is, by the same Arguments, known to be like a Globe: for so, doubtless, it cometh to pass, that with us the Stars about the North Pole never set; and those contrariwise of the South, never rise. And again, those which are here be not seen of them, by Reason that the Globe of the Earth swelleth up in the midst between. Again, Trogloditine, and Egypt bordering upon it, never see the North Pole Stars: neither hath Italy a Sight of Canopus, or that which they name *Berenice's Hair*. Likewise another, which, under the Empire of *Augustus*, men surnamed *Cæsar*

*Thronon*¹: which yet are remarkable Stars. And so evidently bendeth the Convexity of the Earth, that Canopus at Alexandria seemeth to the Beholders elevated above the Earth almost one-fourth Part of a Sign ; but at Rhodes, the same appeareth almost to touch the very Horizon, and in Pontus, where the Elevation of the North Pole is highest, it is not seen at all : yea, and this same Pole at Rhodes is hidden, but more in Alexandria. In Arabia it is all hid at the first Watch of the Night in November ; but at the second, it is visible. In Meroe, at Midsummer, in the Evening, it appeareth for a while ; but some few Days before the Rising of Arcturus it is seen with the very Dawning of the Day. Sailors, by their Voyages, come to the Knowledge of these Stars most of any other, by Reason that some Seas are opposite unto some Stars ; but others lie flat and incline forward to others : so that also those Pole Stars appear suddenly, as rising out of the Sea, which lay hidden before under the winding Compass of a Ball. For the Heaven (*Mundus*) riseth not aloft in this higher Pole, as some Men have said ; for if so, these Stars should be seen in every Place : but those that to the nearest Observers are supposed to be higher, the same seem to them afar off to be immersed in the Sea. And as this North Pole seemeth to be aloft to those that are situated directly under it, so to them that be removed so far as the other Devexity or Fall of the Earth, those abovesaid Stars rise up aloft there, while these decline downward which here were mounted on high. Which Thing could not possibly fall out but in the Figure of a Ball. And hence it is, that the Inhabitants of the East perceive not the Eclipses of the Sun and Moon in the Evening, no more than those that dwell West in the Morning : but those that be at Noon in the South they often see. At the Time that *Alexander* the Great obtained his famous Victory at Arbela, it is said that the Moon was eclipsed at the second Hour of the Night : but this Eclipse was at the Time of her Rising in Sicily. The Eclipse

¹ *Cæsar's Thronon* : a new name affixed to an old constellation by some flattering Greek ; but of which no further clue remains. The name is not found in any other writer.—*Wern. Club.*

of the Sun which happened before the Kalends of May, when *Vipsanus* and *Fonteius* were Consuls (and that was not many Years past) was seen in Campania between the seventh and eighth Hours of the Day : but *Corbulo* (a Commander then in Armenia) made Report, that it was seen there between the tenth and eleventh Hours of the same Day : which was because the Compass of the Globe discovereth and hideth some Things to some, and other to others. But if the Earth were level, all Things should appear at once to all Men ; for neither would one Night be longer than another, nor would the Day of twelve Hours appear equal to any but to those that are seated in the midst of the Earth, which now in all Parts agree together alike.

CHAPTER LXXI.

What is the Reason of the Daylight upon the Earth?

AND hence it is, that it is neither Night nor Day at one Time in all Parts of the World ; because the Opposition of the Globe bringeth Night, and the Circuit thereof the Day. This is known by many Experiments¹. In Africa and Spain there were raised by *Annibal*, high Watch-towers : and in Asia, for the Fear of Pirates, the like Help of Beacons was erected. Wherein it was observed oftentimes, that the Fires giving Warning before (which were set on Fire at the sixth Hour of the Day), were descried by them that were farthest off in Asia, at the third Hour of the Night. *Philonides*, the Courier of the same *Alexander*, despatched in nine Hours of the Day 1200 Stadia, as far as from Sicyone to Elis : and from thence again (although he went down Hill all the Way) he returned oftentimes, but not before the third Hour of the Night. The Cause was, because he had the Sun with him in his Setting out ; and in his Return to Sicyon he went against it, and ere he came home, left it in the West behind. Which is the Reason also, that they who by Daylight sail Westward in the shortest Day of the Year, pass along more Way than those who sail all the Night long at the same Time, because the others accompany the Sun.

¹ These effects of longitude are either greatly exaggerated or untrue. — *Wern. Club.*

CHAPTER LXXII.

The Gnomonic Art of the same Matter : and also of the first Dial.

ALSO the Instruments serving for the Hours will not serve for all Places : but in every 300 Stadia, or 500 at the farthest, the Shadows that the Sun casteth are changed ; and therefore the Shadow of the Style in the Dial, which they call the *Gnomon*, in Egypt, at Noon, in the equinoctial Day, is little more in length than half the Gnomon. But in the city of Rome the Shadow wanteth the ninth Part of the Gnomon. In the Town of Ancona it is longer by a thirty-fifth Part. But in that Part of Italy which is called Venice, at the same Time and Hour the Shadow and the Gnomon are of one Length.

CHAPTER LXXIII.

Where and when there be no Shadows.

IN like Manner they say, that in the Town of Syené (which is above Alexandria fifty Stadia), at Noon, in the midst of Summer, there is no Shadow : and that for Experiment thereof, a Well that was sunk in the Ground was lighted to the Bottom ; whereby it appeareth that the Sun at that Time is directly over that Place. Which also at the same Time happeneth in India, above the River Hypasis, as *Onesicritus* hath written. And it is known that in Berenice, a City of the Trogloditæ, and from thence 4820 Stadia in the same Country, at the Town of Ptolemais (which was built at first on the Border of the Red Sea, for the Pleasure of hunting Elephants), the same is to be seen forty-five Days before the Summer Solstice, and as long after : so that for the Space of ninety Days all Shadows are cast toward the South. Again, in the Island of Meroe, which is the capital Place of the Ethiopian Nation, and is inhabited 5000 Stadia from Syené, upon the River Nile, twice in the Year the Shadows disappear ; which is, when the Sun is in the eighteenth Degrees of *Taurus*, and in the fourteenth of *Leo*. In the Coun-

try of the Oretes, in India, there is a Mountain named Maleus, near which the Shadows in Summer are cast into the South, and in Winter to the North. There, for fifteen Nights only, the Constellation *Septentrio* is to be seen. In the same India, at Patales (a famous Port), the Sun riseth on the right Hand, and Shadows fall to the South. While *Alexander* was there, *Onesicritus*, an Officer of his, wrote that it was observed there, that the North Star was seen the first Part only of the Night: also that in such Places of India where there were no Shadows, the North Star did not appear: and that those Quarters were called *Ascia*¹, where they kept no Reckoning of Hours.

CHAPTER LXXIV.

Where Twice in the Year the Shadows fall in contrary Directions.

BUT throughout all Trogloditicè, *Eratosthenes* hath written, that the Shadows twice a-Year, for forty-five Days, fall in contrary Directions.

CHAPTER LXXV.

Where the Day is longest, and where shortest.

IT cometh thus to pass, that by the variable Increment of the Daylight, the longest Day in Meroe doth comprehend twelve equinoctial Hours, and eight Parts of one Hour: but in Alexandria, fourteen Hours; in Italy, fifteen; in Britain, seventeen, where, in Summer, the Nights being light, by infallible Experience shew that which Reason forceth to believe: namely, that at Midsummer, as the Sun approacheth near to the Pole of the World, the Places of the Earth lying underneath, have Day continually for six Months: and contrariwise, Night, when the Sun is remote as far as Bruma. And this, *Pythias* of Massiles hath written of Thulè², an Island distant Northward from Britain six Days' sailing; and

¹ That is, *without shadow*.

² This is judged to be Iceland. The geography of Britain will be found in the fourth book.—*Wern. Club*.

some affirm the same of Mona, which is an Island distant from Camalodunum, a Town of Britain, about two hundred Miles.

CHAPTER LXXVI.

Of the Horologium, or Dial.

THIS Understanding of Shadows, and what is named Gnomonicè, *Anaximenes* the Milesian, the Disciple of *Anaximander* above-named, discovered : and he was the first also that shewed in Lacedæmon the Horologe (or Dial¹) which they call Sciotericon.

CHAPTER LXXVII.

How the Days are observed.

THE very Day itself Men have, after divers Manners, observed. The Babylonians count for Day all the Time between two Sun-risings ; the Athenians between the Settings ; The Umbrians from Noon to Noon : but all the common Sort from Daylight until it be dark : the Roman Priests, and those that have defined a Civil Day, and likewise the Egyptians and *Hipparchus*, from Midnight to Midnight². That the Spaces between Lights are greater or less betwixt Sunrisings, near the Solstices, than the Equinoctials appeareth by this : that the Position of the Zodiac, about the Middle Parts thereof, is more oblique ; but toward the Solstice more direct.

CHAPTER LXXVIII.

The Reason of the Difference of Nations.

HEREUNTO we must annex such Things as are linked to celestial Causes. For it is beyond doubt that the Ethiopians,

¹ The Greeks were accustomed to regard as discoverers those who first made any thing known to their nation. But the dial was in use at the palace of Ahaz at Jerusalem, nearly 150 years before the time that Pliny mentions.—*Wern. Club.*

² The Jews began their day from the first appearance of stars in the evening ; believing this to mark the period when creation began to be set in order, and time to be measured.—*Wern. Club.*

by Reason of the Sun's Vicinity, are scorched with the Heat thereof, like to them that be burnt, having their Beards and Hair curled. Also, that in the opposite Climate of the World to it, in the frozen Regions, the People have white Skins, Hair growing long, and straight, and yellow; but they be fierce by Reason of the rigorous Cold: howbeit, the one, as well as the other, in this Change, are dull: and the very Legs argue the Temperature. For in the Ethiopians the Juice is drawn upward again by the Nature of Heat: but among the northern Nations the same is driven to the inferior Parts, because Moisture is apt to fall downward. Here are bred hurtful wild Beasts: but there are found Creatures of a Variety of Shapes; and especially Fowls and Birds of many Forms: they are tall of Stature, as well in one Part as the other: in the hot Regions, by occasion of the natural Tendency of Fire; in the other, through the Nourishment by Moisture. But in the Midst of the Earth there is an wholesome Mixture from both Sides; the whole Tract is fruitful for all Things, and the Habit of Men's Bodies of a balanced Constitution. In the Colour, also, there existeth a great Temperature. The Manners of the People are gentle, their Senses clear, their Capacity fertile and capable of all Things within the Compass of Nature. They also bear sovereign Rule, and sway Empires, which those uttermost Nations never had: yet true it is, that even they who are out of the Temperate Zones may not consent to be subject nor accommodate themselves unto these: for such is their savage Nature that it urgeth them to living solitary by themselves.

CHAPTER LXXIX.

*Of Earthquakes*¹.

THE Babylonians were of Opinion, that Earthquakes and Chasms, and all other Occurrences of this Nature, are occa-

¹ The definition of an earthquake is, — the transit of a wave of elastic compression in any direction, from vertically upwards, to horizontally in any azimuth, through the surface and crust of the earth, from any centre of impulse (whether producing flexure or fracture), or from more than

sioned by the Influence of the Planets : but of those three only to which they attribute Lightnings. And it is effected by the Means of their keeping their Course with the Sun, or meeting with him : and especially when this Concurrence is about the Quadratures of the Heaven. And if it be true, as it is reported, of *Anaximander*, the Milesian Natural Philosopher, his Foreknowledge of Things was excellent and worthy of Immortality : for they say he forewarned the Lacedæmonians to look well to their City and Dwelling-houses, for that an Earthquake approached ; which fell out accordingly : when not only their whole City was shaken, but also a great Part of the Mountain Taygetus, which projected like

one ; and which may be attended with tidal and sound waves, dependent upon the former, and upon circumstances of position as to sea and land.—*MALLET* : *Transactions of Royal Irish Academy*, vol. xix.

The causes, and many of the attending phenomena, are as much a matter of conjecture now as when Pliny wrote ; but he does not even deem worthy of notice the popular supposition, that the giants who had rebelled against the gods were buried beneath these mountains, where by their struggles they gave occasion to those commotions : nor that the shop of Vulcan was beneath *Etna*, of which the crater was the chimney. It is more remarkable that he makes no reference to the idea of Pythagoras (Ovid's "Metamorphoses," b. xv.), that the phenomena of volcanic eruption was a vital action of the earth, regarded as an animal ; for that the earth was such we find Pliny expressing a decided opinion. But the concluding explanation of the poet, however, was that which best suited his inquiries.

Ceremonies concerning Earthquakes.—Whilst it was a maxim of the state religion, that earthquakes were caused by the displeasure of some divinity, it was still necessary that each occurrence of such phenomenon should be fully announced by the proper officers, before the religious observances appropriate to the case could be required ; and thus was secured a guard against such alarms as might agitate the public mind, if any neglect might seem to arise. The ceremonies were by public announcement ; and they were so imperative upon all, that any one engaging in ordinary work at the time of these feriæ would be judged to have violated them. The salutation to the divine power that may have caused the shock was, "*Si Deo, si Deæ*," &c., to obviate the danger of an error regarding which god, or which sex of these deities, had caused the calamity. And this was of importance, because if a wrong name were called, so far from being pacified, the real author might become still more offended.—*From Aulus Gellius.—Wern. Club.*

the Poop of a Ship, being broken from the Rest, came down, and with the Fall covered over the other Ruins. There is reported another Conjecture by *Pherecydes*, who was the Teacher of *Pythagoras*; and the same was likewise of divine character; for, by drawing Water out of a Well he both foresaw and foretold an Earthquake there. Which, if they be true, how far off, I pray you, may such Men seem to be from God, even while they live upon Earth? But I leave these Things free for every Man to weigh according to his Judgment: and for my own Part, I suppose that, without Doubt, the Winds are the proper Cause. For the Earth never quakes but when the Sea is still, and the Weather so calm that Birds, in their flying, cannot hover in the Air; because all the Spirit which should bear them up, is withdrawn: nor yet at any Time, but after the Winds are laid; namely, when the Blast is hidden within the Veins and Caves of the Earth. Neither is this Shaking in the Earth any other Thing than is Thunder in the Cloud: nor the Chasm thereof aught else, but, like the Cleft out of which the Lightning breaketh, when the Spirit enclosed within struggleth and stirreth to go forth at Liberty.

CHAPTER LXXX.

. *Of Chasms of the Earth.*

VARIOUSLY, therefore, the Earth is shaken, and thereupon ensue wonderful Effects. In one Place the Walls of Cities are laid prostrate: in another they are swallowed up in a deep Chasm: here are cast up mighty Heaps of Earth; there are poured out Rivers of Water; sometimes Fire doth burst forth, and hot Springs: and again the Course of Rivers is turned away backward. There goeth before and cometh with it a terrible Noise: one while a Rumbling more like the lowing of Beasts: and then again it resembleth a Man's Voice, or the clattering and rustling of Armour and Weapons; according to the Quality of the Matter that receiveth the Noise, or the Fashion either of the hollow Caverns within, or the Cranny by which it passeth; whilst in a narrow Way it soundeth with a more slender Tone: and the same keepeth an hoarse Din in winding Caves; rebounding again in hard

Passages; roaring in moist Places; waving and floating in standing Waters; boiling against solid Things. And therefore, oftentimes a Noise is heard without an Earthquake: and never doth it shake after exactly the same Manner, but trembleth and vibrateth. The gaping Chink sometimes remaineth wide open, and sheweth what it hath swallowed up; and at other Times it closeth up the Mouth, and hideth all: and the Earth is brought together so again that there remain no Marks to be seen: notwithstanding many a Time it hath devoured Cities, and drawn into it a whole Tract of Country. Maritime Regions, most of all, feel Earthquakes: neither are the hilly Countries without this Calamity. I myself have known by examination, that the Alps and Apennines have oftentimes trembled. In the Autumn and Spring there happen more Earthquakes than at other Times, the same as Lightnings. And, therefore, Gallia and Egypt least of all be shaken: for in Egypt the continual Summer¹, and in Gallia the Winter, is against it. Also, Earthquakes are more rife by Night than by Day. But the greatest Shocks are in the Morning and Evening. Toward Daylight there be many: and if by Day, it is usually about Noon. They are also when the Sun and Moon are eclipsed, because then Tempests are laid to Rest: but especially, when after much Rain there followeth a great Heat; or after Heat, much Rain.

CHAPTER LXXXI.

Signs of Approaching Earthquakes.

SAILORS also perceive it by an undoubting Conjecture, when the Waves swell suddenly without any Gale of Wind, or when they feel a Shock. And then do the Things quake

¹ It has been contended that the internal actions of the earth, causing or affected by volcanic motion, are intimately connected with changes in the atmosphere and the variety of the seasons; giving rise also to epidemic diseases, both in man and animals, and even in vegetables: and on the other hand, that the actions of the earth, in earthquakes and volcanoes, are connected with what we now denominate the electric state of the atmosphere. Several coincidences of this kind have been remarked; and in either case they are applicable to Egypt above other countries.—

which are within the Ships, just as those in Houses, and with their rustling give Warning beforehand. Birds, likewise, sit not quietly without Fear. In the Sky, also, there is a Sign, for there goeth before, either in Daytime, or soon after the Sun is gone down in Serenity, a thin Streak or Line of a Cloud stretched out in great Length. Moreover, the Water in Wells¹ is more troubled than ordinary, and not without an offensive Smell.

CHAPTER LXXXII.

Helps against approaching Earthquakes.

BUT there is a Remedy for the same, such as Caverns in many Places do yield : for they discharge the Wind that was conceived there before : a Thing observed in certain Towns, which because they stand hollow, and have many Sinks dug to convey away their Filth, are less shaken. And in the same Towns, those Parts which be pendant are the safer : as is well seen in Naples, in Italy, where that Quarter thereof which is solid is subject to such Casualties. And in Houses the Arches are most safe, and the Angles of Walls, and those Posts which, in shaking, will jog to and fro every Way. Walls made of Brick or Earth take less Harm when they be shaken in an Earthquake. And a great Difference there is in the Manner of Earthquakes ; for the Motion is after many Sorts. The safest is, when Houses as they rock keep a trembling and warbling Noise : also when the Earth seemeth to swell up in rising : and again to settle down with an alternative Motion. It is harmless, also, when Houses run on End together by a contrary Stroke, and jut one against another : for the one Motion doth withstand the other. The bending downward in Manner of waving, and a rolling like to surging Billows, is that which is so dangerous ; or when the whole

¹ A consideration of the fact here expressed might have mitigated the wonder felt by Pliny at the prognostication of approaching earthquakes, referred to in chapter lxxix. Their prescience only proved a close observance of Nature by these illustrious inquirers, and how far they were in advance of the philosophy of the day.—*Wern. Club.*

Motion forceth itself to one Side. These Tremblings of the Earth give over when the Wind is vented out: but if they continue, then they cease not for forty Days: yea, and many Times it is longer, so that some of them have lasted for the Space of a Year or two.

CHAPTER LXXXIII.

Portentous Earthquakes, seen only once.

THERE happened once (which I found in the Books of Tuscan Science) within the Territory of Modena (whilst *L. Martius* and *Sex. Julius* were Consuls) a mighty Portent of the Earth: for two Mountains rushed together, and with the utmost Clamour assaulted one another, and then retired again. It fell out in the Daytime: and between them there issued flaming Fire and Smoke, mounting up into the Sky: while a great Number of Roman Knights, a Multitude of Servants, and Passers-by, stood and beheld it from the Æmilian Way. With this Conflict all the Villages upon them were dashed in Pieces; and very much Cattle that was within died therewith. And this happened the Year before the social War; which I doubt whether it were not more pernicious to the Land of Italy than the Civil Wars. That was no less wonderful a Prodigy, which was known also in our Age, in the last Year of *Nero* the Emperor (as we have shewn in his Acts), when Meadows and Olive-rows (notwithstanding the great public Road lay between) passed across into one another's Place, in the Marrucine Territory, within the Lands of *Vectius Marcellus*, a Roman Knight, Procurator under *Nero* in his Affairs.

CHAPTER LXXXIV.

Wonders of Earthquakes.

THERE happen together with Earthquakes, Inundations of the Sea; which is infused into the Earth with the same Wind, or else received into the hollow Receptacle as it settleth down. The greatest Earthquake within the Remembrance of Man, was that which happened during the Reign

of *Tiberius Cæsar*, when twelve Cities of Asia were overturned in one Night. But Earthquakes were most frequent in the Punic War, when within one Year there were announced at Rome seven-and-fifty¹. In which Year, indeed, when the Carthaginians and Romans fought a Battle at the Lake Thrasymenus, none of either army perceived the Occurrence of a great Earthquake. Neither is this a simple evil Thing, nor doth the Danger consist only in the Earthquake itself, but that which it portendeth is as bad or worse. Never did the City of Rome experience an Earthquake, but it proved a Warning of some unhappy Event to follow.

CHAPTER LXXXV.

In what Places the Seas have gone back.

THE same Cause is to be rendered of some new Piece of Ground, when the before-named Wind within the Earth, able to inflate and raise the Ground, was still not of Power sufficient to break forth and escape. For there groweth firm Land not only by that which Rivers bring in (as the Islands Echinades, which were raised up by the River Achelous; and also by the Nile the greater Part of Egypt, into which, if we believe *Homer*, from the Island Pharus there was a Course by Sea of a Day and Night's Sailing), but also by the retiring of the Sea; as the same Poet hath written of the *Circeiæ*. The like is said to have happened both in the Haven of Ambracia, for the Space of ten thousand Paces; and also in that of the Athenians for five thousand Paces, near Piræum: also at Ephesus, where formerly the Sea flowed near to the Temple of *Diana*. Indeed, if we believe *Herodotus*, it was all a Sea from above Memphis to the Ethiopian Mountains: and likewise from the Plains of Arabia. It was Sea also about Ilium, and all Teuthrania; and where the River Meander now runneth by Meadows².

¹ Announced by the augurs, and therefore a strong proof of the agitation of the public mind.—*Wern Club*.

² The records of all nations afford proof of similar facts, which are still more extensively shewn by the discoveries of modern geology. It

CHAPTER LXXXVI.

The Reason of Islands rising out of the Sea.

THERE be Lands also that are produced after another Manner, and emerge on a sudden in some Sea : as if Nature struck a Balance with herself, by giving again in one Place that which her gaping Gulfs had swallowed up in another.

CHAPTER LXXXVII.

What Islands have sprung up, and at what Times¹.

THOSE Islands, long since famous, Delos and Rhodes, are recorded to have risen out of the Sea : and afterwards, others that were less, namely, Anaphè, beyond Melos ; Nea, between Lemnus and Hellespont ; Alonè, between Lebedus and Teos ; and Thera, and Therasia, among the Cyclades ; which latter shewed in the fourth Year of the 135th Olympiad. Moreover, among the same Islands, 130 Years after, Hiera, which is the same as Automatè. And two Stadii from it, after 110 Years, Thia, in our own Time, upon the eighth Day before the Ides of July, when *M. Junius Syllanus* and *L. Balbus* were Consuls.

CHAPTER LXXXVIII.

What Lands the Seas have broken in between.

IN our own Presence, and near to Italy, between the Æolian Islands ; and also near to Crete, there was one that shewed itself with hot Fountains out of the Sea, for 1500

was a part of the teaching of Pythagoras, as we learn from Ovid (book xv.) ; and by him it seems to have been made a portion of his doctrine of the metempsychosis.—*Wern. Club.*

¹ What are denominated eruptions of elevation have occurred in various ages, and in almost every quarter of the world. The latest, and, perhaps the most precise, account, of such an elevation of an island from the bottom of the sea, is that of Graham's Island, in 1831, in the Mediterranean Sea, between Partellaria and Sciacca ; of which many particulars are given in several publications of that date : and popularly in Loudon's "Magazine of Natural History," vol. iv.—*Wern. Club.*

Paces: and another in the third Year of the 143rd Olympiad, within the Tuscan Gulf, which latter burned with a violent Wind. It is recorded, also, that when a great Multitude of Fishes floated about it, those Persons died presently that fed thereof. So they report, that in the Campain Gulf the Pithecusæ Islands appeared. And soon after, the Mountain Epopos in them (at which Time there suddenly shone out a flaming Fire from it) was laid level with the plain Country. Within the same, also, there was a Town swallowed up by the deep Sea; and in another Earthquake there appeared a standing Pool: but in another, by the Fall of some Mountains, there grew the Island Prochyta: for after this Manner, also, Nature hath formed Islands. Thus, she disjoined Sicily from Italy, Cyprus from Syria, Eubœa from Bœotia, Atalantè and Macris from Eubœa, Besbycus from Bithynia, Leucostia from the Promontory of the Syrenes¹.

CHAPTER LXXXIX.

What Islands became joined to the Main.

AGAIN, she hath taken Islands from the Sea, and joined them to the Main Land; as, for Instance, Antissa to Lesbos, Zephyria to Halicarnassus, Aëthusa to Myndus, Dromiscos and Pernè to Miletus, and Narthecusa to the Promontory Parthenius. Hybanda, once an Island of Ionia, is now distant from the Sea 200 Stadia. As for Syria, Ephesus hath it now in the midland Parts far from the Sea. So Magnesia, neighbour to it, hath Derasitas and Sophonia. Epidaurus and Oricum have ceased to be Islands.

CHAPTER XC.

What Lands have been turned wholly into Sea.

NATURE hath altogether taken away some Lands; the chief of which was where now is the Atlantic Sea, but which

¹ To this may be added, Britain from France. But, in truth, to disruptions of this kind we owe, for the most part, the present distribution of the geography of the world. — *Wern. Club.*

was formerly a Continent for a mighty Space of Ground ; if we may credit *Plato*. And soon after, in our Mediterranean Sea, all men may see at this Day how much hath been immersed ; as, Acarnania by the inward Gulf of Ambracia ; Achaia within that of Corinth ; Europe and Asia within Propontis and Pontus. And besides, the Sea hath broken through Leucas, Antirrhium, Hellespont, and the two Bosphori.

CHAPTER XCI.

What Lands have swallowed up themselves.

AND now to pass over Arms of the Sea and Lakes, the Earth hath devoured and buried herself : as, for Example, that very high Mountain, Cybotus, with the Town Curites ; Sipylus in Magnesia : and in the same Place before that, the most noble City called Tantalus : the Territories of Galanis and Gamalè in Phœnicè, together with the Cities themselves. Phogium, also, a very high Hill in Ethiopia, as if the very Shores were not to be trusted, but they also must work mischief.

CHAPTER XCII.

What Cities have been swallowed up by the Sea.

THE Sea of Pontus hath overwhelmed Pyrrha and Antyssa, about Mæotis ; and Elicè, and Bura in the Gulf of Corinth : whereof the Marks are to be seen in the deep Water. Out of the Island Cea more than 30,000 Paces of Ground were lost suddenly, with very many Men. In Sicily, also, the Sea came in and took away half the City Thindaris, and all between Italy and Sicily. The like it did in Bœotia and Eleusina.

CHAPTER XCIII.

Of the Wonders of the Land.

LET us speak no more of Earthquakes, and any Thing else of that Kind ; for we will rather speak of the Wonders

of the Earth than of the mischievous Freaks of Nature. And surely the History of celestial Things was not more hard to be related : the Wealth is such of Metals, in such Variety, so rich, so fruitful, rising still one under another, for so many Ages ; notwithstanding that daily there is so much consumed throughout the World, with Fires, Ruins, Shipwrecks, Wars, and fraudulent Practices : yea, and so much spent in luxury by so many Men living ! yet how many Sorts of Gems there be still so painted ! In precious Stones, what Variety of Colours ! and how bespotted ! And among them, the Brilliancy of some one excluding all else but Light ! The Virtue of medicinable Fountains : the continual Burning for so many Ages of Fire issuing forth in so many Places : the deadly Exhalations in some Places, either emitted from Pits when they were sunk, or else from the very Position of the Ground ; present Death in one Place to the Birds only (as at Soractè, in a Quarter near the City) ; in others, to all other living Creatures, save only Man : yea, and sometime to Men also, as in the Territories of Sinuessa and Puteoli. Which damp Holes¹, breathing out a deadly Air, some call *Charoneæ Scrobes*, or *Charon's Ditches*. Likewise in the Hirpines' Land, that of Amsanctus, a Cave near the Temple of *Mephites*, into which as many as enter die presently. After the like Manner, at Hierapolis in Asia there is another such, fatal to all except the Priest of the great Mother. In other Places there be also Caves possessing a prophetic Power : by the Exhalation of which Men are intoxicated, and so

¹ The nature of the air now denominated carbonic acid gas, which, when attempted to be inhaled, is destructive to animal life, was unknown, except in these effects, to the ancients. It is to this that the well-known Grotto del' Cane in Italy, as well as sometimes deep, moist, and stagnant pits among ourselves, owe their fatal qualities. The inhalations at Delphi were probably artificial ; and those who visited the prophetic cave of Trophonius were observed to be ever afterward affected with constitutional gloom ; which, however, might be the effect of the drugs that were given them to drink, under the name of the "Waters of the Mnemosinè." In chap. ciii. a reference is made to a natural spring producing similar effects.—*Wern. Club.*

foretell Things to come; as at Delphi, that most renowned Oracle. In which Things, what other Reason can any mortal Man assign, than the divine Power of Nature diffused through all, which breaketh forth at Times in sundry Sorts?

CHAPTER XCIV.

Of Lands always trembling.

SOME Parts of the Earth there be that tremble under Men's Feet as they go; as in the Territory of the Gabians, not far from Rome, where there be almost 200 Jugera of Ground, which tremble as Horsemen ride over them: and the same in the Territory of Reatè.

CHAPTER XCV.

Of Islands ever floating.

SOME Islands are always floating¹; as in the Country about Cæcubum, Reatè above-named, Mutina, and Statonia. Also in the Lake Vadimonis, and near the Waters Cutyliaë, there is a dark Grove, which is never seen in one Place for a Day and Night together. Moreover, in Lydia, the Isles Calaminæ are not only driven to and fro by Winds, but also many be thrust about with long Poles, which Way a Man will: a Thing that saved many a Man's Life in the War against *Mithridates*. There are other little ones also in the River Nymphæus, called Saltuares (or Dancers), because in any Concert of Musicians, they are moved at the Stroke of the Feet, as keeping their Time. In the great Lake of Italy, called Tarquiniensis, two Islands carry about with them Groves: one while appearing triangular, another while round, when they close one to the other by the Drift of Winds, but never four-square.

¹ It is believed there is something similar in the north of England.
—*Wern. Club.*

CHAPTER XCVI.

In what Lands it never raineth. Also, Wonders of the Earth, and other Elements heaped together.

PAPHOS hath in it a famous Temple of *Venus*: upon a certain Floor and Altar whereof it never raineth¹. Likewise in Nea, a Town of Troas, it never rains about the Image of *Minerva*. In the same, also, the Beasts killed for Sacrifice, if they be left there, never putrify. Near to Harpasa, a Town in Asia, there stands a craggy and awful Rock, movable with one Finger, but if you thrust it with your whole Body, it will stiffly resist². In the Peninsula of the Tauri and City Parasinum, there is a kind of Earth that healeth all Wounds. But about Assos, in Troas, there grows a Stone by which all Bodies are consumed, and thereupon it is termed *Sarcophagus*. There be two Mountains near the River Indus: the Nature of the one is to hold fast all Manner of Iron, and of the other, to reject it: and, therefore, if the Sole of a Man's Shoes be clouted with Nails, in the one of them a Man cannot pluck away his Foot, and in the other he cannot take any footing. It is noted, that in Locri and Crotonè the Pestilence was never known, nor any Danger by Earthquake. And in Lycia, after an Earthquake, it is fair Weather for forty Days. In the Territory of Arda, if Corn be sowed, it never groweth. At the Altars *Murtiæ* in the Veientian Country, and in Tusculanum, and the Wood *Cyminia*, there be certain Places, wherein whatever is pitched into the Ground can never be plucked up again. In the *Crustumini* Country all the Hay there growing is hurtful in the same Place: but if removed, it is good and wholesome.

¹ Tacitus alludes to the same circumstance, b. xviii.—*Wern. Club.*

² The Logan stone, near the Land's End, in Cornwall, is a well-known example of the same thing. The simple fact is, that a very large stone is poised very nearly on its centre of gravity, while the limit of oscillation is narrow.—*Wern. Club.*

CHAPTER XCVII.

What is the Reason of the Ebb and Flow of the Sea: and where it is that they keep no Order.

OF the Nature of Waters much hath been said; but that the Tide of the Sea should flow and ebb, is a very wonderful Thing indeed. The Manner thereof is various, but the Cause is in the Sun and Moon. Between two Risings of the Moon they flow twice and twice go back, and always in the Space of four-and-twenty Hours. And first as she riseth aloft together with the World, the Tides swell; and presently again, as she goeth from the Height of the Meridian Line and inclineth Westward, they subside: again, as she moveth from the West, under our Horizon, and approacheth to the Point contrary to the Meridian, they flow, and then they are received back into the Sea until she rise again: and never keepeth the Tide the same Hour that it did the Day before: for it giveth Attendance upon the Planet, which greedily draweth with it the Seas, and evermore riseth to Day in some other Place than it did yesterday. Nevertheless, the Tides keep just the same Times between, and hold always six Hours a-piece: I mean not of every Day and Night or Place indifferently, but only the Equinoctial. For in regard of Hours, the Tides of the Sea are unequal: forasmuch as by Day and Night the Tides are more or less one Time than another: in the Equinoctial only they are equal in all Places. A powerful Argument this is, and full of Light, to convince the Dulness of those who are of opinion, that the Planets being under the Earth lose their Power: and that their Virtue beginneth when they are above only. For they shew their Effects as well under as above the Earth, as well as the Earth which worketh in all Parts. And plain it is, that the Moon performeth her Operations as well under the Earth as when we see her visibly above: neither is her Course any other beneath than above our Horizon. But yet the Alteration of the Moon is manifold, and first every seven Days: for while she is new, the Tides be but small, until the first

Quarter : and as she groweth bigger they flow more, so that at the full they swell most of all. From that Time they become more mild : and in the first Days of the decrease unto the seventh, the Tides are equal. Again, when she is divided on the other Side they are increased. And in the Conjunction they are equal to the Tides of the full. And evidently it appeareth, that when she is Northerly and removed farther from the Earth, the Tides are more gentle than when she is gone Southerly : for then she worketh nearer Hand, and putteth forth her full Power. Every eight Years, also, and after the hundredth Revolution of the Moon, the Seas return to the Beginning of their Motions, and to the like Increase : by Reason that she augmenteth all Things by the yearly Course of the Sun : forasmuch as in the two Equinoctials they always swell most, yet more in that of the Autumn than the Spring ; but nothing to speak of in Midwinter, and less at Midsummer. And yet these Things fall not out in these very Instants of the Times which I have named, but some few Days after ; like as neither in the full nor in the change, but afterward : nor yet immediately as the Heaven either sheweth us the Moon in her rising, or hideth her from us at her setting, or as she declineth from us in the middle Climate, but later almost by two equinoctial Hours. Forasmuch as the Effect of all Influences in the Heaven reach not so soon unto the Earth, as the Eyesight pierceth up to the Heaven : as appeareth by Lightnings, Thunders, and Thunderbolts. Moreover, all Tides in the main Ocean overspread and cover much more within the Land than in other Seas : either because in the whole it is more violent than in a Part : or for that the open Greatness thereof feeleth more effectually the Power of the Planet, working forcibly as it doth widely at Liberty, than when the same is restrained within those Straits. Which is the Cause that neither Lakes nor little Rivers ebb and flow in like Manner. *Pythias* of Massiles writeth, that above Britain the Tide floweth in Height eighty Cubits. But the more inward Seas are shut up within the Lands, as in a Harbour. Nevertheless, in some Places a more spacious Liberty there is that yieldeth

to the Power [of the Moon]: for there are many Examples of those who, in a calm Sea, without Wind and Sail, by a strong Current only, have passed from Italy to Utica in three Days. But these Motions are found about the Shores more than in the deep Sea; just as in our Bodies the extreme Parts have a greater Feeling of the Beating of Arteries, or in other Words, the vital Spirits. Yet notwithstanding in many Estuaries of the Sea, because of the unequal Risings of the Planets in every Coast, the Tides are diverse, and disagreeing in Time; but not in their Cause; as particularly in the Syrtes. And yet some there be that have a peculiar Nature; as the Firth Taurominitanum, which ebbeth and floweth oftener than twice: and that other in Eubœa, called likewise Euripus, which hath seven Tides forward and back in a Day and Night. And the same Tide three Days in a Month standeth still, namely, in the seventh, eighth, and ninth Days of the Moon's Age. At Gades¹, the Fountain near the Chapel of *Hercules* is enclosed about like a Well, which sometimes riseth and falleth with the Ocean; and at other Times it doth both at contrary Seasons. In the same Place there is

¹ Cadiz, on the Atlantic coast of Spain, was founded in a very remote age by the Phœnicians, under the conduct of one of their most illustrious chiefs, Melcartus; whose name is significant of a royal race; and who has been denominated the Tyrian Hercules, from a supposition that his labours were somewhat similar to those of the son of Alcmena. The city was at this time called Gadira, and in it was a temple devoted to this first of celebrated navigators, but retaining the marks of primitive purity of worship, in having no image. (*Silius Italicus*, quoted in Cumberland's "Sanchoniatho.") The Phœnicians were accustomed to select for their colonies such islands as this Spanish peninsula then was, both for prudential and religious reasons; and the city long continued the centre of trade to the British islands and northern regions; while at the same time it was unknown to the rest of the world. There is even reason to believe, that during the Roman domiion of Europe an intercourse was maintained between Cadiz and the independent Britons — scarcely known to any beside the merchants engaged in it. From an expression of Pliny in chap. cviii. of this book, it would appear that there were at this place two pillars, properly termed the "Pillars of Hercules:" though the name has since been applied to the mountains at the entrance of the Mediterranean Sea.—*Wern. Club.*

another Spring that agrees with the Motions of the Ocean. On the Bank of Betis there is a Town, the Wells whereof, as the Tide floweth, ebb; and as it ebberh, flow; but in the intermediate Times they do not move. Of the same Nature there is one Well in the Town Hispalis; while the Rest be as others are. And the Sea Pontus evermore floweth out into Propontis, but the Sea never retireth back again within Pontus.

CHAPTER XCVIII.

Wonders of the Sea.

ALL Seas are cleansed at the full Moon; and some besides at certain Times. About Messala and Nylæ, there is thrown upon the Shore Dregs like Beasts' Dung; from which arose the Fable, that the Sun's Oxen were there kept in Stall. Hereunto addeth *Aristotle* (that I may not omit any Thing that I know), that no living Creature dieth but in the Ebb of the Sea¹. This is observed much in the Ocean of Gaul, but found only in Man by Experience.

CHAPTER XCIX.

What Power the Moon hath over Things on Earth and in the Sea.

By which it is truly guessed, that not in vain the Planet of the Moon is supposed to be a Spirit: for this is it that saturates the Earth in her approach, filling Bodies full; and in her retiring emptying them again². And hereupon it is,

¹ "I was not so curious as to entitle the stars upon any concern of his death, yet could not but take notice that he died when the moon was in motion from the meridian; at which time, an old Italian, long ago, would persuade me that the greatest part of mankind died: but herein I confess I could never satisfy my curiosity, *although from the time of tides in places upon or near the sea there may be considerable deductions*; and *Pliny hath an odd and remarkable passage concerning the death of men and animals upon the recess or ebb of the sea.*"—*Sir THOMAS BROWN'S Works, by WILKIN, vol. iv. p. 40.—Wern. Club.*

² In this, to chap. ci., is an account of the effects which were supposed to be produced by the influence of the moon on natural bodies; and that

that with her growth all Shell-fish increase : and those Creatures which have no Blood, most of all do feel her Spirit. Also, the Blood in Men doth increase or diminish with her Light ; and the Leaves of Trees and the Fodder (as shall be said in a convenient Place) feel her Influence ; which, evermore the same, pierceth effectually into all Things.

CHAPTER C.

The Power of the Sun, and why the Sea is salt.

THUS by the fervent Heat of the Sun all Moisture is dried up : for we have been taught that this Planet is masculine, burning and sucking up the Humidity of all Things. Thus the broad and spacious Sea hath the Taste of Salt sodden into it : or else it is because, when the sweet and thin Substance is drawn out of it, which the fiery Power of the Sun very easily draweth up, all the sharper and grosser Parts thereof

which was believed to be the cause of the tides requires no further remark, than that the cause and effect are acknowledged, and that the mode of influence is the only subject of error. The moon's influence in causing shell-fish and vegetables to increase and decrease, was believed by Aristotle, and maintained its place in the popular opinion until a late date. But in tropical countries it is regarded as beyond all doubt, that the bright shining of the moon has a deleterious effect on all bodies exposed to it ; and the fact is implicitly credited by many Europeans who have inquired into it. Thus, slaughtered cattle so exposed, are believed to pass into speedy putrefaction ; its influence on eyes when asleep, causes blindness, and on the head a tendency to delirium or death. The antiquity and extent of these opinions appear from Psalm cxxi. ; where the writer expresses his trust, that "the sun shall not smite thee by day, nor the moon by night." But the influence is not always hurtful : at least on vegetation ; for, in the blessing of Moses at the time of his death, on the tribe of Joseph, he speaks of "the precious things put forth by the moon" (Deut. xxxiii. 14). Dr. Prichard ("Egyptian Mythology," p. 156) says : "The idea that the moon exerts an influence favourable to propagation, is so strange and absurd, that we are at a loss to imagine how it can have arisen ; and it is truly astonishing to find that similar fictions were extended through a great part of the Pagan world. Young maids among the Greenlanders are afraid to stare long at the moon, imagining that they incur a danger of becoming pregnant." See chap. ci.—*Wern. Club.*

remain behind : and hereupon it is, that the deep Water toward the Bottom is less salt than that at the Top. And this is a truer Reason of that unpleasant Taste it hath, than that the Sea should be a Sweat issuing out of the Earth continually : or, because overmuch of the dry Element is mingled in it without any Vapour : or else because the Nature of the Earth infecteth the Waters with some strong Medicine. We find among Examples that there happened a Prodigy to *Dionysius*, Tyrant of Sicily, when he was expelled from his Power, which was : that the Sea-water, in one Day, in the Harbour became fresh.

CHAPTER CI.

Also, of the Moon's Nature.

ON the contrary, they say that the Moon is a Planet feminine, tender and nightly ; that it dissolveth Humours, drawing the same, but carrying them not away. And this appeareth evidently because that the Carcasses of wild Beasts which are slain, she putrifieth by her Influence, if she shine upon them. When Men also are found asleep, the dull Numbness thereby gathered she draweth up into the Head : she thaweth Ice, and with a moistening Breath relaxeth all Things. Thus you see how Nature's turn is served, and is always sufficient ; while some Stars thicken the Elements, and others again resolve the same. But as the Sun is fed by the salt Seas, so the Moon is nourished by the fresh Waters.

CHAPTER CII.

Where the Sea is deepest.

FABIANUS saith, that the Sea, where it is deepest, exceedeth not fifteen Stadii. Others again report, that in Pontus the Sea is of an unmeasurable Depth over against the Nation of the Coraxians, at the Place they call *Bathea Ponti*, whereof the Bottom could never be sounded at the Distance of three hundred Stadii from the Continent.

CHAPTER CIII.

The Wonders of Waters, Fountains, and Rivers.

OF all Wonders this is among the greatest, that some fresh Waters close by the Sea spring forth as out of Pipes : for the Nature of the Waters also ceaseth not from miraculous Properties. Fresh Waters are borne on the Sea, as being, no doubt, the lighter : and, therefore, the Sea-water (which naturally is heavier) beareth up whatsoever is brought into it. Also, among fresh Waters, some there be that float over others. As in the Lake Fucinus, the River that runneth into it ; in Larius, Addua ; in Verbanus, Ticinus ; in Benacus, Mincius ; in Sevinus, Ollius ; in Lemanus, the River Rhodanus. As for this River beyond the Alps, and the former in Italy, for many a Mile as they pass they carry forth their own Waters from thence as Strangers, and none other ; and the same no larger than they brought in with them. This is reported likewise of Orontes, a River in Syria, and of many others. Some Rivers again there be, which, upon an Hatred to the Sea, run under the Bottom thereof ; as Arethusa, a Fountain in Syracuse : wherein this is observed, that whatsoever is cast into it cometh up again at the River Alpheus, which, running through Olympia, falleth into the Sea-shore of Peloponnesus. There go under the Ground, and appear above the Ground again, Lycus in Asia, Erasinus in Argolica, Tigris in Mesopotamia. And at Athens, the Things that are immersed in the Fountain of Æsculapius are cast up again in Phalericus. Also in the Atinate Plains, the River that becomes buried under the Earth 20,000 Paces off, appeareth again ; as doth Timavus in the Territory of Aquileia. In Asphaltites (a Lake in Judea which produceth *Bitumen*) nothing will sink ; nor will it in Arethusa, in the greater Armenia : and the same, though it be full of Nitre, produceth Fish. In the Salentines' Country near the Town Manduria there is a Lake full to the Bank, out of which, if there be laden as much Water as you will, it decreaseth not ; nor is it augmented, though any Quantity be poured in. In a River

of the Cicones, and in the Lake Velinus in the Picene Territory, if Wood be thrown in it becomes covered over with a stony Bark. Also in Surius, a River of Colchis, the like is to be seen: insomuch that the Bark which overgroweth it is as hard as a Stone. Likewise in the River Silarus beyond Surrentum, not Twigs only that are dipped therein, but Leaves also, grow to be Stones; and yet the Water thereof otherwise is wholesome to be drunk. In the Outlet of the Reatin Marsh, a Rock groweth bigger; and in the Red Sea there be Olive-trees and other Shrubs, that grow up green. There be also very many Springs which have a wonderful Nature for their boiling Heat: and that also upon the very Mountains of the Alps; and in the Sea between Italy and Ænaria: as in the Bay Baianus, and the River Liris, and many others. For in very many Places you may draw fresh Water out of the Sea; as about the Islands Chelidoniæ and Aradus: and in the Ocean about Gades. In the hot Waters of the Patovans there grow green Herbs: in those of the Pisanes there breed Frogs: and at Vetulonii in Etruria, not far from the Sea, Fishes also are bred. In the Territory Casinas there is a River called Scatebra, which is cold, and in Summer Time more abounding in Water than in Winter: in it, as also in Stymphalis of Arcadia, there are brought forth River Mussels. In Dodonè, the Fountain of *Jupiter* being exceedingly chill, quencheth lighted Torches when dipped therein; but if you hold the same near it when they are extinguished, it setteth them on Fire again. The same Spring at Noontide evermore wanteth Water, for which Cause they call it *Anapavomenos*: by and by it beginneth to rise until it be Midnight, and then it hath great Abundance: and from that Time again it subsideth by little and little. In Illyricum there is a cold Spring, over which, if there be spread any Clothes, they catch Fire and burn. The Fountain of *Jupiter Ammon* in the Daytime is cold, and all Night it is boiling hot. In the Troglodytes Country there is a Fountain of the Sun, called the Sweet Spring, which about Noon is exceeding cold; but by and by and gradually it

groweth warm, and at Midnight it is offensive for Heat and Bitterness. The Fountain of the Po, at Noon in Summer, intermitteth to boil, and is then ever dry. In the Island Tenedos there is a Spring, which, after the Summer Solstice, evermore from the third Hour of the Night to the sixth, doth overflow. And in the Island of Delos, the Fountain Inopus falleth and riseth after the same Sort as the Nile doth, and together with it. Over against the River Timavus there is a little Island in the Sea, having hot Springs, which ebb and flow in Time and Manner as the Tide of the Sea. In the Territory of the Pitinates, beyond the Apennines, the River Novanus, at every Midsummer Time, is in Flood; but in Midwinter is dry. In the Faliscan Country the Water of the River Clitumnus maketh the Cattle white that drink of it. And in Bœotia, the River Melas maketh Sheep black: Cephyssus running out of the same Lake, causeth them to be white: and Penius, again, giveth them a black Colour: but Xanthus, near to Ilium, coloureth them reddish; and hereupon the River took that Name. In the Land of Pontus there is a River that watereth the Plains of Astacè, upon which, those Mares that feed give black Milk for the Food of that Nation. In the Reatin Territory there is a Fountain called Neminia, which, according to its issuing forth out of this or that Place, signifieth the Change in the Price of Victuals. In the Haven of Brundusium there is a Well that yieldeth to Sailors Water which will never corrupt. The Water of Lincestis, called Acidula (or Sour), maketh Men drunken no less than Wine. Also, in Paphlagonia, and in the Territory of Cales. Also in the Isle of Andros there is a Fountain in the Temple of Father *Bacchus*, which upon the Nones of January always runneth with Water that tasteth like Wine; as *Mulianus* verily believeth; who was a Man that had been thrice Consul: the Name of the Spring is Dios Tecnosia. Near Nonacris, in Arcadia, is the River Styx; differing from the other Styx neither in Smell nor Colour: drink of it once, and it is present Death. Also, in Berosus (an Hill of the Tauri), there be three Fountains, the

Water whereof whosoever drinketh is sure to die of it, remediless, and yet without Pain. In a Country of Spain, called Carrinensis, two Springs run near together, the one rejecting and the other swallowing up all Things. In the same Country there is another Water which sheweth all Fishes within it of a golden Colour; but if they be taken out of that Water, they be like other Fishes. In the Cannensian Territory, near the Lake Larius, there is a large Fountain, which every Hour continually swelleth and falleth down again. In the Island Sidonia, before Lesbos, there is a hot Fountain that runneth only in the Spring. The Lake Sinnaus, in Asia, is infected with the Wormwood growing about it. At Colophon, in the Cave of *Apollo Clarius*, there is a Channel with Water: they that drink of it foretell strange Things like Oracles; but they live the shorter Time for it. Rivers running backward even our Age hath seen in the latter Years of the Prince *Nero*, as we have related in the Acts of his Life. Now, that all Springs are colder in Summer than Winter, who knoweth not? as also these wondrous Works of Nature, that Brass and Lead in the Lump sink down in Fluid, but if they be spread out into thin Plates they float: and let the Weight be all one, yet some Things settle to the Bottom; and others, again, are borne above: that heavy Burdens be removed with more Ease in Water. Likewise that the Stone *Thyrreus*, however large, doth swim when entire: but broken into Pieces, it sinketh. Bodies newly dead fall to the Bottom of the Water, but when swollen they rise again. Empty Vessels are not so easily drawn out of the Water as those that be full: Rain-water for Salt-pits is more profitable than any other: and Salt cannot be made unless fresh Water be mingled: Sea-water is longer before it freezes, but it is sooner made hot. In Winter the Sea is hotter, and in Autumn salter. The whole Sea is made still with oil: and therefore the Divers under the Water scatter it with their Mouths, because it allayeth the rough Nature thereof, and carrieth a Light with it. No Snows fall where the Sea is deep. And, whereas all Water runneth downward, yet Springs leap up; even at the very Foot of *Ætna*, which burneth so far as that

for fifty, and even an hundred, Miles, Balls of Fire cast out Sand and Ashes¹.

CHAPTER CIV.

The Wonders of Fire and Water jointly together, and of Maltha.

Now let us relate some Wonders of Fire also, which is the fourth Element of Nature. But first, out of Waters. In a City of Comagenè, named Samosatis, there is a Pond yielding forth a burning, slimy Mud (called Maltha²). When it meeteth with any Thing solid it sticketh to it; and if it be touched it followeth them that flee from it. By this means the Townsmen defended their Walls when *Lucullus* assaulted it; and his Soldiers were burned in their own Armour. It burns even in Water. Experience hath taught, that Earth only will quench it.

CHAPTER CV.

Of Naphtha.

OF the like Nature is Naphtha: for so is it called about Babylonia, and in the Austacenes' Country in Parthia; and it runneth in the Manner of liquid Bitumen. There is great Affinity between Fire and it; for Fire is ready to leap unto it immediately, if it be near it. Thus (they say) *Medea* burnt her Husband's Concubine, by Reason that her Crown anointed therewith was caught by the Fire after she had approached to the Altars with the Intention to sacrifice³.

¹ Many of the phenomena here related are merely exaggerations of the truth; and many, however strange, are easily explained: as the intermitting springs, and those which kindle into fire: the latter owing this property either to the extrication of hydrogen gas or naphtha.—*Wern. Club.*

² This is evidently a natural mineral pitch; to which the artificial substance bearing the same name, and described in b. xxxvi. c. 24, could only have been similar in its effects, especially of combustion.—*Wern. Club.*

³ There are many things in the history of *Medea* which shew her to have been a skilful chemist, and possessed of a high degree of knowledge of the science of the age in which she lived.—*Wern. Club.*

CHAPTER CVI.

Of Places continually burning.

BUT amongst the Wonders of Mountains, Ætna burneth always in the Nights : and for so long Continuance of Time yieldeth sufficient Matter to maintain those Fires : in Winter it is full of Snow, and covereth the Ashes cast up with Frosts. Neither in it alone doth Nature rage, threatening the consuming of the whole Earth by Fire. For in Phaselis the Mountain Chimæra likewise burneth, and that with a continual Fire both Night and Day : *Ctesias* of Gnidos writeth, that the Fire thereof is inflamed with Water, but quenched with Earth. In the same Lycia the Mountains Hephæstii being touched with a flaming Torch, do so burn that the very Stones of the Rivers and the Sand in the Waters are set on Fire ; and the same Fire is maintained with Rain. They report that if a Man make a Furrow with a Staff that is set on Fire by them, there follow Gutters of Fire. In the Bactrians' Country, the Top of the Cophantus burneth by Night. Amongst the Medians, also, and the Cæstian Nation, the same Mountain burneth : but principally in the Confines of Persis. At Susis, indeed, in a Place called the White Tower, the Fire proceeds out of fifteen Chimneys, and the greatest of them, even in the Daytime, carrieth Fire. There is a Plain about Babylonia¹, in Manner of a Fish-pond, which, for the Quantity of an Acre, burneth likewise. Also, near the Mountain Hesperius in Ethiopia, the Fields in the Night-time shine like Stars. The like is to be seen in the Territory of the Megapolitans, although the Field there be pleasant within, and not burning the Boughs of the thick Grove above it. And near a warm Spring the hollow,

¹ These natural fires were objects of idolatrous veneration by the inhabitants of this country, from a very early period : and opinions of a similar nature have continued in the East to the present day. Zoroaster, if not the author, is believed to have been the great reformer of this doctrine ; which by some is supposed to have had its origin in times before the Flood.—*Wern. Club.*

burning Cavity, called Crater Nymphæi, always portendeth some fearful Misfortunes to the Apollonians, the Neighbours thereby, as *Theopompus* hath reported. It increaseth with Showers of Rain, and casteth out Bitumen, to be compared with that Fountain or Water of Styx that is not to be tasted; otherwise weaker than all Bitumen besides. But who would wonder at these Things? In the Midst of the Sea, Hieræ, one of the Ætolian Islands near to Italy, burned together with the Sea for certain Days together, during the Time of the social War, until a Legation of the Senate made Expiation. But that which burneth with the greatest Fire is a Hill of the Ethiopians called Theónochema; which sendeth out the fiercest Flames in the hottest Sunshine. In so many Places with so many Fires doth Nature burn the Earth.

CHAPTER CVII.

Wonders of Fires by themselves.

MOREOVER, since the Nature of this Element of Fire alone is to be so fruitful, that it produceth itself, and groweth from the least Sparks, what may be thought will be the End of so many funeral Fires of the Earth¹? What a Nature is that which feedeth the most greedy Voracity in the whole World without Loss of itself? Add thereto the infinite Number of Stars, the immense Sun; moreover, the Fires in Men's Bodies, and those that are inbred in Stones; the Attrition, also, of certain Woods one against another; yea, and those within Clouds, the Original of Lightnings. Surely it exceedeth all Miracles that any one Day should pass in which all Things are not set on Fire, when the concave Mirrors also, set opposite to the Sunbeams, set Things a-burning sooner than any other Fire. What should I speak of innu-

¹ This natural, but awful, inquiry, is best answered in the words of the apostle Peter, 2nd Epist. iii. 7:—“But the heavens and the earth which are now, by the same word are kept in store, reserved unto fire against the day of judgment and perdition of ungodly men.”—*Wern. Club.*

merable small Matters, which naturally are poured out in Abundance? In Nymphæum there cometh a Flame out of a Rock, which is set a-burning with Rain. There is the like at the Waters called Scantiæ. But this is but feeble when it passeth, neither endureth it long in any other Matter. There is an Ash-tree covering this fiery Fountain, which, notwithstanding, is always green. In the Territory of Mutina, there riseth up Fire also, upon Days devoted to *Vulcan*. It is found written, that if a Coal of Fire fall upon the arable Fields under Aricia, the Soil presently is on Fire. In the Sabines Territory, as also in that of the Sidicines, Stones anointed will be set on Fire. In a Town of the Salentines, called Egnatia, if Wood be laid upon a certain hallowed Stone there, it will immediately flame out. Upon the Altar of *Juno Lacinia*, standing in the open Air, the Ashes lie immovable, blow what stormy Winds that will on every Side. Besides, there be Fires that suddenly arise, both in Waters and even about the Bodies of Men. *Valerius Antias* reporteth, that the Lake Thrasymenus once burned all over: also, that when *Servius Tullius*, in his childhood, lay asleep, a Flame shone out of his Head¹: likewise, as *L. Martius* made an Oration to the Army after the two *Scipios* were slain in Spain, and exhorted his Soldiers to revenge their Death, his Head was, in like Manner, in a Flame. More of this, and more distinctly, will we write by-and-by. For now we exhibit the Wonders of all Things intermingled together. But my Mind being passed beyond the Interpretation of Nature, hasteneth to lead, as it were, by the Hand, the Minds of the Readers throughout the whole World.

¹ There are instances in modern, as well as in ancient times, of such luminous appearances proceeding from the human body: most commonly when it is in a state of emaciation or chronic disease. Its cause is, the excretion of phosphoric vapour mixed with the perspiration. This luminous appearance has been largely interpreted by superstition.—*Wern. Club.*

CHAPTER CVIII.

The Measure of the whole Earth in Length and Breadth.

THIS our Part of the Earth of which I speak, floating, as it were, within the Ocean (as hath been said), lieth out most in Length from East to West, that is, from India to the Pillars of *Hercules*, consecrated at Gades: and as my Author, *Artemidorus*, thinketh, it containeth 8578 Miles. But, according to *Isidorus*, 9818. *Artemidorus* addeth, moreover, from Gades within the Circuit of the sacred Promontory to the Cape Artabrum, where the Front of Spain beareth out furthest, in Length 891 Miles. This Measure runneth two Ways. From the River Ganges and the Mouth thereof, where it dischargeth itself into the East Ocean, through India and Parthyenè to Myriandrum, a City of Syria, situated upon the Gulf of Isa, 5215 Miles. From thence by the nearest Voyage, to the Island Cyprus, to Patara in Lycia, Rhodes, and Astypatæa (Islands lying in the Carpathian Sea), to Tænarus in Laconia, Lilybæum in Sicily, Calaris in Sardinia, 3450 Miles. Then to Gades 1450 Miles. Which Measures being put together, make, from the said Sea, 8578 Miles. The other Way, which is more certain, lieth most open by Land, from Ganges to the River Euphrates, 5021 Miles. From thence to Mazaca, in Cappadocia, 244 Miles; and thence through Phrygia and Caria to Ephesus, 498 Miles. From Ephesus, through the Ægean Sea, to Delos, 200 Miles. Then to Isthmus, 212 Miles. From thence by Land, and by the Laconian Sea and the Gulf of Corinth, to Patræ in Peloponnesus, 202½ Miles: to Leucas, 86½ Miles, and as much to Corcyra. Then to Acroceraunia, 132½ Miles: to Brundusium, 86½ Miles: so to Rome, 360 Miles. Then to the Alps, as far as the Village of Cincomagus, 518 Miles. Through Gaul to the Pyrenean Mountains, unto Illiberis, 556 Miles; to the Ocean and Sea-coast of Spain, 332 Miles. Then the Passage over to Gades, 7½ Miles. Which Measure, by *Artemidorus*' Estimation, maketh in all 8685 Miles. Now

the Breadth of the Earth, from the Meridian Point to the North, is collected to be less almost by One-half; that is, 5462 Miles. Whereby it appeareth plainly, how much of the one Side the Heat of Fire, and on the other Side frozen Water hath stolen away. For I am not of opinion that the Earth goeth no further than this; for then it would not have the Form of a Globe; but that the Places on either Side be uninhabitable, and therefore not discovered. This Measure runneth from the Shore of the Ethiopian Ocean, where now it is inhabited, to Meroe, 550 Miles. From thence to Alexandria, 1240 Miles; to Rhodes, 583 Miles; to Gnidus, 84½ Miles; to Cos, 25 Miles; to Samus, 100 Miles; to Chius, 84 Miles; to Mitylenè, 65 Miles; to Tenedos, 28 Miles; to the Promontory Sigæum, 12½ Miles; to the Mouth of Pontus, 312½ Miles; to Carambis, the Promontory, 350 Miles; to the Mouth of Mæotis, 312½ Miles; to the Haven of Tanais, 265 Miles: which Voyage may be made shorter (with the Vantage of sailing directly) by 89 Miles. From the Haven of Tanais, the most diligent Authors have set down no Measure. *Artemidorus* was of opinion, that all beyond was not discovered, allowing that about Tanais the Sarmatian Nations inhabit; who lie to the North. *Isidorus* hath added hereto 1200 Miles, as far as to Thulè: which is grounded upon bare Conjecture. I understand that the Borders of the Sarmatians are known to have no less an Extent than this last-mentioned cometh to. And otherwise, how much must it be that would contain such innumerable Nations, shifting their Seats every now and then. Whereby I judge that the Over-measure of the Clime inhabitable is much greater. For I know certainly, that from Germany very great Islands have been discovered not long since. And thus much of the Length and Breadth of the Earth, which I thought worth the writing. Now the universal Circuit thereof, *Eratosthenes*, who was learned in all Kind of Literature, and in this Knowledge better qualified than others; and whom I see of all Men approved, hath set down to be 252,000 Stadia. This Measure, by the Romans' reckoning, amounteth to 31,500 Miles. A wondrous bold Attempt! but

yet so exquisitely calculated, that it were a Shame not to believe him. *Hipparchus*, a wonderful Man, both for convincing him, and for all his other Diligence, addeth more-over little less than 25,000 Stadia.

CHAPTER CIX.

The harmonical Measure of the World.

ANOTHER Kind of Faith may be given to *Dionysodorus*; for I will not withhold a very great Example of Grecian Vanity. This Man was a Melian, famous for his Skill in Geometry: he died very aged in his own Country: his near Kinswomen, who were his Heirs, solemnised his Funerals. These Women, as they came some few Days after to perform the Obsequies thereto belonging, are said to have found in his Monument an Epistle of this *Dionysodorus*, written in his own Name, To them above; to this Effect: that he had gone from his Sepulchre to the Bottom of the Earth, and that it was thither 42,000 Stadia. Neither wanted there Geometricians who made this Interpretation, that this Epistle was sent from the Centre of the Earth; to which Place downward from the uppermost, the Way was longest; and the same was just half the Diameter of the Ball: whereupon followed this Computation, that they pronounced the Circuit to be 255,000 Stadia. The harmonical Proportion which forceth this Nature of Things to agree unto itself, addeth unto this Measure 7000 Stadia, and maketh the Earth to be the 96,000th Part of the whole World.



IN THE THIRD BOOK

ARE COMPREHENDED THE

REGIONS, NATIONS, SEAS, TOWNS, PORTS, MOUNTAINS, RIVERS,
WITH THEIR MEASURES, AND PEOPLE, EITHER AT THIS
DAY KNOWN, OR IN TIMES PAST ;
AS FOLLOWETH :—

CHAP.

1. Of Europe.
2. The Length and Breadth of Bœtica (a Part of Spain, containing Andalusia, and the Realm of Grenada).
3. That nearer Part of Spain (called by the Romans Hispania Citerior).
4. The Province of Narbonensis (wherein is Dauphinè, Languedoc, and Provence).
5. Italy, Tiberis, Rome, and Campania.
6. The Island Corsica.
7. Sardinia.
8. Sicily.
9. Lipara.
10. Of Locri, and the Frontiers of Italy.

CHAP.

11. The second Gulf of Europe.
12. The fourth Region of Italy.
13. The fifth Region.
14. The sixth Region.
15. The eighth Region.
16. Of the River Po.
17. Of Italy beyond the Po, counted the eleventh Region.
18. Venice, the tenth Region.
19. Of Istria.
20. Of the Alps, and Alpine Nations.
21. Illyricum.
22. Liburnia.
23. Macedonia.
24. Noricum.
25. Pannonia and Dalmatia.
26. Mœsia.

In this Book are described twenty-six Islands within the Adriatic and Ionian Seas: their principal Cities, Towns, and Nations. Also the chief and famous Rivers: the highest Hills: particular Islands: Towns and Countries that have perished. In Sum, here are comprised Histories and Observations to the Number of 326.

LATIN WRITERS ABSTRACTED :

Turanus Graccula, Cor. Nepos, T. Livius, Cato Censorius, M. Agrippa, M. Varro, Divus Augustus the Emperor, Varro Attacinus, Antias, Hyginus, L. Vetus, Mela Pomponius, Curio the Father, Cælius Aruntius, Sebosus, Licinius Mutianus, Fabricius Thuscus, L. Atteius Capitò, Verrius Flaccus, L. Piso, C. Ælianus, and Valerianus.

FOREIGN AUTHORS :

Artemidorus, Alexander Polyhistor, Thucydides, Theophrastus, Isidorus, Theopompus, Metrodorus Scepsius, Callierates, Xenophon, Lampsacenus, Diodorus Syracusanus, Nymphodorus, Calliphanes, and Timagenes.



THE THIRD BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY
C. PLINIUS SECUNDUS.

THE PREFACE.



HITHERTO we have written of the Position and Wonders of the Earth, Waters, and Stars: also of the Proportion and Measure of the whole World. Now we proceed to the Parts thereof; although this also be judged an infinite Piece of Work, and not lightly to be handled without some Reprehension: and yet in no kind of Enterprise is Pardon more due; since it is little Wonder, if he who is born a Man knoweth not all Things belonging to Man. And therefore, I will not follow one Author particularly, but every one as I shall think him most true in each Part. Because it hath been common, in a Manner, to them all, to describe the Situations of those Places most exactly, from whence themselves proceeded: and, therefore, neither will I blame nor reprove any Man. The bare Names of Places shall be simply set down; and that with as much Brevity as I can: the Excellency, as well as the Causes, being deferred to their several Treatises: for now the Question is touching the Earth in general. And, therefore, I would have Things to be taken as if the Names of Countries were put down void of Renown, and such only as they were in the Beginning,

before any Acts were done ; and as if they had indeed an Enduement of Names, but respective only to the World and Nature of Things.

The whole Globe of the Earth is divided into three Parts, Europe, Asia, and Africa. The Beginning we take from the West and the Straits of Gades, where the Atlantic Ocean breaking in, is spread into the inland Seas. Entering there, Africa is on the right Hand, Europe on the left, and Asia between them. The Bounds confining these are the Rivers Tanais and Nilus. The Mouth of the Ocean of which I spoke lyeth out in Length fifteen Miles, and in Breadth five, from a Village in Spain called Mellaria to the Promontory of Africa called the *White*, as *Turannius Graccula*, who was born there, writeth. *T. Livius* and *Nepos Cornelius* have reported, that the Breadth, where it is narrowest, is seven Miles, and ten Miles where it is broadest. From so small a Mouth spreadeth so vast an Expanse of Waters ; nor doth such exceeding Depth lessen the Wonder. In the very Mouth of it are many Shelves of white Sands, to the great Terror of Ships passing that Way. And therefore, many have called those Straits the Entry of the Mediterranean Sea. Near to the Sides of this Gullet, are set two Mountains, one on each Side, as Barriers to shut all in : which are, Abila for Africa, and Calpè for Europe, the Limits of the Labours of *Hercules*. For which Cause, the Inhabitants of those Parts call them the Pillars of that God ; and they believe, that by Ditches digged within the Continent, the Ocean, before excluded, was let in ; and so the Face of the Earth was changed.

CHAPTER I.

*Of Europe*¹.

AND first, of Europe, the Nurse of that People which is the Conqueror of all Nations ; and of all Lands by many

¹ This claim of superiority is advanced by the Roman, in the consciousness of his country's power and greatness ; and although 1800 years

Degrees the most beautiful : which many rightly have made not the third Portion of the Earth, but the half, the whole Globe being divided into two Parts : from the River Tanais to the Straits of Gades. The Ocean, then, at this Space abovesaid entereth into the Atlantic Sea, and with a greedy Current drowneth those Lands which dread his coming ; but those Shores that resist, with its windings it eateth and holloweth continually, excavating many Creeks in Europe, wherein four remarkable Gulfs are to be seen.

Of these the first, from Calpè, the remotest Promontory (as is abovesaid) of Spain, is bent with an exceeding great Compass, to Locri ; and as far as the Promontory Brutium. Within it lieth Spain, the first of Lands ; that Part, I mean, which, in regard of Rome, is the further off, and is named also Bœtica. And presently from the End of Virgitanus, the hither Part, otherwise called Tarraconensis, as far as the Pyrenean Mountains. That further Part is divided into two Provinces through the Length : for on the North Side of Bœtica lieth Lusitania, divided from it by the River Ana.

This River beginneth in the Territory Laminitanus of the nearer Spain, one while spreading out itself into Pools, then again gathering into narrow Brooks : or altogether hidden under Ground, and taking Pleasure to rise up oftentimes, falleth into the Atlantic Ocean. But the Part named Tarraconensis, lying close to the Pyrenean Mountain and running along all the Side thereof, and, at the same Time, stretching out itself across from the Iberian Sea to the Gallic Ocean, is separated from Bœtica and Lusitania by the Mountain

have passed, and that greatness has departed like a dream, European superiority still exists. A prophecy from the remotest ages (Gen. ix. 27) — delivered under circumstances in which its fulfilment was exceedingly unlikely — has proclaimed, that the God whom Pliny did not know shall enlarge Japhet, the father of European nations ; — that he shall dwell in the tents of Shem, and Canaan shall be his servant. And, accordingly, we see the inhabitants of Europe spreading out, and exerting a mastery, in the most distant climes ; in the strength of their superiority in the arts of life, in science, the freedom of their political institutions, and, above all, in religion. The superiority must continue so long as this foundation of it shall exist. *Esto perpetua.* — *Wern. Club.*

Salarius and the Cliffs of the Oretanes, Carpetanes, and Asturians.

Bœtica, so called from the River Bœtis, that cutteth it in the midst, excelleth all the other Provinces in Produce, and a certain plentiful and peculiar Beauty. Therein are held four judicial Assemblies; the Gaditan, Cordubian, Astigitan, and Hispalensian. All the Towns in it are in (Oppida) Number 175; whereof eight are Colonies; free Boroughs (Municipia), eight; Towns endued with the ancient Franchises of Latium, twenty-nine: with Freedom, six; Confederate, four; Tributary, 120. Of which those that be worth the naming, or are more current in the Latin Tongue, be these underwritten: from the River Ana the Coast of the Ocean, the Town (Oppidum) Ossonoba, surnamed also Lusturia. Two Rivers, Luxia and Urium¹, run between the Mountains Ariani: the River Bœtis: the Shore Corensè: with a winding Creek. Over against which lieth Gades, to be spoken of among the Islands. The Promontory of *Juno*: the Haven Besippo. The Towns Belon and Mellaria. The Straits out of the Atlantic Sea. Carteia, called Tertessos by the Greeks; and the Mountain Calpè. Then, within the Shore, the Town Barbesula, with the River. Also, the Town Salbula; Suel-Malacha, with the River of the Confederates. Next to these, Menoba, with a River: Sexi-firmum, surnamed Jùlium: Selaubina, Abdera, and Murgis, the Frontier of Bœtica. All that Coast *M. Agrippa* thought to have had their Beginning from the Carthaginians (Pœni). From Ana there lieth against the Atlantic Ocean, the Region of the Bastuli and the Turduli.

M. Varro saith, that there entered into all Parts of Spain, the Iberians, Persians, Phœnicians, Celts, and Carthaginians (Pœni): for *Lusus*, the Companion of Father *Liber*, or *Lyssa*, (which signifieth the frantic Fury of those that raged with him), gave the Name to Lusitania; and *Pan* was the Governor of it all. But those Things which are reported of *Hercules* and *Perenè*, or of *Saturn*, I think to be fabulous

¹ These rivers are now called Odier and Tinto.

Tales in a high Degree. Bœtis, in the Tarraconensian Province, rising, not as some have said, at the Town Mentesa, but in the Forest Tugrensis, which the River Tader watereth, as it doth the Carthaginian Country at Ilorcum¹, shunneth the Funeral Pile of *Scipio*: and, turning into the West, maketh toward the Atlantic Ocean, adopting the Province, is at first small, but receiveth many other Rivers, from which it taketh away both their Fame and their Waters. And first being entered from Ossigitania into Bœtica, running gently with a pleasant Channel, it hath many Towns, both on the left Hand and the right, seated upon it. The most famous between it and the Sea-coast, in the Mediterranean, are Segeda, surnamed Augurina: Julia, which is also called Fidentia: Virgao, otherwise Alba: Eburæ, otherwise Cerealis: Illiberi, which is also Liberini: Ilipua, named likewise Laus. Artigi, or Julienses: Vesci, the same as Faventia: Singilia, Hegua, Arialdunum, Agla the Less, Bæbro, Castra Vinaria, Episibrium, Hipponova, Ilurco, Osca, Escua, Succubo, Nuditatum, Tucci the Old, all which belong to Bastitania, lying toward the Sea. But within the Jurisdiction of Corduba, about the very River standeth the Town Ossigi, which is surnamed Laconicum: Illiturgi, called also Forum Julium: Ipasturgi, the same as Triumphalè; Sitia: and fourteen Miles within the Country, Obulco, which is named Pontificensè. And presently Ripepora, a Town of the Confederates, Sacili, Martialum, Onoba. And on the right Hand Corduba, surnamed Colonia Patritia: and then beginneth Bœtis to be navigable. The Towns Carbulo, Decuma, the

² The river makes a bend to avoid the funeral pile of *Cneius Scipio*, concerning the manner of whose death there is some difference of opinion. Apianus, in "Iberic," p. 263, says, that the victorious forces of Hasdrubal drove him, with a band of his followers, into a certain castle, where they were all destroyed by fire. Livy tells us (lib. xxv. 36), that "Cneius Scipio, according to some accounts, was killed on the hill, in the first assault: according to others, he fled into a castle standing near the camp: this was surrounded with fire, and the doors, which were too strong to be forced, being then burned, they were taken; and all within, together with the general himself, were put to death." The modern name of Ilorcum is Lorquinum, in the province of Murcia.—*Wern. Club.*

River Singulis, falling into the same Side of Bœtis. The Towns of the Jurisdiction Hispalensis are these: Celtica Axatiara, Arruci, Menoba, Ilipa, surnamed Italica. And on the left Hand, Hispalis, a Colony, surnamed likewise Romulensis. Opposite to it, the Town Osset, which is also called Julia Constantia: Vergentum, which also is Julii Genitor; Hippo Cauriarum, the River Menoba, which also entereth into Bœtis on the right Side. But within the Estuaries of the Bœtis there is the Town Nebrissa, surnamed Veneria and Colobona: also Colonies, as Asta, which is called Regia. And in the midland Part Asido, which is also Cæsariana. The River Singulis breaking into the Bœtis in the order I have said, runneth by the Colony Astigitania, surnamed also Augusta Firma, and so forward it is navigable. The Rest of the Colonies belonging to this Jurisdiction are free: namely, Tucci, which is surnamed Augusta Gemella: Itucci, called also Virtus Julia: Attubi, called Claritas Julia: Urso, which is Genua Urbanorum: and among these was Munda, taken together with *Pompey's* Son. Free Towns, Astigi the Old, Ostippo. Stipendiary, Callet, Calucula, Castra Gemina, Ilipula the Less, Merucra, Sacrana, Obulcula, Oningis. Coming from the Coast, near the River Menoba, itself navigable, there dwell not far off the Alontigicili, and Alostigi. But this Region, which, without the forenamed, reacheth from the Bœtis to the River Ana, is called Beturia: divided into two Parts, and as many Sorts of People: the Celtici, who border on Lusitania, and are within the Jurisdiction Hispalensis: and the Turduli, who inhabit close upon Lusitania and Tarraconensis: and they resort to Corduba. It is clear that the Celtici came from the Celtiberians, out of Lusitania, as appeareth by their Religion, Tongue, and Names of Towns, which in Bœtica are distinguished by their Surnames; as Seria, which is called Fama Julia: Ucultuniacum, which now is Curiga: Laconimurgi, Constantia Julia; Terresibus is now Fortunales; and Callensibus, Emanici. Besides these, in Celtica Acinippo, Arunda, Arunci, Turobrica, Lastigi, Alpesa, Sæpona, Serippo. The other Beturia, which we said belonged to the Turduli and to the Jurisdiction of Corduba, hath Towns of no base Ac-

count, Arsa, Mellaria, and Mirobrica: and the Regions Osrutigi and Sisaponè. Within the Jurisdiction of Gades, there is a Town of Roman Citizens called Regina: of Latins, there are Læpia, Ulia, Carisa, surnamed Aurelia, Urgia, which is likewise named Castrum Julium: also, Cæsaris Salutariensis. Stipendiaries there be, Besaro, Belippo, Berbesula, Lacippo, Besippo, Callet, Cappagum, Oleastro, Itucci, Brana, Lacibi, Saguntia, Andorisippo. The whole Length of it *M. Agrippa* hath set down 463 Miles, and the Breadth 257. But because the Bounds reached to Carthage, which Cause occasioneth oftentimes Errors in computing the Measure; at one Place in the Limits of the Provinces, and in another the Paces in journeying being either more or less; also, considering that the Seas in so long a Time have encroached here upon the Land, and the Banks again gotten there of the Sea; or that the Rivers have either turned crooked or gone straight: besides, that some have begun to take their Measure from this Place, others from that, and gone divers Ways: it is by these Means come to pass, that no two agree together.

CHAPTER II.

The Length and Breadth of Bætica.

THE Length of Bætica at this day, from the Bound of the Town Castulo to Gades, is 475 Miles: and from Murgi on the Sea-coast, more by twenty-two Miles. The Breadth from the Border of Carteia is 224 Miles. And who would believe that *Agrippa* (a Man so diligent, and in this Work principally so careful) did err, when he purposed to set out a View of the whole World for the City, and *Divus Augustus* with him? For he finished the Portico begun according to the Designation and Memorials appointed by the Sister of *M. Agrippa*.

CHAPTER III.

The nearer Spain.

THE old Form of the nearer Spain is somewhat changed, as also of many other Provinces, as *Pompey* the Great in the

Trophies which he erected in Pyrenæus, testified, that 846 Towns between the Alps and the Borders of the further Spain, were by him brought to Obedience. Now the whole Province is divided into seven Jurisdictions: the Carthaginian, the Tarraconensian, Cæsar Augustanian, Cluniensian, Asturian, Lucensian, and of Bracarum. There are besides Islands, which we set aside without naming them, and excepting the Cities that are annexed to others, the Province itself containeth 294 Towns. In which Colonies there be twelve Towns, of Roman Citizens thirteen, of old Latins seventeen, of Allies one, stipendiary 136. The first in the Frontiers be the Bastulians: behind them, in such Order as shall be said, those receding Interiorly, the Mentisani, Oretani, and the Carpetani, upon the River Tagus. Near to them, the Vaccæi, Vectones, Celtiberi, and Arrebaci. The Towns next to the Borders, Urçi and Barea, assigned to Bætica: the Country of Mauritania, then Deitania: after that, Contestania, and New Carthage, a Colony. From the Promontory of which, called *Saturn's Cape*, the Passage over the Sea to Cæsaries, a City in Mauritania, is 187 Miles. In the residue of that Coast is the River Tader: the Free Colony Illici, of which the Bay took the name Illicitanus. To it are annexed the Icositani: soon after, Lucentum, a Town of the Latins. Dranium, a Stipendiary; the River Sucro, and what was sometime the Frontier Town of Contestania. The Region Edetania, which retireth to the Celtiberians, having a pleasant Pool bordering along the Front of it. Valentia, a Colony lying three Miles from the Sea. The River Turium; and just as far from the Sea, Saguntum, a Town of Roman Citizens renowned for their Fidelity. The River Idubeda, and the Region of the Ilergaoni. The River Iberus, rich by Commerce and Navigation, which beginneth in the Cantabrian's Country, not far from the Town Iuliobrica, and holdeth on its course 430 Miles, and, for 260 of them, from the Town Varia, carrieth Vessels; in regard of which River, the Greeks named all Spain Iberia. The Region Cossetania, the River Subi, the Colony Tarraco, built by the *Scipios*, like as Carthage of the Pœni. The

Country of the Illergetes, the Town Subur, the River Rubricatum; from thence the Lacetani and Indigetes. After them in this order following: retiring within at the Foot of Pyrenæus, the Ausetani, Itani, and Lacetani: and along Pyrenæus, the Cerretani, and then the Vascones. But in the Borders, the Colony Barcino, surnamed Faventia: Towns of Roman Citizens,—Bætulo, Illuro, the River Larnum, Blandæ: the River Alba, Emporiæ: two there be of these, of the old Inhabitants, and of Greeks, who were descended from the Phocæans. The River Tichis; from whence to Pyrenæa Venus on the other side of the Promontory, are forty Miles. Now, besides the forenamed, shall be related the principal places as they lie in every Jurisdiction. At Tarracon there plead in Court four and forty States. The most famous among them are, of Roman Citizens, the Dertusani and Bisgargitani: of Latins, the Ausetani and Cerretani, surnamed Juliani: they also who are named Augustani, the Sedetani, Gerundenses, Gessoriensens, Teari, the same with Julienses. Of Stipendiarii, the Aquicaldenses, Onenses, and Bætulonenses. Cæsar Augusta, a free Colony, upon which the River Iberus floweth, where the Town before was called Salduba: these are of the Region Sedetania, and receiveth 152 States, and among these, of Roman Citizens, the Bellitani and Celsenses; and out of the Colony, the Calaguritani, surnamed also Nascici. The Ilerdenses of the Surdaon's Nation, near to whom runneth the River Sicoris: the Oscences, of the Region Vesetania, and the Turiasonenses. Of old Latins, the Cascantenses, Erganicenses, Gracchuritani, Leonicenses, Ossigerdenses: of Confederates, the Tarragenses. Stipendiarii, the Arcobricenses, Andologenses, Arocelitani, Bursasonenses, Calaguritani, surnamed Fibularenenses, Complutenses, Carrenses, Cincenses, Cortonenses, Dammanitani, Larrenses, Iturisenses, Ispalenses, Ilumberitani, Lacetani, Vibienses, Pompelonenses, and Segiensens. There resort to Carthage for Law sixty-two several States, besides the Inhabitants of the Islands. Out of the Colony Accitana, the Gemellenses, also Libisosona, surnamed Foroaugustana, which two are

endued with the Franchises of Italy: out of the Colony Salariensis, the Citizens of Old Latium, Castulonenses, whom *Cæsar* calleth *Venales*. The Setabitani, who are also Augustani, and the Valerrienses. But of the Stipendiarii, of greatest name be the Babanenses, the Bastiani, the Consaburenses, Dianenses, Egelestani, Ilorcitani, Laminiani, Menteani, the same as Oritani; and Menteani, who otherwise are Bastuli; Oretani, who also are called Germani; the Chief of the Celtiberians, the Segobrigenses, and the Toletani of Carpetania, dwelling upon the River Tagus: next to them, the Viacienses and Virgilienses. To the Jurisdiction of Cluniensis the Varduli bring fourteen Nations, of which it is necessary to name none but the Albanenses; the Turmodigi four, among whom are the Segisamonenses, Sagisamejulienses. To the same Jurisdiction the Carietes and the Vennenses go out of five Cities, of which the Velienses are. Thither repair the Pelendones, with four States of the Celtiberians, of whom the Numantini were famous; as in the eighteen Cities of the Vaccæi, the Intercatienses, Pallantini, Lacobricenses, and Caucenses: for in the four States of the Cantabrigi only Juliobrica is named. In the ten Cities of the Autrigoni, Tritium and Vironesca. To the Arevaci the River Areva gave name. Of them there be seven Towns: Saguntia and Uxama, which Names are often used in other Places; besides Segovia and Nova Augusta, Termes, and Clunia itself, the very utmost bound of Celtiberia. All the rest lie toward the Ocean; and of the above-named, the Verduli, together with the Cantabri. To these there are joined twelve Nations of the Astures, divided into the Augustanes and Transmontani, having a stately City, Asturica. Among these are Giguri, Pesici, Lancienses, and Zoclæ. The number of the whole Multitude ariseth to 240,000 Polls of free Men. The Jurisdiction Lucensis compriseth sixteen Nations (besides the Celtici and Lebuni) of base Condition, and having barbarous Names; but of Freemen, almost 166,000. In like manner, twenty-four Cities, having 275,000 Polls of Bracari; of whom, besides the Bracari themselves, the Vibali, Celerini, Gallæci, Æquesilici,

and Quinquerni, may be named without Disdain. The length of the hither Spain, from Pyrenæus to the Bound of Castulo, is 607 Miles, and the Coast thereof somewhat more. The Breadth from Tarracon to the Shore of Alarson, 307 Miles; and from the Foot of Pyrenæus where, between two Seas, it is Pointed with the Straits, and so opening itself by little and little until it come to touch the farther Spain, it is as much, and addeth somewhat more to the Breadth. All Spain is full of Metal, as Lead, Iron, Copper, Silver, and Gold: the hither part thereof aboundeth with Specular Stone,¹ and Bœtica, particularly, with Vermillion. There are also Quarries of Marble. Unto all Spain, *Vespasianus Augustus*, the Emperor, tossed with the Tempests of the Commonwealth, granted the Franchises of Latium. The Mountains Pyrenæi define the Boundaries of Spain and Gaul, their Promontories projecting into two opposite Seas.

CHAPTER IV.

The Province Narbonensis.

THAT Part of Gallia which is washed by the Mediterranean Sea is called the Province Narbonensis, named formerly Braccata; divided from Italy by the River Varus and the Alps, most Friendly Mountains to the Roman Empire; and from the other Parts of Gaul, on the North side, by the Mountains Gebenna and Jura. For Tillage of the Ground, for reputation of Men, regard of Manners, and for Wealth, worthy to be set behind no other Provinces whatever; and, in one word, to be counted Italy more truly than a Province. In its Borders lyeth the Country of the Sardoni; and within, the Region of the Consuarani. The Rivers be Tecum and Vernodubrum; the Towns, Illiberis (a poor relic of a City that was once Great), and Ruscio, inhabited by the Latins. The River Atax, springing out of Pyrenæus, runneth through the Lake Lubrensis: *Narbo Martius*, a Colony of the Tenth Legion, twelve Miles distant from the

¹ *i. e.* Talc. See Lib. xxxvi. cap. 22.

Sea : Rivers Araris and Liria. Towns in the other Parts scattered here and there, by reason of Pools lying before them : Agatha, in Times past belonging to the Massilians, and the Region of Volscæ Tectosages. Also, where Rhoda of the Rhodians was, whereof Rhodanus took its name, the most fruitful River of all Gallia, running swiftly out of the Alps through the Lake Lemanus, and carrying with it the slow Araris ; and Isara running as fast as itself, together with Druentia ; of which the two small Mouths are called Lybica ; of which the one is Hispaniensum, the other Metapinum : there is a third, which is the most Wide and Large, named Massalioticum. Some write that the Town Heraclea likewise stood at the Mouth of Rhodanus. Beyond the Ditch, out of Rhodanus, which was the Work of *C. Marius* and beareth his Name, there was remarkable Pool ; moreover, the Town Astromela, and the maritime Tract of the Avætics ; and above, the stony Plains, the Memorial of the Battles of *Hercules*. The Region of the Anatilii, and within, of the Desuviates and Caviaræ. Again, from the Sea, Tricorium ; and within, the Region of the Tricolli, Vocantii, Segovellauni, and presently of the Allobroges ; but in the Borders, Massilia of Greek Phocæans confederate : the Promontory Citharista, Zaopartus, and the Region of the Camatullici. After them the Suelteri ; and above them, Verucines ; but in the Coast, Athenopolis of the Massilians ; Forum Julii, a Colony of the ninth Legion, which also is called Pagensis and Classica : in it is the River Argenteus, the Region of the Oxubii and Ligaunii ; above whom are the Suetri, Quariates, and Adunicates : but in the Borders, a Latin Town, Antipolis. The Region of the Deciates, the River Varus gushing out of a Mountain of the Alps, called Acema : in the middle Part thereof, the Colonies Arelatè of the sixth Legion, Bliteræ of the seventh, and Arausia of those belonging to the second. In the Territory of the Caviaræ, Valentia and Vienna, of the Allobroges. Latin Towns, Aquæ Sextiæ of the Salyi, and Avenio of the Caviaræ, Apta Julia of the Vulgienties, Alebecerriorum of the Apollinares, Alba of the Helvi, Augusta of the Tricos-

tines; Anatalia, Aëria, Bormannico, Comacina, Cabellio, Carcasum of the Volscan Tectosages; Cessero, Carpentoractè of the Menines; the Cenicensis, Cambolecti, who are named Atlantici, Forum Voconii, Glanum, Livii, Lutevani, who are the same as the Foro-neronienses: Nemausum of the Arecomici, Piscenæ, Ruteni, Sanugenses, and Tolosani of the Tectosages. The Borderers upon Aquitane, Tasco-dumetari, Canonienses, Umbranici: two capital Towns of the confederate City of the Vocontians, Vasco and Lucus Augusti; but Towns of no importance nineteen, as twenty-four annexed to the Nemausienses. To this Charter *Galba* the Emperor added of the Alpine Inhabitants, the Avantici and Eproduntii, whose Town is named Dima. *Agrippa* saith that the Length of the Province Narbonensis is 270 Miles, and the Breadth 248.

CHAPTER V.

Italy, Tiber, Rome, Campania.

NEXT to them is Italy; and the first of it the Ligurians: then Hetruria, Umbria, Latium, where are the Mouths of Tiberis and Rome, the Head of the whole Earth, sixteen Miles distant from the Sea. After it is the maritime Country of the Volscians, and Campania: then Picentium, Lucanum, and Brutium, the furthest Point in the South, to which, from the moonshaped Mountains of the Alps, Italy shooteth out to the Seas. From it is the Sea-coast of Græcia, and soon after, the Salentini, Pediculi, Apuli, Peligni, Ferentani, Marrucini, Vestini, Sabini, Picentes, Galli, Umbri, Tusci, Veneti, Carni, Iapides, Istri, and Liburni.

Neither am I ignorant that it might be thought justly a point of an unthankful and stupid Mind, if briefly in this sort, and cursorily, that Land should be spoken of which is the Nurse of all Lands. She also is the Mother, chosen by the Power of the Gods, to make even Heaven itself more Glorious; to gather into One the scattered Empires, to soften the Fashions of other Countries; and whereas the

Languages of so many Nations were repugnant and savage, to draw them together by commerce of Speech, to a Conference; to endue Man with Humanity; and briefly, that of all Nations in the World there should be one only Country. But so noble are all the Places that a Man shall come to, so excellent is every thing, and each State so famous, that I am at a loss what to say. The City of Rome, the only fair Face therein worthy to stand upon so stately a Neck, what Work would it ask to be described as it ought¹? The very Tract of Campania by itself, so pleasant and happy, how should it be described? So that it is evident in this one Place there is the Work of rejoicing Nature. Besides this, the whole Temperature of the Air is evermore so vital, the Fields so fertile, the Hills so open to the Sun, the Forests so harmless, the Groves so shady, the kinds of Wood so bounteous, the Mountains so breezy; the Corn, the Vines, the Olives so fertile; the Sheep so enriched with such noble Fleeces; such Necks to the Oxen; so many Lakes, such abundance of Rivers and Springs watering it throughout; so many Seas and Havens, that it is the very Bosom lying open to receive the Commerce of all Lands; and as of itself earnestly desiring to lie far into the Sea to help all Mankind. Neither do I speak now of the Natures and Manners of the Men; nor of the Nations subdued by their Tongue and Hand. Even the Greeks (a Nation of all other most given to praise themselves) have given their judgment of her, in that they called a certain Part thereof Great Greece. But that which we did in the mention of the Heaven, namely, to touch some known Planets and a few Stars, the same must

¹ The Romans were proud of the glory of their city; and believed it to be the only one worthy the regard of the gods:—

“Jupiter arce sua cum totum spectat in orbem,
Nil nisi Romanum, quod tueatur, habet.”—OVID, *Fasti*, lib. i.

From his high citadel when Jove surveyed
The extended earth beneath his sovereign sway,
Nought but the Roman widely spread he spied.
Worthy t’engage his care.—*Wern. Club.*

we do in this Part: only I pray the Readers to remember that I hasten to rehearse every particular Thing through the whole Globe.

Italy is fashioned like to an Oak leaf, being much larger in Length than in Breadth: to the left Side bending with the Top, and ending in the Figure of an Amazonian Shield: and where, from the middle Extension, it is called Cocinthos, it putteth forth through two moonshaped Promontories two Horns: the one, Leucopetra, on the right Hand; the other, Lacinium, on the left. In Length it reacheth from the Foot of the Alps to Prætoria Augusta, through the City of Rome, and so to Capua, with a course leading to Rhegium, a Town situated upon the Shoulder thereof: from which beginneth the bending, as it were, of the Neck, and beareth 1020 Miles. And this Measure would be much more if it went as far as Lacinium; but such an Obliquity might seem to decline out too much to one Side. Its Breadth is various; being 410 Miles between the two Seas, the Higher and the Lower, and the Rivers Varus and Arsia. The middle portions of this Breadth, which is much about the City of Rome, from the Mouth of the River Aternus running into the Adriatic Sea, unto the Mouths of Tiber, 136 Miles; and somewhat less from Novum Castrum by the Adriatic Sea, to Alsium, and so to the Tuscan Sea: and in no Place exceedeth it in Breadth 300 Miles. But the full Compass of the whole, from Varus to Arsia, is 20,049 Miles. It is distant by Sea from the Lands round about, that is, from Istria and Liburnia, in some Places 100 Miles; from Epirus and Illyricum, 50 Miles; from Africa, less than 200, as *Varro* affirmeth; from Sardinia, 120 Miles; from Sicily, a Mile and a half; from Coreyra, less than 70; from Issa, 50. It goeth along the Seas even to the Meridional Line of the Heaven; but if a Man examine it very exactly, it lieth between the Sun-rising in Mid-winter, and the Point of the Meridian.

Now we will describe the Circuit of this Country, and reckon the Cities: wherein it is necessary to be premised, that we shall follow our Author *Divus Augustus*, and the Description by him made of all Italy; arranged into eleven

Regions. The Maritime Towns I will set down in the order as they stand, according to their vicinity one to another. But as in so running a Speech, the rest cannot be so orderly described, therefore in the Inland part thereof I will follow him as he hath digested them in Letters, but mentioning the Colonies by Name which he hath delivered in that number. Neither is it easy to follow thoroughly their Positions and Origins, considering the Ingaun Ligurians (to say nothing of all the rest) were endowed with Lands thirty times. To begin with the River Varus, therefore, there is the Town Nicæa, built by the Massilians; the River Po; the Alps; the People within the Alps, of many Names, but chiefly the Capillati: the Town Vediantiorum, the City Cemelion (or a Town belonging to the State of the Vedianti, called Cemelion); the Port of Hercules Monœcus; the Ligustian Coast. Of the Liguri, the most renowned beyond the Alps are the Sallyi, Deceates, and Oxubii: on this Side, the Veneni, and, descended from the Caturiges, the Vagienni, Statilli, Vibelli, Magelli, Euburiates, Casmonates, Veliates, and those whose Towns we will declare in the next Coast. The River Rutuba, the Town Albium, Intemelium, the River Merula, the Town Albium Ingaunum, the Port Vadum Sabatium, the River Porcifera, the Town Genua, the River Feritor; the Port Delphini, Tigulia: within, Segesta Tiguliorum: the River Macra, which limiteth Liguria. But on the back of all these Towns above-named is Apenninus, the highest Mountain of all Italy, reaching from the Alps, with a continual ridge of Hills, to the Straits of Sicily. From the other Side of this to Padus, the richest River of Italy, all the Country shineth with noble Towns: Liberna, Dertona a Colony, Iria, Barderates, Industria, Pollentia, Cartea, which also is named Polentia; Foro Fulvii the same as Valentinum; Augusta of the Vagienni: Alba Pompeia, Asta, and Aquæ Statiellorum. This is the ninth Region, according to the Arrangement of *Augustus*. The Coast of Liguria lieth between the Rivers Varus and Macra, 211 Miles. To it is adjoined the seventh,

wherein is Hetruria, from the River Macra : and itself, with the Names often changed. In old Time the Pelasgi drove the Umbri from thence : and by them the Lydi did the like, of whose King they were named Tyrrheni : but soon after, of their Ceremonies in Sacrificing, in the Greek Language *Thusci*. The first Town of Hetruria is Luna, with a famous Harbour ; then the Colony Luca, lying from the Sea : and nearer to it is Pisæ, between the River Auser and Arnus, which took the Beginning from *Pelops* and the Pisi, or Atintani, a Greek Nation. Vada Vولاتerranea, the River Cecinna. Populonium of the Hetrusci, in Times past situate only upon this Coast. After these, the Rivers Prillè, and, soon after, Umbro, navigable : so forward the Tract of Umbria, and the Port Telamon : Cossa Volscientium, planted by the People of Rome ; Graviscaë, Castrum Novum, Pyrgi, the River Cæretanus, and Cærè itself, standing four Miles within ; Agylla, named by the Pelasgians, who built it ; Alsium and Frugenæ. The River Tiber, distant from Macra 284 Miles. Within are these Colonies : Falisca, descended from Argi (as *Cato* saith), and called Hetruscorum : Lucus Feroniæ, Russellana, Senensis, and Sutriua. For the rest : Aretini the Old, Aretini Fidentes, Aretini Julienses, Amitinenses, Aquenses, surnamed Taurini : Blerani, Cortonenses, Capenates, Clusini the Old, Clusini the New, Fluentini, fast upon the River Arnus that runneth before them, Fesulæ, Ferentinum, Fescennia, Hortanum, Herbanum, Nepet, Novempagi, Prefectura Claudia, Foro Clodii : Pistorium, Perugia, Suanenses, Saturnini, who beforetime were called Aurinini, Sudertani, Statones, Tarquinienses, Tuscanienses, Vetulonienses, Veientani, Vesentini, Volaterrani, surnamed Hetrusci, and Volsinienses. In the same Part lie the Territories Crustuminus and Cæletranus, bearing the Names of the old Towns. Tiber, before named Tybris, and, before that, Albula, from almost the middle of the Length of the Apennine runneth along the Borders of the Aretini : small at the first, and not Navigable without being gathered together by Fishponds into an Head, and so let

go : as Tinia and Glanis, which run into him ; and which require nine Days for the collection of Waters, and so are kept in for running if they have no Help from Rain. But Tiber, by reason of the rough and rugged Channel, notwithstanding that Device, holdeth on no long Course together, but only for Troughs, more truly than Boats ; and thus it doth for 150 Miles, to not far from Tifernum, Perusia, and Otriculum : dividing as it passeth Hetruria from the Umbri and Sabini : and presently, within thirteen Miles of the City (Rome), it parteth the Veientian country from the Crustumine : and soon after, the Fidenate and Latin Territories from the Labican. But, besides Tinia and Glanis, it is augmented with forty-two Rivers ; and especially with Nar and Anio : which River being also itself Navigable, encloseth Latium from behind, and that notwithstanding so many Waters and Fountains are brought thereby into the City ; whereby it is able to receive large Ships from the Italian Sea, being the kindest Merchant of Things growing in the whole World : it is the only River of all others to speak of, and more Villages stand upon it and see it, than all other Rivers in any lands soever. No River hath less Liberty than it, as having the Sides thereof enclosed on both Hands ; and yet he doth not resist, although he hath many and sudden Swellings, and in no Place more than in the City itself do his Waters overflow : yet is he taken to be a Prophet rather, and a Counsellor, and in Swelling more truly Religious than Cruel. Old Latium, from Tiber to Circeios, was observed to be in Length fifty Miles ; so slender were at first the Roots of this Empire. The Inhabitants thereof changed often, and held it, some one time, some another ; that is, the Aborigines, Pelasgi, Arcades, Siculi, Aurunci, and Rutili. And beyond Circeios, the Volsci, Osci, Ausones, from whence the Name of Latium reached soon after, as far as to the River Liris. In the beginning of it standeth Ostia, a Colony, brought thither by a Roman King : the Town Laurentum, the Grove of *Jupiter Indiges*, the River Numicius, and Ardea, built by *Danaë*, the Mother of *Perseus*. Then the Colony Antium, once Aphrodisium ; Astura, the River and the

Island. The River Nymphæus, Clostra Romana, Circeii¹, in Times past an Island, environed with a mighty Sea (if we believe *Homer*), but now with a Plain. A Wonder it is what we are able to deliver concerning this thing, to the knowledge of Men. *Theophrastus*, who of Foreigners was the first that wrote any Thing diligently concerning the Romans (for *Theopompus*, before whom no Man made any mention, said only, That the City was taken by the Gauls: and *Clitarchus* next after him, spake of nothing but an Embassy sent to *Alexander*); this *Theophrastus*, with more certainty than bare hearsay, hath set down the Measure of the Island Circeii to be eighty Stadia; in that Book which he wrote to *Nicodorus*, the chief Magistrate of the Athenians, who lived in the 460th year after the Foundation of our City. Whatever Land, therefore, above ten Miles' compass, lieth near about it, hath been annexed to the Island. A year after that another wonderful Thing fell out in Italy: for not far from Circeii there is a Pond called Pomptina, which *Mutianus*, a Man who had been thrice Consul, reporteth to have been a Place wherein stood twenty-three Cities. Then there is the River Ufens, upon which is the Town Terracina, called in the Volscian tongue Anxur, and where was the City Amyclè, destroyed by Serpents. After it is the Place of a

¹ Cerceia was a town of the Volsci, on whose ruins is now built the little village Santa Felicita. *Homer* ("Odyssey," K. 194) represents it as the abode of Circe, and says it was an island—

"An isle encircled with the boundless flood."

But the country all around is now one vast plain, and constitutes the well-known Pontine Marshes, which being raised but little above the level of the sea, may not improbably have been once covered by its waves. "If the traveller can spare a day," says *Eustace* in his "Classical Tour," "he may hire a boat, and sail along the coast to the promontory of Circe, which forms so conspicuous a figure in his prospect, and appears from Terracina, as *Homer* and *Virgil* poetically describe it, a real island. As he ranges over its lofty cliffs, he will recollect the splendid fictions of the one and the harmonious lines of the other. He may traverse the unfrequented groves; but instead of the palace of Circe he will discover the lonely village of Santa Felicita, a few solitary towers hanging over the sea, and perhaps some faint traces of the ancient Cerceia, covered with bushes and overgrown with shrubs."—*Wern. Club.*

Cave, the Lake Fundanus, and the Port Cajeta. The Town Formiæ, named also Hormiæ, the ancient Seat (as Men thought) of the Læstrigones. Beyond it was the Town Pyræ, the Colony Minturnæ, divided by the River Liris, called Clanius. The furthest Town in the adjoins of Latium is Sinuessa, which, as some have said, was commonly called Sinopè. Thence cometh the pleasant Country Campania. From this Vale begin the Hills which are full of Vineyards, and famous for Drunkenness, proceeding of the Liquor so celebrated, commended in all Countries : and (as they were wont to say in old Time) there was the chief Strife between Father *Liber* and *Ceres*. From hence the Setine and Cecubine Countries spread forth : and to them join the Falern and Calene. Then arise the Mountains Massici, Gaurani, and Surrentini. There the Laborini Fields are spread about, and the good Wheat harvest to make Dainties at the table. The Sea-coasts here are watered with hot Fountains ; and beside other Things through all the Sea, they are famous for the rich purple Shell-fish¹ and other excellent Fishes². In no Place is there better Oil from the Olive ; and this contest of Human pleasure, the Osci, Grecians, Umbri, Tusci, and Campi, have held. In the Border of this is the River Savo ; Vulturnum, the Town, with the River ; Litternum, and Cumo, inhabited by Chalcidians, Misenum, the Harbour Baiæ, Bâüli, the Lakes Lucrinus and Avernus, near which was once the Town Cimmerium. Then Puteoli, called also the Colony Dicæarchia : after that, the Plains Phlegræi, and the Marsh Acherusia, near to Cumes. And by the Shore Naples³, a City also of the Chalcidians ;

¹ The famous Tyrian dye was procured from shell-fish, but the particular species are not certainly known. Of the *Purpura* and *Buccinum* described by Pliny in his 9th book, the former is probably the *Murex trunculus* of Linnæus, and the other the *Purpura patula* of Lamark.—*Wern. Club.*

² The *Scarus*, described by Pliny, lib. ix. 29, is perhaps intended, but it is difficult to determine what the *Scarus* was. Baian and Lucrine oysters may also be referred to ; these are described, lib. ix. 79.—*Wern. Club.*

³ Livy, lib. viii. 22, says, "Naples was inhabited by a people that came from Cumæ, and the Cumans derive their origin from Chalcis, in Eubœa."—*Wern. Club.*

as Parthenopè, so called from the Tomb of a Siren: Herculaneum, Pompeii: and, not far off, the Mountain Vesuvius overlooketh, and the River Sernus runneth by the Territory of Nuceria; and within nine Miles of the Sea, Nuceria itself. Surrentum, with the Promontory of *Minerva*, the Seat once of the Sirens. From Circeii the Navigation lieth open seventy-eight Miles. This is counted the first Region of Italy, from Tiber, according to the Description of *Augustus*. Within it are these Colonies: Capua, so called of the Champaign Country; Aquinum; Suessa, Venafrum, Sora, Teanum, named also Sidicinum; and Nola: the Towns Abellinum, Aricia, Alba Longa, Acerrani, Allifani, Atinates, Aletrimates, Anagnini, Atellani, Asulani, Arpinates, Auximates, Avellani, Alfaterni; and they who of the Latin, Hernic, and Labicane Territories, are surnamed accordingly: Bovillæ, Calatiæ, Casinum, Calenum, Capitulum, Cernetum, Cernetani, who are called also Mariani. Corani, descended from *Dardanus* the Trojan. Cubulterini, Castrimonienses, Cingulani. Fabienses, and in the Mount Albanus, Foro-populienses. Out of the Falern Territory, Frusinates, Ferentinates, Freginates, Fabraterni the Old, Fabraterni the New, Ficolenses, Ficolenses, Foro-Appi, Forentani, Gabini, Interramnates, Succasani, called also Lirinates, Ilionenses, Lavinii, Norbani, Nementani Prenestini, whose City was in Times past named Stephanus, Privernates, Setini, Signini, Suessulani, Telini, Trebutini, surnamed Balinienses, Trebani, Tusculani, Verulani, Veliterni, Ulubrenses, Ulvernates, and above Rome herself: the other Name¹ whereof to utter is

¹ Valentia.

In the second chapter of book xxviii., Pliny tells us, on the authority of authors adduced by Verrius Flaccus, that the Romans, when about to commence the siege of any place, first called upon their priests to invoke the deity under whose protection that place was, and promised him the same, or even a greater, degree of worship than he had previously received. And that the enemies of Rome might not have recourse to the same expedient, it was kept a strict secret under the protection of what particular deity their own city was placed. Valentia appears to have been the secret name, and it was never divulged till Valerius Soranus rashly uttered it, and, as we learn from Plutarch (in "Quæst. Rom." p. 278), offered the punishment of his impiety. St. Paul found at Athens an

counted in the Mysteries of the Ceremonies an impious and unlawful Thing: which, after it was abolished, for the faithful Safety thereof, *Valerius Soranus* pronounced, and soon after suffered the Penalty. I think it not amiss to insert in this Place an Example of the ancient Religion, instituted especially for this Silence: for the Goddess *Angerona*, to whom is sacrificed on the twelfth Day before the Kalends of January, is represented by an Image having her Mouth bound and sealed up. The City had three Gates when *Romulus* left it; or rather four (if we believe most Men that write thereof), its Walls, when the two *Vespasians*, Emperors and Censors, took the Measure, in the Year after the Foundation of it, 828, were in circuit thirteen¹ Miles and almost a quarter. It containeth within it seven Mountains, and is divided into fourteen Regions and 265 cross Streets, called *Compita Larium*. The Measure of the same space of Ground, running from the *Milliarium*, erected at the Head of the Roman Forum, to every Gate, which are at this Day thirty-seven in number (so ye reckon once the twelve Gates always open, and overpass seven of the old, which no longer exist²), maketh thirty Miles, three-quarters, and a little more, in a straight Line: but from the same *Milliarium*³, to the utmost ends of the Houses, with the *Prætorian Camps*, and the clumps (*vicos*) of all the Streets, it cometh to somewhat above seventy Miles: to which if a Man put the Height of the Houses, he may truly conceive by it a worthy Estimate of it, and confess that the Magnitude of no City in the World

altar dedicated to the *Unknown God*; this had, probably, been erected with a reference to the custom above-mentioned, as there is no reason for supposing it confined to the Romans.—*Wern. Club.*

¹ Some read, thirty.

² In ancient times the most frequented roads to the city of Rome had *double gates*. They who came into the city passed through the left-hand gates; and they who went out took the right-hand gate. (*Nardini*, "Roma Antica," lib. x. cap. 9.) When *Pliny*, speaking of the gates of the city, says that twelve of the thirty-seven gates should only be numbered once, he alludes to such of them as were *double* in this sense.—*Note in the "Pursuits of Literature,"* Dia. 4th.—*Wern. Club.*

³ For figure of the *Milliarium*, see the end of this book.

could be compared to it. It is enclosed on the East Side with the Rampart of *Tarquinius* the Proud; a very wonderful piece of Work: for he raised it as high as the Walls on that Side where the approach to it was most open. On the other Part it was fortified with exceedingly high Walls, or with steep Hills, except where there the Buildings lie out, and make many Cities. In that first Region there were besides, for Latium, these distinguished Towns: Satricum, Pometia, Scaptia, Pitolium, Politorium, Tellenè, Tifata. Cæmina, Ficana, Crustumerium, Ameriola, Medullia, Corniculum, Saturnia, where now Rome standeth: Antipolis, which now is Janiculum, in a Part of Rome: Antemnæ, Camerium, Collatiæ: Amiternum, Norbè, Sulmo; and with these, the Alban People, who were accustomed to receive Flesh in Mount Alban; Albani, Æsolani, Acienses, Abolani, Bubetani, Bolani, Casuetani, Coriolani, Fidenates, Foretii, Hortenses, Latinenses, Longulani, Manates, Macrales, Mutucumenses, Munienses, Numinienses, Olliculani, Octulani, Pedani, Pollustini, Querquetulani, Sicani, Sisolenses, Tolerienses, Tutienses, Vimitellarii, Velienses, Venetulani, Viciellenses. Thus of the Old Latium there be fifty-three States perished, without any Remains left behind. Moreover, in the Campaign Country, the Town Stabiæ continued to the Time that *Cn. Pompeius* and *L. Carbo* were Consuls, the last Day of April; upon which Day *L. Sylla*, Legate in the Social War, destroyed it utterly: which now is turned into Farm-houses. There is decayed also there Taurania. There be also some little Relics left of the dying Casilinum. Moreover, *Antias* writeth, that Apiolæ, a Town of the Latins, was taken by *L. Tarquinius*, the King; with the Pillage whereof he founded the Capitol. From Surrentum to the River Silarus was the Picentine Country, for the space of thirty Miles, renowned for the Tuscan's Temple built by *Jason* in honour of *Juno Argiva*. Within it stood the Towns Salernum and Picentia. At Silarus, the third Region beginneth, together with the Lucan and Brutian Countries: and there also the Inhabitants changed not a few times. For it was possessed by the Pelasgi, Cœnotri,

Itali, Morgetes, Siculi, People for the most part of Greece : and last of all by the Lucani, descended from the Samnites, under their Leader *Lucius*. In which standeth the Town Pæstum, called by the Greeks Posidonia: the Bay Pæstanus, the Town Helia, now Velia. The Promontory Palinurum, Creek receding, from which there is a Passage to the Column Rhegia, 100 Miles over. Next to this, the River Melphes : the Town Buxentum, in Greek Pyxus; the River Laüs ; and a Town there was likewise of the same Name. From thence the Sea-coast of Brutium, the Town Blanda, the River Batum, the Haven Parthenius belonging to the Phocæans : the Bay Vibonensis ; the Grove Clampetia, the Town Temsa, called by the Greeks Temeşè : and Terina of the Crotonians, and the very large Bay Terinæus : the Town Consentia. Within, in a Peninsula, the River Acheron, from which the Townsmen are called Acherontini. Hippo, which now we call Vibovalentia ; the Port of Hercules, the River Metaurus, the Town Tauroentum, the Port of Orestes, and Medua : the Town Scylleum, the River Cratais, Mother (as they say) to Scylla. Then the Column Rhegia : the Sicilian Straits, and two Capes, one over against the other ; namely, Cænis from Italy, and Pelorum from Sicily, a Mile and half asunder : from whence to Rhegium is twelve Miles and a half : and so forward to a Wood in the Apennine called Sila ; and the Promontory called Leucopetra, twelve Miles. Beyond which, Locri (carrying the Name also of the Promontory Zephyrium) is from Silarus distant 303 Miles. Here is included the first Gulf of Europe, wherein are named these Seas : first, Atlanticum (from which the Ocean breaketh in), called of some Magnum : the Passage through which it entereth is by the Greeks called Porthmos; by us Fretum Gaditanum ; when it hath entered the Spanish Sea, so far it washeth the Coasts of Spain, Fretum Hispanum : of others, Ibericum, or Balearicum : and presently it taketh the Name of Gallicum, before the Province Narbonensis : and after that, Ligusticum : from whence, to the Island Sicily, it is called Tuscum ; which some of the Grecians term Notium, others Tyrrhenum, but most of our Countrymen Inferum. Beyond Sicily to the

Salentini, *Polybius* calleth it Ausonium : but *Eratosthenes* nameth all the Sea Sardonum, that is, between the Mouth of the Ocean and Sardinia : and from thence to Sicily, Tyrrhenum : and from it to Creta, Siculum : beyond which it is called Creticum. The Islands along these Seas are these : the first of all, those by the Greeks named Pityusæ, of the Pine plant ; but now, Ebusus : they are both a City confederate, and a narrow Arm of the Sea runneth between them : they are forty-two Miles apart. From Dianeum they are distant seventy Stadia : and so many are there between Dianeum and New Carthage, by the main Land : and as far from Pityusæ into the main Ocean, lie the two Baleares ; and toward Sucro, Colubraria. These Baleares, in War, use much the Sling ; and the Greeks name them Gymnesiæ. The greater of them is 100 Miles in Length, and in Circuit 380. It hath Towns of Roman Citizens, Palma and Pollentia : of Latins, Cinium and Cunici : and Bochri was a Town confederate. From it the lesser is 30 Miles off, being in Length 60 Miles, and in Compass 150. Cities in it are Jamno, Sanisera, and Mago. From the greater, 12 Miles in the Sea, lieth the Isle Capraria, dangerous for Shipwrecks : and opposite the City Palma, Menariæ, and Tiquadra, and little Annibalis. The Soil of Ebusus chaseth Serpents away, but that of Colubraria breedeth them ; and therefore it is Dangerous for all that come into it, unless they bring with them some of the Ebusian earth. The Greeks call this Island, Ophiusa. Neither doth Ebusus produce any Rabbits ; which are so common in the Baleares, that they eat up the Corn. There be about twenty more little ones in the shallow Part of the Sea. But in the Coast of Gallia, in the Mouth of Rhodanus, there is Metina ; and soon after, that which is called Blascon ; and the three Stœchades, called so by their Neighbours the Massilians, for their Order ; and they give each one a several Name, as Protè, Mesè (which also is called Pomponiana), and the third, Hypea. After them, are Sturium, Phœnicè, Phila, Lero, and Lerina, over against Antipolis ; wherein is a Memorial of the Town Vergaonum.

CHAPTER VI.

Of Corsica.

IN the Ligurian Sea is Corsica, which the Greeks called Cynos, but it is nearer to the Tuscan Sea, stretching out from the North into the South, and in Length is 150 Miles: in Breadth, for the more Part, 50: in Circuit, 322: it is distant from the Shallows of Volaterræ 62 Miles. It hath 35 Cities: and the Colonies, Mariana, planted by *C. Marius*; Aleria, by the Dictator *Sylla*. On this Side of it is Oglasa; but within 60 Miles of Corsica is Planaria; so called of its Form, which is level with the Sea; and, therefore, deceiveth Ships. Bigger than it are Urge and Capraria, which the Greeks called *Ægilos*. Also, *Ægilium* and *Danium*, the same as *Artemisia*; both lying over against the Coast of *Cosanum*. Other small ones, also, as *Mænaria*, *Columbraria*, *Venaria*, *Ilua*, with the Iron Mines, in Circuit 100 Miles, 10 Miles from *Populonia*, called by the Greeks, *Æthalia*: from it is *Planasia*, 39 Miles off. After them, beyond the Mouths of *Tiber* in the *Antian* (Creek), is *Astura*; and close by *Palmaria*, *Sinonia*; and just against, *Formias*, *Pontixæ*. But in the Bay of *Puteolanum*, *Pantadaria* and *Prochyta*, so called, not of *Æneas's* Nurse, but because of the gushing of the Sea from *Ænaria*. *Ænaria* itself took its Name from the Station of the Ships of *Æneas*; called by *Homer* *Inarimè*, by the Greeks, *Pithecusa*; not for the Number of Apes there, as some have thought, but of the Work-houses of those that made earthen Vessels. Between *Pausilipus* and *Naples*, *Megarix*; and soon after, eight Miles from *Surrentum*, *Caprææ*, renowned for the Castle of the Prince *Tiberius*; in Circumference 400 Miles. Next, *Leucothea*; and out of Sight lieth *Sardinia*, close upon the African Sea, but less than nine Miles from the Coast of Corsica: and still those Straits are made more narrow by reason of the small Islands named *Cuniculariæ*. Likewise *Phintonis* and *Fossæ*, whereof the very Strait itself is named *Taphros*.

CHAPTER VII.

Of Sardinia.

SARDINIA, on the East Side, is in Extent 188 Miles; on the West, 170; Southward, 74; and Northward, 122: so that, in all, it taketh up the Compass of 560 Miles. It is from the Cape of Caralitanus to Africa 200 Miles: from Gades, 1400 Miles. It hath two Islands on that Side where the Promontory Gorditanum standeth; which be called Hercules' Islands: on the Side of Sulsensis, Enosis; of Caralitanum, Ficaria. Some Place not far from it the Islands Belerides and Collodes: and another which they call Heras Lutra, or Hieraca. The most celebrated People therein are the Ilienses, Balari, and Corsi: and of the fourteen Towns, the Sulcitana, Valentini, Neapolitani, Bosenses, and Caralitani, who are Roman Citizens; and Norenses. There is one Colony which is called Ad Turrim Libysonis. This Island Sardinia *Timæus* called (from the Shape of a Shoe) Sandaliotis: but *Myrsylus* (from its Resemblance to a Footstep), Ichnusa. Over against the Bay Pæstanum is Leucasia, so called from a Siren there buried. Opposite Vestia, lie Pontia and Issia; both jointly called by one Name, Cœnotides; an Argument that Italy was possessed by the Cœnotrians. And opposite Vibo other little ones, called Ithacesiæ, the Watch-places of *Ulysses*.

CHAPTER VIII.

Of Sicily.

BUT Sicily excelleth all other of these Islands. It is named by *Thucydides*, Sicania; by many, Trinacria, or Triquetra, from its triangular Form. It is in Circuit (as *Agrippa* saith) 198 Miles. In Times past it was joined to the Bru-tians' Country; but soon after, by the Rush of the Sea, it was torn from it, and a Strait was left of 12 Miles in Length, and one and a half in Breadth, near the Column Rhegium. Upon this Occasion of opening, the Greeks gave a Name to the Town Rhegium, situated on the Edge of Italy.

In this Strait is the Rock called Scylla, and likewise another named Charybdis: the Sea is full of Whirlpools, and both those Rocks are notorious for their Rage. The utmost Cape of this Island Triquetra (as we have said) is called Pelorus, projecting against Scylla toward Italy. Pachynum lieth toward Græcia, and from it Peloponnesus is distant 144 Miles. Lilybæum lieth toward Africa, and between it and the Cape of *Mercury* there are 180 Miles: and from the said Lilybæum to the Cape of Caraleis in Sardinia, 120. Now these Promontories and Sides lie one from the other at this Distance: by Land, from Pelorus to Pachynum, 166 Miles: from thence to Lilybæum, 200 Miles: so forward to Pelorus, 170. In it, of Colonies, Towns, and Cities, there are 72. Beyond Pelorus, which looketh toward the Ionian Sea, is the Town Messana, inhabited by Roman Citizens, which are called Mamertini. Also the Cape Drepanum; the Colony Taurominium, formerly called Naxos; the River Asines; the Mountain *Ætna*, wonderful for its Fires in the Night; the Cavity (Crater) of it is in Compass two Miles and a half; the burning Ashes thereof fly as far as to Taurominium and Catana: but its crashing Noise may be heard as far as Maron, and the Hills Gemellis. There are also, the three Rocks of the Cyclops; the Port of *Ulysses*, the Colony Catana; the Rivers Symethum and Terias: within the Isle the Fields Læstrigonii. The Towns Leontini and Megaris: the River Pantagies: the Colony Syracusæ, with the Fountain Arethusa. Also, there are other Springs in the Territory of Syracusa that yield Water for drink, as Temenitis, Archidemia, Magæa, Cyanè, and Milichie. The Port Nausathmos, the River Elorum, the Promontory Pachynum: and on this Front of Sicily, the River Hirminium, the Town Camarina, the River Helas, and Town Acragas, which our Countrymen have named Agrigentum. The Colony Thermæ: Rivers, Atys and Hypsa: the Town Selinus: and next to it the Promontory Lilybæum, Drepana, the Mountain Eryx. The Towns Panhormum, Solus, Hymetta with the River, Cephalædis, Aluntium, Agathirium, Tyndaris a Colony, the

Town Mylæ; and, whence we began, Pelorus. Within, of Latin condition, the Centuripines, Netini, and Segestini. Stipendiaries, Assarini, Ætnenses, Agyrini, Acestæi, and Acrensens: Bidini, Citarii, Caciritani, Drepanitani, Ergetini, Ecestienses, Erycini, Eutellini, Etini, Enguini, Gelani, Galatani, Halesini, Ennenses, Hyblenses, Herbitenses, Herbesenses, Herbulenses, Halicyenses, Hadranitani, Imacarenses, Ichanenses, Jetenses, Mutustratini, Magellini, Murgentini, Mutyenses, Menanini, Naxii, Noœni, Pelini, Paropini, Phinthienses, Semellitani, Scherrini, Selinuntii, Symætii, Talarenses, Tissinenses, Triocalini, Tiracienses, Zanchæi belonging to the Messenians in the Straits of Sicily. Islands bending to Africa: Gaulos, Melita, from Camerina, 84 Miles; and from Lilybæum, 113: Cosyra, Hieronesus, Cænè, Galata, Lopadusa, Æthusa, which others have written Ægusa; Bucina, and 75 Miles from Solus, Osteodes: and opposite the Paropini, Ustica. But on this Side Sicily, opposite the River Metaurus, about 12 Miles from Italy, seven others called Æoliæ. The same Islands belonged to the Liparæi, and by the Greeks were called Hephæstiades, and by our People, Vulcaniæ; Æoliæ, also, because *Æolus* reigned there in the Time that Ilium flourished.

CHAPTER IX.

Of Lipara.

LIPARA, with a Town of Roman Citizens, so called from King *Liparus*, who succeeded *Æolus*, but before that named Melogonis, or Meligunis, is twelve Miles from Italy; and is itself somewhat less in Circuit. Between it and Sicily there is another, formerly named Therasia, now Hiera, because it is sacred to *Vulcan*, wherein there is a Hill that casteth up Flames in the Night. A third is named Strongylè, a Mile from Lipara, lying toward the Sun-rising, wherein *Æolus* reigned; and it differeth from Lipara only in that it sendeth forth more lively Flames: by the Smoke thereof the People

of that Country are said to tell, three Days before-hand¹, what Winds will blow : from whence it is commonly thought, that the Winds were obedient to *Æolus*. A fourth is named *Didymè*, less than *Lipara* : and a fifth, *Ericusa* : a sixth, *Phœnicusa*, left to feed the Rest that are next to it : the last and least is *Euonymus*. And thus much concerning the first Gulf that divideth Europe.

CHAPTER X.

Of Locri, the Front of Italy.

AT Locri beginneth the Front of Italy, called *Magna Græcia*, retiring itself into three Bays of the *Ausonian Sea*; because the *Ausones* first occupied it. It extendeth eighty-two Miles, as *Varro* testifieth; but the greater Number of Writers have made it but seventy-two. In that Coast are Rivers without Number; but the Things which are worth the writing of near *Locri*, are these: *Sagra*, and the Vestiges of the Town *Caulon*: *Mystia*, the Camp *Consilinum*, *Cerintus*, which some think to be the longest Promontory of Italy. Then the Bay of *Scylaceum*, which was called by the Athenians, when they built it, *Scylletium*. Which Place the Bay *Terinæus* meeting with, maketh a Peninsula: in which there is a Port called *Castra Annibilis*: and in no Place is Italy narrower, being but twenty Miles broad. And, therefore, *Dionysius* the Elder wished to have there cut it off, and added it to *Sicily*. Rivers navigable there: *Cæcinus*, *Crotalus*, *Semirus*, *Arocha*, *Targines*. Within is the Town *Petilia*, the Mountain *Alibanus*, and the Promontory *Lacinium*: before the Coast of which is an Island ten Miles from the Land, called *Dioscoron*; and another *Calypsus*, which *Homer*

¹ Wheelwright, in his translation of *Pindar*, thinks the following lines from the seventh *Nemean Ode* refer to the circumstance mentioned by *Pliny*:—

“ Three days ere yet the tempest rise,
The skilful mariner descries,” &c.

Wern. Club.

is supposed to have called Ogygia ; and also Tyris, Eranusa, Melœssa. And this is seventy Miles from Caulon, as *Agrippa* hath recorded.

CHAPTER XI.

The second Bay of Europe.

FROM the Promontory Lacinium beginneth the second Bay of Europe, bent with a great Winding ; and it endeth at Acroceraunium, a Promontory of Epirus, from which it is seventy Miles distant. In it is the Town Croto, and the River Næathus. The Town Thurium, between the two Rivers, Arathis and Sybaris ; where there was a Town of the same Name. Likewise, between Siris and Aciris there standeth Heraclea, once called Siris. Rivers, Acalandrum, Masuentum ; the Town Metapontum, in which the third Region of Italy endeth. The inland Inhabitants, the Aprustani only, are of the Brutians : but of the Lucani, Thoatinates, Bantini, Eburini, Grumentini, Potentini, Sontini, Sirini, Tergilani, Ursentini, Volcentani, to whom the Numestrani are joined. Besides these, *Cato* writeth, that Thebes of the Lucani hath perished. And *Theopompus* saith, that Pandosia was a City of the Lucani, wherein *Alexander* the Epirote was slain. Attached to it is the second Region, containing within it the Hirpini, Calabria, Apulia, and the Salentini, within a Bay, in Compass 250 Miles ; which is called Tarentinus, from a Town of the Laconi, situated in the Recess : and to it was annexed the maritime Colony which was there : it is distant from the Promontory Lacinium 136 Miles ; putting forth Calabria into a Peninsula against it. The Greeks called it Messapia, from the Name of a Leader, and before this, Peucetia, of *Peucetius*, the brother of *Ænotrus*. In the Salentine Country, between the Promontories, there is the Distance of 100 Miles. The Breadth of this Peninsula, from Tarentum to Brundisium, by Land, is two-and-thirty Miles ; but far shorter from the Port Sasina. The Towns in the Continent from Tarentum, are Varia, surnamed Apula, Cessapia and Aletium. But in the Coast of the Senones, Gallipolis, now Auxa, sixty-two Miles

from Tarentum. Two-and-thirty Miles off is the Promontory which they call Acra Japygia, from which Italy runneth furthest into the Sea. Beyond it is the Town of Basta, and Hydruntum, the Space of nineteen Miles, to make a Partition between the Ionian and the Adriatic Sea; through which is the shortest Passage into Greece, over against the Town of Apollonia; where the Strait running between is not above fifty Miles over. This Space between, *Pyrrhus* King of Epirus, intending to have a Passage over on Foot, first thought to make Bridges across: after him, *M. Varro*, at the Time when in the Pirates' War, he was Admiral of *Pompey's* Fleet. But both of them were stopped by other Cares. Next to Hydrus, is Soletum, a City not inhabited: then, Fratuertium: the Port Tarentinus, the Garrison Town Lupia, Balesium, Cælium, Brundusium, fifteen Miles from Hydrus, much renowned among the chief Towns of Italy for the Harbour, especially for the surer sailing, although it be the longer; and the City of Illyricum Dyrrhagium is ready to receive the Ships: the Passage over is 220 Miles. Upon Brundusium bordereth the Territory of the Pædiculi. Nine young Men there were of them, and as many Maids, descended from the Illyrians, who begat thirteen Nations. The Towns of the Pædiculi are Rhudia, Egnatia, Barion, formerly Japyx, from the Son of *Dedalus*: who also gave Name to Japygia. Rivers, Pactius and Aufidus, issuing out of the Hirpine Mountains, and running by Canusium. Then followeth Apulia of the Dauni, so named from their Leader, Father-in-law to *Diomedes*. In which is the Town Salapia, famous for the Love of an Harlot loved by *Annibal*: then, Sipontum and Uria: also the River Cerbalus, where the Dauni end: the Port Agasus, the Cape of the Mountain Garganus, from Salentinum or Japygium 234 Miles, fetching a Compass about Garganus: the Harbour Garnæ, the Lake Pantanus. The River Frento, full of Harbours; and Teanum of the Apuli. Also, Larinum, Aliternia, and the River Tifernus. Then the Region Frentana. So there be three Kinds of Nations: Teani, of their Leader, from the Greeks: the Lucani, subdued by *Calchas*; which Places now the Atinates

hold. Colonies of the Dauni besides the above-named, Luceria and Venusia : Towns, Canusium ; Arpi, sometime Argos Hippium, built by *Diomedes*, but soon after called Argrippa. There *Diomedes* destroyed the Nations of the Monadi and Dardi, with two Cities, which grew to a laughable Proverb ; Apina and Trica. The rest be inward in the second Region : one Colony of the Hirpini, called Beneventum, more auspiciously by a Change of Name ; whereas, in Times past, it was denominated Maleventum : the Æculani, Aquiloni, and Abellinates, surnamed Protropi : the Campsani, Caudini ; and Ligures, surnamed Corneliani : as also Bebiani, Vescellani, Deculani, and Aletrini : Abellinates, surnamed Marsi ; the Atrani, Æcani, Asellani, Attinates, and Arpani : the Borcani, the Collatini, Corinenses : and, famous for the overthrow of the Romans there, the Cannenses : the Dirini, the Forentani, the Genusini, Hardonienses and Hyrini : the Larinates, surnamed Frentani, Metinates, and out of Garganus the Mateolani, the Neritini and Natini, the Robustini, the Sylvini and Strapellini, the Turmentini, Vibinates, Venusini and Ulurtini, the inland Inhabitants of the Calabri, the Ægirini, Apanestini and Argentini. The Butuntinenses and Brumbestini, the Deciani, the Norbanenses, the Palionenses, Sturnini, and Tutini. Also of Salentini, the Aletini, Basterbini, Neretini, Valentini, and Veretini.

CHAPTER XII.

The fourth Region of Italy.

Now followeth the fourth Region ; even of the most valiant Nations of Italy. In the Coast of the Frentani, next to Tifernus, is the River Trinium¹, full of Harbours. The Towns Histonium, Buca, and Ortona ; with the River Aternus. Inland are the Anxani, surnamed Frentani : the Carentini, both higher and lower ; the Lanuenses ; of Maurici, the Teatini : of Peligni, the Corsinienses ; Super-Æquani and Sulmonenses : of Marsi, the Anxantini and Atinates, the Fucentes, Lucentes, and Maruvii : of Alpenses, Alba upon

¹ Now Trigno.

the Lake Fucinus : of Æquiculani, the Cliternini and Carseolani : of the Vestini, the Augulani ; Pinnenses ; Peltuimates, to whom are joined the Aufinates on this Side the Mountains : of Samnites, whom the Greeks called Sabelli and Saunitæ ; the Colony Bovianum, the old ; and another, surnamed Undecimanorum : the Aufidenates, Esernini, Fagisulani, Ficolenses, Sepinates, Treventinates : of Sabini, the Amiternini, Curenses, Forum Decii, Forum Novum, the Fidenates, Interamnates, Nursini, Nomentani, Reatini, Trebulani, who are surnamed Mutuscæi, and also Suffenates ; the Tiburtes, and Tarinates. In this Quarter of the Æquiculæ, there have perished the Comini, Tadiates, Acedici, and Alfaterni. *Gellianus* writeth, that Archippè, a Town of the Marsi, built by *Marsyas*, a Leader of the Lydi, was swallowed up by the Lake Fucinus. Also *Valerianus* reporteth, that a Town of the Vidicini in Picenum was utterly destroyed by the Romans. The Sabini, as some have thought, were, for their Religion and worship of the Gods, called Seveni : they dwell close by the Veline Lakes, upon the dewy Hills. The River Nar draineth them with its sulphury Waters. Which River running from these toward Tiberis, filleth it : and flowing from the Mountain Fiscellus, near to the Groves of Vacuna and Reatè, it is hidden in the same. But from another Side, the River Anio, beginning in the Mountain of the Trebani, bringeth into Tiberis three Lakes of noble Beauty, which gave the Name to Sublaqueo¹. In the Reatine Territory is the Lake Cutiliæ, wherein floateth an Island : and this Lake, *M. Varro* saith, is the very midst of Italy. Beneath the Sabini lieth Latium ; on the Side, Picenum ; behind, Umbria ; and the Craggs of the Apennine on either Hand enclose, as with a Rampart, the Sabini.

CHAPTER XIII.

The fifth Region of Italy.

THE fifth Region is Picenè, in Times past exceedingly populous ; 360,000 of the Picentes came under the Protec-

¹ Now Subiaquo.

tion of the People of Rome. They are descended from the Sabini, upon a Vow truly sacred. They dwelt by the River Aternus, where now is the Territory Adrianus, and the Colony Adria, seven Miles from the Sea. There is the River Vomanius and the Prætutian and Palmensian Territories. Also, Castrum Novum, the River Batinum, Truentum with the River; which is the only Remains of the Liburnians remaining in Italy. The Rivers Alpulates, Suinum, and Helvinum, at which the Prætutian Country endeth, and the Picentian beginneth. The Town Cupra, a Castle of the Firmans, and above it the Colony Ascum, of all Picenum the most noble. Within standeth Novana. In the Borders are Cluana, Potentia, and Numana, built by the Siculi. Next to those is the Colony Ancona, with the Promontory Cumerum, lying close by it, in the very Elbow of the Border thereof as it bendeth; and it is from Garganus 183 Miles. Within are the Auximates, Beregrani, Cingulani, Cuprenses, surnamed the Mountaineers; Falarienses, Pausulani, Pleninenses, Ricinenses, Septempedani, Tollentimates, Triacenses, the City Salvia, and the Tollentini.

CHAPTER XIV.

The sixth Region of Italy.

To these adjoineth the sixth Region, embracing Umbria and the Gallic Country about Ariminum. From Ancona begin the Gallic Borders, by the Name of Togata Gallia. The Siculi and Liburni possessed most Parts of that Tract, and principally the Territories Palmensis, Prætutianus, and Adrianus. Then the Umbrii expelled: these Etruria, and these again the Galli. The People of Umbria are supposed, of all Italy, to be of greatest Antiquity; as being they whom Men think to have been by the Greeks named Ombri, because in the Deluge of the Country by Rain, they only remained alive. The Thusci are known to have subdued 300 Towns of theirs. At this Day, in the Border, there are, the River Æsus, and Senogallia: the River Metaurus, the Colony Fanum Fortunæ. Pisaurum, with the River. And within, Hispellum and Tuder. In the Rest, the Amerini,

Attidates, Asirinales, Arnates, and Æsinates. Camertes, Casventillani, Carsulani, Dolates surnamed Salentini, Fulginates, Foro-flaminienses, Foro-Juliienses, named also Concubienses, Foro-bremitiani, Foro-Semproniienses, Iguini, Interamnates, surnamed Nartes, Mevanates, Mevanienses, and Matilicates, Narnienses, whose Town formerly was called Nequinum. Nucérini surnamed Favonienses, and Camelani. The Otriculani and Ostrani. The Pitulani, surnamed Pisuerter, and others surnamed Mergentini; the Pelestini, Sentinates, Sarsinates, Spoletini, Suarrani, Sestimates, and Suillates, Sadinates, Trebates, Tuficani, Tiferates, named also Tribertini; also others named Metaurenses. The Vesionicates, Urbinates, as well they that be surnamed Metaurenses, as others Hortenses; the Vettionenses, Vindenates and Viventani. In this Tract there are extinct the Feliginates, and they who possessed Clusiolum above Interamna: also the Sarranates, with the Towns Acerræ, called also Vafriæ; and Turceolum, the same as Vetriolum. Also, the Solinates, Suriates, Fallienates, Apinates. There are gone, likewise, the Arienates, with Crinovolum, and the Usidicani and Plangenses, the Pisinates and Cælestini. As for Amera above written, *Cato* hath left in Record, that it was built 964 Years before the War against *Perseus*.

CHAPTER XV.

The eighth Region of Italy.

THE eighth Region is bounded by Ariminum, Padus, and Apennine. In the Borders thereof is the River Crustumium, the Colony Ariminum, with the Rivers Ariminum and Aprusa. Then the River Rubico, once the utmost Limit of Italy. After it, Sapis, Vitis, and Anemo; Ravenna, a Town of the Sabini, with the River Bedeses, 102 Miles from Ancona. And not far from the Sea of the Umbri, Butrium. Within are these Colonies; Bononia, usually called Felsina, when it was the head City of Etruria; Brixillum, Mutina, Parma, Placentia. Towns, Cæsena, Claterna, Forum-Clodii, Livii and Popillii, pertaining to the Truentini: also, [Forum] Cornellii, Laccini, Faventini, Fidentini, Otesini, Padinates,

Regienses a Lepido, Solonates : also the Forests Galliani, surnamed Aquinates ; Tanetani, Veliates, surnamed Vecteri, Regiates and Umbranates. In this Tract the Boii have perished ; who had 112 Tribes, as *Cato* maketh Report. Likewise the Senones, who took Rome.

CHAPTER XVI.

Of the River Padus.

PADUS issuing out of the Bosom of the Mountain Vesulus, bearing up his Head into a very lofty Height, runneth from a Spring¹ worth the seeing, in the Borders of the Ligurian Vagienni ; and hiding itself within a narrow Passage under the Ground, and rising up again in the Territory of the Forovibians, is inferior to no other Rivers in Excellency. By the Greeks it was called Eridanus, and well known for the Punishment of *Phaëton*. It increaseth about the Rising of the Dog-star, by Reason of the melting Snow : more violent to the Fields thereby, than to the Vessels : nevertheless, nothing is stolen away to itself ; but when it hath left the Fields, its Bounty is more abundant by their Fruitfulness : from its Head it holdeth on its Course 300 Miles, adding, for its meandering, 88 Miles. It receiveth not only the navigable Rivers of the Apennines and the Alps, but large Lakes also that discharge themselves into it : so that in all it carrieth into the Adriatic Sea, 30 Rivers. The most celebrated of them are these, sent out of the Side of Apennine : Tanarus, Trebia, Placentinus, Tarus, Nicia, Gabellus, Scultenna, Rhenus. But running out of the Alps, Stura, Morgus, two Duriaë, Sessites, Ticinus, Lambrus, Addua, Olius, and Mincius. And there is no River that in so little Way groweth to a greater Stream ; because it is driven on with the Mass of Water, and stirred to the Bottom, heavy to the Earth, although it be drawn into Rivers and Trenches between Ravenna and Ativum, for 120 Miles : yet because it casteth them out in great Abundance, it is said to make seven

¹ Pliny tells us (lib. ii. 106) that this wonderful spring ceased to flow at mid-day in the summer season. Under the modern name of Po, this river is not less celebrated than in ancient times.—*Wern. Club.*

Seas. It is drawn to Ravenna by a narrow Channel, where it is called Padusa, and in Times past, Messanicus. The next Mouth that he maketh from thence, carrieth the Bigness of a Harbour, which is named Vatreni: at which *Claudius Cæsar*, as he came triumphant from Britain, entered into Adria, with that Vessel, more like a huge House than a Ship. This Mouth of it was formerly called Eridanum: by others, Spineticum, from the neighbouring City Spinæ, built by *Diomedes* (as some think), with the Treasures of Delphi. There the River Vatrenus, from out of the Territory of Forum Cornelli, increaseth Padus. The next Mouth is Caprasia, then Sagis, then Volanè, which before was named Olanè. All those Rivers and Trenches, the Thusci were the first to make out of Sagis, carrying the forcible Stream of the River across into the Atrian Ponds, which are called the seven Seas; and they made the famous Harbour of Atria, a Town of the Thusci; of which the Atriac Sea took the Name aforetime; which now is called Adriaticum. From thence are the full Mouths of Carbonaria, and the Fosses Phylistinæ, which others call Tartarus; but all spring out of the overflowing of the Foss Phylistina, with Athesis coming out of the Tridentine Alps, and Togisonus out of the Territory of the Patavini. Part of them made also the next Port Brundulum: like as the two Medoaci and the Foss Clodia, make Edron. With these Padus minglith itself, and by these it runneth over; and, as it is said by most Writers, like as in Egypt Nilus maketh that which they call Delta, so it shapeth a triangular Figure between the Alps and the Sea-coast, two Miles in Compass. It is a Shame to borrow from the Greeks the Explanation of Things in Italy: but *Metrodorus Scepsius* saith, that because about the Head of this River there grow many Pitch Trees, called in the Gallic Language, Pades, therefore it took the Name of Padus. Also, that in the Ligurian Language, the River itself is called Bodincus, which means bottomless. And to approve this Argument, there is a neighbouring Town called Industria, but by an old Name, Bodincomagum; where beginneth its greatest Depth.

CHAPTER XVII.

Italy beyond Padus, the eleventh Region.

NEXT to it is the Region called Transpadana, the eleventh¹ in Number; and all in the Midland Part; into which the Seas bring all Things with fruitful Channel. The Towns therein be, Vibi-Forum, and Segusius. The Colonies from the Foot of the Alps, Augusta of the Taurini, an ancient Descent from the Liguri: from whence Padus is navigable. Then, Augusta Prætoria, of the Salassi, near the two-fold Passages of the Alps, Graijæ and Peninæ: for it is recorded, that the Carthaginians (Pæni) came through the one, and *Hercules* in at the other, named Graijæ. There standeth the Town, Eporedia, built by the People of Rome by direction of the Books of the *Sibyls*. The Gauls, in their Tongue, call good Horse-breakers Eporedicæ. Also, Vercella of the Lybici, descended from the Sallii: Novaria, from the Vertacomacori; which at this Day is a Village of the Vocontii, and not, as *Cato* thinketh, of the Liguri; of whom the Levi and Marici built Ticinum, not far from the Padus: like as the Boii coming over the Alps, founded Laus Pompeia; and the Insubrias, Mediorlapum. That Comus and Bergomus, and Licini-Forum, with other People thereabout, were of the Orobian Race, *Cato* hath reported: but the Original of that Nation, he confesseth that he knoweth not. Which *Cornelius Alexander* sheweth to have descended from the Greeks; and this by the Interpretation of their Name, which signifieth, Men living in Mountains. In this Tract, Barra, a Town of the Orobians, is perished; from whence, *Cato* saith, the Bergomates took their Beginning; discovering by their Name, that they were seated more highly than happily. There are perished also the Caturiges, banished Persons of

¹ Pliny says, the eleventh region; and he may be accurate according to his original authority: which was a survey ordered by Augustus Cæsar, and in some measure equivalent to the English Domesday survey. This measure of the emperor may be, perhaps, the same that is referred to by St. Luke, ii. 1. But in Pliny's order of reckoning it is only the ninth region.—*Wern. Club.*

the Insubri: likewise Spina, before-named. Also, Melpum, a Town remarkable for Wealth; which, as *Nepos Cornelius* hath written, was by the Insubres, Boii, and Senones, razed on that very Day on which *Camillus* took Veii.

CHAPTER XVIII.

Venetia, the tenth Region.

Now followeth the tenth Region of Italy, Venetia, lying upon the Adriatic Sea: the River whereof, Silis, cometh from the Mountains Taurisani: also the Town Altinum, the River Lipientia, issuing from the Mountains Opitergeni; and a Harbour of the same Name; the Colony Concordia. Rivers and Havens: Romatinum, Tilaventum, the greater and the less: Anassum, by which Varranus runneth down: Alsa, Natiso, with Turrus, running by Aquileia, a Colony situated 12 Miles from the Sea. This is the Region of the Carni, joining that of Japides: the River Timavus, and the Castle Pucinum, famous for good Wine. The Bay Tergestinus, the Colony Tergestè, 23 Miles from Aquileia: beyond which six Miles, is the River Formio, 189 Miles from Ravenna: the ancient Limit of Italy enlarged, but at this Day of Istria, which they report, was so named of the River Ister, flowing out of the River Danubius into Adria: and over against the same Ister, the Mouth of Padus: by the contrary rushing Streams of which two Rivers, the Sea between beginneth to be more mild; as many Authors have reported, but untruly; and *Cornelius Nepos*, also, although he dwelt just by Padus: for there is no River that runneth out of Danubius into the Adriatic Sea. They were deceived (I suppose), because the Ship Argos¹ went down a River into the Adriatic Sea, not far

¹ The Argonauts embarked at Jolcos, in Thessaly, and steered first to Lemnos: from whence, after many adventures, they reached the Phasis, which flows through Colchis into the Black Sea. It would be no easy task to point out the course they took on their return. Pindar, in the Fourth Pythian Ode, makes them pass the Erythrean Sea—

“ Then mingling in the ocean deep,
The Erythrean Sea they sweep.”

By the Erythrean Sea the Indian Ocean is to be understood, through

from Tergestè; but what River it was, is unknown. The more diligent Enquirers say, that it was carried upon Men's Shoulders over the Alps: and that it was embarked into Ister, and so into Saus, and then Nauportus, which upon that occasion took his Name, which riseth between Æmona and the Alps.

CHAPTER XIX.

Istria.

ISTRIA runneth out like a Peninsula. Some have delivered, that it is 40 Miles broad, and 122 Miles in Circuit. The like they say of Liburnia adjoining to it, and of the Bay Flanaticus. But others say, that the Circuit of Liburnia is 180 Miles. Some have set out Japidia to the Bay Flanaticus, behind Istria, 130 Miles: and so have made Liburnia in Circuit 150 Miles. *Tuditonus*, who subdued the Istri, upon his own Statue there set this Inscription: from Aquileia to the River Titius, are 200 Stadia. The Towns in Istria, of Roman Citizens, are Ægida and Parentium. A Colony there is, Pola, now called Pietas Julia; built in old Time by the Colchii. It is from Tergestè, 100 Miles. Soon after, the Town Nesactium, and the River Arsia, now the Bound of Italy. From Ancona to Pola, there is a Passage over the Sea of 120 Miles. In the Midland Part of this tenth Region are the Colonies, Cremona and Brixia, in the Country of the Cenomauni: but in the Country of the Veneti, Atestè. Also the Towns Acelum, Patavium, Opitergium, Belunum, Vicetia: Mantua of the Tusci, the only Place left beyond the Padus. That the Veneti were the Offspring of the Tro-

which it seems they came into Africa, and when arrived on land, carrying the ship on their shoulders until they came to the Tritoniari Lake, they sailed into the Mediterranean, and touched at Thera; thence through the Ocean they came to the island of Lemnos.—(See Wheelwright's "Pindar.") But a more probable course would be one approaching that given by Pliny in the text. The whole story of the Argonauts, however, having, in the lapse of time, become a mere fable, it is not worth the attempt to illustrate it.—*Wern. Club.*

jans *Cato* informs us, and also, that the Cenomanni, near to Massilia, dwell among the Volsci. Fertini, Tridentini, and Bernenses, are Towns of Rhetia. Verona is of the Rheti and Euganei; Julienses of the Carni. Then follow these, whom we need to use no Strictness in naming; Alutruenses, Asse-riates, Flamonienses, Vannienses, and others surnamed Gulici: Foro Julienses, surnamed Transpadani: Foretani, Venidates, Querqueni, Taurisani, Togienses, Varvani. In this Tract there have perished in the Borders, Itaminè, Pellaon, Palsicium. Of the Veneti, Atina and Cælina: of the Carni, Segestè and Odra: and of the Taurissi, Noreia. Also from Aquileia twelve Miles, there was a Town destroyed by *M. Claudius Marcellus*, in spite of the Senate, as *L. Piso* hath recorded. In this Region there are also ten remarkable Lakes and Rivers, either issuing forth of them as their Offspring, or else maintained by them, if they send them out again, when they have received them: as Larius doth Addua, Verbanus Ticinus, Benacus Mincius, Sebinus Ossius, Eupilius Lamber, all seated in the Padus. The Alps reach in Length ten Miles from the upper Sea to the lower, as *Cælius* saith: *Timogenes*, two-and-twenty: but *Cornelius Nepos*, in Breadth 100 Miles: *T. Livius* saith, 3000 Stadia. But both of them take Measure in different Places; for sometimes they exceed 100 Miles, where they separate Germany from Italy: and in other Parts they are so narrow, that they make not full out three score and ten Miles; as if by the Providence of Nature. The Breadth of Italy, from Varus under the Foot of them through the Shallows of Sabatia, the Taurini, Comus, Brixia, Verona, Vicetia, Opitergium, Aquileia, Tergestè, Pola, and Aristia, maketh 702 Miles.

CHAPTER XX.

Of the Alps and Alpine Nations.

MANY Nations inhabit the Alps, but those of special Name, from Pola to the Tract of Tergestis, are these: the Secusses, Subocrini, Catili, Menocaleni: and near to the Carni, those who in Times past were called Taurisci, but

now Norici. To these are Neighbours the Rhæti and Vindelici, all divided into many Cities. The Rhæti are judged to be descended from the Thusci, driven out by the Galli, with their Leader *Rhætus*¹. But turning our Breast to Italy, we meet with the Euganean Nations of the Alps, who enjoyed the Right of the Latins, and whose Towns *Cato* reckoneth to the number of four and thirty. Of them, the Triumpilini, both People and Lands, were sold. After them the Camuni, and many such, were annexed to the next Municipii. The Lepontii and the Salassi, *Cato* thinketh to be of the Tauric Nation. But almost all others suppose that the Lepontici were a Residue left behind of the Companions of *Hercules*, through the interpretation of the Greek Name, as having their Members burned with the Alpine snows as they passed through: that the Graii likewise were of the same Company, planted in the Passage, and inhabiting the Alps Graiæ: also that the Euganei were noblest in Birth, from which they took their Name. The Head of them is Stonos. Of those Rhæti the Vennonetes and Sarunetes inhabit the Heads of the River Rhenus: and of the Leponti, those who are called Viberi dwell by the Fountain of Rhodanus, in the same quarter of the Alps. There be also Inhabitants within the Alps endowed with the Liberty of Latium: as the Octodurenses, and their Borderers the Centrones, the Cottian Cities. The Caturiges, and the Vagienni, from them descended; Ligures, and such as are called the Mountaineers: and many kinds of the Capillati, on the Borders of the Ligusticus Sea. In seemeth not amiss in this Place to set down an Inscription out of a Trophy erected in the Alps, which runneth in this Form: *To the Emperor Cæsar, Son of Divus Augustus, Pontifex Maximus, Imperator fourteen Times, and invested with the Authority of the Tribune seventeen Times: the Senate and People of Rome: For that under his Conduct and Auspices, all the Alpine*

¹ Justin, xx. 5, p. 181, says, "The Tusci, with their leader Rœtus, having lost their ancient territorial possessions, took possession of the Alps, and laid the foundation of the nation of the Rœti, so called after the name of their leader."—*Wern. Club.*

Nations which reached from the Upper Sea to the Nether, were reduced under the Empire of the People of Rome. The Alpine Nations subdued: *Triumpilini, Camuni, Vennonetes, Isarci, Breuni, Naunes, and Focunates.* Of the Vindelici four Nations: the *Consuanetes, Virucimates, Licates, and Catenates.* The *Abisontes, Rugusæ, Suanetes, Calucones, Brixentes, Lepontii, Viberi, Nantuates, Seduni, Veragri, Salaci, Acitavones, Medulli, Uceni, Caturiges, Brigiani, Sogiontii, Ebroduntii, Nemaloni, Edenates, Esubiani, Veamini, Gallitæ, Triulatti, Ectini, Vergunni, Eguituri, Nementuri, Oratelli, Nerusivelauni, Suetri.* There were not reckoned among these the twelve Cottian Cities, which were not in any Hostility, nor yet those which were assigned to the Municipii by virtue of the Law Pompeia. This is that Italy sacred to the Gods, these are her Nations, and these be the Towns of the People. And more than this, that Italy which, when *L. Ænilius Paulus* and *Caius Attilius Regulus* were Consuls, upon news of a Tumult of the Gauls, alone, without any Foreign aids, and without any Nations beyond the Padus, armed 80,000 Horsemen and 700,000 Foot. In plenty of all Metals it giveth place to no Land whatsoever. But it is forbidden to dig any by an old Act of the Senate, commanding to spare Italy.

CHAPTER XXI.

Illyricum.

THE Nation of the Liburni joineth to *Arsia*, as far as the River *Titius*. A Part of it were the *Mentores, Hymani, Encheleæ, Dudini*, and those whom *Callimachus* nameth *Pucetiæ*. Now, the whole in general is called by one Name, *Illyricum*. The Names of the Nations are few of them worthy or easy to be spoken. The *Iapides*, and fourteen Cities of the Liburni, resort to the Convention at *Scordona*: of which it is not irksome to name the *Laciniensi, Stulpini, Burnistæ, and Albonenses*. And in that Convention these Nations following have the Liberty of Italians: the *Alutæ* and *Flanates*, of whom the Gulf is named: *Lopsi, Varubarini,*

and the Assesiates that are exempt from Tribute: also of Islands, the Pulsinates and Curictæ¹. Moreover, along the maritime Coasts, beyond Nesactium, these Towns: Alvena, Flavona, Tarsatica, Senia, Lopsica, Ortopula, Vegium, Argyruntum, Corinium, the City Ænona, the River Pausinus, and Tedanium, at which Iapida endeth. The Islands lying in that Gulf, with the Towns, besides those above noted, Absirtium, Arba, Tragurium, Issa; Pharos, beforetime Paros, Crexa, Gissa, Portunata. Again, within the Continent, the Colony Iaderon, which is from Pola 160 Miles. From thence, 30 Miles off, the Island Colentum; and 18 to the Mouth of the River Titius.

CHAPTER XXII.

Liburnia.

THE End of Liburnia and Beginning of Dalmatia is Scordona, which is twelve Miles from the Sea, situate upon the said River (Titius). Then followeth the ancient Country of the Tariotæ, and the Castle Tariota, the Promontory of Diomed, or, as some would have it, the Peninsula Hyllis; in Circuit 100 Miles. Also Tragurium, inhabited by Roman Citizens, well known for its Marble: Sicum, into which Place *Divus Claudius* sent the old Soldiers: the Colony Salona, 222 Miles from Iadera. There repair to it for Law those that are described into Decuries, 382: of Dalmatiæ, 22; Decuni, 239; Ditiones, 69; and Mezæi, 52; Sardiates. In this Tract are Burnum, Mandetrium, and Tribulium, Castles illustrious for the Battles of the Romans. There come also for Law, of the Islands the Issæi, Collentini, Separi, and Epetini. From these, certain Castles, Piguntia and Ratanæum, and Narona, a Colony, pertaining to the third Convention, 72 Miles from Salona, lying close by a River of the same Name, and 20 Miles from the Sea. *M. Varro* writeth, that 89 Cities used to repair thither for Justice. Now, about these only are known, Cerauni in 33 Decuries; Daorizi in 17; Destitiates in 103; Docleatæ in 34; Deretini in 14;

¹ Now Vegia.

Deremistæ in 30; Dindari in 33; Glinditiones in 44; Melcomani in 24; Naresii in 102; Scirtari in 72; Siculotæ in 24; and the Vardæi, who formerly wasted Italy, in not more than twenty Decuries. Besides these, there held this Tract, Oenei, Partheni, Hemasini, Arthitæ, and Armistæ. From the River Naron 100 Miles, is the Colony Epidaurum. Towns of Roman Citizens, Rhizinium, Ascrinium, Butua, Olchinium, which before was called Colchinium, built by the Colchi. The River Drilo, and the Town upon it, Scodra, inhabited by Roman Citizens, eighteen Miles from the Sea; besides many other Towns of Greece, and strong Cities, out of all remembrance. For in that Tract were the Labeatæ, Enderoduni¹, Sassæi, Grabæi, and those who properly were called Illyrii, and Taulantii, and Pyræi. The Promontory Nymphæum, in the Coast, keepeth the name: also Lissum, a Town of Roman Citizens, 100 Miles from Epidaurum.

CHAPTER XXIII.

Macedonia.

FROM Lissum is the Province of Macedonia: the Nations there are the Partheni, and on their Back, the Dassaretes. The Mountains of Candavia seventy-nine Miles from Dyrhachium. But in the Borders, Denda, a Town of Roman Citizens; also the Colony Epidamnum², which, for that inauspicious Name, was by the Romans called Dyrrhachium. The River Aous, named of some Æas; Apollonia, once a Colony of the Corinthians, seven Miles from the Sea; in the Recesses of which is the famous Nymphæum³. The Foreigners inhabiting about it are the Amantes and Bulationes; but in the Borders, the Town Oricum, built by the Colchi. Then beginneth Epirus, the Mountains Acroce-

¹ Now Endero, in Albania.

² Mela, ii. 3. The Romans changed the name Epidamnum, because it seemed ominous to those *who were going to their loss*. It is now Durazzo.—*Wern. Club.*

³ The crater Nymphæi was a hot spring in the territory of Apollonia, and is described by Pliny, lib. ii. 110.—*Wern. Club.*

raunia, with which we have bounded this Bay of Europe. Oricum is from Salentinum (a Promontory of Italy) four score and five Miles.

CHAPTER XXIV.

Noricum.

BEHIND the Carni and Iapides, where the great River Ister runneth, the Norici are joined to the Rhæti. Their Towns are Virunum, Celeia, Teurnia, Aguntum, Viana, Æmona, Claudia, Flavium, Tolvense. Near the Norici are the Lake Peiso, the Deserts of the Boii. Nevertheless now, by the Colony of *Divus Claudius*, Salaria, and by the Town Scarabantia Julia, they are inhabited.

CHAPTER XXV.

Pannonia.

THENCE beginneth Mast-bearing Pannonia: from which the Crags of the Alps, becoming more Smooth, turn through the midst of Illyricum from the North to the South, and settle lower by an easy Descent, both on the right Hand and the left. That Part which looks toward the Adriatic Sea is called Dalmatia, and Illyricum, above-named. Pannonia bendeth toward the North, and is bounded with the River Danubius. In it are these Colonies: Æmonia, Siscia. And these remarkable and navigable Rivers run into Danubius: Draus, with more Violence, out of the Noric Alps; and Saus out of the Carnic Alps more gently, 115 Miles between. Draus passeth through the Serretes, Serrapilli, Jasi, and Sandrozetes: Saus through the Colapiani and Breuci. And these be the chief of the People. Moreover, the Arivates, Azali, Amantes, Belgites, Catari, Corneates, Aravisci, Hercuniates, Latovici, Oseriates, and Varciani. The Mountain Claudius, in the Front of which are the Scordisci, and upon the Back, the Taurisci. The Island in Saus, Metubarris, the biggest of all the River Islands. Besides, remarkable Rivers: Calapis, running into Saus, near Siscia; where, with a double Channel, it maketh the Island called Segestica.

Another River, Bacuntius, running likewise into Saus at the Town Sirmium: where is the City of the Sirmians and Amantines. Forty-five Miles from thence, Taurunum, where Saus is intermingled with Danubius. Higher above there run into it Valdanus and Urpanus, which are no obscure Rivers.

CHAPTER XXVI.

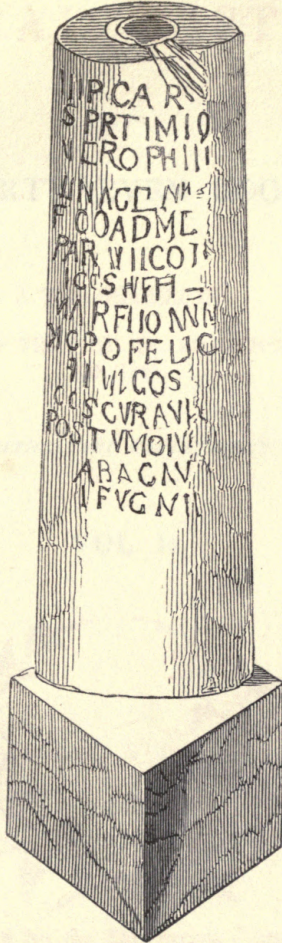
Mæsia.

To Pannonia is joined the Province called Mæsia, which extendeth along Danubius unto Pontus. It beginneth from the confluent above named. In it are the Dardani, Celegeri, Triballi, Trimachi, Mæsi, Thraces, and the Scythæ, bordering upon Pontus. Fair Rivers, out of the Dardanian Borders: Margis, Pingus, and Timachis. Out of Rhodopè, Oessus: out of Hæmus, Utus, Essamus, and Jeterus. Illyricum, where it is broadest, taketh up 325 Miles: in Length from the River Arsia to the River Drinius, 800 Miles. From Drinium to the Promontory Acroce-raunium, 182 Miles. *M. Agrippa* hath set down this whole Gulf, comprehending Italy and Illyricum, in the compass of 1300 Miles. In it are two Seas, bounded as I have said: that is, the Lower, otherwise called the Ionian, in the first Part: the Inner, called Adriaticum, which also they name the Upper. In the Ausonian Sea there are no Islands worth the naming, but those above specified. In the Ionian Sea there are but few: upon the Calabrian Coast, before Brundusium, by the interposition of which the Harbour is made: and against the Apulian Coast, Diomedea, famous for the Tomb of *Diomedes*. Another of the same Name, called by some Teutria. The Coast of Illyricum is heaped with more than 1000; such is the nature of the Sea, full of Shallows, with narrow Channels running between. But before the Mouth of Timavus, there are Islands famous for hot Waters, which flow with the Sea. And near the Territory of the Istri, Cissa, Pullariæ, and those which the Greeks name Absyrtides, from *Absyrtis*, Brother of *Medea*, there slain. Near

them they called the Islands Electridæ, wherein is produced Amber, which they call Electrum: a very certain Argument to prove the Vanity of the Greeks; inasmuch as the matters they assigned to him were never known. Opposite Iader is Lissa; and certain others over against the Liburni, called Creteæ: and as many of the Liburni, Celadusæ. Opposite Surium is Brattia, commended for Oxen and Goats. Issa, inhabited by Roman Citizens, and Pharia with the Town. Next to these, Corcyra, surnamed Melæna; with the Town of the Guidii, distant 22 Miles: between which and Illyricum is Melita; from whence (as *Callimachus*) testifieth) the little Dogs Melitæi took their Name¹; and twelve Miles from thence, the three Elaphites. In the Ionian Sea, from Oricum 1000 Miles, is Sasonis, well known for the Station of Pirates.

¹ There were two islands called Melita: one of them between Sicily and Africa, famous for the shipwreck of St. Paul; and from which, Strabo says, the Melitean or Maltese dogs took their name. The other Melita was on the coast of Illyria; and from this, other authors besides Pliny suppose these favourite animals to have been derived.—*Wern. Club.*

Note.—The reader will have observed in the preceding chapters a strange diversity of opinion in the mind of the author; for whilst he ascribes every ominous appearance to the deities presiding over the affairs of men, yet, in other passages, he expresses his doubts as to their existence, or would limit to the earth itself the controlling power; in other words, he believed the earth to be a deity. From these incongruities we can derive but one opinion, namely, that, heathen as he was, Pliny nevertheless doubted the truth of that which his countrymen and other heathen nations believed, whilst he fell short of that true knowledge which, in and before his day, had been vouchsafed to many like himself, who from heathenism were converted to Christianity, either through the evidence of miracles, by which its truth was supported, or through the opening of the eyes of the understanding, by which means they acknowledged that which seemed a mystery before. Considering these chapters in this light, much interest is added to the style and spirit in which our author wrote.—*Wern. Club.*



Roman Miliarium, from Montfaucon. See page 171.

The first part of the book is devoted to a general history of the world, from the beginning of time to the present. The author discusses the various ages of the world, and the different states of human society. He also touches upon the progress of the arts and sciences, and the influence of religion and philosophy.

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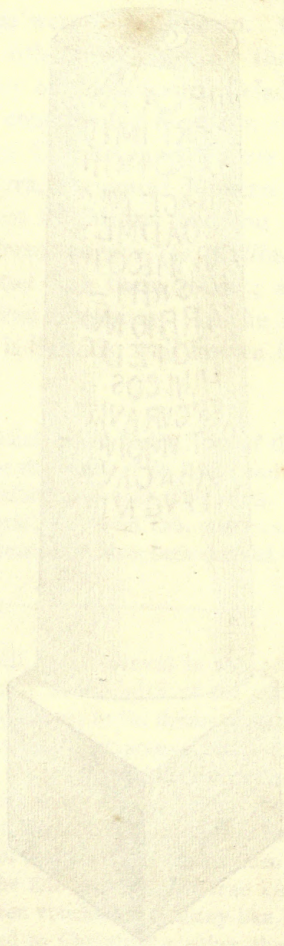
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PLINY'S
NATURAL HISTORY.

IN

THIRTY-SEVEN BOOKS.

A TRANSLATION

ON THE BASIS OF THAT BY DR. PHILEMON HOLLAND,
ED. 1601.

WITH CRITICAL AND EXPLANATORY NOTES.

VOL. II.



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PURSUANT to a Resolution to the following effect, passed at a meeting of the Committee held on Wednesday, the 15th March, 1848,—

“The best thanks of the Club are hereby presented to—

JONATHAN COUCH, Esq. F.L.S., *the Superintending Editor of this Publication, and Translator of the Work.*

Also to the following Gentlemen, viz. :—

In the Department of Classics,

W. G. V. BARNEWALL, Esq. M.A.
REV. GEORGE MUNFORD.

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For the Editorial Assistance rendered by them in the preparation of the accompanying Work.”



IN THE FOURTH BOOK

ARE COMPRISED

REGIONS, NATIONS, SEAS, TOWNS, MOUNTAINS, PORTS, RIVERS,
WITH THEIR DIMENSIONS, AND PEOPLE, EITHER NOW
OR IN TIMES PAST KNOWN; VIZ.: —

CHAP.

1. Epirus.
2. Ætolia.
3. Locri.
4. Peloponnesus.
5. Achaia.
6. Arcadia.
7. Greece and Attica.
8. Thessaly.
9. Magnesia.
10. Macedonia.
11. Thracia.
12. The Islands lying between those Countries: among which, Creta, Eubœa, the Cyclades, Sporades: also,

CHAP.

- the Isles within Hellespont, near the Sea of Pontus, within Mœotis, Dacia, Sarmatia, and Scythia.
13. The Islands of Pontus.
14. The Islands of Germany.
15. Islands in the French Ocean.
16. Britain and Ireland.
17. Gaul.
18. Gallia Lugdunensis.
19. Aquitain.
20. High Spain (named Citerior).
21. Portugal.
22. Islands in the Ocean.
23. The Measure of all Europe.

Herein are contained many principal Towns and Countries, famous Rivers and Mountains; Islands, also, besides Cities or Nations that are perished: in sum, Histories and Observations.

LATIN WRITERS ABSTRACTED:

M. Varro, Cato Censorius, M. Agrippa, Divus Augustus, Varro Atacinus, Cor. Nepos, Hyginus, L. Vetus, Pomponius Mela, Licinius Mutianus, Fabricius Thuscus, Atteius Capito, and Atteius Philologus.

FOREIGN AUTHORS:

Polybius, Hecataeus, Hellenicus, Damastes, Eudorus, Dicæarchus, Timosthenes, Ephorus, Crater the Grammarian, Serapion of Antioch, Callimachus, Artemidorus, Apollodorus, Agathocles, Eumachus Siculus the Musician, Alexander Polyhistor, Thucydides, Dosiades, Anaximander, Philistides, Mallotes, Dionysius, Aristides, Callidemus, Menæchmus, Ædus-thenes, Anticlides, Heracides, Philemon, Menephon, Pythias, Isidorus, Philonides, Xenagoras, Astynomus, Staphylus, Aristocritus, Metrodorus, Cleobulus, and Posidonius.



THE FOURTH BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY

C. PLINIUS SECUNDUS.

From whence first arose all the fabulous Lies, and the excellent Learning of the Greeks.



THE third Bay of Europe beginneth at the Mountains of Acroceraunia, and endeth in the Hellespont. It containeth, besides 19 smaller Bays, 25,000 Miles. Within it are Epirus, Acarnania, Ætolia, Phocis, Locris, Achaia, Messania, Laconia, Argolis, Megaris, Attica, Bœotia. And again, from another Sea, the same Phocis and Locris, Doris, Phthiotis, Thessalia, Magnesia, Macedonia, Thracia. All the fabulous Vein, as well as the illustrious learning of Greece, proceeded first out of this quarter; on which account we will therein stay somewhat the longer. The Country Epirus, generally so called, beginneth at the Mountains of Acroceraunia. In it are, first, the Chaones, of whom Chaonia taketh the Name: then the Thesproti, and Antigoneses: the Place Aornus, and Exhalation so deadly to Birds. The Cestrini, and Perrhœbi, with their Mountain Pindus: the Cassiopæi, the Dryopes, Selli, Hellopes, and Molossi, among whom is the Temple of *Jupiter*

Dodonæus, so famous for the Oracle: the Mountain *Tomarus*, celebrated by *Theopompus* for the hundred Fountains about its foot.

CHAPTER I.

Epirus.

EPIRUS itself reaching to Magnesia and Macedonia, hath behind it the *Dassaretæ* above named, a free Nation; but presently the savage People of the *Dardani*. On the left side of the *Dardani*, the *Treballi* and Nations of *Mœsia* lie ranged: from the Front are joined to them, the *Medi* and *Denthelatæ*; upon whom the *Thracæ* border, who reach as far as to *Pontus*. Thus it is environed with *Rhodopè*, and is fenced presently also with the Heights of *Hæmus*. In the Coast of *Epirus*, among the *Acroceraunia*, is the Castle *Chimæra*, under which is the Spring of the King's Water. The Towns are *Mæandria* and *Cestria*: the River of *Thesprotia*, *Thyamis*: the Colony *Buthrotium*: and the Gulf of *Ambracia*, above all others most famous, receiving at its Mouth the wide Sea, 39 Miles in Length and 15 in Breadth. Into it runneth the River *Acheron*, flowing out of *Acherusia*, a Lake of *Thesprotia*, 36 Miles from thence: and the Bridge over it, 1000 Feet long, admirable to those that admire all Things of their own. In the Gulf is the Town *Ambracia*. The Rivers of the *Molossi*, *Aphas* and *Aractus*. The City *Anactoria*, and the Lake *Pandosia*. The Towns of *Acarnania*, called formerly *Curetus*, are *Heraclea* and *Echinus*: and in the very entrance, *Actium*, a Colony of *Augustus*, with the noble Temple of *Apollo*, and the free City *Nicopolis*. When out of the *Ambracian Gulf* and in the *Ionian Sea*, we meet with the *Leucadian Coast* and the Promontory of *Leucatè*. Then the Bay, and *Leucadia* itself, a Peninsula, once called *Neritis*, but by the Labour of the neighbouring Inhabitants cut off quite from the Continent, but joined to it again by means of the Winds

blowing together heaps of Sand; which Place is called Dioryctus, and is in Length half a mile. A Town in it is called Leucas, formerly Neritum. Then the Cities of the Acarnani, Halyzea, Stratos, Argos, surnamed Amphilo-chicum. The River Achelous running out of Pindus, and dividing Acarnania from Ætolia; and by continual addition of Earth joining the Island Artemita to the main Land.

CHAPTER II.

Ætolia.

THE Ætolian People are the Athamanes, Tympei, Ephiri, Ænienses, Perrhœbi, Dolopes, Maraces and Atraces, from whom the River Atrax falleth into the Ionian Sea. The Town Calydon in Ætolia is seven Miles and a half from the Sea, near to the River Evenus. Then followeth Macynia and Molychria; behind which Chalcis standeth, and the Mountain Taphiassus. But in the Borders, the Promontory Antirrhium, where is the Mouth of the Corinthian Gulf, not a Mile broad where it runneth in and divideth the Ætoli from Peloponnesus. The Promontory that shooteth out against it is named Rhion: but in the Corinthian Gulf are the Towns of Ætolia, Naupactum, and Pylenè: and in the Midland parts, Pleuron, Halysarna. The Mountains of name: in Dodonè, Tomarus: in Ambracia, Grania: in Acarnania, Aracynthus: in Ætolia, Acanthon, Panætolum, and Macinium.

CHAPTER III.

Locri.

NEXT to the Ætoli are the Locri, surnamed Ozolæ, free: the Town Oeanthè: the Port of *Apollo Phæstius*: the Bay Crissæus. Within, the Towns Argyna, Eupalia, Phæstum, and Calamissus. Beyond are Cirrhæi, the Plains of Phocis, the Town Cirrha, the Port Chalæon: from which, seven Miles within the Land, is the free City Delphi, under the

Mountain Parnassus, the most illustrious Place upon Earth for the Oracle of *Apollo*. The Fountain Castalius, the River Cephissus, running before Delphos, which ariseth in a former City, Lilœa. Moreover, the Town Crissa, and together with the Bulenses, Anticyra, Naulochum, Pyrrha, Amphissa, a free State, Trichonè, Tritèa, Ambrysus, the Region Drymœa, named Daulis. Then, at the bottom of the Bay, the Angle of Bœotia is washed by the Sea, with the Towns Siphæ and Thebæ, which are surnamed Corsicæ, near to Helicon. The third Town of Bœotia from this Sea is Pagæ, from whence projecteth the Neck of Peloponnesus.

CHAPTER IV.

Peloponnesus.

PELOPONNESUS, called formerly Apia and Pelasgia, is a Peninsula, worthy to come behind no other Land for nobleness; lying between two Seas, Ægeum and Ionium: like the Leaf of a Plane Tree¹, in regard of the indented Creeks thereof: it beareth a circuit of 563 Miles, according to *Isidorus*. The same, if you comprise the Creeks, addeth almost as much more. The Straits whence it passeth is called Isthmos. In which Place the Seas above-named, bursting from various ways, from the North and the East, devour all the Breadth of it there: until, by the contrary running in of such Seas, the Sides on both hands being eaten away, and leaving a Space between, five Miles over, Hellas, with a narrow Neck, meeteth with Peloponnesus. The one Side thereof is called the Corinthian Gulf, the other, the Saronian. Lecheum on the one hand, and Cenchreæ on the other, are the Bounds of the Straits: where such Ships as for their bigness cannot be conveyed over upon Waggons, make a great compass about with some Danger. For which cause, *Demetrius* the King, *Cæsar* the Dictator,

¹ Dionysius, the geographer, also compares the form of the Morea, or ancient Peloponnesus, to the leaf of a plane-tree, making the footstalk to be the isthmus by which it is joined to Greece. And in Martyn's "Virgil," a figure of this leaf is engraved to illustrate the subject.—*Wern. Club.*

Prince *Caius*, and *Domitius Nero*, endeavoured to cut through the narrow portions, and make a navigable Channel: but the attempt was unhappy, as appeared by the issue of them all. In the midst of this narrow Strait which we have called *Isthmos*, the Colony *Corinthus*, formerly called *Ephyra*, situated on a little Hill, is inhabited, three score *Stadia* from each Shore: which from the top of its Citadel, which is named *Acrocorinthus*, wherein is the Fountain *Pirenè*, hath a prospect into both those opposite Seas. Through the *Corinthian Gulf* is a Passage from *Leucas* to *Patræ*, of 87 Miles. *Patræ*, a Colony, built upon the Promontory of *Peloponnesus* that shooteth furthest into the Sea, over against *Ætolia* and the River *Evenus*, of less distance, as hath been said, than a Mile, in the very entrance, sendeth out the *Corinthian Gulf* 85 Miles in Length, even as far as *Isthmos*.

CHAPTER V.

Achaia.

ACHAIA, the name of a Province, beginneth at the *Isthmus*: formerly it was called *Ægialos*, because of the Cities disposed in order upon the Strand. The first there is *Lecheæ* above named, a Port of *Lecheæ* of the *Corinthians*. Next to it *Oluros*, a Castle of the *Pellenæi*. The Towns, *Helicè*, *Bura*, and (into which the Inhabitants retired when these before-named were swallowed up in the Sea) *Sicyon*, *Ægira*, *Ægion*, and *Erineos*. Within, *Cleonè* and *Hysiaë*. Also the Port *Panhormus*, and *Rhium*, described before: from which Promontory, five Miles off, standeth *Patræ*, above mentioned, and the Place called *Pheræ*. Of nine Mountains in *Achaia*, *Scioessa* is most known; also the Spring *Cymothoè*. Beyond *Patræ* is the Town *Olenum*, the Colony *Dymæ*. Places called *Buprasium* and *Hirmenè*: and the Promontory *Araxum*. The Bay of *Cyllenè*, the Cape *Chelonates*: from whence to *Cyllene* is two Miles. The Castle *Phlius*. The Tract also by *Homer* named *Arethyrea*, and afterwards *Asophis*: then the Country of

the Elij, who before were called Epei. Elis itself is in the Midland, 12 Miles from Pylos. Within is the Shrine of *Jupiter Olympius*, which, for the fame of the Games there, containeth the Calendars of the Greeks (*fasti*): also, the former Town of the Pisæi, before which the River Alpheus runneth; but in the Borders, the Promontory Icthus. The River Alpheus is navigated to the Towns Aulos and Leprion. The Promontory Platanestus. All these lie Westward. But towards the South, the Bay Cyparissius, the City Cyparissa, 72 Miles in circuit. The Towns, Pylos, Methonè, a Place called Helos: the Promontory Acritas: the Bay Asinæus of the Town Asinum, and Coronæus of Coronè: and these are bounded by the Promontory Jænarus. There also is the Region Messenia with 22 Mountains: the River Paomisis. But within, Messene itself, Ithomè, Occhalia, Arenè, Pteleon, Thryon, Dorion, Zanclum, famous at various times. The Compass of this Bay is 80 Miles, the Passage over 30 Miles. Then from Tænarus, the Laconian Land pertaining to a free People, and a Bay there in circuit about 206 Miles, but 39 Miles over. The Towns Tænarum, Amiclæ, Pheræ, Leuctra, and within, Sparta, Theranicum: and where stood Cardamylè, Pitanè, and Anthanè. The Place Thyrea, and Gerania: the Mountain Taygetus: the River Eurotas, the Bay Ægylodes, and the Town Psammathus. The Bay Gytheates, of a Town thereby (Gythæum), from whence to the Island Creta there is a very direct course. All these are enclosed within the Promontory Maleum. The Bay next following to Scyllæus is called Argolicus, and is 50 Miles over, and 172 Miles round. The Towns upon it, Bœa, Epidaurus, Limera, named also Zarax: the Port Cyphanta. Rivers, Inachus, Erasinus: between which standeth Argos, surnamed Hippium, upon the Lake Lernè, from the sea two Miles, and, nine Miles further, Mycenæ. Also, where they say Tirynta stood, and the Place Mantinea. Mountains, Artemius, Apesantus, Asterion, Parparus, and 11 others besides. Fountains, Niobè, Amymonè, Psammothè. From Scyllæum to the Isthmus, 177 Miles. Towns, Hermionè, Trœzen, Coryphasium, and Argos, called of some Inachium,

of others Dipsium. The Port Cænites, the Bay Saronicus, encircled in old Time with a Grove of Oaks, from whence it had the Name, for so old Greece called an Oak. Within it the Town Epidaurum, celebrated for the Shrine of *Æsculapius*; the Promontory Spiræum, the Harbours Anthedon and Bucephalus: and likewise Cenchræa, which we spoke of before, being the other limit of the Isthmus, with the Shrine of *Neptune*, famous for its Games every five Years. So many Bays cut up the Peloponnesian Coast: so many Seas roar against it. For on the North side the Ionian Sea breaketh in: on the West it is beaten upon by the Sicilian. From the South the Crethean Sea driveth against it: the *Ægean* from the South-east, and Myrtoan on the North-east, which beginning at the Megarian Bay, washeth all Attica.

CHAPTER VI.

Of Arcadia.

THE midland Parts of this, Arcadia most of all taketh up, being every way remote from the Sea: at the beginning it was named Drymodis, but soon after Pelasgis. The Towns in it are Psophis, Mantinea, Stymphalum, Tegea, Antigonea, Orchomenum, Pheneum, Palatium, from whence the Mount Palatium at Rome took the Name, Megalepolis, Catina, Bocalium, Carmon, Parrhasiæ, Thelphusa, Melanæa, Heræa, Pilè, Pellana, Agræ, Epium, Cynætha, Lepreon of Arcadia, Parthenium, Alea, Methydrium, Enespè, Macistum, Lampè, Clitorium, Cleonè; between which Towns is the Tract Nemea, usually called Berubinadia. Mountains in Arcadia, Pholoe, with the Town: also Cyllenè, Lyceus, wherein the Shrine of *Jupiter Lyceus*, Mænalus, Artemisius, Parthenius, Lampeus, and Nonacris: and eight besides of base account. Rivers, Ladon, issuing out of the Fens of Pheneus, Erymanthus out of a Mountain of the same Name, running both down into Alpheus. The rest of the Cities to be named in Achæa, Aliphiræi, Albeata, Pyrgenses, Pareata, Paragenitiæ, Tortuni, Typanæi, Thryasii, Trittenses. All

Achæa Domitius Nero endowed with Freedom. Peloponnesus, from the Promontory of Malea to the Town Lechæum upon the Corinthian Bay, lieth in Breadth 160 Miles: but across, from Elis to Epidaurum, 125 Miles: from Olympia to Argos, through Arcadia, 63 Miles: from the same Place to Phlius is the said measure. And the whole, as if Nature weighed out a Recompense for the irruptions of the Seas, riseth up into three score and sixteen Mountains.

CHAPTER VII.

Greece and Attica.

FROM the Straits of the Isthmus beginneth Hellas, by our Countrymen called Græcia. The first Tract thereof is Attica, in old Time named Actè. It reacheth the Isthmus on that Part of it which is called Megaris, from the Colony Megara, from the Region of the Pagæ. These two Towns, as Peloponnesus lieth out in Length, are seated on either Hand, as it were, upon the Shoulders of Hellas. The Pagæi, and more especially the Ægosthenienses, lie annexed to the Magarensians. In the Coast is the Harbour Schoenus. Towns, Sidus, Cremyon, the Scironian Rocks for three Miles long, Geranea, Megara, and Elcusin. There were besides, Cœnoa and Probalinthus, which now are 52 Miles from the Isthmus. Pyræus and Phalera, two Ports joined to Athens by a Wall, within the Land five Miles. This City is free, and needeth no more any Man's praise: so abundantly noble it is. In Attica are these Fountains, Cephissia, Larinè, Callirrhœ, and Enneacreunos. Mountains, Brilessus, Megialcus, Icarius, Hymettus, and Lyrabetus: the River Ilissos. From Pyræus 42 Miles is the Promontory Sunium; likewise the Promontory Dōriscum. Also Potamos and Brauron, Towns in time past. The Village Rhamnus, the Place Marathon, the Plain Thriastius, the Town Melita and Oropus, in the Border of Bœotia. To which belong Anthedon, Onchestos, Thespræ, a free Town, Lebadea: and Thebes, surnamed Bœotia, not inferior in

Fame to Athens, as being the native Country (as Men will have it) of two Gods, *Liber* and *Hercules*. Also, they attribute the Birth of the Muses to the Grove Helicon. To this Thebes is assigned the Forest Cithæron and the River Ismenus. Moreover, Fountains in Bœotia, Œdipodium. Psammatè, Dircè, Epigranea, Arethusa, Hippocrenè, Aganippè, and Gargaphiæ. Mountains, besides the forenamed, Mycalessus, Adylisus, Acontius. The rest of the Towns between Megara and Thebes, Eleutheræ, Haliartus, Plateæ, Pheræ, Aspledon, Hylè, Thisbè, Erythræ, Glissas, and Copæ. Near the River Cephissus, Lamia and Anichia: Medeon, Phligonè, Grephis, Coronæa, Chæronia. But in the Borders, beneath Thebes, Ocalè, Elæon, Scolos, Scœnos, Peteon, Hyrie, Mycalessus, Hyreseon, Pteleon, Olyros, Tanagia, a free People; and in the very Mouth of Euripus, which the Island Eubœa maketh by its opposite Site, Aulis, renowned for its large Harbour. The Bœotians in old Time were named Hyantes. The Locrians also are named Epicnemidii, in Times past Letegetes, through whom the River Cephissus runneth into the Sea. Towns, Opus (whereof cometh the Opuntinean Bay), and Cynus. Upon the Sea-coast of Phocis, one Daphnus. Within, among the Locrians, Elatea, and upon the Bank of Cephissus (as we have said) Lilæa: and toward Delphos, Cnemis and Hiampolis. Again, the Borders of the Locrii, wherein stand Larymna and Thronium, near which the River Boagrius falleth into the Sea. Towns, Narycion, Alopè, Scarphia. After this, the Vale, called by the People there dwelling, Maliacus Sinus, wherein are these Towns, Halcyonè, Econia, and Phalara. Then Doris, wherein are Sperchios, Erineon, Boion, Pindus, Cytinum. On the Back of Doris is the Mountain Œta. Then followeth Æmonia that so often hath changed Name: for the same hath been called Pelasgicum, Argos, and Hellas, Thessalia also, and Dryopis, and evermore it took the Name of the Kings. In it was born a King called *Græcus*, from whom Greece was named: there also was *Hellen* born, from whence came the Hellenes. These being but one People, *Homer* hath called by three Names: Myrmidons,

Hellenæ, and Achæi. Of these, they are called Phthiotæ who inhabit Doris. Their Towns are Echinus, in the entrance of the River Sperchius: and the Straits of Thermopylæ, so named by reason of the Waters: and, four Miles from thence, Heraclea was called Trachin. There is the Mountain Callidromus: and the famous Towns, Hellas, Halos, Lamia, Phthia, and Arnè.

CHAPTER VIII.

Thessalia.

MOREOVER, in Thessalia, Orchomenus, formerly called Minyæus; and the Town Almon, by some Elmon; Atrax, Pelinnâ, and the Fountain Hyperia. Towns, Pheræ, behind which Pierius stretcheth forth to Macedonia: Larissa, Gomphi, Thebes of Thessalia, the Grove Pteleon, and the Bay Pagasicus. The Town Pagasa, the same named afterwards Demetrias; Tricca, the Pharsalian Plains, with a free City: Cranon, and Iletia. Mountains of Phthiotis, Nymphæus, beautiful for the natural Harbours and Garden-works there: Buzigæus, Donacesa, Bermius, Daphista, Chimerion, Athamas, Stephanè. In Thessalia there are 34, of which the most famous are Cerceti, Olympus, Pierus, Ossa: over against which is Pindus and Othrys, the Seat of the Lapithæ; and those lie toward the West: but Eastward, Pelios; all of them bending in the manner of a Theatre: and before them, in form of a Wedge, 72 Cities. Rivers of Thessalia, Apidanus, Phœnix, Enipeus, Onochomus, Pamisus: the Fountain Messeis, the Lake Bœbeis: and illustrious above all the rest, Peneus, which, rising near Gomphi, runneth for 500 Stadia in a woody Dale between Ossa and Olympus, and half that Way is navigable. In this Course are the Places called Tempè, five Miles in Length, and almost an Acre and a half Broad, where on both Hands the Hills arise by a gentle Ascent above the reach of Man's Sight. Within, Peneus glideth by, in a fresh green Grove, clear as Crystal, over the gravelly Stones; pleasant for the Grass upon the Banks, and melodious with the Harmony of Birds. It

taketh in the River Eurotas, but receiveth him not, but, as *Homer* expresseth it¹, floweth over him like Oil: and within a very little while rejecteth the Burden, as refusing to mingle with his own silver Streams those penal and cursed Waters so direfully produced.

CHAPTER IX.

Magnesia.

To Thessalia, Magnesia is annexed: the Fountain there is Libethra. The Towns, Iolchos, Hirmenium, Pyrrha, Methonè, Olizon. The Promontory Sepias. Towns, Castana, Sphalatra, and the Promontory Ænantium. Towns, Melibœa, Rhisus, Erymnè. The Mouth of Peneus. Towns, Homolium, Orthè, Thespiæ, Phalanna, Thaumaciæ, Gyrtion, Cranon, Acarnè, Dotion, Melitæa, Phylacè, Potinæ. The Length of Epirus, Achaia, Attica, and Thessalia, lying strait out, is by report 480 Miles, the Breadth 287.

CHAPTER X.

Macedonia.

MACEDONIA, so called afterwards (formerly it was named Emathia) is a Kingdom, consisting of 150 several People, renowned for two Kings, and once ennobled for the Empire of the World. This Country passing behind Magnesia and Thessalia toward the Nations of Epirus Westward, is much troubled with the Dardani. The North Parts thereof are defended by Pæonia and Pelagonia, against the Triballi. The Towns are these, Ægè, wherein it was the Custom to inter

¹ As *Homer* expresseth it. See "Iliad," b. 750:—

"To these were join'd, who till the pleasant fields
Where Titaresius winds: the gentle flood
Pours into Peneus all his limpid stores,
But with the silver-eddièd Peneus flows
Unmixt as oil; for Stygian is his stream,
And Styx is the inviolable oath.

COWPER'S *Homer*.—*Wern. Club.*

their Kings : Berœa, and Æginium, in that Quarter which, from the Wood, is called Pieria. In the Borders, Heraclea, and the River Apilas : Towns, Phina and Oloros : the River Haliacmon. Within are the Haloritæ, the Vallei, Phylacei, Cyrrhestæ, Tyrissæi : Pella, the Colony : the Town Stobi, of Roman Citizens. Presently, Antigonìa, Europus, upon the River Axios, and another of the same Name, through which Rhædias runneth : Heordæ, Scydra, Mieza, Gordiniæ. Soon after, in the Borders, Ichnæ ; and the River Axios. To this Extremity the Dardani : Treres and Pieres border upon Macedonia. From this River are the Nations of Pæonia, Parorei, Heordenses, Almopii, Pelagones, and Mygdones. The Mountains Rhodopè, Scopius, and Orbelus. Then the Lap of the Earth spreading along, Arethusii, Antiochienses, Idomenenses, Doberiensens, Trienses, Allantenses, Andaristenses, Moryllii, Garesci, Lyncestæ, Othrionei, and the free States of the Amantini and Orestæ. Colonies, Bulledensis and Diensis. Xilopolitæ, Scotussæi, free ; Heraclea, Sintica, Tympei, and Coronæi. In the Coast of the Macedonian Bay, the Town Calastra, and within, Phileros, and Letè : and in the middle bending of the Coast, Thessalonica, of free condition. To it from Dyrrhachium, is 114 Miles ; Thermæ. In the Bay Thermaicus, are these Towns, Dicæa, Pydna, Derrha, Scionè : the Promontory Canastræum. Towns, Pallenè, Phlerga. In which Region these Mountains, Hypsizorus, Epitus, Alchionè, Leuomnè. Towns, Nissos, Brygion, Eleon, Mendæ, and in the Isthmus of Pallenè, the Colony sometime called Potidæa, and now Cassandria ; Anthemus, the Bay Holophyxus, and Meczyberna ; Towns, Phiscella, Ampelos, Toronè, and Singos : the Creek (where *Xerxes*, King of the Persians, cut the Mountain Athos from the Continent), in Length a Mile and a half. The Mountain itself shooteth out from the Plain into the Sea, 75 Miles. The Compass of the Foot thereof taketh 150 Miles. A Town there was on the Summit, Acroton. Now there be Vranopolis, Palæotrium, Thyssus, Cleonè, Apollonia, the Inhabitants whereof are named Macrobii. The Town Cassera, and a second Gullet of the Isthmus, Acan-

thus, Stagira, Sitonè, Heraclea, and the Region lying under Mygdonia, wherein are, receding from the Sea, Apollonia and Arethusa. Again, in the Coast, Posidium, and a Bay, with the Town Cermorus: Amphipolis, a free State, and the Nation Bisaltæ. Then, the River Strymon, which is the Bound of Macedonia, and which springeth in Hæmus: of which this is worthy to be remembered, that it runneth into seven Lakes before it keepeth a direct Course. This is Macedonia, which once obtained the Dominion over all the Earth: this overran Asia, Armenia, Iberia, Albania, Cappadocia, Syria, Egypt, Taurus, and Caucasus: this ruled over the Bactri, Medi, and Persi, and possessed all the East: this having the Conquest of India, wandered through the Tracts of Father *Liber* and *Hercules*. This is the very same Macedonia, of which in one Day *Paulus Æmylius*, our Emperor, sold 72 plundered Cities. So great a Difference of Fortune befel two Men.

CHAPTER XI.

Thracia.

Now followeth Thracia, among the most valiant Nations of Europe, divided into 52 Regiments (strategias) of Soldiers. Of those People in it, whom it does not grieve me to name, the Densetetes and Medi inhabit near the River Strymon, on the right Side, as far as to the Bisaltæ above-named: on the left, the Digeri, and many Names of the Bessi, to the River Nestus, which environeth the Bottom of the Mountain Pangæus, between the Eleti, Diobesi, and Carbilesi; and so forward to the Brysæ and Capæi. Odomanta, a Nation of the Odrysæ, poureth out the River Hebrus to the Neighbourborderers, the Carbiletetes, Pyrogeri, Drugeri, Cænici, Hypsalti, Beni, Corpilli, Botiæi, and Edoni. In the same Tract are the Selletæ, Priautæ, Diloncæ, Thyni, Celetæ, the greater under Hæmus, the less under Rhodopæ: between whom runneth the River Hebrus. The Town situate beneath Rhodopè, before-time named Poneropolis; soon after by the Founder, Philippopolis; but now, from its Site, Trimontium.

The Elevation of Hæmus taketh six Miles : the Back and declining thereof down to Ister, the Mæsi, Getæ, Aoti, Gaudæ, and Clariæ, and under them the Arræi, Sarmatæ, whom they call Areatæ, and Scythæ : and about the Sea-coast of Pontus, the Moriseni and Sithonii, from whom the Poet *Orpheus* descended, do inhabit. Thus Ister boundeth it on the North : in the East, Pontus and Propontus : Southward, the Sea Ægæum, in the Coast of which, from Strymon, stand Apollonia, Cestima, Neapolis, and Polis. Within, the Colony of *Philip* ; and 325 Miles from Dyrrhachium, Scotusa, Topiris, and the Mouth of the River Nestus. The Mountain Pangæus, Heraclea, Olynthos Abdera, a free City ; the Marsh and Nation of the Bistoni. There stood the Town Tinda, terrible for the Stables of the Horses of *Diomedes*. Now there are the Diceæ, Ismaron, the Place Parthenion, Phalesina, Maronea, called Ortasurea before-time. The Mountain Serrium and Zonæ : then, the Place Doriscus, able to receive 10,000¹ Men : for so there *Xerxes* numbered over his Army. The Mouth of Hebrus : the Port of Stentor : the free Town Ænea, with the Tomb of *Polydorus* ; the Region, sometime, of the Cicones. From Doriscus, the Coast bendeth to Macron-Tichos for 122 Miles. About which Place the River Melas, from which the Bay taketh its Name. Towns, Cypsella, Bisanthè, and that which is called Macron-Tichos, whence stretching forth the Walls from Propontis to the Bay Melanes, between two Seas, it excludeth Cherronesus as it runneth out. For Thracia, on one Side, beginning at the Sea-coast of Pontus, where the River Ister is discharged, hath in that Quarter the very beautiful Cities, Istropolis of the Milesii, Tomi, and Calatis, which before was called Acernetis. It had Heraclea and Bizon, which was destroyed in a Chasm of the Earth ; now it hath Dionysopolis, formerly called Crunos. The River Ziras runneth by it. All that Tract, the Scythians named Aroteres possessed. Their Towns, Aphrodisius, Libistos, Zigerè, Borcobè, Eumenia, Parthenopolis, Gerania, where it is reported were the

¹ Or 100,000.

Nation of the Pygmei¹, whom the Barbarians call Catizi, and they believe that they were chased away by Cranes. In the Borders from Dionysopolis is Odessus of the Milesii; the River Pomiscus, the Town Tetranauchoş : the Mountain Hæmus bending down with a huge Top into Pontus, had in the Summit the Town Aristæum. Now in the Coast is Mesembria and Anchialum, where Messa was. The Region Asticè. There was the Town Anthium, now there is Apollonia. The Rivers Panissa, Rira, Tearus, Orosines. Towns, Thynnias, Almedessos, Develton, with the Marsh which now is called Dëultum, belonging to the Veterans. Phinopolis, near which is Bosphorus. From the Mouth of Ister to the Entrance of Pontus others have made 555 Miles. *Agrippa* hath added 40 Miles more. From thence to the Wall above-named, 150 : and from it to Cherronesus, 126. But from the Bosphorus is the Bay Gasthenes. The Port Senum, and another which is called the Port Mulierum. The Promontory Chrysoceras, whereon standeth the Town Bizantium of free Condition, and formerly called Lygos. From Dyrhachium it is 711 Miles. Thus much lieth out the Length between the Adriatic Sea and Propontis. Rivers, Bathynias, Pydaras, or Atyras. Towns, Selymbria, Perinthus, annexed to the Continent, 200 Paces broad. Within, Byzia, the Castle of the Thracian Kings, hated by Swallows² for the horrible Crime of *Tereus*. The Region Camica : the Colony Flavio-polus, where formerly the Town was called Zela. And 50 Miles from Byria, the Colony Apros, which is from Philippi 188 Miles. But in the Borders, the River Erginus, where was the Town Gonos. And there you leave Lysimachia,

¹ The Pygmies are frequently spoken of by ancient writers, and the existence of the diminutive race was never doubted. We defer the particular consideration of the monstrous races of mankind to the 7th Book, c. 2, where they are all mentioned together ; but the Pygmies appear to have attracted more of the imagination of the poets than any of the others. The origin of their royal tyrant, the crane, is referred to by Ovid, "Metamorphoses," b. vi.—*Wern. Club*.

² See the story of Tereus, Procnè, and Philomela, in Ovid's "Metamorphoses," lib. vi.—*Wern. Club*.

now in Cherronesus. For there is another Isthmus of like Straightness, of the same Name, and of equal Breadth. On both Sides two Cities beautify the Shores, which they hold in a Manner not unlike: Pactiæ from Propontis, and Cardia from the Bay Melanè: this taketh its Name from the Appearance of the Place: and both, afterwards, were enclosed within Lysimachia, three Miles from the long Walls¹. Cherronesus from Propontis had Tiristasis and Critihotes, also Cissa, upon the River Ægos: now it hath from the Colony Apros 32 Miles; Resistos, over against the Colony Pariana. And Hellespontus, dividing Europe from Asia by seven Stadia (as we have said), hath four Cities, opposite one against another: in Europe, Calippolis and Sestos; in Asia, Lampsacum and Abydos. Then, is the Promontory of Cherronesus, called Mastisia, opposite to Sigeum, in the crooked Front whereof is Cynossema: for so is *Hecuba's* Tomb named, the Station of the Achæi. The Tower and Shrine of *Protesilaus*: and in the utmost Front of Cherronesus, which is called Æolium, the Town Elæus. After it, as a Man goeth to the Bay Melanè, the Port Cælos, Panhormus, and the above-named Cardia. The third Bay of Europe is in this Manner shut in. Mountains of Thracia above those before rehearsed, Edonus, Gigemorus, Meritus, and Melamphyllon; Rivers falling into Hebrus, Bargus, and Suemus. The Length of Macedonia, Thracia, and Hellespontus, is set down before. Some make it 720 Miles. The Breadth is 380 Miles. The Sea Ægeum took that Name from a Rock, between Tenedos and Chios, more truly than from an Island named Æx, resembling a Goat, and therefore so called of the Greeks; which suddenly riseth out of the midst of the Sea. The People that sail from Achaia to Andros, discover it on the right Hand, dreadful and mischievous. Part of the Ægean Sea is given to Myrtoum, and is so called from a little Island which sheweth itself to them that sail from Gerestus to Macedonia, not far from Charystos in Eubœa. The Romans comprehend all these Seas in two Names:

¹ Macron-Tichos.

Macedonicum, all that which toucheth Macedonia and Thracia: and Græciensum, where it beateth upon Greece. For the Greeks divide the Ionian Sea, into Siculum and Creticum, from the Islands. Also, Icarius (they call that), between Samos and Mycionus. The other Names are given by Bays, of which we have spoken. And thus much, indeed, of the Seas and Nations contained in this Manner within the third Bay of Europe.

CHAPTER XII.

Islands between those Lands, among which, Creta, Eubœa, Cyclades, and Sporades: also, of Hellespont, Pontus, Mœotis, Dacia, Sarmatia, and Scythia.

ISLANDS over against Thresprotia, Corcyra: 12 Miles from Buthrotus, and the same from Acroceraunia, 50 Miles, with a City of the same Name, Corcyra, of free Condition; also, the Town Cassiopè, and the Temple of *Jupiter Cassiopæus*: it lieth out in Length 97 Miles. *Homer* called it Scheria and Phæacia: *Callimachus* also, Drepanè. About it are some others: but verging toward Italy, Thoronos: and toward Leucadia, the two Paxæ, five Miles divided from Corcyra. And not far from them before Corcyra, Ericusa, Maratè, Elaphusa, Malthacè, Trachia, Pytionia, Ptychia, Tarachiè. And beyond Pholachrum, a Promontory of Corcyra, the Rock into which it is feigned that the Ship of *Ulysses* was turned, on Account of its Resemblance. Before Leucadia, Sybota. But between Leucadia and Achaia there are very many: of which are Teleboides, the same as Taphiæ: of the Inhabitants before Leucadia, they are called Taphias; Oxia and Prinoessa: and before Ætolia, the Echinades, Ægialia, Cotonis, Thyatira, Geoaris, Dionysia, Cyrnus, Chalcis, Pinara, and Mystus. Before them in the deep Sea, Cephalenia and Zacynthus, both free States: Ithaca, Dulichium, Samè, Crocylea, and Paxos. Cephalenia, formerly called Melæna is 11 Miles off, and 44 Miles in Circuit. Samè was destroyed by the Romans: nevertheless, it hath still three Towns: between it and Achaia is Zacynthus, with a Town, a

stately Island, and remarkably fertile. In Times past it was called Hyriè, and is 22 Miles distant from the South-coast of Cephallenia. The famous Mountain of Elatus is there. The Island itself is in Circuit 25 Miles. Twelve Miles from it is Ithaca, wherein is the Mountain Neritus. And in the whole it taketh up the Compass of 25 Miles. From it 12 Miles off is Araxum, a Promontory of Peloponnesus. Before this, in the main Sea, Asteris and Protè. Before Zacynthus, 35 Miles in the Wind Eusus, are the Strophades, called by others, Plotæ: and before Cephallenia, Letoia. Before Pylos, three Sphagiæ; and as many before Messenè, called CENUSSÆ. In the Bay Asinæus, three Thyrides: in the Laconian Gulf, Teganusa, Cothon, Cythera, with the Town formerly named Porphyris. This lieth five Miles from the Promontory of Malea, doubtful for Ships to come about it, by Reason of the Straits there. In the Argolic Sea are Pityusa, Irinè and Ephyriè: and against the Territory Hermonium, Typareus, Epiropia, Colonis, Aristera: over against Trœzenium Calauria, half a Mile from Plateæ: also, Belbina, Lacia and Baucidias. Against Epidaurus, Cecryphalos, and Pytionesos, six Miles from the Continent. Next to it is Ægina, of free Condition, 17 Miles off, and the Navigation of it is 20 Miles about. The same is distant from Pyræum, the Port of the Athenians, 12 Miles, and in old Time it was usually called CENONÈ. Over against the Promontory Spiræum, lie Eleusa, Dendros, two Craugiæ, two Cæciæ, Selachusa, Cencreis, and Aspis. Also, in the Megarian Bay, there are four Methurides. But Ægilia is 15 Miles from Cythera; and the same is from Phalasarna, a Town in Creta, 25 Miles. And Creta itself, lying with one Side to the South, and the other to the North, stretcheth forth in Length East and West; famous and noble for 100 Cities. *Dosiades* saith it took that Name from the Nymph *Creta*, Daughter of *Hesperis*: but according to *Anaximander*, from a King of the Curetes. *Philistides*, *Mallotes*, *Crates*, have thought it was called first *Æria*, and afterwards *Curetis*, and some have thought it was named *Macaros*, on Account of the excellent Temperature of the Air. In Breadth it exceedeth in no Place 50 Miles, and in

the middle Part it is broadest: in Length it is full 270 Miles: in Circuit, 589 Miles: and bending itself into the Cretic Sea, so called from it, where it stretcheth out furthest Eastward, it putteth forth the Promontory Sammonium, opposite Rhodos; and Westward, Criu-Metopon, toward Cyrenæ. The principal Towns are Phalasarne, Elæa, Cysamum, Pergamum, Cydon, Minoum, Apton, Pantomatrium, Amphimalla, Rhythymna, Panhornum, Cyteum, Apollonia, Matium, Heraclea, Miletos, Ampelos, Hierapytna, Lebena, Hierapolis. And in the midland Parts, Cortyna, Phæstum. Gnossus, Potyrrhenium, Myrina, Lycastus, Rhamnus, Lyetus, Dium, Asum, Pyloros, Rhytion, Clatos, Pharæ. Holopyxos, Lasos¹, Eleuthernæ, Therapnè, Marathusa, Mytinos. And other Towns to about the Number of 60 stand yet upon Record. The Mountains: Cadiscus, Idæus, Dictæus, and Morycus. The Isle itself, from the Promontory in it called Criu-Metopon, as *Agrippa* reporteth, is distant from Phycus, a Promontory of the Cyrenæ, 225 Miles. Likewise to Capescum from Malea in Peloponnesus, it is 80 Miles. From the Island Carpathus, from the Promontory Sammonia, in the Favonian Wind, 60 Miles. This Island lieth between it and Rhodos. The Rest about it are these: before Peloponnesus two Coricæ, and as many Mylæ: and on the North Side, with Creta on the right Hand, there appeareth Leucè over against Cydonia, with the two Budoræ; against Matium, Cia: against the Promontory Itanum Onisa and Leucè: against Hierapytna, Chrysa, and Caudos. In the same Tract are Ophiussa, Butoa, and Rhamnus: and doubling Criu-Metopon, the Isles called Musagores. Before the Promontory Sammonium, Phocæ, Platia, Sirnides, Naulochus, Armedon, and Zephyrè. But in Hellas, yet still in Ægeum, Lichades, Scarphia, Maresa, Phocaria, and very many more over against Attica; but without Towns, and therefore obscure: but against Eleusina, the noble Salamis,

¹ Dr. Bloomfield ("Recens. Synop." *in loco*) thinks this place was the Lasca of Acts xxvii. 8. Pliny makes it an inland town, but by inland towns he only means such as were not ports; and that Lasca was not a port is clear, the Fair Havens being its port.—*Wern. Club.*

and before it Psytalia : and from Sunium, Helenè, five Miles off : and Ceos, from thence as many ; which our Countrymen have named Cæa ; but the Greeks Hydrussa : cut off from Eubœa. In Times past it was 500 Stadia long : but soon after, almost four Parts, which verged towards Bœotia, were devoured by the same Sea : and now the Towns remaining are Julis and Carthæa. For Coressus and Pæcessa are perished. From hence, as *Varro* saith, came the more delicate Dress that Women use. Eubœa itself hath been torn from Bœotia, being divided with so little a Euripus, that a Bridge joineth the one to the other : it is well marked by Reason of two Promontories in the South Side, which are, Genestum, bending toward Attica ; and Caphareus to Hellespontus : and upon the North Side, Cæneus. In no Part doth it extend broader than 40 Miles ; and no where doth it contract beyond 20. But in Length from Attica, as far as Thessalia, it lieth along Bœotia for 150 Miles ; and containeth in Circuit 365. From Hellespont, on the Part of Caphareus, it is 225 Miles. In Times past it was illustrious for these Cities : Pyrrha, Porthmos, Nesos, Cerinthus, Oreum, Dium, Ædepsum, Ocha, Cœchalia, now Calcis, over against which standeth Aulis on the Continent : but now noble for Gerestum, Eretria, Carystus, Oritanum, Artemisium, the Fountain Arethusa, the River Lelantum, the hot Waters called Hellopiaë ; but yet more known for the Marble of Carystus. In former Time it was called commonly Chalcodontis or Macris, as *Dionysius* and *Ephorus* say ; but Macra, according to *Aristides* : and according to *Callidemus*, Chalcis, from the Brass there first found : and as *Menæcmus* saith, Abantias : and Asopis, as the Poets commonly name it. Beyond, in the Myrtoom Sea, are many Isles, but those principally famous are Glauconnesus and Ægilia. And from the Promontory Gerestum, about Delos, some lying in a Circle together, whence they took their Name Cyclades. The first of them, Andrus, with a Town, is from Gerestum, 10 Miles ; and from Ceum, 39. *Myrsilius* saith it was called Cauros, and afterwards Antandros. *Callimachus* nameth it Lasia, others Nonagria, Hydrussa, and Epagris. It lieth in Compass 93 Miles. A Mile from the same Andros, and 15 from

Delos, lieth Tenos, with a Town stretched out 15 Miles in Length: which, for the Plenty of Water, *Aristotle* saith, was called Hydrussa, but others name it Ophiussa. The Rest are these: Myconos, with the Mountain Dimastos, 15 Miles from Delos. Scyros Syphnus, formerly named Meropia and Acis, in Circuit 28 Miles: Seriphus, 12 Miles, Præpesinthus, Cythnus. And Delos itself, of all others the most illustrious, the midmost of the Cyclades, celebrated for the Temple of *Apollo*, and for Merchandise; which, having a long Time floated up and down (as it is reported), was the only Island that never felt an Earthquake¹ unto the Time of *M. Varro*. *Mutianus* hath recorded that it was twice shaken. *Aristotle* giveth a Reason of the Name in this Sort, because it was produced and discovered on a sudden. *Æglosthenes* termeth it Cynthia: others Ortygia, Asteria, Lagia, Chlamydia, Cynethus, and Pырpilè; because in it Fire was first found out. It is but five Miles about, and riseth up by the Mountain Cinthus. Next to it is Rhenè, which *Anticlides* calleth Celadussa, and *Helladius*, Artemitè. Moreover, Syros, which ancient Writers have reported to be in Circuit 20 Miles, and *Mutianus*, 160. Oliatos, Paros, with a Town, 38 Miles from Delos, of great Name for white Marble, which at first they called Pactia, but afterwards Minois. From it seven and a half Miles is Naxus, 18 Miles from Delos; with a Town, which they called Strongylè, afterwards Dia, soon after Dionysius, from its Fertility of Vines; and by others, Sicily the Less, and Callipolis. It reacheth in Circuit 75 Miles, and is half as long again as Paros. And thus far, indeed, they note for the Cyclades: the Rest that follow, for the Sporades. And these are Helenum, Phocussa, Phæcasia, Schinussa, Phalegandros; and 17 Miles from Naxos, Icaros: which gave Name to the Sea, lying out as far in Length; with two Towns, for the third is lost: beforetime it was called Dolichum, Macris, and Ichtyœssa. It is situated

¹ Thucydides, book ii., says: "There was also a little before the time of the Peloponnesian war, an earthquake at Delos, which, in the memory of the Grecians, never shook before; and was interpreted for, and seemed to be a sign of, what was to come afterwards to pass."—HOBBS.—*Wern. Club.*

North-east, from Delos 50 Miles: and from Samos it is 35 Miles. Between Eubœa and Andros there is a Strait 12 Miles over. From it to Gerestum is $112\frac{1}{2}$ Miles. And then no Order forward can be kept; the Rest, therefore, shall be set down promiscuously. Ios from Naxos is 24 Miles, venerable for the Sepulchre of *Homer*: it is in Length 25 Miles, and in former Time was called Phœnicè. Odia, Letandros; Gyaros, with a Town, in Circuit 12 Miles. It is distant from Aneros, 62 Miles. From thence to Syrnus, 80 Miles. Cynethussa; Telos, famous for costly Ointment, and called by *Callimachus*, Agathussa. Donyssa; Pathmos, in Circuit 30 Miles. Corasiæ, Lebinthus, Leros, Cynara, Sycinus, which beforetime was Cœnœ; Heratia, the same as Onus; Casus, otherwise Astrabè; Cimolus, otherwise Echinussa; Melos, with a Town, which *Aristides* nameth Byblis; *Aristotle*, Zephyria; *Callimachus*, Himallis; *Heraclides*, Syphnus and Aeytos. And this, of all the Islands, is the roundest. After it Machia; Hyperè, sometime Patagè, or after some Platagè, now Amorgos; Potyægos, Phylè, Thera; when it first appeared, called Callistè. From it afterwards was Therasia torn away: and between those two soon after arose Automatè, the same as Hiera: and Thia, which in our Days appeared new out of the Water near Hiera. Ios is from Thera, 25 Miles. Then follow Lea, Ascania, Anaphè, Hippuris, Hippurissusa. Astipalæa of free Condition, in Compass 88 Miles: it is from Cadiscus, a Promontory of Creta, 125 Miles. From it is Platea, distant 60 Miles. And from thence Camina, 38 Miles. Then Azibnitha, Lanisè, Tragia, Pharmacusa, Techedia, Chalcia; Calydna, in which are the Towns Coos and Olymna. From which to Carpathus, which gave the Name to the Carpathian Sea, is 25 Miles: and so to Rhodes with an African Wind. From Carpathus to Casos, seven Miles: from Casos to Samonium, a Promontory of Creta, 30 Miles. Moreover, in the Euboic Euripus, almost at the first Entrance, are the four Islands, Petaliæ; and at the Outlet, Atalantè, Cyclades, and Sporades: inclosed on the East with the Icarian Sea-coasts of Asia; on the West, with the Myrtoan Coasts of Attica;

Northward, with the Ægean Sea; and South, with the Cretic and Carphacian Seas: and they lie in Length 200 Miles. The Bay Pagasicus hath before it Eutychia, Cicynethus, and Scyrus abovesaid: but the Outermost of the Cyclades and Sporades, Gerontia, Scadira, Thermeusis, Irrhesia, Solinnia, Eudemia, Nea, which is sacred to *Minerva*. Athos before it hath four; Preparethus, with a Town, sometime called Euonos, nine Miles off: Scyathus, five Miles: and Imbrus, with a Town, 88 Miles off. The same is from Mastusia in Corinthos, 75 Miles. Itself is in Circuit 72 Miles. It is watered by the River Ilissus. From thence to Lemnos, 22 Miles: and the latter from Athos, 87. In Compass it containeth $22\frac{1}{2}$ Miles. Towns it hath, Hephæstia and Myrina, into the Market-place of which the Mountain Athos casteth a Shadow at the Solstice. Thassos, a free State, is from it five Miles: in Times past, called Æria, or Æthria. From thence Abdera in the Continent is 20 Miles: Athos, 62: the Isle Samothracè as much, which is free, and lieth before Hebrus: from Imbrus, 32 Miles: from Lemnus, $22\frac{1}{2}$ Miles: from the Borders of Thracia, 28 Miles: in Circuit it is 32 Miles, and hath a Rising of the Hill Saoces for the Space of 10 Miles: and of all the Rest is fullest of Harbours. *Callimachus* calleth it by the old Name Dardania: between Cherronesus and Samothracè is Halomesus, about 15 Miles from either of them: beyond lieth Gethronè, Lamponia, Alopeconnesus not far from Cœlos, a Port of Cherronesus: and some others of no importance. In this Bay are rehearsed also the deserted Islands, of which the Names only can be discovered: Desticos, Larnos, Cyssicos, Carbrusa, Celathusa, Scylla, Draconon, Arconesus, Diethusa, Scapos, Capheris, Mesatè, Æantion, Phaterunesos, Pateria, Caletè, Neriphus, and Polendus.

The fourth of those great Bays in Europe, beginning from Hellespont, endeth in the Mouth of Mœotis. But we are briefly to describe the Form of the whole Sea, that the Parts may be more easily known. The vast Ocean lying before Asia, and driven out from Europe in that long Coast of Cherronesus, breaketh into the Land with a narrow

Passage of seven Stadia (as hath been said) dividing Europe from Asia. The first Straits they call Hellespontus. Over this, *Xerxes*, King of the Persians, made a Bridge upon Ships, and so led his Army across. From thence is extended a small Euripus for the space of 86 Miles, to Priapus, a City of Asia, where *Alexander* the Great passed over. From that Place the Sea groweth wide, and again gathereth into a Strait: the largeness is called Propontis; the Straits, the Thracian Bosphorus, 500 Paces over: by which *Darius*, the Father of *Xerxes*, made a Bridge and transported his Forces. The whole Length from Hellespont is 239 Miles. From thence the vast Sea called Pontus Euxinus, and in Times past Axenus, taketh up the space between Lands far remote, and with a great winding of the Shores, bendeth backward into Horns, and lieth stretched out from them on both Sides, resembling evidently a Scythian Bow. In the midst of this bending, it joineth close to the Mouth of the Lake Mœotis. That Mouth is called Cimmerius Bosphorus, two Miles and a half Broad. But between the two Bosphori, Thracius and Cimmerius, there is a direct Course, as *Polybius* saith, of 500 Miles. But the Circuit of all this Sea, as *Varro* and almost all the old Writers witness, is 2150 Miles. *Nepos Cornelius* addeth thereto 350 Miles. *Artemidorus* maketh it 2919 Miles: *Agrippa*, 2360 Miles: *Mutianus*, 2865 Miles. In like sort, some have determined the Measure to the Side of Europe to be 4078½ Miles: others, 11,072 Miles. *M. Varro* taketh his Measure in this manner: from the Mouth of Pontus to Apollonia, 188½ Miles: to Calatis, as much: to the Mouth of Ister, 125: to Borysthenes, 250: to Cherronesus, a Town of the Heracleates, 375 Miles: to Panticapæus, which some call Bosphorus, the utmost Coast of Europe, 222½ Miles: the sum of which makes 1336½ Miles. *Agrippa* measureth, from Bizantium to the River Ister, 560 Miles: to Panticapæum, 630: from thence the very Lake Mœotis, receiving the River Tanais which runneth out of the Riphæan Mountains, is supposed to be in Compass 1306 Miles; being the furthest Bound between Europe and Asia. Others make 11,025 Miles. But it is evident, that from its

Mouth to the Mouth of Tanais, by a straight Course, it is 375 Miles. The Inhabitants of that Bay have been named in the mention of Thracia, as far as to Istropolis. From thence the Mouths of Ister. This River riseth among the Hills of Abnoba, a Mountain of Germany, over against Rauricum, a Town in Gallia, and passing many Miles beyond the Alps, and through innumerable Nations, under the Name of Danubius, with a mighty increase of Waters, and whence he first be- ginneth to wash Illyricum taking the Name of Ister, after he hath received 60 Rivers, and almost the one-half of them navigable, rolleth into Pontus with six vast Streams. The first Mouth of it is Peuces: soon after, the Island Peucè itself, from which the next Channel took its name, and is swallowed up in a great Marsh of 19 Miles. Out of the same Channel, and above Astropolis, a Lake is produced of 63 Miles' compass; which they call Halmyris. The second Mouth is called Naracustoma: the third, Calostoma, near the Island Sarmatica: the fourth, Pseudostoma, and the Island Conopon Diabasis. After that, Boreostoma, and Spireostoma. Each of these is so great, that by Report the Sea, for 40 Miles' length, is overmatched with the same, and the fresh Water may so far be tasted. From it, into the inland Parts, the People are all Scythians: but various other Nations inhabit close on the Coasts: in some Places the Getæ, called by the Romans Daci: in others the Sarmatæ, by the Greeks Sauromatæ; and among them, the Hamaxobii or Aorsi. Elsewhere the degenerate Scythians, who are sprung from Servants, or the Troglodites: presently, the Alani and Rhoxalani. But the higher Parts between Danubius and the Forest Hercynius, as far as to the Pannonian wintering Places of Carnuntum, and the Confines there of the Germans, the Fields and Plains of Jazygè, the Sar- matians possess. But the Mountains and Forests, the Daci, who were expelled by them, inhabit, as far as to the River Parhyssus from Morus; or this is Duria, dividing them from the Suevi and the Kingdom of Vanni. The Parts against these the Bastarnæ hold; and from thence other Germani. *Agrippa* hath set down that whole Tract, from

the Ister to the Ocean, as amounting to 2000 Miles, and 400 less in Breadth, from the Deserts of Sarmatia to the River Vistula: the Name of Scythæ everywhere continually runneth into Sarmatæ and Germani. Neither hath that old denomination remained in any others but those, who, as I have said, live the furthest off of these Nations, almost unknown to all other Men. But the Towns next to the Ister are Cremniscos and Æpolium: the Mountains Macrocrennii: the noble River Tyra, giving Name to the Town, whereas before time it was called Ophiusa. Within the same is a spacious Island, inhabited by the Tyragetæ. It is from Pseudostomum, a Mouth of the Ister, 130 Miles. Soon after are the Axiacæ, named after the River: beyond whom are the Crobyzi: the River Rhodè: the Bay Sagaricus, and the Port Ordesus. And, 120 Miles from Tyra, is the River Borysthenes, and a Lake and Nation of that Name: and a Town 15 Miles within from the Sea, called by the ancient Names Olbropolis and Miletopolis. Again, on the Shore, the Harbour of the Achæans: the Island of Achilles, famous for the Tomb of that Man. And from it 135 Miles, is a Peninsula, lying out across in the Form of a Sword, and called Dromos Achilleos, upon occasion of his Exercise there: the Length of which *Agrippa* hath declared to be 80 Miles. All that Tract, the Taurisci, Scythæ, and Sarmatæ inhabit. Then the woody Region gave the name to the Sea Hylæum, by which it is encircled. The Inhabitants are called Enæcadloæ. Beyond is the River Panticapes, which divideth the Nomades and Georgi: and soon after, Acesinus. Some say that Panticapè, with Borysthenes, run together beneath Olbia; but the more exact name Hypanis: so much they erred who have described it in a part of Asia. The Sea retires with a very great Ebb, until it is distant from Mœotis with an interval of five Miles, compassing a vast Space, and many Nations. There is a Bay called Corcinites, and a River Pacyris. Towns, Naubarum and Carcinè. Behind is the Lake Buges, let out into the Sea by a foss. And (Buges) itself is disjoined from Coretus, a Bay of the Lake Mœotis, by a rocky Back. It receiveth the Rivers Buges,

Gerrhus, Hypanis, coming from different quarters: for Gerrhus parteth the Basilides and Nomades. Hypanis floweth through the Nomades and the Hyleans into Buges, by a Channel made by Man's Hand, but in his natural Channel into Coretus. The Region of Scythia is named Sendica. But in Carcinites, Taurica beginneth: which in Times past was environed with the Sea, where now there lie Fields: afterwards it mounteth up with very great Hills. Thirty People are in it: and of them 24 are within Land. Six Towns, Orgocyni, Caraseni, Assyrani, Tractari, Archilachitæ, and Caliordi. The Crest of the Hill the Scytotauri hold. They are shut in Westward by Cherronesus; Eastward by the Scythian Satarchi. In the Coast from Carcinites are these Towns: Taphræ, in the very Straits of the Peninsula: then, Heraclea, Cherronesus, endowed with Liberty by the Romans. Formerly it was called Megaricè, and is the most Elegant in all that Tract, as retaining the Manners of the Greeks; and it is encompassed with a Wall of five Miles' extent. Then the Promontory Parthenium. A City of the Tauri, Placia. The Harbour Symbolon: the Promontory Criu-Metopon, over against Charambes, a Promontory of Asia, running through the middle of Euxinus for the space of 170 Miles: which is the cause especially that maketh the Form abovesaid of a Scythian Bow. Near to it are many Harbours and Lakes of the Tauri. The Town Theodosia, distant from Criu-Metopon 122 Miles, and from Cherronesus 165 Miles. Beyond, there have been the Towns Cytè, Zephyrium, Acrè, Nymphæum, and Dia. And by far the strongest of them all remaineth still in the very entrance of Bosphorus, namely, Panticapæum of the Milesians, from Theodosia 1035 Miles: but from Cimmerum, a Town situated beyond the Strait, a Mile and a half, as we have said. And this is all the Breadth there that divideth Asia from Europe: and even that is for the most part passable on Foot, when the Strait is frozen over. The Breadth of Bosphorus Cimmerius is 12 Miles. It hath the Towns Hermisium, Myrmecium; and within it, the Island Alopecè. But through Mœotis, from the furthest part of

the Isthmus, which Place is called Taphræ, to the Mouth of Bosphorus, it containeth 260 Miles. From Taphræ, the Continent within is inhabited by the Anchetæ, among whom the Hypanis springeth : and Neuri, where Borysthenes hath his Head ; also, the Geloni, Thussagetæ, Budmi, Basilidæ, and the Agathyrsi, with blue Hair on their Heads. Above them, the Nomades ; and then the Anthropophagi. From Buges, above Mœotis, the Sauromates and Essedones dwell. But along the Borders, as far as Tanais, the Mœotæ, from whom the Lake was so called ; and the last behind them, the Arimaspi. Within a little are the Riphæan Mountains, and a Country called Pterophoros, for the resemblance of Wings (Feathers¹) occasioned by the continual fall of Snow : a Part of the World condemned by the nature of Things, and immersed in thick Darkness, having no sheltering Places but the work of Cold, the produce of the freezing North Wind. Behind those Mountains, and beyond the North Pole, there is a happy Nation (if we may believe it) whom they call Hyperborei², who live exceeding long, and

¹ “ A race of men there are, as fame has told,
Who shivering suffer Hyperborean cold,
Till nine times bathing in Minerva’s lake
Soft feathers, to defend their naked sides, they take.”

DRYDEN’S *Ovid. Metam.* lib. xv.

Herodotus, Melpo. 31, says: “ In respect to the feathers wherewith the Scythians affirm the air to be filled, my opinion is this: above that country snow falls continually; now any one that has seen snow falling thick, and close to himself, must understand what I say. The snow does, in fact, bear great resemblance to feathers. I think, therefore, that the Scythians and the surrounding nations compare the snow to feathers.—LAURENT.—*Wern. Club.*”

² The ancients denominated those people and places Hyperborean which were to the northward of the Scythians. They had, indeed, but very little acquaintance with these regions; and all they tell us of them is very precarious, while much of it is false. Herodotus, as well as Pliny, doubts whether or not there were any such nations; while Strabo professes to believe that they really existed. See a very amusing account of these fabulous Hyperboreans in Herodotus, Melpo. 32–36. From whence much that Pliny says was borrowed.—*Wern. Club.*

are celebrated for fabulous Wonders. There are believed to be the Poles of the World, and the very Ends of the revolution of the Heavens, having for six Months together one entire Day; and Night as long, when the Sun is turned from them: but their Day is not from the Spring Equinox (as the Ignorant say) to the Autumn: for once in the Year, at the Solstice, the Sun riseth with them: and once likewise it setteth in Mid-winter. The Region is open to the Sun, of a happy Temperature, void of all hurtful impulse of Air. The Woods are their Habitations, and the Groves where they worship the Gods Man by Man, and in Companies: Discord and all Disease are unknown; and they never die, but when they are satiated with Life: when the aged Men, having feasted and anointed their bodies, leap from a certain Rock into the Sea. This kind of Sepulture is the most happy. Some Writers have placed them in the first Part of the Seacoast in Asia, and not in Europe; because some are there resembling them in manners and situation, named Atocori; others have set them in the midst, between both Suns; that is, the Setting of it with the Antipodes, and the Rising of it with us: which cannot possibly be, so vast a Sea lying between. Those that have placed them nowhere but in the six Months' daylight, have written of them, that they sow in the Morning, reap at Noon, at Sunset gather the Fruits from the Trees, and by Night lie within Caves. Neither may we make doubt of that Nation, since so many Authors testify, that they were accustomed to send their first Fruits to Delos, to *Apollo*, whom they chiefly worship. They were Virgins that conveyed these Fruits; who for certain Years were venerated and entertained by all Nations, until, upon breach of Faith, they appointed to bestow those sacred oblations in the next Borders of their Neighbours: and these again to convey them to those that bordered upon them, and so on as far as to Delos: and, soon after, this custom wore out. The Length of Sarmatia, Scythia, and Taurica, and of all that Tract from the River Borysthenes, is 980 Miles, the Breadth 717, as *M. Agrippa* hath delivered it. But I judge

that the Measure of this Part of the Earth is uncertain. But after the appointed Order, the remainder of this Gulf may be spoken of; and we have already shewn the Seas of it.

CHAPTER XIII.

The Islands of Pontus.

HELLESPONT hath no Islands to be spoken of in Europe. In Pontus are two, a Mile and a half from Europe, and 14 Miles from the Mouth: Cyaneæ, of others called Symplegades: and by Report of Fables, they ran one into another: because they being severed by a small Space, to them that enter the Sea full upon them they seemed a Pair: but if the Eye be a little turned aside, they made a Show as if they met together. On this Side the Ister there is one, pertaining to the Apollonians, 80 Miles from Bosphorus Thracicus: out of which *M. Lucullus* brought *Apollo Capitolinus*¹. What were within the Mouths of the Ister we have declared already. Before Borysthenes is the above-named Achillea, and the same is called Leucè and Macaron. This the modern demonstration places 140 miles from Borysthenes: from Tyra, 120: from the Island Peucè, 50. It is in Compass about ten Miles. The rest are in the Bay Carcinites: Cephalonnesos, Rhosphodusa, and Macra. I cannot pass by the Opinion of many Writers, before we depart from Pontus, who have thought that all the inland Seas arise from that head, and not from the Straits of Gades; and they lay for their argument, not without some probability, because out of Pontus the Tide always floweth, and never returneth.

But now we are to depart thence, that other Parts of

¹ Apollonia was a colony of the Milesians in Thrace, the greatest part of whose chief town was situated in a small island in the Euxine, and contained a temple dedicated to Apollo. The colossal statue of the god which Lucullus is said to have removed from thence, and placed in the Capitol at Rome, is described by Pliny (lib. xxxiv. c. 7), as being 30 cubits high, and costing 500 talents. After its removal, it acquired the name of *Apollo Capitolinus*.—(Note. HOLLAND'S Translation says 150 talents only.)—*Wern. Club.*

Europe may be spoken of; and passing the Riphæan Mountains, we must proceed along the Shore of the Northern Ocean to the left, until we come to Gades. In which Tract there are reported to be very many Islands without Names, of which, by the Report of *Timæus*, there is one before Scythia called Bannomanna, distant from Scythia one Day's Sailing, into which, in the Time of Spring, Amber is cast up by the Waves. The other Coasts are of uncertain Report. The North Ocean from the River Paropamisus, where it washeth Scythia, *Hecatæus* nameth Amalchium, which Word, in the language of that Nation, signifieth Frozen. *Philemon* writeth, that the Cimbrians call it Morinarusa, that is *Mortuum Mare* [the Dead Sea], even as far as to the Promontory Rubeæ: then beyond, Cronium. *Xenophon Lampsacenus* saith, That in three Days' sailing from the Scythian Coast there is the Island Baltia, of exceeding magnitude. The same doth *Pythias* name Basilia. There are reported the Isles Oonæ, wherein the Inhabitants live on Birds' Eggs and Oats. Others also, wherein men are born with the Feet of Horses, and called Hippopodes. Others of the Panoti¹, who, being otherwise naked, have immensely great Ears that cover their whole Bodies. Then begins a clearer Report to open from the Nation of the Ingevoni, the first of the Germans in those Parts. There is the exceeding great Mountain Sevo, not inferior to the high Craggs of Riphæus, which maketh a very large Gulf, as far as to the Cimbrians' Promontory, called Codanus, and it is full of Islands, of which the most celebrated is Scandinavia, the Magnitude whereof is not yet discovered. A Part only thereof, as much as is known, the Nation of Helleviones inhabiteth, in 500 Villages: and they call it a second World, and as it is thought Enigia is not less. Some say, that these Parts, as far as to the River Vistula, are inhabited by the Sarmati, Veneti, Scyri, and Hirri: also that

¹ Some editions read Fanesii, but Panotii seems the more correct; for as the Oonæ were so called in consequence of their living on eggs, and the Hippopodes because they had horses' feet, so the Panoti derived their name from having immensely great ears that covered their whole bodies.

the Gulf of the Sea is called Clylipenus: and that in the Mouth of it is the Island Latris. Also that not far from it, there is another Bay bounding upon the Cimbri. The Promontory of the Cimbrians shooting far into the Seas; maketh a Peninsula, which is called Cartris. Thence three-and-twenty Islands are known by the Roman Armies. The noblest of them are Burchana, called by our countrymen Fabaria, from the Plenty of Vegetables growing there unsown. Likewise Glessaria, so called by the Soldiers from Amber; but by the Barbarians, Austrania; and besides them Actania. Along this Sea, until you come to the River Scaldis, the German Nations inhabit: but the Measure of that Tract can scarcely be declared, such very great Discord there is among Writers. The Greeks and some of our own Writers have described the Coast of Germany to be 2500 Miles. *Agrippa* again, joining with it Rhætia and Noricum, saith, that it is in Length 686 miles, and in Breadth 268. And of Rhætia alone, the Breadth is almost greater, at least at the time that it was subdued, and the People departed out of Germany: for Germany was discovered many years after, and is not all, even now. But if it be permitted to guess, there will not be much wanting in the Coasts, from the opinion of the Greeks; nor in the Length as set down by *Agrippa*.

CHAPTER XIV.

Germania.

OF Germans, there are five Kinds; the Vindili, a part of whom are the Burgundiones, Varini, Carini, and Gurtones. A second kind, the Ingævones, part of whom are the Cimbri, Teutoni, and the Nations of the Cauchi. The Istævones are the nearest to the Rhine (Rhenus), and part of them are the Cimbri. Then the Midland Hermiones, among whom are the Suevi, Hermunduri, Chatti, and Cherusci. The fifth part are the Peucini, and Basternæ, bordering upon the abovenamed Dacæ. Notable Rivers that run into the Ocean; Guttalus, Vistillus or Vistula, Albis, Visurgis, Ami-

sius, Rhenus, Mosa. And within, the Hercynium Hill,¹ inferior to none in estimation, is stretched forward.

CHAPTER XV.

Islands in the Gallic Ocean.

IN the Rhine itself, for almost an hundred Miles in Length, is the most noble Island of the Batavi, Cannenu-fates; and others of the Frisii, Cauchi, Frisiaboni, Sturii, and Marsatii, which are spread between Helius and Flevus. For so are the Mouths called, into which Rhenus, as it gushes, scatters itself: from the North into Lakes; from the West into the River Mosa. But in the middle Mouth between these, he keepeth a small Channel, of his own name.

CHAPTER XVI.

Britannia and Hybernia—England and Ireland.²

OVER against this Tract lieth the Island Britannia, between the North and West; renowned in Greek and Roman

¹ The Hercynian Hill (jugum) is elsewhere called the Hercynian Forest (saltus).

Although Pliny had served with the army in Germany, and had written a history of the war in which he was engaged, yet he makes no mention, in this work, of any city or region of that country; a proof that the celebrity of a place as estimated at Rome, was the measure of its importance with him.—*Wern. Club.*

² Different suggestions have been offered in explanation of the word "Britannia." By some it has been supposed to be derived from the British word "Brithy"—painted; from a practice by the inhabitants of staining their skin of a blue colour with woad, to render themselves formidable to their enemies. But a name thence derived would only be applied by strangers, who would not have selected a word foreign to their own language to express the custom. It is more likely, therefore, to have been derived from a foreign source; and it is Bochart's opinion that it was first applied by the Phœnicians, in whose language the word "Baratanac" signifies the land of tin: the chief produce which tempted these adventurous merchants to visit this country, and make settlements in its most western extremity, at a very remote period. The word became afterwards translated into the Greek name "Cassiterides," which was applied by

Records. It is opposite to Germania, Gallia, and Hispania, the greatest Parts by far of Europe, and no small Sea lying between. Albion was its Name, when all the Islands were called Britannæ, of which by and by we will speak. This (Island) is from Gessoriacum, a Coast of the Nation of the Morini, 50 Miles by the nearest Passage. In Circuit, as *M. Pytheas* and *Isidorus* report, it containeth 3825 Miles. And now for about 30 Years the Roman Armies growing into further knowledge, yet have not penetrated beyond the neighbour-

the latter people, more particularly to the Scilly Islands and the County of Cornwall. Albion was more properly the Roman name of the country; and was probably derived from its white appearance, as seen on their approach to it from Gaul. This latter name was retained in official documents, even under the Saxon dominion, as appears from a charter of Æthelred in the 10th century; in which he terms himself "Ego Æthelredus, totius Albionis, Dei gubernante moderamine, Basileus:" and ending, "Ego Æthelredus Rex Anglorum."—HEARNE'S *Leland*, vol. ii.

As natives of the British Islands, we cannot but regret that, while the Author has been so minute in the mention of places lying round the borders of the Mediterranean Sea, he has passed over with neglect the regions and towns of Britain and Ireland, as well as those of the north of Europe. Although his knowledge of these was probably limited, the omission can scarcely have proceeded from ignorance alone, for Suetonius informs us, that the Emperor Vespasian, who was the great patron of Pliny, had subdued twenty cities in Britain, together with the Isle of Wight; and we cannot suppose that Pliny remained unacquainted with the names of any of them. In another place he names Camelodunum, which is believed to be Doncaster, as a station sufficiently known, from which to measure the distance to the Island Mona, or Anglesea; and the city of the Trinobantes had been previously mentioned by Julius Cæsar. His distribution of the islands lying round Britain is contradictory as well as obscure; but he appears to regard all that are situated west of the ordinary place of passage from the Continent into Britain, (Gessoriacum, which is probably Boulogne on the one side, and the British port of the Morini, whether Dover or Folkestone,) as being necessarily situated between Britain and Ireland. Vectis is admitted to be the Isle of Wight; but by some authors the same name is given to an island to which tin was carried from Cornwall in carts, and from which it was afterwards exported. From a comparison of ancient authors, Sir Christopher Hawkins was persuaded that this could be no other than St. Michael's Mount, in Cornwall; and the argument urged against this supposition, built on the tradition that it once stood within the land, and was surrounded by

hood of the Caledonian Forest. *Agrippa* believeth that it is in Length 800 miles, and in Breadth 300; and also that Ireland is as broad, but not so long by 200 Miles. This Island is seated above it, and but a very short Passage distant; 30 Miles from the Nation of Silures. Of the other Islands there is none, by report, in Compass more than 125 Miles. But there are the *Orcades* 40, divided from each other by small spaces: *Acmodæ* 7, and 30 *Hæbrides*. Also between *Britannia* and *Hibernia* are *Mona*, *Monapia*, *Ricnea*,

a wood, may be answered by believing that these facts refer to very different ages of the world. The *Mictis* of *Pliny* may be this Cornish island; his error in the distance having arisen from confounding the place of export for tin with the islands producing it. To the latter, or *Scilly* Islands, it appears the Britons were accustomed to sail in their wicker boats covered with leather, or coracles; a mode of navigation perhaps not less secure than the somewhat similar vessels at present in use among the *Greenlanders*. That they were capable of a considerable voyage appears from the fact, that they have been employed in crossing the channel from *Armorica* to *Cornwall* so late as about the 7th century. It must have been from misinformation that *Pliny* assigns the *Cassiterides* (Chap. XXII.) to *Spain*; but even this great error may be excused, by recollecting that in a preceding age the merchants had succeeded in concealing the situation of this Cornish group from the inquiry of *Julius Cæsar*, when he was tempted to invade the seat of pearls and tin; and that *Cadiz* was the Continental port, from which this profitable intercourse with *Cornwall* and *Scilly* had from the remotest ages been carried on.

The Islands mentioned by *Pliny* may be judged the following:—

<i>Orcades</i>	. . . . .	<i>Orkneys</i> .
<i>Acmodæ</i>	. . . . .	probably <i>Zetland</i> .
<i>Hæbredes, Hæbrides</i>	. . . . .	<i>Western Islands</i> .
<i>Mona</i>	. . . . .	<i>Anglesea</i> .
<i>Monapia, Monaedia</i> , and by others <i>Menavia</i> ,		<i>Isle of Man</i> .
<i>Ricnea</i> , qu. <i>Ricina</i>?	. . . . .	<i>Birdsey</i> , between <i>Wales</i> and <i>Ireland</i> .
<i>Vectis</i>	. . . . .	<i>Isle of Wight</i> .
<i>Silumnus</i>	. . . . .	?
<i>Andros</i>	. . . . .	?
<i>Siambis</i>	. . . . .	?
<i>Axantos</i>	. . . . .	?
<i>Mictis</i>	. . . . .	<i>St. Michael's Mount</i> .
<i>Glessaria</i> } <i>Electrides</i> }	. . . . .	<i>Nordstant</i> , in the <i>German Sea</i> .

Vectis, Silimnus, and Andros: but beneath Siambis and Axantos: and on the contrary side, toward the German Sea, there lie scattered the Glessariæ, which the later Greek Writers have named Electrides, because Amber was produced there. The farthest of all, which are spoken of, is Thulè; in which there are no Nights, as we have declared, at the Solstice, when the Sun passeth through the Sign Cancer; and on the other hand no Days in Midwinter; and each of these Times they supposed to last Six Months. *Timæus* the Historiographer saith, That farther within, at Six Days' sailing from Britannia, is the Island Mictis, in which White Lead is produced, and that the Britanni sail thither in Wicker Vessels, sewed round with Leather. Some make mention of others, as Scandia, Dumna, and Bergos; and the biggest of all, Nerigos; from which Men sail to Thulè. Within one Day's Sail from Thulè is the Frozen Sea, named by some Cronium.

CHAPTER XVII.

Gallia.

ALL Gallia, by one Name called Comata, is divided into three Kinds of People, and those for the most part divided one from the other by Rivers: Belgica, from Scaldis to Sequana: Celtica, from it to Garumna; and this Part of Gallia is also named Lugdunensis. From thence to the lying out of the Mountain Pyrenæus, Aquitania, formerly called Aremorica. *Agrippa* hath made this Computation of all the Gallia lying between Rhenus, Pyrenæus, the Ocean, and the Mountains Gebenna and Jura; whereby he excludeth Narbonensis Gallia; in Length 420 Miles, and in Breadth 313. Next to Scaldis, the Toxandri inhabit the utmost Borders, under many Names. Then the Menapii, Morini, and Oromansaci; joining upon that District which is called Gessoriacus, the Brinanni, Ambiani, Bellonici, and Hassi. Within, the Castologi, Atrebates, and the free Nervii. The Veromandui, Sueconi, and free Suessiones, free Ulbanectes, Tungri, Rinuci, Frisiabones, Betasi, free Leuci. The Treviri,

free formerly : the Lingones Confederates : the Remi Confederate : the Mediomatrici, the Sequani, the Raurici, and Helvetii. Colonies, Equestris and Rauriaca. But, of German Nations in the same Province, that dwell near the Rhenus, the Nemetes, Tribochi, and Vangiones : then the Ubii, Colonia Agrippensis, Gugerni, Batavi, and those whom we spake of in the Islands of the Rhenus.

CHAPTER XVIII.

Lugdunensis Gallia.

LUGDUNENSIS GALLIA containeth the Lexovii, Velocasses, Galleti, Veneti, Abricatui, Osismii, and the noble River Ligeris : but a remarkable Peninsula running out into the Ocean from the Extremity of the Osismii, having in circuit 625 Miles : with its Neck 125 Miles broad. Beyond it dwell the Nannetes : within, the Hœdui Confederates, the Carnuti Confederates, the Boii, Senones, Aulerici, surnamed Ebuovices, and the Cenomannes, and Meldi, free. Parrhisii, Trecasses, Andegavi, Viducasses, Vadicasses, Unelli, Cariosvelites, Diablini, Rhedones, Turones, Itesui, and free Secusiani, in whose Country is the Colony Lugdunum.

CHAPTER XIX.

Aquitania.

To Aquitania belong the Ambilatri, Anagnutes, Pictones, the free Santones (Bituriges), named also Vibisci, Aquitani, from whom the Province is named, and the Sediboniates. Then such as were enrolled into a Town from various Parts : Beggeri, Tarbeli, who came under 4 Ensings ; Cocossati, under 6 Ensings ; Venami, Onobrisates, Belendi, and the Forest Pyrenæus. Beneath them, the Monesi ; Osquidates, Mountaineers ; Sibyllates, Camponi, Bercorates, Bipedimui, Sassumini, Vellates, Tornates, Consoranni, Ausci, Elusates, Sottiates, the Field Osquidates, Succasses, Latusates, Basabocates, Vassei, Sennates, Cambolctri, Agesinates joined to

the Pictones. Then the free Bituriges, who are also called Cubi. Next to them, Lemovices, the free Arverni, and Gabales. Again, those that border upon the Province Narbonensis; the Rutheni, Cadureci, Autobroges, and the Petrogori divided from the Tolosani by the River Tarnè. Seas about the Coast: upon the Rhenus the North Ocean: between the Rhenus and Sequana, the British Ocean: between it and Pyrenæus, the Gallic Ocean. Islands: many of the Veneti, which are called also Veneticæ: and in the Gulf of Aquitaine, Uliarus.

CHAPTER XX.

The Hither Hispania.

At the Promontory of Pyrenæus beginneth Hispania (Spain); narrower not only than Gallia, but also than itself (as we may say), so vast a Quantity is wrought into it by the Ocean of the one Coast, and the Iberian Sea on the other. The Mountains of Pyrenæus, which from the East spread all the way to the Southwest, make Hispania shorter on the North Side than the South. The nearest Border of this hither Province is the same as the Tract of Tarracon, from Pyrenæus along the Ocean, to the Forest of the Vascones. In the Country of the Varduli: the Towns Olarso, Morosgi, Menosca, Vesperies, the Port Amanum, where now is Flaviobriga, a Colony of nine Cities. The Region of the Cantabri, the River Sada, the Port of Victoria, inhabited by the Juliobrigenses. From that Place the Fountains of Iberus, 40 Miles. The Port Biendum, the Origeni, intermingled with the Cantabri. Their Harbours, Vesei and Veca: the Country of the Astures, the Town Nœga, in the Peninsula Peticus. And then the Conventus Lucensis, from the River Navilubio, the Cibarci, Egovarri, surnamed Namarini, Iadoni, Arrotrebæ, the Promontory Celticum. Rivers, Florius and Nelo. Celtici, surnamed Nerix: and above the Tamirici, in whose Peninsula are three Altars called Sestianæ, dedicated to *Augustus*; Cœpori, the Town Nœla. The Celtici, surnamed Præsamarci, Cileni. Of Islands worth the naming, Corticata and Aunios. From

the Cileni, the Conventus of the Bracæ, Heleni, Gravii, the Castle Tydè, all descended from the Greeks. The Islands Cicæ, the distinguished Town Abobrica; the River Minius with a broad Mouth, four Miles over; the Leuni, Seurbi, Augusta, a Town of the Bracæ: and above them, Gallæcia; the River Limia. The River Durius, one of the greatest in Hispania, springing in the Pelendones' Country, and running by Numantia: and so on, through the Arevaci and Vaccæi, dividing the Vettones from Asturia, and the Gallæci from Lusitania: and there also it keepeth off the Turduli from the Bracari. All this Region abovesaid from Pyrenæus is full of Mines, of Gold, Silver, Iron, Lead, both black and white (Tin).

CHAPTER XXI.

Lusitania.

FROM the (River) Durius beginneth Lusitania, wherein are Turduli the old, Pesuri, the River Vacca. The Town Talabrica, the Town and River Minium. Towns, Conimbrica, Olisippo, Eburo, Britium. From whence runneth out into the Sea with a mighty Horn the Promontory, which some have called Artabrum; others, the Great; and many, Olissoponense, from the Town, making a Division of Land, Sea, and Sky. By it is the Side of Hispania determined, and from the Compass of it beginneth the Front.

CHAPTER XXII.

Islands in the Ocean.

ON the one hand, is the North and the Gallic Ocean: on the other, the West and the Atlantic Ocean. The shooting forth of the Promontory some have reported to be 60 Miles, others 90. From thence to Pyrenæus not a few say it is 1250 Miles; and that there is a Nation of the Atabri, which never was, with a manifest Error. For they have set the Arrotrebæ, whom we have placed before the Celtic Promontory, in this place, by exchanging some Letters. They have erred also in certain famous Rivers. From

Minius abovenamed (as *Varro* saith) *Æminius* is 200 Miles distant (which some take to be elsewhere, and call it *Limæa*), named by the ancients *Oblivionis*; of which goeth many a Fable. From *Durius* to *Tagus* is 200 Miles, and *Munda* cometh between. *Tagus* is much renowned for Sand that yieldeth Gold: 160 Miles from it the Promontory *Sacrum* (Sacred) runneth out from about the middle Front of *Hispania*: and *Varro* saith it is 14 Miles from it to the midst of *Pyrenæus*. But from *Ana*, by which we have separated *Lusitania* from *Bætica*, 226 Miles: adding thereto from *Gades* 102 Miles. Nations: *Celtici*, *Varduli*, and about the *Tagus*, the *Vettones*. From *Ana* to *Sacrum*, the *Lusitani*. Memorable Towns: from *Tagus* in the Coast Side, *Olisippo*, noble for the Mares that conceive there by the *Favonius* Wind. *Salacia*, denominated *Urbs Imperatoria*, and *Mero-brica*: the Promontory *Sacrum*, and another called *Cæneus*.¹ Towns: *Ossonoba*, *Balsa*, and *Myrtius*. The whole Province is divided into three Conventions: *Emeritensis*, *Pacensis*, and *Scalabitanus*. It containeth in all five-and-forty People: wherein are five Colonies, one Municipium of Roman Citizens; three of Old *Latium*. Stipendiaries, six-and-thirty. Colonies, *Augusta Emerita*: and upon the River *Ana*, *Metallinensis*; *Pacensis*, *Norbensis*, which is named also *Cæsariana*. To it are laid *Castra Julia* and *Castra Cæcilia*. The fifth is *Scalabis*, called *Præsidium Julium*. The Municipium of Roman Citizens *Olyssippo*, named also *Felicitas Julia*. Towns of the Old *Latium*, *Ebora*, which likewise was called *Liberalitas Julia*: *Myrtilis* also, and *Salatia*, which we have spoken of. Of Stipendiaries, which I am not loth to name, beside the abovesaid, in the additions of *Bætica*, *Augustobrigenses*, *Ammienses*, *Aranditani*, *Axabricenses*, *Balsenses*, *Cæsarobricenses*, *Caperenses*, *Caurenses*, *Colarni*, *Cibilitani*, *Concordienses*, the same as *Bonori*; *Interausenses*, *Lancienses*, *Mirobrigenses* surnamed *Celtici*; *Medu-bricenses*, the same as *Plumbarii*; *Ocelenses*, who also are *Lancienses*; *Turtuli*, named *Barduli*, and *Tapori*. *M. Agrippa*

¹ *Cæneus* is read in some editions, and *Cuneus* in others.

hath written, that Lusitania, with Asturia and Gallæcia, is in Length 540 Miles, and in Breadth 526. But all the Hispaniæ (Spains), from the two Promontories of Pyrenæus along the Seas, are supposed to take up in Circuit of the whole Coast 2900 Miles, and by others, 2700. Over against Celtiberia are very many Islands, called by the Greeks Cassiterides, from the plenty of Lead:¹ and from the region of the Promontory of the Arrotrebæ, six named Deorum (*i. e.* of the Gods) which some have called Fortunatæ. But in the very Cape of Bætica, from the Mouth of the Strait 75 Miles, lieth the Island Gades, 12 Miles long, as *Polybius* writeth, and 3 Miles broad. It is distant from the Continent, where it is nearest, less than 700 Paces,² in other Parts above 7 Miles. Its space containeth 15 Miles. It hath a Town of Roman Citizens, which is named Augusta, Urbs Julia Gaditana. On that side that looks toward Spain, within about 100 Paces, is another Island, 3 Miles long, and a Mile broad, wherein formerly was the Town of Gades. The Name of this Island, according to *Ephorus* and *Philistides*, is Erythia: but according to *Timæus* and *Silenus*, Aphrodisias: by the Native Inhabitants, of Juno. The bigger, *Timæus* saith, was by them called Cotinusa; our Countrymen name it Tartessos, the Pœni Gadir,³ which in the Punic Language signifieth⁴ the number of seven.⁵ Erythia was called, because the Tyri were reported to have had their first beginning out of the (Red) Sea, Erythræum. Some think that *Geryon* here dwelt, whose Herds *Hercules* took away. There are again some who think that it is another, over

¹ See p. 36, c. xvi.

² Less than three-quarters of a mile.

³ Or Gadiz.

⁴ *Septem*, or, as some read, *Septum* (*i. e.* a park or enclosure).

⁵ From the Hebrew root signifying to make a fence, the Phœnicians called any enclosed space *Gaddir*, and particularly gave this name to their settlement on the south-western coast of Spain, which the Greeks from them called *Gaderia*, the Romans *Gades*, and we *Cadiz*. See *Bochart*, vol. i. 628-734. This name is very appropriately given to the island mentioned by *Pliny*; but why it should be derived from a Punic word signifying *seven* is not so apparent.—*Wern. Club.*

against Lusitania, and there sometime called by the same Name.

CHAPTER XXIII.

The Measure of all Europe.

HAVING finished the circuit of Europe, we must now yield the total Sum, that such as are desirous of Knowledge be not deficient in any thing. *Artemidorus* and *Isidorus* have set down the Length of it from *Tanais* to *Gades* 84,014 Miles. *Polybius* hath put down the Breadth of Europe, from Italy to the Ocean 1150 Miles, for then the largeness of it was not known. But the Breadth of Italy itself (as we have shewn) is 1220 Miles to the Alps: from whence by *Lugdunum* to the Port of the *Morini* in Britain, from which *Polybius* seemeth to take his Measure, is 1168 Miles. But the more certain Measure, and the longer, is directed from the said Alps to the extreme West and the Mouth of the *Rhenus*, through the Camps of the Legions of *Germania*, 1243 Miles. Now will we proceed to describe *Africa* and *Asia*.



IN THE FIFTH BOOK

ARE CONTAINED

REGIONS, NATIONS, SEAS, TOWNS, PORTS, HILLS, RIVERS, WITH
THEIR MEASURES, AND PEOPLE, EITHER AT THIS DAY
EXISTING, OR IN TIMES PAST, VIZ.:—

CHAP.

1. Mauritania.
2. The Province Tingitana.
3. Numidia.
4. Africa.
5. Cyrenè.
6. Lybia Maræotis.
7. Islands lying about Africa, and
over against Africa.
8. The Ethiopians.
9. Asia.
10. Alexandria.
11. Arabia.
12. Syria, Palæstina, Phœnicè.
13. Idumæa, Syria, Palæstina, Sa-
maria.
14. Judæa, Galilea.
15. The River Jordan.
16. The Lake Asphaltites.
17. The Essenes (people).
18. The Country Decapolis.
19. Tyrus and Sidon.
20. The Mount Libanus.

CHAP.

21. Syria Antiochena.
22. The Mountain Casius.
23. Cœle-Syria.
24. The River Euphrates.
25. The Region Palmyra.
26. Hierapolis (the Country).
27. Cilicia and the Nations adjoining:
Pamphylia, Isauria,
Homonades, Pisidia, Lyca-
onia, the Mountain Taurus,
and Lycia.
28. The River Indus.
29. Laodicea, Apamia, Ionia, and
Ephesus.
30. Æolis, Troas, Pergamus.
31. Islands about Asia, the Pam-
phylian Sea, Rhodes, Samus,
and Chius.
32. Hellespont, Mysia, Phrygia,
Galatia, Nicæa, Bithynia,
Bosphorus.

Herein you find Towns and Nations, principal Rivers, famous Moun-
tains, Islands, 117. Towns also that are perished. Affairs, Histories and
Observations.

LATIN AUTHORS ABSTRACTED :

Agrippa, Suetonius Paulinus, Varro Atacinus, Cornelius Nepos, Hyginus, L. Vetus, Mela, Domitius Corbulo, Licinius Mutianus, Claudius Cæsar, Aruntius, Livius the Son, Sebosus, the Records of the Triumphs.

FOREIGN WRITERS :

King Juba, Hecateus, Hellenicus, Damastes, Dicæarchus, Bion, Timosthenes, Philonides, Xenagoras, Astynomus, Staphylus, Aristotle, Dionysius, Aristocritus, Ephorus, Eratosthenes, Hipparchus, Panætius, Serapion Antiochenus, Callimachus, Agathocles, Polybius, Timæus the Mathematician, Herodotus, Myrsilus, Alexander Polyhistor, Metrodorus, Posidonius who wrote Periplus or Periegesis, Sotades, Periander, Aristarchus Sicyonius, Eudoxus, Antigenes, Callicrates, Xenophon Lampsacenus, Diodorus Syracusanus, Hanno, Himilco, Nymphodorus, Calliphon, Artemidorus, Megasthenes, Isidorus, Cleobulus, Aristocreon.



THE FIFTH BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY
C. PLINIUS SECUNDUS.

The Description of Africa.

AFRICA the Greeks have called Lybia; from which the Lybian Sea before it beginneth, and endeth in the Egyptian. No part of the Earth receiveth fewer Gulfs in that long compass of oblique Coasts from the West. The Names of its People and Towns are exceedingly hard to be Pronounced, unless by their own Tongues: and again, they for the most part dwell in Castles.

CHAPTER I.

Mauritania.

At the beginning, the Lands of Mauritania, until the time of *C. Cesar (i. e. Caligula)*, son of *Germanicus*, were called Kingdoms: but by his Cruelty it was divided into two Provinces. The utmost Promontory of the Ocean is named by the Greeks Ampelusia. The Towns were Lissa and Cotes

beyond the Pillars of *Hercules*. Now there is Tingi, formerly built by *Antæus*; and afterwards by *Claudius Cæsar*, when he made it a Colony, by whom it was called *Traducta Julia*. It is from *Belonè*, a Town in *Bætica*, by the nearest Passage, 30 Miles. Five-and-Twenty Miles from it, in the Coast of the Ocean, is a Colony of *Augustus*, now *Julia Constantia*, exempt from the Jurisdiction of the Kings of *Zilis*: and commanded to seek for Law to *Bætica*. And 32 Miles from it is *Lixos*, made a Colony by *Claudius Cæsar*, of which in old Time there were related many Fabulous Tales. There stood the Royal Palace of *Antæus*; there was the combat with *Hercules*; there also were the Gardens of the *Hesperides*. Now there floweth into it out of the Sea a Creek by a winding Channel, in which Men now interpret that there were Dragons serving as Guards. It encloseth an Island within itself, which (notwithstanding the Tract near it is somewhat higher) is alone not overflowed by the Tides of the Sea. In it there standeth an Altar of *Hercules*; and except wild Olives, nothing is to be seen of that Grove, reported to bear Golden Apples. And indeed less may they wonder at the enormous lies of Greece invented concerning these, and the River *Lixus*; who will think how of late our Countrymen have delivered some Fables scarcely less monstrous, regarding the same things: as, that this is a very strong City, bigger than great *Carthage*: moreover, that it is situated over against it, and almost at an immense way from *Tingi*: and other such, which *Cornelius Nepos* hath been very eager to believe. From *Lixus* 40 Miles, in the Midland Parts, standeth *Babba*, another Colony of *Augustus*, called *Julia Campestris*: also a third 75 Miles off, called *Banasa*, but now *Valentia*. 35 Miles from it is the Town *Volubilè*, just in the midway between both Seas. But in the Coast, 50 Miles from *Lixus*, there runneth *Subur*, a copious and navigable River, near to the Colony *Banasa*. As many Miles from it is the Town *Sala*, standing upon a River of the same Name, near now to the Wilderness, much infested with Herds of Elephants, but much more with the Nation of the *Autololes*, through which lieth the Way to *Atlas*, the most fabulous Mountain of

Africa. For Writers have given out that, rising out of the very midst of the Sands, it mounteth to the Sky, rough and ill-favoured on that side which lieth toward the Shore of the Ocean, unto which it gave the Denomination: and the same is shadowy, full of Woods, and watered with Sources of spouting Springs, on the way which looketh to Africa, with Fruits of all sorts, springing of their own accord, one under another, in such a manner, that at no time is Fulness of Pleasure wanting. Moreover, that none of the Inhabitants are seen by day: all is silent, like the Awe of Solitude: a secret Devotion creepeth into the Hearts of those who approach near to it; and besides this Awe they are lifted above the Clouds, even close to the Circle of the Moon: that the same (Mountain) shineth by Night with frequent Fires, and is filled with the Lasciviousness of Ægipanes and Satyrs; that it resoundeth with the Melody of Flutes and Pipes; and ringeth with the Sound of Drums and Cymbals. These are the Reports of famous Writers, besides the Labours of *Hercules* and *Perseus* there. The Way unto it is exceedingly long, and not certainly known. There were also Commentaries of *Hanno*, the General of the Carthaginians, who in the time of the most flourishing state of Carthage had a charge to explore the Circuit of Africa. Him, most of the Greeks as well as our Countrymen following, among some other fabulous Stories, have written that he also built many Cities there: but neither any Memorial, nor Token of them remain. When *Scipio Æmylianus* carried on War in Africa, *Polybius*, the Writer of the Annals, received from him a Fleet; and having sailed about for the purpose of searching into that part of the World, he reported, That from the said Mountain West, toward the Forests full of Wild Beasts, which Africa breedeth, to the River Anatis, are 485 Miles; and from thence to Lixus, 205. *Agrippa* saith, That Lixus is distant from the Straits of Gades 112 Miles. Then, that there is a Bay called Saguti; also a Town upon the Promontory, Mutelacha. Rivers, Subur and Sala. That the Port Rutubis is from Lixus 313 Miles. Then the Promontory of the Sun. The Port Risardir: the Gætulians, Autololes,

the River Cosenus, the Nation of the Scelatiti and Massati. The Rivers Masatal and Darat, wherein Crocodiles are produced. Then a Bay of 516 Miles, enclosed within the Promontory of the Mountain Barcè, running out into the West, which is called Surrentium. After it, the River Palsus, beyond which are the Æthiopian Perorsi, and at their back are the Pharusi. Upon whom join the inland People, the Gætuli Daræ. But upon the Coast are the Æthiopian Daratitæ; the River Bambotus full of Crocodiles and Hippopotami. From which, he saith, there is a Continuation of Mountains as far as to that which we call Theon-Ochema (the Gods' Chariot). Then, in sailing nine Days and Nights to the Promontory Hesperium, he hath placed the Mountain Atlas in the mid-way; which by all other Writers is set down to be in the utmost Borders of Mauritania. The Romans first warred in Mauritania, in the time of *Claudius* the Prince: when *Ædæmon*, the Freedman of King *Ptolemæus*, who was slain by *C. Cæsar*, endeavoured to avenge his Death. For as the Barbarians fled backward, the Romans came to the Mountain Atlas. And not only to such Generals as had been Consuls, and to such as were of the Senate, who at that time managed affairs, but to Knights also, who from that time had command there, was it a glory to have penetrated to the Atlas. *Five Roman Colonies, as we have said, are in that Province, and by common fame it may seem to be accessible. But this is found for the most part by Experience very fallacious: because Persons of high Rank, when it is irksome to search out the Truth, find it not irksome through the shame of Ignorance, to give out Untruths: and never are Men more credulous to be deceived than when some grave Author fathereth the lie. And indeed I less wonder, that things are not known, when they of the Equestrian Order, and those now also of the Senatorial Rank, admire nothing but Luxury: which very powerful and prevailing Force is seen when Forests are searched for Ivory and Citron-trees: and all the Rocks in Getulia for Murices and

* It seemeth that this clause is to be set in the beginning of the next chapter.

Purpuræ. Nevertheless the natural Inhabitants report, That in the Sea-coast 150 Miles from Sala there is the River Asana, that receiveth Salt Water into it, but with a goodly Harbour: and not far from it a River, which they call Fut: from which to Dyris (for that is the Name in their Language of Atlas) are 200 Miles, with a River coming between, named Vior. And there, by report, are to be seen the certain tokens of a Soil formerly inhabited; the vestiges of Vineyards and Date-tree Groves. *Suetonius Paulinus* (a Consul in our time), who was the first Roman Leader that passed over Atlas for the space of some Miles, also hath reported regarding the height thereof: and moreover, that the foot of it toward the bottom is full of thick and tall Woods, with Trees of an unknown kind, but the height of them is delightful to see, smooth and beautiful, the branches like Cypress; and, besides the strong smell, are covered over with a thin Down, of which (with some help of Art) fine Cloth may be made, such as the Silk-worm yieldeth: that the top of it is covered with deep Snow, even in Summer, and that he reached up to it on the tenth day, and beyond to the River called Niger, through solitudes of black Dust, with sometimes conspicuous ragged Rocks, appearing as if burnt: places by reason of the Heat not habitable, although tried in the Winter Season. Those who dwelt in the next Forests were pestered with Elephants, wild Beasts, and Serpents of all sorts; and those People were called Canarii; because they and Animals feed together, and part among them the Bowels of wild Beasts. For it is sufficiently known that a Nation of Æthiopians, whom they call Peroresi, joineth to them. *Juba*, the Father of *Ptolemæus*, who formerly ruled over both Mauritaniæ, a Man more memorable for his illustrious Studies than for his Kingdom, hath written the like concerning Atlas; and (he saith) moreover, that there is an Herb growing there called Euphorbia, from his Physician's name that first found it: the Milky Juice of which he praiseth exceedingly much for clearing the Eyes and against Serpents and all Poisons, in a dedicated Book by itself. Thus much may suffice, if not too much, about Atlas.

CHAPTER II.

The Province Tingitania.

THE Length of the Province Tingitania is 170 Miles. The Nations therein are these: The Mauri, which in times past was the principal, and of whom the Province took its Name: and those most Writers have called Marusii. Being by War weakened, they wasted to a few Families. Next to them were the Massæsuli, but in like manner they were extinguished. Now are the Nations inhabited by the Getulæ, Bannurri, and the Autoles, the most powerful of all: a part of whom were once the Vesuni: but being divided from them, they became a Nation by themselves, and were turned to the Æthiopians. This Province being full of Mountains eastward, affordeth Elephants. In the Mountain Abila, also, and in those which for their equal height they call the Seven Brethren: these are joined to Abila, which looketh over the arm of the Sea. From these beginneth the Coast of the Inward Sea. The River Tamuda navigable, and formerly a Town. The River Laud, which also is able to receive Vessels. The Town Rusardir, and the Harbour. The navigable River Malvana. The Town Siga, over against Malacha, situated in Hispania: the royal Seat of *Syphax*, and now the other Mauritania. For a long time they kept the names of the Kings, so that the furthest was called Bogadiana: and likewise Bocchi, which now is Cæsariensis. Next to it is the Harbour for its space called Magnus, with a Town of Roman Citizens. The River Muluca, which is the limit of Bocchi and the Massæsuli. Quiza Xenitana, a Town of Strangers: Arsennaria, a Town of Latins, 3 Miles from the Sea: Carcenna, a Colony of *Augustus*, the Second Legion: Likewise another Colony of his, planted with the Pretorian Cohort: Gunugi: and the Promontory of *Apollo*. And a most famous Town there, Cæsarea, usually in old time called Iol, the royal Seat of King *Juba*: endowed by *Divus Claudius* with the Right of a Colony, by whose Appointment the old Soldiers were there bestowed. A new Town, Tipasa,

with the Liberties of Latium. Likewise Icosium, endowed by *Vespasian* the Emperor with the same Gift. The Colony of *Augustus*, Rusconiæ: and Ruscuro, by *Claudius* honoured as a City: Rusoezus, a Colony of *Augustus*. Saldè, a Colony of the same. Igelgili also, and Turca, a Town seated upon the Sea and the River Ampsaga. Within Land, the Colony Augusta, the same as Succubar; and likewise Tubrisuptus. Cities, Timici, Tigavæ. Rivers, Sardabala and Nabar. The Nation, Macurebi: the River Usar and the Nation of the Nabades. The River Ampsaga is from Cæsarea 233 Miles. The Length of either Mauritania is 839 Miles, the Breadth, 467.

CHAPTER III.

Numidia.

NEXT to Ampsaga is Numidia, renowned for the Name of *Masanissa*: called by the Greeks, the Land Metagonitis. The Numidian Nomades (so named from changing their Pasture), who carry their Huts, that is, their Houses, about with them upon Waggon. Their Towns are Cullu and Rusicadè; from which 48 Miles off, within the midland Parts is the Colony Cirta, surnamed of the Sittiani; another also within Cicca, and a free Town named Bulla Regia. But in the Coast, Tacatua, Hippo Regius, and the River Armua. The Town Trabacha, of Roman Citizens: the River Tusca, which boundeth Numidia: and besides the Numidian Marble, and abundance of wild Beasts, nothing is there worth the noting.

CHAPTER IV.

Africa.

FROM Tusca forward is the Region Zeugitana, and the Country properly called Africa. Three Promontories: the White; then that of *Apollo*, over against Sardinia: that of *Mercury* opposite to Sicily; which, running into the Sea, make two Bays: the one Hipponensis, next to the Town which they call Hipponis, named by the Greeks Diarrhyton, on

account of Brooks of Water: upon this bordereth Theudalis, an exempt Town, but further from the Sea-side; then the Promontory of *Apollo*. And in the other Bay, Utica, of Roman Citizens, ennobled by the death of *Cato*: the River Bagrada. A Place called Castra Cornelia: and the Colony Carthago, among the Relics of great Carthage: and the Colony Maxulla. Towns, Carpi, Misna, and the free Clupea, upon the Promontory of *Mercury*. Also, free Towns, Curubis and Neapolis. Soon is another distinction of Africa itself. Libyphœnices are they called, who inhabit Byzacium; for so is that Region named: containing in Circuit 250 Miles, exceedingly fertile, where the Ground sown yieldeth to the Husbandman an hundred-fold Increase. In it are free Towns, Leptis, Adrumetum, Ruspina, and Thapsus: then, Thenæ, Macomades, Tacapè, Sabrata, reaching to the Lesser Syrtis: unto which, the Length of Numidia and Africa from Amphaga is 580 Miles: the Breadth, of so much as is known, 200. This Part, which we have called Africa, is divided into two Provinces, the old and the new; separated by a Fosse brought as far as to Thenæ, within the African Gulf; which Town is 217 Miles from Carthage. The third Bay is separated into two; horrible Places for the Shallows and ebbing and flowing of the Sea at the two Syrtes. From Carthage to the nearer of them, which is the lesser, is 300 Miles, by the Account of *Polybius*: who saith, also, that the said Passage of Syrtis is 100 Miles forward and 300 in Circuit. By Land also, the Way to it is by observation of the Stars, and through the Desert over Sands and through Places full of Serpents; you pass Forests filled with Numbers of wild Beasts: and within, Solitudes of Elephants: and soon after, vast Deserts, even beyond the Garamantes, who, from the Augilæ, are distant twelve Days' Journey. Above them was the Nation of the Psylli: and above them the Lake of *Lycomedes* environed with Deserts. The Augilæ themselves are seated about the middle Way from Ethiopia; which bendeth Westward, and from the Country lying between the two Syrtes, with an equal Distance on each Side: but the Shore between the two Syrtes is 250 Miles. There standeth the

City Oënsis, the River Cinyps, and the Country. Towns, Neapolis, Taphra, Abrotonum, the other Leptis, called also the Great. Then the Greater Syrtis, in Compass 625 Miles, and in direct Passage 313. Then inhabit the Nation of Cispades. In the inmost Gulf was the Coast of the Lotophagi, whom some have called Alachroas, as far as to the Altars of the Philæni, and they are formed of Sand. Next to them, not far from the Continent, the vast Marsh admitteth into it the River Triton, and taketh its Name from it : but *Callimachus* calleth it Pallantias, and saith it is on this Side the lesser Syrtes ; but many place it between both Syrtes. The Promontory that encloseth the greater is named Borion. Beyond is the Province Cyrenaica. From the River Ampsaga to this Bound, Africa containeth 26 separate People, who are subject to the Roman Empire : among which are six Colonies, besides the above-named, Uthina and Tuburbis. Towns of Roman Citizens, 15 ; of which those in the midland Parts to be named are Azuritanum, Abutucensè, Aboriensè, Canopicum, Chilmanensè, Simittuensè, Thunusidensè, Tuburnicensè, Tynidrumensè, Tribigensè, two Ucitana, the greater and less ; and Vagiensè. One Latin Town, Usalitanum. One stipendiary Town near Castra Cornelia. Free Towns, 30, of which are to be named, within, Acrolitanum, Acharitanum, Avinensè, Abziritanum, Canopitanum, Melzitanum, Madaurensè, Salaphitanum, Tusdritanum, Tiricensè, Tiphicensè, Tunicensè, Theudensè, Tigestensè (Tigensè), Ulusibritanum, another Vagensè, Vigensè, and Zamensè. The rest it may be right to call not only Cities, but also for the most Part, Nations ; as the Natabudes, Capsitani, Misulani, Sabarbares, Massili, Misives, Vamacures, Ethini, Massini, Marchubii : and all Gætulia to the River Nigris, which parteth Africa and Ethiopia.

CHAPTER V.

Cyrenè.

THE Region Cyrenaica, called also Pentapolitana, is illustrious for the Oracle of *Hammon*, which is from Cyrenæ

400 Miles, from the Fountain of the Sun; and principally for five Cities, Berenicè, Arsinoë, Ptolemais, Apollonia, and Cyrenè itself. Berenicè standeth upon the outermost Horn of Syrtis, called formerly the City of the above-named Hesperides, according to the wandering Tales of Greece. And before the Town, not far off, is the River Lethon, the sacred Grove where the Gardens of the Hesperides are reported to be. From Leptis it is 385 Miles. From it is Arsinoë, usually named Teuchira, 43 Miles: and from thence 22 Miles, Ptolemais, called in old time Barcè. And then 250 Miles off, the Promontory Phycus runneth out through the Cretic Sea, distant from Tænarus, a Promontory of Laconia, 350 Miles: but from Creta itself 125 Miles. And after it Cyrenè, 11 Miles from the Sea. From Phycus to Apollonia is 24 Miles: to Cherrhonesus, 88: and so to Catabathnus, 216 Miles. The Inhabitants there bordering are the Marmaridæ, stretching out in Length almost from Parætonium to the Greater Syrtis. After them the Ararauces: and so in the very Coast of Syrtis, the Nesamones, whom formerly the Greeks called Mesammones, by reason of the Place, as seated in the midst between the Sands. The Cyrenaic Country, for the Space of 15 Miles from the Sea-shore, is fruitful for Trees: and for the same Compass within the Land, for Corn only: but then for 30 Miles in Breadth, and 250 in Length, for Laser.¹ After the Nasamones live the Hasbitæ and Masæ. Beyond them the Hammanientes, 11 Days' Journey from the Greater Syrtis to the West; and even they also every Way are compassed about with Sands: but

¹ The plant that yielded the Cyrenaic juice called Laser, was the Silphion of the Greeks, and the Laserpitium of the Romans (Thapsia Silphion, *Viviani*), and agrees tolerably well with the rude figures struck on the Cyrenean coins. It would appear, however, that the Cyrenaic juice becoming scarce, the ancients employed some other substance of similar, though inferior properties, as a substitute, and to both of them they applied the term *Laser*. Pliny (lib. xix. c. 3) says, "For a long time past the only Laser brought to us is that which is produced abundantly in Persia, &c., but it is inferior to the Cyrenaic." Now it is not at all improbable that the Laser of Persia may have been our *Asafœdita* (*Ferula Asafœdita*, LIN.)—*Wern. Club.*

they find without much difficulty Wells almost in the Depth of two Cubits, where the Waters of Mauritania settle. They build themselves Houses of Salt, hewn out of their own Mountains in the manner of Stone. From these to the Troglodites, in the South-west Coast, the Country is four Days' Journey; with whom is a Traffic only for a precious Stone, which we call a Carbuncle, brought out of Ethiopia. There cometh between, the Country Phazania toward the Solitudes of Africa, above the said Lesser Syrtis: where we subdued the Nation of the Phazanii, with the Cities Alelè and Cillaba. Also Cydamum, over against the region of Sabrata. Next to these is a Mountain, reaching a great way from East to West, called by our People Ater, as if burnt by Nature, or scorched by the reflection of the Sun. Beyond that Mountain are the Deserts: also Matelgæ, a Town of the Garamantes, and likewise Debris, which casteth forth a Fountain, the Waters boiling from Noon to Midnight, and for as many Hours to Mid-day reducing again: also the very illustrious Town Garama, the head of the Garamantes. All which Places the Roman Arms have conquered, and over them *Cornelius Balbus* triumphed; the only Man of Foreigners that was honoured with the (Triumphant) Chariot, and endowed with the Freedom of Roman Citizens; because being born at Gades, he and his Uncle, *Balbus* the Elder, were made free Denizens of Rome. And this wonder our Writers have recorded, that besides the Towns above named by him conquered, himself in his Triumph carried the Names and Images, not of Cydamus and Garama only, but also of all the other Nations and Cities; which went in this Order. The Town Tabidium, the Nation Niteris; the Town Negligemela, the Nation Bubeium; the Town Vel, the Nation Enipi; the Town Thuben, the Mountain named Niger; the Towns Nitibrum and Rapsa; the Nation Discera, the Town Debris; the River Nathabur, the Town Tapsagum, the Nation Nannagi, the Town Boin; the Town Pegè, the River Dasibari. Presently these Towns lying continuously, Baracum, Buluba, Alasi, Balsa, Galla, Maxala, and Zizama. The Mountain Gyri, wherein *Titus* hath reported that precious Stones

were produced.¹ Hitherto the Way to the Garamantes was intricate, by reason of the Robbers of that Nation, who used to dig Pits in the Way (which to them that know the Places is no hard matter to do) and then cover them with Sand. But in the last War which the Romans maintained against the Oëenses, under the conduct of *Vespasian* the Emperor, there was found a short Way of four Days' Journey: and this Way is called *Præter caput Saxi* [beside the Rock's Head]. The Frontier of Cyrenaica is called Catabathmos; which is a Town and a Valley with a sudden Descent. To this Bound, from the Lesser Syrtis, Cyrenaica Africa lieth in Length 1060 Miles, and in Breadth, for so much as is known, 800.

CHAPTER VI.

Libya Mareotis.

THE Country following is named Mareotis Libya, bounded by Egypt; inhabited by the Marmaridæ, Adyrmachidæ, and then the Mareotæ. The Measure from Catabathmos to Parætonium is 86 Miles. In that Tract there lieth in the way the Village Apis, a place noble for the Religion of Egypt. From it to Parætonium, 12 Miles. From thence to Alexandria, 200 Miles: the Breadth is 169 Miles. *Eratosthenes* hath delivered, That from Cyrenæ to Alexandria by Land the Journey is 525 Miles. *Agrippa* saith, that the Length of all Africa from the Atlantic Sea, with the inferior part of Egypt, containeth 3040 Miles. *Polybius* and *Eratosthenes*, reputed the most diligent, have set down from the Ocean to great Carthage 600 Miles: from thence to Canopicum, the nearest Mouth of Nilus, 1630 Miles. *Isidorus* reckoneth from Tingi to Canopus 3599 Miles; and *Artemidorus*, 40 less than *Isidorus*.

¹ Some editions read *Titus prodidit*, while others have *titulus præcepit*.

In the triumph of Vespasian and Titus, so minutely described by Josephus ("Wars of the Jews," book vii. cap. 5) a title was affixed to the several images carried in procession, containing the names of the conquered nations and towns, with mention of their chief productions.—*Wern. Club.*

CHAPTER VII.

Islands about Africa, and over against Africa.

THESE Seas do not contain very many Islands. The fairest is Meninx, 35 Miles long and 25 broad, called by *Eratosthenes* Lotophagitis. It hath two Towns, Meninx on the side of Africa, and Thoar on the other: itself is situated from the right-hand Promontory of the Lesser Syrtis 200 Paces.¹ A hundred Miles from it against the left hand is Cercina, with a free Town of the same Name, in Length 25 Miles, and half as much in Breadth where it is most: but toward the end not above five Miles. To it there lieth a little one toward Carthage called Cercinitis, and it joineth by a Bridge. From these, almost 50 Miles, lieth Lopadusa, six Miles long. Then, Gaulos and Galata, the Earth of which killeth the Scorpion, a dangerous Creature of Africa. They say also that they will die in Clupea, over against which lieth Cosyra, with a Town. But against the Bay of Carthage are the two *Æginori*, more truly Rocks than Islands, lying for the most part between Sicily and Sardinia. Some write that these were inhabited, but sunk down.

CHAPTER VIII.

The Æthiopes.

BUT within the inner Compass of Africa, toward the South, and above the Gætuli, where the Deserts come between, the first People that inhabit are the Libii *Ægyptii*, and then the Leucæthiopes. Above them are the *Æthiopian* Nations: the Nigritæ, from whom the River was named: the Gymnetes, Pharusi, and those which now reach to the Ocean, whom we spake of in the border of Mauritania: the Perorsi. From all these are vast Solitudes eastward, to the Garamantes, Augylæ, and Troglodites, according to the truest opinion of them who place two *Æthiopias* above the Deserts of Africa: and especially of *Homer*, who saith, that the Ethiopians are divided two ways, towards the East and

¹ Or 1500 paces, *i. e.* a mile and a half.

West. The River Niger is of the same nature as Nilus; producing the Reed and Papyrus, and the same living Creatures, and swelleth at the same Seasons. It springeth between the Tareleia Æthiopiæ, and the Oëcalicæ. The Town Mavin, belonging to this People, some have set upon the deserts: near them the Atlantæ; the Ægipanæ, half beasts; the Blemmyæ, the Gamphasantæ, Satyri, and Himantopodæ. Those Atlantæ, if we will believe it, degenerate from Human Manners: for neither call they one another by any Name: and they look upon the Sun, rising and setting, with dreadful curses, as being pernicious to them and their Fields: neither Dream they in their Sleep, as other Men. The Troglodites dig Caverns, and these serve them for Houses: they feed upon the Flesh of Serpents; they make a gnashing Noise, not a Voice, so little exchange have they of Speech. The Garamantes live out of Marriage, and converse with their Women in common. The Augylæ only worship the Infernal Gods. The Gamphasantes are naked, and know no Wars, and associate with no Foreigner. The Blemmyæ, by report, have no Heads, but their Mouth and Eyes fixed in their Breast. The Satyri, besides their Shape, have nothing of Human Manners. The Ægipanæ are shaped as you see them commonly painted. The Himantopodæ are some of them wry-legged, with which they naturally go creeping. The Pharusi, formerly Persæ, are said to have been the Companions of *Hercules*, as he went to the Hesperides. More of Africa worth the noting does not occur.¹

CHAPTER IX.

Of Asia.

UNTO it joineth Asia, which from the Mouth of Canopus unto the Mouth of Pontus, according to *Timosthenes*, is 2639 Miles. But from the Coast of Pontus to that of Mæotis, *Eratosthenes* saith it is 1545 Miles. The whole, together with Egypt unto Tanais, according to *Artemidorus* and *Isidorus*, taketh 8800 Miles. Many Seas there are in it, taking their

¹ Notes on these alleged varieties of the human form will be found b. vii. c. 2; see also b. vi. c. 30.—*Wern. Club.* 0031 10

Names from the Borderers; and therefore they shall be declared together. The next Country to Africa that is inhabited is Egypt, receding withinward to the South, so far as to the Æthiopians, who are stretched out on its Back. The Nilus is on the lower part, and is divided on the Right and Left; by its encircling it boundeth it with the Mouth of Canopus from Africa, and with the Pelusiac from Asia, with an interval of 170 Miles. For which cause, some have reckoned Egypt among the Islands, considering that Nilus doth so divide itself as to make a triangular figure of the Land. And so, many have called Egypt by the Name of the Greek letter Delta (Δ). The Measure of it from the Channel where it is single, from whence it first parteth into sides, to the Mouth of Canopus, is 146 Miles; and to the Pelusiac 256. The upmost part bounding upon Æthiopia, is called Thebais. It is divided into Townships, with separate Jurisdictions, which they call Nomi: as Ombites, Phatunites, Apollopolites, Hermonthites, Thinites, Phanturites, Captites, Tentyrites, Diospalites, Antæopolites, Aphroditopolites, and Lycopolites. The Country about Pelusium hath these Nomi: Pharbætites, Bubastites, Sethroites, and Tanites. But the remainder, the Arabic, the Hammoniac which extendeth to the Oracle of *Jupiter Hammon*, Oxyrinchites, Leontopolites, Atarrhabites, Cynopolites, Hermopolites, Xoites, Mendesius, Sebennites, Capastites, Latopolites, Heliopolites, Prosopites, Panopolites, [Thermopolites, Saithes?] Busirites, Onuphites, Sorites, Ptenethu, Pthemphu, Naucratis, Nitrites, Gynæcopolites, Menelaites, in the Country of Alexandria. In like manner of Libya Mareotis. Heracleopolites is in an Island of Nilus, 50 Miles long, wherein also is the place they call the Town of *Hercules*. There are two Arsinoëtes; they and Memphites reach as far as to the Head of Delta. Upon it there border, out of Africa, the two Ouasitæ. There are Writers that change some of these Names, and substitute other Nomi: as Heroopolites, and Crocodilopolites. Between Arsinoëtes and Memphites there was a Lake 250 Miles in Circuit; or, as *Mutianus* saith, 450, and 50 Paces deep (*i. e.* 150 Feet), made by Hand; called the Lake Mœridis, from a King who

made it: 72 Miles from thence is Memphis, the Castle in old time of the Egyptian Kings. From which to the Oracle of *Hammon* is 12 Days' Journey; and to the Division of Nilus, which we have called Delta, 15 Miles. The Nilus, rising from unknown Springs, passeth through Deserts and burning Countries: and going a vast way in Length, is known by Fame only, without Arms, without Wars, which have discovered all other Lands. It hath its beginning, so far as King *Juba* was able to search, in a Mountain of the lower Mauritania, not far from the Ocean, near to a stagnant Lake, which they call Nilides. In it are found the Fishes called Alabetæ,¹ Coracini, Siluri, and also the Crocodile. Upon this argument the Nilus is thought to spring from hence, for that it is seen dedicated by him at Cæsarea, in Iseum, at this day. Moreover, it is observed, that as the Snow or Rain fills the Country in Mauritania, so the Nilus increases. When it is run out of this Lake, it scorneth to pass through the sandy and unclean Places, and hideth itself for some Days' Journey. By and by out of another greater Lake it breaketh forth in the Country of the *Masæsyli*, of Mauritania Cæsariensis; and as if it looks about for the Company of Men, with the same arguments of living Creatures, again becomes received within the Sands, where it is hidden a second time for 20 Days' Journey in the Deserts, as far as to the next Æthiopæ: and so soon as it hath again espied a Man, forth it leapeth (as it should seem) out of that Spring, which they called Nigris. And then dividing Africa from Æthiopia, being acquainted, if not presently with people, yet with the frequent company of wild and savage Beasts, and creating the shade of Woods, it cutteth

¹ The first named, Alabes or Alabetæ, is a species of *Lota* of Cuvier, or Burbot: though perhaps not the same with the fish of that name that inhabits the fresh waters of Europe. The name *Coracinus* has been applied to more than one fish of a sooty colour: but the species referred to by Pliny is probably the *Perca Nilotica* of Linnæus: the *Lates Niloticus* of Cuvier. The *Silurus* of Pliny is perhaps a species of Cuvier's genus *Schilbè*, although true *Siluri* are found in the Nile. The Crocodile will be more particularly referred to in another place.—*Wern. Club.*

through the midst of the Æthiopians: there surnamed Astapus, which in the Language of those Nations signifieth a Water flowing out of Darkness. Thus dasheth it upon such an innumerable Multitude of Islands, and some of them so very great, that although it bear a swift Stream, yet is it not able to pass beyond them in less space than five Days. About the fairest of them, Meroë, the Channel going on the Left is called Astabores, which is, the Branch of a Water coming forth from Darkness: but that on the Right is Astusapes, which adds the signification of Lying hid. And it never taketh the Name of Nilus, until its Waters meet again and accord together. And even so was it formerly named Siris for many Miles: and by *Homer* altogether Ægyptus: by others, Triton: here and there hitting upon Islands, and stirred with so many Provocations: and at the last enclosed within Mountains: and in no place is it more a Torrent, while the Water that it beareth hasteneth to a Place of the Æthioppi called Catadupi, where in the last Cataract among the opposing Rocks it is supposed not to run, but to rush down with a mighty Noise. But afterwards it becometh gentle, as the Stream is broken and the violence subdued and partly wearied with his long way: and so, though with many Mouths, it dischargeth itself into the Egyptian Sea. Nevertheless, on certain Days it swelleth to a great height: and when it hath travelled through all Egypt, it overfloweth the Land, to its great Fertility. Different causes of this Increase have been given: but those which carry the most probability are either the rebounding of the Water driven back by the Etesian Winds, at that time blowing against it, and driving the Sea upon the Mouths of the River: or the Summer Rain in Æthiopia, by reason that the same Etesian Winds bring Clouds thither from other parts of the World. *Timæus* the Mathematician alleged an hidden reason for it, which is, that the Fountain of the Nilus is named Phiala, and the River itself is hidden within Trenches under the Ground, breathing forth in a Vapour out of reeking Rocks, where it lieth concealed. But so soon as the Sun during those Days cometh near, it is

drawn up by the force of Heat, and while it hangeth aloft it overfloweth: and then, lest it should be devoured, it hideth again. And this happeneth from the rising of the Dog through the Sun's entrance into Leo, while the Star standeth perpendicularly over the Fountain: when in that Tract there are no Shadows to be seen. Many again were of a different Opinion: that a River floweth more abundantly when the Sun is departed toward the North Pole, which happeneth in Cancer and Leo, and therefore at that time it is not so easily dried: but when it is returned again toward Capricorn and the South Pole, it is drunk up, and therefore floweth more sparingly. But if, according to *Timæus*, it would be thought possible that the Water should be drawn up, the want of Shadows during those Days, and in those Places, continueth still without end. For the River beginneth to increase at the New Moon, that is after the Solstice, by little and little gently, so long as the Sun passeth through Cancer, but most abundantly when he is in Leo. And when he is entered into Virgo it falleth in the same measure as it rose before. And it is altogether brought within its banks in Libra, as *Herodotus* thinketh, by the hundredth day. While it riseth it hath been thought unlawful for Kings or Governors to sail upon it. Its increasings are measured by Marks in certain Pits. The ordinary Height is sixteen Cubits. The Waters short of this do not overflow all; when more than that they are a hinderance, by reason that they retire more slowly. By these the Seed Time is consumed, by the Earth being too Wet; by the other there is none, because the Ground is Thirsty. The Province taketh reckoning of both. For in 12 Cubits it findeth Famine: at 13 it feeleth Hunger; 14 Cubits comfort their Hearts; 15 bring Safety; and 16 Dainties. The greatest Increase that ever was known until these Days was 18 Cubits, in the time of Prince *Claudius*: and the least, in the Pharsalian War: as if the River by that Prodigy turned away with horror from the Slaughter of that great Man.¹ When the Waters have stood, they are

¹ Pompey the Great, slain by treachery in Egypt.—*Wern. Club.*

admitted by opening the Flood-gates. And so soon as any part of the Land is freed from the Water it is sowed. This is the only River, of all others, that breatheth out no Air. The Dominion of Egypt beginneth at Syenè, from the Frontier of Æthiopia, for that is the Name of a Peninsula a hundred Miles in Compass, wherein are the Cerastæ upon the side of Arabia: and over against it the four Islands Philæ, 600 Miles from the Division of Nilus, where it began to be called Delta, as we have said. This space of Ground hath *Artemidorus* published; and that within it were 250 Towns. *Juba* setteth down 400 Miles. *Aristocreon* saith, That from Elephantis to the Sea is 750 Miles. The Island Elephantis is Inhabited beneath the lowest Cataract three Miles, and above Syenè 16: and is the utmost Point that the Egyptians sail unto. It is 586 Miles from Alexandria. So far the Authors above written have erred: there the Æthiopian Ships assemble; for they are made to fold up together, and are carried upon Shoulders, so often as they come to those Cataracts. Egypt, above the other glory of Antiquity, pretends that in the Reign of King *Amasis* there were inhabited in it 20,000 Cities. And even at this Day it is full of them, though of base account. Nevertheless, that of *Apollo* is renowned; and near to it that of *Leucothea*, and *Diospolis*¹ the Great, the same as *Thebes*, noble for the Fame of its Hundred Gates. Also, *Captos*, a great commercial Town very near to Nilus, frequented for Merchandise of India and Arabia. Near is the Town of *Venus*, and another of *Jupiter*; and *Tentyris*, beneath which standeth *Abydus*, the royal Seat of *Memnon*; and renowned for the Temple of *Osiris*, seven Miles and a half distant from the River, toward *Lybia*. Then *Ptolemais*, *Panopolis*, and another of *Venus*. Also in the *Lybian Coast*, *Lycon*, where Mountains bound *Thebais*. After these, the Towns of *Mercury*, *Alabastron*, *Canum*, and that of *Hercules* spoken of before. After these, *Arsinoë*, and the abovesaid *Memphis*, between which and the *Nomos Arsinoëtes*, in the *Lybian Coast*, are the Towns called *Pyramids*; the *Labyrinth* built up out of the Lake

¹ The city of Jupiter.

Mœris without any Timber to it; and the Town Crialon. One besides, standing within and bounding upon Arabia, called the Town of the Sun : of great importance.

CHAPTER X.

*Alexandria.*¹

BUT justly worthy of praise is Alexandria, standing upon the Coast of the Egyptian Sea, built by *Alexander* the Great on the Part of Africa, 12 Miles from the Mouth of Canopus, near to the Lake Mareotis : which Lake was formerly called Arapotes.² *Dinochares*, the Architect, renowned for his remarkable Ability in many ways, laid out the Plan with the great Extent of the Circuit of 15 Miles, according to the Shape of a Macedonian Cloak ; full of Plaits, with the Circuit waved on to the right Hand and on the left with an angular Extension; and yet, even then, he assigned one-fifth Part of this Space for the King's Palace. The Lake Mareotis³ from the South Side of the City, meeteth with an Arm of the River Nilus, brought from out of the Mouth of the said River called Canopicus, for the more commodious Commerce out of the inland Continent. This Lake containeth within it sundry Islands, and, according to *Claudius Cæsar*, it is 30

¹ Alexandria is connected with much that is interesting in the estimation of the Christian and philosopher. It was built B.C. 331, and became the capital of Egypt under the Ptolemies; at a subsequent period, its library was the most renowned in the world; its school rose into high repute during the second and third centuries; it long continued a flourishing bishopric of the early Christian Church (having been planted by St. Mark), and was the scene of many Christian persecutions in common with the rest of the empire. Of the ancient city little remains, the only monuments of its extent and grandeur being, as Dr. Robinson relates, "a few cisterns still in use, the catacombs on the shore, the granite obelisk of Thothmes III., with its fallen brother, brought hither from Heliopolis, and usually called 'Cleopatra's Needle;' and the column of Dioclesian, commonly called 'Pompey's Pillar.'"—*Wern. Club.*

² Or, Rachobes.

³ (*Various reading.*)—"The Lake Mareotis, from the south part of the city, by an arm of the sea, is sent through the mouth of Canopus for inland traffic; it also embraces many islands, and is 30 miles in breadth, and 150 in circuit, as *Claudius Cæsar* says."—*Wern. Club.*

Miles over. Others say, that it lieth in Length 40 Schoeni; and as every Schœnus is 30 Stadia, it cometh to be 150 Miles long, and as many broad. There are many Towns of importance standing upon the Course of the River Nilus, and those especially which have given Names to the Mouths, not to all those (for there are 11 of them, besides 4 more, which they themselves call false Mouths), but to the most celebrated 7: as, to that of Canopus, next to Alexandria; then Bolbitinum, Sebenniticum, Phatniticum, Mendesicum, Taniticum, and last, Pelusiacum; besides, Buros, Pharbætos, Leontopolis, Athribis, the Town of Isis, Busiris, Cynopolis, Aphrodites, Saïs, Naucratis, whence some name the Mouth Naucraticum, which others call Heracleoticum, preferring it before Canopicum, next to which it standeth.

CHAPTER XI.

Arabia.

BEYOND the Pelusiac Mouth is Arabia, bordering on the Red Sea: and that Arabia, so rich and odoriferous, and renowned with the Surname of Happy. This Desert Arabia is possessed by the Catabanes, Esbonitæ, and Scenite Arabians: barren, except where it toucheth the Confines of Syria, and, setting aside the Mountain Casius, nothing memorable. This Region is joined to the Arabians, Canchlei on the East Side, and to the Cedræi Southward; and they both are joined afterwards with the Nabathæi. Moreover, two Bays there be, one Bay is called that of Heroopoliticus, and the other, Elaniticus: in the Red Sea, bordering on Egypt, 150 Miles distant, between two Towns, Elana and Gaza, which is in our [Mediterranean] Sea. *Agrippa* counteth from Pelusium to Arsinoe, a Town upon the Red Sea, through the Deserts, an hundred and five-and-twenty Miles. So small a Way lieth between things of such Difference in Nature.

CHAPTER XII.

Syria, Palæstina, Phœnicè.

NEAR the Coast is Syria, a Region which in Times past was the chiefest of Lands, and distinguished by many Names.

For where it toucheth upon the Arabians, it was called Palæstina,¹ Judæa, Cœle (Syria); and afterward, Phœnicè: and where it passes inward, Damascena. Still further southwards, it is named Babylonia. And the same between the Rivers Euphrates and Tigris is called Mesopotamia, and when it passeth the Mountain Taurus, it is Sophenè: but on this Side Comagenè, and beyond Armenia, is Adiabènè, formerly named Assyria; and where it meets Cilicia, it is known by the Name of Antiochia. The whole Length of Syria between Cilicia and Arabia is 470 Miles: the Breadth from Seleucia Pieria to Zeugma, a Town seated upon the Euphrates, is 175 Miles. They that minutely divide it would have Phœnicè to be environed with Syria; and that it is the Sea-coast of Syria, a Part of which compriseth Idumæa and Judæa: then Phœnicè, and then Syria. And that Sea which lieth along that Coast beareth the Name of the Phœnician Sea. This Nation of the Phœnicians hath had great Glory for the Invention of Letters, and for the Arts of the Stars, Navigation, and Skill in War. Beyond Pelusium is Chabriæ Castra, the Mountain Casius, the Temple of *Jupiter Casius*, the Tomb of *Pompeius Magnus*; and Ostracènè. From Pelusium to the Frontiers of Arabia are 65 Miles.

CHAPTER XIII.

*Idumæa,*² *Syria, Palæstina, Samaria.*

SOON after beginneth Idumæa and Palestina, from the Rising up of the Lake Sirbon, which some have reported to

¹ The following division of Palestine under the Romans will throw light upon the comments which follow:—

Palestina Prima, Kingdom of Judah (Judæa) and Samaria.

Palestina Secunda, Galilee and Trachonitis.

Palestina Tertia, Peræa and Idumæa Proper.

Wern. Club.

² Idumæa comprised the country in the southern extremity of Judæa, and embraced also a part of Arabia, which, from having been left nearly depopulated during the Babylonian captivity, was seized upon by the Idumæans, and continued to be called Idumæa in common with Idumæa

possess a circuit of 150 Miles. *Herodotus* saith it lies close by the Mountain Casius; but now it is a small Lake. The Towns are Rhinocolura; and within the Land, Raphæa: also Gaza, and within, Anthedon, and the Mountain Angoris. Samaria, the Région through the Coast; the free Town Ascalon, and Azotus: the two Jamnes, whereof one is within the Land; and Joppè, in Phœnicia, which, by report, is more ancient than the Deluge over the Earth.¹ It is situated upon a Hill, with a Rock before it, in which they shew the Remains of the Chains of *Andromeda*. There the fabulous *Derceto* is worshipped. Then is Apollonia; the Town of Strato, called also Cæsarea, founded by King *Herod*: it beareth now the Name of Prima Flavia, a Colony derived from *Vespasian* the Emperor. The Bounds of Palæstina are 180 Miles from the Confines of Arabia: and there entereth Phœnicè. But within-land are the Towns of Samaria, and Neapolis, which formerly was named Mamortha [or Maxbota]. Also Sebastè upon the Mountain, and Gamala, which yet standeth higher than it.

Proper, to a later period than the date of our author. The bounds of Palestine, in the time of the Romans, embraced Judæa, Samaria, Galilee, and Trachonitis; and Peræa and Idumæa.—*Wern. Club.*

¹ Mandeville, who travelled through these countries about the year 1323, and collected all the information that fell in his way, without discrimination, says: "And whoso wil go longe tyme on the See, and come nerrer to Jerusalem, he schal go fro Cipre, be see, to the Port Jaff. For that is the nexte Havene to Jerusalem. For fro that Havene is not but o Day Journeye and an half to Jerusalem. And the Town is called Jaff: for on of the Sones of Noe, that highte Japhet, founded it; and now it is clept Joppe. And zee schulle undrestonde, that it is on of the oldest Townes of the World: for it was founded before Noes Flode. And zitt there schewethe in the Roche ther, as the Irene cheynes were festned, that Andromade, a great Geaunt, was bounden with, and put in Presoun before Noes Flode: of the whiche Geaunt, is a rib of his Syde, that his 40 Fote longe." In the Ethiopics of *Heliodorus*, book x., the Ethiopic kings are said to derive their pedigree from *Perseus* and *Andromeda*; whose history is by *Pliny* treated as something more than a fable. But the mistake of Mandeville, in confounding *Andromeda* with the monster that was to have devoured her, is perfectly consistent with other errors in regard to the Scriptures and classical learning, which occur in his narrative.—*Wern. Club.*

CHAPTER XIV.¹*Judæa and Galilæa.*

ABOVE Idumæa and Samaria, Judæa spreadeth out far in Length and Breadth. That part of it which joineth to Syria, is called Galilæa: but that which is next to Syria and Egypt is named Peræa [*i. e.* beyond Jordan]: full of rough Mountains dispersed here and there: and separated from the other Parts of Judæa by the River Jordan. The rest of Judæa is divided into ten Toparchies, which we will speak of in order: of Hiericho, planted with Date-trees; Emmaus, well watered with Fountains; Lydda, Joppica, Accrabatena, Gophnitica, Thamnitica, Betholenè, Tephènè, and Oriuè, wherein stood Hierosolyma, by far the most illustrious of the Cities of the East, and not of Judæa only. In it also is the Toparchy Herodium, with a famous Town of the same Name.

CHAPTER XV.

*The River Jordan.*²

THE River Jordanis springeth from the Fountain Paneades, which gave the Surname to Cæsarea, whereof we will

¹ This chapter should properly have been embodied with the preceding, which treats of Palestine, that name having been applied by the Greeks to the whole country on account of the number of the Philistines always within its bounds, both before and after the final conquest of that people by David and Solomon. "Judæa," in its real signification, implies the whole of the country inhabited by the Jews, in fact, the whole "Land of Promise," from Dan to Beersheba in length, and including the region allotted to the two tribes and a half on the other side Jordan; the term was originally synonymous with "the land of Judah," but on the separation of the ten tribes, the latter term was applied to the territories of Judah and Benjamin, then formed into a separate kingdom, and hence "Judæa" also came to be applied to that district in particular. Pliny is also in error in speaking of Judæa as "spreading out far in length *above* Idumæa and Samaria," inasmuch as Samaria occupies the central portion of Judæa itself, and there is, therefore, an evident contradiction in the description.—*Wern. Club.*

² This river rises at Cæsarea Philippi; its length is 100 miles or there-

speak. It is a pleasant River, and so far as the Situation of the Country will permit, spacious, offering itself to the neighbouring Inhabitants; and reluctantly, as it were, it passeth to the Lake Asphaltites, cursed by Nature: by which it is swallowed up; it loseth its own esteemed Waters, by their becoming mixed with those of the Pestilential Lake. And therefore upon the first opportunity of any Valleys, it poureth itself into a Lake, which many call Genesara, which is 16 Miles Long and 6 Broad. This is environed with beautiful Towns: on the East side with Julias and Hippo; on the South with Tarichea, by which Name the Lake is by some called; and on the West with Tiberias, an healthful Place on account of the Hot Waters.

CHAPTER XVI.

Asphaltites.

ASPHALTITES¹ produceth nothing besides Bitumen; from whence the name. No Body of any Creature doth it receive: Bulls and Camels float upon it. And hence ariseth the abouts, and its *embouchure* is into the Dead Sea; its inner banks, to within a few miles of this place, are covered with willows, oleanders, reeds, &c. &c. whilst its periodical overflowings have formed a wider channel, defined by a second or outer bank on either side.—*Wern. Club.*

¹ *Asphaltites*, in other words the bituminous lake, from the abundance of asphalt (bitumen) which occurs in it. Dr. Shaw estimated its length at 72 English miles, and its breadth 19 miles. Dr. Robinson, however, estimates its length at only 50, and its average breadth 10 or 12 miles. The constituents of the water of the Dead Sea are as follows:—

Muriate of lime	.....	3·920	grains.
Muriate of magnesia	.....	10·246	“
Muriate of soda	.....	19·360	“
Sulphate of lime	.....	0·054	“

34·580 grains in each 100.

Several analyses have been made by Marat, Gay-Lussac, Gmelin, &c., with nearly the same result. The origin of this lake accounts for the above facts, and the phenomena by which it is surrounded equally evidence its truth—sterility in land, water, and air, are its saddening characters. It is reputed to be very shallow, which seems to be a mistake. It also bore the name of the “Sea of the Plain.” The history of this lake is best seen in the Bible.—*Wern. Club.*

Report that nothing will sink in it. This Lake in Length exceedeth 100 Miles, in Breadth 25 Miles where broadest, and 6 where narrowest. On the East, Arabia of the Nomades confronteth it; and on the South, Machærus, in Time past the second Fortress of Judæa, next to Hierosolyma. On the same side is a Fountain of Hot Waters, useful in Medicine, named Callirhoë; a Name that expresseth the Glory of the Waters.

CHAPTER XVII.

The Race of the Esseni.

ALONG the West Coast retire the Esseni:¹ a Nation living alone, and beyond all others throughout the World wonderful: without any Women, casting off the whole of Venus: without Money: keeping company only with Date-trees. Yet the Country is ever well peopled, because daily numbers of Strangers resort thither from other Parts: and such as are weary of Life are by the Waves of Fortune driven thither to their manner of Living. Thus for thousands of Ages (beyond belief to say), the Race is eternal in which no one is Born: so prolific to them is the Repentance of Life of other Men. Beneath them stood the Town Engadda, for Fertility (of Soil) and Groves of Date-trees the next City to Hierosolyma, now a Place for the Dead. Beyond it is Massada, a Castle upon a Rock, and not far from Asphaltites. And thus much concerning Judæa.

¹ The Essenes were a Jewish sect, divided into two classes. First, the *practical*, who lived in society, and applied themselves to husbandry and other harmless occupations; and second, the *contemplative*, who were also called *therapeutæ*, or physicians, from their application principally to the cure of the diseases of the soul; these last devoted themselves wholly to meditation, and avoided living in great towns, as unfavourable to a contemplative life. Both classes were exceedingly abstemious, and highly exemplary in their moral deportment. Although our Saviour censured all the other sects of the Jews for their vices, yet He never spoke of the Essenes; neither are they mentioned by name in any part of the New Testament. Pliny's object in the account he has thought fit to give of them appears to have been to say something that might excite wonder and ridicule.—*Wern. Club.*

CHAPTER XVIII.

Decapolis.

THERE is joined to it on the side of Syria the Region Decapolis,¹ so called from the number of Towns; in which all Men observe not the same. Nevertheless most Men speak of Damascus and Opotos, watered by the River Chrysorrhoea, and also of the fruitful Philadelphia and Raphana, all lying within Arabia. Moreover, of Scythopolis, so named from the Scythians there planted: and formerly Mysa, so named of Father *Liber*, because his Nurse was buried there. Gadara, with the River Hieromiæ running before it, and the before-named Hippos Dios. Pella, enriched with Waters, Galaza and Canatha. The Tetrarchies lie between and about these Cities; every one resembling a Region: and they are reduced into several Kingdoms: Trachonitis, Panias, wherein standeth Cæsarea, with the Fountain abovesaid; Abila, Arca, Ampeloessa, and Gabè.

CHAPTER XIX.

Tyrus² and Sidon.

WE must return to the Sea-coast of Phœnicè, where a River runneth called Crocodilon, on which stood a Town bearing the same Name. Also there are the Memorials of the Cities, Dorum, Sycaminon, the Promontory Carmelum; and a Town on the Mountain so named, but in old Time called Ecbatana. Near this is Getta and Jebba: the River Pagida or Belus, mixing on its little Shore the Sands fertile in Glass. This River floweth out of the stagnant pond Ceudevia, from the foot of Carmel. Near it is the City Ptole-

¹ Josephus mentions the following cities as contained within this region:—Pella, Gerasa, Gadara, Hippos Dios, Damascus, Philadelphia, Otopos, Raphana, and Scythopolis.—*Wern. Club.*

² There were two cities of this name; one on the Syrian coast of the Continent (*vide* Bishop Newton), and the other on an adjacent island, which, in our author, are both spoken of *together*. Tyre has been called the daughter of Sidon, because “The merchants of Sidon replenished it.”—(*Isaiah*, xxiii. 2.)—*Wern. Club.*

mais, a Colony of *Claudius Cæsar*, formerly called Acè. The Town Ecdippa; the Promontory Album; Tyrus, in old Time an Island, lying almost three quarters of a Mile within the Deep Sea: but now, by the Besieging Works of *Alexander*, joined to the firm Land: renowned for having produced Cities of ancient Name, Leptis, Utica, and that Carthage, the Rival of the Empire of Rome for the Dominion of the whole World: yea and Gades, founded beyond the Bounds of the Earth. But now all the Glory thereof standeth upon the (Shell-fishes) Chylium and Purpura.¹ The Circumference of it is 19 Miles, comprised within Palætyrus. The Town itself taketh up 22 Stadia. Near it are the Towns Lynhydra, Sarepta, and Ornithon: also Sidon, where Glass is made, and which is the Parent of Thebes in Bœotia.

CHAPTER XX.

The Mountain Libanus.

BEHIND it beginneth Mount Libanus,² and for 1500 Stadia it reacheth as far as to Smyrna, where it is named Cœlè-Syria. Another Mountain equal to it, and lying opposite to it, is called Antilibanus; with a Valley lying between, which in old Time was joined (to the other Libanus) by a Wall. Being past this, there is the Region Decapolis; and the above-named Tetrarchies with it, and the whole expanse of Palestina. But in that Coast still along the Foot of Libanus, is the River Magoras, and the Colony Berytus, called also Fœlix Julia. The Town Leontos; the River Lycos; Palæbyblos; the River Adonis; the Towns Byblos, Botrys, Gigarta, Trieris, Calamos; and Tripolis, subject to the Tyrians, Sidonians, and Aradians. Orthosia and the River Eleutheros. The Towns Simyra, Marathos; and over against Aradus, Antaradus, a Town of seven Stadia; and an

¹ See b. ix. c. 36, &c.

² *Libanus* (Lebanon) is a chain of limestone mountains; the cedars for which they were formerly famed still grow there, though in reduced numbers, forming a small grove, in a small hollow at the foot of the highest peak. *Anti-Libanus* is the more lofty ridge of the two.—*Wern. Club.*

Island less than a quarter of a Mile from the Continent. The Country where the said Mountains end, and in the Plains lying between, beginneth Mount Bargylis: and thence Phœnicè endeth, and Syria beginneth again. The Towns Carnè, Balanea, Paltos, Gabalè, the Promontory wherein is the Free (City) Laodicea, with Diospolis, Heraclea, Charadrus, Posidium.

CHAPTER XXI.

Syria Antiochena.

THENCEFORWARD is the Promontory of Syria Antiochena; within is the Free City itself, Antiochena, surnamed Epiphaphnè; through the midst runneth the River Orontes. But in the Promontory is the Free (City) Seleucia, named also Pieria.

CHAPTER XXII.

The Mountain Casius.

ABOVE (the City) Seleucia, there is another Mountain named Casius, as well as the other. This is of that Height, that if a Man be upon the Top of it in the Night, at the Fourth Watch, he may behold the Sun rising. So that with a little turning of his Body, he may at one Time see both Day and Night. The Passage round to the Top is 19 Miles; but directly up, it is only Four Miles. In the Borders runneth the River Orontes, which riseth between Libanus and Antilibanus, near to Heliopolis. Then, the Town Rhosos: and behind, the Passages between the Mountains Rhosii and Taurus, which are called *Portæ Syriæ*. In the Coast, the Town Myriandros, the Mountain Amanus, where is the Town Bomitæ. This separateth Cilicia from the Syrians.

CHAPTER XXIII.

*Cæle-Syria.*¹

Now, to speak of the Midland parts. Cælè hath Apamia, separated from the Nazerines' Tetrarchy by the River

¹ *Cælo-Syria* (or Lower Syria) signifying "Syria in the Hollow." It may be considered, says Strabo, "either in a proper and restrained

Marsia: Bambycè, otherwise called Hierapolis; but of the Syrians, Magog. There is worshipped the monstrous Idol Atargatis,¹ called by the Greeks Derceto. Also Chalcis, surnamed Upon Belus: from which, the Region Chalcidenè, the most fertile of all Syria, taketh its Name. Then the Region Cyrrhistica, Cirrus, Gazatæ, Gindareni, and Gabeni. Two Tetrarchies, called Granucomatæ. The Hemi-seni, Hylatæ, the Nation of the Ituræ, and those of them

sense, as comprehending only the tract of land between Libanus and Anti-Libanus; or in a larger signification, and then it will comprehend all the country in obedience to the king of Syria, from Seleucia or Arabia and Egypt.—*Wern. Club.*

¹ The Syrian idol Atargatis is the same as the Astarte or Ashtaroth, so often mentioned in Holy Scripture; it is also the Derceto of the Greeks, who represent her to be the daughter of Venus, or, as some say, Venus herself. The upper half of this monster had the form of a woman, while the lower was that of a fish. Atargatis is fabled to have thrown herself into a lake near Ascalon in Syria, through vexation at the loss of her chastity, after having given birth to a daughter named Semiramis. From this circumstance the Syrians abstained from eating the fish of that lake, deified Atargatis, and built a temple to her memory on the borders of the lake. Her daughter, Semiramis, was left exposed in a desert; but her life was preserved by doves for one whole year, till a shepherd of Ninus found her and brought her up as his own child. She afterwards married Menones, the governor of Nineveh, and at length became the celebrated Queen of Assyria. After her death she was changed into a dove, and received immortal honours in Assyria. Ovid alludes to both mother and daughter in the commencement of his 4th Book of the *Metamorphoses*.

“But she awhile profoundly seemed to muse,
Perplex'd amid variety to choose;
And knew not whether she should first relate
The poor Dercetis, and her wondrous fate;
(The Palestines believe it to a man,
And shew the lake in which her scales began:)
Or, if she rather should the daughter sing,
Who in the hoary verge of life took wing,
Who soar'd from earth, and dwelt in towers on high,
And now a dove, she flits along the sky.”

EUSDEN'S *Translation.*

It may be doubted whether she is not identical with Dagon, the first goddess of the Phœnicians.—*Wern. Club.*

who are named Betarrani, and the Mariammitani. The Tetrarchy named Mammisea: Paradisus, Pagraë, Pinaritæ, and two Selenciæ, besides the abovenamed; one called Upon Euphrates, and the other, Upon Belus: the Carditenses. The rest of Syria hath besides these which shall be spoken of with the Euphrates, the Arethusi, Beræenses, and Epiphanenses. Eastward, the Laodiceni, which are entituled, Upon Libanus: the Leucadii, and Larissæi: besides 17 Tetrarchies reduced into Kingdoms under Barbaric Names.

CHAPTER XXIV.

*Euphrates.*¹

THIS is the fittest Place to speak of the Euphrates. Its Source, by the Report of them who have seen it most closely, is in Caranitis, a Province of Armenia the Greater. These are *Domitius Corbulo*, who says, that it riseth in the Mountain *Aba*; and *Licinius Mutianus*, who affirmeth, that it issueth from the Foot of the Mountain which they call *Capotes*, 12 Miles higher than *Simyra*: and that in the beginning it was called *Pyxirates*. It runneth first to *Derxene*, and then to *Ana* also, shutting out the Regions of Armenia from *Cappadocia*. The *Dastusæ* from *Simyra* is 75 Miles. From thence it is navigable to *Pastona*, Fifty Miles: from it to *Melitenè* in *Cappadocia*, 74 Miles. To *Elegia* in Armenia, Ten Miles: where it receiveth the Rivers, *Lycus*, *Arsania*, and *Arsanus*. Near *Elegia* it meeteth the Moun-

¹ *Euphrates* rises in Armenia, near Mount *Aba*, and after flowing by Syria, Mesopotamia, and the site of Babylon, empties itself into the Persian Gulf. It overflows its banks at certain seasons, and in consequence its banks are very fertile.

The Euphrates is universally allowed to take its rise in Armenia Major; but in what particular spot, or in what direction it afterwards shapes its course, is still a matter of the greatest disagreement. Pliny's account entirely differs from those of Strabo and Mela. The best compendium of the discoveries of modern geographers and travellers on this subject will be found in the *Penny Cyclopadia* articles "Asia" and "Euphrates." See also Macdonald Kinneir's large map.—*Wern. Club.*

tain Taurus : yet stayeth it not, but prevaieth, although it be in Breadth Twelve Miles. Where it breaketh through they call it Omiras : and so soon as it hath cut through it is named Euphrates : full of Rocks and very violent. There it separateth Arabia on the Left Hand, called the Region of the Meri, by the Measure of Three Schœnæ, and on the Right, Comagenè. Nevertheless, even there where it conquereth Taurus, it suffers a Bridge. At Claudiopolis in Cappadocia, it taketh its Course westward. And here the Taurus, although resisted at first, hindereth him of his Course: and notwithstanding it was overcome and dismembered, it conquereth in another way, and drives it thus broken into the South. Thus Nature matcheth these Forces : The one proceeding whither it chooseth, and the other not suffering it to run which way it will. From the Cataracts it is Navigable, and Forty Miles from that place standeth Samosata, the Head of all Comagenè. Arabia aforesaid hath the Towns Edessa, sometime called Antiochea ; Callirrhœ, taking its Name from the Fountain ; and Carræ, famous for the slaughter of *Crassus*. Here joineth the Prefecture of Mesopotamia, which taketh its beginning from the Assyrians, in which stand the Towns Anthemusa and Nicephorium. Presently the Arabians, called Rhetavi, whose Capital is Singara. But from Samosatæ, on the side of Syria, the River Marsyas runneth into Euphrates. Gingla limiteth Comagenè, and the City of the Meri beginneth it. The Towns Epiphania and Antiochia have the River running close to them, and they are called Euphrates. Zeugma likewise, 72 Miles from Samosatæ, is ennobled by the Passage over Euphrates : for it is joined to Apamia, over against it, by a Bridge, built by *Seleucus* the Founder of both. The People that join to Mesopotamia are called Rhoali. But the Towns of Syria are Europum ; Thapsacum, formerly, now Amphipolis ; Arabian Scænità. Thus it passeth as far as to the Place Ura, in which turning to the East, it leaveth the Deserts of Palmyra in Syria, which reach to the City Petra and the Country of Arabia called the Happy.

CHAPTER XXV.

*Palmyra.*¹

THE City Palmyra, noble for its situation, the Riches of its Soil, and its pleasant Streams, encloseth its Fields with a vast compass of Sand. And as if shut out by Nature from all other Lands, it is by a peculiar lot between two mighty Empires, the Romans and the Parthians; wherein Discord is ever the first object on both Sides. It is distant from Seleucia of the Parthians, which is called, on the Tigris, 537 Miles: and from the nearest Coast of Syria, 252: and from Damascus, 27 nearer.

CHAPTER XXVI.

Hierapolis.

BENEATH the Solitudes of Palmyra, lieth the Country Stelendena,² wherein are the Cities named at this Day Hierapolis, Berœa, and Chalcis. Beyond Palmyra also, Hemesa taketh up some part of those Deserts: and likewise Elutium, nearer to Petra by one-half than is Damascus. And next to Astura standeth Philiscum, a Town of the Parthians, on Euphrates. From which by Water it is a Journey

¹ We are at a loss to account for the praise bestowed on the site of Palmyra, situated as it is on the borders of a vast wilderness; it can only be from comparison with the surrounding sterility, and the supply of water obtained here, which is so rare a blessing in the sandy plains of the East. The country does not appear to have undergone any change from the period of the foundation of this ancient city, until now; Tadmor (its original name) was built by king Solomon, probably for the purpose of cutting off all commerce between the Syrians and Mesopotamians, and it rose into note in consequence. In later times it was also much frequented by the caravans of Persia and the countries beyond.—*Wern. Club.*

² Stelendena does not appear to be mentioned by any other writer than Pliny. Hierapolis has been just before spoken of under the name of Bambycè or Magog, as the Syrians call it. It is the Magog of Holy Scripture (Ezekiel, xxxviii.) concerning the situation of which great diversity of opinion has been entertained.—*Wern. Club.*

of Ten Days to Seleucia, and about as many to Babylon. Euphrates is divided Fourscore and Three Miles from Zeugma, about the Village Massicè, and on the Left Side it passeth into Mesopotamia, through Seleucia, it being poured into the River Tigris as it runneth by: but on the right Channel it passeth toward Babylon, formerly the Chief City of Chaldæa; and passing through the midst of it, as also of another which they call Otris, it is drawn off into Marshes. It riseth at certain Times after the manner of the Nilus, but with a little difference; for it overfloweth Mesopotamia when the Sun is the 20th degree of *Cancer*, and beginneth again to diminish when the Sun is past *Leo*, and is entered into *Virgo*: so that in the 29th degree of *Virgo*, it is reduced again.

CHAPTER XXVII.

Cilicia, and the Nations adjoining, Isauricæ, Homonades, Pisidia, Lycaonia, Pamphylia: the Mountain Taurus, and Lycia.

BUT we will return to the Coasts of Syria, to which Cilicia is the nearest. The River Diaphanes, the Mountain Crocodilus, Passages of the Mount Amanus: Rivers, Andri-con, Pinarus, and Lycus, the Gulf Issicus. The Town Issa, then the River Chlorus, the Free Town Ægè, the River Pyramus, and the Passages of Cilicia. The Towns Mallos and Magarsos; and within Tarsos, the Plains, Aleii; the Towns, Cassipolis and Mopsum, which is free, and standeth upon the River Pyramus; Thynos, Zephyrium, and Anchialæ. The Rivers Saros and Sydnus, which runneth through Tarsus, a free City, far from the Sea: the Country Celenderitis, with the Town. The Place called Nymphæum, and Solæ Cilicii, now Pompeiopolis, Adana, Cibira, Pinara, Pedalie, Halix, Arsinoe, Tabæ, and Doron: and near the Sea ye shall find a Town, an Harbour, and a Cave, all named Corycos. Soon after, the River Calycadnus. The Promontory Sarpedon, the Towns Olmè and Mylæ, the Promontory and Town of *Venus*, nearest to which is the Isle of Cyprus. But in the Mainland are the Towns Myanda, Anemurium, Corace-

sium: and the River Melas, the ancient Bound of Cilicia. Within are to be spoken of, the Anazarbeni, at this Day named Cæsar-Augustani; Castabla; Epiphania, formerly Eniandos; Eleusa, and Iconium. Seleucia upon the River Calicadmus, surnamed also Trachiotis, removed backward from the Sea, where it was called Hormia. Furthermore, within the Country, the Rivers Liparis, Bombos, and Paradisus. The Mountain Jubarus. All Authors have joined Pamphylia to Cilicia, and never regarded the Nation Isaurica. The Towns within it are, Isaura, Clibanus, Lalassis; and it shooteth down to the Sea-side of the Country Anemurium abovesaid. In like sort, as many as have set forth Descriptions of these Matters, had no Knowledge of the neighbouring Nation, the Homonades, which have a Town within their Country called Homona. Other Fortresses, to the number of 44, lie hidden among the rugged Valleys. The Pisidæ, formerly called Solymis, are placed on the top; a Colony of which is Cæsarea, the same as Antiochia. The Towns are Oroanda and Sagalessos. This Nation is enclosed within Lycaonia, lying within the Jurisdiction of Asia: with which are joined the Philomelienses, Tymbrians, Leucolithi, Pelteni, and Hyrienses. There is given a Tetrarchy out of Lycaonia, on that side that bordereth upon Galatia: to which belong 14 Cities, whereof the most celebrated is Iconium. In Lycaonia itself, those of celebrity are Tembasa upon Taurus, Sinda in the Confines of Galatia and Cappadocia. But on the Side thereof above Pamphylia, the Myliæ, descended in old Time from Thrace, whose Town is Aricanda. Pamphylia was in ancient Time called Mopsopia. The Pamphylian Sea joineth to the Cilician. Its Towns are Sidè, Aspendus on the Mountain, Platanistus, and Perga. Also the Promontory Leucolla, the Mountain Sardemisus, the River Eurymedon running near Aspendum. Cataractes, near which stand Lyrnessus and Olbia; and the furthest of that Coast, Phaselis. Joined to it is the Lycian Sea, and the Nation of the Lycians, where is a great Gulf. The Mountain Taurus, coming from the Eastern Shores, fixeth the limit by the Promontory Chelidonium. This (Taurus) is a mighty Moun-

tain, and is an overlooker to a very great Number of Nations. So soon as it is risen from the Indian Sea, it parteth : and the right Hand passeth Northward, the left Southward, bending toward the West : dividing Asia through the midst : and (but that it meeteth the Seas) ready to oppress the whole Earth. It retireth, therefore, toward the North, fetching a great Circuit, and so making way, as if the Industry of Nature continually opposed the Seas against it ; on one side the Phœnician Sea, on another the Sea of Pontus ; here the Caspian and Hyrcanian Seas, and full against him the Lake Mœotis. And notwithstanding these Bars, within which it is pent and entwined, yet at last Conqueror ; it winds away and passeth on until it encounters its kindred Riphæan Mountains : and wherever it goeth, it is distinguished by a Number of new Names. For in the Beginning of its Course it is called Imaus : a little forward Emodus, Paropamisus, Circius, Camibades, Parphariades, Choatras, Oreges, Oromandes, Niphates, Taurus ; and where it is predominant, Caucasus ; where it stretcheth forth its Arms, as if now and then endeavouring toward the Seas, it taketh the Name Sarpedon, Coracesius, and Cragus ; and then again Taurus, even where it gapeth, and opening itself to the People. And yet it claimeth its Unity still, and (these Passages are called) by the Names of Gates ; as in one Place Armenia, in another Caspiæ, and again Ciliciæ. And besides being broken into Parcels, and escaped far from the Sea, it taketh here and there many Names of Nations ; as, on the right Hand Hyrcanus and Caspius ; on the left, Pariedrus, Moschicus, Amazonicus, Coraxicus, and Scythicus. And throughout all Greece, Ceraunius.

To return to Lycia, beyond its Promontory, is the Town Simena, the Mountain Chimæra, emitting Flames by Night ; the City Hephæstium, where the Hills likewise oftentimes are known to burn. Formerly the City Olympus stood there ; but now the Mountain Towns, Gagè, Corydalla, and Rhodiopolis. Near the Sea, Lymira with a River, into which Arycandus runneth : also the Mountain Massyrites, the Cities Andriarca and Myra. These Towns, Apyrè and Anti-

phellos, which formerly was called Habessus, and in a corner, Phellus. Then Pyrrha, and also Xanthus, 15 Miles from the Sea, and a River of the same Name. Soon after Patara, formerly named Sataros; and Sydinia on a Hill; the Promontory Ciagus. Beyond which is a Gulf equal to the former. There is Pinara; and Telmessus, that boundeth Lycia. In ancient Time Lycia possessed threescore Towns, but now 36; of which the most celebrated, besides the above-named, are Canæ, Candyba, where the Wood Oenium is praised; Podalia, Choma upon the River Adesa, Cyanè, Ascandalis, Amelas, Noscopium, Tlos, and Telanorus. It containeth in the midland Parts Chabalia, with three Towns thereto belonging: Oenonda, Balbura, and Bubon.

Beyond Telmessus is the Asiatic Sea, otherwise called Carpathium, and the Country which is properly called Asia. *Agrippa* hath divided it into two Parts, of which the one by his Description boundeth Phrygia and Lycaonia, eastward: but on the West Side it is limited by the Ægean Sea. Southward it boundeth upon Egypt: and in the North upon Paphlagonia. The Length thereof by his Computation is 470 Miles, the Breadth 300. The other he hath limited Eastward from Armenia the Less: Westward by Phrygia, Lycaonia, and Pamphylia; on the North by the Province of Pontus; and on the South by the Pamphylian Sea: it containeth 575 Miles in Length, and 325 in Breadth. The next Coast bordering upon it is Caria: and near it, Ionia; beyond that, Æolis. For Caria encloseth Doris in the midst, environing it round on every Side to the Sea. In it is the Promontory Pedalium, and the River Glaucus, charged with (the River) Telmessus. The Towns, Dædala and Crya, peopled with Fugitives; the River Axon, and the Town Calydua.

CHAPTER XXVIII.

The River Indus.

THE River Indus, rising in the craggy Mountains of the Cybiratæ, receiveth threescore regularly running Rivers, but of Torrents above an hundred. The Free Town Caunos, and

a little off, Pynos. The Port Cressa, from which the Island Rhodus is distant 20 Miles. The Place Loryma; the Towns Tysanusa, Taridion, Larymna; the Bay Thymnias, and the Promontory Aphrodisias; the Town Hyda, the Bay Schœnus. The Country Bubassus; where stood the Town Acanthus, otherwise called Dulopolis. On the Promontory is the Free (Town) Gnidus, Triopia, then Pegusa, called likewise Stadia. Beyond which Doris beginneth. But first it is convenient to have pointed out the midland Jurisdictions and the Parts which lie behind: one is named Cibiratica. The Town itself is in Phrygia, and to it are joined 25 Cities.

CHAPTER XXIX.

Laodicea, Apamia, Ionia, Ephesus.

THE most celebrated City is Laodicea.¹ It is seated on the River Lycus, Asopus and Capar washing its Sides. This City was first called Diospolis, and afterwards Rhoas. The other Nations belonging to that Jurisdiction worth the Naming are the Hydrelitæ, Themisones, and Hierapolitæ. Another Jurisdiction taketh its Name from Synnada: and to it repair the Licaones, Appiani, Eucarpeni, Dorylæi, Midæi, Julienses, and fifteen other ignoble People. A third (Jurisdiction) goeth to Apamia, which in old Time was called Celænæ, and afterwards Ciboton. It is situated at the Foot of the Moun-

¹ Laodicea, so named in honour of Laodicè, wife of Antiochus II., by whom the city was enlarged. From all accounts it appears to have been built on a volcanic hill, and boasted, in its prosperity, many public buildings of note, of which the remains of an aqueduct and amphitheatre are still to be seen.

Ephesus was the capital of Proconsular Asia, and was situated in Ionia (now Natolia), about five miles from the Ægean Sea, on the sides and at the foot of a range of mountains overlooking a fine plain watered and fertilised by the river Cayster. The city was celebrated for the Temple of Diana, a most magnificent edifice, erected at the common expense of the inhabitants of Asia Proper, and described by Pliny, b. xxxvi. c. 14, but of which the site is now unknown. Ephesus was finally overthrown in the fourteenth century, after continued struggles. There are numerous traces of its magnificence still extant, though the neighbouring country bears all the marks of desolation and decay.—*Wern. Club.*

tain Signia, environed with the Rivers Marsyas, Obrima, and Orga, which fall into the Mæander. The River Marsyas, which a little from his Spring is hidden under Ground, where *Marsyas* contended with *Apollo* in playing on the flute, sheweth itself again in Aulocrenæ, for so is the Valley called, ten Miles from Apamia, as Men travel to Phrygia. Under this Jurisdiction we should do well to Name the Metropolitæ, Dionysopolitæ, Euphorbeni, Acmoneses, Pelteni, and Silbiani. There are besides 60 ignoble Towns. Within the Bay of Doris, Leucopolis, Amaxitos, Elæus, and Euthenè. Then Towns of Caria, Pitaium, Eutaniæ, and Halicarnassus. To this (City) were annexed by *Alexander* the Great, six Towns: Theangela, Sibdè, Medmossa, Euranium, Pedasium, and Telmessum. It is inhabited between the two Gulfs, Ceramicus and Jasius. From thence Myndus, and where formerly stood Palæmyndus, Neapolis, Nariandus, Carianda, the Free City Termera, Bergyla, and the Town Jasus, which gave Name to the Gulf Jasius. But Caria is most renowned for the Places of Name within it, for therein are these Cities: Mylasa Free, and Antiochia, where sometime were the Towns Seminethos and Cranaos: and it is now environed about with the Mæander and Mosinus. In the same Tract also stood Mæandropolis. There is Eumenia close by the River Cludrus; the River Glaucus; the Town Lysias and Orthasia. The Tract of Berecinthus, Nysa, Trallis, which also is named Euanthia, and Seleucia, and Antiochia. It is washed by the River Eudonè, and Thebanis passeth through it. Some report that the Pigmæi¹

¹ The Pygmæi were a fabulous nation inhabiting Thrace and other regions, who brought forth young at five years of age, and were old at eight. Homer has celebrated their memorable defeats by cranes.—*Iliad*, 3d Book.

“————— When inclement winters vex the plain
 With piercing frosts, or thick descending rain,
 To warmer seas the cranes embodied fly,
 With noise, and order, through the mid-way sky:
 To pigmy nations wounds and death they bring,
 And all the war descends upon the wing.”—*Pope*.

Pliny has described these tiny creatures in Lib. vi. c. 22 and 35, and

formerly there dwelt. Besides, there are Thydonos, Pyrrha, Euromè, Heraclea, Amyzon, and the Free Alabanda, from which that Jurisdiction took its Name. The Free Stratonicea, Hynidos, Ceramus, Trœzenè, and Phorontis. There are Nations farther remote that resort to that Court: the Othronienses, Halydienses or Hyppini, Xystiani, Hydissenses, Apolloniates, Trapezopolitæ, and the Free Aphrodisienses. Besides these, there are Cossinus and Harpasa, close by the River Harpasus, which also ran under Trallicon, when such a Town existed. Lydia is watered by the windings of the River Mæander: and it reacheth above Ionia: being near upon Phrygia in the East, upon Mysia in the North, and in the South side enclosing Caria; and was formerly named Mœonia. It is celebrated chiefly for Sardis, seated upon the side of the Mountain Tmolus, formerly called Timolus, planted with Vineyards; and from it flows Pactolus, called likewise Chrysorrhœa: as also the Fountain Tarnes. This City was commonly by the Mœoniæ called Hydè, and was famous for the Lake of Gyges. That Jurisdiction is at this Day called Sardiana. Thither resort besides the abovenamed, the Macedonian Caduenes, the Loreni,

again in lib. vii. c. 2. See also Aristotle's *Hist. Anim.* lib. viii., and *Mela*, lib. iii. There can be no question but that the ancient fictions of pygmies, satyrs, cynocephali, cynoprosopi, &c., and other supposed tribes of human monsters, originated in vague accounts of different species of simiæ, though the Bushmen of South Africa are supposed also to have been referred to as a nation of pigmies. The earliest unquestionable reference to any of the true apes is found in the *Periplus* of Hanno, circ. 500 B.C.

“For three days,” says the Carthaginian admiral, “we passed along a burning coast, and at length reached a bay called the Southern Horn. In the bottom of this bay we found an island similar to that already mentioned; this island contained a lake, that in its turn contained another island, which was inhabited by wild men. The greater number of those we saw were females; they were covered with hair, and our interpreters called them Gorilloi. We were unable to secure any of the men, as they fled to the mountains, and defended themselves with stones. As to the women, we caught three of them, but they so bit and scratched us that we found it impossible to bring them along; we therefore killed and flayed them, and carried their hides to Carthage.”—*Wern. Club.*

Philadelpheni, and those Mœonians inhabiting on the River Cogamus, at the Foot of Tmolus; and the Tripolitani, who, together with the Antoniopolitæ, are washed by the River Mæander; also, the Apollonos-Hieritæ, Mysomolites, and others of mean Reputation.

Ionia beginneth at the Bay of Jasius, and all its Coast is full of Indentations. The first Bay in it is Basilicus; the Promontory Posideum, and the Town called the Oracle of the Branchidæ, but at this Day, of Apollo Didymæus, 20 Stadia from the Sea-side. And beyond this 180 Stadia, standeth Miletus, the Head (City) of Ionia, named in Time past Lelegeis; Pityüsa, also named Anactoria. From which, as from a Mother, are descended more than eighty others, built along the Sea-coast. Neither is this City to be defrauded of the Citizen *Cadmus*, who taught first to declaim in Prose. The River Mæander issueth out of a Lake in the Mountain Aulocrenè; and passing by many Towns, and filled with Abundance of Rivers, it fetcheth such windings to and fro, that oftentimes it is thought to run backward again. The first Country it passeth through is Apamia: and presently Eumenitica, and so through the Plains Bargylletici. Last of all, it cometh gently into Caria, and watering all that Land with a very fruitful Mud, about ten Stadia from Miletus it glideth into the Sea. Near (to that River) is the Mountain Latmus: the Town Heraclea, surnamed Caryca, from a Hill of that Name; also Myus, which, as the Report goeth, was first founded by the Iones after their proceeding from Athens; Naulochum, and Pyrenè. Upon the Sea-coast the (Town) called Trogilia; the River Gessus. This Region is sacred to all the Ionians, and therefore it is named Panionia. Near it was Phygela, built for Fugitives, as appeareth by the Name: and the Town Marathesium: and above it Magnesia, designated with the surname On-Mæander, sprung from the Thessalian Magnesia. From Ephesus it is distant 15 Miles; and from Tralleis it is three Miles farther. Formerly it was called Thessalocè and Androlitia: and being situated upon the Shore, it took away with it from the Sea other Islands called Derasides. Within-

land Thyatira (in old Time called Pelopia and Euhippa) is washed by the Lycus. But upon the Sea-coast is Manteium; and Ephesus, a Work of the Amazons. But many Names it had gone through before; for in the Time of the Trojan War it was called Alopes: soon after, Ortygia and Morges: and it took the Name of Smyrna, with addition of Trachæa (*i. e.* Rough), Samornium, and Ptelea. It is mounted on the Hill Pionè, and is washed by the Caystrus, which springeth out of the Cilbian Hills, and bringeth down with it many other Rivers, and the Lake Pegaseum, which dischargeth itself by the River Phyrites. From these Rivers proceedeth a large quantity of Mud, which increaseth the Land: so that it hath thrown good way within the Land the Island Syrie. There is a Fountain within the City called Callipia: and two (Rivers) Selinuces, coming from different Countries, encircle the Temple of *Diana*. From Ephesus you come to another Manteium, inhabited by the Colophonii: and within, the Country Colophon itself, with the (River) Halesus flowing by it. Then the Sacred Place (Fane) of *Apollo Clarius*, and Lebedos. And there formerly was the Town Notium. The Promontory Coryceon: the Mountain Mimas, which reacheth out 250 Miles, and endeth at length in the Plains within the Continent. This is the place where *Alexander* the Great commanded the Plain to be cut through for seven Miles and a half in Length, to join the two Gulfs, and to bring Erythræ and Mimas together, to be environed around therewith. Near this Erythræ were the Towns, Pteleon, Helos, and Dorion: now, there is the River Aleon, and Corineum: upon the Mount Mimas, Clazomenè, Partheniæ; and Hippis, called Chytophonia, when they were Islands: the same *Alexander* united them to the Continent for the Space of two Stadia. There have perished within, Daphnus, Hermesia, and Sipylum, called formerly Tantalus, the chief City of Mœonia, where now is the Lake Salè. And for that cause Archæopolis succeeded to Sipylum, and after it Colpè, and to it Lebadè. Returning thence twelve Miles off is Smyrna, on the Coast, built by an Amazon, but restored by *Alexander* the Great;

made pleasant by the River Meles, which hath its Source not far off. The most celebrated Mountains in Asia, for the most part, spread themselves at large in this Tract, as Mاستusia, on the Back of Smyrna; and Termetis that meeteth close to the Foot of Olympus. This (Olympus) endeth in Draco, and Draco in Tmolus; Tmolus at Cadmus; and Cadmus in Taurus. Beyond Smyrna are Plains, formed by the River Hermus, and therefore adopting its Name. This (River) hath its Beginning near Doryleus, a City of Phrygia, and collecteth into it many Rivers; among which is Phrygè, which giveth Name to the whole Nation and divideth Phrygia and Caria asunder. Moreover, Lyllus and Crios, which are well filled by the other Rivers of Phrygia, Mysia, and Lydia. In the Mouth of this River stood the Town Temnos: now in the further portion of the Gulf are the Rocks Myrmeces. Also the Town Leucè upon the Promontory, which was an Island: and Phocæa, which boundeth Ionia. A large part of Æolia, of which we will speak by and by, repaireth commonly to the Convention of Smyrna: and likewise the Macedonians, surnamed Hyrcani; and the Magnetes from Sipyllum. But to Ephesus, which is another Light of Asia, resort those that dwell farther off: the Cæsarienses, Metropolitæ, Cylbiani, the Myso-Macedones, as well the Higher as the Lower, the Mastarenses, Brullitæ, Hyppœpeni, and Dios-Hieritæ.

CHAPTER XXX.

Æolis, Troas, and Pergamus.

ÆOLIS, in old Time called Mysia,¹ is nearest (to Ionia:) and so is Troas, which boundeth upon the Hellespontus.

¹ The people of Mysia, according to Cicero, "were despicable and base to a proverb." Their country was bounded on the west by Troas, in which region was situated the city of that name, of which numerous vestiges remain, attesting its former splendour. "Indeed," says Mr. Fellowes, who visited the spot in 1838, "for many miles round the soil is rendered useless for agriculture, by the multitude of broken marbles, stones, and arches, which lie under the surface in every direction."

Pergamus was the ancient capital of Mysia, and, as its ruins also attest, was a magnificent city.—*Wern. Club.*

Being past Phocæa, there is the Port Ascanius: and then the Place where Larissa stood: and now Cymè, and Myrina, which calleth itself Sebastopolis. Within the Land, Ægæ, Attalia, Posidea, Neon-tichos, and Temnos. Upon the Coast, the River Titanus, and a City taking its Name from it. There was also Grynia, now only a Port of the Ground; the Island being taken into it. The Town Elæa, and the River Caicus coming out of Mysia. The Town Pytanè, the River Canaius. There are perished, Canæ, Lysimachia, Atarnea, Carenaë, Cisthenè, Cilla, Cocillum, Thebæ, Astyrè, Chrysa, Palæstepsis, Gergithos, and Neandros. At this Day, there is the City Perperenè, the Tract Heracleotes; the Town Coryphas, the River Chryliosolius, the Country called Aphrodisias, which formerly was Politicèorgas, the Country Scepsis; the River Evenus, upon the Bank of which have perished Lyrnessos and Miletos. In this Tract is the Mountain Ida. And in the Sea-Coast Adramytteos, formerly called Pedasus, where the Bay and Convention are named Adramytteos. Rivers, Astron, Cormalos, Eryannos, Alabastros, and Hieros out of Ida. Within, Mount Gargara, and a Town of the same Name. And then again on the Sea-side, Antandros, formerly called Edonis: then, Cymeris, and Assos, which also is Apollonia. Also there was a Town called Palamedium. The Promontory Lecton, dividing Æolus and Troas. There also was the City Polymedia, and Cryssa, with another Larissa. The Temple Smintheum remaineth still. Within, the Town Colonè is destroyed, and the Business removed to Adramytteum. The Apolloniataë, from the River Rhyn-dicus: the Eresii, Miletopolites, Pœmaneni, Macedones, Aschilacæ, Polychnæi, Pionitæ, Cilices, and Mandagandeni. In Mysia, the Abrettini, and those called Hellespontii; besides others of base account. The first place in Troas is Amaxitus: then, Cebrenia, and Troas itself, named Antigonis, now Alexandria, a Roman Colony. The Town Nee: the navigable River Scamander; and on the Promontory, formerly, the Town Sigæum. Then the Port of the Greeks, (Portus Achæorum,) into which Xanthus and Simœis run together; as also Palæ-Scamander, but first it maketh a

Lake. The remainder celebrated by *Homer* as Rhæsus, Heptaporus, Caresus, and Rhodius, have no Vestiges remaining. The Granicus floweth by a different Tract into the Propontis. Yet there is at this Day a little City called Scamandria; and one Mile and a half from the Port, the Free City Ilium, from which proceedeth all that great Name. Outside of this Gulf lieth the Coast Rhœtea, inhabited with the Towns upon it, of Rhœteum, Dardanium, and Arisbè. There was also Acheleum, a Town near the Tomb of *Achilles*, founded by the Mitylenei, and afterwards re-edified by the Athenians, on the Bay Sigæum, where his Fleet rode. There also was Acantium, built by the Rhodians, in another Horn, where *Ajax* was interred, thirty Stadia distant from Sigæum, and the very Station of his Fleet. Above Æolis and a part of Troas, within the Continent, is the (Town) called Teuthrania, which the Mysi in old Time held. There springeth Caicus, the River abovesaid. A large Country this is of itself, and especially when it was united to Mysia, and also so called: containing in it Pioniæ, Andera, Calè, Stabulum, Conisium, Tegium, Balcea, Tiarè, Teuthrania, Sarnaca, Halisernè, Lycidè, Parthenium, Thymbrè, Oxyopum, Lygdanum, Apollonia: and Pergamus, the most illustrious City of Asia by many Degrees; through it passeth the River Selinus, and Cætius runneth by it, issuing out of the Mountain Pindasus. Not far from thence is Elea, which, as we have said, standeth on the Shore. The Jurisdiction of this Tract is named Pergamena. To it resort the Thyatyreni, Mygdones, Mossini, Bregmenteni, Hieracomitæ, Perpereni, Tyareni, Hierapolenses, Harmatapolitæ, Attalenses, Pantaenses, Apollonidenses, and other Cities of little Honour. Dardanium, a small Town, is threescore and ten Stadia distant from Rhœteum. Eighteen Miles from thence is the Promontory Trapeza, where first the Hellespont rusheth along roughly. *Eratosthenes* saith, That the Nations of the Solymi, Leleges, Bebrices, Colycantii, and Trepsedores, are utterly perished from Asia. *Isidorus* reporteth the same of the Arymei and Capretæ, where Apamia was built by King *Seleucus*, between Cilicia, Cappadocia, Cataonia, and Armenia.

And because he had vanquished most Fierce Nations, at the first he named it Damea.

CHAPTER XXXI.

The Islands before Asia, the Pamphylian Sea; Rhodus, Samus, and Chios.

THE first of the Islands before Asia is in the Canopic Mouth of the Nilus, so called, as they say, from *Canopus*, the Pilot of King *Menelaus*.¹ The second is *Pharus*, which is joined to *Alexandria* by a Bridge. In old Time it was a Day's Sailing from *Egypt*: and now by Fires from a Watch-Tower, Sailors are directed in the Night. It is a Colony of *Cæsar* the Dictator. *Alexandria* is encompassed with deceitful Shallows, and there are but three Channels from the Sea; *Tegamum*, *Posideum*, and *Taurus*. Next to that Isle, in the *Phœnician Sea* before *Joppa*, lieth *Paria*, an Island not larger than the Town, in which they report that *Andromeda* was exposed to the Beast.² Also *Arados* beforenamed, between which and the Continent, as *Mutianus* says, there is a Fountain in the Sea, where it is fifty Cubits deep, out of which Fresh Water is drawn from the very Bottom of the Sea, through Pipes made of Leather. The *Pamphylian Sea* hath some Islands of little Importance. In the *Cilician Sea* is *Cyprus*, one of the Five greatest, and it lieth east and west, opposite *Cilicia* and *Syria*; in Times past the Seat of Nine Kingdoms. *Timosthenes* saith, that it contained in Circuit four hundred and nineteen Miles and a half; but *Isidorus* is of opinion, that it is but three hundred and seventy-five Miles in Compass. Its Length between the two Promontories, *Dinaretas* and *Acamas*, which is westward, *Artemidorus* reporteth to be 160½ Miles: and

¹ Jacob Bryant, in his "Analysis of Ancient Mythology," (vol. ii. p. 4.) says, "that the priests of Egypt laughed at this account of the pilot of Menelaus, as an idle story; affirming that the place was much more ancient than the people of Greece; and the name not of Grecian original." Also Stephanus of Byzantium calls the pilot *Pharos*, and not *Canopus*.—*Wern. Club.*

² See p. 67 of this vol.

Timosthenes 200, who saith besides, that formerly it was called *Acamantis*: according to *Philonides*, *Cerastis*: after *Xenagoras*, *Aspelia*, *Amathusia*, and *Macatia*: *Astynomus* calleth it *Cryptos* and *Colinia*. Towns in it, 15: *Paphos*, *Palæpaphos*, *Curias*, *Citium*, *Corineum*, *Salamis*, *Amathus*, *Lapethos*, *Solæ*, *Tamaseus*, *Epidarum*, *Chytri*, *Arsinoe*, *Carpasium*, and *Golgi*. There were in it besides, *Cinirya*, *Marium*, and *Idalium*. And from *Anemurium* in *Cilicia*, is 50 Miles. The Sea which is stretched between they call *Aulon Cilicium*. In this Tract is the Island *Elæusa*: and four others before the Promontory named *Clides*, over-against *Syria*. Likewise one more, named *Stiria*, at the other Cape. Over-against *Neampaphos*, *Hierocepia*. Over-against *Salamis*, *Salaminæ*. But in the *Lycian Sea*, *Illyris*, *Telendos*, *Attelebussa*, and three *Cypriæ*, all barren: also *Dionysia*, formerly called *Caretha*. Then over-against the Promontory of *Taurus*, the *Chelidoniæ*, dangerous to Sailors: and as many more, together with the Town *Leucola Pactiæ*, *Lasia*, *Nymphais*, *Macris*, *Megista*, the City of which is gone. Then many of no Importance. But over-against *Chimera*, *Dolichistè*, *Chirogylium*, *Crambussa*, *Rhodè*, *Enagora*, eight Miles. *Dædaleon*, two: *Cryeon*, three: and *Strongylè*, over-against *Sidynia* of *Antiochus*: and toward the River *Glaucus Lagusa*, *Macris*, *Didymæ*, *Helbo*, *Scopè*, *Aspis*, and *Telandria*; in which the Town is gone: and, near to *Caunus*, *Rhodussa*. But the fairest of all is the Free (Isle) *Rhodos*; in Compass 130 Miles; or if we rather give Credit to *Isidorus*, 103. Cities in it well peopled, *Lindus*, *Camirus*, and *Ialysus*, now called *Rhodus*. By the Account of *Isidorus*, it is from *Alexandria* in *Egypt*, 578 Miles: but according to *Eratosthenes*, 569: according to *Mutianus*, 500; and from *Cyprus*, 416. In Times past it was called *Ophyusa*, *Asteria*, *Æthræa*, *Trinacria*, *Corymbia*, *Pœessa*, *Atabyria* from the King (*Atabyris*): and finally, *Macaria*, and *Oloessa*. Islands of the *Rhodians*, *Carpathus*, which gave name to the Sea (*Carpathium*); *Casos*, formerly *Achmè*: and *Nisyros*, distant from *Gnidus* twelve Miles and a half; which heretofore had been called *Porphyris*. And in the same Range, *Symè*,

between Rhodus and Gnidus ; it is in Circuit six-and-thirty Miles and a half. It is blessed with eight Harbours. Besides these, there lie about Rhodus, Cyclopiis, Teganon, Corydylusa, four under the Name of Diabetè : Hymos, Chalceis, with a Town : Seutlusa, Narthecusa, Dimastos, and Prognè. Beyond Gnidus, Cicerussa, Therionarcè, Calydnè with three Towns, Notium, Nisyrus, Mendeterus : and in Arconesus, the Town Ceramus. Upon the Coast of Caria, the Islands, twenty in number, called Argiæ : and Hyetussa, Lepsia, and Leros. But the most noble in that Bay is Cos, which is distant from Halicarnassus 15 Miles ; and in Compass 100, as many judge ; called Meropè, as *Staphylus* saith : but according to *Dionysius*, Cos Meropis : and afterwards Nymphæa. There is the Mountain Prion : and as they think, Nysiris broken off ; formerly named Porphyris. Beyond this, Carianda, with a Town : and not far from Halicarnassus, Pidosus. Moreover, in the Gulf Ceramicus, Priapponesus, Hipponesus, Psyra, Mya, Lampsemandus, Passala, Crusa, Pyrrhè, Sepiussa, Melano ; and within a short Distance of the Continent, another called Cinedopolis, from the shameful Persons that King *Alexander* left there. The Coast of Ionia hath (the Islands) Ægeæ and Corseæ, besides Icaros, spoken of before. Also Ladè, formerly called Latæ : and among some others of no worth, the two Camelides near to Miletus. Mycalenum, Trogyliæ, Trepilion, Argennon, Sardalion : and the free Samos, which in Circuit is fourscore and seven Miles ; or as *Isidorus* thinketh, 100. *Aristotle* writeth, that at first it was called Parrhania, afterwards Dryusa, and then Anthemusa. *Aristocritus* giveth it other Names, as Melamphyllus, and afterward Cyparissia : others term it Partheno-arusa, and Stephanè. Rivers in it, Imbrasus, Chesius, and Ibettes : Fountains, Gigarto and Leucothea : the Mountain Cercetius. There lie adjoining to it the Islands Rhypara, Nymphæa, and Achillea. Fourscore and thirteen Miles from it, is Chios, free, with a Town ; which Island is as renowned as Samos. *Ephorus* by the ancient Name calleth it Æthalia : *Metrodorus* and *Cleobulus*, Chia, from the Nymph *Chio*. Others suppose it was so called

from Chion, *i. e.* Snow : and some would have it to be Marcris and Pityusa. It has a Mountain called Pellenæus, the Marble called Chium. Ancient Geographers have written, that it is 125 Miles in Circuit ; and *Isidorus* addeth nine more. It is situated between Samos and Lesbos, for the most part opposite to Erythræ. Near it lieth Thallusa, which some write Dapnusa, Cœnussa, Elaphites, Euryanassa, Arginussa with a Town. Now all these are about Ephesus, as also those called of *Pisistratus* : and the Anthinæ, Myonnesus, and Diareusa. In both these the Towns are lost. Poroselenæ with a Town, Cerciaæ, Halonè, Commonè, Illetia, Lepria, and Rhesperia, Procusæ, Bolbulæ, Phanæ, Priapos, Sycè, Melanè, Ænarè, Sidusa, Pela, Drymusa, Anydros, Scopelos, Sycussa, Marathussa, Psilè, Perirheusa, and many others of no Importance. But among the illustrious is Teos, in the deep Sea, with a Town : distant from Chios fourscore and one Miles, and as much from Erythræ. Near Smyrna are the Peristerides, Carteria, Alopecè, Elæussa, Bachina, Pystira, Crommyonnesus, and Megalè. Before Troas, the Ascarniæ, and three Plateæ. Then the Lamiaæ, and two Plitaniaæ ; Platè, Scopelos, Getonè, Artheidon, Celæ, Lagussæ, and Didymæ. But the most illustrious is Lesbos, which is from Chios threescore and five Miles. It was called Hemerte, and Lasia, Pelasgia, Ægira, Æthyope, and Macaria : famous for eight Towns ; of which Pyrrha is swallowed up by the Sea : and Arisbè is overthrown by an Earthquake. Methymna was peopled from Antissa, which was united to it, and in it were eight Cities, and it is about seven-and-thirty Miles from Asia.¹ Also Agamedè and Hieria have perished. There remain Eresos, Pyrrha, and the free Mitylenæ, which hath continued powerful for 500 Years. *Isidorus* saith, that this Island is in Circuit 173 Miles : but the old Geographers, 195. In it are these Mountains, Lepethymus, Ordymnus, Macistus, Creon, and Olympus. It is distant eight Miles and a half from the Continent, where it lieth nearest. Islands near it, Saudalion, and the five Leucæ. Of these, Cydonea hath a Foun-

¹ Natolia.

tain of hot Water. The Argenussæ are distant from Ægæ four Miles. Then Phellusa and Pedua. Outside the Hellespont, over-against the Sigean Coast, lieth the Isle Tenedus, called sometimes Leucophrys, Phœnicè, and Lyrnessos. From Lesbos it is six-and-fifty Miles, and from Sigæum twelve Miles and a half.

CHAPTER XXXII.

Hellespontus, Mysia, Phrygia, Galatia, Bithynia, Bosporus.

THE Hellespont then assumeth its Violence and overcometh the Sea, digging a Way with its Eddies, until it hath torn away Asia from Europe. That Promontory we have named Trapeza, ten Miles beyond which standeth the Town Abydum, where the Straits are seven Stadia over. Beyond it is the Town Percotè, and Lampsacum, called formerly Pityusa: the Colony Parium, which *Homer* called Adrastia. The Town Priapos, the River Æsepus, Zelia, Propontus; as the Place is called where the Sea enlargeth itself. The River Granicum, the Harbour Artacè, where once stood a Town. Beyond it is an Island, which *Alexander* joined to the Continent, in which standeth the Town Cyzicum, founded by the Milesians, called heretofore Arconnesos; Dolionis, and Dindymis, near the Top of which is the Mountain Dindymus. Presently the Towns Placia, Aviacos, Scylacè: and behind them, the Mountain Olympus, called Mæsius. The City Olympena. The Rivers Horisius and Rhyndacus, formerly named Lycus. This River taketh its Beginning in the Lake Artynia, near to Miletopolis. It receiveth the Marestos and many others; and separateth Asia from Bithynia. This Region was called Cronia: afterward Thessalis, then Malianda and Strymonis. These (Nations) *Homer* named Halizones, because they are environed with the Sea. There was a very great City named Attusa. At this Day there are fifteen Cities, among which is Gordiucum, now called Juliopolis; and on the Coasts Dascylos. Then the River Gebes: and within-land, the Town Helgas,

the same as Germanicopolis, known also by another Name Booscætè, as also Apamea, now called Myrtea of the Colophonians. The River Etheleum, the ancient limit of Troas, and where Mysia beginneth. Afterwards the Gulf into which runneth the River Ascanium, the Town Bryllion. The Rivers Hylas and Cios, with a Town of that Name: which was a Place of Trade, not far off from the Inhabitants of Phrygia, and built by the Milesians in a Place called Ascania of Phrygia. And therefore we cannot do better than here to speak of that Country. Phrygia spreadeth out above Troas and the Nations before named, from the Promontory Lectus unto the River Etheleus. It bordereth on the North upon part of Galatia, southward it boundeth on Lycaonia, Pisidia, and Mygdonia; and on the east it reacheth to Cappadocia. The most celebrated Towns besides those before spoken of, are Ancyra, Andria, Celænæ, Colossæ, Carina, Cotiaion, Ceranæ, Iconium, and Midaion. Certain Authors write, that out of Europe have passed over the Mysi, Bryges, and Thyni, from whom are named the Mysi, Phryges, and Bithyni.

At the same time I think it good to write also of Galatia, which lying higher than Phrygia, possesseth a greater part of its plain Country, and the former Capital of it, called Gordium. They who inhabited that Quarter were sprung from the Gauls, and were called Tolistobogi, Voturi, and Ambitui: but they that occupied the Country of Mæonia and Paphlagonia were named Troceni. Cappadocia is spread along from the North and East; and the most plenteous Tract thereof the Tectosages and Teutobodiaci kept in their Possession. And thus much for these Nations. The People and Tetrarchies are in all a hundred and ninety and five. The Towns: of the Tectosages, Ancyra: of the Troceni, Tavium: of the Tolistobogians, Pesinus. Besides these, there are celebrated the Attalenses, Arasenses, Comenses, Dios-Hieronitæ, Lystreni, Neapolitani, Oeandenses, Seleucenses, Sebasteni, Timmoniacenses, and Tebaseni. Galatia extendeth to Gabalia and Milyæ in Pamphylia; which are situated about Baris: also Cyllanticum and Oroandicum, a Tract of Pisidia: likewise

Obigenè, a part of Lycaonia. Rivers there are in it, beside those beforenamed, Sangarium and Gallus, from which the Priests of the Mother of the Gods were named. Now to speak of what remains on the Sea-coast: inward from Cios is Prusa within Bithynia; founded by *Annibal* beneath Olympus. From Prusa to Nicæa, five-and-twenty Miles; the Lake Ascanius lying between. Then Nicæa, in the outmost part of the Gulf Ascanium, which before was called Olbia: also to another Prusa, under the Mountain Hippius. There were Pythopolis, Parthenopolis, and Choryphanta. Now there are upon the Sea-side the Rivers, *Æsius*, Bryazon, Plataneus, Areus, Siros, Gendos, named also Chrysorrhœas. The Promontory on which stood the Town Megaricum. Then the Gulf which was called Craspedites; because that Town stood as it were in a Fold of it. There was also the Town Astacum, from which the Bay took the Name of Astacenus. There was also the Town Libyssa, where now remaineth nothing but the Tomb of *Annibal*. In the inmost part of the Gulf is the very handsome Town of Bithynia, called Nicomedia. The Promontory Leucatas which encloseth the Bay of Astarenius, is from Nicomedia forty-two Miles and a half. Being past this Bay, the opposite Shores approaching together, the Straits reach as far as to the Thracian Bosphorus. Upon these Straits standeth the Free (City) Chalcedon, seventy-two Miles and a half from Nicomedia. Formerly it was called Procerastis: then, Compusa: afterwards, the City of the Blind; because they who founded it were so ignorant as not to give a preference to a Place seven Stadia from Byzantium, so much more favourable in every respect. But within-land, in Bithynia, is the Colony Apamena: also, the Agrippenses, Juliopolitæ, and they of Bithynium. The Rivers, Syrium, Lapsias, Pharmicas, Alces, Crynis, Lylæus, Scopius, Hieras, which parteth Bithynia from Galatia. Beyond Chalcedon, stood Chrysopolis: then, Nicopolis, of which the Gulf still retaineth the Name: wherein is the Port of Amycus: the Promontory Naulochum: Estia, wherein is the Temple of *Neptune*; and the Bosphorus, half-a-mile over, which now again parteth Asia from Europe.

From Chalcedon, it is twelve Miles and a half. There begin the narrow Straits, where it is eight Miles and a quarter over: where stood the Town Philopolis. All the Coasts are inhabited by the Thyni, but the Inland Parts by the Bithyni. This is the end of Asia, and of 282 Nations, which are reckoned from the Gulf of Lycia to this place. The Space of the Hellespont and Propontis to the Thracian Bosphorus containeth in Length 188 Miles, as we have before said. From Chalcedon to Sigeum, by the computation of *Isidorus*, it is 372 Miles and a half. Islands lying in Propontis before Cyzicum are these; Elaphonnesus, from whence cometh the Cyzicen Marble; and the same Isle was called Neuris, and Proconnesus. Then follow Ophiüsä, Acanthus, Phœbè, Scopelos, Porphyriouè, and Halonè, with a Town. Delphacia, Polydora: Artacæon, with the Town. And over-against Nicomedia, is Demonnesos: likewise, beyond Heraclea, over-against Bithynia, is Thynnias, which the Barbarians call Bithynia. There is also Antiochia: and opposite to the narrow Straits of Rhyndacus, Besbicos, eighteen Miles in Circuit. Also there is Elæa, two Rhodussæ, Erebinthus, Magalè, Chalchitis, and Pityodes.



IN THE SIXTH BOOK

ARE CONTAINED

REGIONS, NATIONS, SEAS, CITIES, PORTS, RIVERS, WITH THEIR
DIMENSIONS; AND PEOPLE THAT ARE OR HAVE BEEN:—

CHAP.

1. Pontus Euxinus, formerly Ax-enus.
2. The Nations of the Paphlagonians and Cappadocians.
3. Cappadocia.
4. The Nations of the Country Themiscyra.
5. The Region Colchica. The Achæi, and the rest in that Tract.
6. Bosphorus Cimmerius, and Mæotis.
7. The People about Mæotis.
8. The Armeniæ, both.
9. Armenia the Greater.
10. Albania, Iberia.
11. The Gates Caucasæ.
12. Islands in Pontus.
13. Nations about the Scythian Ocean.
14. Media and the Straits Caspiæ.
15. Nations about the Hircanian Sea.
16. Also other Nations bordering upon that Country.
17. People of Scythia.
18. The River Ganges.

CHAP.

19. The Nations of India.
20. The River Indus.
21. The Arii, and the Nations bordering upon them.
22. The Island Taprobanè.
23. Capissenè, Carmania.
24. The Persian and Arabian Gulfs.
25. The Island Cassandrus, and the Kingdoms of the Parthians.
26. Media, Mesopotamia, Babylon, Seleucia.
27. The River Tigris.
28. Arabia, Nomades, Nabathæi, Omani, Tylos, and Ogyris, two Islands.
29. The Gulfs of the Red Sea, the Troglodite and Ethiopian Seas.
30. Nations of strange and wonderful Shapes.
31. Islands of the Ethiopian Sea.
32. Of the Fortunate Islands.
33. The Division of the Earth calculated by Measures.
34. A Division of the Earth by Climates, Lines Parallel, and Equal Shadows.

Towns of name, 195. Nations of account, 566. Famous Rivers, 180. Notable Mountains, 38. Principal Islands, 108. Cities and Nations perished, 195. In sum, there are rehearsed in this Book, of other Things, Histories and Observations, 2214.

LATIN AUTHORS ABSTRACTED:

M. Agrippa, Varro Atacinus, Cornelius Nepos, Hyginus, Lu. Vetus, Mela Pomponius, Domitius Corbulo, Licinius Mutianus, Claudius Cæsar, Aruntius Sebosus, Fabricius Thuscus, T. Livius, Seneca, Nigidius.

FOREIGN WRITERS:

King Juba, Polybius, Hecataeus, Hellanicus, Damastes, Eudoxus, Dicaearchus, Beto, Timosthenes, Patrocles, Demodamas, Clitarchus, Eratosthenes, Alexander the Great, Ephorus, Hipparchus, Panætius, Callimachus, Artemidorus, Apollodorus, Agathocles, Polybius, Eumachus Siculus, Alexander Polyhistor, Amometus, Metrodorus, Posidonius, Onesicritus, Nearchus, Megasthenes, Diognetus, Aristocreon, Bion, Dialdon, Simonides the Younger, Basiles, and Xenophon Lampsacenus.



THE SIXTH BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY
C. PLINIUS SECUNDUS.

CHAPTER I.

Pontus Euxinus.

THE Pontus Euxinus, named in old time Axenos, from its inhospitable wildness, is spread between Europe and Asia, by a special Envy of Nature, and an Eagerness to maintain the Sea in his greedy and endless Appetite. It was not enough for the Ocean to have environed the whole Earth, and to have taken away a great part of it, with exceeding Rage; it sufficed not, to have broken through the shattered Mountains, and also having torn Calpe¹ from Africa, to have swallowed up a much larger space than it left behind: nor to have poured out Propontis through the Hellespont,² so again devouring the Land: from the Bosphorus also it is spread abroad into a large Space without

¹ Mouth of Gibraltar.

² The ideas of the ancients appear to have been confounded in the wide

being satisfied, until they are very wide, and the Lake Mœotis joineth its ruin to them. And that this hath happened in spite of the Earth, appeareth by so many Straits and such narrow Passages of opposing nature, considering that at the Hellespont the Breadth is not above 875 Paces: and at the two Bosphori even Oxen easily pass over: and hereupon they both took their Name: and in this disunion appeareth an agreement of relationship. For Cocks may be heard to crow, and Dogs to bark from one Side to the other: and by the interchange of Human Speech Men out of these two Worlds may talk one to another in continued discourse, if the Winds do not carry away the Sound.

Some have made the Measure of Pontus from the Bosphorus to the Lake Mœotis to be 1438 Miles. But *Erato-sthenes* reckoneth it less by one hundred. *Agrippa* saith, that from Chalcedon to Phasis is a thousand Miles; and onward to Bosphorus Cimmerius, 360 Miles. We will set down in general the Distances of Places collected in our own Days, when our Armies have carried on War even in the very Mouth of the Cimmerian Strait.

Beyond the Straits of the Bosphorus is the River Rhebas, which some have called Rhœsus: and beyond it, Psillis: the Port of Calpas; and Sangarius, one of the principal Rivers: it ariseth in Phrygia, receiveth large Rivers into it, and amongst the rest Tembrogius and Gallus. The same Sangarius is by many called Coralius; from which begin the Gulfs Mariandini and the Town Heraclea, situated upon the River Lycus. It is from the Mouth of Pontus 200 Miles. There is the Port Aconè, cursed with the poisonous Aconitum; and the Cave Acherusia. The Rivers Pedopiles, Callichorum, and Sonantes. Towns, Tium, eight-and-thirty Miles from Heraclea: the River Bilis.

expanse of the ocean: in consequence, probably, of the creeping manner of their navigation. Homer speaks of—

“All wide Hellespont’s unmeasured main.”—*Iliad*, b. 24.

Wern. Club.

CHAPTER II.

The Nation of the Paphlagonians, and Cappadocians.

BEYOND this River Bilis is the Nation of Paphlagonia, which some have named Pylæmenia, and it is enclosed with Galatia behind it. The Town Mastya of the Milesians: and next to it Cromna. In this quarter the Heneti inhabit, as *Cornelius Nepos* saith, from whom the Veneti in Italy, who bear their Name, are descended, as he would have us believe. The Town Sesamum, which is now called Amastris. The Mountain Cytorus, 64 Miles from Tium. The Towns Cimolus and Stephanè; the River Parthenius; the Promontory Corambis, which reacheth a mighty way into the Sea; and it is from the Mouth of the Pontus 315 Miles, or as others think, 350. It is also as far from the (Strait) Cimmerius, or as some would rather have it, 312 Miles and a half. A Town there was also of that Name: and another beyond it called Arminum: but now there is the Colony Sinopè, 164 Miles from Citorum. The River Varetum; the People of the Cappadoces; the Town Gaziura, and Gazelum; the River Halys, which, issuing out of the foot of Taurus, passeth through Cataonia and Cappadocia. The Towns, Grangrè, Carissa; the Free City Amisum, distant from Sinopè 130 Miles. A Gulf, bearing the Name of this Town, runneth so far within the Land that it seemeth to make Asia almost an Island: for from thence through the Continent to the Gulf Issicus in Cilicia, is not above 200 Miles. In all which Tract there are no more than three Nations which justly may be called Greeks: which are the Dorians, Ionians, and Æolians: for all the rest are Barbarians. To Amisum there was joined the Town Eupatoria, founded by *Mithridates*: and when he was vanquished, both together took the Name of Pompeiopolis.¹

¹ From Pompey the Great, who conquered him.—*Wern. Club.*

CHAPTER III.

Cappadocia.

IN the interior of Cappadocia is a Colony founded by *Claudius Cæsar*, called Archelais, situated upon the River Halys. The Town Comana, by which the (River) Sarus runneth: Neo-Cæsarea, washed by the Lycus: and Amasia, on the River Iris, in the Country Gazacena. In Colopena, also, are Sebastia and Sebastopolis: little Towns, but equal with those abovesaid. In the other part (of Cappadocia) is the City Melita, built by Queen *Semiramis*, not far from the Euphrates: also, Dio-Cæsarea, Tyana, Castabala, Magnopolis, Zela: and under the Mountain Argæus, Mazaca, which now is named Cæsarea. That part of Cappadocia which lieth before Armenia the Greater, is called Melitenè: that which bordereth upon Comagenè, Cataonia: upon Phrygia, Garsauritis: upon Sargaurasana, Cammanenè: and upon Galatia, Morimenè. And there the River Cappadox separateth the one from the other. From this River the Cappadocians took their Name, having formerly been called Leucosyri. The River Lycus divideth the above-named new Armenia from Neo-Cæsarea. Within the Country there runneth also the famous Ceraunus. But on the Coast beyond Amysum is the Town Lycastum, and the River Chadisia: and still further the Country Themiscyra. The River Iris, bringing down the Lycus. In the midland Parts the City Ziela, ennobled by the slaughter of *Triarius*,¹ and the Victory of *C. Cæsar*. In the Coast the River Thermodon, which issueth from before a Castle named Phanarœa, and passeth

¹ *Triarius*, a Roman general under *Lucullus* in the Mithridatic war, was defeated by the enemy, at the battle of Ziela, with the loss of 7000 of his men. And at the same place, some years afterwards, *Julius Cæsar* gained an important victory over *Pharnaces*, the son of *Mithridates*, deprived him of the kingdom of Pontus, and entirely ruined his army. It was on this occasion that *Cæsar*, when describing the rapidity and despatch he had employed in the victory, made use of the well-known sentence, "*Veni, vidi, vici*," I came, I saw, I conquered.—*Wern. Club.*

by the foot of the Mountain Amazonius. There was a Town of the same Name, and five others, namely, Phamizonium, Themiscyra, Sotira, Amasia, Comana, now called Manteium.

CHAPTER IV.

The Nations of the Region Themiscyrenè.

THE Nations of the Genetæ and Chalybes; a Town of the Cotyi. Nations called Tibareni; and Mossyni, who mark their Bodies with Figures.¹ The Nation of the Macrocephali, the Town Cerasus, the Port Cordulæ. The Nations Bechires; Buzeti; the River Melas. The Nation Macrones, Sideni, and the River Sydenum, upon which is situated the Town Polemonium, distant from Amisum 120 Miles: beyond this the Rivers Jasonius and Melanthius: also 80 Miles from Amisum, the Town Pharnacea: the Castle and River of Tripolis. Also, Philocalia, and Liviopolis without a River: also, the Free City Trapezus, environed with a high Mountain, 100 Miles from Pharnacea. Beyond Trapezus is the Nation of the Armenochalybes, and Armenia the Greater: which are 30 Miles asunder. On the Coast is the River Pyxites that runneth before Trapezus: and beyond it the Nation of the Sanni Heniochi. The River Absarus, with a Castle likewise so named in its Mouth; from Trapezus is 150 Miles. Behind the Mountains of that quarter is Iberia: but in the Coast of the same are the Heniochi, Ampreatæ, and Lazi. The Rivers Campseonysis, Nogrus, Bathys. The Nations of the Colchians; the Town Matium, the River Heracleum, and a Promontory of the same Name; and the most renowned (River) of Pontus, called Phasis. This River riseth out of the Moschian Mountains, and for 38 Miles and a half is Navigable for great Vessels. And then for a great way it carrieth smaller Vessels; having

¹ The practice of tattooing is general through the islands of the Southern Ocean; the inhabitants of which, however, were not known to Pliny. But it is also practised, even in our day, by the people of Burma, and perhaps in other nations of the East. The same practice is again referred to in b. vii. c. 11.—*Wern. Club.*

over it 120 Bridges. It had many Towns upon its Banks; the most celebrated being Tyritacen, Cygnus, and Phasis, situated at its very Mouth. But the most illustrious was *Æa*, fifteen Miles from the Sea: where Hippos and Cyanos, two very great Rivers, coming from different Parts, flow into it. Now it possesseth Surium only, which taketh its Name from the River Surium, that runneth into it. And thus far we said that Phasis was capable of being navigated by great Ships. And it receiveth other Rivers, remarkable for size and number, among which is the River Glaucus. In the Mouth of this River (Phasis) there are Islands without a Name. It is distant from Bsarus 75 Miles. Being past Phasis, there is another River called Charien; the Nation of the Salæ, named in old Time Phthirophagi and Suani; the River Cobus, which issueth out of Caucasus, and runneth through the Country of the Suani. Then Rhoas; the region Ecreticè: the Rivers Sigania, Tersos, Atelpos, Chrysorrhœas, and the Nation Absilæ: the Castle Sebastopolis, a hundred Miles from Phasis; the Nation of the Sanigares, the Town Cygnus, the River and Town called Pityus. And last of all, the Nations of the Heniochæ, which have many Names.

CHAPTER V.

The Region of Colchis, the Achæi, and other Nations in that Tract.

NEXT followeth the region of Colchis, which is likewise in Pontus: wherein the craggy Summits of the Caucasus wind and turn toward the Rhiphæan Mountains, as hath been hinted; on the one side bending down toward the Euxinus and Mæotis; and on the other inclining to the Caspian and Hircanian Seas. The remainder of the Coasts are occupied by savage Nations, as the Melanchlæni, the Choruxi; Dioscurias, a City of the Colchi, near the River Anthemus, now lying waste, although it was so renowned in Time past, that by the report of *Timosthenes* there were settled therein 300 Nations which used distinct Languages. And afterwards our Romans were forced to provide 130 Interpreters for the Traffic

with this People. Some think that it was first founded by *Amphitus* and *Telchius*, who had the charge of the Chariots of *Castor* and *Pollux* :¹ for certain it is, that the fierce Nation of the *Heniochi* are from them descended. Being past *Dioscurias*, there is the Town *Heraclium*, which from *Sebastopolis* is 80 Miles distant. The *Achæi*, *Mardi*, and *Carcetæ* : after them the *Serri*, and *Cephalotomi*. Far within that Tract stood the very wealthy Town *Pitius*, which by the *Heniochians* was plundered. On the back part thereof inhabit the *Epageritæ*, a People of the *Sarmatæ*, upon the tops of the *Caucasus* : after which the *Sauromatæ*. Hither had fled King *Mithridates* in the time of Prince *Claudius*, and he made report that the *Thali* dwell thereby, and border Eastward upon the very opening of the *Caspian Sea* : which becometh Dry when the *Sea* ebbeth. But on the Coast near to the *Cercetæ* is the River *Icarusa*, with a Town and River called *Hierum*, 136 Miles from *Heracleum*. Then come ye to the Promontory *Cronea*, in the steep Ridge of which the *Toretæ* inhabit. The City *Sindica*, 67 Miles from *Hierum* : the River *Sceaceriges*.

CHAPTER VI.

Mæotis and the Bosphorus Cimmerius.

FROM the above-said River to the Entrance of the *Cimmerian Bosphorus* is 88 Miles and a half. But the Length of the Peninsula itself, which stretcheth out between the Lakes *Pontus* and *Mæotis* is not above 87 Miles, and the Breadth in no place less than two Acres of Land. They call it *Eionè*. The very Coasts of the *Bosphorus*, both of *Asia* and *Europe*, are curved towards the *Mæotis*. The Towns in

¹ There is frequently occasion to remark, that *Pliny* speaks of the deities of his country, as if it was an acknowledged fact that they were once living men. *Æolus*, *Hercules*, and even *Jupiter*, are so regarded ; and as he speaks of the impiety of this opinion, b. vii. c. 47, when applied to some particular cases, we are at liberty to believe that his regard for the established heathenism of his country was exceedingly slight.—*Wern. Club.*

the very first Passage of Bosphorus are Hermonassa and then Cegi, founded by the Milesians. Close by is Stratilia (or Stratocelea), Phanagoria, and Apaturos, which is almost unpeopled: and last of all, in the mouth, Cimmerius, formerly called Cerberian.

CHAPTER VII.

Nations about Mæotis.

BEYOND Cimmerium is the Lake Mæotis, spoken of before in Europe. Beyond Cimmerium inhabit the Mæotici, Vati, Serbi, Archi, Zingi, and Psesii. After this you come to the River Tanais, which runneth with two Mouths: and on the sides of it dwell the Sarmatæ, descended, as they say, from the Medi: but themselves divided into many Races. And first the Sauromatæ, surnamed Gynæocratumeni, from whence the Amazons are provided with Husbands. Next to them are the Euazæ, Cottæ, Cicimeni, Messeniani, Costobocci, Choatræ, Zigæ, Dandari, Thussageæ, and Turcæ, even as far as the Wilderness, rough with woody Valleys. Beyond them are the Arimphæi, who live upon the Riphæan Mountains. The Tanais itself the Scythians call Silys; and Mæotis they name Temerinda,¹ that is to say, the Mother of the Sea. There stood also a Town at the mouth of Tanais. The Lares first inhabited the Borders: afterwards the Clazomenii and Mœones: and in process of time the Panticapenses. Some Authors write, that about Mæotis toward the higher Mountains Ceraunii, the following Nations inhabit on the Coast, the Napææ: and above them the Essedones, joining on the Colchi, and the tops of the Mountains. After them the Carmacæ, the Orani, Antacæ, Mazacæ, Ascantici, Acapeatæ, Agagammataæ, Phycari, Rhimosoli, and Asco-

¹ It is easy to discern that many of the names of nations mentioned by Pliny are not those which the people themselves would have recognised; but Greek descriptive designations. But the word "Temerinda" is believed to have been "Scythian," and to be rightly interpreted by the author. Daleschamp supposes the true expression to be "Themers-end," or, in modern terms, "Dess-mærs-end."—*Wern. Club.*

marci; and on the Tops of Caucasus, the Icatalæ, Imaduchi, Rani, Anclacæ, Tydii, Charastasci, and Asuciandæ. Along the River Lagoüs, issuing out of the Mountains Cathei, and into which Opharus runneth, are these Nations: the Caucadæ and the Opharitæ: the River Menotharus, and Imitues divided from the Mountains Cissii, which passeth among the Agedi, Carnapæ, Gardei, Accisi, Gabri, and Gregari: and about the source of this River Imitues, the Imitui and Apartheni. Others say that the Suitæ, Auchetæ, Satarnei, and Asampatæ, overflowed this Part; the Tanaitæ and Nephonitæ were slain by them to a Man. Some write, that the River Opharius runneth through the Canteci and the Sapæi: and that the River Tanais traversed through the Phatarei, Herticei, Spondolici, Synthietæ, Amassi, Issi, Catazeti, Tagori, Catoni, Neripi, Agandei, Mandarei, Saturchei, and Spalei.

CHAPTER VIII.

Cappadocia.

WE have gone through the Nations and Inhabitants of the Coasts of the Mediterranean Sea. Now are we to speak of the People inhabiting the Inland Parts: wherein I shall advance many things different from the ancient Geographers: because I have made diligent Search into the state of those Regions, especially by enquiry of *Domitius Corbulo*, in regard of the things done by himself, and also of the Kings who came from thence as Petitioners, and of those King's Sons that were Hostages. And we will begin with the Nation of the Cappadocians. This is a Country that of all which bound upon Pontus, reacheth farthest within the Land: for on the left Hand it passeth by the Greater and Less Armenia, and Comagenè: and on the right, all those Nations in Asia before-named: being overflowed with a Multitude of People: and with great Might climbing up Eastward to the Tops of Taurus, it passeth Lycaonia, Pisidia, and Cilicia: and with that quarter which is called Cataonia, it pierceth above the Tract of Antiochia, and reacheth as far as to its Region Cyr-

rhestica. And therefore the Length of Asia there may contain 1250 Miles, and the Breadth 640.

CHAPTER IX.

Armenia, the Greater and Less.

THE Greater Armenia, beginning at the Mountains Pariedri, is divided from Cappadocia by the River Euphrates, as hath been said before: and where the River Euphrates turneth, from Mesopotamia by the River Tigris, scarcely less renowned than the other. It poureth forth both these Rivers, and constitutes the beginning of Mesopotamia, which is situated between them both. The Land which lieth between is possessed by the Arabs Orei. In this manner it extendeth its Border to Adiabenè. Beyond this, being hemmed in with Mountains that stand across it, it spreadeth its Breadth on the left Hand to the River Cyrus: and then across to the River Araxes: but it carrieth its Length to the Lesser Armenia, being separated from it by the River Absarus, which falleth into the Pontus: and by the Mountains Pariedri, from which the River Absarus issueth. The River Cyrus springeth in the Mountains Heniochii, which some have called Coraxici. The Araxes issueth out of the same Mountain from whence Euphrates cometh, and there is not above the Space of six Miles between them. This River Araxes is augmented with the River Musis; and then itself loseth its Name, and, as most have thought, is carried by the River Cyrus into the Caspian Sea. These Towns are famous in the Lesser (Armenia); Cæsarea, Aza, and Nicopolis. In the Greater is Arsamotè, near the River Euphrates; and Carcathiocerta, upon the Tigris. In the higher Country is Tigranocerta, but in the Plain, near the Araxes, Artaxata. *Aufidius* saith, that both the Armeniae contain in all 500 Miles. *Claudius Cæsar* reporteth, that in Length from Dascusa to the Confines of the Caspian Sea is 1300 Miles, and in Breadth half as much, from Tigranocerta to Iberia. This is well known, that it is divided into Præfectures, which they call Strategiæ; and some of them in old time were as large as Kingdoms: the

Number being 120, with barbarous Names. It is enclosed Eastward with Mountains, but neither the Ceraunii, nor the Region Adiabènè, do immediately border on it. The Country of the Sopheui lieth between: next are the Mountains Ceraunii; and beyond them dwell the Adiabeni. But through the flat Valleys the next Neighbours to Armenia are the Menobardi and Moscheni. The River Tigris and steep Mountains encompass Adiabènè. On the left Hand its Region is of the Medians, and the Prospect of the Caspian Sea. This is poured in from the Ocean (as we shall shew in its place), and is enclosed wholly within the Mountains of Caucasus. We will now speak of the Inhabitants of these, through the Confine of Armenia.

CHAPTER X.

Albania and Iberia.

THE Nation of the Albani inhabit all the plain Country from the River Cyrus. Beyond it is the Region of the Iberes, who are separated from the Albani by the River Alazon, which runneth down from the Caucasian Mountains into the Cyrus. The strong Towns of Albania: Cabalaca; of Iberia, Harmastis, near the River Neoris: the Region Thasiè, and Triarè, as far as to the Mountains Partedori. Beyond them are the Deserts of Colchis: and on the side of them which lieth toward the Ceraunii the Armenochalybes inhabit: and the Tract of the Moschi to the River Iberus, that floweth into the Cyrus. Beneath them, inhabit the Sacassani, and beyond them the Macrones, who reach to the River Absarus. Thus the Plain and the hanging of the Hills are inhabited. Again, from the Frontiers of Albania, in all the front of the Mountains are the savage Nations of the Sylvi; and beneath them, of the Lubieni, and so forward the Diduri, and Sodii.

CHAPTER XI.

The Gates of the Caucasus.

BEYOND the Sodii are the Gates of Caucasus, which many have very erroneously called Caspiæ Portæ, or the Caspian

Gates: a mighty Piece of Nature's Work, by suddenly cleaving asunder those Mountains, where the Gates were barred up with iron Bars, whilst under the midst thereof, the River Dyriodorus runneth: and on this Side of it standeth a formidable Castle called Cumania, situated upon a Rock, able to arrest the Passage of a very numerous Army; so that in this Place, by means of these Gates, one Part of the World is excluded from the other: and chiefly over-against Harmastis, a Town of the Iberi. Beyond the Gates of Caucasus, through the Mountains Gordyei, the Valli and Suarni, uncivilised Nations, are employed only in the Mines of Gold. Beyond them as far as to the Pontic Sea, are many Races of the Heniochi; and soon after, of the Achæi. And thus much concerning this Tract of the Lands among the most renowned. Some have set down, that between Pontus and the Caspian Sea, it is not above 375 Miles. *Cornelius Nepos* saith it is but 150; into such Straits is Asia driven again. *Claudius Cæsar* hath reported, that from the Cimmerian Bosphorus to the Caspian Sea, is 150 Miles; and that *Seleucus Nicator* purposed to cut the Land through, at the Time when he was slain by *Ptolomæus Ceraunus*. It is almost certain, that from the Gates of Caucasus to Pontus is 200 Miles.

CHAPTER XII.

Islands in the Pontus.

IN Pontus lie the Islands Planctæ, otherwise Cyanæ or Symplegades. Then Apollonia, named also Thynnias, for Distinction sake from that other so named in Europe: it is from the Continent one Mile, and in Circuit three. And over-against Pharnacea is Chalceritis, which the Greeks called Aria, sacred to *Mars*; wherein are Birds which fight with a Blow of their Wings against others that come thither.

CHAPTER XIII.

Nations on the Scythian Ocean.

HAVING thus discoursed of all the Countries in the interior of Asia, let us now determine to pass over the Rhiphæan

Mountains, and discover the Coasts of the Ocean which lie on the right hand. Asia is washed by this Ocean on three Sides: on the North Side is the Scythian: on the East it is called Eöus: and from the South they name it the Indian. And according to the various Gulfs, and the Inhabitants, it is divided into many Names. But a great part of Asia toward the North hath in it extensive Wildernesses, by reason of the violence of its frozen Star. From the extreme North to the North-east are the Scythians. Beyond whom, and the very point of the North Pole, some have placed the Hyperborei; of whom we have spoken at large in the Treatise of Europe. The first Promontory that you meet with in the Country Celtica is named Lytarmis: and then the River Carambucis, where, by the forcible influence of the Stars, the Mountains Rhiphæi are deprived of their ragged Tops. And there we have heard that there are a People named Arimphæi: a Nation not much unlike the Hyperborei. They have their Habitations in Forests; their Food is Berries; both Women and Men count it a shame to have Hair; mild in their manners; and therefore, by report, they are held to be sacred, and to be inviolable even by those wild People that dwell near them; neither do they respect them only, but also those who fly to them. At some distance beyond them are the Scythians,¹ as well the Cimmerici, Cicianthi, and Georgi; and the Nation of the Amazons. These reach to the Caspian and Hircanian Sea: for it breaketh forth from the Scythian Ocean,² toward the back parts of Asia, and is called many Names by the neighbouring Inhabitants, but especially by two of the most celebrated, the Caspian and Hircanian. *Clitarchus* is of opinion that this Sea is full as great as the

¹ At this day, the Moschovites, white and black Russians, Georgians, Amazonians, and the less Tartary.—*Wern. Club.*

² Strabo (lib. xi.) entertains the same erroneous opinions respecting the Caspian Sea. That both these intelligent writers, as well as other ancient geographers, should have been so mistaken is the more extraordinary, as Herodotus (lib. i. 203) had given a just description of it long before. "The Caspian Sea," he says, "is a sea of itself, which does not mingle with any other."—*Wern. Club.*

Pontus Euxinus. And *Eratosthenes* setteth down the measure of it as being from East to South, along the Coast of Cadusia and Albania, 5400 Stadia: from thence by the Aratiatici, Amarbi, and Hircanii, to the mouth of the River Zonus, 4800 Stadia: from it to the mouth of the Jaxartes, 2400 Stadia: which being put together amount to 1575 Miles. *Artemidorus* counteth less by 25 Miles. *Agrippa*, in limiting the Circuit of the Caspian Sea, and the Nations around it, and Armenia with them, from the East with the Ocean of the Seres, Westward with the Mountains of Caucasus, on the South side with the Mountain Taurus, and on the North with the Scythian Ocean, hath written, That the whole, so far as is known, may contain in Length 590 Miles, and 290 in Breadth. There want not others who say, That the whole Circuit of that Sea, from the Strait is 2500 Miles. This throat is very narrow where it bursts forth, but exceedingly long: but where it beginneth to enlarge it fetcheth a Compass with lunated Horns, and after the manner of a Scythian Bow, as *M. Varro* saith, it windeth along from its Mouth toward the Lake Mœotis. The first Gulf is called Scythicus; for the Scythians inhabit on both Sides, and by means of the narrow Straits between have business one with another: for on one side are the Nomades and Sauromatæ, with many Names: and on the other, the Abzoæ, who have no fewer denominations. At the entry of this Sea on the right hand, the Udini, a People of the Scythians, dwell upon the very point of these Straits: and then along the Coast, the Albani, descended (as they say) from *Jason*; where the Sea that lieth before them is called Albanum. This Nation is spread also upon the Mountains of Caucasus to the River Cyrus, and descendeth, as hath been said, to the border of Armenia and Iberia. Above the Maritime Coasts of Albania and the Nation of the Udini, the Sarmatæ, called Utidorsi, and Atoderes, are planted: and behind them the Sauromatides, Amazons, already pointed out. The Rivers of Albania, which fall into the Sea, are Cassios and Albanos: and then Cambises, which hath its Head in the Caucasian Mountains: and soon after Cyrus, which ariseth out of the

Mountains Corax, as is before said. *Agrippa* writeth that this whole Coast, from the lofty and inaccessible Mountains of Caucasus, containeth 425 Miles. Beyond the Cyrus, the Caspian Sea beginneth to take that Name; and the Caspii dwell there. And here the error of many is to be corrected, even of those who were lately with *Corbulo* in Armenia with the Army: for they called those Gates of Caucasus, of which we spoke before, the Caspian Gates of Iberia: and the Maps and Descriptions which are painted and sent from thence, have that Name written on them. Likewise the threatening of Prince *Nero*, when he sought to gain those Gates, which through Iberia lead into Sarmatia, made mention of the Gates Caspiæ; which had scarcely any Passage by reason of the Mountains so closely approaching each other. There are other Gates near the Caspian Sea, that join upon the Caspian Nations, which could not have been distinguished from the other but by the relation of those that accompanied *Alexander* the Great in his Expeditions. For the Kingdoms of the Persians, which at this day we take to be those of the Parthians, are elevated between the Persian and Hircanian Seas upon the Mountains of Caucasus; in the Descent of which on both sides bordering upon Armenia the Greater, and on that part of the front which vergeth to Comagenè, it joineth (as we have said) with Sepheniæ: and upon it bordereth Adiabènè, the beginning of the Assyrians: Arbelitis, which is nearest to Syria, is a part of this: where *Alexander* vanquished *Darius*. All this Tract the Macedonians surnamed Mygdonia,¹ from its resemblance. The Towns Alexandria; and Antiochia, which they call Nisibis: from Artaxata it is 750 Miles. There was also Ninus,² seated upon the Tigris, looking towards the West, and in Times past highly renowned. But on the other Side, where it lieth toward the Caspian Sea, the Region Atropatenè, separated by the River Araxes from Otenè in Armenia: its City, Gazæ, is 450 Miles

¹ From its resemblance to a part of Greece of that name, with which they were well acquainted.—*Wern. Club.*

² The ancient Nineveh.—*Wern. Club.*

from Artaxata: and as many from Ecbatana of the Medes, some part of which the Atropateni hold.

CHAPTER XIV.

Media, and the Gates Caspiæ.

ECBATANA, the head of Media, was founded by King *Seleucus*: and it is from Seleucia the Great 750 Miles: and from the Caspian Gates 20. The other Towns of the Medes are Phausia, Agamzua, and Apamia, named also Rhaphanè. The Straits there, (called the Caspian Gates,) have the same reason for being so named as the other (by Caucasus); because the Mountains are broken through with so narrow a Passage, that hardly a single line of Carts is able to pass it for the Length of Eight Miles: and all done by the hand of Man. The Cliffs that hang over on the right Side and on the left are as if they were scorched: through a silent Tract of 38 Miles; for all the Moisture running together out of those Cliffs, and pouring through the Straits, obstructs the Passage. Besides, the Multitude of Serpents prevents Travelling except in Winter.

CHAPTER XV.

Nations about the Hircanian Sea.

UNTO Adiabènè are joined the Carduchi, so called in Times past, and now Cordueni; along which the Tigris runneth; and on them the Pratitæ border, called also Pare-doni, who hold the Caspian Gates. On the other side of whom you meet with the Deserts of Parthia, and the Mountains of Cithenus: and beyond these is the most pleasant Tract of the same Parthia, called Choara. There stand two Cities of the Parthians, formerly opposed against the Medians: namely, Calliopè; and Issatis, situated in times past upon another Rock. The Capital of Parthia itself, Hecatompylos, is from the (Caspian) Gates 133 Miles. Thus the Kingdoms of the Parthians are shut up by Doors. When

passed out of these Gates, presently we enter on the Caspian Nation, which reacheth as far as the Sea-shore, and gave the Name to the Gates and the Sea. The left hand is full of Mountains: and from this Nation backward to the River Cyrus, is by report 220 Miles. From that River, if you would go higher up to the Gates, it is 700 Miles. And from this starting-place began *Alexander* to reckon his Journeys: making from those Gates to the Entrance of India, 15,680 Stadia: from thence to the Town of Bactra, which they call Zariaspa, 3700, and thence to the River Jaxartes five Miles.

CHAPTER XVI.

Other Nations also.

FROM the Caspian Country eastward, lieth the Region called Zapanortènè,¹ and in it Daricum, a place celebrated for Fertility. Then come the Nations of the Tapyri, Anariaci, Stauri, and Hircani, at whose Coasts the same Sea beginneth to take the Name Hircanum, from the River Syderis. About it are the Rivers Mazeras and Stratos, all issuing out of Caucasus. Then follows the Region Margiana, famous for its warm Sunshine, and the only place in all that quarter which yieldeth Vines. It is environed with pleasant Mountains, for the compass of 1500 Stadia: difficult of approach by reason of the Sandy Deserts for the space of 120 Miles; and it is situated over against the Tract of Parthia, wherein *Alexander* had built Alexandria; which being destroyed by the Barbarians, *Antiochus* the Son of *Seleucus* rebuilt it in the same place, upon the River Margus, which runneth through it, together with another River Zotalè, and it was called Syriana.² But he desired rather that it should be named Antiochia. This City containeth in Circuit 70 Stadia: and into it *Orodes*, after the Slaughter of *Crassus* and his Army, brought his Roman Prisoners. Being past the high Country (Margiana), you come to the Nation of the Mardi,

¹ Some copies read Zapauortènè and Apauortènè.—*Wern. Club.*

² Or rather Seleucia.

a Fierce People, subject to none; they inhabit the Rocky Summits of Caucasus, which reach as far as to the Bactrians. Beyond that Tract are the Nations Ochani, Chomari, Berdrigei, Hermatotrophi, Bomarci, Commani, Marucæi, Mandrueni and Iatii. The Rivers Mandrus and Gridinus. Beyond, inhabit the Chorasmii, Gandari, Attasini, Paricani, Sarangæ, Parrasini, Maratiani, Nasotiani, Aorsi, Gelæ, whom the Greeks called Cadusii, and the Matiani. The Town Heraclea, built by *Alexander*, which afterwards was overthrown: but when it was repaired again by *Antiochus*, he named it Achais. The Derbices, through the midst of whose Borders runneth the River Oxus, which hath its Beginning from the Lake Oxus: the Syrmataæ, Oxii, Tagæ, Heniochi, Bateni, Saraparæ, and the Bactri, with their Town Zariaspè, called afterwards Bactrum, from the River (Bactra); this Nation inhabiteth the back parts of the Mountain Paropamisus, over against the Source of the River Indus; and it is inclosed by the River Ochus. Beyond are the Sogdiani; the Town Panda; and in the utmost Borders of their Territory is Alexandria, built by *Alexander* the Great. There are the Altars erected by *Hercules* and *Liber Pater*, also by *Cyrus*, *Semiramis*, and *Alexander*: the very end of all their Voyages in that part of the World being included within the River Jaxartes, which the Scythians call Silys: *Alexander* and his Soldiers thought it had been the Tanais. *Demonax*, a General of the Kings *Seleucus* and *Antiochus*, passed over that River, and set up Altars to *Apollo Didymæus*. And this *Demonax* for the most part we follow.

CHAPTER XVII.

The Scythian Nation.

BEYOND (the Realm Sogdiana) inhabit the People of the Scythians. The Persians called them in general Sacas, from a People adjoining, and the Ancients Aramei. The Scythians for their part called the Persians, Chorsari: and the Mountain Caucasus, they called Graucasus, that is to say, White

with Snow.¹ The People are exceedingly numerous: as much so as the Parthians. The principal People of Scythia are the Sacæ, Massagetæ, Dahæ, Essedones, Ariacæ, Rhymnici, Pesici, Amordi, Histi, Edones, Camæ, Camacæ, Euchataæ, Corieri, Antariani, Pialæ, Arimaspi, formerly called Cacidiri, Asæi, and Oetei. The Napæi and Apellæi who dwelt there, are said to have perished. The noble Rivers of those People are Mandagræus and Caspasius. And surely there is not a Region wherein Geographers vary as they do in this: and I believe this to proceed from the very great number of those Nations, and their wandering to and fro. *Alexander* the Great reporteth that the Water of the Scythian Sea is fresh and potable; and *M. Varro* saith that *Pompey* had such Water brought to him when he carried on the War in that Neighbourhood against *Mithridates*: by reason, no doubt, of the great Rivers that fall into it, which overcome the Saltness of the Water. *Varro* saith also, that during this Expedition of *Pompey* to the Bactri it was known that it is but seven Days' Journey from India to the River Icarus, which runneth into the Oxus: and that the Merchandise of India, transported by the Caspian Sea, and so to the River Cyrus, may be brought in not more than five Days by Land as far as to Phasis in Pontus. Many Islands lie all over that Sea: but one above the rest is Tazata; for thither all the Shipping from the Caspian Sea and the Scythian Ocean bend their Course, the Sea-coasts being all turned to the East. The first part of this is uninhabitable, from the Scythian Promontory, by reason of the Snow: and the next Regions to this are left uncultivated because of the Fierceness of those Nations that border upon it. The Anthropophagi are in Scythia, who live on Man's flesh.² This is the cause why there are nothing there but vast Deserts,

¹ The Emodus or Imaus of Pliny (a word which in the language of the inhabitants signifies snowy,) derived its origin immediately from the Himaleh of the Hindoos; which really signifies in their language "snowy," or more strictly speaking, "the seat of snow."—*Quarterly Review*, vol. xxiv. p. 103.—*Wern. Club*.

² We find a further account of this people, whom the ancients regarded with horror, in the 7th Book, c. 2. The nation referred to was probably

with a multitude of Wild Beasts, lying in wait for Men as savage as themselves. Then again the Scythians; and again a Wilderness full of Wild Beasts, as far as to the craggy Mountain overlooking the Sea, called Tabis. Almost one-half of the length of that Coast, which looketh toward the East, is uninhabited. The first of the People that are known are the Seres,¹ famous for the fine Silk that their Woods yield. They collect from the Leaves of the Trees their hoary Down, and when it is steeped in Water they card it; wherein our Women have a double Labour, both of undoing and again of weaving this kind of Thread: with so much Labour and so far away is it sought after, that our Matrons when they go abroad in the street may shine with Transparency. The Seres are a mild People, but they resemble Beasts, in that they fly the Company of other People² when they desire inter-
the Samoieds, in the north of Russia: their name signifying people who eat each other; but the word has long survived the practice it described. Ovid speaks of such a people seated near the place of his exile on the Euxine:

“ Illi quos audis hominum gaudere cruore.”

TRIST. l. 4., explained by AGELL. ix. 4.—*Wern. Club.*

¹ There can be no question that the people here referred to are the Chinese, who are again mentioned in the 22d chapter. It was a pardonable error to suppose that silk was the produce of a tree, instead of being the production of a creature which fed on it; but it appears that the Romans were at great pains in disentangling the woven texture, that it might again be formed into garments which better suited their taste or habits. Martial speaks of this material under the name of Bombycina (*Apophoreta*, 24), and from his account it was of very fine texture, and probably expensive. When it was worn, the hair was bound up into a knot and fastened with a gold pin, in order that it might not soil so exquisite a dress. It permitted the beauty of form and colour to be seen through its substance.

“ Fœmineum lucet sic per bombycina corpus:”

So female beauty shines through woven silk.

Epig. B. 8. 68.

See book ii. c. xxii. where Pliny corrects the errors of this chapter.—*Wern. Club.*

² Even at this day they set abroad their wares with the prices, upon the shore, and go their ways: then the foreign merchants come and lay down the money, and have away the merchandise; and so depart without any communication at all.

course with them. The first River known among them is Psitaras: the next Carabi: the third Lanos: beyond which the Promontory, the Gulf Chrysè, the River Cymaba, the Bay Attanos, and the Nation of the Attaci, a kind of People secluded from all noisome Wind by pleasant Hills, with the same Temperature that the Hyperboreans live in. Of this People, *Amonetus* hath specially written a Book; as *Hera-tæus* hath done of the Hyperboreans. Beyond the Attacores are the Thyri and Tochari, and then the Casiri, who now belong to the Indians. But they withinland, that lie toward the Scythians, feed on Man's Flesh. The Nomades of India likewise wander to and fro. Some write that they border upon the very Ciconians and Brysanians on the North Side. But there (as all agree) the Mountains Emodi arise, and the Nation of the Indians beginneth, lying not only by that Sea, but also on the Southern, which we have named the Indian Sea. And this part opposite the East, stretcheth straightforward to that place where it beginneth to bend toward the Indian Sea; and it containeth 1875 Miles. Then that Tract which is bent towards the South taketh 2475 Miles (as *Eratosthenes* hath set down), even to the River Indus, which is the utmost limit of India Westward. But many others have set down the whole Length of India in this manner; that it requireth 40 Days and Nights' Sailing; and also, that from the North to the South is 2750 Miles. *Agrippa* saith that it is 3003 Miles Long, and 2003 Broad. *Posidonius* hath measured it from the North-east to the South-east; and by this means fixeth it directly opposite to Gaul, which he likewise measured along the West Coast, from the North-west point where the Sun goeth down at Midsummer, to the South-west, where it setteth in the midst of Winter. He teacheth also, by very good Reasons, that this West Wind, which from opposite bloweth upon India, is very healthful for that Country. The Indians have a different Aspect of the Sky from us. Other Stars rise in their Hemisphere. They have two Summers in the Year; two Harvests: and their Winter between hath the Etesian Winds blowing instead of the Northern Blasts with us. The

Winds are mild with them, the Sea navigable, the Nations and the Cities innumerable, if any one would take in Hand to reckon them all. For India hath been discovered, not only by the Arms of *Alexander* the Great, and of other Kings his Successors (for *Seleucus* and *Antiochus*, and their Admiral *Patrocles*, sailed about it, even to the Hircan and Caspian Seas): but also other Greek Authors, who abode with the Kings of India (as *Megasthenes*, and *Dionysius*, who was sent thither for this purpose by *Philadelphus*) have made relation of the Forces of those Nations. And further Diligence is to be employed, considering they wrote of Things so various and incredible. They who accompanied *Alexander* the Great in his Indian Voyage have written, that in that Quarter of India which he conquered, there were 5000 Towns, not one of them less than (the City) Cos: and nine Nations. Also that India is a third Part of the whole Earth:¹ that the People in it were innumerable. And this they delivered with good Appearance of Reason: for the Indians were almost the only Men of all others that never went out of their own Country. They collect that from the Time of Father *Liber* to *Alexander* the Great, there reigned over them 154 Kings, for the Space of 5402 Years and three Months. The Rivers are of wonderful bigness. It is reported that *Alexander* sailed every Day at least 600 Stadia upon the River Indus, and yet it took him five Months and some few Days to reach the end of that River, although it is allowed to be less than the Ganges. Also, *Seneca*, one of ourselves, who laboured to write Commentaries on India, hath made Report of 60 Rivers therein, and of Nations, 118. It would be as great a Labour to reckon up the Mountains. Imaus, Emodus, Paropamisus, parts of Caucasus, join together; from which the whole passes into a very extensive Plain, like to Egypt. But to shew the Continent, we will follow the Steps of *Alexander* the Great. *Diognetus* and *Beton*, the Measurers of the Journeys of that Prince, have written, that from

¹ "India, a third part of the whole earth;" which is near the truth, although it contradicts what Pliny says in the 33d chapter of this Book. — *Wern. Club.*

the Caspian Ports to Hecatompulos of the Parthians, there are as many Miles as we have set down already. From thence to Alexandria Arion, which City the same King founded, 562 Miles: from whence to Prophthasia of the Drangæ, 199 Miles: and so forward to the Town of the Arachosi, 515 Miles. From thence to Orthospanum, 250 Miles: thence to the Town of Alexandria in Opianum, 50 Miles. In some Copies these Numbers are found to differ: this City is situated at the very Foot of Caucasus. From which to the River Chepta, and Pencolaitis, a Town of the Indians, are 227 Miles. From thence to the River Indus and the Town Taxila, 60 Miles: to the noble River Hydaspes, 120 Miles: to Hypasis, a River of no less account, 4900, or 3900;¹ which was the End of *Alexander's* Voyage: but he passed over the River, and on the opposite Bank he dedicated Altars. The Letters also of the King himself agree to this. The other Parts of the Country were surveyed by *Seleucus Nicator*: to Hesidrus, 168 Miles: to the River Joames as much; and some Copies add five Miles more: from thence to the Ganges, 112 Miles: to Rhodapha, 119; and some say, that between them it is 325 Miles. From it to the Town Calinipaxa 167 Miles and a half, others say 265. Thence the Junction of the Rivers Jomanes and Ganges 625 Miles, and many put thereto 13 Miles more: from thence to the Town Palibotra 625 Miles. To the Mouth of the Ganges 638 Miles. The Nations which it is not irksome to name, from the Mountains Emodi, of which the Promontory is called Imaus, which signifieth in the Language of the Inhabitants, Snowy:² there are the Isari, Cosyri, Izgi, and upon the very Mountains, the Ghisiotosagi: also the Brachmanæ,³ a Name common to many Nations, among whom are the Maccocalingæ. Rivers, Pumas and Cainas,

¹ "Ad Hypasin non ignobiliorem xxix. mill. cccxc. Hoc est novem et viginti milliaria cum trecentis et xc. pass."—*Note in the Regent Edition.*—*Wern. Club.*

² See p. 117.

³ If these were a sect of the Gymnosophists, they are referred to by Plutarch in his life of Alexander; but Pliny seems to be of opinion that

the latter of which runneth into the Ganges, and both are navigable. The Nations called Calingæ are close upon the Sea; but the Mandei and Malli, among whom is the Mountain Mallus, are above them; and then is the Ganges, the farthest Bound of all that Tract.

CHAPTER XVIII.

The River Ganges.

SOME have said that the Fountains of the Ganges are uncertain, like those of the Nilus; and that it overfloweth the neighbouring Countries in the same manner. Others have said that it issueth out of the Mountains of Scythia. There run into it nineteen Rivers: of which, besides those before-named, there are navigable, Canucha, Vama, Erranoboa, Cosaogus, and Sonus. Some report that the Ganges presently breaketh out to a great Magnitude from its own Sources with great Violence, falling down over steep and craggy Rocks: and when it is arrived in the flat and even Country, that it taketh Shelter in a certain Lake; and out of it carrieth a gentle Stream, 8 Miles broad where it is narrowest: and 100 Stadia over for the most part, but 160 where it largest: but in no Place under 20 Paces deep.

CHAPTER XIX.

The Nations of India.

THE first Nation is that of the Gandaridæ; the Region of the Calingæ is called Parthalis. The King hath in readiness for his Wars 80,000 foot, 1000 Horsemen, and 700 Elephants. The other Nations of the Indians are of different Conditions and milder Habits. Some apply themselves to Tillage: others are devoted to War: one Sort export their

several separate people are so denominated. They are probably the same as those mentioned in the 19th chapter, as being always prepared for a voluntary death.—*Wern. Club.*

own Commodities to other Countries, and bring foreign Merchandise into their own. Those that are the richest and most worthy manage the affairs of the State, distribute Justice, or sit in Council with the Kings. A fifth Kind there is besides, in great repute, and given wholly to the Study of Wisdom and Religion; and these make profession of being always ready for a voluntary Death: and they end their Days on a great funeral Fire, which they have prepared beforehand. Besides all these, one Thing there is amongst them half Savage, and full of exceeding Toil, and yet by which all the Estates abovesaid are maintained; which is the practice of hunting and taming Elephants. It is with them they plough their Ground, upon them they ride: these are the best Cattle they know: with them they go to War, and contend in defence of their Frontiers. In the choice of them for War they consider their Strength, their Age, and Bigness of Body. There is an Island in the Ganges of great size, containing one Nation, named Modogalica. Beyond it are seated the Modubæ, Molindæ, where standeth the fruitful and stately City Molinda; the Galmodroesi, Preti, Calissæ, Sasuri, Fassalæ, Colubæ, Orxulæ, Abali, and Taluctæ. The King of these Countries hath in Arms 50,000 Foot, 3000 Horsemen, and 400 Elephants. Then comes the stronger Nation of the Andaræ, with many Villages, and with 30 Towns, fortified with Walls and Towers. These maintain ready to serve the King 100,000 Foot, 2000 Horsemen, and 1000 Elephants. The Dardæ are the richest in Gold; and the Setæ, in Silver. But above all the Nations of India throughout, and not of this Tract only, the Prasiî far exceed in Power and Reputation; and the largest and richest City, Palibotra, from whence some have named this Nation, yea, and all the Country generally beyond Ganges, Palibotros. Their King keepeth continually in pay 600,000 Footmen, 30,000 Horsemen, and 9000 Elephants, every Day. Whereby you may guess the mighty Wealth of this Prince. Beyond, more within, inhabit the Monedes and Suari, who possess the Mountain Maleus: in which, for six Months, the Shadows in Winter fall northward; and in Summer, south-

ward.¹ The Polar Stars in all that Tract are seen but once in the Year, and that only for 15 Days; as *Beton* maketh report: but *Megasthenes* writeth, that this is usual in other Parts of India also. The South Pole is called by the Indians *Dramasa*. The River *Jomanes* runneth into the Ganges through *Palibotros*, between the Towns *Methora* and *Cyrisorbora*. Beyond the River Ganges, in that quarter which lieth southward, the People are coloured by the Sun: but though tinted, yet not so burnt as the Ethiopians. And the nearer they approach to the Indus, the deeper coloured they are with the Sun: for closely beyond the Nation of the *Prasii* is the Indus: among whose Mountains the *Pigmæi* are reported to inhabit. *Artemidorus* writeth, that between these two Rivers there is a Distance of 21 Miles.

CHAPTER XX.

The River Indus.

THE Indus, which the People of that Country call *Sandus*, issueth out of that top of the Mountain *Caucasus*, which is called *Paropamisus*: it taketh its Course against the Sun-rising, and receiveth 19 Rivers. Among these the principal are *Hydaspes*, which bringeth with it four more: and *Cantabra*, conveying three. Moreover, of such as are of themselves navigable, *Acesines* and *Hypasis*: and yet so modest is the Course of its Waters, that in no place is it either above 50 Stadia over, or deeper than 15 Paces.² This River encloseth a very great Island named *Prasianè*, and another that is less, which they call *Patalè*. They that have written it with the least, say that it is navigable for 1240 Miles; and turning with the Course of the Sun, it keepeth him company westward, until it is discharged into the Ocean. The Measure of the Coast to it I will set down generally as I find it written: although there is no Agreement among Writers

¹ The reader is referred to the concluding chapter of this Book for a more particular account of the climates and the direction of the shadows.—*Wern. Club.*

² That is, seventy-five feet.—*Wern. Club.*

concerning it. From the Mouth of the Ganges to the Cape Calington, and the Town Dandagula, are 725 Miles : from thence to Tropina, 1225 Miles. Then to the Promontory of Perimula, where is the chief Town of Merchandise in all India, 750 Miles : from which to the abovesaid Town Patalè, within the Island, 620 Miles. The Mountain Nations between it and Jomanes are the Cesi and the savage Catreboni : next to them the Megallæ, whose King hath 500 Elephants ; and of Foot and Horsemen an uncertain number. The Chrysei, Parasangæ, and Asangæ, are full of Tigers : they arm 30,000 Foot, 800 Horsemen, and 300 Elephants. The Indus shuts them in, and they are enclosed with a crown of Mountains and Wildernesses for 625 Miles. Beneath these Deserts are the Dari and Suræ ; and then again Deserts for 188 Miles, compassed about for the most part with Banks of Sands, like Islands in the Sea. Under these Deserts are the Maltecoræ, Singæ, Marobæ, Rarungæ, Moruntes, Masuæ, and Pagungæ. Now for those who inhabit the Mountains, which in a continual range without interruption stand upon the Coasts of the Ocean, they are free and subject to no Kings, and many Cities they hold among these Mountains. Then come the Narææ, enclosed within the highest Mountain of all the Indian Hills, Capitalia. On the other side of this the Inhabitants dig extensively in Gold and Silver Mines. Then you enter upon Oratura, whose King hath indeed but 10 Elephants, but a great abundance of Footmen ; and the Varetatæ, who under their King keep no Elephants, trusting to their Horsemen and Footmen. The Odomboëræ and Salabastræ ; the beautiful City Horata, fortified with Fosses and Marshes : through which the Crocodiles, on account of their greedy Appetite for Men's Bodies, will suffer none to pass into the Town, but over the Bridge. Another Town there is among them, of great Name : Automela, standing on the Sea-side : a noble resort of Merchants, by reason of five great Rivers which meet all there in one confluence. Their King possesseth 1600 Elephants, 150,000 Footmen, and 5000 Horsemen. The King of the Charmæ is poor ; he possesseth 60 Elephants, and his Power is otherwise small. Beyond them are the Pandæ, the only Nation of the Indians

which is governed by Women. One of this Sex, they say, was begotten by *Hercules*, in which regard she was the better accepted, and was appointed over the greatest Kingdom. Those who draw their Origin from her have Dominion over 300 Towns, and the Command of 150,000 Foot, and 500 Elephants. Beyond this Realm are the Syrieni, containing 300 Cities; the Derangæ, Posingæ, Buzæ, Gogyarei, Umbraë, Nereæ, Prancosi, Nobundæ, Cocondæ, Nesei, Pedatritæ, Solobriasæ, and Olostræ, touching on the Island¹ Patalè: from the utmost Shore of which Island unto the Gates Caspiæ, are reckoned 18,025 Miles. Again, on this side the River Indus, over against them, as appeareth by evident Demonstration, there dwell the Amataë, Bolingæ, Gallitalutæ, Dimuri, Megari, Ordabæ, and Mesæ. Beyond them, the Uri and Sileni; and then Deserts for 250 Miles; which being passed over, there are the Organages, the Abaortæ, Sibaræ, and the Suertæ: and beyond these a Wilderness as great as the former. Again, the Sarophages, Sorgæ, Baraomatæ, and the Gumbritæ; of whom there are thirteen Nations, and each one hath two Cities. The Aseni inhabit three Cities: their capital City is Bucephala, built in the very Place where King *Alexander's* horse, called Bucephalus, was buried. Above them are the Mountaineers below the Caucasus, named Soleadæ and Sondræ: and having passed the Indus, going along its Banks are the Samarabriæ, the Sambruceni, the Brisabritæ, Osii, Antixeni, and Taxillæ, with a famous City called Amandra: from which all that Tract now lying plain within the Country is named Amandra. Four Nations there are: the Peucolaitæ, Arsa galitæ, Geretæ, and Asoi: for many set not down the River Indus as the limit westward; but add four Provinces (Satrapæ): Gedrosi, Arachotæ, Arii, and Paropamisadæ.

CHAPTER XXI.

The Arii and the Nations adjoining.

OTHER Writers prefer the opinion, that the utmost limit is the River Cophetes, all which quarters are within the Ter-

¹ Babul.

ritory of the Aarii: and most of them affirm that the City Nysa, as also the Mountain Merus consecrated to Father *Liber*, belong to India. This is that Mountain from which arose the Fable, that he sprung from the Seed of *Jupiter*. Likewise (they assign to India) the Country of the *Aspagonæ*, so plentiful in Vines, Laurels, and Box, and generally all sorts of Fruits that grow in Greece. Many wonderful, and in a manner fabulous things, they report of the Fertility of that Land, of the sorts of Fruits, of Trees bearing Cotton, of Wild Beasts, of Birds, and other Creatures: which I will reserve for their proper places in another part of this Work. Those four Satrapies, which I mentioned before, I will speak of presently: for now I hasten to the Island *Taprobanè*. But there are other Isles first, as *Patalæ*, which we have noted to lie in the very Mouth of the River *Indus*, of a Triangular figure, 220 Miles in Breadth. Without the Mouth of the *Indus*, two other Islands, *Chryse* and *Agyrè*, abounding, as I suppose, in Gold and Silver Mines; for I cannot easily believe, that the Soil there is all Gold and Silver, as some have reported. Twenty Miles from them is *Crocala*: and twelve Miles further *Bibaga*, abundant in Oysters and other Shell-fishes. Then, nine Miles beyond it, *Toralliba* sheweth itself, and many other petty Islands.

CHAPTER XXII.

*The Island Taprobanè.*¹

IT hath been for a long time thought that *Taprobanè* was another World under the appellation of the *Antichthonés*. But from the time of *Alexander* the Great, and the intercourse in those parts, it was discovered to be an Island. *Onesicratus*, the Admiral of his Fleet, hath written, that the Elephants bred in this Island are bigger and better fitted for War than those of India. *Megasthenes* saith, that there is a River which divideth it, and that the Inhabitants are called

¹ This is now generally concluded to be the island of Ceylon, in the East Indies, now subject to British dominion.—*Wern. Club.*

Palæogoni: that it affordeth more Gold and bigger Pearls than the Indian. *Eratosthenes* also took the Measure of it, in length 7000 Stadia, and in breadth 5000: that there are no Cities, but Villages to the number of 700. It beginneth at the Sea *Eoös*, from which it extendeth between the East and West of India: and in times past was believed to lie out into the Sea from the Prasian Nation twenty Days' Sailing. But afterwards, because the Vessels and Rigging used upon this Sea in the Passage thither were made of Paper Reeds, like those of the River Nile, the Voyage was estimated, by comparison with our Ships, at about seven Days. All the Sea lying between is full of Shallows, no more than five Fathoms Deep; but in certain Channels it is so deep that no Anchors will reach the Bottom: and so narrow are these Channels, that a Ship cannot turn within them; and therefore, to avoid the necessity of turning, the Ships have Prows at both ends. In Sailing, there is no Observation of the Stars. The North Pole is never seen: but they carry with them Birds, which they send off at intervals and follow their Course, as they fly to Land: neither used they go to Sea for more than three Months in the Year; and for one hundred Days from the Solstice they take most heed; for at that time it is Winter with them. And thus much we know by relation of ancient Writers. But we obtain better Intelligence, and more accurate Information, by Ambassadors who came out of that Island, in the reign of *Claudius*, which happened after this manner. A Freed-man of *Annius Plocamus*, who had Farmed from the Exchequer the Customs of the Red Sea, as he sailed about the Coasts of Arabia, was driven with the North Winds beyond the Realm of *Carmania*, and in the Space of 15 Days he reached an Harbour of that Country, called *Hippuros*. He found the King of that Country so courteous, as to afford him Entertainment for six Months. And as he used to discourse with him about the Romans and *Cæsar*, he recounted to him at large of all things. But among many other Reports that he heard, he wondered most at their Justice, because their *Denarii* of the Money which

was taken were always of the same Weight, although the different Images shewed that they were made by different Persons. And hereupon especially was he moved to seek for the Friendship of Rome; and so despatched four Ambassadors, of whom *Rachias* was the chief. From them it became known that there were five hundred Towns in it; and that there was a Harbour facing the South, lying conveniently near the Town Palesimundum, the principal City of all that Realm, and the King's Seat; that there were 200,000 common Citizens: that within this Island there was a Lake called Magisba, 270 Miles in Circuit, containing in it some Islands fruitful in nothing but Pasturage. Out of this Lake issued two Rivers; the one, Palesimundas, passing near to the City of the same Name, and running into the Harbour with three Streams; of which the Narrowest was five Stadia Broad, and the largest fifteen; the other Northward towards India, by Name Cydara: also that the next Cape of this Country to India is called Colaicum, from which to the nearest Port (of India) is counted four Days' Sailing: in the midst of which Passage, there lieth the Island of the Sun. They said, moreover, that the Water of this Sea was of a deep green Colour; and, what is still more extraordinary, full of Trees growing within it:¹ so that the Pilots with their Helms broke off the Crests of those Trees. They wondered to see the Stars about the North Pole (Septentriones) and Vergiliæ, as if it had been a new Heaven. They confessed also they never saw, with them, the Moon above the Earth before it was eight Days old,² nor after the sixteenth Day. That the Canopus, a great and bright Star, used to shine all Night with them. But the thing that they were most surprised at was, that they observed the Shadow of their own

¹ Branched corals, beyond a doubt.—*Wern. Club.*

² It is surprising to find an author so intelligent as these ambassadors from Ceylon reported without any animadversion; and particularly that he takes no notice of what they said concerning the appearance of the moon, as such a phenomenon could not take place in any region of the earth.—*Wern. Club.*

Bodies to fall toward our Hemisphere, and not to theirs; and that the Sun rose on their Left Hand and set on their Right, rather than contrarywise. Furthermore they related, that the Front of that Island which looked toward India contained 10,000 Stadia, and reached from the South-east beyond the Mountains Emodi. Also, that the Seres were within their Sight, with whom they had Acquaintance by Merchandise: and that the Father of *Rachias* used many times to travel thither: affirming, moreover, that if any Strangers came thither, they were assailed by Wild Beasts: and that the Inhabitants themselves exceeded the ordinary Stature of Men, having red Hair, blue Eyes, their Voice harsh, their Speech not fitted for any Commerce. In all things else their Practice is the same as that of our Merchants. On the farther side of the River, when Commodities are laid down near the Things for Sale, if the Exchange please them they take them away, and leave the other Merchandise in lieu thereof: with a juster Hatred of Luxury than if the mind shall consider what and whence it is sought for, and to what end. But even this Island Taprobane, seeming, as it were, to be separated by Nature from all the World, is not without the Vices with which we are tainted. For Gold and Silver are even there also highly esteemed: and Marble, especially if it be fashioned like a Tortoise-shell. Gems and Pearls also, of the better sort, are in great honour: and the Abundance of our Luxury. These Ambassadors said that their Riches were greater, but that we had more use of them. They affirmed, that no Man with them had any Slaves; neither slept they after Day-light, nor in the Day-time: that the Manner of Building their Houses is low, that the Price of Victuals did not fluctuate; and there were no Courts, or going to Law. *Hercules* is worshipped. Their King is chosen by the People, if he is aged, merciful, and childless; but if he should have Children afterward, then he is deposed, in order that the Kingdom may not become hereditary. He hath thirty Governors assigned to him by the People: and no Person can be condemned to Death unless by the Majority of them: and even then he may appeal to

the People. Seventy Judges are deputed to sit upon his Cause; and if it happen that they acquit him, then the thirty who condemned him are ever displaced from their Dignity, with a very severe Rebuke. The King is adorned like *Liber Pater*: but others in the habit of Arabians. If the King offend in any thing, Death is his Punishment: but no Man doeth Execution. All Men turn away from him, and deny him any Intercourse, of even a Word. They are destroyed during a solemn Hunting, which, it appears, is exceedingly agreeable to the Tigers and Elephants. They cultivate their Ground diligently. They do not use Vines; but all sorts of Fruits they have in Abundance. They also take Pleasure in Fishing, and especially in taking Tortoises: and so great are they found there, that one of their Shells serves to cover a House. They count a hundred Years no long Life. Thus much we have learned concerning Taprobanè. It remaineth now to say somewhat of those four Satrapies, which we put off to this Place.

CHAPTER XXIII.

Capissenè, Carmania.

BEYOND those Nations which border nearest on the River Indus, the Mountain Portions of Capissænè possess the City Capissa, which *Cyrus* destroyed. Arachosia, with a City, and a River also of that Name; which City some have called Cophè, founded by Queen *Semiramis*. The River Hermandus, which runneth by Abestè, of the Arachosians. The next, which confront Arachosia southward, toward part of the Arachotæ, are the Gedrosi; and on the North side the Paropamisadæ. The Town Cartana, named afterwards Tetragonis, is at the foot of Caucasus. This Region lieth over against the Bactriani: then its principal Town Alexandria, named from its Founder: Syndraci, Dangulæ, Parapiani, Cantaces, and Maci. At the Hill Caucasus standeth the Town Cadrusi, built likewise by *Alexander*. Below all these Regions lieth the Coast of the Indus. The Region of the Arians, scorched with parching Heats, and environed with

Deserts: but many shadowy Places lie between. Cultivators are assembled especially about the two Rivers, Tonderos and Arosapes. The Town Artaccana. The River Arius, which runneth by Alexandria, built by *Alexander*. The Town containeth in Compass 30 Stadia. Artacabanè, as much more ancient as it is more beautiful, which by *Antiochus* the King was walled the second time, and enlarged to 50 Stadia. The Nation of the Dorisci. The Rivers Pharnacotis and Ophradus. Prophtasia, a Town of the Zarasparæ. The Drangæ, Argetæ, Zarangæ, and Gedrusi. Towns Peucolais and Lymphorta; the Desert of the Methoricori; the River Manais; the Nation of the Augutturi. The River Borru; the People Urbi; the Navigable River Ponamus, in the Borders of the Pandæ. Also, the River Ceberon, in the Country of the Soraræ; with many Harbours in its Mouth. The Town of Condigramma; the River Cophes; into which run the Navigable Rivers, Sadarus, Parosphus, and Sodus. Some will have the Country Daritus to be a part of Ariana, and they set down the Measure of them both to be in Length 1950 Miles, and in Breadth less by half than India. Others have said that the Country of the Gedrusi and Scyri containeth 183 Miles. Being past which, are the Ichthyophagi, surnamed Oritæ, who speak not the proper Indian Tongue, for 200 Miles. And beyond it are situated the People of the Arbians, for 200 Miles. Those Ichthyophagi *Alexander* forbade to feed on Fish.¹ Beyond them are the Deserts; and then comes Carmania, as well as Persis, and Arabia. But before we treat distinctly of these Countries, I think it meet to set down what *Onesicritus* (who having the conduct of the

¹ Fish was a favourite diet among the people bordering on the Mediterranean Sea; and therefore the objection of Alexander could not be to this, simply as an article of food. It may be supposed that various tribes living on the sea-coast were accustomed to feed on this diet alone, on the principle of caste or sect, thereby rendering themselves exclusive in their communications with others. To remove such barriers to civilisation may be supposed to have been the prevailing motive with Alexander in this edict; which regulated rather than forbade the use of a wholesome article of food.—*Wern. Club.*

Fleet of *Alexander*, sailed out of India, about the Mediterranean parts of Persis) reporteth, according to the Information which came lately from *Juba*: in like manner this Navigation in these years ascertained, is even at this day preserved. The Reports made by *Onesicritus* and *Nearchus* of their Navigation possess neither the Distance nor the Names of the several Resting-places. And to begin with *Xyleneopolis*, built by *Alexander*, from which they entered first on their Voyage, it is not satisfactorily put down by them, either in what Place it is situated, or near what River. Yet these Particulars are by them reported worthy the Remembrance: as that in this Voyage *Nearchus* founded a Town: that the River *Nabrus* is able to bear great Vessels: overagainst which there is an Island, at the Distance of 70 Stadia: that *Leonatus* founded *Alexandria* in the Frontiers of that Nation, by Commandment of *Alexander*; *Argenus* is a safe Harbour: that the River *Tuberum* is navigable, around which are the *Paritæ*. After them the *Ichthyophagi*, who occupy so long a Tract, that they were 20 Days in Sailing along by their Coasts. The Island of the Sun, named also the Bed of the Nymphs, is red, and in which almost every Creature is consumed for no certain cause. The *Origens*: *Hytanis*, a River in *Carmania*, with many Harbours, and Plenty of Gold. And here first they observed that they had a sight of the North-pole Star (*Septentriones*). The Star *Arcturus* they saw not every Night, nor at any Time all Night long. Furthermore, the *Archæmenides* reached thus far: and they found Mines of Copper, Iron, Arsenic, and Vermilion: then is the Cape of *Carmania*: from which to the Coast overagainst them of the *Macæ*, a Nation of Arabia, is 50 Miles. Three Islands, of which *Organa* only is inhabited, having Abundance of Fresh Water, and distant from the Continent 25 Miles: four Islands in the very Gulf before Persia. About these Islands Sea Serpents, twenty Cubits long, as they came swimming toward them, put the Fleet in great Terror. The Island *Acrotadus*: likewise the *Gauratæ*, wherein the Nation of the *Chiani* inhabit. In the middle of the Persian Gulf is the River *Hiperis*, able to bear Ships of Burden. The

River Sitiogagus, upon which a Man may pass in seven Days to the Pasargadæ. A River that is Navigable called Phir-stimus, and an Island without a Name. The River Granus, which runneth through Susianè, carrieth but small Vessels. Along the Right Bank of this River dwell the Deximontani, who prepare Bitumen. The River Oroatis, with a difficult Mouth, except to skilful Pilots: two little Islands. Past which, the Sea is very shallow, like a Marsh, but there are some Channels wherein they may sail. The Mouth of the Euphrates. The Lake which the Eulæus and Tigris make, near to Characis. Then on the Tigris, Susa. There they found *Alexander* keeping Feast-days of Festivity in the seventh Month after he had parted from them at Patalæ, and the third Month of his Voyage. And thus much concerning the Voyage of *Alexander's* Fleet. Afterwards from Syagrus, a Promontory in Arabia, it was counted to Patalè 1332 Miles, and that the West Wind, which the people of that Country call Hypalus, was thought most proper to sail with to the same Place. The Age ensuing discovered a shorter and safer Course; namely, if from the said Promontory they set their Course directly to the River Zize-rus, an Harbour in India. And in truth this Passage was sailed for a long time, until at length a Merchant found out a more compendious Course, and India was brought near for Gain: for every Year they sailed thither, and because Pirates very much infest them, they embark in their Ships Companies of Archers. And because all these Seas are now first certainly discovered, it is not amiss to shew the whole Course from Egypt. It is worthy to be observed, that there is not a Year but it costs our State to furnish into India, 500,000 Sesterces, (fifty millions of Sesterces.) For which the Indians send back Merchandise, which at Rome is sold for a hundred times as much as it cost. From Alexandria it is two Miles to Juliopolis: from whence on the Nilus they sail 303 Miles to Coptus, which may be done in twelve Days, with the Etesian Winds blowing. From Coptus they travel upon Camels; and for the sake of Water there are Places appointed for Lodging. The first is called

Hydreuma, 32 Miles. The second, one Day's Journey, in a Mountain. The third, at another Hydreuma, 95 Miles from Coptus. The fourth, again, in a Mountain. Again, at the Hydreuma of *Apollo*, from Coptus, 184 Miles. Again, in a Hill. And then to Hydreuma the New, from Coptus, 234 Miles.¹ There is another called Hydreuma the Old, named also Troglodyticum, where, two Miles out of the direct way, is a Garrison, four Miles distant from New Hydreuma. From thence to the Town Berenicè, where is an Harbour of the Red Sea, 258 Miles from Coptus. But as the Journey is for the most part performed by Night, because of the excessive Heat, and Travellers rest all the Day, twelve Days are set down for the whole Journey between Coptus and Berenicè. They begin to sail at Midsummer, before or close upon the rising of the Dog-star; and in about 30 Days they arrive at Ocelis in Arabia, or else at Cana, within the Country of Incense. A third Port there is besides, called Muza, to which there is no Resort of the Merchants of India: neither by any but Merchants that traffic in Incense and Spices of Arabia. The Indus hath Towns.² Its Region is called Saphar: and another called Sabè. But for them that would make a Journey to the Indians, the most commodious place from whence to set forward is Ocelis: for from thence, and with the West Wind called Hypalus, they have a passage of forty Days' Sailing to the first Town of Merchandise in India, called Muziris. However, this Port is not to be ventured in, because of the neighbouring Pirates, which keep ordinarily about a place called Hydræ; and it is not richly stored with Merchandise. And moreover, the Station of the Ships is far from the Land, so that they must convey their Wares in little Boats which they use for the purpose. At the time when this Account was written, the King that reigned there was named *Celebothras*. There is another Harbour that is more commodious, belonging to the Nation

¹ So as it appeareth that every day's journey was about thirty-two miles.

² This is an unfinished sentence, perhaps from the author's not being able to obtain the names of these towns.—*Wern. Club.*

Necanidon, which they call Bécarrè: the King's Name at present is *Pandion*; far off is another Town of Merchandise within the Land, called Modusa. The Region from whence they transport Pepper in small Lighters made of one piece of Wood to Bécarrè, is named Cotona: of all which Nations, Ports, and Towns, there is not a Name found in any of the former Writers. By which it appeareth, that there hath been great Change in these places. From India, our Merchants return in the Beginning of our Month December, which the Ægyptians call Tybis: or at farthest before the Sixth Day of the Ægyptian Month Machiris, which is before our Ides of January: and by this reckoning they may pass and return within the compass of One Year. When they sail from India they have the (North-East) Wind, Vulturnus, with them: and when they have entered into the Red Sea, the South or South-west. Now will we return to our proposed Discourse concerning Carmania: the Coast of which, after the reckoning of *Nearchus*, may take in Circuit 12,050 Miles. From its Beginning to the River Sabis is 100 Miles; from whence as far as to the River Andanin, are Vineyards and Corn-fields, well cultivated. The Region is called Armuzia. The Towns of Carmania are Zetis and Alexandria. In this part the Sea breaketh into the Land in two Arms; which our Countrymen call the Red Sea,¹ and the Greeks Erythræum, from a King named *Erythras*: or (as some think) because the Sea, by reason of the Reflexion of the Sun, seemeth of a reddish colour. Others suppose that this Redness is occasioned of the Sand and Ground, which is Red: and others again, that the very Water is of its own nature so coloured.

CHAPTER XXIV.

The Persian and Arabian Gulfs.

THIS Red Sea is divided into Two Gulfs. That from the East is named the Persian Gulf, and is in Circuit 2500 Miles,

¹ Another reason for the name is to be found in Esau, the son of the patriarch Isaac, and whose dominion was on its borders. Bruce and others have advanced opinions with regard to the origin of the name of this celebrated sea; but its most ancient name may be rendered the Weedy Sea.

by the computation of *Eratosthenes*. Overagainst this Gulf is Arabia, which is in Length 1200 Miles. On the other side there is another called the Arabian Gulf, which runneth into the Ocean, called Azanius. The Mouth of the Persian Gulf is Five Miles wide, though some have made it but Four. From this to its deepest recess, by a straight Course, is known to be 1125 Miles; and it is fashioned like a Man's Head. *Onesicritus* and *Nearchus* have written, that from the River Indus to the Persian Gulf, and from thence to Babylon by the Marshes of the Euphrates, is 2500 Miles. In an angle of Carmania the Chelonophagi inhabit, who feed on the Flesh of Tortoises, and cover their Cottages with their Shells. They inhabit from the River Arbis to the very Cape, they are Hairy over all their Body except their Heads, and wear no other Garment but Fish-skins.

CHAPTER XXV.

The Island Cascandrus: and the Kingdoms of the Parthians.

BEYOND this Tract of the Chelonophagi, toward India, there lieth, Fifty Miles within the Sea, the Island Cascandrus, by report all desert; and near it, with an Arm of the Sea between, another Island called Stois; having a lucrative Trade in Pearls. Beyond the Cape of Carmania, you enter upon the Armozei. Some say, that the Albi are between both; and that their Coasts contain in the whole 402 Miles. There are the Port of the Macedonians, and the Altars of *Alexander* on the very Promontory itself. The Rivers Saganos, and then Daras, and Salsos: beyond which is the Cape Themistheas, and the Island Aphrodisias, which is inhabited. Then beginneth Persis, which extendeth to the River Oroatis, that divideth it from Elymais. Overagainst Persis, these Islands, Philos, Cassandra, and Aratia, with an exceeding high Mountain in it: and this Island is consecrated to *Nep-tune*. Persis itself, westward, hath the Coasts lying out in Length 450 Miles. The People are Rich, even to Luxury; and long since they are become subject to the Parthians, and have lost their own Name. We will briefly now speak of

their Empire. The Parthians have in all Eighteen Realms under them: for so they divide the Provinces about the Two Seas, as we have said, the Red Sea lying southward, and the Hircan Sea, toward the north. Of these Eleven, which are called the Higher Provinces, take their beginning from the Border of Armenia, and the Coasts of the Caspian; and they reach to the Scythians, with whom they have equal Intercourse on the other side. The other Seven are called the Lower Provinces. As for the Parthians, their Land always lay at the Foot of those Mountains of which we have so often spoken, which enclose all those Nations. It hath on the East the Arii, and southward Carmania and the Ariani; on the west side the Pratitæ and Medi; and on the North the Hircani; and is compassed about with Deserts. The farthest Nations of the Parthians are called Nomades: beyond the Deserts their Cities toward the West, are Issaris and Calliopè, of which we have written before; but toward the North-east, Europum; and South-east, Mania. In the Midland the City Hecatompilos, and Arsacia. The noble Region of Nysæa in Parthyenes, where is Alexandropolis, (so called) from its Founder.

CHAPTER XXVI.

Media, Mesopotamia, Babylon, and Seleucia.

It is needful in this place to describe the Situation of the Medi, and to discover the Face of those Countries, as far as to the Persian Sea, in order that the Description of other Regions may be the better understood. For Media on the West runneth obliquely, confronteth the Parthiæ, and encloseth both these Realms. Therefore on the East side it hath the Parthians and Caspians: on the South, Sittacenè, Susianè, and Persis; Westward, Adiabènè; and Northward, Armenia. The Persians always dwelt about the Red Sea, on which account it was called the Persian Gulf. The Maritime Coast thereabout is called Cyropolis, and that part which bordereth upon the Medes Elymais. There is a Place called Megala, in the ascent of a steep Mountain, through a

narrow Passage by Steps to Persepolis, the Head of the Kingdom, and destroyed by *Alexander*. Moreover, in the Frontiers standeth Laodicea, built by King *Antiochus*. From thence towards the East the Magi hold the Castle of Passagardæ, wherein is the Tomb of *Cyrus*. Also the Town Ecbatana belonging to the Magi, which *Darius* the King caused to be translated to the Mountains.¹ Between the Parthians and the Ariani are extended the Paræraceni. These Nations and the River Euphrates serve to limit the lower Realms. Now are we to discourse of the Parts remaining of Mesopotamia; setting aside one point thereof, and the People of Arabia, whereof we spoke in the former Book. All Mesopotamia belonged to the Assyrians, dispersed in Villages, except Babylon and Ninus. The Macedonians collected it into Cities on account of the goodness of their Soil. Besides the above-named Towns, it hath Seleucia, Laodicea, and Artemita: likewise within the Nation of the Arabians named Arœi and Mardani, Antiochia: and that which, being founded by *Nicanor*, Governor of Mesopotamia, is called Arabis. Upon these join the Arabians, but within the Country are the Eldamarii. Above them is the Town Bura, situated upon the River Pelloconta; beyond which are the Salmani and Masei, Arabians. Then there join to the Gordiæi the Aloni, by whom the River Zerbis passeth, and so is discharged into the Tigris. The Azones and Silices, Mountaineers, together with the Orentes; on the side of whom the Town Gaugamela. Also Suè among the Rocks; above are the Sylici and Classitæ, through whom the Lycus runneth out of Armenia. Toward the South-east, Absittis, and the Town Azochis. Presently in the Plains the Towns Diospagè, Polytelia, Stratonicea, and Anthemus. Nicephorion, as we have already said, is seated near the River Euphrates, where *Alexander* caused it to be founded, for the convenient Situation of the Place. Of the City Apamia we have before

¹ Pliny's statement as to the building of the palace, and indeed the whole city of Shushan, by *Darius Hystaspes*, is contradicted by all Greek and Oriental writers, who represent the city as extremely ancient—*vide* "Horne."—*Wern. Club*.

spoken in the Description of Zeugma : from which they that go eastward meet with a strong fortified Town, formerly in Compass 65 Stadia, and called the Royal Palace of their Satraps, to which they brought Tributes ; but now it is formed into a Castle. But there continue still as they were, Hebata and Oruros, unto which, by the Conduct of *Pompey* the Great, the Bounds of the Roman Empire were extended ; and it is from Zeugma 250 Miles. Some Writers say that the Euphrates was divided by a Governor of Mesopotamia, and one Arm of it brought to Gobaris ; which was done lest the River should endanger the City of Babylon. They affirm, moreover, that the Assyrians generally called it Armalchar,¹ which signifieth a Royal River. On the Place where it is turned there stood Agrani, one of the greatest Towns of that Region, which the Persians utterly destroyed.

Babylon,² the Capital of the Chaldean Nations, for a long time possessed an illustrious Name through all the World : in regard of which the other Part of Mesopotamia and Assyria was named Babylonia : and embracing 60 Miles. The Walls were 200 Feet in Height, and 50 broad : reckoning to every Foot three Fingers' Breadth more than our ordinary Measure. Through the midst passeth the River Euphrates : with a wonderful Work, on both Sides. To this Day the Temple

¹ Or rather, Nahal Nalca, *i. e.* the King's River.

² Herodotus, in the first book of his history, describes this most splendid of cities ; the walls of which were classed among the wonders of the world. But contrary to the report by which Pliny professes to be guided, this ancient Greek author represents them to have been built in the form of a square ; and although the lapse of time may have caused a variety of changes to take place in other particulars regarding this city, we can scarcely suppose that these changes can have extended to the dimensions or situation of its stupendous walls ; by which alone its form would be influenced. It is surprising that among the authors which Pliny had consulted in drawing up his account of these regions, he makes no mention of this illustrious Greek writer, though he quotes him in other places. Philostratus, Solinus, Diodorus, Quintus Curtius, and more especially the Bible, may be consulted for a variety of curious particulars regarding this eminent and powerful city, whose walls and splendour are now buried in a desert.—*Wern. Club.*

of *Jupiter Belus* continueth there entire. He was the first Discoverer of the Science of the Stars. Nevertheless it is reduced to a Desert, having been exhausted by Seleucia, which standeth near it: and which was for that very purpose built by *Nicator* within the Fortieth Stone, at the Place of meeting of the New Channel of Euphrates with the Tigris: nevertheless it is named Babylonia, a free State at this Day, of independent Jurisdiction; but they live after the Manners of the Macedonians. And by report there are 600,000 common Citizens. The Position of the Walls, by report, is in the form of an Eagle spreading out her Wings: and the Soil is the most Fertile in all the East. The Parthians, again, to exhaust this City, built Ctesiphon within the Third Stone from it, in Chalonitis; which now is the Head of the Kingdom. But when it advanced nothing, King *Vologesus* founded another Town near it, called *Vologeso Certa*. There are also in Mesopotamia the Cities *Hypparenum*, a City likewise of the Chaldæans, and ennobled for Learning, and, as well as Babylon, situated near the River *Narraga*, which gave the Name to the City. The Persians destroyed the Walls of this *Hypparenum*. There are also in this Tract the *Orcheni*, toward the south; and a Third Sect of the Chaldæans. Beyond this Region are the *Notitæ*, *Orthophantæ*, and *Græciocchantæ*. *Nearchus* and *Onesicritus* report, That from the Persian Sea to Babylon, by the Voyage up the Euphrates, is 412 Miles. But later Writers count from Seleucia 490 Miles. *Juba* writeth, that from Babylon to Charax is 175 Miles. Some affirm that beyond Babylon the River Euphrates floweth in one Channel 87 Miles, before it is divided to water the Country: its entire Course being 1200 Miles. This variety in Authors is the cause of the Uncertainty of the Measure, considering that even the very Persians agree not about the Dimensions of their *Schœni* and *Parasangæ*, but have different Measures of them. Where the River Euphrates ceaseth to defend by its own Channel, at the portion approaching the Border of Charax, there is great danger of the Robbers called *Attalæ*, a Nation of the Arabians. Beyond them are the *Scenitæ*. The Arabian

Nomades occupy the circuit of the Euphrates, as far as to the Deserts of Syria : from which place we said that it turned into the South, abandoning the Deserts of Palmyra.¹ From the beginning of Mesopotamia to Seleucia, by sailing on the Euphrates, is 1125 Miles ; and from the Red Sea, if you go by the Tigris, 320 Miles ; from Zeugma 527 Miles ; and to Zeugma from Seleucia in Syria, upon the Coast of our Sea, is 175 Miles. This is the Breadth there of the Land between the two Seas. The Kingdoms of Parthia contain 944 Miles. Finally, there is a Town of Mesopotamia on the Bank of the Tigris, near where the Rivers meet, which they call Digba.

CHAPTER XXVII.

The River Tigris.

It is also convenient to say somewhat of the River Tigris itself. It beginneth in the Region of Armenia the Greater, issuing out of a great Source in the Plain. The place beareth the Name of Elongosinè. The River itself, so long as it runneth slowly, is named Diglito ; but when it beginneth to be rapid, it is called Tigris, which in the Median language signifieth a Dart. It runneth into the Lake Arethusa, which beareth up all that is cast into it ; and the Vapours that arise out of it carry Clouds of Nitre. In this Lake there is but one kind of Fish, and that entereth not into the Channel of the Tigris as it passeth through ; as likewise the Fishes of the Tigris do not swim out into the Water of the Lake. In its Course and Colour it is unlike the other : and when it is past the Lake and meeteth the Mountain Taurus, it loseth itself in a Cave, and so runneth under, until on the other

¹ This is Tadmor in the wilderness, built by Solomon, king of Israel, and further illustrious from being the city where the critic Longinus was the prime minister of the Queen Zenobia. It is now truly in a wilderness, but is still celebrated for its remains of antiquity : chiefly of Greek construction. There are many streams coming down from the adjacent mountains, and there can be no doubt that if a settled tribe fixed themselves there, the tract would become as fine an oasis as ever.—*Wern. Club.*

Side it breaketh forth again in a Place which is called Zoroanda. That it is the same River is evident by this, that it carrieth through whatever was cast into it. After this second Spring, it runneth through another Lake, named Thospites, and again taketh its Way under the Earth through Gutters, and 25 Miles beyond it is returned about Nymphæum. *Claudius Cæsar* reporteth, that in the Country Arrhenè, it runneth so near to the River Arsantias, that when they both swell they join, but without mingling their Water; for Arsantias, being the lighter, floateth over the other, for almost the Space of four Miles; but soon after they part asunder, and it turneth its Course toward the River Euphrates, into which it entereth. But Tigris receiving the famous Rivers out of Armenia: Parthenis, Agnicè, and Pharion, so dividing the Arabians, Aroëans, and the Adiabeni, and by this means making, as we have said, Mesopotamia to be an Island, after it hath passed by and viewed the Mountains of the Gordiæi, near Apamia, a Town of Mesenè on this side Seleucia, surnamed Babylonia, 125 Miles. Dividing itself into two Channels, with the one it runneth southward to Seleucia, watering the Country of Mesenè; and with the other it windeth to the north, on the back of the said Mesenè, and cutteth through the Plains of the Cauchians. When these two Branches are united again, it is called Pasitigris. After this it receiveth out of Media the Coaspes; and so passing between Seleucia and Ctesiphon, as we have said, it poureth itself into the Lakes of Chaldæa, which it replenisheth with Water for the Compass of threescore and ten Miles: which done, it issueth forth, gushing out with a very great Stream, and on the right of the Town Charax is discharged into the Persian Sea, by a Mouth ten Miles over. Between the Mouths of these two Rivers were 25 Miles, or, as some say, seven: and both of them were navigable. But the Orcheni and other neighbouring Inhabitants long since turned the Course of Euphrates aside to water their Fields, insomuch that it is conveyed into the Sea, only through the Tigris. The next Country bordering upon the Tigris is called Parapotamia: in it is Mesenè, of which we have spoken. Its

Town is Dibitach. Chalonitis is joined with Ctesiphon, noble not only with Date-trees, but also with Olive, Apple, and Pear-trees, and generally with all sorts of Fruit. Unto this Country extendeth the Mountain Zagrus, coming out of Armenia, between the Medes and Adiabeni, above Parætacenè and Persis. Chalonitis is distant from Persis 480 Miles. Some write, that by the nearest Way it is so much from the Caspian Sea to Assyria. Between these Nations and Mesenè lieth Sittacenè, the same that is called Arbelitis and Palæstinè. The Towns therein are Sittacè of the Græcians, toward the east, and Sabata; but on the West, Antiochia, between two Rivers, Tigris and Tornadotus. Also Apamia, which *Antiochus* so called after his Mother's Name. This City is environed with the River Tigris, and divided by the River Archous. Somewhat lower is Susianè, wherein (is) Susa, the ancient Region of the Persians, founded by *Darius*, the Son of *Hystaspes*; and from Seleucia Babylonia, it is distant 450 Miles; and as much from Ecbatana of the Medes, through the Mountain Charbanus. Upon that Channel of the Tigris which taketh its Course northward, standeth the Town Babytacè: and from Susa it is 135 Miles. The People of this Country are the only Men in the World that hate Gold: and they bury it, that it may serve for no use to any one. To the Susiani eastward are joined the Cossæi Robbers, and forty Nations of the Mizæi, free and wild. Above these lie the Parthusi, Mardi, Saitæ, and Hyi, who are spread abroad above Elemais, which joineth to the maritime Coasts of Persis, as is above said. Susa is from the Persian Sea 250 Miles. On that Side where the Fleet of *Alexander* came up the Pasitigris, there standeth a Village upon the Lake Chaldais, named Aphlè: from which to Susa is $65\frac{1}{2}$ Miles by Water. The next that border upon the Susiani eastward are the Cossæi; and above the Cossæi northward lieth Mesobatené, under the Mountain Cambiladus, which is a Branch of the Caucasus: and from thence is the most easy Passage to the Bactri. The River Eulæus maketh a Partition between Elimais and Susianè. This River riseth in the Country of the Medi, and in the midst of its Course loseth

itself in the Ground ; but rising again, and running through Mesobatenè, it passeth round the Castle of the Susi and the Temple of *Diana*, the most august Temple among those Nations : and the very River itself is ceremoniously regarded : so that the Kings drink of no other, and therefore they carry it to a great distance. It receiveth the River Hedypnus, which cometh along by the Asylum of the Persians, and one from among the Susiani. A Town there is near it, called Magoa, 15 Miles from Charax. Some place this Town in the utmost Borders of Susiana, close to the Deserts. Beneath Eulæus lieth Elymais, joining to Persis on the Seacoast ; it is 240 Miles from the River Oroates to Charax. The Towns in it are Seleucia and Sositarè, situated upon the Mountain Casyrus. The Coast which lieth before it is, as we have said before, no less dangerous than the Lesser Syrtes, because of the Mud and Slime which the Rivers Brixia and Ortacea bring down ; and Elimais itself is so moist that there is no Way to Persis but by taking a Circuit about it. It is also much infested with Serpents, which those Rivers bring down : but that part of it is the least passable which they call Characenè, from the Town (Charax), which limiteth the Kingdoms of Arabia : of which we will speak by and by, after we have set down the Opinion of *M. Agrippa* ; for he hath written, that Media, Parthia, and Persis, are bounded on the East by the Indus ; on the West, by the Tigris ; on the North, by the Taurus and Caucasus ; and on the South, by the Red Sea : also, that they extend in Length 1320 Miles, and in Breadth 840. Moreover, that Mesopotamia by itself is enclosed eastward by the Tigris, westward by the Euphrates ; on the North by the Taurus, and on the South by the Persian Sea ; being in Length 800 Miles, and in Breadth 360. Charax is the inmost Town of the Persian Gulf, from which Arabia, called Eudæmon (happy) runneth forth in Length ; it is situated upon a Mount artificially raised between the Confluence of Tigris on the right Hand, and Eulæus on the left : with an Expansion of three Miles. It was first founded by *Alexander* the Great ; who, having drawn Colonists out of the royal City Durinè (which then

was ruined), and leaving there behind him those Soldiers which were not fit for service, ordained that this Town should be called Alexandria; and the District about it, Pellæum, from his native Country: and he peopled it only with Macedonians. This Town was destroyed by the Rivers. Afterwards, *Antiochus*, the fifth of the Kings, rebuilt it, and named it from himself. But when it was injured again, *Spasines*, Son of *Sogdonacus*, King of the adjoining Arabians, and not (as *Juba* reporteth) a Lord (Satrap) under *Antiochus*, restored it by Moles opposite each other, and called it after his own Name. He thus fortified the Site of it three Miles in Length and little less in Breadth. At the beginning it stood upon the Sea-coast, being from the Water-side ten Stadia; and even from thence it hath false Galleries: but by the Report of *Juba*, in his Time, 50 Miles. At this Day the Arabian Ambassadors, and also our Merchants that come from thence, affirm it is from the Sea-shore 125 Miles: so that it cannot be found in any Place that the Earth hath gained more, or in so short a Time by means of the Mud brought down by Rivers. And it is the more wonderful, that the Tide which riseth far beyond this Town doth not carry it away again. In this very Town I am not ignorant that *Dionysius*, the latest of our modern Geographers, was born: whom *Divus Augustus* sent before into the East to write a Description of whatever he found, for the Information of his elder Son, who was about to proceed into Armenia, in an Expedition against the Parthians and Arabians. It has not escaped me, nor is it forgotten, that in my first Entrance into this Work, I professed to follow those who had written of their own Countries, as being the most diligent in that behalf. Nevertheless, in this Place I choose rather to follow the Roman Officers that have warred there, and King *Juba*, in Books written to *C. Cæsar* (*Caligula*) concerning the same Arabian Expedition.

CHAPTER XXVIII.

Arabia, Nomades, Nabatæi, and Omani: the Islands Tylos and Ogyris.

ARABIA cometh behind none of the Nations for its great Length and Extent; for it beginneth at the Descent of the Mountain Amanus, overagainst Cilicia and Comagenè, as we have before said; where it is peopled with many Nations of them, brought by *Tigranes* the Great to inhabit that Quarter; and in old Time it descended naturally as far as to our Sea and the Egyptian Coast, as we have shewn: yea, and it extendeth into the midland Parts of Syria to the Mountain Libanus, where the Hills reach to the very Clouds: to which are joined the Ramasi; then the Taranei, and after them the Patami. The Peninsula itself of Arabia runneth out between two Seas, the Red and the Persian, by a certain Workmanship of Nature, resembling Italy in Form and Magnitude, with its Sea-coasts also in the manner of Italy. It also regardeth the same Quarter of the Heaven without any Difference. This Tract, for the rich Seat it hath, is named Felix (happy). The Nations therein dwelling, from our Sea to the Deserts of Palmyra, we have treated of already, therefore we pass them by. The Nomades, and those Robbers that trouble the Chaldæans, the People called Scenitæ, border on it as we have before said; they also are Wanderers, but are so called from their Tabernacles, which they make of Hair-cloths, and they encamp under them as they please. Being past them you find the Nabatæi, who inhabit a Town named Petra, in the Valley, little less than two Miles large; environed with very steep Mountains, and having a River running through the midst of it. It is distant from Gaza (a Town of our Coast) 600 Miles; and from the Persian Gulf, 122. And here meet both the Highways, that is, the one which Passengers travel to Palmyra in Syria, and the other wherein they come from Gaza. Beyond Petra the Omani inhabit as far as to Carax, in the celebrated Towns built by *Semiramis*, namely, Abesamis and Soractia. But now all is a Wilderness. Then come you to a Town

named Forath, situated upon the Bank of the Pasitigris, and subject to the King of the Caraceni: to which they resort from Petra; and from thence to Charax they sail with a favourable Tide for the Space of twelve Miles. But they that come by Water out of the Parthian Kingdom, meet with a Village called Teredon, below the Place where Euphrates and Tigris meet. The Chaldæans inhabit the left Bank of the River, and the Nomades called Scenitæ, the right. Some affirm, that as you sail on the Tigris, you pass by two other Towns, distant from each other: the one called formerly Barbatia, and afterwards Thumata, which our Merchants report to be ten Days' Sail from Petra, and to be subject to the King of the Characeni: and the other named Apamia, situated in the Place where the Overflowing of Euphrates joineth with the Tigris; and therefore they prevent the Invasion of the Parthians, by breaking up the Banks and so procure an Inundation of the Waters. Now being past Charax, we will discourse of the Coast first explored by *Epiphanes*. The Place where the Mouth of the Euphrates was. A River of Salt Water; the Promontory Chaldone, where the Sea is more like a Whirlpool than a Sea, for 50 Miles. The River Achana; Deserts for 100 Miles, until you come to the Island Ichara: the Bay Capeus, which the Gaulopes and Chateni inhabit: the Bay Gerraicus, and the Town Gerra, five Miles in extent; and fortified with Towers made of square Masses of Salt. Fifty Miles from the Sea-side is the Region Attenè: and overagainst it the Island Tylos, as many Miles from the Shore, with a Town bearing the Name of the Island, much celebrated for Abundance of Pearls: and not far from it is another somewhat less, twelve Miles from the Cape of the aforesaid Tylos. Beyond these there are discovered by Report some great Islands; but they have not been visited by our Merchants. This last Island is 112 Miles and a half in Circuit, and is far from Persis; and Access to it is only by one narrow Channel. The Island Asgilia; the Nations Nocheti, Zurachi, Borgodi, Cataræi, and Nomades: the River Cynos. Beyond that, *Juba* saith, there is no more Navigation discovered on that Side, by reason of the Rocks. He hath made no mention of the Town Batrasabè of the

Omani, nor of Omana, which former Geographers have held to be a Harbour of great Importance in Carmania. Also, Omnè and Athanæ, which our Merchants report to be at this Day two very famous Towns, frequented from the Persian Gulf. Beyond the River Canis, as King *Juba* writeth, there is a Hill which seemeth all scorched. The Nations of the Epimaranitæ: and soon after the Ichthyophagi: a desert Island; the Nations Bathymi. The Mountains Eblitæi; the Island Omœnus; the Port Machorbæ, the Islands Etaxalos, Onchobricè, the Nation Chadæi. Many Islands without a Name: but of Importance, Isura, Rhinnea; and another very near, wherein are Pillars of Stone inscribed with unknown Characters. The Port of Gobœa; and the desert Islands Bragæ. The Nation of the Thaludæi: the Region Dabanegoris: the Mountain Orsa, with a Port: the Bay Duatus, and many Islands. The Mountain Tricoryphus: the Region Cardalena, the Islands Solanidæ, Capina. Also the Islands of the Ichthyophagi: and after them the Glari. The Shore called Hammæum, where are Gold Mines. The Region Canauna. The Nations Apitami and Gasani. The Island Deuadæ; the Fountain Goralus; the Garpheti; the Islands Aleu and Amnamethu. The Nation called Darræ, the Islands Chelonitis, and many of the Ichthyophagi. The Isle Eodanda, which is Desert, and Basagè; many others of the Sabæi. The Rivers Tamar and Amnon; the Islands Dolicæ; the Fountains Daulotes and Dora; the Islands, Pteros, Labanis, Coboris, Sambracatè, with a Town so named on the Continent. On the South side are many Islands, but the greatest of them is Camari. The River Mysecros; the Port Leupas, and the Sabæans, called Scenitæ. Many other Islands; their Chief Town of Merchandise is Acila, where the Merchants embark for their Voyage to India. The Region Amithoscuta, and Damnia. The Mizi, the Greater and Less: the Drimati and Macæ. The Promontory of these People is overagainst Carmania, and distant from it 50 Miles. A wonderful thing is reported there: that *Numenius*, Chief Commander under King *Antiochus*, over Mesena, conquered the Navy of the Persians in a Sea-fight,

and on the same Day, with the return of the Tide, subdued their Horsemen: in memorial of which he erected in the same Place two Trophies, one in honour of *Jupiter*, and the other of *Neptune*. Far out at Sea there lieth an Island called Ogyris, distant from the Continent 125 Miles, and containing in Circuit 112; much renowned for the Sepulchre of King *Erythra*, who was buried there. Another there is no less famous, called Dioscoridu, in the Sea Azanium; and it is from Syagrum, the extremest Cape, 280 Miles. There remain yet not spoken of, the Autarides, toward the South, in the Mountains, which continue for seven Days' journey: the Nations Larendani, Catabani, and Gebanitæ, who have many Towns, but the greatest are Nagia and Tamna, with 65 Temples within it, which is a mark how great it is. A Promontory, from which to the Continent of the Trogloditæ is 50 Miles. The Toani, Acchitæ, Chatramotitæ, Tomabei, Antidalei, Lexianæ, Agrei, Cerbani; and Sabæi, of all the Arabians most famous for their Frankincense; their Nations reaching from Sea to Sea. Their Towns on the Coast of the Red Sea are Maranè, Marma, Corolia, and Sabatra; within-land are the Towns Nascus, Cardava, Carnus, and Tomala, whence they convey their Commodities of Aromatics. One part of them are the Atramitæ, whose Capital City, Sobotalè, had within its Walls Sixty Temples. But the Royal City of the whole is Nariaba, situated on a Gulf that reacheth into the Land ninety-four Miles, full of Islands, having Odoriferous Trees. Upon the Atramitæ, within the Mainland, are joined the Minæi: but the Elamitæ inhabit the Sea (Coast), where standeth a City also called Elamitum. To them are joined the Cagulatæ; and their Town is Siby, which the Greeks name Apatè. Then the Arsicodani, and Vadei, with a great Town: and the Barasei: Lichenia, and the Island Sygaros, which Dogs will not enter; and if any be put there, they wander about the Shore until they die. A Deep Bay, in which are the Leanitæ, who gave name to it. Their Royal City is Agra; but Leana, or, as others have it, Ælana, is in the Bay. And hence our Writers have called that Bay Ælaniticum, which others

have termed *Ælenaticum*; *Artemidorus*, *Aleniticum*; and *Juba*, *Læniticum*. Arabia is reported to take in Circuit from Charax to Leana, 4870 Miles; but *Juba* thinketh it somewhat less than 4000. It is widest in the North Parts, between the Towns Herous and Characè. Now it remaineth that we speak of other Parts within the Midland thereof. The Ancients joined the Nabataei to the Thimanei; but at this Day there are the Taveni, Suelleni, and Sarraceni: the Town is Arra, wherein all Business is assembled. The Hemuatae and Analitæ; the Towns Domada and Eragè; the Thamusians, with their Town Badanatha; the Carrei, and their Town Chariati; the Achoali, and their Town Phoda. Furthermore, the Minæi, descended, as some think, from *Minos*, King of Crete; whose Town Charmæi is 14 Miles (in Compass); Mariaba, Baramalacum, a Town not to be despised; likewise Carnon, and the Rhamei, who are thought to spring from *Rhadamanthus*, the Brother of *Minos*. The Homeritæ, with the Town Massala; the Hamirci, Gedranitæ, Anapræ, Ilisanitæ, Bochilitæ, Sammei, and Amatheï; with the Towns, Nessa and Cenesseri. The Zamareni, with the Towns Saiacè, Scantatè, and Bacascani; the Town Rhipharma, which in the Arabian Tongue signifieth Barley; also the Autei, Rauï, Gyrei, and Marhatai; the Helmodones, with the Town Ebodè; the Agacturi in the Mountains, having a Town 20 Miles in Circuit, wherein is a Fountain called Emischabales, which signifies the Camel's Town; Ampelonè, a Colony of the Milesii; the Town Actrida; the Calingii, whose Town is named Mariaba, which signifies Lords of all. Towns Pallon and Muranimal, near a River, by which they think that the Euphrates springeth forth. The Nations Agrei and Ammonii; the Town Athenæ; the Caurarani, which signifieth very rich in Cattle. The Caranitæ, Cæsani, and Choani. There were also Towns in Arabia, held by Greeks, as Arethusa, Larissa, and Chalcis, which were destroyed in various Wars. The only Roman until this day that carried our Arms into those Parts was *Ælius Gallus*, of the Knightly Order. For *Caius Cæsar*, the Son of *Augustus*, did but look only into Arabia; but *Gallus* destroyed Towns, not named by Authors that wrote before: Egra, Annestum,

Esca, Magusum, Tammacum, Labecia, and the above-named Marieba, in Circuit Six Miles : likewise Caripeta, the furthest that he went to. The other matters he made report of were, that the Nomades live on Milk and Wild Animals ; the rest express Wine, as the Indians do, out of Dates ; and Oil of Sesama. That the Homerites are the most Populous ; the Minæi have Fruitful Fields, full of Palm-trees and Vineyards, but their Riches is in Cattle. The Cembani and Arii excel in Arms, but chiefly the Chatramotitæ. The Caræans have the largest Territories and most Fertile Fields. The Sabæi are Richest in the Fertility of their Woods, that bring forth Aromatic Gums : also in Mines of Gold ; having Water to refresh their Lands, and plenty of Honey and Wax. Of the Spices that come from thence we will speak in a Book by itself. The Arabians wear Mitres,¹ or go with their Hair long ; their Beards they shave, except on the upper Lip ; and yet some there are that suffer their Beards to grow long. But one thing is surprising, that out of such a very great number of People, the one-half live by Robbery, and the other by Merchandise. On the whole they are exceedingly rich ; for with them the Romans and Parthians leave very large Sums, for the Commodities out of their Woods and Seas which they sell them ; and themselves buy nothing of them in return. Now will we speak of the other Coast opposite to Arabia. *Timosthenes* hath set down, that the whole Gulf was from one End to the other Four Days' Sailing : and from Side to Side, Two Days' ; the Breadth of the Straits being Seven Miles over. *Eratosthenes* saith, that taking the Measure at the very Mouth, it is every way 1300 Miles.

CHAPTER XXIX.

The Gulf of the Red Sea : likewise of the Trogloditic and Æthiopian Seas.

ARTEMIDORUS saith, that the Red Sea toward the side of Arabia is 1450 Miles : but on the Coast of the Trogloditæ 1182,

¹ It is a question whether these are not rather turbans, as at present extensively worn through Asia.—*Wern. Club.*

until you come to Ptolemais : but Agrippa 1322, without any distinction of the Sides. Most Geographers have set down the Breadth to be 462 Miles : and the Mouth of it against the Sun-rising in Winter, (*i. e.* South-west) some say, is 7 Miles Broad ; and others 12. The Situation of it is this : Beyond the Bay called Ælaniticus there is another Bay which the Arabians call Æant, on which standeth the Town Heroon. There was also Cambisu, between the Neli and Marchandæ, into which the sick Soldiers were conveyed. The Nation of Tyra ; the Port Daneon, from which *Sesostris*, King of Egypt, was the first that imagined to conduct a Navigable Channel into the Nile, in that part where it runneth to the Place called Delta, for the Space of 62 Miles ; which is between the River and the Red Sea. This Enterprise was followed by *Darius*, King of the Persians : and afterwards by *Ptolomæus*, who also made a Channel 100 Feet in Breadth, and 30 Deep, for Thirty-Seven Miles and a Half in Length, even to the Bitter Fountains. But this Design went no farther, through fear of an Inundation : the Red Sea being found to lie Three Cubits above the Land of Egypt. Some allege that this was not the true cause, but that if the Sea were let into the Nile the Water thereof (of which only they drink) would be corrupted. Nevertheless the Way is well frequented from the Egyptian Sea ; and there are Three ordinary Ways there : one from Pelusium over the Sands, where, unless Reeds be set up in the Ground for direction, no Path would be found, because the Wind bloweth the Sand over the Tracts of the Feet. A second beginneth Two Miles beyond the Mountain Casius, which after sixty Miles returneth into the Pelusiæ Way. Here the Arabians called Autei inhabit. The Third beginneth at Gereum, which they call Adipson, and passeth through these same Arabians, being Sixty Miles nearer, but full of craggy Hills, and altogether destitute of Water. All these Ways lead to Arsinoë, which was built upon the Gulf Charandra by *Ptolomæus Philadelphus*, and bearing his Sister's Name : and he was the first that searched narrowly into the Region Trogloditicum ; and the River that passeth

by Arsinoë he called Ptolemæus. Within a little of this Place there is a small Town named Aennum, for which some write Philotera. Beyond them are the Azarei: wild Arabians from Marriages of the Trogloditæ. The Islands Sapyrenè and Scytala: and within a little, Deserts, unto Myros-hormos, where is the Fountain called Tarnos; the Mountain Eos; the Island Lambè, many Harbours; and Berenicè, a Town bearing the Name of the Mother of *Philadelphus*; to which there is a Way lying from Coptos, as we have said: the Arabians called Autei, and Gnebadei. Trogloditicè, which the Ancients called Michoë, and others Midoë: the Mountain Pentedactylos. Certain Islands called Stenæ-deïræ; and others no fewer in number, named Halonnesi: Cardaminè, and Topazos, which gave the Name to the precious Stone. A Bay full of Islands, of which that which is called Mareu is well supplied with Water: another, called Eratonos, is altogether Dry. There were Governors there under the King. Within-land inhabit the Candeï, whom they call Ophiophagi, because they are accustomed to feed on Serpents; and in truth there is no other Region that breeds them more than this. *Juba*, who seemeth to have very diligently searched into these things, hath omitted in this Tract (unless there be some fault in his Original), to speak of a second Berenicè, which is denominated Panchrysos; as also of a third called Epidires, renowned for its Situation; for it stands upon a Neck of Land running a long way, where the Mouth of the Red Sea is not above Four Miles and a Half from Arabia. There is the Island Cytis, itself producing Topazes. Beyond this are Woods, where *Ptolemæus*, surnamed *Philadelphus*, built a City for Hunting the Elephant, near the Lake Monoleus, and named it Epitheras. This is the Region mentioned by me in the Second Book; wherein for Forty-five Days before Mid-Summer, and as many after, at the Sixth Hour of the Day, no Shadows are to be seen: which being past, all the Day after they fall into the South; and on other Days they fall to the North; whereas, in Berenicè, which we mentioned first, on the very Day of the Solstice, at the Sixth Hour, the

Shadows are wholly lost; and otherwise there is nothing new to be observed for the space of 600 Miles about Ptolemais: a thing worthy of observation, and a place of great Curiosity, that gave great Light to the World; for *Erato-sthenes*, upon this undoubted argument of the Shadows, took in hand to deduce the Measure of the Earth. Beyond this is the Sea Azanium, and the Promontory which some have written by the name of Hispalus; also the Lake Mandalum; the Island Colocasitis, and in the deep Sea many, wherein are numerous Tortoises. The Town Suchæ; the Island Daphnis, and the Town Aduliton, built by Egyptian Slaves who escaped from their Masters. This is the greatest Town of Traffic of the Trogloditæ, as well as of the Egyptians: and it is (from Ptolemais) Five Days' Sailing. Thither are brought very much Ivory and Horns of the Rhinoceros, Skins of the Hippopotamus, Tortoise Shells, Monkeys, and Slaves. Above are the Ethiopians, called Aroteres: also the Islands named Aliæu: and Islands named Bacchias, Antibacchias, and Strathonis; beyond them there is a Gulf in the Coast of Ethiopia, as yet not known, a thing to be wondered at, considering that Merchants search into remoter Parts. Also a Promontory, wherein is a Fountain named Cucios, much desired by Sailors. Beyond it is the Port of Isis, distant from the Town of the Adulitæ ten Days rowing with Oars: and thither is Myrrh collected by the Trogloditæ. Before this Harbour are two Islands, named Pseudopylæ; and as many further within, called Pylæ; in one of them are some Pillars of Stone, engraved with unknown Characters. Beyond this is the Bay Abalites: the Island Diodori, and others lying Desert. Also along the Continent there is much Wilderness; the Town Gaza; the Promontory and Port Mossylites, unto which Cinnamon is brought. Thus far marched *Sesostris* with his Army. Some Writers place one Town of Ethiopia beyond this, on the Sea-side, called Baradaza. *Juba* would have the Atlantic Sea to begin at the Promontory Mossylites; on which Sea a Man may Sail with a north-west Wind, by the Coasts of his Kingdoms of Mauritania to Gades: and the whole of his Opinion cannot be contradicted

on this point. From a Promontory of the Indians called Lepteacra, and by others Drepanum, to the Isle of Malchu, he layeth it down that by a straight Course it is 1500 Miles, beside those Parts that are burnt up. From thence to a place called Sceneos is 225 Miles: and from it to the Island Sadanum, 150 Miles: and thus it is made to the open Sea 1885 Miles. But all other Writers have been of opinion that there could not be any Sailing on it, for the exceeding Heat of the Sun. Moreover, the Arabians named Ascitæ do much harm from the Islands to the Trade: for these Arabians join Bottles made of Ox Leather, two and two together, as if they were a Bridge, and exercise Piracy by shooting their Poisoned Arrows. The same *Juba* writeth, that there are Nations of the Trogloditæ, named Therothoes, from their huntings, of wonderful Swiftmess: as the Ichthyophagi from Swimming, as if they were Water Creatures. He nameth also the Bargeni, Zageræ, Chalybæ, Saxinæ, Syrecæ, Daremæ, and Domazanes. Also he affirmeth, that the People inhabiting along the Sides of the Nile, from Syenè to Meroë, are not Æthiopians, but Arabians, who for the sake of Fresh Water approached the Nile, and there dwelt: as also that the City of the Sun,¹ which we said before in the Description of Egypt, standeth not far from Memphis, was founded by the Arabians. There are some also who assign the further side of the Nile to Africa and not to Ethiopia. But leaving every Man to his own Pleasure, we will set down the Towns on both sides in that order in which they are declared. And to begin with that side toward Arabia, after you are past Syenè, is the Nation of the Catadupi; and then the Syenitæ. The Towns Tacompson, which some have called Thatice, Aranium, Sesanium, Sandura, Nasaudum, Anadoma, Cumara, Beda and Bochiana, Leuphi-

¹ "City of the Sun," or Heliopolis. This is the Egyptian city, of which the father of the patriarch Joseph's wife was priest. It may have proceeded from the Arabian descent of the people of this place, that the worship of the sun was more agreeable to the disposition of the minds of the inhabitants, than that of any of the animal deities, which obtained so much favour in other cities of Egypt.—*Wern. Club.*

thorga, Tantarenè, Mæchindira, Noa, Gophoa, Gystatæ, Megeda, Lea, Rhemnia, Nupsia, Direa, Pataga, Bagada, Dumana, Rhadata, in which a Golden Cat is worshipped as a God. Boron in the Midland part, and Mallos, the next Town to Meroë. Thus hath *Bion* set them down. But King *Juba* hath arranged them otherwise. Megatichos, a Town on a Mountain between Egypt and Ethiopia, which the Arabians call Myrson; next to it Tacompson, Aranium, Sesanium, Pidè, Mamuda, and Coranibis; near it a Fountain of Bitumen: Hammodara, Prosda, Parenta, Mama, Thesara, Gallæ, Zoton, Graucome, Emeum, Pidibotæ, Hebdomcontacomertæ, and the Nomades, who live in Tents. Cystè, Pemma, Gadagalè, Paloïs, Primmis, Nupsis, Daselis, Patis, Gambrenes, Magases, Segasmala, Cranda, Denna, Cadeuma, Thena, Batha, Alana, Macum, Scammos, and Gora within a Island. Beyond these Abala, Androcalis, Seres, Mallos, and Agocè. On the Side of Africa they are reckoned in this way: another Tacompsos, with the same Name or perhaps a part of the former: then, Magora, Sëa, Edosa, Pelenaria, Pyndis, Magusa, Bauma, Linitima, Spynuma, Sydopta, Gensoa, Pindicitora, Eugoa, Orsima, Suasa, Mauma, Rhuma, Urbubuma, Mulona, which Town the Greeks call Hypaton; Pagoargas, Zamnes; and there begin the Elephants to come in; Mambliä, Berresa, Cetuma. There was formerly a Town named Epis, overagainst Meroë, but destroyed before *Bion* wrote. These were recorded until you come to Meroë; of which at this Day scarcely anything is to be found on either side. The remainder is a Wilderness, by report made to the Prince *Nero* by the Prætorian Soldiers sent thither from him under the Command of a Tribune, to make Discoveries: at the time when amongst his other Wars, he thought of an Expedition against the Ethiopians. But in the Days of *Divus Augustus*, the Roman Arms penetrated thither under the conduct of *Publius Petronius*, a Knight of Rome, and Prefect of Egypt. He conquered all those Towns in Ethiopia, which he found in this order following; Pselcis, Primis, Aboccis, Phthuris, Canbusis, Attena, Stadissis, where the River Nile casteth itself

down with such a Noise that the Inhabitants living close by lose their Hearing. He won also Napata. He marched forward a great way into the Country, even 870 Miles beyond Syenè; but this Roman Army laid not all Waste in those parts. It was the Egyptian Wars that wasted Ethiopia; sometimes by Ruling, and at others by Servitude; it was Illustrious and Powerful until the Reign of King *Memnon*, who ruled in the Time of the Trojan War, so that Syria was subject to it; as also our own Coast in the Time of King *Cepheus*, as appeareth by the Fables of *Andromeda*. In the same manner they disagree about the Measure of Ethiopia. And first, *Dalion* passing far beyond Meroë; after him, *Aristocreon*, *Bion*, and *Basilis*; also *Simonides* (the Lesser) who dwelt in Meroë Five Years, when he wrote of Ethiopia. *Timosthenes*, the Admiral of the Fleet of *Philadelphus*, hath left in record, that from Syenè to Meroë is Sixty Days' Journey, without particularizing the Measure. But *Eratostrhenes* precisely noteth, that it is 625 Miles: *Artemidorus*, 600. *Sebostus* affirmeth, that from the Frontiers of Egypt it is 1675 Miles; from whence the last rehearsed Writers count 1270. But all this difference is lately determined by the Report of those Travellers whom *Nero* sent to Discover those Countries, who have related that it is 862 Miles from Syenè in this manner: from Syenè to Hiera-Sycaminon, Fifty-four Miles; from thence to Tama, Seventy-five Miles; from Tama to the Euonymites Country, the first of the Ethiopians, 120; to Acina, Fifty-four; to Pitara, Twenty-five; to Tergedum, 106 Miles. That in the midst of this Tract lieth the Island Gagandus, where they first saw the Birds called Parrots; and beyond another Island called Attigula they saw Monkeys; beyond Tergedum they met with the Creatures Cynocephali. From thence to Napata Eighty Miles, which is the only little Town among all the beforenamed; from which to the Island Meroë is 360 Miles. They reported, moreover, that about Meroë, and not before, the Herbs appeared greener; and the Woods shewed somewhat in comparison of all the way besides; and they espied the Tracts of Elephants and Rhinoceroses. The Town itself of Meroë was from the

Entry of the Island Seventy Miles, and just by, there was another Island called Tatu, which formed a Port for them that approached by the Channel on the Right. The Buildings within the Town were few; the Isle was subject to a Queen named *Candaocè*,¹ a name that for many years already hath passed in succession from one Queen to another. Within this Town is the Shrine of *Hammon* for Devotion; and in all that Tract many Chapels. Finally, so long as the Ethiopians were powerful this Island was very famous. For by report, they were accustomed to furnish of Armed Men 250,000, and to maintain of Artisans 400,000. Also it is at this day reported that there have been Forty-five Kings of the Ethiopians.

CHAPTER XXX.

*The Manifold and Wonderful Forms of Men.*²

BUT the Nation in general was in old time called *Ætheria*; ³ afterwards *Atlantia*; and finally from *Vulcan's* Son *Æthiops*, it took the name of *Ethiopia*. It is no wonder, that about the remote Borders of it there are produced both Men and Beasts of monstrous Shapes, considering the Agility of the Fiery Heat to frame Bodies and carve them into strange Shapes. It is reported by some, that far within the Country eastward there are Nations without Noses, but having their Visage all Plain and Flat: that others are without any Upper Lip, and some without Tongues; also, there is a kind of them that have the Mouth grown together, and are without Nostrils; so that at the same Orifice only they take in Breath, receive Drink by drawing it in through an Oaten Straw, and Feed themselves with the Grains of Oats which grow of their own accord for their Food. Others there are, who instead of Speech make Signs by nodding their Heads, and moving their Limbs. There are also some that before the Time of *Ptolemæus Lathyrus*

¹ See Acts of Apostles, viii. 27.

² See further, Book vii. c. 2.

³ As all Pliny's authors were Greek or Roman, he was ignorant that a much more ancient name was Cush.—*Wern. Club.*

King of Egypt, knew no use of Fire. Some Writers have reported, that in the Country near the Marshes from whence the Nile hath its Source there inhabit a Nation of Pygmei. But where we left off there is a continual range of Mountains, all Red, as if they were Burning. Beyond Meroë there is a Country lying above the Trogloditæ and the Red Sea; where Three Days' Journey from Napata toward the Red Sea, in most places they save Rain Water for their ordinary Use; all the Country between is very abundant in Gold. All beyond this Region is Inhabited by the Atabuli, a People of Ethiopia. The Megabari, whom some have named Adiabaræ, lie overagainst Meroë, and have a Town bearing the Name of *Apollo*. Part of them are Nomades, who live on Elephant's Flesh. Just against them in a part of Africa are the Macrobbii. Again, beyond the Megabari are the Memnones and Daveli; and Twenty Days' Journey from them the Critensi. Beyond them are the Dochi and the Gymnites, who are always naked. Soon after you find the Anderæ, Mathitæ, Mesagebes, Hipporeæ, of a Black Colour, but who paint their Bodies with a kind of Red Chalk called Rubrica. But upon a part of Africa are the Medimni; beyond them are Nomades, who feed on the Milk of Cynocephali: and the Olabi and Syrbotæ, who are reported to be Eight Cubits high. *Aristocreon* saith, that on the side of Libya, Five Days' Journey from Meroë, there is a Town called Tolè; and Twelve Days' Journey from thence is Esar, a Town of the Egyptians, who fled from *Psammeticus*. It is reported, that they have lived in it for 300 Years; another Town of theirs called Daronis, on the opposite side, on the Coast of Arabia. But that which *Aristocreon* nameth Esar, *Bion* calleth Sapa; and he saith, the very word signifieth Strangers come from other parts. Their Capital City is within the Island Sembobitis; and Sai in Arabia is the Third. Between the Mountains and the Nile are the Symbari and the Phalanges; but upon the Mountains themselves live the Asachæ, with many Nations; and they are by report Seven Days' Journey from the Sea. They live by Hunting Elephants. The Island in the Nile, of the Semberritæ, is

subject to a Queen. Eight Days' Journey from thence lieth the Country of the Ethiopians, named Nubæi. Their Town Tenupsis is seated upon the Nile. The Sambri, where all the Four-footed Beasts, and even the very Elephants, are without Ears. Upon the Border of Africa inhabit the Ptœambati and Ptœmphænæ, who have a Dog for their King, and they judge of his imperial Commands by his Motion. Their City is Auruspi, far distant from the Nile. Beyond them are the Achisarmi, Phaliges, Marigeri, and Casamarri. *Bion* says, that beyond Psembobitis, there are other Towns in the Islands toward Meroë, for Twenty Days' Journey. The Town of the next Island is Semberritarum, under a Queen; another called Asar; and there is a second Island having in it the Town Daron; they call the third Medoë, wherein standeth the Town Asel; and a fourth named Garodè, as the Town is also. Then along the Banks, the Towns, Navos, Modunda, Andatis, Setundum, Colligat, Secandè, Navectabè, Cumi, Agrospi, Ægipa, Candrogari, Araba, and Summara. The Region above Sirbitum, where the Mountains end, is reported by some to have upon the Sea-coast Ethiopians called Nisicastes and Nisitæ, which means Men with Three and Four Eyes; not because they are so furnished, but because they are excellent Archers. *Bion* affirmeth, moreover, that from that part of the Nile which stretcheth above the Greater Syrtes, toward the Southern Ocean, they are called Dalion, who use Rain-water only; and the Cisori and Longopori. Beyond Oecalices for Five Days' Journey, the Usibalci, Isuëles, Pharusi, Valii, and Cispil. The rest is desert. But then he telleth fabulous Tales: as that westward there are People called Nigræ, whose King hath but one Eye, and that in the midst of his Forehead: also, there are the Agriophagi, who live chiefly on the Flesh of Panthers and Lions; the Pomphagi, who Eat all things; the Anthropophagi, that Feed on Man's Flesh; the Cynamolgi, who have Heads like Dogs; the Artabatitæ, who wander about like Four-footed Savage Beasts. Beyond whom are the Hesperii and Peroesi, who, as we said before, are planted in

the Confines of Mauritania. In certain parts of Ethiopia the People live on Locusts only,¹ which they preserve with Salt, and hang up in Smoke to harden, for their yearly Provision; and these live not above Forty Years at the most. *Agrippa* saith that all the Land of Ethiopia, with the Red Sea, containeth in Length 2170 Miles: and in Breadth, together with the higher Egypt, 1291. Some have taken the Breadth in this manner; from Meroë to Sirbitum, Twelve Days' Navigation; from thence to the Davelli, Twelve; and from them to the Ethiopian Ocean, a Journey of Six Days. But on the whole all Writers in a manner agree that between the Ocean and Meroë it is 725 Miles; and from thence to Syenè, as much as we have set down before. The Situation of Ethiopia lieth South-east and South-west. In the exact South, Woods of Ebony chiefly flourish; toward the midst of this Region, there is a lofty Mountain looking over the Sea, that burneth continually, which the Greeks call Theon-ochema; from which it is counted Four Days' Sail to the Promontory called Hesperion-Ceras,² on the border of Africa, near to the Hesperian Ethiopians. Some Writers hold, that this Tract is beautified with little Hills, pleasantly clad with shady Groves, wherein are the Ægipanæ and Satyri.

¹ That locusts should form a portion of the food of the people who live where they abound, cannot be regarded as surprising. John the Baptist fed on them, Matt. iii. 4, and Mark, i. 6. They are still occasionally used for food in the East. When Khosru Purwis (Chosroes), the Sassanian king of Persia, was summoned by Mohammed to adopt his doctrine, he contemptuously dismissed the messengers of a chief of "naked locust-eaters." The Arabs eat the different species of the migratory locusts, and are very fond of them, especially of the red locust, which when fat is called *Jerád mikken*. They eat them either fried or broiled, or dried in an oven, or boiled with a sprinkle of salt; the locusts taste like dried sprats. The female locust when fat and full of eggs, is a great dainty, and greatly esteemed by the male population on account of its aphrodisiac qualities. (Niebuhr, *Beschreibung von Arabien*, p. 170, &c.)
— *Wern. Club*.

² Cap de Bonne Esperance.

CHAPTER XXXI.

The Islands of the Ethiopian Sea.

EPHORUS, *Eudoxus*, and *Timosthenes* agree, that there are very many Islands in all that Sea. *Clitarchus* witnesseth, that report was made to *Alexander* the King, of one which was so rich, that for Horses the Inhabitants would give Talents of Gold; also of another, wherein was a sacred Mountain adorned with a shady Wood, where the Trees distilled Odours of wonderful Sweetness. Overagainst the Persian Gulf lieth the Island named Cernè, opposite to Ethiopia; but how large it is, or how far off from the Continent, is not certainly known: but this is reported, that the Ethiopians only inhabit it. *Euphorus* writeth, that they who would Sail thither from the Red Sea, are not able, from the extreme Heat, to pass beyond certain Columns; for so they call the little Islands there. But *Polybius* affirmeth, that this Island Cernè, where it lieth in the utmost Coast of Mauritania, overagainst the Mountain Atlas, is but Eight Stadia from the Land. On the other hand, *Nepos Cornelius* affirmeth, that it is not above a Mile from the Land, overagainst Carthage; and that it is not above Two Miles in Circuit. There is mention made also of another Island before the Mountain Atlas, and which is named Atlantis. And Five Days' Sailing from it are the Deserts of the Ethiopian Hesperians, and a Promontory, which we have named Hesperion-Ceras; where the Coasts of the Land begin first to turn about their front to the westward, and the Atlantic Sea. Overagainst this Promontory, as *Xenophon Lampsacenus* reporteth, lie the Islands called Gorgates, where formerly the Gorgani kept their Habitation, two Days' Sailing from the Continent. *Hanno*, Commander of the Carthaginians (Pœni), penetrated to them, and reported that the Women were all over their Bodies hairy; and that the Men were so Swift of Foot that they escaped from him; but he placed the Skins of two of these Gorgon Women in the Temple of Juno, for a Testimonial, and as a Wonder, and

they were seen there until Carthage was taken. Beyond these Isles also there are said to be two Islands of Hesperides. But so uncertain are all things concerning these parts, that *Staius Sebosus* affirmeth, it is Forty Days' Sailing from the Islands of the Gorgones along the Coast of Atlas, to the Isles of the Hesperides; and from thence to Hesperion-Ceras, one. As little certainty there is concerning the Islands of Mauritania. In this only they all agree, that *Juba* discovered some few of them over against the Autololes, in which he purposed to dye Gætulian Purple.¹

CHAPTER XXXII.

Of the Fortunate Islands.

SOME Authors think, that the Fortunate Islands, and some others besides them, are beyond the Autololes; among whom the same *Sebosus* spoke of their Distances: and particularly that the Island Junonia is from Gades 750 Miles; and that from it westward the Isles Pluvialia and Capraria are as much: also that in the Island Pluvialia there is no Water but what they have by Showers. From them to the Fortunate Islands is 250 Miles; they lie eight Miles from the Coast of Mauritania to the Left Hand, called the Coast of the Sun, in a Valley, because it is like a Valley or Hollow; and it is also called Planaria, as resembling an even Plain. This Valley containeth in Circuit 300 Miles: wherein are Trees so luxuriant that they grow to the Height of 144 Feet. Concerning the Islands named Fortunate, *Juba* learned by diligent inquiry, that they lie from the South near to the West 625 Miles from the Islands Purpurariæ: so that to Sail thither a Man must pass 250 Miles above the West, and then for 75 Miles bend his course Eastward. He saith, moreover, that the first of these Islands is called Ombrion, wherein are no Tokens of Houses. Also that among the Mountains it hath a Marsh; and Trees resembling the Plant *Ferula*, out of which they press Water: that which

¹ On which account in the next chapter these islands are called Purpureæ.—*Wern. Club.*

issueth out of the Black Trees being bitter, and that from the Whiter sort sweet and potable. He saith that a second Island is named Junonia, in which there is one little House, or Chapel, made of Stone: beyond it, but near by there is a third of the same Name, but less in size: and then you come to one called Capraria, full of great Lizards. Within sight of these is the Island Nivaria, which took this Name from the Snow that lieth there continually; it is also full of Mists. The next to it is Canaria, so called from the great number of very large Dogs, of which *Juba* brought away two: and in this Island there are some marks remaining of Buildings. And as all these Islands abound plentifully with fruitful Trees and Birds of all sorts, so this is replenished with Palm-trees that bear Abundance of Dates, and likewise with Trees that yield Pine Nuts. There is also great plenty of Honey: and the Rivers produce the Papyrus Reed, and are well stored with the Fish *Silurus*: and in conclusion he saith, that these Islands are much infested with great Animals, that are very often cast out in a Putrid Condition. Thus having at large gone through the Description of the Globe of the Earth, as well without as within, it remaineth now to collect into a small space the measure of the Seas.

CHAPTER XXXIII.

A Summary of the Earth, digested according to its Dimensions.

POLYBIUS layeth it down, that from the Straits of Gibraltar by a straight Course to the Mouth of Mæotis is 3437½ Miles. From the same starting-place by a right Course eastward to Sicily, it is 1260½ Miles; to Crete, 375 Miles; to Rhodes, 146½ Miles; to the Chelidonian Islands as much; to Cyprus, 325 Miles; from whence to Seleucia Pieria in Syria, 115 Miles. Which computation makes the sum of 2340 Miles. *Agrippa* also counteth 3440 Miles for all this distance from the Straits of Gibraltar directly forward to the Gulf of Issa. In which reckoning I scarcely know whether there be an error in the number, because the same Writer

hath set down the passage from the Sicilian Strait to Alexandria at 1250 Miles. But the whole Circuit through the above-said Gulfs, from the point where we began to the Lake Mœotis, summed together, is 15,600 Miles. *Artemidorus* added thereto 756 Miles. And the same Geographer writeth, that with Mœotis it cometh to 17,390 Miles. This is the measure of unarmed Men, and the peaceful boldness of such as have not feared to provoke Fortune. Now are we to compare the greatness of each part, in spite of the Difficulty produced by the Disagreement of Authors. But most easily will this appear if we join Longitude and Latitude together. According to this prescribed rule the Magnitude of Europe is 8148 Miles. Africa (taking the middle Computation between them all that have set it down) containeth in Length 3748 Miles. The Breadth of so much as is inhabited in no Place exceedeth 250 Miles. *Agrippa* would have it to contain 910 Miles in Breadth, beginning at the Bounds of Cyrenè, and comprehending in this Measure the Deserts thereof as far as to the Garamantæ, so far as they are known; and then the whole Measure collected into one sum amounted to 4608 Miles. Asia¹ is allowed to be in Length 63,750 Miles; and its Breadth is truly reckoned from the Ethiopian Sea to Alexandria, situated near the Nile, so that the Measurement runs through Meroë and Syrene, 1875 Miles; whereby it appeareth that Europe is little wanting of being half as large again as Asia: and the same Europe is twice as much again as all Africa, and a sixth part over. Reduce now all these sums together, and it will be found clear that Europe is a third part of the whole Earth, and something more than an eighth Portion over; Asia a fourth part, with a fourteenth; and Africa a fifth, with an over-plus of a sixtieth portion. To this Calculation we will add one sentence of Greek invention, which sheweth

¹ Pliny's ignorance of the extent of Africa is pardonable, for he knew no more of it than the small portion which had come under the Roman dominion; but in his account of Asia he contradicts what he has already assigned to India, which is only a part of it, but which he truly represented to be larger than Europe.—*Wern. Club.*

their exquisite subtilty, in order that we may omit nothing in this view of the Situation of the Earth; that when the Position of every Region is known, a Man may likewise come to the knowledge of what Society there is between one and the other, either of the agreement of the Length of Days and Nights, by the Shadows at Noonday, or by the equal Convexity of the World. To bring this about effectually, I must arrange the whole Earth into certain Portions of the Heaven; for there are very many of those Divisions of the World which our Astronomers call Circles, and the Greeks, Parallels.

CHAPTER XXXIV.

The Arrangement of the Earth into Parallels and equal Shadows.

THE beginning is at that part of India which turns to the South. It extends as far as Arabia and the Inhabitants of the Red Sea. Under it are comprised the Gedrosi, Persæ, Carmani, and Elimæi; Parthyenè, Aria, Susianè, Mesopotamia, Seleucia, surnamed Babylonia; Arabia, so far as Petrà, Cœle-Syria, and Pelusium in Egypt; the Lower Coasts, which are called of Alexandria; the Maritime Parts of Africa; all the Towns of Cyrenaica, Thapsus, Adrumentum, Clupea, Carthago, Utica, both Hippos, Numidia, both Realms of Mauritania, the Atlantic Sea, and Hercules' Pillars. In all the Circumference of this Heaven, at Noon-tide of an Equinoctial Day, the Umbilicus, which they call Gnomon, seven Feet Long, casteth a Shadow not above the Length of four Feet. The Longest Night or Day is fourteen Hours; and the shortest, ten. The following Circle beginneth from India, tending westward, and passeth through the midst of Parthia, Persepolis, the nearest parts of Persis, the nearer Arabia, Judæa, and the Borders of the Mountain Libanus. It embraceth Babylon, Idumæa, Samaria, Hierusolyma, Ascalon, Joppè, Cæsarea, Phœnicè, Ptolemais, Sydon, Tyrus, Berytrus, Botrys, Tripolis, Byblus, Antiochia, Laodicea, Seleucia, the Sea-coasts of Cilicia, Cyprus, the South Part of Creta, Lilybeum in Sinalia, the North Parts

of Africa and Numidia. The Gnomon upon the Equinoctial Day, thirty-five Feet in Length, maketh a Shadow twenty-four Feet Long. The Longest Day or Night is fourteen Hours Equinoctial, and the fifth part of an Hour. The third Circle beginneth at the Indians next to the Imaus, and goeth by the Caspian Gates very near to Media, Cataonia, Cappadocia, Taurus, Amanus, Issus, the Cilician Gates, Soli, Tarsus, Cyprus, Pisidia, Syddè in Pamphilia, Lycaonia, Patara in Lycia, Xanthus, Caunus, Rhodus, Coüs, Halicarnassus, Gnidus, Doris, Chius, Delus, the Middle Cyclades, Gytthium, Malea, Argos, Laconia, Elis, Olympia, Messenè, Peloponnesus, Syracuse, Catina, the Midst of Sicily, the South Part of Sardinia, Carteia, and Gades. The Gnomon of one hundred Inches yieldeth a Shadow of seventy-seven Inches. The Longest Day hath Equinoctial Hours fourteen and a half, with the thirtieth part of an Hour. Under the fourth Circle lie those who are on the other Side of Imaus, the South Parts of Cappadocia, Galatia, Mysia, Sardis, Smyrna, Sipylus, the Mountain Tmolus in Lydia, Caria, Ionia, Trallis, Colophon, Ephesus, Miletus, Samos, Chios, the Icarian Sea, the Northern Cyclades, Athens, Megara, Corinthus, Sicyon, Achæa, Patræ, Isthmos, Epirus, the North Parts of Sicily, Narbonensis Gallia toward the East,¹ the Maritime Parts of Spain beyond New Carthage, and so to the West. To a Gnomon of twenty-one feet the Shadows answer of seventeen Feet. The Longest Day is fourteen Equinoctial Hours, and two-third parts of an Hour. The fifth Division containeth from the Entrance of the Caspian Sea, Bactra, Iberia, Armenia, Mysia, Phrygia, Hellespontus, Troas, Tenedus, Abydus, Scepsis, Ilium, the Mountain Ida, Cyzicum, Lampsacum, Sinopè, Amisum, Heraclea in Pontus, Paphlagonia, Lemnus, Imbrus, Thasus, Cassandria, Thessalia, Macedonia, Larissa, Amphipolis, Thessalonicè, Pella, Edessa, Beræa, Pharsalia, Carystum, Eubœa, Bœotia, Chalcis, Delphi, Acarnania, Ætolia, Apollonia, Brundisium, Tarentum, Thurii, Locri, Rhegium, Lucani, Neapolis, Pu-

¹ Languedoc.

teoli, the Tuscan Sea, Corsica, the Baleares, the Middle of Spain. A Gnomon of seven Feet giveth six of Shadow. The Longest Day is fifteen Equinoctial Hours. The sixth Parallel compriseth the City of Rome, and containeth the Caspian Nations, Caucasus, the North Parts of Armenia, Apollonia upon Rhindacus, Nicomedia, Nicæa, Chalcedon, Byzantium, Lysimachia, Cherrhonesus, the Gulf Melanè, Abdera, Samothracia, Maronea, Ænus, Bessica, the Midland Parts of Thracia, Pœonia, the Illyrii, Dyrrhachium, Canusium, the utmost Coasts of Apulia, Campania, Hetruria, Pisæ, Luna, Luca, Genua, Liguria, Antipolis, Massilia, Narbon, Tarracon, the Middle of Spain called Tarraconensis, and thence through Lusitania. To a Gnomon of nine Feet the Shadow is eight Feet. The Longest Day hath fifteen Equinoctial Hours and the ninth part of an Hour, or the fifth, as *Nigidius* is of opinion. The seventh Division be- ginneth at the other Coast of the Caspian Sea, and falleth upon Callatis, Bosphorus, Borysthenes, Tomos, the Back Parts of Thracia, the Tribali, the rest of Illyricum, the Adriatic Sea, Aquileia, Altinum, Venetia, Vicetia, Patavium, Verona, Cremona, Ravenna, Ancona, Picenum, Marsi, Peligni, Sabini, Umbria, Ariminum, Bononia, Placentia, Mediolanum, and all beyond Apenninum: also over the Alps, Aquitaine in Gaul, Vienna, Pyrenæum, and Celtiberia. The Gnomon of thirty-five Feet casteth a Shadow thirty-six Feet in Length; yet so, that in some part of Venetia the Shadow is equal to the Gnomon. The Longest Day is fifteen Equinoctial Hours, and three-fifth parts of an hour. Hitherto we have reported the exact Labours of the Ancients. But the most diligent Modern Writers have assigned the rest of the Earth not as yet specified, to three Sections. (The first) from Tanais through the Lake Mœotis and the Sarmatæ, all the way to Borysthenes, and so by the Daci and a part of Germany, the Galliæ, and the Coasts of the surrounding Ocean, where the Day is sixteen Hours long. A second, through the Hyperborei and Britannia, where the Day is seventeen Hours long. Last of all, is the Scythian Parallel, from the Rhiphean Hills unto Thulè: in which (as

we have said) it is Day and Night continually by turns. The same Writers have set down two Circles, before those Points where the others began, and which we set down. The first through the Island Meroë, and Ptolemais upon the Red Sea, built for the Hunting of Elephants; where the Longest Day is but twelve Hours and an half: the second passing through Syenè in Egypt, where the Day hath thirteen Hours. And the same Authors have put to every one of the other Circles, even to the very last, half an Hour more.

THUS MUCH OF THE EARTH.



IN THE SEVENTH BOOK

ARE CONTAINED

THE WONDERFUL SHAPES OF MEN IN VARIOUS COUNTRIES.

CHAP.

1. Strange Forms of many Nations.
2. Of the Scythians, and other People of different Countries.
3. Of Monstrosities.
4. The Transmutation of the Sexes and of Twins.
5. De Hominis Generando.
6. De Conceptibus, et Signa Sexus in gravidis præventia Partum.
7. De Conceptu Hominum et Generatione.
8. De Agrippis.
9. Monstruosi Partus excisi Utero.
10. Qui sunt Vopisci.
11. Exempla numerosæ Sobolis.
12. Examples of those that were like one to another.
13. Quæ sit Generandi Ratio.
14. De eodem multiplicius.
15. De Menstruis Mulierum.
16. Item de Ratione Partuum.
17. The Proportion of the Parts of Man's Body, and Things therein observed.
18. Examples of extraordinary Shapes.
19. Remarkable Natures of Men.
20. Of bodily Strength and Swift-ness.
21. Of excellent Sight.
22. Who excelled in Hearing.

CHAP.

23. Examples of Patience.
24. Examples of Memory.
25. The Praise of *C. Julius Cæsar*.
26. The Praise of *Pompey* the Great.
27. The Praise of *Cato* the Elder.
28. Of Valour and Fortitude.
29. Of notable Abilities, or the Praises of some for their singular Talents.
30. Of *Plato*, *Ennius*, *Virgil*, *M. Varro*, and *M. Cicero*.
31. Of Majesty in Behaviour.
32. Of Authority.
33. Of certain Divine Persons.
34. Of (*Scipio*) *Nasica*.
35. Of Chastity.
36. Of Piety (Natural Kindness).
37. Of Excellency in many Sciences; in Astrology, Grammar, Geometry, &c.
38. Also, Rare Pieces of Work made by Artificers.
39. Of Servants and Slaves.
40. The Excellency of Nations.
41. Of perfect Contentment.
42. Examples of the Variety of Fortune.
43. Of those that were twice outlawed and banished: of *L. Sylla* and *Q. Metellus*.
44. Of another *Metellus*.
45. Of the Emperor *Augustus*.

CHAP.	CHAP.
46. Of Men deemed most happy by the Gods.	they were carried forth (to be buried).
47. Who was ordered to be worshipped as a God while he lived.	53. Of sudden Death.
48. Of those that lived longer than others.	54. Of Sepulchres and Burials.
49. Of different Nativities of Men.	55. Of the Soul: or the Manes.
50. Many Examples of strange Accidents in Sickness.	56. The first Inventors of many Things.
51. Of the Signs of Death.	57. Wherein all Nations first agreed.
52. Of those that revived when	58. Of ancient Letters.
	59. The Beginning of Barbers at Rome.
	60. When first Dials.

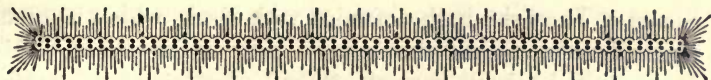
In sum, there are in this Book, of Histories and Observations, 747.

LATIN AUTHORS ABSTRACTED :

Verrius Flaccus, Cn. Gellius, Licinius Mutianus, Mutius, Massurius, Agrippina wife of Claudius, M. Cicero, Asinius Pollio, Messala, Rufus, Cornelius Nepos, Virgil, Livy, Cordus, Melissus, Sebosus, Cornelius Celsus, Maximus Valerius, Trogus, Nigidius Figulus, Pomponius Atticus, Pedianus Asconius, Sabinus, Cato Censorius, Fabius Vestalis.

FOREIGN WRITERS :

Herodotus, Aristeas, Beto, Isigonus, Crates, Agatharcides, Calliphanes, Aristotle, Nymphodorus, Apollonides, Philarchus, Damon, Megasthenes, Ctesias, Tauron, Eudoxus, Onesicritus, Clitarchus, Duris, Artemidorus, Hippocrates the Physician, Asclepiander the Physician, Hesiodus, Anacreon, Theopompus, Hellanicus, Damasthes, Ephorus, Epigenes, Berosus, Pessiris, Necepsus, Alexander Polyhistor, Xenophon, Callimachus, Democritus, Duilius, Polyhistor the Historian, Strato who wrote against the Propositions and Theorems of Ephorus, Heraclides Ponticus, Asclepiades who wrote Tragedy, Philostephanus, Hegesias, Archimachus, Thucydides, Mnesigiton, Xenagoras, Metrodorus Scepsius, Anticlides, and Critodemus.



THE SEVENTH BOOK
OF THE
HISTORY OF NATURE,

WRITTEN BY

C. PLINIUS SECUNDUS.

THE PREFACE.

THUS we have in the former Books treated of the World, and of the Lands, Nations, Seas, Islands, and remarkable Cities therein contained. It remaineth now to discourse of the Nature of the Living Creatures comprised within the same: a point which would require as deep a Contemplation as any other Part whatsoever, if the Mind of Man were able to comprehend all the Things. By right the chief place is assigned to Man, for whose sake it appears that Nature produced all other Creatures; though this great favour of hers is severe as set against all her other Gifts: so that it is hard to judge whether she is a kinder Parent to Man, or a cruel Step-mother. For, in preference to all other Living Creatures, the one she hath clothed with the Riches of others: to the rest she hath assigned a variety of Coverings: as Shells, Barks, Hard Hides, Spines, Shag, Bristles, Hair, Feathers, Quills, Scales, and Fleeces. The Trunks and

Stems of Trees she hath defended with Bark, which is sometimes double, against the injuries both of Heat and Cold! Man alone she hath cast all Naked upon the bare Earth, even on his Birth-day, immediately to cry and lament: so that among so many Living Creatures there is none subject to shed Tears and Weep like him from the very onset of his Existence. And verily, however forward and active we may be, to no one is it given to laugh before he is Forty Days old. From this glimmering of Light he is bound fast, and hath no Member at liberty; a thing which is not practised upon the Young of any Wild Beast among us. The Child thus unhappily born, and who is to rule all other, lieth bound¹ Hand and Foot, weeping and crying; and receiveth the auspices of Life with Punishments, to make satisfaction for this only Fault, that he is born Alive. What madness in such as think this the proper Beginning of those who are born to be proud! The first Hope of our Strength, the first gift that Time affordeth us, maketh us no better than four-footed Beasts. How long ere we can go alone! How long before we can speak, feed ourselves! How long continueth the Crown of our Heads to palpitate,—the mark of our exceeding great weakness above all other Creatures! Then the Sickneses, and so many Medicines devised against these Maladies: besides the new Diseases that spring up to overcome us. Other Living Creatures understand their own Nature; some assume the use of their swift Feet, others of their Wings; some are Strong; others able to Swim; but Man knoweth nothing unless he be taught: not even to speak, or go, or eat: and, in short, he is naturally good at nothing but to weep. And hence some have insisted on it, that it is best for a man never to have been born, or else speedily to die. To one only, of living

¹ The artificial bandages inflicted on new-born children are the swaddling-clothes referred to in St. Luke's Gospel, c. ii. v. 7; but they can scarcely be numbered among the necessary evils of humanity, for they have long since been abolished in England. In the seventh chapter of this Book the Author dwells again on the littleness and misery of the human race.—*Wern. Club.*

Creatures is it given to mourn, one only is guilty of excess, and that in a vast variety of ways, and through every Member that he has. Who but we are ambitious? Who but we are avaricious? None but we possess the extravagant desire of living, are superstitious, anxious for our burial, and what shall be our fate when we are gone. To none is Life more frail; yet to no Creature is there a greater craving after every thing; none suffereth under a more terrifying Fear; and none more furious in his Rage. To conclude, other Animals live orderly according to their kind: we see them flock together, and stand against others of a contrary kind; the Lions, though savage, fight not one with another; Serpents sting not Serpents: and even the very Beasts and Fishes of the Sea war not upon their own kind: but, by Hercules! the greatest part of the evils that happen to Men are from the hand of Man himself.

CHAPTER I.

The wonderful Forms of Nations.

IN our reports of Nations we have spoken in general of the Human Race spread over the Face of the Earth. Neither is it our purpose at present to describe particularly all their numberless Customs and Manners of Life, which are as many as there are Assemblies of Men. However, I think it good not to omit all, but to make relation of some things concerning those People especially who live furthest from the Sea; among whom, I doubt not but I shall find such matter as to most Men will seem both prodigious and incredible. For whoever believed that there were Ethiopians before he saw them? what is it that seemeth not a Wonder at the First Sight? how many things are judged impossible before they are done? and the Power and Majesty of Nature in every particular action seemeth incredible, if we consider the same severally, and do not embrace the whole at once in the Mind. For, to say nothing of the Peacocks' Feathers, of the Spots of Tigers and Panthers, of the Colours that ornament so many Creatures

besides: let us come to one only point, which to speak of seemeth small, but being deeply weighed, is a matter of exceeding great regard; and that is, the Speech of so many Nations; so many Tongues; so much Variety of Utterance, that a Foreigner seems to be something different from a Man. Then to view the variety that appeareth in our Face and Countenance; although there be not more than Ten Members or a few more, among so many thousand of these, not Two Persons are to be found who are not distinct in Likeness: a thing which no Art can perform, in a small number out of so many. And yet thus much must I advertise my Readers, that I will not pawn my credit for many things that I shall deliver; but I will rather direct them to the Authors, who will answer them in all doubtful points: only let them not think much to follow the Greeks, whose Diligence hath been greater, and their Attention of longer standing.

CHAPTER II.

*Of the Scythians, and the Diversity of other Nations.*¹

THAT there are Scythians, and even many kinds of them, who feed ordinarily on Man's Flesh, we have shewn

¹ The belief of the ancients in the existence of many anomalous races of mankind, was a portion of the science of the age; and not to have given it credit, and a place in his work, would have subjected the author to as much reproach for scepticism, as the notice he has taken of them has done for his alledged credulity. And so far as Greek authority extended, the degree of credit which Pliny assigned to these strange races, appears to have been well founded; for except in one or two instances, the errors appear to have sprung from misinterpretation, rather than from a positive departure from truth. Aristotle is sufficient authority for the existence of a race of pigmies, who are also mentioned by Herodotus; and in more modern times that excellent naturalist Belon is satisfied concerning them. Nor can we, even now, refuse to admit the possibility of finding their representatives in the Bushmen still existing in Southern Africa. On the other hand, the existence of men of enormous stature, of which some stupendous instances are given by Pliny (b. vii. c. xvi.), is attested by profane as well as by sacred history. Thus Pau-

already, (Book iv. 12; vi. 1.) The thing itself would be thought incredible, if we did not consider that in the very Middle of the World, even in Sicily and Italy, there have been Nations of such Monsters, as the Cyclopæ and Lystrigonæ: and also very

sanas (in his "Atticks," quoted by Bishop Cumberland in his translation of Sanchoniatho) says, that he saw in the Upper Lydia bones whose figure would satisfy any man that they were men's bones, but their bigness was above the now known size of men. He also mentions the bones of Asterius, in the neighbouring country of the Milesians; giving the dimensions of his body to be no less than ten cubits long, and that he was the son of Anax; a name singularly corresponding with a race mentioned by Moses, and the sight of whom terrified and humbled the Israelitish spies. It is not a little strange, as Bishop Cumberland remarks, quoting from Cicero "de Natura Deorum," that there is reason to believe, one of the very ancient and gigantic persons known under the name of Hercules had six fingers on each hand, as is also noticed of the last descendants of this mighty race, in the second book of Samuel, c. xxi. The tradition that such enormous people existed in the early ages of the world is often referred to by Homer, and other ancient writers, who drew from thence the erroneous conclusion, that the whole human race had, since their day, become gradually weaker and more diminutive; whereas, in the only authentic history of these remote ages it is clearly intimated, that this vast stature was limited to particular families or nations, who even at that time were thought remarkable by all besides; and who were finally exterminated by their neighbours, perhaps as the only resource against their violence. The Macrocephali, or long heads, (mentioned b. vi. c. 4) may be supposed to have owed their peculiarity to the habit of employing pressure to mould their heads in early infancy into the compressed and elevated form, as is now practised by some tribes on the continent of America; and such as are mentioned with exceedingly short necks may, perhaps, have been marked only with a personal deformity; but the people with intensely black skin, to all of whom, however otherwise different, the ancients seem to have assigned indiscriminately the name of Ethiopians, are judged by Pliny to display a more remarkable phenomenon than all the strange forms he has occasion to notice; as we also should probably do, if living instances had not rendered it common. We may include in another section those singular examples of the human race, which the author supposes to be comprised in nations, but which are more probably reported as of rare or casual occurrence, or perhaps nothing beyond an accidental monstrosity. Such we know to be the case with the Albinos, with white hair and tender eyes; and perhaps also the monoculous king, and the Arimaspians, who are mentioned also by Herodotus, together with the other Cyclopæan

lately, on the other side of the Alps,¹ there are those that kill Men for Sacrifice, after the manner of those (Scythian) people, which differs but little from eating their Flesh. Moreover, near to those Scythians that inhabit Northward, not far from the very rising of the North-east Wind, and

people, whose singularities may have referred to some manner in the habitual use of the organ, rather than to an actual deformity. A third section of these supposed anomalous people may obviously be referred to the quadrumanous tribes: a class of creatures so nearly approaching to the external form of humanity, that we cannot feel surprised if ignorant travellers, who viewed only at a distance, and with minds prepared to welcome every wonder — the *oran outang* and *pongo* — were not able to discern a generic difference between them and the truly human race. Such were the hairy men and women mentioned in the 31st chapter of this book, the satyrs, *Choromandæ*, and people with no noses, or having tails, a figure of the latter being found on an *abraxaxis*, or amulet, engraved by *Montfauçon*; but through the whole of his narrative we observe that the author is careful to give his authorities, as being aware that what appeared so strange must be made to rest upon the credit of those who had originally reported it. Some of these instances, indeed, admit of no interpretation that we are able to afford them; but in regard to one of the strangest of them, *Purchas* gives the authority of *Fitch*, an Englishman: “I went from Bengala into the country of *Couchè*, not far from *Cauchin China*. The people have ears which be marvellous great, of a span long, which they draw out in length by devices when they be young.” In addition to the strange forms of men mentioned by *Pliny*, *Diodorus Siculus* mentions some in an island discovered by *Jambulus*, whose bones were as flexible as nerves (*tendons*): the holes of their ears far wider than ours; and with tongues deeply cloven, so that they imitate the song of birds, and can ordinarily speak to two men at once.—*Wern. Club.*

¹ The people here referred to are the Gauls. *Cæsar* (*de Bell. Gall. lib. vi.*) says, “The whole nation of the Gauls is much addicted to religious observances, and on that account, those who are attacked by any of the more serious diseases, and those who are involved in the danger of warfare, either offer human sacrifices or make a vow that they will offer them, and they employ the *Druids* to officiate at their sacrifices; for they consider that the favour of the immortal gods cannot be conciliated, unless the life of one man be offered up for that of another: they have also sacrifices of the same kind appointed on behalf of the state. Some have images of enormous size, the limbs of which they make of wicker-work, and fill with living men, and setting them on fire, the men are destroyed by the flames.”—*Wern. Club.*

about that Cave out of which that Wind is said to issue, which place they call Gesclithron, the Arimaspi are reported to dwell, who, as we have said,¹ are distinguished by having One Eye in the midst of their Forehead, and who are in constant War about the Mines with the Griffins,² a flying kind of Wild Beasts, which used to fetch Gold out of the Veins of those Mines; which savage Beasts (as many Authors have recorded, and particularly *Herodotus* and *Aristeas* the Proconnesian, two Writers of greatest Name) strive as eagerly to keep the Gold as the Arimaspi to snatch it from them. Above those other Scythians called Anthropophagi, there is a Country named Abarimon, within a certain extensive Valley of the Mountain Imaus, in which are Wild Men, wandering about among brute Beasts, and having their Feet directed backward behind the Calves of their Legs, but able to run very swiftly. This kind of Men cannot live in any other Climate than their own, which is the reason that they cannot be conveyed to the Kings that border upon them; nor could they be brought to *Alexander* the Great, as *Beton* hath reported, who was the Surveyor of the Journeys of that Prince. The former Anthropophagi whom we have placed in the North, Ten Days' Journey above the River Borysthenes, are accustomed to drink out of the Skulls of Men, and to wear the Skins with the Hair for Mantles before their Breasts, according to *Isigonus* the Nicean. The same Writer affirmeth, that in Albania there are produced certain Individuals who have the Sight of their Eyes of a bluish-grey Colour, who from their Childhood are grey-headed, and can see better by Night than by Day. He reporteth also that Ten Days' Journey above the Borysthenes, there are the Sauromatæ, who never eat but once in Three Days. *Crates* of Pergamus saith, that in Hellespont about Parium there was a kind of Men, whom he nameth Ophiogenes, who, if one were stung by a Serpent, with touching only will ease it; and if they lay their Hand upon the Wound, are able to

¹ Lib. iv. 12, and lib. vi. 17.

² The griffins are again mentioned, book x. chap. 49.—*Wern. Club.*

draw forth all the Poison from the Body. *Varro* also testifieth, that even at this Day there are a few who cure the Stinging of Serpents with their Spittle. *Agatharcides* writeth, that in Africa the *Psylli*,¹ who are so called from king *Psyllus*, whose Sepulchre is in a part of the Greater

¹ The earliest existing reference that we have to the *Psylli*, or serpent-charmers, is found in the 58th Psalm, the 8th verse; and the art is yet practised in the East. These men were, and still are, distinct tribes in their several countries, professing the power they claim to be an inherent and natural function. *Lucan*, in the 5th book of his "*Pharsalia*," gives a complete exposition of the ancient belief concerning the charming of serpents. He chiefly describes the measures which were taken to protect the Roman camp. When the encampment was marked out, the serpent-charmers marched around it chanting their charms, the mystic sounds of which chased the serpents far away. But not trusting entirely to this, fires of different kinds of wood were kept up beyond the furthest tents, the smell of which prevented the serpents from approaching. Thus the camp was protected during the night. But if any soldier when abroad in the day time happened to be bitten, the *Psylli* exerted their power to effect a cure. First they rubbed the wounded part around with saliva, to prevent, as they said, the poison from spreading while they assayed their arts to extract it:—

“Then sudden he begins the magic song,
And rolls the numbers hasty o'er his tongue;
Swift he runs on, nor pauses once for breath,
To stop the progress of approaching death;
He fears the cure might suffer by delay,
And life be lost but for a moment's stay.
Thus oft, though deep within the veins it lies,
By magic numbers chased, the mischief flies:
But if it hear too slow, if still it stay,
And scorn the potent charmer to obey;
With forceful lips he fastens on the wound,
Drains out and spits the venom to the ground.”—*Rowe*.

Lane ("*Modern Egyptian*") gives a particular account of the different methods made use of by the *Psylli* of the present day when exhibiting their supposed powers. As to the pretensions of ancient as well as modern serpent-charmers, of being in their own persons insensible to the poison of the reptiles, there is no satisfactory proof of it: indeed numerous instances to the contrary have occurred; and where they escape unharmed, it is to be attributed to the poison fangs having been previously extracted, or to their fearless handling of the deadly creatures.—See the note on *Ps. lvi. 5*, in the "*Pictorial Bible*," by *Dr. Kitto*.—*Wern. Club*.

Syrtes, could do the like. These Men had naturally in their Bodies a Poison fatal to Serpents, so that by the Smell of it they were able to stupify them. And by this means they used to try the Chastity of their Wives. For as soon as their Children were born, they exposed them to the most furious Serpents; for these would not fly from them if they were begotten in Adultery. This Nation, in general, hath been almost entirely extirpated by the Nasamonæ, who now inhabit those parts; but a kind of these Men remaineth still, descended from those who fled, or else who were not present when the Battle was fought; but they exist in small Companies. In like manner, the Nation of the Marsi continue in Italy, who preserve the Reputation of being descended from a Son of *Circè*, and therefore possess the same natural faculty. Yet so it is that all Men possess within them that which is Poison to Serpents: for it is reported they flee from Man's Spittle, as they do from the touch of Scalding Water; but if it penetrate into their Mouth, especially if it come from a Man that is fasting, it is present Death. Beyond the Nasamonæ, and their Neighbours the Machlyæ, there are Androgyni, of a double Nature, *inter se vicibus cõcuntes*, as *Calliphanes* reporteth. *Aristotle* adds, that their Right Breast is like that of a Man, and the Left that of a Woman. In the same Africa *Isigonus* and *Nymphodorus* avouch that there are certain Families of Charmers: who, if they praise, destroy the Sheep, cause the Trees to wither, and Infants to pine away to death. *Isigonus* addeth further, that there are People of the same kind among the Triballi and Illyrii, who charm with their Eyesight, and kill those whom they look upon for a long time, especially if their Eyes look angry: which Evil of theirs is more quickly felt by those who are above the age of Puberty. It is worthy of remark, that they have two Pupils in each Eye. Of this kind *Apolonides* saith, there are also Women in Scythia named Bithyæ. *Philarchus* witnesseth, that in Pontus also the Race of the Thibii, and many others, have the same Quality: of whom he giveth these marks, that in one of their Eyes they have two Pupils, and in the other the Resemblance of a

Horse. He reporteth also, that they cannot sink in the Water, not even if weighed down with Apparel. *Damon* reports that there is a sort of People not unlike these in Ethiopia, called Pharnaces, whose Sweat, if it chance to touch a Man's Body, presently causeth him to waste away. And *Cicero*,¹ a Writer of our own, testifieth, that all Women everywhere who have double Pupils in their Eyes inflict Injury with their Sight. In such manner Nature, having generated in Man this custom of Wild Beasts, to feed upon the Bowels of Men, hath taken Delight also to generate Poisons in their whole Body, and even in the very Eyes of some; that there should be no evil in the whole World, that might not be likewise found in Man. Not far from the City of Rome, within the Territory of the Falisci, there are a few Families called Hirpiæ, which at their Yearly Sacrifice celebrated to *Apollo* upon the Mount Soractè, walk upon the pile of Wood as it is on Fire without being burnt.² On which account, by a perpetual Act of the Senate, they possess an Immunity from War and all other Public Services. Some men have certain Parts of their Bodies naturally working surprising Effects. As for example, King *Pyrrhus*,³ whose Great Toe of his Right Foot was a Remedy by its

¹ This must have been in some of the lost works of Cicero, as no such opinion is found in any of his extant writings.—*Wern. Club.*

² The art of treading bare-foot on burning embers, red-hot iron, &c., which has its professors in the present day, is from this passage shewn to be of great antiquity; Virgil also alludes to the same when he speaks of the annual festival of the Hirpi on Mount Soracte, in Etruria, where Chlorcus, the priest of Cybele, thus addresses Apollo (*Æn.* xi. 785):—

“ O patron of Soractè's high abodes!

Phœbus, the ruling power among the gods!

Whom first we serve: whole woods of unctuous pine

Are fell'd for thee, and to thy glory shine;

By thee protected, with our naked soles,

Through flames unsinged we march, and tread the kindled coals.”

DRYDEN.—*Wern. Club.*

³ According to Plutarch, in his life of Pyrrhus, the person of this king was very extraordinary:—“ Instead of teeth in his upper jaw, he had one continued bone, marked with small lines resembling the divisions of a row

Touch for them that had Diseased Spleens. And they say, that when the rest of his Body was Burned that Great Toe could not be consumed: so that it was preserved in a little Case in the Temple. But principally India and the whole Tract of Ethiopia is full of these wonderful Things. The greatest Animals are bred in India, as will appear by their Dogs,¹ which are much greater than those of other Parts. And there are Trees growing in that Country to such a Height, that a Man cannot shoot an Arrow over them. The reason of this is the Goodness of the Soil, the Temperature of the Air, and the Abundance of Water: which is the cause also that under a single Fig-tree,² if it can be believed, Squadrons of Horsemen may stand. There are Reeds also of such Length³ that between every Joint they will yield sufficient to make Boats able to receive three Men. There are many Men there who are above five Cubits in Height: never do they Spit: they are not troubled with Pain in the Head, Toothache, or any Disease of the Eyes, and seldom of any other Parts of the Body; so hardy are they through the Moderate Heat of the Sun. There are certain Philosophers, whom they call Gymnosophistæ,⁴ who from Sunrising to its setting persevere in standing and looking full against the Sun without once

of teeth. It was believed that he cured the swelling of the spleen, by sacrificing a white cock, and with his right foot gently pressing the part affected, the patients lying on their backs for that purpose. There was no person, however poor or mean, to whom he refused this relief, if requested. He received no reward, except the cock for sacrifice; and this present was very agreeable to him. It is also said that the great toe of that foot had a divine virtue in it; for, after his death, when the rest of his body was consumed, that toe was found entire and untouched by the flames."—LANGHORNE. The reader will here be reminded of the royal touch for the cure of scrofulous diseases once exercised by our own kings.—*Wern. Club.*

¹ Pliny (lib. viii. 40) tells us of one of these Indian dogs that conquered a lion.—*Wern. Club.*

² The *Ficus Religiosa*, well known to modern travellers.—*Wern. Club.*

³ Lib. xvi. 36.

⁴ It is remarkable to observe how exactly the austerities of these ancient gymnosophists are still practised by the Fakirs of India.—*Wern. Club.*

moving their Eyes: and from Morning to Night stand sometimes on one Leg, and sometimes on the other, on the Burning Sand. *Megasthenes* writeth, that on a Mountain named Milo, there are Men whose Feet are turned backward, and on each Foot they have eight Toes. And in many other Mountains there is a kind of Men with Heads like Dogs, clad all over with the Skins of Wild Beasts, and who instead of Speech used to Bark: they are armed with Nails, and they live on the Prey which they get by Hunting Beasts, and Fowling. *Ctesias* writeth that there were known of them above 120,000 in number; and that in a certain Country of India the Women bear but once in their Life, and their Infants presently become Grey. Likewise, that there is a kind of People named Monoscelli, which have but one Leg, but they are exceedingly Swift, and proceed by Hopping. These same Men are also called Sciopodæ, because in the hottest Season they lie along on their Back on the Ground, and defend themselves with the Shadow of their Feet: and these People are not far from the Trogloditæ. Again, beyond these westward, some there are without a Neck, but carrying their Eyes in their Shoulders. Among the Western Mountains of India there are the Satyri (the Country where they are is called the Region of the Cartaduli), the swiftest of all Animals: which sometimes run on four Legs, at others on two Feet like Men: but so light-footed are they, that unless they are very Old or Sick they cannot be taken. *Tauron* writeth, that the Choromandæ are a wild People, without any Voice, but uttering a horrible Noise: their Bodies Hairy, their Eyes bluish-grey, their Teeth like Dogs. *Eudoxus* saith, that in the South Parts of India the Men have Feet a Cubit long, but those of the Women¹ are so small that they are called Struthopodes. *Megasthenes* writeth, that among the Indian Nomadæ there is a Nation

¹ This character is so applicable to Chinese women, that it seems to point out the great antiquity to which the strange custom of binding their feet can be traced. The name of Struthopodes, or ostrich-footed, can only have been applied to them by foreigners, but is not badly descriptive of the figure of this artificial deformity.—*Wern. Club.*

that instead of Noses have only two small Orifices, and after the manner of Snakes have wiry Legs, and are named Syrictæ. In the utmost Borders of India, eastward, about the Source of the Ganges, there is a Nation called the Asthomes, having no Mouths: hairy over the whole Body, but clothed with the Down of the Branches of Trees: they live only by the Vapour and Smell which they draw in at their Nostrils: no Meat or Drink do they take, but only various pleasant Odours from Roots, Flowers, and Wild Fruits; which they carry with them when they take a Long Journey, because they would not miss their Smelling; but if the Scent be a little too strong they are soon deprived of Life. Higher in the Country, in the Edge of the Mountains, the Pygmæi Spithamei are reported to be; which are three Spans in Length, that is, not exceeding three times nine Inches. The Climate is healthy, and ever like the Spring, by reason that the Mountains are on the North side of them. And these People *Homer*¹ also hath reported to be much annoyed by Cranes. The report goeth, that in the Time of Spring they set out all in a great Troop, mounted upon the Backs of Rams and Goats, armed with Darts, to go down to the Sea-side, and devour the Eggs and Young of their Winged prey. For three Months this Expedition continueth, for otherwise they would not be able to withstand their future Flocks. Their Cottages are made of Clay, Feathers, and Egg-shells. *Aristotle*² writeth, that the Pygmæi live in Caves. For all the other matters he reported the same as all the rest. *Isigonus* saith, that the kind of Indians named Cynni live a hundred and forty Years. The like he thinketh of the Ethiopian Macrobbii and the Seræ, and those who

¹ *Iliad*, lib. iii. 6:—

“So when inclement winters vex the plain
 With piercing frosts, or thick descending rain,
 To warmer seas the cranes embodied fly,
 With noise, and order, through the mid-way sky:
 To pygmy nations wounds and death they bring,
 And all the war descends upon the wing.”—*POPE*.

² *Hist. Anim.* lib. viii. 15.

dwell upon Mount Athos: and of these last, because they Feed on Vipers¹ Flesh, and therefore it is that no offensive Creatures are found on their Heads, nor on their Clothes. *Onesicritus* affirmeth, that in those Parts of India there are no Shadows, that the Men are five Cubits and two Palms in Stature, that they live one hundred and thirty Years: and never bear the Marks of Age, but die as if they were in the middle of their age. *Crates* of Pergamus nameth those Indians, who live above an hundred Years, *Gymnetæ*: but not a few call them *Macrobii*. *Ctesias* saith there is a Race of Indians, named *Pandorè*, inhabiting certain Valleys, who live two hundred Years: in their youthful Time their Hair is White, but as they grow old it becometh Black. On the other hand, there are some who are Neighbours to the *Macrobii*, who exceed not forty Years, and their Women bear but once in their Lifetime. And this also is avouched by *Agatharcides*, who addeth, that they feed on Locusts, and are swift of Foot. *Clitarchus* and *Megasthenes* name them *Mandri*, and number up three hundred Villages in their Country: also, that the Women bear Children when they are but seven Years old, and are aged at forty. *Artemidorus* affirmeth, that in the Island *Taprobana* the People live exceeding long without any Bodily Infirmity. *Duris* maketh report, that certain Indians have fellowship with Beasts, of which acquaintance are bred a mixed and half Savage Race; that among the *Calingi*, a Nation of India, the Women conceive at five Years of Age, and live not above eight. In another Tract of that Country, there are Men with shaggy Tails and of great Swiftness: and some again that with their Ears cover their whole Body. The *Orites* are divided from the Indians by the River *Arbis*. They are acquainted with no other Food but Fish, which they split in Pieces with their Nails, and Roast against the Sun, and then make Bread of it, as *Clitarchus* makes Report. *Crates* of Pergamus saith, that the *Trogloditæ* above *Ethiopia* are swifter than Horses, and that there are *Ethiopians* above

¹ Lib. xxix. 6.

eight Cubits High: that this Nation of Ethiopian Nomades is called Syrbotæ, and dwelleth along the River Astapus, toward the North. The Nation called Menismini dwell Twenty Days' Journey from the Ocean, and live on the Milk of certain Animals which we call Cynocephali,¹ of which they keep Flocks of the Females, but they kill the Males, except only enough to preserve the Race. In the Deserts of Africa you will meet oftentimes with Appearances in the shape of Men, but they vanish in an instant. Ingenious Nature disposes this and such-like things, as a Pastime to her, but which are Miracles to us. And indeed, who is able to recount every one of her Sports, which she accomplishes daily and even hourly? Let it suffice therefore, in order to declare her Power, that we have set down those prodigious Works of hers, as displayed in whole Nations. And now we proceed to a few Particulars that are well known in regard to Man.

CHAPTER III.

*Of Prodigious Births.*²

THAT Women may bring forth three at one Birth, appeareth evidently by the example of the *Horatii* and *Curiatii*. But to exceed that number is reputed to be among the Portents; except in Egypt, where Women are more fruitful by drinking the Water of the Nile. Of late Years, about the latter end of the Reign of *Divus Augustus*, a Woman at Ostia named *Fausta*, of ordinary Rank, was delivered of two Boys and as many Girls; but this was a Portent beyond

¹ The *cynocephalus anubis* of modern zoologists is without doubt here intended.—*Wern. Club*.

² “Prodigious births:” that is, not simply out of the common course of nature, but such as were believed to be prophetic of some remarkable events, and so reported by augurs to the proper authorities. What, at the end of this chapter, Pliny reports that he had himself seen, is of no uncommon occurrence, and would be regarded among us as nothing beyond a monstrous birth, an irregular formation of nature; but the incident he mentions last can only be regarded as a proof of the great agitation of the public mind, at a period when the danger was a sufficient motive to raise and propagate the strangest reports.—*Wern. Club*.

doubt of the Famine that ensued. In Peloponnesus also there is found a Woman, who brought forth at four Births twenty Children, and the greater Part of them lived. *Trogus* is the authority, that in Egypt a Woman hath borne seven at a Birth. It falleth out, moreover, that there come into the World Children of both Sexes in one, whom we call Hermaphrodites. In old Time they were known by the Name of Androgyni, and reputed for Prodigies; but now Men take Pleasure in them. *Pompey* the Great, in the Theatre which he adorned with remarkable Ornaments, as well for the subject as the most exquisite Hand of the great Artists, among other Images represented *Eutichè*, a Woman of Tralles, who after she had borne thirty Births, was carried by twenty of her Children to the Funeral Fire for to be burnt. *Alcippè* was delivered of an Elephant, and that certainly was a monstrous Token. Also in the beginning of the Marsian War a Bondwoman brought forth a Serpent.¹

¹ We know how prone vulgar ignorance or superstition is to compare an ordinary monstrous birth to some fancied animal. Such is within the knowledge of living observers. But what shall we say to the following? "Lemnius tells us of a monster, that a certain woman was delivered of, and to whom he himself was physician and present at the sight, which at the appearing of the day filled all the chamber with roaring and crying, running all about to find some hole to creep into; but the women at the length stifled and smothered it with pillows."—*Wanley's Wonders of the Little World*. And from the same authority:—"Johannes Naborowsky, a noble Polonian, and my great friend, (says Bartholini, "Hist. Anat.") told me at Basil, that he had seen in his country two little fishes without scales, which were brought forth by a woman, and as soon as they came out of her womb did swim in the water as other fish." The story given by Wormius, concerning the birth of an egg from a woman (and of which he gives a figure in his "Museum Wormianum,") is illustrated, and perhaps explained, as may all the others on the same principle, by another given in *Wanley's* book, of a woman "of good quality, who had made great preparations for her lying-in, but in the last month her distension subsided, and it is confessed that she plumped herself up with a stuffing of garments. However, the time must come at last, and she was delivered of a creature, very like unto a dormouse of the greater size, which to the amazement of the women who were present, with marvellous celerity sought out and found a hole in the chamber, into which it crept and was never seen after." Instances somewhat similar have occurred in very

Many misshapen Creatures of various kinds are produced as Monsters in the World. *Claudius Cæsar* writeth, that in Thesaly an Hippocentaur was born, and that it died on the very same Day. And when he was Sovereign we ourselves saw the like sent to him out of Egypt, preserved in Honey. Among the Instances there is one of a Child in Saguntum, in the Year in which that Town was destroyed by *Annibal*, which, as soon as it was born, presently returned again into the Womb.

CHAPTER IV.

Of the Change of the Sex ;¹ and of Double Births.

IT is no fable, that Females may be turned to Males ; for we have found it recorded in the Annals, that in the Year when *Pub. Licinius Crassus* and *C. Cassius Longinus* were Consuls, there was at Cassinum a Maid who, under her Parents, became a Boy : and by the order of the Aruspices he was conveyed to a Desert Island. *Lucinius Mutianus* reporteth, that himself saw at Argos a Person named *Arescon*, who had borne the Name of *Arescusa*, and even had been Married : but afterwards came to have a Beard, and the general Properties of a Man, and thereupon married a Wife. After the same sort he saw at Smyrna a Boy changed. I myself was an Eye-witness, that in Africa *L. Cossicius*, a

recent times, to the great disappointment of expecting friends : and the laugh could only have been rendered the louder if, instead of a simple disappointment, an egg or dormouse, an elephant or serpent had been the result. By law, “*Ut monstrosos partus necare parentibus liceret*,”— that “it should be lawful to parents to put to death children that were born monstrous ;” but *Dionysius Halicarnasseus* adds, that it was necessary they should call witnesses to prove that they were monstrous : although the latter stipulation can scarcely be reconciled with another law, which gave to parents the right of life and death over their children. According to the law of *Tullus Hostilius*, third king of Rome, when three children were born at one birth, they were to be brought up to the age of maturity at the public charge.—*Wern. Club.*

¹ Instances similar to these are scarcely uncommon, and the causes are well known to anatomists. The remarks concerning the fate of twins are so contrary to experience, that *Pliny's* error can scarcely be accounted for.—*Wern. Club.*

Citizen of Tisdrita, was turned from a Woman to a Man upon the very Marriage-day. If a Woman bring Twins, it is rare for them all to live, but either the Mother dieth, or one of the Babes, if not both. But if the Twins be of both Sexes, it is rare for both of them to escape. Women grow old sooner than Men; and they grow to their Maturity more speedily than Men. It is certain that a Male Child stirreth oftener in the Womb, and lieth commonly more to the right Side; whereas Females incline to the left.¹

CAP. V.

*De Hominis Generando, et Pariendi Tempore per illustria
Exempla a Mensibus septem ad undecim.*²

CÆTERIS animantibus statum, et pariendi, et partus gerendi tempus est; homo toto anno, et incerto gignitur spatio. Alius septimo mense, alius octavo, et usque ad initia decimi undecimique. Ante septimum mensem haud unquam vitalis est. Septimo non nisi pridie posterove plenilunii die, aut interlunio concepti nascuntur. Translatitium in Ægypto est et octavo gigni. Jam quidem et in Italia tales partus esse vitales, contra priscorum opiniones. Variant hæc pluribus modis. Vestilia C. Herditii ac postea Pomponii atque Orfiti, clarissimorum civium, conjunx, ex his quatuor partus enixa, Sempronium septimo mense genuit, Suillium Rufum undecimo, Corbulonem septimo, utrunque Consulem: postea Cæsoniam Caii³ principis conjugem, octavo. In quo mensium numero genitis, intra quadragesimum diem maximus

¹ No signs are known by which the sex of the child before birth is in the least indicated.—*Wern. Club.*

² The term of pregnancy natural to the human female is 280 days; by the Prussian laws, 300 days; by the French, 301 days are considered to mark the extreme limit. From physiological reasons it is extremely improbable if the usual term of nine calendar, or ten lunar months, is ever exceeded by more than one lunar month.—*Wern. Club.*

³ The emperor so named is better known by the name of Caligula, which was imposed upon him on account of the military shoe which, when a child, he wore in the camp. The wife's father here spoken of was the Emperor Augustus.—*Wern. Club.*

labor. Gravidis autem quarto et octavo mense, letalesque in iis abortus. Massurius auctor est, L. Papyrium Prætorem, secundo hærede lege agente, bonorum possessionem contra eum dedisse, cum mater partum se 13 mensibus diceret tulisse, quoniam nullum certum tempus pariendi statutum videretur.¹

CAP. VI.

De Conceptibus, et Signa Sexus in gravidis prævenientia Partum.

A CONCEPTU decimo die, doloris capitis, oculorum vertiginis tenebræque, fastidium in cibis, redundatio stomachi, indices sunt hominis inchoati. Melior color marem ferenti, et facilior partus: motus in utero quadragesimo die. Contraria omnia in altero sexu: ingestabile onus, crurum et inguinum levis tumor. Primus autem nonagesimo die motus. Sed plurimum languoris in utroque sexu, capillum germinante partu, et in plenilunio; quod tempus editos quoque infantes præcipue infestat. Adeoque incessus, atque omne, quicquid dici potest, in gravida refert: ut salsioribus cibis usæ, carentem unguiculis partum edant, et, si respirare, difficiliter enitantur. Oscitatio quidem in enixu letalis est: sicut sternuisse a coïtu abortivum.

CAP. VII.

De Conceptu Hominum et Generatione.

MISERET atque etiam pudet æstimantem quam sit frivola animalium superbissimi origo, cum plerunque abortus causa fiat odor a lucernarum extinctu. His principiis nascuntur tyranni, his carnifex animus. Tu qui corporis viribus fidis,

¹ According to the Roman law: "Sei qua molier post virei mortem in decem proximeis menses pariat, quei, quæ ex ea nascatur, sonus, suave, in verei familia heres estod:"—"If a woman is delivered of a child ten months after the death of her husband, let the child born, either boy or girl, be heir to his father." Ulpian's opinion is, that a child born eleven months after the death of his father is not able to inherit. The Emperor Adrian allowed a legitimate birth in the eleventh month; but this is explained by saying, that the eleventh month may be begun, but not ended.—*Wern. Club.*

tu qui fortunæ munera amplexaris, et te ne alumnum quidem ejus existimas, sed partum: tu cujus semper in victoria est mens, tu qui te Deum credis, aliquo successu tumens, tanti perire potuisti: atque etiam hodie minoris potes, quantum serpenti ictus dente: aut etiam, ut Anacreon Poeta, acino uvæ passæ: ut Fabius Senator Prætor, in lactis haustu uno pilo strangulatus. Is demum profecto vitam æqua lance pensitabat, qui semper fragilitatis humanæ memor fuerit.

CAP. VIII.

De Agrippis.

IN pedes procedere nascentem contra naturam est; quo argumento eos appellavere agrippas, ut ægre partos: qualiter M. Agrippam ferunt genitum unico prope felicitatis exemplo in omnibus ad hunc modum genitis. Quanquam is quoque adversa pedum valetudine, misera juvena, exercito ævo inter arma mortesque, ad noxia successu, infelici terris stirpi omni, sed per utrasque Agrippinas maxime, quæ Caium et Domitium Neronem Principes genuere, totidem faces generis humani: præterea brevitate ævi quinquagesimo uno raptus anno, in tormentis adulteriorum conjugis, socerique prægravi servitio, luisse augurium præposteri natalis existimatur. Neronem, quoque paulo ante Principem, et toto Principatu suo hostem generis humani, pedibus genitum parens ejus scribit Agrippina. Ritu naturæ capite hominem gigni mos est, pedibus efferri.

CAP. IX.

Monstruosi Partus excisi Utero.

AUSPICATIUS enecta parente gignuntur, sicut Scipio Africanus prior natus, primusque Cæsarum a cæso matris utero dictus: qua de causa et Cæsones appellati.¹ Simili modo natus et Manlius, qui Carthaginem cum exercitu intravit.

¹ The Cæsarian operation, as it is now called, has been an unsuccessful one in modern times; but this arises from the fact that it is now performed on the living mother to preserve her life, perhaps at the risk of that of

CAP. X.

Qui sint Vopisci.

VOPISCOS appellabant e geminis, qui retenti utero nascerentur, altero interempto abortu. Namque maxima et rara circa hoc miracula existunt.

CAP. XI.

Exempla Numerosæ Sobolis.

PRÆTER mulierem pauca animalia coitum novere gravidam. Unum quidem omnino, aut alterum, superfœtat.¹ Extat in monumentis etiam medicorum, et quibus talia consecrari curæ fuit, uno abortu duodecim puerperia egesta. Sed ubi paululum temporis inter duos conceptus intercessit, uterque perfertur: ut in Hercule et Iphiclo fratre ejus apparuit, et in ea quæ gemino partu, altero marito similem, alterum adultero genuit; Item in Proconnesia ancilla, quæ ejusdem diei coitu, alterum domino similem, alterum procuratori ejus; et in alia, quæ unum justo partu quinque mensium alterum edidit. Rursus in alia, quæ septem mensium edito puerperio, insecutis mensibus geminos enixa est. Jam illa vulgata, varie ex integris truncos gigni, ex truncis integros, eademque parte truncos: signa quædam, nævosque et cicatrices etiam regenerari. Quarto partus Dacorum originis Nota in brachio redditur.

CHAPTER XII.

*Examples of those who have closely resembled one another.*²

IN the Race of the *Lepidi* it is said there were three, not successively one after another, who had when they were

the child; whereas it appears that anciently it was had recourse to only after the mother had expired, to save the child which still gave signs of life. Cornelius Gamma says, that he performed it six times on as many women, and that the children were preserved; but he says nothing of the fate of the mothers.—*Wern. Club.*

¹ Superfœtation is an exceedingly rare occurrence in women; but some modern instances place the certainty of this fact on certain grounds.—*Wern. Club.*

² This chapter is borrowed from Aristotle's "History of Animals," b. xvii. c. 6.—*Wern. Club.*

Born, a Membrane growing over the Eye. Some have resembled their Grandfathers: and of Twins, one hath been like the Father, the other the Mother: but he that was Born a year after hath been so like his elder Brother as if he had been one of the Twins. Some Women bring all their Children like themselves; others again resembling their Husbands, and some like neither the one nor the other. Some Women bring all their Daughters like their Fathers, and their Sons like the Mothers. The Example is undoubted, of *Nicæus*, a famous Painter of Byzantium, who having to his Mother a Woman begotten in Adultery by an Ethiopian, and nothing different in Colour from other Women, was himself begotten an Ethiopian. Indeed, the Consideration of the Likenesses is in the Mind; in which likewise many other Accidents are thought to be very strong, whether they come by Sight, Hearing, and Memory, or Imaginations drunk in the very instant of Conception.¹ The thought of either Father or Mother flying to and fro transporting the Soul in a moment, is supposed to stamp this Likeness, or to mix it. On this account it is that Men are more unlike one another than other Creatures: for the Quickness of the Thoughts, the Agility of the Mind, the very great variety of our Dispositions, imprint the great Multiplicity of Marks; whereas the Minds of other Creatures is immovable, being alike in all, and in every one according to its own Kind. *Artenon*, a Man of the common Rank, was so like in all points to *Antiochus* King of Syria, that *Laodicè* the Queen, after *Antiochus* was killed, effected the Succession of the Kingdom through his acting the part of Recommendation. *Vibius*, a certain Commoner of Rome, and *Publicius*, one from a Bondslave made a Freeman, were both of them so like *Pompey* the Great, that the one could scarcely be discerned from the other: so closely did they represent that open Countenance, and the singular Majesty which appeared in his Forehead. The like cause it was that gave his Father also the Surname of *Menogenes*, from his Cook; although he

¹ The reader will scarcely fail to remember Jacob's singular stratagem with Laban's flock—Genesis, xxx. and xxxi.—*Wern. Club.*

was already surnamed *Strabo*, because of his Squint Eyes : imitating a defect that existed in his Servant. So was one of the *Scipios* surnamed *Serapio* upon such an occasion, after the name of one *Serapio*, who was a base Slave of his, and the dealer in buying and selling his Swine. Another *Scipio* after him, of the same House, was surnamed *Salutio*, because of a certain Jester of that Name. After the same manner one *Spinter*, a Player of the second Place,¹ and *Pamphilus*, a Player of the third Part, resembled *Lentulus* and *Metellus*, who were Consuls together. And this fell out very untowardly, that such resemblances of the two Consuls should be seen together on the Stage. On the other hand, *Rubrius* the Player was surnamed *Plancus*, because he was so like *Plancus* the Orator. Again, *Burbuleius* and *Menogenes*, both Players, gave name, the one to *Curio* the Father, as did the other to *Messala Censorius*. There was in Sicily a Fisherman who resembled *Sura* the Proconsul, not in general likeness only, but also in the grin when he spoke, in drawing his Tongue short, and in his thick Speech. *Cassius Severus*, the famous Orator, was reproached for being like *Mirmillo*, a Keeper of Cattle. *Toranius* sold to *Marcus Antonius*, at that time Triumvir, two very beautiful Boys as Twins, so like they were one to the other : although one was born in Asia, and the other beyond the Alps. But when *Antony* afterwards came to the knowledge of the fraud, which was detected by the Language of the Boys, he threatened him in great Anger : Among other things complaining of the high Price that he had made him pay, for they cost him two hundred Sesterces. But the cunning Merchant answered, That this was the very cause why he had sold them at so great a rate : for it would not have been so wonderful if two Brothers of the same Mother had resembled one another ; but that there should be any found, who were born in different Countries, so like in all respects, was above every thing deserving of a high Price. This answer of his produced a well-timed admiration,

¹ That is, he who supported the second or the third rate of characters on the ancient stage.—*Wern. Club.*

so that the Proscriptor, whose mind was enraged and uttered reproaches, was not only appeased, but also induced to be well pleased with his good Fortune.

CAP. XIII.

Quæ sit Generandi Ratio.

EST quædam privatim dissociatio corporum; et inter se steriles, ubi cum aliis junxere, gignunt: sicut Augustus et Livia. Item alii aliæque fœminas tantum generant, aut mares; plerunque et alternant: sicut Gracchorum mater duodecies, et Agrippina Germanici novies. Aliis sterilis est juventa, aliis semel in vita datur gignere. Quædam non perferunt partus: quales, si quando medicina et cura vicere, fœminam fere gignunt. Divus Augustus in reliqua exemplorum raritate, neptis suæ nepotem vidit genitum quo excessit anno, M. Syllanum; qui cum Asiam obtineret post Consulatum, Neronis Principis successione, veneno ejus interemptus est. Q. Metellus Macedonicus, cum sex liberos relinqueret, undecim nepotes reliquit, nurus vero generosque et omnes qui se patris appellatione salutarent, viginti septem. In Actis temporum Divi Augusti invenitur, XII. Consulatu ejus L. quæ Sylla Collega, ad III. Idus Aprilis, C. Crispinum Hilarum ex ingenua plebe Fesulana, cum liberis novem (in quo numero filiæ duæ fuerunt) nepotibus XXVII., pronepotibus XXIX., neptibus IX., præolata pompa, cum omnibus in Capitolio immolasse.¹

¹ These instances are more than equalled by some which are mentioned in the preface to "Hearne's Edition of Leland," vol. vi. p. 4. Mary, wife of Richard Honiwood, of Charinge, in Kent, died at the age of ninety-eight, in the year 1620, leaving by one husband sixteen children, 114 grand-children, 228 great-grand-children, and nine in the fourth degree: in all 367 persons. Thomas Urqhart, laird and sheriff of Cromarty, had by one wife twenty-five sons and eleven daughters: all of whom he lived to see of considerable eminence in the world. "In Dunstable church," says Hakewell (Apol.) "is an epitaph on a woman, testifying that she bore three children at a birth three several times, and five at a birth two other times." In the year 1553 the wife of John Gissger, an Italian, had twins, and before the year was out she produced five children, three sons and two daughters. Thomas Fazel writes that "Jane Pancica,

CAP. XIV.

De eodem multiplicius.

MULIER post quinquagesimum annum non gignit, majorque pars quadragesimo profluvium genitale sistit. Nam in viris Massinissam Regem, post LXXXVI. annum generasse filium, quem Methymnatum appellaverit, clarum est: Catonem Censorium octogesimo exacto, a filia Salonii clientis sui. Qua de causa, aliorum ejus liberorum propago, Liciniani sunt cognominati, hi Saloniani, ex quibus Uticensis fuit. Nuper etiam L. Volusio Saturnino in urbis præfectura extincto, notum est Corneliæ Scipionum gentis Volusium Saturninum, qui fuit Consul, genitum post LXII. annum. Et usque ad LXXXV. apud ignobiles vulgaris reperitur generatio.

CAP. XV.

De Menstruis Mulierum.

SOLUM autem animal menstruale mulier est: inde unius utero, quas appellarunt molas. Ea est caro informis, inanima, ferri ictum et aciem respuens. Movetur, sistitque menses; ut et partus, alias lethalis, alias una senescens, aliquando alvo citatiore excidens. Simile quiddam et viris in ventre gignitur, quod vocant scirron: sic ut Oppio Capitonii prætorio viro. Sed nihil facile reperiatur mulierum profluvio magis monstrificum. Acescunt superventu inusta, sterilescent tactæ fruges, moriuntur insita, exuruntur hortorum germina, et fructus arborum, quibus insidere, decidunt; speculorum fulgor aspectu ipso hebetatur, acies ferri præstringitur, eborisque nitor; alvei apum emoriuntur; æs etiam ac ferrum rubigo protinus corripit, odorque dirus aera; et in rabiem aguntur gustato eo canes, atque insanabili veneno morsus inficitur. Quin et bituminum sequax alio-

wife of Bernard, a Sicilian, in thirty births produced seventy-three children." The latter instances are from Wanley's "Wonders of the Little World," where his authorities are given.—*Wern. Club.*

quin ac lenta Natura, in Lacu Judææ (qui vocatur Asphaltites), certo tempore anni supernatans, nequit sibi avelli, ad omnem contactum adhærens, præterquam filo quod tale virus infecerit. Etiam formicis animali minimo, inesse sensum ejus ferunt; abjicique gustatas fruges, nec postea repeti. Et hoc tale tantumque omnibus tricenis diebus malum in muliere existit, et trimestri spatio largius. Quibusdam vero sæpius mense; sicut aliquibus nunquam; sed tales non gignunt, quando hæc est generando homini materia semine e maribus coaguli modo hoc in sese glomerante, quod deinde tempore ipso animatur, corporaturque. Ergo cum gravidis fluxit, invalidi aut non vitales partus eduntur, aut saniosi, ut autor est Negidius.¹

CAP. XVI.

Item de Ratione Partuum.

IDEM, lac fœminæ non corrumpi alenti partum si ex eodem viro rursus conceperit, arbitratur. Incipiente autem hoc statu, aut desinente, conceptus facillimi traduntur. Fæcunditatis in fœminis prærogativam accepimus, inunctis medicamine oculis, salivam infici. Cæterum editis primores septimo mense gigni dentes priusque in supera fere parte, haud dubium est. Septimo eosdem decidere anno, aliosque suffici. Quosdam et cum dentibus nasci,² sicut M. Curium, quod ob id Dentatus cognominatus est, et Cn. Papyrium Carbonem, præclaros viros. In Women the same thing was counted inauspicious in the times of the Kings, for when *Valeria* was born toothed in this manner, the Augurs (*Aruspices*) being consulted about it, answered by way of Prophecy, that she would be the ruin of that City to which she might be conveyed; whereupon she was conveyed to *Suessa Pometia*,

¹ Much that is here stated is erroneous, and mere fable; the recondite subject of generation abounding in the marvellous.—*Wern. Club.*

² However this might have been regarded in ancient times, on a superstitious account, it is not an uncommon circumstance. The editor is acquainted with the fact, that in an instance of three children being born at one birth, all of them were furnished with teeth.—*Wern. Club.*

which at that time was very flourishing: and the ruin of the place certainly followed. *Cornelia*, the Mother of the *Gracchi*, is sufficient proof that it is an adverse omen, when Women are born with the Genital Parts grown together. Some Children are born with a continued edge of Bone instead of a row of distinct Teeth;¹ as a Son of *Prusius* King of the Bythinians, who had such a Bone in his Upper Jaw. But Teeth are the only parts that are not subdued by the Fires; so that they are not consumed with the rest of the Body; but the same parts that are not conquered by the Flames are hollowed out and wasted by a Waterish Rheum. They may be made White by some Medicines. They are worn away by use; and sometimes they fall first out of the Head; they serve not only to grind our Meat for our Nourishment, but they are necessary for the framing of our Speech. The Fore-teeth hold the Government over our Voice and Words by a peculiar accord, answering to the Stroke of the Tongue, and the series of their Formation, with their Size, cutting up, softening, or restraining the Words; but when they are fallen out all explanation of Words is lost. Moreover, it may be believed, that some Augury can be gathered from the Teeth. Men are in possession of two-and-thirty in all, except the Nation of the Turduli; and those who have above this Number suppose that they may calculate on longer Life. Women have not so many: they that have on the right Side in the upper Jaw two Eye-teeth, named Canine, may promise themselves the Favours of Fortune; as was the case in *Agrippina*, the Mother of *Domitius Nero*: but it is the contrary in the Left Side. It is not the Custom in any Country to burn in a Funeral Fire the dead Body of an Infant before the Teeth are come up: but of this we will write more, when our History will take in the individual Members. *Zoroastres* was the only Man we have heard of, who laughed the same day he was born: his Brain did so evidently pulsate, that it would lift up the Hand that was laid on it: a Presage of his future Learning. It is certain

¹ This was also the case with King Pyrrhus. See note, lib. vii. 2.—*Wern. Club.*

that a Man at three years of Age is come to one-half of the Measure of his Height. This also is observed for a Truth, that generally all Men fall short of the full Stature in Times past; and seldom are they taller than their Fathers: the Exuberance of the Seeds being consumed by the burning, in the Changes of which the World now vergeth toward the latter End. In Crete, a Mountain being cloven asunder by an Earthquake, a Body was found standing, forty-six Cubits high; which some judged to be the Body of *Orion*, and others, of *Otus*. It is believed from Records that the Body of *Orestes*, when taken up by direction of the Oracle, was seven Cubits long.¹ And that great Poet, *Homer*, who lived almost a thousand Years ago, did not cease to complain that Men's Bodies were less of Stature even then, than in old Time. The Annals do not deliver down the Bulk of *Nævius Pollio*; but that he was of great size appeareth by this, that it was taken for a Wonder, that in a great Crowd of People running together he was almost killed. The tallest Man that hath been seen in our Age was one named *Gabbara*, who in the Days of Prince *Claudius* was brought out of Arabia; he was nine Feet high, and as many Inches. There were in the Time of *Divus Augustus* two others, named *Pusio* and *Secundilla*, higher than *Gabbara* by half a Foot, whose Bodies were preserved for a Wonder in a Vault in the Gardens of the *Salustiani*. While the same (*Augustus*) was President, his Niece *Julia* had a very little Man, two Feet and a Hand-breadth high, called *Canopas*, whom she made much of; and also a Woman named *Andromeda*,² the Freed Woman of *Julia Augusta*. *M. Varro* reporteth that *Manius Maximus*, and *M. Tullius*, Roman Knights, were but two Cubits high: and we ourselves have seen their Bodies embalmed in Presses. It is well known that there are some

¹ Ten feet and an half.

² The instance of the American who exhibited himself through Europe is of recent occurrence. John Duck, an Englishman, was carried about for a show in 1610, being two feet and a half high at forty-five years of age. Cardan says he saw a man in Italy, of full age, not above a cubit high. He was carried about in a parrot-cage.—*Wern. Club.*

born a Foot and a half high ; others again somewhat longer : filling up the Course of their Life in three Years. We find in the Chronicles, that in Salamis the Son of *Euthimenes*¹ in three Years grew to be three Cubits high ; but he was in his Pace slow and in his Understanding dull ; but having attained the State of Puberty, and his Voice having become strong, at Three Years' end he died suddenly of a Contraction of all the Parts of his Body. Some while since I saw myself the like in almost all respects, except the Puberty, in a Son of *Cornelius Tucitus*, a Roman Knight, and a Procurator for the State in Belgic Gaul. Such the Greeks call *Ectrapelos* ; in Latin they have no Name.

CHAPTER XVII.

Observations of Bodies.

WE see that the Length of a Man from the Sole of the Foot to the Crown of the Head is equal to the Extent of his longest Fingers when his Arms and Hands are stretched out. As also, that most People are stronger on the right Side ; others are as strong on one Side as on the other : and there are some that are altogether Left-handed ; but that is never seen in Women. Men weigh heavier than Women : and in every kind of Creature, the bodies, when dead, are more heavy than when alive ; and the same Parties sleeping weigh more than when awake. The dead Bodies of Men float with the Face

¹ In the year 1747, Mr. Dawkes, a surgeon at St. Ives, near Huntingdon, published a small tract called "Prodigium Willinghamense," or an account of a surprising boy, who was buried at Willingham, near Cambridge, upon whom he wrote the following epitaph :— "Stop, traveller, and wondering know, here buried lie the remains of Thomas, son of Thomas and Margaret Hall, who, not one year old, had the signs of manhood ; not three, was almost four feet high ; endued with uncommon strength, a just proportion of parts, and a stupendous voice ; before six he died, as it were, of advanced age. He was born at this village, October 31, 1741, and the same departed this life, September 3, 1747." (See also "Philosophical Transactions," 1744-45.) As Dr. Elliotson has observed (Blumenbach's "Physiology"), this perfectly authentic case removes all doubts respecting the boy at Salamis mentioned by Pliny.—*Wern. Club.*

upward, and Women with the Face downward, as if Nature had provided to save their Modesty even when dead.

CHAPTER XVIII.

Examples of a Variety of Forms.

WE have heard that some Men's Bones are solid, and so live without any Marrow. They are known by the Signs, that they never feel Thirst, nor put forth any Sweat: and yet we know that a Man may conquer his Thirst by his Will; and *Julius Viator*, a Roman Knight, descended from the Race of the Confederate Voconti, in his younger Years being ill with an Effusion of Water beneath the Skin, and forbidden by the Physicians to use Fluids in any way, obtained a Nature by Custom, so that in his old Age he forbore to drink. Others also have been able to command their Nature in many Cases.

CHAPTER XIX.

Examples of Diversity of Habits.

It is said, that *Crassus*, Grandfather to that *Crassus* who was slain in Parthia, never laughed, and on that account was called *Agelastus*: and also that many have been found to have never wept. *Socrates*, who was illustrious for his Wisdom, was seen always to carry the same Countenance, never being more cheerful nor more disturbed at one Time than another. But this tendency of the Mind turneth now and then in the End into a certain Rigour and Sternness of Nature, so hard and inflexible that it cannot be ruled; and so despoileth Men of the humane Affections; and such are called by the Greeks *Apathes*, who had the Experience of many such: and, what is surprising, some of them were very eminent for Wisdom, as *Diogenes* the Cynic, *Pyrrho*, *Heraclitus*, and *Timo*; the latter being carried away so far as to hate the whole Human Race. But these were Examples of depraved Nature. Various remarkable Things are known; as in *Antonia*, the Wife of *Drusus*, who was never

seen to spit; and *Pomponius* the Poet, a Consular Man, who never belched. Such as naturally have their Bones solid, who are seldom met with, are called *Cornei* (hard as Horn).

CHAPTER XX.

*Of Strength and Swiftmess.*¹

VARRO, in his Treatise of prodigious Strength, maketh Report of *Tritanus*, who was little in Person, but of incomparable Strength, much renowned in the Gladiatorial Play, with the Armature of the Samnites. He maketh mention also of a Son of his, a Soldier under *Pompey* the Great; and that he had all over his Body, as well as through his Arms and Hands, Sinews running straight and across like Network: and when an Enemy challenged him to a Combat, he overcame him with his right Hand unarmed, and in the End caught hold of him, and brought him into the Camp with one Finger. *Junius Valens*, a Centurion in the Prætorium of *Divus Augustus*, was accustomed to bear up Waggons laden with Sacks, until they were discharged: with one Hand he would hold back a Chariot, standing firm against all the Force of the Horses. He did also other wonderful Things, which are to be seen engraved on his Tomb: and therefore *Varro* saith that being called *Hercules Rusticellus*, he took up his Mule and carried him away. *Fusius Salvius* carried up over the Stairs two hundred Pounds' weight on his Feet, as many in his Hands, and twice as much upon his Shoulders. Myself have seen a Man named *Athanatus*, with a great deal of Ostentation walk upon the Stage clothed in a

¹ It is observable that in this, and chap. xxiii., Pliny's instances apply only to animal endurance. Martial took a more correct view of the mental property, when he said:—

“Rebus in angustiis facile est contemnere vitam:
Fortiter ille facit, qui miser esse potest.”—B. xi. Ep. 35.

When Fortune frowns, 'tis easy life to hate;
But real courage is not crush'd by fate.

Wern. Club.

Cuirass of Lead weighing five hundred Pounds, and wearing high Shoes of the same Weight. When *Milo*, the great Wrestler of Crotonè, stood firm upon his Feet, no Man was able to make him stir in the least Degree: if he held an Apple, no Man was able to stretch out his Finger.¹ It was a great matter, that *Philippides* ran 1140 Stadia, from Athens to Lacedæmon, in two Days; until *Anistis*, a Runner of Lacedæmon, and *Philonides*, belonging to *Alexander* the Great, ran from Sicyonè to Elis in one Day, 1200 Stadia. But now, indeed, we know some in the Circus able to endure the running of 160 Miles. And lately when *Fonteius* and *Vipsanus* were Consuls, a young Boy, only nine Years old, between Noon and Evening ran 75 Miles. And a Man may wonder the more at this Matter, if he consider, that it was counted an exceeding great Journey that *Tiberius Nero* made in three Chariots in a Day and a Night, when he hastened to his Brother *Drusus*, then lying sick in Germany, which was but 200 Miles.²

¹ Two persons, successively porters to Kings James I. and Charles, his son, were of great size and strength. The first, particularly, was able to take two of the tallest yeomen of the guard, one under each arm, and he ordered them as he pleased. The Emperor Maximinus, who was eight feet and a half in height, was of enormous strength, even in proportion to his magnitude. — *Wern. Club.*

² We have less examples of swiftness of foot, since more rapid conveyance is common. Pliny's instances are the more surprising, as they imply continuance; but the English King Henry V. was so swift of foot, that with two of his lords, without any weapons, he would catch a wild buck in a large park. In Baker's "Chronicle" we are informed, that John Lepton, of Kepwick, in the county of York, one of the grooms of the Privy Chamber to James I., for a wager rode for six days successively between York and London: which is 150 miles. He accomplished the work of each day, beginning May 20, 1606, before it was dark; and having finished his wager at York on Saturday, on the following Monday he rode back to London, and on Tuesday to the court at Greenwich: being as fresh and well as when he began. In the year 1619, July 17, Bernard Calvert rode from St. George's church, in Southwark, to Dover: thence by barge to Calais, and from thence back to St. George's church, on the same day; beginning at three o'clock in the morning, and ending at eight in the evening, fresh and lusty, although roads were then less perfect than now. — *Wern. Club.*

CHAPTER XXI.

Examples of good Eyesight.

WE find in Histories almost incredible Examples of Sharpness of the Eyes. *Cicero* hath recorded, that the Poem of *Homer* called the *Iliad*, written on Parchment, was enclosed within a Nutshell. The same Writer maketh mention of one who could see to the Distance of 135 Miles. And *M. Varro* nameth the Man, saying that he was called *Strabo*; and that during the Carthaginian War he was accustomed to stand upon *Lilybæum*, a Promontory of Sicily, and discover the Fleet coming out of the Harbour of Carthage; he was also able to tell even the Number of the Ships. *Callicrates* made Emmets, and other equally small Creatures, out of Ivory, so that other Men could not discern the Parts of their Bodies. A certain *Myrmecides* was excellent in that kind of Workmanship; who of the same Material carved a Chariot with four Wheels, which a Fly might cover with her Wings. Also he made a Ship that a little Bee might hide with her Wings.¹

CHAPTER XXII.

Of Hearing.

OF Hearing there is one Example which is wonderful: that the Battle in which *Sybaris* was destroyed was heard at *Olympia* on the very same Day it was fought. For the Cim-

¹ Peculiarities of eyesight are also recorded in ancient authors. The Emperor *Tiberius* was able to see better than other men by night; and contrary to the usual habit, best when he first opened his eyes from sleep. Such was also the case with the philosopher *Cardan*. *Fabricius ab Aquapendente* knew a man who could see well by night, but not by day; and the Editor was acquainted with two brothers, whose vision was of this kind; and it may be accounted for by the fact, that they were destitute of eyebrows, and had very little eyelashes.—*Wern. Club.*

brian Victories and the Report of the Victory over the Persians made at Rome by the Castors, on the same Day that it was achieved, were Visions and the Presages of Divine Powers.

CHAPTER XXIII.

Examples of Patience.

MANY are the Calamities incident to Mankind, which have afforded innumerable Trials of Patience, in suffering Pains of the Body. The most illustrious among Women is the Example of *Leana* the Courtesan, who, when she was tortured, did not betray *Harmodius* and *Aristogiton*, who slew the Tyrant. Among Men is the Example of *Anaxarchus*, who, being tortured for a like Cause, bit off his Tongue with his Teeth, and spat his only Hope of Discovery into the Face of the Tyrant.

CHAPTER XXIV.

*Examples of Memory.*¹

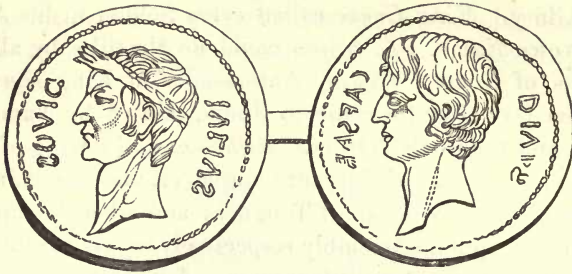
MEMORY is the greatest Gift of Nature, and most necessary of all others for Life; it is hard to say who deserved the

¹ The orator Hortensius was famous for an extensive and accurate memory; which Cicero speaks of with admiration. It is said of him, that once sitting at a place where things were exposed to public sale for a whole day, he recited in order all the things that had been sold, their price, and the names of the buyers; and it was afterwards found that he was minutely correct. Cicero, comparing him with Lucullus, says, that Hortensius's memory was greater for words, and that of Lucullus for things,—an important distinction, for it is commonly found that those who best remember the one, are deficient in the other. Seneca had a remarkable memory for words; so that he was able to repeat two thousand names in the order they were pronounced. The art of memory, to which some moderns have made great pretensions, is very ancient; and it was much in use in the middle ages. But it applies to words rather than things; and it requires to be studied as an individual object, and not as means to an end.—*Wern. Club.*

chief honour therein, considering how many have excelled in its Glory. King *Cyrus* called every Soldier in his Army by his own Name. *L. Scipio* could do the like by all the Citizens of Rome. *Cineas*, Ambassador of King *Pyrrhus*, the next Day after he came to Rome, saluted by Name the Senate and Equestrian Order. *Mithridates*, the King of two-and-twenty Nations of different Languages, ministered Justice to them in that Number of Tongues; and when he made a Speech in the public Assembly respectively to every Nation, he performed it without an Interpreter. A certain *Charmidas*,¹ a Grecian, rehearsed as if he was reading whatever any Man would call for out of any of the Volumes in the Libraries. At length the Practice of this was reduced into an Art of Memory, which was invented by *Simonides Melicus*, and afterwards brought to Perfection by *Metrodorus Scepsius*; by which a Man might learn to rehearse the same Words of any Discourse after once hearing. And yet there is nothing in Man so frail; for it is injured by Diseases, Accidents, and by Fear, sometimes in part, and at other Times entirely. One who was struck with a Stone forgot his Letters only. Another, by a Fall from the Roof of a very high House, lost the Remembrance of his own Mother, his near Relations, and Neighbours. Another when sick forgot his own Servants; and *Messala Corvinus*, the Orator, forgot even his own Name.² So also it often endeavoureth to lose itself, even while the Body is otherwise quiet and in Health. But let Sleep creep upon us, and it reckoneth, as an empty Mind inquireth, what place it is in.

¹ *Carneades*, according to Cicero and Quintilian.

² A sudden loss of memory on a particular subject is common, though unaccountable. We are told that Curio, the orator, was much given to this; so that, offering to divide a subject into three heads, he would forget one of them, or perhaps make four. He was to plead on behalf of Sextus Nævius, opposed to Cicero, who was on the side of Titania Corta; when he suddenly forgot the whole cause, and ascribed the fact to the witchcraft of Titania.—*Wern. Club.*



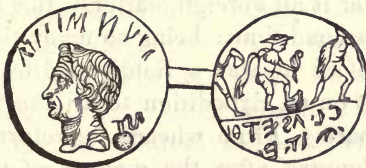
Julius Cæsar and Augustus.

CHAPTER XXV.

The Praise of C. Julius Cæsar.

FOR Vigour of Spirit I judge that *C. Cæsar*, the Dictator, was the most excellent. I speak not now of his Courage and Constancy, nor of his lofty Understanding of all Things under the Expanse of Heaven ; but of that proper Strength and Quickness of his, as active as the very Fire. We have heard it reported of him, that he was accustomed to write and read at one Time, to dictate and hear. He would dictate Letters of the utmost Importance to four Secretaries at once : and when he was free from other Business, he would dictate seven Letters at one Time. The same Man fought fifty Battles with Banners displayed : in which Point he alone exceeded *M. Marcellus*, who fought thirty-nine Battles. For, besides his Victories in the Civil Wars, he slew in Battle 1,192,000 of his Enemies ; but this, for my own Part, I hold no special Glory of his, considering the great Injury so inflicted on Mankind : and this, indeed, he hath himself confessed, by avoiding to set down the Slaughter that occurred during the Civil Wars. *Pompey* the Great deserveth honour more justly for taking from the Pirates 846 Sail of Ships. But what is proper and peculiar to *Cæsar*, besides what is said above, was his remarkable Clemency, in which he so far surpassed all others, that he himself regretted it. The Example of his Magnanimity was such, that nothing besides can be com-

pared to it. For to reckon up the Spectacles exhibited, with the lavish Expense, with the Magnificence in this Portion of his Works, is to lend a countenance to Luxury. But herein appeared the true and incomparable Loftiness of his unconquered Mind, that when at the Battle of Pharsalia, the Writing-case containing the Letters of *Pompey* was taken, as also those of *Scipio* at Thapsus, he burnt them all with the utmost Fidelity, without having read them.



Pompey.

CHAPTER XXVI.

The Praise of Pompey the Great.

To relate all the Titles, Victories, and Triumphs of *Pompey* the Great, wherein he was equal in the splendour of his Exploits not only to *Alexander* the Great,¹ but even almost to *Hercules* and *Liber Pater*, would redound, not to the Honour only of that one Man, but also to the Grandeur of the Roman Empire. In the first place then, after he had recovered Sicily, from whence his first rising was as a follower of *Sylla* in the cause of the Republic, he appeared auspiciously

¹ It is clear from various ancient authorities, that it was the ambition of *Pompey* to imitate and be compared to *Alexander*; and it was with this view that the title of Great was highly acceptable to him. It was perhaps to humour this foible, and through it to secure him the more effectually to his party, that *Sylla* was accustomed to pay him extraordinary personal honours: returning his salutation of Imperator with the same title, rising from his seat to salute him when *Pompey* dismounted from his horse, and uncovering his head at the same time.—*Daleschampius*. In honour of *Pompey*'s having restored the sovereignty of the sea, the reverse of a Roman denarius bears the figure of a Dolphin and Eagle, separated by a Sceptre, with the inscription, *Magn. Procos.*—*Wern. Club.*

fortunate. Having also wholly subdued Africa, and brought it under obedience, he was brought back in a Triumphal Chariot, with the name of Great, by reason of the Pillage there captured, being then only a Roman Knight: a thing that was never seen before. Immediately passing into the West, and having brought under obedience 876 Towns, between the Alps and the borders of Spain, he erected Trophies on the Pyrenees, with the inscription of his Victory; and with more nobleness of Mind, said nothing concerning *Sertorius*. And after the Civil War was put an end to (which drew after it all Foreign matters), this Roman Knight triumphed the second time: being so many times a General (Imperator), before he was a Soldier (Miles). Afterward he was sent out on an Expedition to all the Seas, and then into the East parts: From whence he returned with more Titles to his Country, after the manner of those who win Victories at the Sacred Games.¹ Neither, indeed, are those Crowned, but they Crown their Native Countries; and so *Pompey* gave as a Tribute to the City these honours which he dedicated to *Minerva*,² out of (*manubiis*) his own share of the Spoils, with an inscription in this manner: CN. POMPEIUS the Great, Imperator, having finished the War of Thirty Years: having discomfited, put to flight, slain, received to submission, 2,183,000 Men: sunk or taken 846 Ships: brought under his authority Towns and Castles to the number of 1538: subdued the Lands from the Lake *Mæotis* to the Red Sea, hath dedicated of right this Vow to MINERVA. This is the Summary of his Services in the East. But of the Triumph which he led on the Third Day before the Calends of October, when *M. Messala* and *M. Piso* were Consuls, the Title ran thus: When he had freed the Sea-coast from Pirates, had restored to the People of Rome the Sovereignty of the Sea, he hath triumphed for Asia; Pontus, Armenia, Paphlagonia, Cappadocia, Cilicia, Syria, the Scythians, Jews, and the Albani; the Island Iberia, Crete, the Bastarni; and above these, over the Kings *Mithridates* and *Tigranes*. But the greatest Glory of all in him was this, (as himself

¹ Olympia, Nemæa, Pythia, Isthmia.

² Or Victory.

said in an Assembly, when he discoursed of his own Exploits): that whereas Asia, when he received it, was the remotest Province of his Country, he left it in the centre. If a man would set *Cæsar* on the other side against him, and review his actions, who of the two seemed greater, he might indeed reckon up the whole World, which would amount to an infinite matter.

CHAPTER XXVII.

The praise of the First Cato.

MANY Men have differently excelled in various other kinds of virtues. But *Cato*,¹ the First of the *Porcian* House, was thought to have been the most excellent in three things which are in the highest degree commendable in Man. He was the best Orator; the best General; and the best Senator. And yet, in my opinion, all these excellencies shone out more brightly, although he was not first, in *Scipio Æmilianus*: To say nothing besides of the absence of the Hatred of so many Men, which *Cato* laboured under. But if you seek for one especial thing in *Cato*, this is, that he was judicially called to his answer Forty-four times, and never was there a Man accused oftener than he; yet he was always acquitted.

CHAPTER XXVIII.

Of Valour.

It is a very extensive inquiry, to discover in whom the

¹ This *Cato* appears to have been more successful in obtaining the esteem than the love of the people; and, indeed, from the evidence of his "Treatise on Agriculture," he appears to have been a niggardly and shrewd master, whom no one could defraud, and who was ready to secure every advantage in a bargain. He recommends, with the same indifference, the sale of an ox that was past labour, his rusty iron, and sickly or worn-out slave.

Narratur et prisici Catonis,

Sæpe mero caluisse Virtus.—*Wern. Club.*

greatest degree of hardy Courage existed; and more especially if we admit the fabulous tales of Poets. *Q. Ennius* had in greatest admiration *T. Cæcilius Teucer*, and his brother; and in regard of those Two he added to the others the Sixth Book of his Annals. But *L. Siccus Dentatus*, a Tribune of the Commons, not long after the Banishment of the Kings, when *Sp. Tarpeius* and *A. Æternius* were Consuls, by most Voices surpasseth in this kind, having Fought 120 Battles; having been Conqueror in Eight Combats with a Challenge; being marked with 45 Scars on the front of his Body, and none behind. Also he won the Spoils of 33 Enemies; he had been presented with 18 Spears; 25 trappings for Horses; 83 Chains; 160 Bracelets; 26 Crowns, of which 14 were Civic, eight of Gold: three Mural; and one Obsidional; together with a Pension from the Treasury; and ten Captives with twenty Oxen; and thus he followed nine Imperators, who chiefly by his means triumphed. Besides these things, he accused in open court before the body of the People, which I suppose was the worthiest act he ever did, *T. Romulius*, one of the leading Generals (who had been a Consul) and convicted him for his ill management of his military command. Scarcely inferior to these were the exploits of *Manlius Capitolinus*, if he had not forfeited them again with such an end of his life.¹ Before he was seventeen years of age, he had gained two spoils of his Enemies. He was the first Roman Knight that received a Mural Crown; with six Civic Crowns; 37 Donations; and he carried the Scars in the forepart of his Body of 33 Wounds. He rescued *P. Servilius*, Master of the Horse, and (in the rescue) was himself wounded in the Arm

¹ Marcus Manlius was the means of preserving the Capitol when it was nearly taken by the Gauls; from which exploit he obtained the surname of Capitolinus. Becoming afterwards a warm supporter of the popular party against the patrician order, he was accused of aiming at the kingly power, and condemned to death. According to Livy (lib. vi.) "the tribunes cast him down from the Tarpeian rock; thus the same spot, in the case of one man, became a monument of distinguished glory and of the cruellest punishment."—*Wern. Club.*

and Thigh. Above all other actions, he alone saved the Capitol, and thereby the whole State, from the Gauls: if he had not saved it for his own Kingdom! In these examples there is indeed much of courage, but yet Fortune hath had the greater share; and in my judgment no one may justly prefer any Man before *M. Sergius*, although *Catiline*, his Nephew's Son, discredited his Name. In the second Year of his Service he lost his Right Hand; and in two Services he was wounded three and twenty times: by which means he had little use of either his Hands or Feet. But although thus disabled as a Soldier, he went many a Time after to the Wars, attended only by one Slave. Twice he was taken Prisoner by *Hannibal* (for he did not serve against ordinary Enemies), and twice he escaped from his bonds, although for twenty Months he was every Day kept Bound with Chains or Shackles. Four times he fought with his Left Hand only, until two Horses were killed under him. He made himself a Right Hand of Iron, and he fought with it fastened to his Arm. He delivered Cremona from Siege, and saved Placentia. In Gallia, he took twelve Camps of the Enemies: All which Exploits appear from that Oration of his which he made in his Prætorship, when his Colleagues repelled him from the solemn Sacrifices because he was maimed.¹ What heaps of Crowns would he have built up if he had been matched with any other Enemy! For it is very important, in our estimate of Courage, to consider in what Time the Persons lived. For what Civic Crowns yielded either Trebia and Ticinus, or Thrasymenus? what Crown could have been gained at Cannæ, where the best service of Courage was to have made an escape? Others, truly, have vanquished Men; but *Sergius* conquered Fortune herself.

¹ The ancients were cautious not to admit a mutilated person to the celebration of sacred rites, observing that such a defect was to be regarded as a thing of ill-omen; and that, if the victim must be perfect, how much more does it become the priest to be so! How careful the Jews were commanded to be in this respect, appears from the Law of Moses, Levit. xx. xxi.—*Wern. Club.*

CHAPTER XXIX.

Of Ingeniities, or the Commendations of some Men for their Ingenuity.

WHO is able to make a muster of them that have been excellent in Ingenuity through so many kinds of Sciences, and such a variety of Works and Things? Unless perhaps we agree that *Homer*, the Greek Prophet, excelled all others, considering either the subject matter or the happy fortune of his Work. And therefore *Alexander* the Great (for in so proud a decision I shall cite the Judgment of the highest, and of those that are beyond Envy), having found among the Spoils of *Darius*, king of the Persians, his Casket of sweet Ointments, which was richly embellished with Gold, Pearls, and precious Stones; when his friends shewed him many uses to which the Cabinet might be put, considering that *Alexander*, as a Soldier engaged in War, and soiled with its service, was disgusted with those Unguents: By *Hercules*, he said, let it be devoted to the care of *Homer's* Books, that the most precious Work of the Human Mind should be preserved in the richest of all Caskets. The same Prince, when he took Thebes, commanded that the Dwelling-house and Family of the Poet *Pindar*¹ should be spared. He refounded the native place (Patria) of *Aristotle* the Philosopher; and so mingled a kind Testimony for one who threw light on all things in the World. *Apollo*, at Delphi, revealed the murderers of *Archilochus* the Poet. When *Sophocles*, the Prince of the Tragic Buskin, was dead, and the Walls of the City were besieged by the Lacedæmonians, *Liber Pater* commanded that he should be buried; and he admonished *Lysander* their King several times as he slept, to suffer his delight to be interred. The King made diligent inquiry who

¹ "The Macedonian conqueror bade spare
The house of Pindarus, when temple and tower
Went to the ground."—MILTON.

lately had died in Athens: and by relation of the Citizens soon found out who the god had signified; and so gave them peace for the burial.

CHAPTER XXX.

Of Plato, Ennius, Virgil, M. Varro, and M. Cicero.

DIONYSIUS the Tyrant, born otherwise to pride and cruelty, sent out to meet Plato, the Chief of the Wise Men, a Ship adorned with Ribbons; and himself went out in a Chariot with four white Horses, to receive him on the Shore. *Isocrates* sold one Oration for twenty talents of Gold. *Æschines*, the famous Orator of Athens, having at Rhodes rehearsed that accusation which he had made against *Demosthenes*, read also his adversary's defence, by occasion of which he had been driven into Banishment at Rhodes; and when the Rhodians wondered at it he said, How much more would you have wondered, if you had heard him delivering it himself! Yielding thus in his Calamity a noble Testimony to his Adversary. The Athenians exiled *Thucydides* their General: but after he had written his Chronicle they called him home again, wondering at the Eloquence of the Man whose Courage they had condemned. The Kings of Egypt and Macedonia gave a strong Testimony how much they honoured *Mænander* the Comic Poet, in that they sent Ambassadors for him with a Fleet; but he won himself greater fame by esteeming more his Studies, than the Favours of Princes. Also the Roman Nobles have afforded Testimonies even to Foreigners. Hence *Cn. Pompey*, when he had ended the War against *Mithridates*, being about to enter the House of *Posidonius*, the celebrated Professor of Wisdom, forbade the Lictor to knock at the Door according to custom: and he to whom both the East and the West parts of the World had submitted, laid down the lictorial Fasces at the Gate. *Cato*, surnamed *Censorius*, when there came to Rome that noble embassy from Athens, consisting of three, the wisest Men among them, having heard *Carneades* speak,

gave his opinion presently, that those Ambassadors were to be sent away with all speed, because, if that Man argued the case, it would be difficult to find out the Truth.¹ What a change is there now in Men's manners! His decision was, that by any means all Greeks should be expelled from Italy; but his nephew's Son, (*Pronepos*,) *Cato* of Utica, brought one of their Philosophers over with him from the Tribunes of the Soldiers, and another from the Cyprian Embassy. And it is worthy of notice to consider how the same Language was regarded by these two *Catoes*: for by the one it was rejected. But let us now discern the glory of our own Countrymen. *Scipio Africanus* the elder gave order that the Statue of *Q. Ennius*²

¹ The account of *Cato's* conduct with the Greek ambassadors, as given by *Pliny*, is very different from that by *Plutarch*, and, from *Cato's* acknowledged love of eloquence, we may judge more correct. It was not, therefore, the fear that eloquence would render the Romans effeminate; but because the peculiar eloquence of these men, with perhaps the general tendency of Greek studies, was calculated to foster habits of sophistry, and so confound the distinction between truth and falsehood.—*Wern. Club.*

² He was emphatically the poet of the republic, and must have been a man of sterling worth to have been so highly esteemed by the family of *Scipio*, and by the censor *Cato*. "It was well known from a passage in *Cicero*, and another in *Livy*, that the sepulchre of the *Scipios* stood beyond the *Porta Capena* of Rome; and *Livy* describes it as being in his time surmounted by three statues: two of them of the *Scipios*, and the third, as was believed, of the poet *Ennius*. But it was not until the year A.D. 1780, that some labourers at work in a vineyard discovered a clue which led to further excavations; and thus the tombs, after having lain undisturbed for upwards of 2000 years, were most unexpectedly brought to light. The original inscriptions have been removed to the Vatican." The following is from "*Roma Antica*," but is also contained in *Montfaucon's* "*Antiquities*," and it must belong to that *Scipio* who is spoken of by *Pliny* in the thirty-fourth chapter of this book, though our author has erred in the application:—

Hoc . oino . ploirume . consention . R .

Duonor . optumo . fuise . viro .

Lucio . Scipione . filios . Barbati .

Consol . Censor . Aidilis . Hic . fuit . A

Hec . cepit . Corsica . Aleriaque . Urbe .

DEDIT . tempestatibus . aide . mereto .

the Poet should be set over his Tomb;¹ to the end that this illustrious name, or indeed the spoil that he had carried away from a third part of the World, should be read over his last ashes, with the title of the Poet. *Divus Augustus* forbad that the Poems of *Virgil* should be burned, contrary to the truth of his will; by which means there grew more credit to the Poet, than if himself had approved his own Verses. *Asinius Pollio* was the first that set up a public Library at Rome, raised from his portion of spoil; and in it he placed the image of *M. Varro*, even while he lived: a thing of as great honour, in my opinion (considering that among the multitude of learned Men he only received this Crown from a Citizen and an excellent Orator), as that other Naval Crown gained him, which *Pompey* the Great bestowed upon him

Thus interpreted:—

Hunc unum plurimi consentiunt Romæ,
 Bonorum optimum fuisse virum,
 Lucium Scipionem, filius Barbati,
 Consul, Censor, Ædilis, Hic fuit; atque (or, apud vos,
 or ad eos).
 Hic cepit Corsicam, Aleriamque urbem
 Dedit Tempestatibus ædem merito.

“The Roman people agree in thinking this man, Lucius Scipio, the best of all good citizens. He was the son of Barbatus, and consul, censor, and ædile among you. He took Corsica, and the city Aleria, and worthily dedicated a temple to the Seasons.”

This inscription was dug up in 1616, but was rejected as spurious until the others were discovered. Africanus, the greatest of the Scipios, was not buried in the paternal tomb, but on the shore at Liternum; and the inscription on his tomb is supposed to have been, “Ingrata Patria, ne ossa quidem habes.” The place is supposed to be marked by a modern tower, which from the inscription still retains the name of “Patria.”—*Wern. Club.*

¹ “Nor think the great from their high place descend,
 Who choose the Muses' favourite for a friend;
 When mighty Scipio, Rome well pleas'd could see,
 With Ennius join'd, in kindest amity.”

JEPHSON'S *Roman Portraits.*

“L'intime liaison de Scipion avec le poëte Ennius, avec qui il voulut avoir un tombeau commun, fait juger qu'il ne manquoit pas de goût pour les belles lettres.”—*Hist. Rom. par ROLLIN*, vol. vii.

in the Pirates' War. There are innumerable Roman examples, if a Man would search them out: for this one Nation hath brought forth more excellent Men in every kind than all besides. But why should I be silent concerning the sacrifice of *M. Tullius*? or how shall I best declare his high excellency? how better his praises than from the most ample testimony of the whole body of the People in general, and the acts only of this Consulship, chosen out of the whole course of thy life? Thine Eloquence was the cause that the Tribes renounced the *Agrarian* Law: that is, their own Sustenance. Through thy Persuasion they pardoned *Roscius*, the Author of the Law of the Theatre;¹ they were content to be noted by the Difference of Seat. At thy Request the Children of the Proscribed felt ashamed to sue for honourable Dignities; *Catiline* fled from thy Ability; it was thou that proscribedst *M. Antonius*. Hail, thou who wast the first that wast saluted by the Name of Father of thy Country! the first in the long Robe that deserved a Triumph, and the Laurel for thy Language! the Father indeed of Eloquence and of the Latin Learning: and (as the Dictator *Cæsar*, who was at one Time thine Enemy, hath written of thee) hast obtained a Laurel above all other Triumphs, by how much more Praiseworthy it is to have enlarged the Bounds of Roman Learning than of Roman Dominion.

CHAPTER XXXI.

Of Majesty in Manners.

THOSE who, among other Gifts of the Mind, have surpassed the rest of Mankind in Wisdom, were on that Account among the Romans surnamed *Cati*, and *Corculi*. Among the Greeks, *Socrates* was preferred to all beside by the Oracle of *Apollo Pythius*.

¹ The Roscian and Julian law, of which L. Roscius Otho, tribune of the people, was the author, which defined and regulated the order of sitting in the public theatre; where, before this, the people mixed indiscriminately with the knights. The law seems to have been unpopular, and therefore to have required frequent renewal. Martial (b. v. ep. 8), has an amusing epigram on its enforcement by Domitian. — *Wern. Club.*

CHAPTER XXXII.

Of Authority.

AGAIN, *Chilo* the Lacedæmonian was of such great Reputation among Men, that his Sayings were held for Oracles; and three Precepts of his were consecrated at Delphi, in these Words: *That each one should know himself: Set thy Mind too much on Nothing: Debt and Law are always accompanied with Misery.* Moreover, when he died for Joy, on receiving Tidings that his Son was Conqueror at Olympia, all Greece solemnised his Funeral.

CHAPTER XXXIII.

Of a divine Spirit.

AMONG Women, in the *Sibyl*¹ there was a divine Spirit, and a certain very noble Companionship with celestial Beings. Of Men, among the Greeks, *Melampus*; and among the Romans, *Martius*.

CHAPTER XXXIV.

Of Nasica.

SCIPIO NASICA was judged once by the sworn Senate to be the best Man from the Beginning of Time: but the same Man is remarked to have twice suffered a Repulse by the People in his white Robe. And to conclude, it was not permitted him to die in his own Country; no more, by *Hercules*, than it was that *Socrates*, pronounced the wisest Man by *Apollo*, should die out of Bonds.

CHAPTER XXXV.

*Of Modesty.*²

SULPITIA, Daughter of *Paterculus* and Wife to *Fulvius Flaccus*, by the Sentence in general of the Matrons was pro-

¹ The Sibyls will be referred to in the 34th book.—*Wern. Club.*

² It was an ancient law, “*Ut Matronis de via decederetur, nihil obscœni presentibus iis vel diceretur vel fieret, neve quis nudum se ab iis conspici*

nounced the most modest; and was elected out of a hundred principal Matrons to dedicate the Image of *Venus*, according to the Sybilline Books. *Claudia*, likewise was, by a religious Experiment (proved to be such), by bringing the Mother of the Gods to Rome.

CHAPTER XXXVI.

*Of Piety.*¹

TRULY, in all Parts of the World, there have been found infinite Examples of Piety; but one Example of this occurred at Rome, to which none beside can be compared. There was a young Woman of humble Condition among the common People, and therefore of no account, who lately had been in Childbed, and whose Mother was shut up in Prison for some great Offence; and when this Daughter obtained leave to have Access to her Mother, and constantly by the Jailer was narrowly searched, that she might not bring to her any Food, she was at last detected suckling her with the Milk of her Breasts. On account of this astonishing circumstance the Life of the Mother was granted to the Piety of the Daughter, and both of them had continued Sustenance allowed them; and the Place where this happened was consecrated to this Deity (*Piety*): so that when *C. Quintius* and *M. Acilius* were Consuls, the Temple of Piety was built, in the very Place where this Prison stood, and where now standeth the Theatre of *Marcellus*. The Father of the *Gracchi*

pateretur, alioquin criminis capitalis reus haberetur." That they should give way to matrons, that no obscenity should either be spoken or done in their presence; and that no man should suffer himself to be within sight of them naked: if otherwise, he should be held guilty of a capital crime.—*Wern. Club.*

¹ In the language of the ancients, piety is not to be understood as having a reference to God, but only as expressing the law of social kindness among the relations of blood or marriage. It proceeds only from revelation that the latter is made to be a duty flowing from the former; and hence, while among Heathens the most vicious of mankind in his general character might also be among the most pious, among Christians no such anomalies can exist.—*Wern. Club.*

having taken two Serpents within his House, received an Answer (from the Soothsayers), that if he would himself live the female Snake must be killed. Truly then, said he, rather kill the male; for *Cornelia* is young, and may have more Children. This was in order to spare his Wife's Life, in consideration of the Good she might do to the Commonwealth. And so it fell out soon after. *M. Lepidus* so entirely loved his wife *Apuleia*, that he died when she was divorced from him. *P. Rutilius* was laid by from some slight Illness, but hearing of his Brother's Repulse in his Request for the Consulship, died immediately. *P. Catienus Philotimus* so loved his Master (*Patronus*), that though he was made his Heir to all that he had, yet he cast himself into his funeral Fire.

CHAPTER XXXVII.

Of the Excellency of many Arts, as Astrology, Grammar, and Geometry.

IN the Knowledge of various Arts a great Number of Men have excelled; but we will only take the Flower of them, and touch them lightly. In Astrology, *Berosus* was eminent; to whom the Athenians, for his divine Predictions, caused a Statue with a golden Tongue to be erected in the public Gymnasium. In Grammar, *Apollodorus* was distinguished; and therefore he was highly honoured by the Amphitryons of Greece. In Medicine, *Hippocrates*¹ excelled; and having foretold a Pestilence that was approaching from Illyria, to cure it he sent his Disciples to the surrounding Cities. In Recompense of which good Desert, Greece decreed for him the like Honours as to *Hercules*. For the same Science, King *Ptolemy* gave to *Cleombrotus* of Cea, at the sacred Megalensian Rites, a hundred Talents, especially for curing King *Antiochus*. *Critobulus* likewise acquired great Fame for drawing an Arrow out of King *Philip's* Eye, and

¹ The remarkable observation at the end of the 50th chapter, which appears to be confirmed by the course of the most formidable epidemics of modern times, will account for this skill in this most eminent physician

so curing the Wound that the Sight remained, and only a Blemish of the Mouth remained. But *Asclepiades* the Prussian surpassed all others, having founded a new Sect; he rejected the Ambassadors and large Promises offered by King *Mithridates*; discovered a Method to make Wine medicinal for the Sick; and recovered a Man to his former state of Health, who was carried forth to be buried: and chiefly he attained to the greatest Name for the Engagement made against Fortune, that he would not be reputed a Physician if he ever were known to be in any way diseased. And he was Conqueror; for when he was very aged he fell down over the Stairs, and was killed. A high Testimony for Knowledge in Geometry and the making of Engines was given by *M. Marcellus* to *Archimedes*, who in the storming of Syracuse gave express Command concerning him alone, that no Violence should be done to him; but military Imprudence disappointed the Order. *Ctesiphon* of Gnosos is much praised for having wonderfully erected the Temple of *Diana* at Ephesus. *Philon*, likewise, was highly esteemed for making the Arsenal at Athens, which was able to receive a thousand Ships; and *Ctesibius* for a Method of forming Wind Instruments, and the Discovery of Engines to draw Water: *Dino-*

of antiquity, who had the benefit of access to the long series of records of the family of the *Asclepiadae*, and whose public spirit was equal to his abilities and opportunities.—*Wern. Club.*

Æ



Medal of Hippocrates, from an engraving in Dr. Mead's *Harveyan Oration*, 1723.

crates, also, for devising the Model of Alexandria in Egypt, when *Alexander* founded it. To conclude, this great Commander (Imperator) forbade, by Edict, that any Man should paint him but *Apelles*: that any one should carve his Statue besides *Pyrgoteles*: and that any one except *Lysippus* should cast his Image in Brass. In which Arts many have excelled.

CHAPTER XXXVIII.

*Surprising Works of Artificers.*¹

KING *Attalus* offered by Competition, for one Picture by *Aristides* the Theban Painter, a hundred Talents. *Cæsar* the Dictator bought for eight Talents two Pictures, the *Medea* and *Ajax* of *Timomachus*, which he meant to consecrate in the Temple of *Venus Genetrix*. King *Candaules* bought of *Butarchus* a Picture of the Destruction of the *Magnetes*, of no great Size, and weighed it in an equal Scale with Gold. King *Demetrius*, surnamed *Expugnator*, forbore to set *Rhodes* on Fire, because he would not burn a Picture by *Protogenes*, which was placed in that part of the Wall which he attacked. *Praxiteles* was ennobled on account of a marble Statue, the *Gnidian Venus*, remarkable particularly for the mad Love of a certain young Man; which Statue was so esteemed by King *Nicomedes*, that he endeavoured to obtain it in full Payment of a large Debt they owed him. The *Jupiter Olympius* still affordeth daily Testimony to *Phydias*. (*Jupiter*) *Capitolinus*, and *Diana* of *Ephesus* yield Testimony to *Mentor*: and the Instruments of this Art were consecrated by them in their Temples.

CHAPTER XXXIX.

*Of Bondsmen.*²

I HAVE never obtained the Knowledge to this Day of a

¹ The subject of statues and paintings is more fully treated of in the 34th and 35th books.—*Wern. Club.*

² The money which Marc Antony paid for a couple of boys is given in the 12th chapter of this book.—*Wern. Club.*

Man born a Slave who was valued so high as *Daphnis*, the Grammarian, was: for *Cn. Pisauensis* sold him for 300,700 Sesterces to *M. Scavrus*, Prince of the City. In this our Age Stage-players have gone beyond this Price, and that not a little; but they had bought their Freedom. And no Wonder, for it is reported that the Actor *Roscius* in former Time had yearly earned 500,000 Sesterces. Unless any one may desire in this Place to hear of the Treasurer of the Armenian War, a little while before carried on on account of *Tyridates*, and who was made free by *Nero* for 120,000 Sesterces. But, by *Hercules*, it was the War that cost so much, and not the Man. Like as *Sutorius Priscus* gave to *Sejanus* 3500 Sesterces for *Pæzon*, one of his Eunuchs: but this was more for Lust than for his Beauty. But he executed this infamous Bargain at a Time when the City was in Sorrow, and no Man had any Leisure to utter a Word in reproach.

CHAPTER XL.

The Excellency of Nations.

It will be scarcely questioned, that of all Nations in the World, the Romans¹ are the most excellent for every Virtue; but to determine who was the happiest Man is above the reach of human Understanding, considering that some fix

¹ The Romans were a haughty people; and they had much to be proud of: for we have no records of a nation that ever understood the arts of government or war better than they. But of what is properly denominated science they knew little; and the Chevalier Bunsen remarks, that they did not reverence or recognise human rights in any nation beside their own. The love of knowledge and truth for their own sakes was altogether unknown among them, and they never conferred benefit except for their own advantage. Their calculating self-love made them, essentially, beneficial rulers; but they manifested no esteem for their subjects; and we may add, that the most probable motive which actuated Plutarch in writing his "Lives," and especially for arranging them in parallels, was to shew covertly that men, as great in all respects as any Romans, had lived in Greece. Germanicus is judged to have been an exception to this Roman constitution of mind; and probably there were others of lower rank; but they are to be regarded as simply the exceptions

their highest Advantage in one Thing, others in another;¹ and every one measureth it according to his several Disposition: but if we wish to form a correct Judgment, throwing aside all the Ambition of Fortune, it may be concluded, that there is not a Man in the World to be accounted happy. And, therefore, Fortune dealeth liberally and indulgently with any one, if he may justly be called not unhappy; because if there be no other Things, yet surely a Man may be ever in Fear lest Fortune should grow tired of him: but let him admit this Fear, and there can be no solid Happiness. What should I say, moreover, to this? — that no Man is at all Times wise? I wish that this were false, and not, in the Judgment of most Men, a Poet's Word only. But such is the Folly of mortal Men, that they are very ingenious in deceiving themselves: so that they reckon after the Custom of the Thracians, who, by Stones marked with different Colours, which they cast into an Urn, institute the Trial of every Day; and at their last Day they separate these Stones one from another and count them: and thus give Judgment concerning

to the general rule. It is in the spirit of Pliny's remark that Martial begins his Epigram to Trajan, lib. xii. ep. 8:—

“Terrarum Dea, gentiumque Roma,
Cui par est nihil, et nihil secundum.”

Goddess of lands and nations, Rome,
Nothing to which can equal come,
And nothing second.

Wern. Club.

¹ The reader is referred to the fourth epistle of Pope's “Essay on Man,” for a more extended and poetical developement of this sentiment.

The sentiments in the latter part of this chapter are re-echoed in the Book of Ecclesiastes by Solomon; where he employs the advantages arising from his high situation and consummate wisdom in seeking to discover whether, on merely human principles, there was any such thing as human happiness in the world. The result was the same as is expressed by Pliny, but with the advantage on the side of the Hebrew sage, that he was able to find in his more elevated principles a security of which Pliny was altogether ignorant. The value of the Life and Immortality which have been brought to light by the Gospel, can best be estimated when we see the gloom which occupied the mind of even such a man as Pliny without it. The highest happiness detailed in the next chapter (xli.) is much below the aspiration of every Christian.—*Wern. Club.*

each one. But what if the Day, flattered with a white Stone, have in it the Beginning of some Misfortune? How many a Man hath entered upon Empires, which have turned to their Affliction? How many have lost their Goods, and at last have been brought to utter Ruin? Certainly these are good Things if a Man could enjoy them fully for one Hour. But thus stands the Case, that one Day is the Judge of another, and the last Day judgeth all; and therefore there is no trust to be placed in them. To say nothing of this: that our good Fortunes are not equal to our bad even in Number; nor is any one Joy to be weighed against the least of our Sorrows. Alas for our empty and imprudent Diligence! We reckon our Days by Number, whereas we should estimate them by Weight.

CHAPTER XLI.

Of the highest Happiness.

LAMPIDO, a Lacedæmonian Lady, is the only Woman that ever was known to have been the Daughter of a King, a King's Wife, and the Mother of a King. Also, *Pherenicè* alone was the Daughter, Sister, and Mother of them that won the Victory at the Olympian Games. In one Family of the *Curiones* there were three Orators, one after another, by descent from Father to Son. The Family of the *Fabii* alone afforded three Presidents of the Senate in succession, who were *M. Fabius Ambustus*, *Fabius Rullianus* the Son, and *Q. Fabius Gurges* the Nephew.

CHAPTER XLII.

Examples of Change of Fortune.

WE have innumerable other examples of the variety of Fortune: for what great Joys did she ever give, but such as sprung from some Evil? Or what great Calamities that have not followed upon the highest Joys?

CHAPTER XLIII.

Of one twice Proscribed: of Q. Metellus, and L. Sylla.

M. FIDUSTIUS, a Senator, having been Proscribed by *Sylla*, was preserved for six-and-thirty Years; but he was afterwards Proscribed the second time: for he outlived *Sylla* and continued to the time of *Antony*; and it so happened that by him he was Proscribed again, for no other reason but because he had been so before. Fortune was pleased that *P. Ventidius* alone should triumph over the Parthians: but she had led him, while a Boy, in the Asculan triumph of *Cn. Pompeius Strabo*; although *Massurius* testifieth, that he was so led in triumph twice. *Cicero* saith,¹ that he was at first but a Muleteer to serve the Camp with Meal. Many others affirm that in his Youth he was a poor Soldier, and served as a Footman in his Caliga (or Military Foot Clothing). *Balbus Cornelius* was also the Senior Consul: but he had been judicially accused, delivered over to the Counsel of the Judges, so that the right of the Rods² was on him. But this Man was the first Roman Consul of Foreigners, and even of those born within the Ocean; having attained to that Dignity, which our Forefathers denied to Latium. Among the distinguished is *L. Fulvius*, who was Consul of the rebellious Tusculans; but when he had passed over to the Romans, he was presently by the whole People advanced to the same Honour among them: and he was the only Man who triumphed at

¹ Epist. x. 18.

² This "right" was according to a law whose origin is disputed; but it seems to have been ancient. According to Dalechampiuss' note on the passage, no Roman citizen could be sentenced by the magistrate to the rods, or be put to death, for any other crime than murder; and of the latter it was necessary that he should be regularly convicted. But it would appear that he might be condemned to exile with little ceremony. Before the passing of this law, a Roman citizen, as well as a foreigner, if sentenced to death, was scourged as a matter of course previous to the execution of the higher sentence. The tendency of this law to confer protection is seen in the instance of St. Paul, Acts of the Apostles, xvi. 37, and xxii. 25.—*Wern. Club.*

Rome over them whose Consul he had been, even in the same Year in which he was himself an Enemy in the Field. *L. Sylla* was the only Man, until our time, that challenged to himself the surname of *Felix*,¹ or the Fortunate; but the Title was adopted from shedding the Blood of Citizens, and by waging War against his Country. And by what arguments was grounded this good Fortune of his? That he was able to Proscribe, and put to Death, so many thousands of the Citizens? O mistaken interpretation, and unhappy even to future time! For were not they more blessed, who then lost their Lives, whose Death at this day we pity, than *Sylla*, whom no Man living at this day doth not abhor? Moreover, was not his end more cruel than the misery of all those who were Proscribed by him? for his own wretched Body consumed itself,² and bred its own torment. And although we may believe that he dissembled all this by his last Dream,³ wherein he lay as if he were dead, upon which he gave out this Speech, that himself alone had overcome Envy by Glory; yet in this one thing he confessed, that his Felicity was defective, inasmuch as he had not Consecrated the Capitol. *Q. Metellus*, in that Funeral Oration which he made in commendation of *L. Metellus*, his Father, left it written of

¹ There was scarcely a title more coveted by the Romans than this of Fortunate, for they took it to be a decisive evidence of the ability which had led to success. Appian says that there existed in front of the Rostra in Rome, a golden equestrian figure of *Sylla*, with the inscription, "*Syllæ Imperat. fortunato.*" But from Pliny we learn that his cruelty had caused his memory to be held in little estimation by posterity.—*Wern. Club.*

² The cause of the death of *Sylla* is not quite certain. Appian (*De Bell. Civ. i. 105*) says he died of an attack of fever; while others inform us that the loathsome disease called *phthiriasis* was the cause of his death. Of this latter opinion were Plutarch, Pliny, and Pausanias.—*Wern. Club.*

³ Plutarch says, "*Sylla* tells us," in his Commentaries, "that the Chaldæans had predicted, that after a life of glory he would depart in the height of his prosperity." He further acquaints us, that his son, who died a little before *Metella*, appeared to him in a dream, dressed in a mean garment, and desired him to bid adieu to his cares, and go along with him to his mother *Metella*, with whom he should live at ease, and enjoy the charms of tranquillity.—*Wern. Club.*

him, that he had been Pontifex, twice Consul, Dictator, Master of the Horse, one of the Quindecimvirs deputed for Division of Lands, and that in the first Punic War he led many Elephants in triumph: moreover, that he had accomplished ten of the greatest and best Things; in seeking which the Wise spend their whole time: for his desire was to be among the foremost of Warriors, an excellent Orator, a very powerful Commander (Imperator); to have the conduct of the most important Affairs, to be in the highest place of Honour, to be eminent for Wisdom, to be accounted a principal Senator, to attain to great Wealth by good Means, to leave many Children behind him, and to be the noblest personage in the City. That these perfections fell to him, and to none but him since the Foundation of Rome, it were long and useless now to confute: but it is abundantly answered by one instance; for this same *Metellus* became Blind in his old Age; having lost his Eyes in a Fire, when he would have saved the Palladium¹ out of the Temple of *Vesta*: an act worthy of being remembered; but the event was unhappy. In regard of which it is not proper to term him Unfortunate (Infelix); and yet he cannot be called Fortunate (Felix). The People of Rome granted to him a Privilege, which no Man before him in the World was known to have: that he should be conveyed in a Chariot to the Senate-house as often as he went to sit at the Council: a great and elevated Prerogative, but it was allowed him as a Compensation for his Eyes.

CHAPTER XLIV.

Of another Metellus.

A SON likewise of this *Q. Metellus*, who gave out those Commendations concerning his Father, is reckoned among

¹ It was one of the figments of Roman divinity, that this image of the tutelary Pallas had existed in ancient Troy; from whence, with *Æneas*, it had transferred the empire to the imperial city of Rome. A similar image existed at Ephesus (Acts of the Apostles, xxix. 35), and it has been supposed that the fall from the sky, of at least the materials of the image, may not have been imaginary. The descent of an aërolite was, probably, as common in ancient times as in modern.—*Wern. Club.*

the most rare examples of human Felicity ; for besides the most honourable Dignities, and the Surname of *Macedonicus*, he was borne to the Funeral Pile by four Sons ; one being the Prætor, and the other three having been Consuls : of which two had triumphed, and one had been Censor : which remarkable things had happened to few. And yet in the very flower of these Honours, as he was returning from the Field, about Noon-day, he was seized by *Catinius Labeo*, surnamed *Macerio*, a Tribune of the Commons, whom he by virtue of his Censorship had expelled out of the Senate ; and the Forum of the Capitol being empty, he took him away by force to the Tarpeian Rock, with an intention to cast him down headlong. A number came running about him of that company which called him Father ; but, as was unavoidable in so sudden a case, slowly, and as if attending a Funeral ; with the absence also of a right to make Resistance, and repel the inviolable Authority : so that he was likely to have Perished even for his Virtue and faithful Execution of his Censorship, if there had not been one Tribune found, with much difficulty, to step between and oppose himself ; by which means he was rescued, even from the utmost point of Death. He lived afterwards by the liberality of other Men : for all his Goods from that day forward were devoted, from his Condemnation : as if he had not suffered Punishment enough to have his Neck so writhed, as that the Blood was squeezed out at his Ears. And truly I would reckon it among his Calamities, that he was an Enemy to the later *Africanus*, even by the Testimony of *Macedonicus* himself. These were his words to his Children : Go, my Sons, and do honour to his Obsequies ; for the Funeral of a greater Citizen ye will never see. And this he said to them, when they had conquered Crete and the Balearic Islands, and had worn the Diadem in triumph : being himself already entitled *Macedonicus*. But if we consider that only injury offered to him, who can justly deem him happy, being exposed to the pleasure of his Enemy, far inferior to *Africanus*, and so to come to confusion ? What were all his Victories to this one Disgrace ? What Honours and Chariots did not Fortune

cast down by her violence, when a Censor was dragged through the middle of the City (the only way indeed to bring him to his Death); dragged to the Capitol itself, to which he had ascended triumphant: but he never so dragged along those Captives, for whose Spoils he triumphed. And this Outrage was the greater in regard of the Felicity which ensued; considering that this *Macedonicus* was in danger to have lost so great an Honour as this solemn and stately Sepulture, in which he was carried forth to his Funeral Fire by his triumphant Children, as if he had triumphed again at his very burial. Truly that can be no sound Felicity, which is interrupted by any Indignity of Life, much less by so great a one as this. To conclude, I know not whether there be more cause to glory for the modest carriage of Men, or to grieve at the Indignity, that among so many *Metelli* so audacious a Villany as this of *Catinius* was never revenged.

CHAPTER XLV.

*Of Divus Augustus.*¹

ALSO, in *Divus Augustus*, whom all the World declareth to be in this rank of fortunate Men, if we diligently consider all things, we perceive great Changes of the Human lot Driven by his Uncle from the Generalship of the Horse, and, notwithstanding his Petition, seeing *Lepidus* preferred to that place, he laboured under the reproach of the Proscription; and for being one of the Triumvirate, united with the most wicked Citizens; and this with a less than equal share (of the Roman Empire), for *Antony* obtained the greatest Portion. He was Sick at the Battle of Philippi; his flight; and while still Sick, for three Days his lying hidden in a Marsh; so that (as *Agrippa* and *Mecænas* confess), he grew into a kind of Dropsy, and his Sides were distended with Water under the Skin; his Shipwreck in

¹ It is a proof of the imperfect manner in which history has been generally treated, that Suetonius has written the life of Augustus Cæsar without the mention of a great part of these particulars, and of none of them in the point of view here given.—*Wern. Club.*

Sicily, and there likewise he was glad to remain concealed in a Cave: then he was put to flight at Sea, and when the whole power of his Enemies was hard on him, he besought *Proculcius* to put him to Death; how he was perplexed by the Contentions at Perusium; the anxiety he was in at the Battle of Actium, and for the issue of the Pannonian War; for the fall of a Bridge; so many Mutinies among his Soldiers; so many dangerous Diseases of his Body; the suspected Allegiance of *Marcellus*; the shame of Banishing *Agrippa*; his Life so many times attempted by secret Plots; the suspected Deaths of his Children; the sad Afflictions thereby; and not altogether for his Childless condition: the Adultery of his Daughter, and her Contrivances for taking his Life away made known to the World; the reproachful Retreat of *Nero*, his Wife's Son; another Adultery committed by one of his Nieces: above all this, so many united Evils, as the want of Pay for his Soldiers; the Rebellion of Illyricum; the Mustering of Slaves; the Scarcity of Young Men; a Pestilence in the City; Famine and Drought through Italy; a deliberate Resolution of Dying, having to that end Fasted four Days and Nights, and in that time received into his Body the greater part of his own Death. Besides these things, the Slaughter of *Varius's* Forces, and the foul stain of his Honour; the putting away of *Posthumus Agrippa* after his Adoption, and the desire that he had for him after his Banishment; then the Suspicion that he conceived of *Fabius*, and the disclosing of his Secrets; and again his Opinions concerning his Wife and *Tiberius*, which surpassed all his other Cares. To conclude, that God, of whom I do not know whether he rather obtained Heaven than deserved it, left behind him for his Heir the Son of his Enemy.

CHAPTER XLVI.

Whom the Gods Judge the most Happy.

I CANNOT pass over in this Discourse the Oracles of Delphos, delivered from the God to chastise the Folly of Men. Two of them are these: That *Phedius*, who but a while

before Died for his Country, was the most Happy. Again, being consulted by *Gyges*, the most sumptuous King in all the Earth, the answer was, that *Aglaus Psophidius* was the more Happy. This *Aglaus* was a Man somewhat advanced in Years, dwelling in a very narrow corner of Arcadia, where he had a little Estate, which himself cultivated; and it was sufficient with its yearly Produce to Support him plentifully; out of it he never went: so that (as appeared by his course of Life,) as he coveted very little, so he experienced as little Trouble while he Lived.

CHAPTER XLVII.

*Whom, while Living, they ordered to be Worshipped as a God.*¹

By the appointment of the same Oracle, and by the approbation of *Jupiter*, the Sovereign of the Gods, *Euthymus* the Wrestler, who always was Conqueror at Olympia, except once, was Consecrated a God while he lived, and knew of it; he was born at Locri, in Italy, where one Statue of his, as also another at Olympia, were both on one Day struck with Lightning: which I see *Callimachus* wondered at, as if nothing else were worthy of Admiration; and gave order that he should be Sacrificed to, as to a God: which was performed accordingly, both while he Lived and after he was Dead. A thing that I wonder at more than at any thing else: that the Gods should have been pleased with such a thing.

¹ It was scarcely more reasonable to worship a man after he was dead than during his life; and yet Pliny must have joined in the worship of Augustus and Julius Cæsar, and have been conscious, as appears from several places of his writings, that the greatest gods of his country had formerly been living men. The egregious vanity of desiring to be supposed a god was felt by Alexander the Great, to whose application for recognition in this character the Lacedæmonians replied by an edict, that "If Alexander wished to be a god, he might be a god." Pliny lived to see the brother of his patron Titus, Domitian, exemplify the absurdity of which he complains; for it appears that the latter emperor was more than ordinarily fond of this assumption of divinity.-- *Wern. Club.*

CHAPTER XLVIII.

Of the longest Extent of Life.

THE extent and duration of Man's Life are rendered uncertain, not only by the Situation of Places, but also from Examples, and the peculiar lot of his Nativity. *Hesiod*, the first Writer who has treated on this Subject, in his Fabulous Discourse (as I regard it), embracing many things about the Age of Man, saith that a Crow lives nine times as long as we; the Stags four times as long as the Crow; and the Ravens thrice as long as they. And his other remarks about the Nymphs and the Phœnix are still more Fabulous. *Anacreon* the Poet, assigneth to *Arganthonius*, King of the Tartessi, 150 Years: and to *Cyniras*, King of the Cypri, ten Years longer: to *Ægimius*, 200. *Theopompus* affirmeth, that *Epimenides*, the Gnossian, died when he was 157 Years old. *Hellanicus* hath Written, that among the Epii, in Ætolia, there are some who continue full 200 Years: and with him agreeth *Damastes*; adding also, that there was one *Pictoreus* among them, a Man of exceeding Stature, and very Strong, who lived even to 300 Years. *Ephorus* saith, that the Kings of Arcadia usually lived to 300 Years. *Alexander Cornelius* writeth of one *Dando* in Illyrica, who lived 500 Years. *Xenophon* in his "Periplus," maketh mention of a King of a People upon the Sea-coasts, who lived 600 Years: and as if he had not lied enough already, he saith, that his Son came to 800. All these strange reports proceed from ignorance of the times past, for some reckoned the Summer for one Year, and the Winter for another. Others reckoned every Quarter for a Year, as the Arcadians, whose Year was but three Months. Some, as the Egyptians, count every change of the Moon for a Year; and therefore some of them are reported to have lived 1000 Years. But to pass to things acknowledged as true, it is almost certain, that *Arganthonius*, King of Calais, reigned 80 Years; and it is supposed that he was 40 Years old when he began to Reign. It is undoubted, that *Masanissa* reigned 60 Years; and also that

Gorgias the Sicilian lived 108 Years. *Q. Fabius Maximus* continued Augur for 63 Years. *M. Perpenna*, and of late, *L. Volusius Saturninus*, out-lived all those Senators who had sat in Council with them when they were Consuls. *Perpenna* left but seven of those Senators alive whom he had chosen in his Censorship; and he lived himself 98 Years. Where, by the way, one thing cometh to my Mind worth the noting: that there was one Space of five Years, and never but one, in which not one Senator died; and that was from the time that *Flaccus* and *Albinus* the Censors finished their Lustrum, to the coming in of the next Censors; which was from the Year after the Foundation of the City, 579. *M. Valerius Corvinus* lived 100 Years complete; and between his first Consulate and his sixth, were 46 Years. He took his Seat on the Curule Chair 21 Times; and no Man ever besides him so often. *Metellus* the Pontifex lived full as long as he.

To come now to Women: *Livia* the Wife of *Rutilius* lived more than 97 Years. *Statilia*, a noble Lady, in the Time of *Claudius* the Prince, was 99 Years of Age: *Cicero's* Wife, *Terentia*, was 103 Years old: *Clodia*, Wife to *Osilius*, saw 115 Years; and she had 15 Children. *Luceia*, a Comic Actress, appeared on the Stage for 100 Years. *Galeria Copiola*, a Mimic Actress, was brought again upon the Stage when *Cn. Pompeius* and *Q. Sulpitius* were Consuls, at the solemn Plays vowed for the Health of *Divus Augustus*, when she was in the 104th Year of her Age: the first Time that she entered on the Stage was 91 Years before, when she was brought thither by *M. Pomponius*, Ædile of the Commons, in the Year that *C. Marius* and *Cn. Carbo* were Consuls; and once again *Pompey* the Great, at the dedication of his great Theatre, returned the old Woman to the Stage for the wonder of the thing. Also *Asconius Pædianus* writeth, that *Samula* lived 110 Years; and therefore I wonder the less that *Stephanio* (who was the first of the Long Robe who appointed Dancing) danced in both the Secular Games, as well those that were set out by *Divus Augustus*, as those which *Claudius Cæsar* exhibited in his

fourth Consulship; considering that between the one and the other there were but 63 Years; and yet *Stephanio* lived for a considerable Time after. *Mutianus* witnesseth, that in *Tempis*, which is the Crest of the Mountain *Tmolus*, People lived 150 Years. At that Age, *T. Fullonius*, of *Bononia*, entered his Name in the Census at the Time that *Claudius Cæsar* held the Registry; and that he was so old indeed, appeared by comparing together several Registries that he had before made, as also by circumstances that had occurred in his Lifetime; for the Emperor took care in that way to find out the Truth.¹

CHAPTER XLIX.

Of Differences in the Nativities.

THIS Point would require the Advice of the Science of the Stars; for *Epigenes* saith, that it is not possible for a Man to live a hundred and twenty-two Years; and *Berosus* is of opinion, that one cannot pass an hundred and seventeen. That Calculation holdeth good which *Petosiris* and *Necepsos* have delivered, and which they call *Tetartemorion*, from a portion of three Signs; according to which account it

¹ The length of life detailed in the Mosaic records was unknown to the Greeks, who had only retained an obscure traditional remembrance of it, and of the great stature and strength with which it was supposed to be accompanied. But that Pliny's mode of interpreting it, by a peculiar method of explaining the length of the year, will not apply to the narrative in the Book of Genesis, appears from the fact that the same history records the reduction of the length of human life, by sudden transitions, to at last threescore and ten years, which we are compelled to measure by the same scale as the former.

As a general summary of the duration of life in historical times, the "History of Life and Death," by Lord Bacon, may be consulted. Fuller mentions James Sands, of Horborne in Staffordshire, who lived 140 years, and his wife 120. The Countess of Desmond, known to Sir W Rawleigh, lived to about 140 years, and had new teeth three several times. Thomas Parr was born in 1483; married at the age of eighty, and in the space of thirty-two years had only two children. At the age of 120 he had another child, and died aged 150 years.—*Wern. Club.*

is evident, that in the Tract of Italy, Men may reach to a hundred and twenty-six Years. They denied that a Man could possibly pass the ascendant Space of 90 Degrees (which they call Anaphoras); and that even these are cut short, either by the encounter of malevolent Planets, or by the radiations of them or the Sun. Again, the Sect of *Asclepiades*¹ affirm, that the appointed Length of Life proceedeth from the Stars; but concerning the utmost term, it is uncertain. But they say, that the longer Ages are Rare, because the greatest Number by far have their Nativity at the marked Moments of the Hours of the Moon, or of Days according to the Number of Seven or Nine (which are Daily and Nightly observed): by the gradual declining Law of the Years, called Climacteric,² and such as are so Born scarcely exceed the fifty-fourth Year. But here, first, the Uncertainty of the Art itself declareth how doubtful this matter is. To this are added the Observations and Instances of the very recent Census, which within the Space of four Years, the Imperators, Cæsars, Vespasians, Father and Son, Censors, have accomplished. And here we need not search every Cupboard, we will only set down the examples of the middle part, between the Apennine and the Po. At Parma, three Men were found of the Age of a hundred and

¹ In book xxvi. c. 3, Pliny gives a more precise, and not very complimentary, account of this physician.—*Wern. Club.*

² A large portion of the physiological learning of ancient physicians consisted in the arithmetical calculation of types and periods of vital and diseased actions; in connexion with which they also arranged the motions of the celestial bodies and their influences. It thus became necessary, that he who was a physician in the modern meaning of the word should also be able to interpret the stars, and to apply mathematical reasoning to the laws of health and disease. The calculation of climacterical years, and the ultimate duration of human life, were thus decided by a combination of intricate mathematical probabilities. These climacteric years were formed on the multiplication of the number seven by the unit numbers, and at them the most important of the periodic changes of the body were accomplished. The highest number thus multiplied formed the grand climacteric, after which the changes produced a retrogression towards feebleness and decay; the danger of which was ever greatest at the climacterics. See book ii. c. 52.—*Wern. Club.*

twenty Years: at Brixelus, one that was a hundred and twenty-five Years; at Parma, two of a hundred and thirty Years; at Placentia, one of a hundred and thirty-one; at Faventia, there was one Woman a hundred and thirty-two Years old; at Bonona, *L. Terentius*, the Son of *Marcus*, and at Ariminum *M. Aponius*, were a hundred and fifty. *Tertulla* was a hundred and thirty-seven. About Placentia there is a Town on the Hills, named Velleiacium, in which six Men brought a Certificate that they had lived a hundred and ten Years; four likewise brought one of about a hundred Years; one of a hundred and forty,¹ namely *M. Mutius*, son of *Marcus* surnamed *Galerius Felix*. But because we will not dwell long in a matter so commonly allowed, in the eighth Region of Italy there were found in the Roll fifty-four Persons of one hundred Years of Age; fifty-seven of a hundred and ten; two, of a hundred and twenty-five; four, of a hundred and thirty; as many that were a hundred and thirty-five, or a hundred and thirty-seven Years; and three Men of a hundred and forty. Another inconstant variety in mortal Men: *Homer* reporteth, that *Hector* and *Polydamas* were born in one Night, though Men of such a different Fortune. While *C. Marius* was Consul, and *Cn. Carbo* with him, who had been twice before Consul, the fifth Day before the Calends of June, *M. Cæcilius Ruffus* and *C. Licinius Calvus* were born on the same Day; and both of them indeed were Orators: but their fate was very different. And this is seen daily to happen throughout the World, that among those born in one Hour some are Kings, and others Beggars, some Lords and others Slaves.

CHAPTER L.

Various Examples of Diseases.

PUB. CORNELIUS RUFUS, who was Consul with *M. Curius*, dreamed that he had Lost his Sight; and so it proved when he awoke. On the other Hand, *Phalereus* being given

¹ Dr. Holland seems to have read "one hundred and fourteen."—*Wern. Club.*

over by the Physicians for the Disease of Vomica, being stabbed in his Breast, found a Remedy in his Enemy. Q. Fabius Maximus, Consul, engaging in a Battle with the Nations of the Allobroges and Averni, near the River Isara, on the sixth Day before the Ides of August; in which double action he Slew of his Enemies 13,000; he was in the Contest delivered from his Fever. This gift of Nature, truly, whatever is bestowed on us, is frail and uncertain: and in those in whom it exists in the largest Measure, it is but short and evil if we consider the whole Course of it from Beginning to End. Because if we count our repose by Night, a Man may be truly said to live but one half of his Life; for that Half of it which is spent in Sleep may be compared to Death; and if he cannot Sleep, it is a Punishment. Nor are the Years of our Infancy to be reckoned, for this Age is void of Sense; nor those of old Age, which is the punishment of a disposition to live. What shall I speak of so many kinds of Dangers, so many Diseases, so many Fears, so many Cares, so many Prayers for Death, that we Pray for nothing more frequently? and therefore Nature knoweth not what better thing to give a Man, than short Life. The Senses¹ become dull, the Members grow benumbed, the Eye-sight decayeth betimes, the Hearing followeth, then the Supporters, the Teeth also, and the very Instruments that serve for our Food; and yet all this Time is counted a Part of our Life. And therefore it is taken for a wonderful example, and that to which we cannot find a fellow, that *Xenophilus* the Musician lived 105 Years, without any inconveniency in all his Body. But all other Men, by *Hercules!* are vexed at certain Hours, as no other Creatures are besides, with pestiferous Heat and Cold in every part of their Members; which go

¹ How remarkably does this enumeration of the signs and evils of age correspond with the more poetical representation of the same condition by Solomon, in the last chapter of the Book of Ecclesiastes! Cicero, in his "Cato," laments the ills of age as more weighty than *Ætna*; and others of the wisest heathens join in the lamentation; which ceases to surprise us when we reflect that they were destitute of a hope in the future.—*Wern. Club.*

and come, not for certain Hours only, but by Day and by Night: one while every Third, and at others every Fourth Day and Night, even through the whole Year. And it is some sort of Disease to die through wisdom, for Nature hath set down certain Laws, even to Diseases; as that the circle of a Quartan Fever never beginneth in the shortest Days of the Year, neither in the Months of Winter; that some Diseases are not incident to those that are above Sixty Years of Age; that others again pass away when young People come to the Age of Puberty; and especially this is observed in young Women. Old People are the least liable to take the Plague. Also there are Sicknesses that follow particular Regions, affecting the Inhabitants generally therein. There are some again that take hold of Servants only; others touch the highest Persons alone: and so from degree to degree. But in this Place it is to be observed, that a Pestilence beginneth in the South parts, and always goeth toward the West; and it scarcely ever doeth otherwise, except in Winter, and then it doth not exceed three Months.¹

CHAPTER LI.

*Of the Signs of Death.*²

Now let us take a View of the fatal Signs in Sickness. In the Disease of Fury (Madness), to Laugh is such a Sign: In the Sickness of Wisdom (Frenzy), to have a care of the Fringes of their Garments and Bedclothes, to smoothe them down; the neglect of such things as would prevent their Sleep; the apologising letting go of their Water. It

¹ This remark has been already referred to c. 37, p. 221; and it is the more worthy of notice, since there is reason to believe that all the epidemics which have traversed Europe since the time when Pliny wrote have conformed to the same rule.—*Wern. Club.*

² Celsus considers this subject, book ii. c. 6, and the medical nature and treatment of insanity, book iii. c. 18. By *furoris morbus* (madness or mania), and *sapientiae aegritudine* (frenzy), he seems to mean, the former, insanity of the passions; and the latter, insanity of the understanding.—*Wern. Club.*

may also be certainly seen in the aspect of the Eyes and Nose, as also in the manner of lying always upon the Back supine: also by the unequal stroke of the Veins, as if an Ant crept under it, with other Signs which *Hippocrates*, the prince of Medicine, hath observed. And whilst there are innumerable Signs that presage Death, there is not one that can assure a Man certainly of Life and Health. For *Cato*¹ the Censor, writing to his Son concerning robust Health, hath delivered from some Oracle, that Youth resembling Age is a Sign of untimely Death. Diseases are so innumerable, that *Pherecydes*, of the Island of Syros, died of a great quantity of Creepers² bursting out of his Body. Some are never free of a Fever, as *C. Mecænas*. The same Man, for three whole Years before he died, never was asleep for a single Minute. *Antipater Sidonius* the Poet, once a year during his Life was seized with an Ague-fit upon his Birthday only, and at last he died in such a Fit in a good old Age.

CHAPTER LII.

Of such as were carried forth to their Funeral and revived again.

A. *VIOLA*, who had been Consul, came to himself when he was on the Funeral Pile; but because the Flame was so Strong that he could not be got away, he was burnt alive.

¹ Cato's knowledge of medical subjects may be judged of from the specimens of miserable quackery contained in his "Treatise on Agriculture." Much of it consisted of charms, in unintelligible jargon.—*Wern. Club.*

² Pliny sometimes employs unusual words to express plain and common things; or he may have adopted the term to avoid what among polite people would have excited loathing. For the same reason another author speaks of the same creatures under the name of *animalia tetra*, or foul creatures. It was the disease which afflicted Herod, Acts of the Apostles, xii. 23; and in modern times Dr. Heberden records a case, "Commentaries," c. lxxi: but it is not certain that they are of the same species as that which commonly attacks the human body. The fate of Sylla, from the same cause, is referred to in the 43d chapter of this Book.—*Wern. Club.*

The like accident is reported to have befallen *Lu. Lamia*, of Prætorian rank. That *C. Ælius Tubero*, who had been Prætor, was brought Alive again from the Funeral Fire, *Messala Rufus* and many others assert. Such is the condition of Mortal Men; and to this kind of Fortune, and such as this, are we born: so that in the case of Man there is no assurance, no, not even in his Death. We read in Chronicles, that the Soul of *Hermotimus Clazomenius* was accustomed to leave his Body, and wandering to a great distance, brought him back News of such things as could not possibly have been known unless it had been present there; and all the while his Body lay half Dead. This manner he continued, until the *Cantharidæ*, who were his Enemies, took his Body and burnt it to Ashes; and by that means disappointed his Soul when it came back again to its Sheath. Also it is said, that the Spirit of *Aristæas* in *Proconnesus* was seen to fly out of his Mouth in the form of a Raven; and many an empty Tale followeth thereon: for surely I take it to be no better than a Fable, which is in like manner reported of *Epimenides* the *Gnossian*, that when he was a Boy, and wearied with Heat and Travel, he laid himself down in a Cave, and there slept for 57 Years.¹ At length he awoke, as if on the very next Morning, and wondered at the changed face of every thing he saw. Hence in an equal number of Days after, he grew Old, that at last he lived to the Age of 175 Years. Women, by reason of their Sex, are most subject to this danger,² by the turning of the Womb; which, if it be corrected, they soon recover. To this belongs that noble Volume among the Greeks written by *Heraclides*, where he writeth of a Woman that for seven Days lay as Dead, but who in the end was restored to Life. Also *Varro* reporteth, that when the twenty Men were dividing Lands

¹ Gibbon refers to a similar story, which was widely believed, in the fifth century of Christianity ("Decline and Fall," c. xxxiii.); but he seems not to have been aware of this more ancient, and perhaps original, narrative of a similar event.—*Wern. Club.*

² That is, of the suspension of animation, one of the symptoms of Hysteria.—*Wern. Club.*

at Capua, there was one carried forth on his Bier who came home again upon his Feet. Also, that the like happened at Aquinum. Likewise, that in Rome one *Corfidius*, who had married his own Aunt by the Mother's side, after his Funeral had been set in order, revived again; and the Orderer of his Funeral was by him carried out to the same. *Varro* also addeth some surprising things, which are worth the rehearsal at large. There were two Brethren of the Equestrian order, of whom the elder, named *Corfidius*, happened in all appearance to die; and when his last Will was opened, the younger Brother, who was appointed his Heir, gave orders for his Funeral. In the meanwhile the Man that seemed Dead, by clapping one Hand against the other,¹ raised the Servants in the House; and he recounted to them that he was come from his younger Brother, who had recommended his Daughter to him; and, moreover, that he had shewed to him in what place he had buried his Gold, without the knowledge of any Man: requesting him also to employ that Provision which he had prepared for him about his own Funeral. As he was relating this matter, his Brother's domestic Servants came in great haste to the House, and brought word that their Master was dead; and the Gold was found in the place he had pointed out. And truly life is full of these Divinations; but they are not to be compared with these, as for the most part they are mere lies, as we will prove by one notable example: in the Sicilian War, *Gabienus*, one of the bravest Officers of *Cesar's* Fleet, was taken prisoner by *Sex. Pompey*, and by commandment from him his Head was almost stricken off, so that it scarcely hung to the Neck by the Skin, and in this condition he lay all day on the Shore. When it grew toward the Evening, and a Company were flocked about him, with a groan and prayers he requested that *Pompey* would come to him, or at least send some one of those who

¹ Clapping the hands together appears to have been an ordinary method of summoning the attendants before bells came into use for that purpose.—*Wern. Club.*

were dear to him, because he was sent back from the Lower Regions, and had a Message to deliver to him. Then *Pompey* sent several of his friends, to whom *Gabienus* related that the Infernal Gods were well pleased with the Cause and pious Dispositions of *Pompey*, and therefore he should have as good an issue of it as he could wish. Thus much, he said, he was commanded to deliver; and as a proof of the truth, so soon as he had done his errand he would immediately expire: and so it came to pass. Histories also make mention of them who have appeared after they were committed to Earth. But our purpose is to write of Nature's works, and not to prosecute such Prodigious Matters.

CHAPTER LIII.

Of Sudden Deaths.

BUT among the principal things is sudden Death, which is the greatest Felicity of Life; many examples of which we have, that always seem strange, although they are common, and as we shall shew, natural. *Verrius* hath set forth many, but we will make choice among them all. Besides *Chilon*, of whom we have spoken before, there died suddenly for Joy *Sophocles* the Poet, and *Dionysius* the Tyrant of Sicily: both of them, on Tidings brought to them that they had won the best Prize among the Tragic Poets. Presently after the famous battle of Cannæ, a Mother died immediately on the sight of her Son unhurt, whom by a false Message she had heard to have been Slain. *Diodorus*, a Professor of Dialectic Learning, for shame that he could not readily resolve a frivolous Question at the demand of *Stilbo*, sunk away without recovery. Without any apparent cause some have died, particularly two of the *Cæsars*; the one a Prætor: the other who had borne that Dignity, the Father of *Cæsar* the Dictator: both of them in the Morning when they were putting on their Shoes, the one at Pisa, the former at Rome. *Q. Fabius Maximus* in his very Consulship, upon the last Day of December; in whose place *Rebilus* made suit to be

Consul for a very few Hours.¹ Also, *C. Vulcatius Gurges*, a Senator: all of them in such sound and perfect Health, that they expected to live Long. *Q. Æmilius Lepidus*, even as he was going out of his Bed-chamber, hit his great Toe against the Door-post and died from it. *C. Aufidius* was going out of his House, on his way to the Senate, and stumbled with his Foot in the Comitium. The Ambassador of the Rhodians also, who had to the great admiration of all that were present pleaded their cause before the Senate, in the very entry of the Counsel-house, as he was going out, fell down Dead. *Cn. Bæbius Pamphilus*, who had been Prætor, died suddenly as he was asking a Boy what it was o'clock. *A. Pompeius*, so soon as he had worshipped the Gods in the Capitol; *M. Juventius Talva*, the Consul, as he was sacrificing; *Caius Servilius Pansa*, as he stood at a Shop in the Forum, at the second Hour of the Day, leaning on his Brother, *P. Pansa*; *Bæbius*, the Judge, as he was adjourning an Appearance in the Court; *M. Terentius Corax*, while he was writing Letters in the Forum; no longer since than last Year a Knight of Rome, as he was talking in the Ear of one who had been Consul, before the Ivory Statue of *Apollo*, which is in the Forum of *Augustus*: but above all others, *C. Julius*, a Physician, as he was dressing an Eye with Ointment, and drawing the Surgical Instrument along the Eye; also *L. Manlius Torquatus*, a Consular Man, when at Supper he reached for a Cake; *L. Durius Valla*, a Physician, while he was drinking a Draught of honeyed Drink; *Appius Sausæius*, being come out of the Bath, as he was drinking honeyed Drink, and supping an Egg; *P. Quintius Scapula*, as he was at Supper with *Aquillius Gallus*; *Decimus Sausæius*, a Scribe, as he sat at Dinner in his own House; *Cornelius Gallus*, who had been Prætor, and *T. Ætherius* a Roman Knight, died in the very act of *Venus*. The like befell in our Days to two of the Equestrian order, with the same pantomimic Jester *Mithycus*, who was in those days of surpassing Beauty. But *M. Oflius Hilarus*,

¹ Until the year was accomplished: an honour which otherwise he was not likely ever to attain.—*Wern. Club.*

an Actor in Comedies, as is reported by ancient Writers, died with the most laboured security of Death ; for after he had afforded much Pleasure to the People on his Birth-day he held a Feast ; and when the Supper was set forth, he called for some hot Drink in a Basin : and casting his Eye on the Mask that he had worn that day, he took off the Chaplet from his Head, and set it on it ; in this habit he became cold before any Man perceived it, until he that reclined next to him put him in mind that his Drink was growing cold. These are examples of happy Deaths. But, on the other hand, there is a very great number of those that are miserable. *L. Domitius*, descended from a noble Family, being vanquished by *Cæsar* near Massilia, and taken prisoner at Corsinium by the same *Cæsar*, for very irksomeness of Life poisoned himself ; but after he had drunk the Poison he did all he could to save his life. We find in the Public Acts, that when *Felix*, one of the Red-coloured Chariot-drivers, was carried out to be burnt, one of those who favoured him threw himself into his Funeral Fire. A frivolous matter it is to speak of ; but they of the other side, that this act should not be ascribed to the honour of the Artist abovenamed, gave it out, that this Friend of his did it only because his Head was intoxicated with the strong smell of the Odours. Not long before this *M. Lepidus*,¹ descended from a most noble Family, who (as is above said) died through Grief, was by the violence of the Flame cast off from the Funeral Pile ; and as, because of the extreme Heat, no one could come near to lay him again on the place, he was burnt naked on a pile of dry Vine Cuttings, near the former.

CHAPTER LIV.

Of Burial.

To burn the Bodies² of the Dead was not an ancient Custom among the Romans ; but they Buried them in the

¹ The cause of his death is mentioned in the 36th chapter of this book.—*Wern. Club.*

² The practice of burning the dead is of high antiquity, and as such is

Earth. But after they understood that the Bodies of the Men slain in the distant Wars were taken up out of the Earth again, it was appointed to Burn them. And yet many Families kept still to the old Customs: as in the House of the *Cornelii* no one is reported to have been burnt before *L. Sylla*, the Dictator. And he willed it through dread that he should be so served as he had done by *C. Marius*, whose Corpse he had caused to be digged up. (In Latin) he is said to be *Sepultus*, who is bestowed in any way; but *Humatus* signifieth that he is covered with the Earth.

CHAPTER LV.

*Of the Soul, or the Manes.*¹

AFTER Sepulture there is very great Obscurity regarding the Manes; but this is generally held, that in whatever Con-

familiarly spoken of by Homer. That it was more ancient among the Romans than is represented by Pliny appears from Ovid; who ("Fasti," c. 4) speaks of its having been practised on the body of Remus, the brother of Romulus. The same is also negatively proved by Numa, who ordered that his body should not be burned; and by the laws of the Twelve Tables, regulations were instituted concerning it: chiefly to prevent extravagant expense in the ceremony. The general fashion of burning, in preference to interment, succeeded to the example set by Sylla; after whose day it was practised even by people of inferior orders: but neither burning nor burial were allowed by law within the bounds of the city. An ordinance of Numa forbade that a woman who died in childbirth should be buried, until the child was taken from her; and the usual ceremonies were to be omitted when the person had been killed by lightning.—*Wern. Club.*

¹ "Manes" was a general term expressive of the souls of men after they were separated from the body. They were supposed to be arranged in classes, according to their moral condition: for which see a note, vol. i. p. 24. But however situated, a kind of deityship was supposed to attach itself to them: and hence they were addressed as *Diï Manes*. Such was the popular opinion, as referred to by Virgil, Ovid, and other writers who reflected the public mind; but it was scarcely an article of faith among philosophers and the higher classes, whose opinions fluctuated according to circumstances. As a motive to moral obligation and responsibility it was exceedingly feeble.

Pliny's observation, "that in whatever condition they were before

dition they were before they were born, in the same they remain when they are dead. For neither Body nor Soul hath any more Sense after Death than they had before the Day of Birth. But the Vanity of Men extendeth itself even into the future, and in the very Time of Death flattereth itself with a Life after this. For some attribute Immortality to the Soul; others devise a Transfiguration; some again

they were born, in the same they remain after they are dead," may be understood as referring to the Pythagorean doctrine of Transmigration; which was the most plausible account of the disposition of the intelligent principle that the Heathens could reach to, before Light and Immortality were revealed in the Gospel; but by the almost contemptuous silence with which he passes it over in his argument, it appears that he did not feel disposed to credit it. With regard to the station of the manes, Plato supposes that impure spirits wander about among sepulchres and monuments. Homer represents Elpenor as prevented from rest until the funeral rites were paid; and a commonly received doctrine was, that there were days sacred to Dis and Proserpine, on which the whole of the secret and deep places of the world were thrown open, and the disembodied spirits were permitted to revisit the light. Varro supposes that this occurs three times in the year: on the feast of Vulcanalia, tenth of the Calends of September, or 23d of August; on the 3d of the Nones of October, the Fontinalia, October 13; and the 6th of the Ides of November, or 8th of that month.

According to the doctrine of the Jewish Rabbis, derived, no doubt, from ancient Oriental sources, "during the first twelve months after death the souls of righteous men descend and ascend again" (Talmud, tr. *Sabbath*): which Rabbi Joseph Albo, in the "Book of Principles," c. xxxi., explains by saying, that the soul does not directly and at once become divested of those corporeal attachments to which it is accustomed, but lingers about them until by habit it becomes weaned from them, and assimilated to the new condition on which it has entered.

The gloomy views which even the more virtuous of the ancient Heathens took of an invisible world is shewn by Homer's representations in the "Odyssey," b. xi.; and by so much of Etrurian learning as, from their paintings and other representations, have descended to us. With so much distaste of a wearisome life on the one hand (in which even Homer joins, b. xvii.), and on the other the dim prospect of the dreary regions below, we can scarcely wonder if even the virtuous Pliny should choose rather to lie down in ashes without the prospect of living again. The greater portion of his argument, however, is founded on his ignorance: his questions, then so doubtful, are such as now even a child may answer.

—*Wern. Club.*

bestow Sense on those who are in the Lower Regions ; and they do Honour to the Manes, making a God of him who hath ceased to be a Man : as if the Manner of Man's Breathing differed from that of other living Creatures ; or as if there were not to be found many other Things in the World, that live much longer than Men, and yet no Man foretells the like Immortality to them. But what is the Body that followeth the Material of the Soul ? where lieth her Thought ? how is her Seeing, how is her Hearing performed ? what toucheth she ? nay, what doth she at all ? How is she employed ? or what Good can there be without these ? I would know where she hath her abiding Place ? and what Multitudes of Souls, like Shadows, would there be in so many Ages ? Surely these are but fantastical and childish Toys, devised by Men that would fain live always. The like Foolery there is in preserving the Bodies of Men. And the Vanity of *Democritus* is no less, who promised a Restoration to Life, and yet himself hath not come to Life again. And what an Instance of Madness to think (an Evil in itself) that Death should be the Way to a life ! What Repose should ever Men have that are born, if the Sense of their Souls should remain on high, while their Shadows are among those below ? Certainly, this sweet Inducement, and Credulity, destroyeth the Benefit of the best Gift of Nature, which is Death ; and it doubleth the Pain of a Man who is to die, if he happen to consider what shall befall him in the Time to come. For if it be sweet to live, what Pleasure can one have, that hath already lived ? But how much more easy and certain is it for each Man to trust to himself, and to gather Reasons from the Experience that he had before he was born ?

CHAPTER LVI.

The first Inventors of Things in Life.

BEFORE we depart from this Discourse of Men's Nature, it seemeth convenient to point out their Inventions, and what each Man hath discovered. In the first Place, *Liber*

Pater appointed buying and selling; he also devised the Diadem, the Ornament of Kings, and the Triumph. *Ceres* shewed the use of Corn, whereas before Men lived on Mast. She taught also how to grind Corn, to knead Dough, and make Bread of it, in Attica, Italy, and Sicily; for which she was reputed a Goddess. She it was that began to make Laws; but others have thought that *Rhadamanthus* was the first Lawgiver. I am of opinion, that Letters ever were in Assyria; but some think, as particularly *Gellius*, that they were invented by *Mercury* in Egypt, and others will have it that they came first from Syria. True it is, that *Cadmus* brought into Greece from Phœnicè the Number of sixteen; to which *Palamedes*, in the Time of the Trojan War, added four, in these characters, Θ , Ξ , Φ , χ . And after him *Simonides Melicus*¹ produced the same Numbers, ζ , η , ψ , ω : the Force of all which Letters we acknowledge among ourselves. *Aristotle* is rather of opinion, that there were eighteen ancient Letters: α , β , γ , δ , ϵ , ζ , η , θ , ι , κ , λ , μ , ν , ξ , \omicron , π , ρ , σ , τ , ϕ , and that the other two, Θ and χ , were added by *Epicharmus*, and not by *Palamedes*. *Anticlidès* writeth, that one in Egypt named *Menon* was the Inventor of Letters, fifteen Years before the Time of *Phoroneus*, the most ancient King of Greece: and he endeavoureth to prove the same by Monuments. On the other Hand, *Epigenes*, an Author as renowned as any, sheweth, that among the Babylonians there were found Observations of the Stars for 720 Years, written on Bricks; and they who speak of the least, as *Berosus* and *Critodemus*, report the like for 480 Years. Whereby it appeareth that the use of Letters was eternal. The Pelasgi brought their use into Latium. *Euryalus* and *Hyperbius*, two Brothers at Athens, invented the first Manufacture of Bricks and the Formation of Houses; for before their Time Caves were used for Houses. *Gellius* is of opinion that *Doxius*, the Son of *Cælus*, devised the first Houses that were made of Clay; taking his Pattern from the Nests of Swallows. *Cecrops* called a Town after his own Name, *Cecropia*; which at this

¹ Some copies read Medicus, "a physician."—*Wern. Club.*

Day is the Castle in Athens. Some will have it that Argos was built before it by King *Phoroneus*; and others again, that Sycionè was before them. The Egyptians affirm, that long before that, their City Diospolis was founded. *Cinyra*, the Son of *Agriopa*, invented the Slating of Houses, and Mines of Brass: both within the Isle of Cyprus. He also invented Pincers, the little Hammer, the Lever, and the Anvil. *Danaus*, who was brought from Egypt to Greece, which was then called Argos Dipsion, first sunk Wells. *Cadmus* at Thebes, or, as *Theophrastus* saith, in Phœnicè, found out Stone Quarries. *Thrason* was the first Builder of Walls: of Towers, the Cyclops, as *Aristotle* thinketh; but the Tyrinthii, according to *Theophrastus*. Weaving was the Invention of the Egyptians; and Dyeing Wool, of the Lydians in Sardis. *Closter*, the Son of *Arachnè*, taught the first making of the Spindle for Woollen Yarn: and *Arachnè* herself, the Flax and Nets. *Nicias* the Megarensian invented the Fuller's Art: *Boëthius*, the Art of Sewing. The Egyptians will have Medicine to have been discovered among them; but others, that *Arabus*, the Son of *Babylo* and *Apollo*, was its Author. The first Herbarist and Apothecary was *Chiron*, Son of *Saturn* and *Phyllira*. *Aristotle* thinketh that *Lydus* the Scythian displayed the melting and tempering of Brass; *Theophrastus*, that it was *Delas* the Phrygian. Some think the Chalybæ devised the working into Vessels of Brass, and others attribute it to the Cyclopæ. The Discovery of Iron was the Invention of those in Crete, who were called Dactyli Idæi, according to *Hesiod*. *Erichthonius* the Athenian discovered Silver, or, as others say, *Æacus*. The Gold Mines, together with the melting of the Metal, *Cadmus* the Phœnician first found out at the Mountain Pangæus; but others say, *Thoas* and *Eaclis* in Panchaia; or else *Sol* the Son of *Oceanus*, to whom *Gellius* attributeth the Discovery of Medicine, and of Honey. *Midacritus* was the first that brought Lead out of the Island Cassiteris.¹ And the Cyclops invented the working Iron to

¹ The Islands of Scilly.—*Wern. Club.*

use; *Coræbus* the Athenian, the Potter's Art; and therein *Anacharsis* the Scythian, or according to some, *Hyperbios* the Corinthian, invented the forming into a Globe. The Carpenter's Art was the Invention of *Dædalus*, as well as the Tools: the Saw, the Hatchet, the Perpendicular, the Auger, Glue, Fish-glue. The Square, the Level, the Lathe, and the Key, were invented by *Theodorus Samius*. *Phidon* the Argive, or *Palamedes*, as *Gellius* rather thinketh, found out Measures and Weights. *Pyrodes*, the Son of *Cilix*, first obtained Fire from the Flint; and *Prometheus*, the Means to preserve it in *Ferula* (or Fennel). The Phrygians invented the Waggon with four Wheels: the Pœni (Carthaginians), Merchandise: *Eumolpus* the Athenian discovered the cultivation of Vines and Trees. *Staphylus*, the Son of *Silenus*, taught how to mix Wine with Water. *Aristæus* the Athenian invented the making of Oil, and also the Press belonging to it. The same Man taught to draw Honey from the Combs. *Buzyges* the Athenian, or as others have it, *Triptolemus*, employed Oxen for the Plough. The Egyptians were the first that had a royal City, and the Athenians a popular City. After *Theseus*, the first Tyrant was *Phalaris* of Agrigentum. The Lacedæmonians first invented the Condition of Slavery. The first Judgment for Death was in the Court of Areopagus. The first Battle was fought between the Africans and Egyptians; and the same was done with Clubs, which they call Phalangæ. Shields were contrived by *Prætus* and *Acrisius*, when they warred against each other; or by *Calchus*, the Son of *Athamas*. *Midias* of Messenè invented the Cuirass, and the Lacedæmonians the Helmet, Sword, and Spear. The Carians contrived Greaves, and Crests (upon Helmets): *Scythes*, the Son of *Jupiter*, the Bow and Arrows; although some say that *Perses*, the Son of *Perseus*, invented Arrows. The Ætolians invented the Lance: the Dart with a Loop was by *Ætolus*, the Son of *Mars*: the light Javelins and the Pilum by *Tyrrhenus*; and *Penthesilea* the Amazon, the Battle-axe. *Piseus* found out the Boar-spear and Chasing-staff. Among Engines to throw with, the Cretes invented the Scorpion: the Syrians, the

Catapult: the Phœnicians, the Balista and the Sling. *Piseus* the Tyrrhenian first used the brazen Trumpet; and *Arthemon* the Clazomenian, Tortoises. The Engine to batter Walls (called sometimes the Horse, and now the Ram) was the Device of *Epeus* at Troy. *Bellerophon* shewed first how to ride on Horseback: *Pelethronius* invented the Saddle and Bridle for the Horse. The Thessalians, called Centaurs, inhabiting near the Mountain Pelius, were the first that fought on Horseback. The Nation of the Phrygians first joined two Horses to a Chariot; and *Erichthonius* four. *Palamedes*, during the Trojan War, invented the manner of setting an Army in array: also the giving of a Signal, the Watch-word, and the Outposts (*Vigiliæ*). In the same War, *Sinon* devised Watch-towers. *Lycanor* was the first Maker of a Truce: *Theseus*, of Alliances: *Car*, from whom Caria took its Name, observed first the Flight of Birds (Augury); to which *Orpheus* added the Signs from other Animals. *Delphus* invented Divination from the Entrails (Aruspices): *Amphiaraius*, that of the Inspection of Fire (*Ignispex*): *Tyresias*, the Theban, that of the Auspices of Birds. *Amphictyon* gave the Interpretation of portentous Sights, and of Dreams. *Atlas*, the Son of *Libya* (or, as some say, the Egyptians, and as others the Assyrians), invented Astrology; and in that Science, *Anaximander* the Milesian devised the Sphere. The Explanation of the Winds was given by *Æolus*, the Son of *Helen*. *Amphion* invented Music. The Flute and the single Pipe¹ were the Invention of *Pan*, the Son of *Mercury*. The oblique Cornet was by *Midas* in Phrygia; and in the same Country *Marsyas* invented the Double Flute; *Amphion* taught the Lydian Measures; *Thamyras* the Thracian, the Dorian; and *Marsyas* of Phrygia, the Phrygian. *Amphion*, likewise (or, as some say, *Orpheus*, and according to others, *Linus*), played first on the Lute.² *Terpander* added seven Strings to it; *Simonides* added the eighth; and *Timotheus* the ninth. *Thamyras* was the first that played on the Lute without Song,

¹ Fistula and Monaulus. — *Wern. Club.*

² Cithara. — *Wern. Club.*

and *Amphion* sung with it, or, according to some, *Linus*. *Terpander* adapted Songs to the Lute. *Dardanus*, the Troezenian, began first vocal Music to the Flute.¹ The Curetes taught to dance in Armour; and *Pyrrhus* the Pyrrhic Dance; and both these were first practised in Crete. The Heroic Verse we owe to the Oracle of *Pythius* (*Apollo*). About the Original of Poems there is a great Question. They are proved to have existed before the Trojan War. *Pherecydes* of Syros, in the Days of King *Cyrus*, invented the Writing in Prose. *Cadmus* the Milesian founded History. *Lycaon* appointed the first public Games of Strength in Arcadia; *Acastus* in Iolcum, the first solemn Games at Funerals; and after him *Theseus*, in the Isthmus. *Hercules* instituted the Athletic Exercises at Olympia: and *Pythus* those of Play at Ball. *Gyges* the Lydian first practised Painting in Egypt; but in Greece, *Euchir*, a Relative of *Dædalus*, as *Aristotle* supposeth; and according to *Theophrastus*, it was *Polygnotus* the Athenian. *Danaus* was the first that sailed with a Ship, and so he passed the Sea from Egypt to Greece; for before that time they used Rafts, which were invented by King *Erythra*, to cross from one Island to another in the Red Sea. But we meet with some Writers who suppose that the Trojans and Mysians were the first that devised Navigation before them in the Hellespont, when they passed over-against the Thracians. And even at this Day in the British Ocean, there are made Wicker Boats covered with Leather, and stitched round about; in the Nile, of Papyrus, Cane-reed, and Rushes. *Philostephanus* witnesseth, that *Jason* first used in Navigation the long Ship; but *Egesias* saith, that it was *Paralus*. *Ctesias* attributeth it to *Samyras*; *Saphanus*, to *Semiramis*; and *Archimachus*, to *Ægeon*. *Damastes* testifieth, that the Erythræans first made the Bireme (or Galley with two Ranks of Oars): *Thucydides*, that *Aminocles* the Corinthian built the first Trireme (with three Rows of Oars): *Aristotle* saith, that the Carthaginians were the first that set to Sea the Quadrireme (with four Ranks of Oars): and

¹ Tibia.—*Wern. Club.*

Nesichthon the Salaminian, set afloat the first Quinquireme (with five Ranks of Oars). *Zenagoras* of Syracuse brought up those of six Rows; and from it to those of ten, *Mnesigeton* was the Inventor. It is said that *Alexander* the Great built Galleys with twelve Banks; and *Philostephanus* reporteth, that *Ptolemy Soter* rose to fifteen: *Demetrius*, the Son of *Antigonus*, to thirty: *Ptolemy Philadelphus*, to forty; and *Ptolemy Philopater*, surnamed *Tryphon*, to fifty. *Hippus* the Tyrian invented Ships of Burden.¹ The Cyrenians first built the Pinnace; the Phœnicians, the Ferry-boat; the Rhodians, the Wherry; and last, the Cyprians, the Hulk. The Phœnicians were the first that in sailing observed the Course of the Stars. The Copeans devised the Oar, and the Plateans its broad End: *Icarus*, the Sails: *Dædalus*, the Mast and the Yard. Vessels for transporting Horses were the Invention of the Samians, or else of *Pericles* the Athenian. The Thasii formed the long-covered Ships: for before their Time they fought only from the Stern and the Bow. *Piseus* added the Rostra; the Tyrrhenians, the Anchor; to which *Eupalamus* added the two Claws, and *Anacharsis* the Grappling-hooks. The Stock was by *Pericles* the Athenian; and finally, the Steering-tackle by *Typhis*. The Chief that first fought in a Fleet was *Minos*. The first that killed a Beast was *Hyperbius*, the Son of *Mars*; and *Prometheus* first killed an Ox.²

¹ The names of these ships in the original are, *Oneraria*, *Cymba*, *Celox*, *Cercuros*.—*Wern. Club*.

² It has been already remarked, that the Greeks regarded as the inventor of any art him who had communicated it to them; and *Pliny* seeks no further than to their writings for authority in these particulars, In the Book of *Genesis* (chap. iv. &c.) we have more authentic particulars of the invention of musical instruments, of tents to dwell in, and of working in metal: the latter by one whose name seems to have been the origin of that of *Vulcan*; and the following catalogue of discoveries in the most ancient times is derived from *Sanchoniatho*, the Phœnician:—

“From *Genus*, the son of *Protogonus* and *Æon*, other mortal issue were begotten, whose names were *Light*, *Fire*, and *Flame*. These found out the way of generating fire by the rubbing of pieces of wood against each other, and taught men the use thereof. These begat sons of vast bulk and height, whose names were given to mountains on which they

CHAPTER LVII.

Wherein first appeared the general Agreement of Nations.

THE first silent Consent of all Countries hath agreed in this, That they should use the Ionian Letters.

first seized: so from them were named Mounts Cassius and Libanus, Antilibanus and Brathys. Perhaps it is to these that allusion is made, Genesis, vi. 4. The Protogonus and Eon here spoken of, being the first generation of mortals, were the discoverers of the way of taking food from trees; and their children, Genus and Genea, in a time of scarcity in Phœnicia, first worshipped the sun, as Beëlsamin, or only Lord of Heaven.

“Hypsuranius, a Tyrian, first made huts of reeds and rushes, and the paper-reeds. His brother Usoüs first invented covering for his body, out of the skins of wild beasts which he could catch; which may be reconciled with the narrative in Genesis, iii. 21. He consecrated two rude stone pillars to the fire and wind, and worshipped them with the sprinkling of the blood of wild beasts taken in hunting. He first ventured on the sea in a kind of raft; and on his death were first instituted anniversary feasts. Many years after him, Agreus and Halieus were the inventors of the arts, and it would appear, the fathers of tribes who pursued hunting and fishing. The two brothers who invented the working of iron were their sons. One of these, named Chryсор, the same as Vulcan, employed charms and divinations; he invented the hook, bait, and fishing-line, and boats slightly made: perhaps those covered with leather, mentioned by Pliny as used in his day in Britain, and originally derived from this Eastern source. This Coracle, employed so late as the fourth or fifth century of Christianity in crossing the British Channel, is still used in Welsh rivers, and is figured, in its modern structure, by Mr. Yarrell (“History of British Fishes,” vol. ii. p. 62, 2d edit.): a copy from an ancient relievo in Montfaucon is at the end of this volume. It was a subsequent race, the Cabiri, that formed the first complete ship. From the last generation, or Chryсор and his brother, sprang two brothers: one called Technites, or the artist, and the other, Geinus Autochthon, the home-born man of the earth. These first mingled stubble with the brick earth, and dried the tiling in the sun. This accommodation was further improved by the formation of courts, fences, and cellars about houses. They were husbandmen, and worshipped a statue carried about in a movable temple, drawn by oxen. This practice is alluded to by the prophet Amos, v. 26, and perhaps 2 Samuel, vi. 3 and 7. These were the first that employed dogs in the hunting of wild animals. Amynus and Magus, their sons, first

CHAPTER LVIII.

*Of the ancient Letters.*¹

THAT the old Greek Letters were almost the same as the present Latin appeareth by an antique Table of Brass, which came from the Temple at Delphos, and which at this Day is in the Library of the Palatium, dedicated to *Minerva* by the Emperors, with an Inscription like this on it: *Ναυσικράτης Τισαμένου Ἀθηναῖος, κόρα καὶ Ἀθῆνα ἀνέθηκεν*: *i. e.* *Nausicrates* (the Son) of *Tisamenus* an Athenian, caused this Table to be made and set up to *Minerva*.

formed villages and flocks; and their sons, Misor and Sydyc (Wellfreed and Just), discovered the use of salt.

“Cronus first made a scimitar and spear: Dagon invented the use of bread and the plough. Inachus, whom Archbishop Usher makes contemporary with the Scriptural Nahor, was the inventor of honorary gold and silver chains. The purple dye from shell-fish was discovered by the Phœnician Hercules, the great navigator Melcartus, who first passed through the Straits of Gibraltar, and visited Cornwall. It is true, there seems some doubt whether there be not two individuals referred to under this name, one of whom lived in the days of Canaan; but if so, at least they were natives of the same country, and were both honoured by their countrymen as inventors of the arts by which the nation acquired riches and eminency. Cronus first taught the use of the bow as a weapon; which took place in Crete, an island afterwards famous for this kind of skill. ‘Eupolemus says of Enoch, that he was the true Atlas, the inventor of astronomy.’ Finally, the infamy of having first practised persecution for religion is ascribed to Cronus, who is supposed to be Ham, the son of Noah, with the concurrence of the Egyptian Thoth; but the Jews are inclined to derive its origin from the city of Ur, in Chaldæa, where Terah was put to death in the fire (Ur): but in either case the act was devised in support of false religion, or idolatry.”—*Wern. Club.*

¹ In the beginning of the 56th chapter, Pliny has expressed his belief that the Assyrian letters are the most ancient in the world: but whether these were the same as in recent times have been discovered among the antique monuments of Nineveh and Babylon; the Chaldæan characters afterwards introduced among the Jews by Ezra; or the ancient Phœnician, now termed the Samaritan; in either case it is only by passing through great mutations that they can be traced to the Greek and Latin forms of the days of Pliny. Sanchoniatho says that Tāautus, called by

CHAPTER LIX.

When Barbers were first at Rome.

THE next Consent of all People was to entertain Barbers; but they were later among the Romans. The first that entered Italy came from Sicily, in the 454th Year after the Foundation of Rome. They were brought in by *P. Ticinius Mena*, as *Varro* reporteth: for before this they were unshorn. The first that took up the practice to Shave every day was *Scipio Africanus*: and after him cometh *Divus Augustus*, who always used the Razor.¹

CHAPTER LX.

When was the first Dial.²

THE third Consent of all Nations was in the observation of the Hours; and this was grounded upon Reason: but at what Time, and by whom this was Invented in Greece, we have declared in the Second Book; and it was late before this came up at Rome. In the Twelve Tables the East and West alone are mentioned; after some Years the Noon was added, and the Consul's Officer proclaimed Noon when, standing at the Hall of the Council, he beheld the Sun in

the Greeks *Hermes*, found out the first letters; but these appear, from his subsequent remarks, to have been what we now term hieroglyphics. It may be the phonetic characters, of which *Pliny* ascribes the invention to *Meno* the Egyptian; but it is probable that they are all much more ancient.—*Wern. Club.*

¹ Slaves and servants were not permitted to be shaved. The Egyptians were the only people who universally used the razor.—*Wern. Club.*

² *Lumisdén* has some observations on the Roman method of measuring time. "I do not conceive," he says, "how a sun-dial or any other instrument could point out the various hours, as time was computed by the ancient Romans. The time the earth takes to revolve once round its axis, or the space between the rising of the sun till its next rising, which makes a day and a night, divided into twenty-four equal parts, we call hours. Now, the Romans divided the day and the night into twenty-four hours. Twelve of these, from the rising of the sun to its setting, con-

that Quarter between the Rostra and the Grecoſtaſis. But when the Sun inclined downward from the Column named Mœnia, to the Priſon, he proclaimed the laſt Quarter (of the Day). But this obſervation would ſerve only on clear Days; and yet it was ſo until the firſt Punic War. *Fabius Veſtaſis* writeth, that *L. Papyrius Cursor*, the Prince, twelve Years before the War with *Pyrrhus*, to do the Romans a pleaſure ſet up a Sun-dial on the Temple of *Quirinus*, when it was dedicated, his Father having vowed it before him. But this Author ſheweth not either the method of that Dial, or the Workman; nor yet from whence it was brought, nor in what Writer he found it ſo written. *M. Varro* reporteth, that the firſt Dial was ſet up in the common Market-place, upon a Column near the Roſtra, in the firſt Punic War, by *M. Valerius Meſſala*, the Conſul, preſently after the taking of Catana, in Sicily; from whence it was brought, thirty Years after the report of the aforeſaid Dial of *Papyrius*, in the Year of the City 477. And although the Lines of this Dial did not agree with the Hours, yet were the People governed by it for an hundred Years ſave one, until *Q. Martius Philippus*, who was Cenſor, with *L. Paulus*, ſet another by it, made more carefully. And this gift, among other things done by the Cenſor, was highly acceptable to the People. But notwithstanding this, if it were a cloudy Day the Hours were uncertain; and thus it

ſtituted their day; and the other twelve, from the ſetting of the ſun to its riſing, conſtituted their night. Thus, as the ſeaſons changed, the length of their hours muſt have varied. In winter the twelve hours of the day were ſhort, and thoſe of the night long: in ſummer they were the reverse. How then could theſe hours, of an unequal length, and which daily varied, be meaſured by an inſtrument? I have not been able to diſcover any method by which this could be done. However, they had two fixed points, namely, mid-day and midnight, which they called the ſixth hour. So that a meridian line would always point out the ſixth hour, or mid-day."

That the dial was a very ancient inſtrument for meaſuring time appears from the 2d Book of Kings, xx. 11, and Iſaiah, xxxviii. 8, where is the firſt mention of it on record. It probably was invented in Babylonian.—*Wern. Club.*

continued five Years more. Then *Scipio Nasica*, the Colleague of *Lænas*, first divided the Hours, both of Day and Night equally, by Water. And this Horologe he dedicated under a Roof, in the Year of the City 595 from the Building of Rome. So long it was, that the People of Rome did not measure out the Light.

Now let us return to the other Living Creatures: and first, of Animals of the Land.



Coracle referred to in note at p. 256.—*Montfaucon, tom. iv. pl. 49.*

END OF VOL. II.



IN THE EIGHTH BOOK

IS CONTAINED THE

NATURE OF LAND ANIMALS THAT GO ON FOOT.

CHAP.

1. Of Land Creatures: the Commendation of Elephants: their Understanding.
- ✓ 2. When Elephants were first yoked.
3. The Docility of Elephants.
4. The Clemency of Elephants: that they know their own Dangers; also of the Ferocity of the Tiger.
5. The Understanding and Memory of Elephants.
6. When Elephants were first seen in Italy.
7. Combats by Elephants.
8. The Manner of taking Elephants.
9. The Manner how Elephants are tamed.
10. How long an Elephant goeth with Young, and of their Nature.
11. The Countries where Elephants breed: the discord between Elephants and Dragons.
12. The Industry and Wit of Dragons and Elephants.
13. Of Dragons.
14. Serpents of prodigious Magnitude: of Serpents named Boæ.
15. Of the Animals of Scythia, and of the North Countries.
16. Of Lions.
17. Of Panthers.

VOL. III.

CHAP.

18. The Nature of the Tiger: of Camels, and the Camelopard: when it was first seen at Rome.
19. Of the Stag-wolf named Chaus: and the Cephus.
20. Of the Rhinoceros.
21. Of Lynxes, Spingees, Crocutes, Marmosets, of Indian Oxen, of Leucrocutes, of Ealè, of the Æthiopian Bulls, of the Mantichora, the Unicorn, of the Catoblepa, and the Basilisk.
22. Of Wolves.
- ✓ 23. Of Serpents.
24. Of the Ichneumon.
25. Of the Crocodile and the Hippopotamus.
26. Who shewed first at Rome the Hippopotamus and Crocodiles. Medicines discovered by Animals.
27. Of Animals which have shewn certain Herbs; the Red Deer, Lizards, Swallows, Tortoises, the Weasel, the Stork, the Boar, the Snake, Panther, Elephant, Bears, Stock-Doves, House-Doves, Cranes, and Ravens.
28. Prognostications taken from Animals.
- ✓ 29. What Cities and Nations have been destroyed by small Creatures.

B

CHAP.	CHAP.
30. Of the Hyæna, the Crocuta, and Mantichora: of Beavers and Otters.	43. Of Asses. ✓
31. Of Frogs, Seals, and Stellions.	44. Of Mules. ✓
32. Of Deer, both Red and Fallow.	45. Of Kine, Bulls, and Oxen. ✓
33. Of the Tragelaphis: of the Chamæleon, and other Creatures that change Colour.	46. Of the Bull named Apis.
34. Of the Tarand, the Lycaon, and the Wolf called Thoes.	47. The Nature of Flocks and their Breeding. ✓
✓35. Of the Porcupine.	48. Different kinds of Wool and Cloths.
36. Of Bears and their Cubs.	49. Of Musmons.
37. The Rats of Pontus and the Alps: of Hedgehogs.	50. Of Goats and their Generation.
38. Of the Leontophones, the Lynx, Badger, and Squirrels.	51. Of Swine and their Nature. ✓
39. Of Vipers, Snails, and Lizards.	52. Of Parks and Warrens for Beasts.
40. Of Dogs.	53. Of Beasts half Tame. ✓
✓41. Against the Bite of a mad Dog.	54. Of Apes and Monkeys. ✓
42. The Nature of Horses.	55. Of Hares and Rabbits. ✓
	56. Of Beasts half Savage. ✓
	57. Of Rats and Mice: of Dormice. ✓
	58. Of Animals that Live not in some places.
	59. Of Animals hurtful to Strangers.

In sum there are in this Book, Histories and Observations 788.

LATIN AUTHORS ABSTRACTED :

Mutianus, Procilius, Verrius Flaccus, L. Piso, Cornelius Valerianus, Cato the Censor, Fenestella, Trogus, Actius, Columella, Virgil, Varro, Lu. Metellus Scipio, Cornelius Celsus, Nigidius, Trebius Niger, Pomponius Mela, Manlius Sura.

FOREIGN WRITERS:

King Juba, Polybius, Onesicritus, Isidorus, Antipater, Aristotle, Demetrius the Natural Philosopher, Democritus, Theophrastus, Euanthes, Agrippa who wrote of the Olympionicæ, Hiero, King Attalus, King Philometer, Ctesias, Duris, Philistus, Architas, Philurchus, Amphilocheus the Athenian, Anaxipolis the Thasian, Apollodorus of Lemnos, Aristophanes the Milesian, Antigonus the Cymæan, Agathocles of Chios, Apollonicus of Pergamus, Aristander of Athens, Bacchus the Milesian, Bion of Soli, Chæreus the Athenian, Diodorus of Prynæum, Dio the Colophonian, Epigenes of Rhodes, Evagon of Thassus, Euphranius the Athenian, Hegesias of Maronea, Menander of Prynæum, Menander also of Heraclea, Menecrates the Poet, Androcion who wrote of Agriculture, Æschrión who likewise wrote of that argument, Dionysius who translated Mago, Diophanes who collected an Epitome of Dionysius, King Archelaus, and Nicander.



THE EIGHTH BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY
C. PLINIUS SECUNDUS.

CHAPTER I.

Of Animals of the Land; the Praise of Elephants,¹ and their Understanding.

WE will now pass on to treat of other living Creatures, and first of Animals of the Land, among which the Elephant is the greatest, and cometh nearest in Capacity to Men; for they understand the Language of the Country, they do whatever they are commanded, remember what Duties they are taught, and take a Pleasure in Love and Glory; nay, more than this, they possess Probity, Prudence, and Equity, (rare Qualities even in Men,) and they have also in religious Reverence the Stars, and Veneration for the Sun and Moon. Writers report that when the new Moon beginneth to appear bright, Herds of them come down to a certain River named Amilus, in the Thickets of Mauritania, and there they solemnly Purify themselves by dashing themselves all over

¹ *Elephas Indicus*.—Cuv. The Indian Elephant.

Elephas Africanus.—Cuv. The African Elephant.—Wern. Club.

with the Water; and so having saluted the Planet, they return again to the Woods, carrying before them their Young Ones that are fatigued. They are thought also to have an Understanding of Religion¹ in others; for when they are to pass the Seas they will not enter the Ships before they are induced to it by an Oath of their Governors that they shall return again; and they have been seen enfeebled by Sickness (for as Large as they are they are subject to Sickness), to lie upon their Backs, throwing up Herbs toward Heaven, as if they had procured the Earth to pray for them. Now for their Docility: they adore the King, they kneel and offer Chaplets of Flowers. The lesser sort, which they call Bastards, serve the Indians to Plough their Ground.

CHAPTER II.

When Elephants were first put to Draw.

THE first time they were known to Draw at Rome was in the Chariot of *Pompey the Great*, in the African Triumph.

¹ The author in several places speaks of religion in animals: as of monkeys, b. viii. c. 54, and of barn-door poultry, b. x. c. 41. The oryx was judged to be impious, because it had been seen to display signs of disregard or contempt to the moon. To understand the ground of this opinion, it is necessary to bear in mind that the religion of the heathens did not include or demand a spiritual attachment, or mental conformity, to the character or commands of the object worshipped, but was merely ritual: the *latreia* being an official service which was employed to allay the anger of some divinity, which had been raised by some cause equally remote from any feeling of a moral nature with that instituted to obviate it. The real *cultus* was comprised in this ceremony, and religion was the binding of this cultus, or worship, on those who were subject to it—as superstition included the employment of a greater amount of ceremony than the *latreia* demanded; and as this was judged to proceed from a greater degree of fear than the cause required, it was always considered as degrading him that manifested it. As the proper idea of religion was supposed to be the binding of the cultus on those only who were the subjects of it, it was no great extension of the same principle to suppose that animals might be subject to the same laws as men in these respects, and that they might have recourse to means of a similar kind to obviate similar offences. That the elephant practised religious rites was not the

But long before this it is said that Father *Liber* did the same in his Triumph for having Conquered India. *Proci-
lius* denieth that, coupled as they were, two in one Yoke, they could possibly have entered in at the Gates of Rome in *Pompey's* Triumph. In the Show of Gladiators, which *Germanicus Cæsar* exhibited, the Elephants were seen to show some disorderly Motions, after a manner of Dancing. It was a common thing to fling Weapons through the Air, so that the Winds had no power against them; to flourish and meet together in Fight like Gladiators, and to make Sport in a Pyrrhic Dance; and afterwards to go on Ropes; to carry (four together¹) one of them laid at ease in a Litter, resembling the manner of Women newly brought to Bed; and some of them would enter a Dining-place where the Tables were full of Guests, and pass among them with their foot-

opinion of Pliny only, but appears to have been common in ancient times. *Ælian*, whose "History of the Peculiar Nature of Animals" is chiefly valuable for containing everything on the subject that floated on the surface of popular observation, says, "At the first appearance of the new moon I have heard that elephants leave the woods under the influence of a certain natural and inexpressible intelligence, bearing with them branches which they have plucked from the trees, which they bear aloft and wave to and fro as they cast their looks upward, as if offering some divine intercession to the goddess to be propitious and gracious to them."—B. iv. c. x. "They also worship the rising sun by lifting up their trunks, like hands, to meet his rays, and on this account they are dear to the god; and of this fact Ptolemy Philopator is an excellent and undoubted witness."—B. vii. c. 14. The reference of the author to this sovereign is built on a remarkable dream which he had on the occasion of having offered the unusual sacrifice of four elephants on occasion of a victory. The solemn ceremonies of the elephant on occasion of the death of those of their own kind are referred to in the same work, b. v. c. 49. Their adoration of the king was the result of discipline, b. xiii. c. 22; and they also formed his night-watch, when perhaps he had learned to distrust the fidelity of his guards.—*Wern. Club.*

¹ If the elephants walked two and two, as they probably did when thus carrying their companion, there must have been *two* ropes placed in parallel lines. *Ælian*, "De Animalibus," gives a most amusing account of the performances of the elephants of *Germanicus* in the theatre; but I do not remember that he mentions this feat. A like exploit is, however, mentioned by *Seneca*, *Suetonius*, and others.—*Wern. Club.*

steps so equally ordered that they would not touch any of the Company as they were Drinking.

CHAPTER III.

The Docility of Elephants.

IT is certain that there was one Elephant who was of a slower Capacity than the others, so that he was often beaten with Stripes because he did not Learn that which was Taught him; and he was found Studying those Lessons by Night, which he had not succeeded in Learning by Day.¹ But one of the greatest Wonders was, that they could mount up against a Rope; and, more wonderful, that they should slide down again with their Faces downward. *Mutianus*, who had been thrice Consul, reporteth that one of them had Learned to make the Greek Letters, and was accustomed to Write in that Language thus: *This have I myself written, and have dedicated the Celtic spoils.* Also himself saw at Puteoli, when some Elephants that had been brought thither were forced to go forth out of the Vessel in which they had come, but being affrighted at the extent of the way from the Ship to the Land, to deceive themselves so that the way might not seem too long, they went backward with their Tails to the Land. They know that the Riches for which Men lie in wait for them consisteth only in their Arms, which *Juba* calleth their Horns; but which *Herodotus*, who wrote long before him, and custom, hath better termed Teeth. And therefore when they are fallen off, either from Age, or by some Accident, the Elephants themselves hide them in the Ground. And this is the only Ivory; for all the rest, and the Teeth themselves so far as they are covered within the Flesh, is no better than common Bone. And yet of late for scarcity Men have taken up to cut the Bones into Plates. For it is rare to procure Teeth of any bigness except from India; since all the rest in our part of the World hath

¹ Plutarch, "De Solert. Anim." tells us of an elephant who practised his parts by moonlight of his own accord.—*Wern. Club.*

been employed in Luxuries. You may know young Elephants by the Whiteness of their Teeth, and these Beasts have a special care over them. They spare the Point of one of them, lest it should be blunt when they come to Fight ; and the other they use ordinarily, either to dig up Roots or to throw down Banks. When they are compassed round with Hunters, they set in the foremost rank those which have the least Teeth, that their price may not be thought worth the hazard of Battle. But afterwards, when they are weary, they break them by driving them into the Trees, and so ransom themselves by the prey.

CHAPTER IV.

The Clemency of Elephants ; their Knowledge of their own Dangers ; also the Fierceness of the Tiger.

It is a wonder in most Animals that they know why they are Hunted ; and through the whole they understand what to guard against. If an Elephant chance to meet a Man wandering simply out of his way in the Wilderness, it is said that he will mildly and peaceably set him in the right way again. But if he perceive a Man's footstep before he discovers the Man, he will tremble for fear of being entrapped ; he will stay from the Scent, look about him every way, and puff for very anger. Neither will he tread upon the Track, but dig it out and give it to the next (Elephant), and he again to him that followeth, in the way of a Message, to the furthest rank behind. Then the whole Herd wheels round and returns backward, putting themselves in Battle Array : so long continueth that strong Smell of Men's Feet through them all, notwithstanding for the most part they have not naked Feet. So the Tigress also, though fierce to other wild Beasts, and disregarding the footsteps of the Elephant itself, if she happen to catch sight of a Man is said immediately to convey away her Whelps. How cometh she to this knowledge of a Man ? Where did she ever see him before whom she thus feareth ? For surely such Forests

are very little frequented by Men. They may indeed well wonder at the novelty of their Tracks, but how know they that they are to be feared? Nay, what should be the reason that they dread even to see a Man, being so much superior in Strength, Size, and Swiftmess? Certainly herein is the wonderful work of Nature, and her mighty Power; that the greatest and fiercest of wild Beasts, which have never seen that which they ought to fear, yet immediately understand why the same is to be dreaded.

CHAPTER V.

The Understanding and Memory of Elephants.

ELEPHANTS march always in Troops. The oldest of them leadeth the Company, and the next to him in age cometh behind with the conduct of the Rear. When they are to pass over a River, they put the Smallest foremost, lest if the Larger should enter first they would dig up the Channel, and so make the Torrent to become deeper. *Antipater* writeth, that King *Antiochus* had two Elephants which he used in his Wars, and were famous for their Surnames, which they knew well. And truly *Cato*, when he named in his Annals the Commanders (Imperators), hath recorded that the (Elephant) which fought most bravely in the Punic Contest was named *Surus*, and that one of his Teeth was lost. When *Antiochus* would have sounded the passage of a River (by putting the Elephants before), *Ajax* refused, although at all times he was the leader of the Troop. On this it was pronounced that the Elephant which would pass should be the Chief; and *Patroclus* having ventured, as a reward there was presented to him a rich set of Silver Trappings (a thing in which they take very great Delight); and besides this, he was made the Sovereign of the others. But the other, which was distinguished (by his Abstaining from Food) preferred Death to the Shame: for they are wonderfully Bashful, so that if one of them be overcome he will fly from the voice of the Conqueror, and put forward Earth and Ver-

vain.¹ Through Modesty they never associate in Love except in secret: the Male at five Years of Age, and the Female at ten Years old. And this they do every third Year,² and they continue therein five Days in the Year (as they say) and not more, for upon the sixth Day they Wash themselves over in the River; and before this they do not return to the Herd. They know no adulterous change; neither are there any Battles among them about their Females, as among other Animals to their great injury. And this is not for want of strong Affection; for it is reported of an Elephant that he was enamoured of a certain Woman in Egypt who sold Garlands of Flowers. And lest any one should think that she was an ordinary maiden that was beloved, she was greatly admired by *Aristophanes*, the excellent Grammarian. There was another so full of Love to a Youth in the Army of *Ptolemaeus*, that if he did not see him every Day he would abstain from his Meat. *Juba* likewise reporteth of an Elephant that loved a Woman who sold Perfumes. All these shewed their Love by the tokens of Joy at the sight of the object of their regard, by their rude Blandishments, and by preserving the Gifts which the People gave them, and laying them in their Bosoms. Nor is Love so much to be wondered at where the Memory is so good. For the same *Juba* saith, that an Elephant acknowledged a Man in his old Age, and after many Years, who in his youth had been his Governor. He affirmeth also that they have a certain Divine Instinct of Justice: for when King *Bocchus* had appointed to be revenged on thirty Elephants, which he had caused to be bound to Stakes, and had set the same number to run upon them, appointing also Men to urge them to rush forward; yet they were not able to cause them to become the Ministers of another's Cruelty.

¹ The greatest sign of victory in old time was for the vanquished to offer a plant to the conqueror, which signified that he surrendered all the interests he had in earth, and even the rite of burial. See Lib. viii. c. 5. — *Wern. Club.*

² Some copies read two years.— *Wern. Club.*

CHAPTER VI.

When Elephants were first seen in Italy.

THE first Time that Elephants were seen in Italy was during the War of King *Pyrrhus*; and they were called by the Name of *Lucæ Bovæ*, or Lucan Oxen, because they were seen in the Lucan Country; in the four hundred and seventy-second Year of the City. But in Rome it was seven Years after this before they were seen, and then in a Triumph. But in the Year 502, a Number of them were seen, being taken from the Carthaginians in the Victory of *L. Metellus Pontifex* in Sicily. 142 were conveyed over on Rafts, which were laid upon Rows of great Tuns placed close one by another. *Verrius* saith that they fought in the Circus, and were killed with Darts, for want of better Counsel; for they were neither willing to feed them,¹ nor to bestow them upon Kings. *L. Piso* saith they were only brought out into the Circus; and to make them contemptible, they were driven round it by certain hired Fellows, having for that purpose Spears simply headed with Iron. But what became of them afterward, those Authors make no mention; but they are of opinion, that they were not killed.

CHAPTER VII.

Their Combats.

MUCH renowned is the Contest of one Roman with an Elephant, when *Annibal* forced our Captives to skirmish one against another. For the only Roman that remained, he matched with an Elephant, having covenanted with him,

¹ The Romans might well shrink from the expense of supporting 142 elephants, when, as we are informed, the quantity of food required for the daily consumption of a full-grown elephant is not less than 200 pounds of aliment of all sorts. The elephant of Louis XIV. had daily 80 pounds of bread, 12 pints of wine, and a large quantity of vegetable soup, with bread and rice; this was exclusive of grass, and what he got from visitors.—*Wern. Club.*

that if he could kill the Beast, he should be dismissed. So this Prisoner entered into single Fight with the Elephant, and to the great Grief of the Carthaginians, slew him. *An-nibal*, considering that the Report of this Combat would cause these Beasts to be little regarded, sent after him some Light Horsemen to kill him upon the Way. Their Trunk (*Proboscis*) may be easily cut off; as appeared by Experience in the Battles of *Pyrrhus*. *Fenestella* writeth, that the first Fight of them in Rome was in the Circus, when *Claudius Pulcher* was Curule Ædile, and *M. Antonius* and *A. Posthumius* were Consuls, in the six hundred and fiftieth Year of the City. Also 20 Years after, when the *Luculli* were Curule Ædiles, they fought against Bulls. Also in the second Consulship of *Cn. Pompeius*, at the Dedication of the Temple to *Venus Victoress*, 20 of them, or as some write, 17, fought in the Circus. The Gætulians threw Darts against them. But one Elephant did Wonders: for when his Feet were pierced through with Darts, he crept upon his Knees among the Companies, where he caught from them their Shields, and flung them aloft, which, as they fell, turned round as if by Art, and not as if thrown with Violence by the Beasts in their Anger, to the great Pleasure of the Beholders. And as strange a Thing was seen in another of them, who was killed with one Stroke; for the Dart was driven under the Eye, and pierced to the vital Parts of the Head. Whereupon all the rest endeavoured to burst away, not without a great disturbance among the People, although fenced round with Iron Bars. And for this Cause, *Cæsar* the Dictator, when afterwards he was about to exhibit the like Show, cast a Ditch round about the Arena; which Prince *Nero* removed to make room for the Knights. But those Elephants of *Pompey* being past all Hope of escaping, in a Manner that cannot be expressed seemed to supplicate the Multitude, craving their Mercy, with grievous Lamentations bewailing their Condition; so that the People's Hearts melted, and with Tears in their Eyes, they rose up all at once, without Regard to the Emperor, or Respect to his magnificent Display, and imprecated on *Pompey* these severe

Misfortunes which soon after ensued accordingly. Again, *Cæsar* the Dictator, in his third Consulship, exhibited another Fight of them; 20 against 500 Footmen; and a second Time 20 more, having Turrets with 60 Defendants to the same; and he opposed against them the same Number as the former of Footmen, and as many Horse. After this, *Claudius* and *Nero*, the Princes, brought them forth one by one, by way of finishing the Show of Gladiators. This Animal is reported to be so gentle to all that are not so strong as himself, that if he meet a Flock of Cattle, he will with the Hand remove any that cometh in his Way, for Fear he should crush them without being aware of it. And they never do any Hurt unless provoked. They always walk in Troops, and are less disposed to wandering alone than any other Animals. If they are environed with Horsemen, they take into the midst of the Troop the feeble, weary, or wounded; and as if they were under the Direction of a General, or with the Guidance of Reason, they succeed one another in their Course. When taken, they are soonest brought to be tame with the Juice of Barley.¹

CHAPTER VIII.

The Manner of taking Elephants.

THE Indians take Elephants in this manner: the Governour employeth one of them that are tame, and when he meeteth with a wild one alone, or can single him from the Herd, he beateth him until he hath made him weary, and then he mounteth on him and ruleth him as well as the former. In Africa they catch them in Pit-falls; into which, if one of them wander, all the rest immediately heap together Boughs of Trees, they roll down Heaps, they raise Banks, and with all they can do, labour to draw him out. Formerly when they meant to make them tractable, by the Help of Horsemen they drove the Flocks along into a Valley made by Man's Hand, and calculated to deceive them for a consider-

¹ That is, grucl, or tissane, as we may suppose. — *Wern. Club.*

able Extent; and when they were enclosed within the Ditches and Banks, they subdued them by Hunger; and they knew they were tame enough if they would quietly take a Branch from the Man that offered it to them. But now, since they seek after them for the sake of their Teeth, they throw Darts at their Legs, which are the softest Part of their Body. The Trogloditæ,¹ a People bordering on Ethiopia, who live only by hunting Elephants, climb the Trees that are near their Walk, and from thence watching all the Herd as they pass, they leap down upon the Buttocks of the hindmost; then he, with his left Hand, layeth hold of the Tail, and setteth his Feet fast in the Flank of the left Side; and so hanging, with his right Hand he cutteth the Hamstrings of one of his Legs with a very sharp double-edged Knife; which done, the Elephant slackening his Pace, the Man then maketh escape, and divideth the Sinews likewise of the other Ham; and all this Execution he doth with wonderful Agility. Others have a safer Way than this, but it is more deceitful: they fix in the Ground a great Way off, very great Bows ready bent; to hold these fast they choose young Men remarkable for their Strength, and others united together draw with all Might these Bows against the first, and so they pierce the Elephants as they pass with Javelins, and then follow them by their Blood. Of these Creatures, the Females are much more fearful than the Males.

¹ These people are often mentioned by Pliny, and are particularly described by Heliodorus (*Æthiopics*, b. viii.): "They are a people of Ethiopia, and live by grazing. These people are extremely swift of foot, as well by nature as by continued exercise from their childhood: of little use in close fight, but very serviceable with their slings, which they gall their enemy with at a distance; and if they find themselves overpowered, they fly, secured by their swiftness, and by running into holes and caverns among the rocks, where no enemy ever found it worth their while to follow them." The Agagees, as mentioned by Mr. Bruce, in his "Travels into Abyssinia," appear to be a similar race of men; although the object of pursuit is a different animal.—*Wern. Club.*

CHAPTER IX.

The Manner of Taming Elephants.

As furious as they may be, they are tamed with Hunger and Stripes, and by the Help of other Elephants that are brought to them, to restrain the unruly Beast with Chains; and at other Times, when they go to rut, they are most out of Order; so that they demolish the Stables with their Teeth: and therefore they restrain them from their Heat, and separate the Inclosures of the Females apart from those of the Males, which Enclosures they have much in the Manner of other Beasts. When tamed, they serve in War, and carry little Castles with armed Soldiers among the Enemies;¹ and for the most Part they decide the Wars of the East. They bear down the Body of the Army, and stamp them (the armed Men) under Foot. But these same are affrighted with the Grunting of Swine; and if wounded or put into a Fright, they always go backward, with scarcely less Mischief to their own Side. The African Elephants are afraid of the Indian, and dare not look upon them; for the Indian Elephants are much bigger.²

CHAPTER X.

How they Bring forth their Young; and of other Parts of their Nature.

It is the common Opinion that they go with Young ten Years; but *Aristotle* saith, that they go but two Years, and

¹ Or on their backs (a various reading).—*Wern. Club.*

² *Philostratus* and *Polybius* confirm this statement of *Pliny*, that the Indian elephant is larger than that of Africa; and *Ælian* says, that it attains the height of nine cubits. But modern authors generally consider the African species the larger,—at least larger than the common elephant of Hindostan. *Mr. Corse*, formerly superintendent of the East India Company's elephants at Tiperah, a province of Bengal, never heard of but one Indian elephant whose height reached ten feet six inches. The elephants of Hindostan are, however, the smallest of the Asiatic species. Those of Pegu and Ava are much larger; and the skeleton of the elephant at the Museum of Petersburg, which was sent to the Czar Peter by the King of Persia, measures sixteen feet and a half in height.—*Wern. Club.*

that they breed but once in their Life, and produce not above one at a Time: also that they live 200 Years, and some of them 300. Their Condition of Youth beginneth when they are threescore Years old: they greatly delight in Rivers, and they wander about Waters; when otherwise, by reason of the Magnitude of their Bodies, they cannot swim.¹ They are impatient of Cold. The greatest Evil which befalls them is, Distension and Purging of the Bowels; nor do they suffer from any other kinds of Sickness. I find that if they drink Oil, the Darts which stick in their Bodies will fall off, but if they sweat the more easily will they hold fast. The eating of Earth causes wasting in them, unless they chew well and often: they devour Stones also. The Trunks of Trees is the best Meat they have. They will overturn the higher Palm-trees with their Forehead, and eat the Dates as they lie along. They chew their Meat with their Mouth: but they breathe, drink, and smell with what is not improperly called their Hand. Of all living Creatures they most detest a Mouse;² and if they perceive that their Provender lying in the Manger hath been touched by it, they will not touch it. They are mightily tormented with Pain, if in their drinking they swallow down a Leech; which Creature, I observe, they begin now commonly to call a Bloodsucker, (*Sanguisuga*): for when the Leech hath fixed itself in the Windpipe, it putteth him to intolerable Pain. The Hide of their Back is most hard;³ but in the Belly it is soft; their Skin has no covering of Hair; and even in their Tail there is no Defence which might serve to drive away the Annoyance of Flies (for as huge a Beast as he is, he feeleth it); but their Skin is full

¹ It scarcely needs be observed that the elephant swims as well as any other quadruped. In this act he will frequently immerse his whole body, so that the tip of his trunk only is above water, to the no slight inconvenience of those who chance to be riding on his back.—*Wern. Club.*

² Ælian says (B. i. c. 38), that it dreads the grunting of a hog, and a horned ram; and it was by employing these that the Romans put to flight the elephants of King Pyrrhus, by which they obtained a decisive victory.—*Wern. Club.*

³ (Various reading.) *Animæ canali, or amne canali.*—*Wern. Club.*

of cross Wrinkles, and its Smell attracts this kind of Creatures. And therefore when they are stretched along, and perceive the Swarms settled on their Skin, suddenly they draw those Crevices close together, and crush them to death. This serves them instead of Tail, Mane, and long Hair. Their Teeth bear a very high Price, and their Substance is of greatest request for the Images of the Gods: but Luxury hath devised another Thing in them to commend; for they find a particular Taste (*vim*) in the hard Substance of (that which they call) their Hand: for no other reason (I believe) but because they have a Conceit that they eat the Ivory itself. In Temples are to be seen Teeth of the greatest Size; but in the remote Parts of Africa where it bordereth on Ethiopia, they stand in the Place of Corner-posts of their Houses; and with the Elephants' Teeth they make Hedges and Pales, as well to enclose their Grounds, as also to keep their Cattle within Stalls, as *Polybius* reporteth, from the Testimony of the petty King *Gubussa*.

CHAPTER XI.

*Where Elephants are bred; and of the Disagreement between them and the Dragons.*¹

ELEPHANTS are bred in that Part of Africa which lieth beyond the Deserts of the Syrtes, and also in Mauritania: they are found also among the Ethiopians and Troglodites, as hath been said:² but India produceth the biggest: as also the Dragons, which are continually at variance and fighting with them; and those of such Greatness, that they can easily clasp round the Elephants,³ and tie them fast with a Knot.

¹ For the Dragons, see 13th chap. — *Wern. Club*.

² Lib. viii. c. 8. — *Wern. Club*.

³ *Ælian* (B. vi. c. 21) says, that these dragons conceal themselves among the branches of trees, from which they hang dependent, watching for their prey. When the elephants approach to feed on the branches, the enemy seizes them about the eyes, twines itself about the neck, and lashes them with its tail, in which manner they fall down strangled. — *Wern. Club*.

In this Conflict they die together; that which is overcome falling down, and with his Weight crushing the one that is twined about him.

CHAPTER XII.

The Subtilty of Animals.¹

WONDERFUL is the Subtilty of Animals, each one according to its own Kind; and they have only this one Difficulty, that they must climb to so great a Height. The Dragon, therefore, espying the Elephant going to its Food, throweth itself on it from a high Tree; this Creature, knowing its Inability by struggling to withstand the other's Windings about it, seeketh to crush its Enemy against the Trees or Rocks. The Dragons guard against this by entangling its Progress first with their Tail; the Elephants undo those Knots with their Hand: but the Dragons put their Heads into their Snout, and so shut out their Breath, and tear the tenderest Parts. When these two chance to encounter each other on the Way, the Dragons raise themselves against their Enemies, and aim chiefly at the Eyes, whereby it happeneth that many Times they (the Elephants) are found blind, and worn away with Hunger and Grief. What other Reason should a Man allege of so great a Variance between them, if it be not a Sport of Nature, in matching these two, so equal in every respect? But some report this Contest in another Manner; and that the Occasion of it ariseth from the Elephant's Blood being exceedingly Cold, on which Account chiefly the Dragons search it out during the parching Season of the Year. And to the same Purpose they lie under the Water in Rivers, watching for the Elephants when they are drinking; when they catch fast hold of their Hand (Trunk), and having clasped it, they

¹ This chapter offers a poor developement of a universal principle in nature, by which the character of every animal is displayed in its resources of pursuit and defence. For its exemplification in the habits of British animals, the reader is referred to a work entitled "Illustrations of Instinct, derived from the Habits of British Animals," by Jonathan Couch, F.L.S.—*Wern. Club.*

fix their Bite in the Elephant's Ear, because that is the only Part which they cannot defend with their Hand. These Dragons are so large, that they are able to receive all the Elephant's Blood. Thus are they sucked dry by them until they fall down dead; and the Dragons thus drunken, are crushed under them, and both die together.

CHAPTER XIII.

*Of Dragons.*¹

IN Ethiopia there are produced as great Dragons as in India, being twenty Cubits long. But I chiefly wonder at this one Thing: why *Juba* should think they were Crested. They are produced most in a Country of Ethiopia, where the People called *Asachæi* inhabit. It is reported, that upon their Coasts they enwrap themselves four or five together, in the manner of a Bundle of Rods, and thus pass the Seas, to find better Pasturage in Arabia, bearing up their Heads aloft as they cross the Waves.

¹ Dragons are often mentioned by ancient authors, but without any marks by which we can distinguish them from other kinds of serpents. Their bulk did not constitute the distinction, for the *boæ* mentioned in the following chapter are, at least, equally large. The idea of ferocity seems more directly to mix itself with this class of reptiles; and accordingly in the Septuagint version of the Scriptures this is the impression usually implied in the term. In the 29th chapter of the prophecy of Ezekiel the crocodile is signified by that name, as it is also by Marco Polo in his travels; but in Revel. c. xx. as in the more ancient books of Scripture, a large serpent is distinctly characterised. Among the remarkable things at Rome in the days when the strangest things were sought out to gratify extravagant curiosity, Suetonius says that Tiberius possessed a tame dragon; and Martial (Ep. b. vii. c. 70) makes it the plaything of a lady:—"Si gelidum collo nequit Glacilla Draconem." The dragon, as a winged serpent, was in the middle ages often represented by the skin of a skate, distorted and cut into form, by which the opinion of such a monstrous shape was spread among the public.—*Wern. Club.*

CHAPTER XIV.

Of very great Serpents, and those called Boæ.¹

MEGASTHENES writeth that there are Serpents in India which grow to such a Size that they are able to swallow Stags or Bulls whole. *Metrodorus* saith that about the River Rhyndacus, in Pontus, there are Serpents which catch and devour the Fowls of the Air as they fly over them, however high or rapid their Flight may be. It is well known that *Regulus*, Imperator during the Wars against the Carthaginians, near the River Bograda assailed a Serpent with his Military Engines, the Balistæ and Tormentum, as he would have done to a Town; and when Subdued, the Length of the Serpent was found to be 120 Feet. The Skin and Jaws of this Serpent were preserved in a Temple at Rome until the War of *Numantia*. And this is rendered the more credible from the Serpents that we see in Italy that are called Boæ, which increase to such Size, that in the Days of the Prince *Divus Claudius* there was one of them killed in the Vatican, within the Belly of which there was found an Infant Child. They are nourished at the first by the Milk of the Cow, from whence they take their Name. As for other Animals, which of late are often brought from all Parts into Italy, it is needless for me to describe their Forms particularly.

¹ The monstrous serpents recorded by ancient authors, as Aristotle, Virgil, Livy, Pliny, and others, were probably of the family of boæ. Pliny gives here the derivation of the name "boa," and Johnson, "Deiparæ de Urseolo," and others observe that the name is derived not so much from the power the animals have of swallowing oxen, as from a strong opinion in old times of their following the herds, and sucking their udders. Cuvier says the boæ are among the largest of serpents. Some of the species attain to thirty or forty feet in length, and become capable of swallowing dogs, deer, and even oxen, after having crushed them in their folds, and lubricated them with their saliva. The class of boæ, as anciently understood, has been divided by Cuvier into two, boa and python: to which latter this author supposes that serpent to have belonged which offered so formidable a resistance to the army of *Regulus*. Such enormous serpents have long since ceased to exist in Italy.—*Wern. Club.*

CHAPTER XV.

Of Scythian Animals, and those that are produced in the North Parts.

VERY few Animals are produced in Scythia, through the Scarcity of Vegetation. Few likewise are in Germany, bordering on it; but that Country possesseth some remarkable kinds of Wild Cattle, as the Maned Bisons,¹ and the Urus, of very great Strength and Swiftmess, which ignorant

¹ *Urus Bonasus*. Much doubt has existed with regard to the distinction between these three supposed species of oxen, which Cuvier resolves into two, the *Bos Bonasus* of Linneus; Zubr, or European Bison; and the Urus, mentioned in ancient times by Cæsar. The former animal once roamed over the woodland districts of Central Europe, and in England was contemporary with the extinct races of elephant and rhinoceros; but it is now confined to the forest of Bialowicza, in the government of Grodno, where it is carefully protected by the imperial government, whose strict enactments alone have saved it from extirpation. In Owen's "History of British Fossil Mammalia," p. 491, &c. the remains of animals of this species are described as those of the *Bison Priscus*; and they are found in "various newer tertiary fresh-water deposits, especially in Kent and Essex, and along the valley of the Thames." A young male and female were presented to the Zoological Society of London, by the Emperor of Russia, in the year 1847. Aristotle calls it Bonasos, or Monassos, and describes it as living in Pæonia, the modern Bulgaria; but the distance to which, in terror, it voids its excrements, is more moderately represented by him as four fathoms; which Pliny extends to no less than "tria jugera," or a space of 700 feet. The Urus, also a large species of wild ox, ranged the forests of Germany and Belgium till a late period of the Roman empire, but is now extinct. Its fossil remains, under the name of *Bos Primigenius*, are found by Professor Owen in the same deposits and localities as those of the Aurochs, or Bison. The Urus was almost equal in size to the Aurochs, but differed from it precisely, as the Roman poets and historians have indicated, by the greater length of its horns, and by the absence of a copious mane. It appears to have had a nearer affinity to the domestic ox, resembling it probably in the close nature of its hairy covering. Cuvier, Professor Bell, and other naturalists, are disposed to believe that our domestic cattle are the degenerate descendants of the Urus, but with this opinion Professor Owen does not concur; and they are more probably to be referred to the wild cattle still preserved in the park at Sheringham.—*Wern. Club.*

People call Bubalus : whereas the Bubalus¹ is bred in Africa, and beareth some Resemblance to a Calf, or rather to a Stag. The Northern Regions also bring forth Troops of Wild Horses;² as in Asia and Africa there are of Wild Asses.³ Besides these there is the Alcè,⁴ very like a Beast of Burden, but that the Height of its Ears and Neck distinguishes it. Also, in the Island Scandinavia, but nowhere else in the World, though spoken of by many, there is a Beast called Machlis, not much unlike the Alcè abovenamed, but without any Bending of the Pastern, and therefore he never lieth down, but Sleepeth leaning against a Tree; and when that is cut down, they are taken in the Snare, for otherwise they are too swift to be caught. Their upper Lip is exceeding Great, and therefore as they Feed they go backward; for if they passed forward, it would be folded double. There is (they say) a Wild Beast in Pæonia, which is called Bonasus, with a Mane like an Horse, but otherwise resembling a Bull; and his Horns bend so inwardly, with their Tips toward the Head, that they are of no Service for Fight, and therefore he hath recourse to Flight for Safety; and in it throwing out his Dung at intervals to the Distance of three Acres, the Contact of which burneth them that follow, like so much Fire. It is a strange thing that Leopards, Panthers, Lions and such Animals, as they go, draw the Points of their

¹ *Antelopè bubalus.*—PALLAS. The Harte-beest.—*Wern. Club.*

² A race of wild horses was common to the northern and other regions of the earth in Pliny's time, but they appear to have been derived from a domesticated stock. Like that of most other animals, and even plants, that have yielded to the sway of man, the original country of the horse cannot be traced with a certainty; but as the sacred writings inform us that the Egyptians were the first to train him for the use of man, it is probably to the northern parts of Africa that we are to look for its native locality.—*Wern. Club.*

³ The ass still exists in a state of nature in Persia, India, and in some parts of Africa; it is larger, stronger, and more beautiful than the same animal in a domestic state.—*Wern. Club.*

⁴ Alcè, the Elk, *Cervus Alcè*, of Linnæus. What is to be understood by the Machlis appears to be doubtful. The description applies only to the Elk; but part of it is clearly an error.—*Wern. Club.*

Claws within a Sheath, that they may not be Broken, or rendered Blunt; and that when they run the Hooks are turned back, and are never stretched forth but when they seize an Object.¹

CHAPTER XVI.

*Of Lions.*²

THE Lions are then in their high Perfection when the Hair of their Mane covereth the Neck and Shoulders. And this cometh at a certain Age to them that are the Progeny of Lions indeed; for such as have Panthers to their Sires never have this Ornament;³ as also has not the Lioness. Lionesses are very lecherous, which is the cause that there is so much Anger in the Lions. This Africa seeth most,

¹ Sir Charles Bell, "Bridgewater Treatise," p. 102, says, "The last bone, which supports the claw, is placed laterally to the next to the last, and is so articulated with it that an elastic ligament draws it back and raises the sharp extremity of the claw upwards. In the ordinary running of the animal the nearer extremity of the furthest bone presses the ground, this and the furthest extremity of the second bone, which is also bent down, being received on a pad, which acts as a cushion, and also adds to the elasticity. In this condition the claw itself is received into a sheath above; but when the creature strikes an object, the claws are brought forward, and bent under by the action of the flexor tendons acting on the last bone, assisted by the extensors, which cause to start upward the end of the second bone as by a spring. It is only the excitement of seizing an object that can produce this action; and when this does not exist, the bones and claw fall into their ordinary almost dislocated condition."—*Wern. Club.*

² *Felis Leo.*—LINN.—*Wern. Club.*

³ Aristotle also speaks of a maneless lion, "Hist. Anim." ii. 31; and modern science has confirmed the assertion of these ancient naturalists, but of course without accrediting its monstrous birth. Olivier, "Voyage dans l'Empire Othoman, l'Egypt, et la Perse," tom. iv. says that the lion which inhabits the part of Arabia and Persia near the river of the Arabs, from the Persian Gulf to the environs of Hellè and of Bagdad, is probably the species of lion of which Aristotle and Pliny have spoken, and which they regarded as a different species from that which is spread over the interior of Africa. This lion much resembles the African species, excepting that it is smaller and has no mane. In 1833 Captain Smee exhibited to a meeting of the Zoological Society of London the skins of a lion and lioness

where for want of Water the Wild Beasts meet in Troops about the few Rivers that are found. And hence it is that so many strangely shaped Beasts are there produced, for the Males, either by Force or through Wantonness, mix with the Females of various Kinds. From hence also proceeds the common Greek Proverb, *That Africa is continually bringing forth something new.*¹ The Lion knoweth by Scent of the Panther when the Lioness hath suffered his Embrace; and with all his might he punisheth her Adultery. And therefore she either washeth away the Crime in a River, or else followeth the Lion at a great Distance. I see it is a commonly received Opinion that the Lioness bringeth forth Young but once, because the Whelps in her Parturition

killed by him in Guzerat. He stated that this variety was distinguished from those previously known by the absence of a mane (that is, it is maneless compared with other lions), from the sides of the neck and shoulders, the middle line of the back of the neck being alone furnished with long hairs, which are erect, like those of the same situation in the Cheetah (*Felis jubata*). The under surface of the neck has long loose silky hairs, and there is a tuft at the angle of the anterior legs. Besides the absence of the extensive mane, the tail is shorter than that of ordinary lions, and is furnished at its tip with a much larger brush or tuft. Capt. Smee thus characterises his maneless lion:—" *Felis Leo*. LINN. var. *Goojratensis*. Mane of the male short, erect; tuft at the apex of the tail very large, black." See "Zool. Proc." 1833; also "Zool. Trans." vol. i. where an excellent figure is given; and "Penny Cyclopædia," art. *Lion*.—*Wern. Club*.

¹ Many animals possess a figure so closely resembling more than one of another kind or family, that we cannot wonder if the ancients, with their slender knowledge of nature, thought they really were a mixed breed, and that newly-created species were continually springing up. Thus, according to Pliny's theory, the Camelopardalis, or Giraffe was the offspring of the Camel and Panther; the Leopard, of the latter animal and the Lion; and the Harte-beest (*Antelope bubalus*) of the Antelope and Buffalo. But modern experience has shewn the fallacy of this opinion; and we now know that if a hybrid be sometimes produced, there the power of propagation ceases. There is no proof or probability that any permanent race has risen into existence since first individual creation proceeded from the hand of its Maker; and in a wild condition it is questionable whether even a mongrel individual has been ever produced, although this has sometimes happened in captivity.—*Wern. Club*.

tear her Belly with their Claws for their exit. *Aristotle* writeth otherwise: a Man whom I cannot name but with great Honour, and whom in these matters I mean for the most part to follow. King *Alexander the Great*, having an ardent desire to know the Nature of all living Creatures, assigned this Charge to *Aristotle*, a Man accomplished in all kind of Science and Learning, and to this effect commanded some Thousands of Men through all the Extent of Asia and Greece to give their Attendance, including all Hunters, Fowlers, and Fishers, that lived by those Professions. Also all Foresters, Park-keepers, and Warreners; all such as had the keeping of Herds and Flocks; of Bee-hives, Fish-ponds, and Fowls, so that he should not be ignorant of anything in any Nation.¹ By his Conference with them he compiled almost fifty excellent Books, “*De Animalibus*,” (of Living Creatures). Which being collected by me in a narrow Room, with the addition of some Things which he never knew, I beseech the Readers to take in good part; and for the Knowledge of all Nature’s Works, which that most noble of all Kings desired so earnestly, to make a short Excursion under my care. That Philosopher reporteth that the Lioness at her first Litter bringeth forth five Whelps, and every Year after fewer by one; and when she bringeth but one she becometh Barren. Her Whelps at the first are without Shape and very Small, like Lumps of Flesh, no bigger than Weasels. When they are six Months old they can hardly go, and for the two first they cannot move. There are also Lions in Europe,² but only between the Rivers Achelous and Nestus,

¹ Aristotle is by far the most illustrious naturalist of antiquity, and he will not suffer by comparison with the moderns. His great work, written under such favourable circumstances, continues to this day, and is remarkable for that in which other ancient writers are exceedingly deficient, a philosophical digest of his subject.—*Wern. Club.*

² Lions are at present confined to Asia and Africa, but that they were once found in Europe there can be no doubt. Thus it is recorded by Herodotus (“*Polym.*” vii. 124) that the baggage camels of the army of Xerxes were attacked by lions in the territory of Pæonia and Crestonia, in Thracia. The same authority, as well as that of Aristotle (“*Hist.*”

and these are much Stronger than those of Africa or Syria. Lions are of two Kinds, the one Short and Compact, with Manes more Curled; but these are more numerous than those which have long and plain Hair, for the latter despise Wounds. The Males lift up the Leg when they micturate, as Dogs do; they have a strong Breath, and their Bodies also Smell rank. They Drink seldom, and Eat but on alternate Days; and if they Feed till they are Full they abstain from Meat for three Days. In their Feeding whatever they can Swallow without Chewing goes down whole; and if they find their Belly not able to receive their Greediness, they thrust their Claws into their Throats to drag it out again, that if they are compelled to fly they may not go away in their Fulness. That they Live very long¹ is proved by this Argument, that many of them are found Toothless. *Polybius*, who accompanied (*Scipio*) *Emilianus*, reporteth that when they are grown Aged they will prey upon a Man, because their Strength will not hold out to pursue Wild Beasts. Then they lie in wait about the Cities of Africa; and for that cause while he was with *Scipio* he saw some of them Crucified, that other Lions might be scared from doing the like Mischief by fear of the same Punishment. The Lion alone of all Wild Beasts is gentle to those that humble themselves to him; he spareth those that lie Prostrate; and when he is furious he dischargeth his Rage upon Men before he setteth upon Women, and never preyeth upon Babes unless it be for extreme Hunger. It is believed in Libya that they have an Understanding of Prayers addressed to them. I have heard as a fact of a Captive Woman of Gætulia, who was brought back again to her Master, that she had pacified the Violence

Anim." vi. 31; and viii. 33), from whom Pliny seems to have copied, inform us that they abounded in that part of Europe which is between the Achelous and Nessus. Nor is Europe the only part of the world from which the lion has disappeared; for it is no longer to be found in Egypt, Palestine, or Syria, where it once was evidently far from uncommon, as we know from the frequent allusions to it in the Holy Scriptures. — *Wern. Club.*

¹ Aristotle, "Hist. Anim." ix. 69.— *Wern. Club.*

of many Lions in the Woods by her Speech, having ventured to say that she was a Woman, a banished one, Feeble, a Suppliant to the noblest of all other living Creatures, the Commander of all the rest, and unworthy that his Glory should prey upon her. The Opinions concerning these things are various, according to the Bias of each Person, or the Occurrences that have happened to him. Whether Savage Beasts are appeased by kind Words, the more especially as also whether Serpents may be fetched out of their Holes¹ by Song, and kept under for Punishment, is true or no, Experience hath not yet determined. The Tail² is an Index to

¹ See the account of the Psylli, book vii. chap. 2.—*Wern. Club.*

² It was a common opinion among the ancients that the lion lashes his sides with his tail to stimulate himself into rage; hence Pliny calls the tail the index of the lion's mind. But they do not seem to have adverted to any peculiarity in that member, to which so extraordinary a function might, however incorrectly, be attributed. Didymus Alexandrinus appears to have been the first person who, entertaining this fancy, noticed a prickle at the end of the tail, in his comment on the twentieth book of the Iliad, where the lion's rage is mentioned,—

“Such the lion's rage,

* * * * *

Lash'd by his tail his heaving sides resound;

He calls up all his rage.”

“The lion,” he says, “has a black prickle on his tail, like a horn; when punctured with which he is still more irritated by the pain.” This prickle was by many long looked upon as a mere fiction, till the matter was put beyond a doubt, some years since, by Professor Blumenbach, who upon dissection discovered on the very tip of the tail of a lioness a small dark-coloured spine, as hard as a piece of horn, and surrounded at its base with an annular fold of skin. It is, however, only occasionally found; nor is it confined to the lion, for it has been discovered in the Asiatic leopard. Mr. Wood (“Zool. Proc.” 1832) remarks that it is difficult to conjecture the use of these prickles, their application as a stimulus to anger being of course out of the question; but he observes that it could not be very important, for, to say nothing of their small size and envelopement in the fur, the majority of individuals, in consequence of the readiness with which the part is detached, are deprived of it for the remainder of their lives. The writer of this note has had an opportunity of seeing and feeling the prickle in the tail of a lion's cub, which was whelped in Wombwell's menagerie.—*Wern. Club.*

the Mind of Lions, as in Horses their Ears, for these Marks Nature hath given to the most noble Beast; and when the Lion stirreth not his Tail he is quiet and gentle, as if he were willing to be played with; but he is seldom so, for he is more frequently angry. In the Beginning of his Anger he beateth the Ground, when it increaseth he beateth his Sides and Back as if to whip himself with something that would stir up his Fury. His main Strength lieth in his Breast; from every Wound, whether made by his Claw or Tooth, the Blood that floweth is Black. When their Belly is full they become harmless. His Magnanimity is chiefly shewn in Dangers; not only in that he despiseth the Darts, but also that he defendeth himself by his Terror only, and as if bearing witness that he is forced to his own Defence, he riseth up in Fury, not as at last compelled by the Peril, but as made angry by their Folly. But this more noble Display of Courage is shewn in that, however great may be the Strength of Hounds and Hunters, while in the open Plains and where he may be seen, he retireth only by degrees and with Scorn; but when he hath got among the Thickets and Woods then he hurrieth away, as if the Place concealed his Shame. When he followeth he leapeth with a Bound, which he never useth to do in Flight. If wounded he hath a remarkable Quickness of Observation to discern the Person who smote him, and amidst a Multitude he runneth upon him only. As for the Man who hath thrown a Dart at him without wounding him, he striketh him down, and seizeth and shaketh him, but doth not wound him. When the Female fighteth for her Whelps, it is said that she fixeth her Gaze upon the Ground, that she may not be affrighted at the Sight of the hunting Weapons. For the rest, they are destitute of Craft and Suspicion; they never look aslant, and they love not to be looked at in that manner. It is believed that when they are dying they bite the Earth, and in their Death shed Tears. This Animal, so fierce as he is, is made afraid with the running round of Cart-wheels, or empty Chariots; he is terrified with the Cock's Comb, and much more with his Crowing, but most of all with the Sight of Fire. The Lion is

never Sick but of Loathing ; and then the way to cure him is to tie to him She Apes, which with their wanton mocking drive him to Maduess, and then when he hath tasted their Blood it acts as a Remedy. *Q. Scævola*, the Son of *Publius*, was the first at Rome that, in his Curule Ædileship, exhibited a Fight of many Lions together ; but *L. Sylla*, who afterwards was Dictator, was the first of all that in his Prætorship exhibited an hundred maned Lions. After him *Pompey the Great* shewed 600 of them in the Circus, and among them were 315 with Manes. *Cæsar*, the Dictator, exhibited 400. The taking of them formerly was a hard piece of Work, and was commonly in Pit-falls ; but in the Reign of *Claudius* a Shepherd of Gætulia taught the manner of catching them, a thing to be regarded as almost unbeseeing the Name of such a Beast. This Gætulian, when a Lion violently assailed him, threw his Military Cloak over his Eyes. This remarkable thing was soon after practised in the Arena ; so that a Man would hardly have believed that so much Fierceness should so easily be rendered inert by this slight covering thrown on the Head, the Creature making no resistance, but suffering himself to be bound fast, as if all his Vigour rested in his Eyes. The less therefore is it to be wondered at that *Lysimachus* strangled a Lion,¹ when by Command of *Alexander* he was shut up alone together with him. The first who subdued them to the Yoke at Rome, and joined them to his Chariot, was *M. Antony*. And truly it was in the Civil War, when the Battle was still in Contest in the Plains of Pharsalia : not without some foretoken of the times, which by that Prodigy gave them to understand that Men of a high Spirit should come under the Yoke of Subjection ; for that *Antony* was carried in this manner, with the Comic

¹ Plutarch, in the "Life of Demetrius," informs us that "Demetrius having sent ambassadors to Lysimachus on some occasion or other, that prince amused himself one day with shewing them the deep wounds he had received from a lion's claws in his arms and thighs, and gave them an account of his being shut up with that wild beast by Alexander the Great, and of the battle he had with it." Pausanias, Seneca, and Justin, mention this story ; but *Q. Curtius* doubts the truth of it.—*Wern. Club.*

Actress *Cytheris*, was beyond the monstrous Spectacles of even those calamitous times. It is reported that *Hanno*, one of the noblest of the Carthaginians, was the first Man that ventured to manage a Lion with his Hand, and to shew him as being rendered Submissive. But he was condemned on account of this very Circumstance, for it appeared to them that a Man of such artful Ingenuity would be able to persuade to anything; and that it was dangerous to trust their Liberty to him, to whom even Fierceness itself had so remarkably yielded. But there are also casual Examples of their Clemency. *Mentor*, the Syracusan, met with a Lion in Syria, which after an humble manner rolled himself in the Way before him; and being astonished with Fear, when he sought to escape in every way the Wild Beast placed himself across his Path, and licked his Footsteps in a flattering manner. *Mentor* then observed that the Lion had a Swelling and Wound in his Foot, whereupon he gently plucked out the Splinters of Wood, and so eased the Beast of his Pain.¹ This Fact is for a Memorial represented in a Picture at Syracuse. In a similar Manner *Elpis*, a Samian by Nation, being conveyed to Africa in a Ship, and having discovered near the Shore a Lion having a threatening Gape, he fled quickly to a Tree, and called upon Father *Liber*; for then is the principal Time for Prayer, when we see no other Hope. But the Lion stopped him not in his Flight, although it was in his Power; and laying himself down close to the Tree, with that open Mouth with which he had terrified the Man, he sought his Compassion. Now the Beast having lately fed greedily, had gotten a Bone stuck fast within his Teeth, which put him to great Pain; also, he was almost famished; and he looked up pitifully, shewing how he was punished with those very Weapons of his, and, as if with dumb Prayers, besought his Help. *Elpis*, on the other Hand, not being very forward to commit himself to the Wild Beast, stayed the longer, while he considered rather this miraculous Accident than other-

¹ The reader will here be reminded of the well-known story of Androcles, or Androdus, and the lion, told by Aulus Gellius and Ælian.—*Wern. Club.*

wise greatly feared. At the last he came down from the Tree and plucked out the Bone, while the Lion held his Mouth open, and composed himself to his Conveniency: in recompense of which Service, it is said, that so long as this Ship lay on that Coast, the Lion furnished him with a good Quantity of Food by Hunting. And on this account *Elpis* dedicated a Temple in Samos to *Liber Pater*; which from this Circumstance the Greeks called *κεχρημένος Διονύσου* (of *Gaping Dionysius*).¹ Can we feel surprised after this, that Wild Beasts should know the Footsteps of Men,² when even they have recourse to him alone for Hope of Succour? And why did they not go to other Creatures? or who taught them that the Hand of Man was able to cure them? unless this be the Reason, that perhaps the Power of many Evils forceth even savage Beasts to seek out all means of Help.

CHAPTER XVII.

Of Panthers.

DEMETRIUS the Natural Philosopher also maketh mention of as memorable a Case as the former, concerning a Panther; which was desirous to meet with a Man, and therefore lay in the Middle of an Highway, and suddenly appeared to the Father of a certain *Philinus*, a Student of Philosophy. The Man, through Fear, began to go back again, but the Wild Beast kept rolling itself about him, very plainly fawning upon him, and tossing itself so piteously,

¹ Holland has chosen to add, “or *Σωτήρης ναόν Διονύσου*, the Chapel of Dionysius the Saviour;” not because there are such words in the text, but because Gesner, whose edition of Pliny he appears to have used, not understanding the purport of Pliny’s words, has proposed to substitute the latter, which he supposed to be a more intelligible reading. But in no MS. of Pliny is any support afforded to this criticism of Gesner; and the conclusion of ch. xlvi. b. 7, of Ælian, is a sufficient proof of the accuracy of the present text,—as the story there given is an explanation of its meaning.—*Wern. Club.*

² Pliny had before remarked (Book viii. chap. 5), that the elephant could recognise the footstep of a man.—*Wern. Club.*

that its Grief might be seen even in a Panther. She had but lately produced Young, and her Whelps were fallen into a Pit at a Distance off. The first Point of Pity that the Man shewed was not to be afraid; and the next, to direct his Regard to her; and so following her in the Way whither she drew him by his Garment, which she gently held with her Claws, as he understood the Occasion of her Sorrow, and the Reward of his Courtesy, he drew forth her little ones; which done, she and her Whelps, leaping for Joy, accompanied him, and directed him all the Way to beyond the Wilderness. So that it easily could be discerned that she was thankful to him, and that they mutually acknowledged each other: a rare Example to be found even amongst Men. This Story gives great Credit to that which *Democritus* reporteth: That *Thoas*, in Arcadia, was preserved by a Dragon. This *Thoas*, when a Child, had loved this Dragon exceedingly well, and nourished him; but being in some dread of the Serpent's Nature, and fearing his Magnitude, he had carried him into the Deserts; wherein being environed by the Stratagems of Thieves, when he cried out, the Dragon, knowing his voice, came forth and rescued him. As for the Things reported concerning Infants cast forth to perish, and sustained by the Milk of Wild Beasts, like *Romulus* and *Remus*, our Founders, by a She-Wolf, in my Opinion they are to be attributed more to the Greatness of their Destinies than to the Nature of those Wild Beasts. Panthers and Tigers are almost the only Beasts seen with a Variety of Spots; for other Beasts have each one a proper Colour of their own, according to their Kind. A black Kind of Lion is found in Syria only. The Ground of the Panther's Skin is White,¹ with little black Spots like

¹ There seems much uncertainty and confusion in Pliny's description of the Panther and Leopard, which, probably, he means by the terms *Panthera* and *Pardus*; indeed, modern naturalists are not at all agreed as to the best mode of distinguishing these animals. Cuvier considers the ἡ πᾶρδαλις of the ancients to be the modern Panther (*Felis Pardus*.—LINN.). He does not notice the Panther, ὁ πανθηρ of Aristotle, "Hist. Anim." vi. 35; and, indeed, this animal is supposed by many not to be of the leopard kind.—*Wern. Club*.

Eyes. It is said that all Quadrupeds are wonderfully enticed by the Smell of Panthers; but their Sternness of Countenance carrieth Terror with it, and therefore they hide their Heads, and when they have attracted other Beasts within reach by their sweet Smell, they fly upon and seize them. Some report that they have a Mark on their Shoulder resembling the Moon, growing to the full and decreasing into Horns as she doth. In all this Race of Wild Beasts, now they call the Males *Variæ* and *Pardi*; and there is great Abundance of them in Africa and Syria. Some distinguish between Leopards and Panthers, by the Panthers being white; and as yet I know no other Difference between them. There was an old Act of the Senate, forbidding that any Panthers of Africa should be brought into Italy. Against this Edict, *Cn. Aufidius*, a Tribune of the People, produced a Bill to the People, which permitted, that for the sake of the Circensian Games, they might be brought over. *Scaurus* was the first who in his *Ædileship* exhibited of different Sorts 150 (*Variæ*) in all. After him, *Pompey the Great* brought out 410; *Divus Augustus*, 420; who also in the Year that *Q. Tubero* and *Fabius Maximus* were Consuls, on the fourth Day before the Nones of May, at the Dedication of the Theatre of *Marcellus*, was the first of all those that shewed at Rome a tame Tiger in a Cage; but *Divus Claudius* shewed four at once.

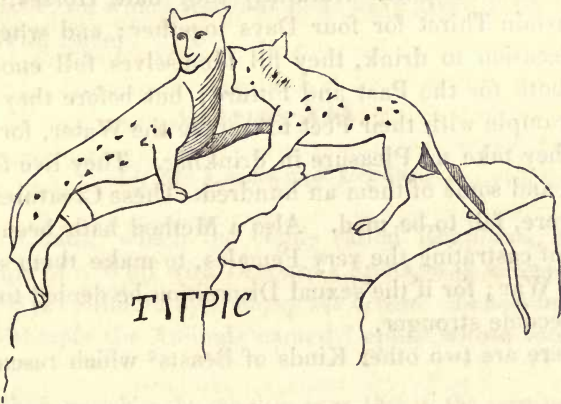
CHAPTER XVIII.

Of the Nature of the Tiger: of Camels, of the Camelopard, and when it was first seen at Rome.

TIGERS are produced in Hyrcania¹ and India. This Animal is dreadful for Swiftmess, and most of all this is seen when it is taken: for her Litter, of which there is always a

¹ *Felis Tigris*.—LINN. The Royal Tiger. Some have supposed that this species was but little known to the ancients; but we think with no sufficient grounds. The numerous passages in which the word *tigris* occurs in Greek and Latin authors, leave little room for doubting their knowledge of the animal; and Hyrcania, with which it is so frequently associated by the latter, is a locality well suited to what we know of its

great Number, by one that lieth in wait, is snatched away upon a very swift Horse; and they are shifted at Intervals from one fresh Horse to another. But when the Tigress finds her Den empty (for the male Tiger hath no Care of the Young), she runneth headlong after her young Ones, following the Tracks by their Scent. The Man who hath seized them, perceiving the Tigress approaching by the Noise she maketh, throws down one of her Whelps; up she taketh it in her



From the Pavement of the Temple of Fortune at Palestrina. Montf. tom. iv. pl. 60.

Mouth, and back she runneth towards her Den, the swifter for the Burden that she carryeth; and presently again she followeth the Pursuit, and so forward and back until they are embarked in the Boat, and then she rageth with Fury on the Shore.

Camels are pastured in the East among other Cattle. There are two Kinds of them, the Bactrian and the Arabian; which differ in that the Bactrian Camels have two Hunches on their Backs,¹ and the other only one;² but they have an-

geographical distribution. See the article *Tigers*, in the "Penny Cyclo-pædia," where the subject is fully treated, and numerous passages from the Classics adduced in proof of the acquaintance of the ancients with this animal. — *Wern. Club.*

¹ *Camelus Bactrianus*.—LINN.—*Wern. Club.*

² *Camelus Dromedarius*.—LINN. The Arabian Camel.—*Wern. Club.*

other on their Breast, whereon they rest when they lie down. Both sorts are without the upper Row of Teeth, like Oxen. In those Countries they all serve to carry Burdens like labouring Horses; and they are even rode like Horses in Battles. Their Swiftmess is comparable to that of Horses; but they differ one from another in this, as they do also in Strength. The Camel in his Travelling will not go further than his ordinary Journey, neither will he carry more than his accustomed Load. Naturally they hate Horses.¹ They can sustain Thirst for four Days together; and when they find Occasion to drink, they fill themselves full enough to serve both for the Past and Future; but before they drink, they trample with their Feet to trouble the Water, for otherwise they take no Pleasure in drinking. They live for fifty Years, and some of them an hundred. These Creatures, also, as it were, fall to be mad. Also a Method hath been discovered of castrating the very Females, to make them serviceable in War; for if the sexual Disposition be denied to them, they become stronger.

There are two other Kinds of Beasts² which resemble in

¹ In a state of nature this appears to be the case; while at Smyrna, and other parts of Asia, the horse and camel are constantly seen, each occupied in its respective labours, in friendly harmony; this may, indeed, be only the effect of hereditary habit, the animals having been so long accustomed to each other; for at Pisa, where the camel has been introduced not much more than two centuries, we are informed by Professor Santi, that it is necessary to accustom the horses of the neighbourhood to the sight of the camel, as without such precaution constant accidents would occur. And Herodotus relates (Clio, 80), that when Cyrus met the Lydian army, commanded by Cræsus, fearing the cavalry of his enemy, he unloaded the baggage camels, and placed soldiers upon them, with orders to march against the enemy's cavalry; this he did, as Herodotus says, because "the horse has a dread of the camel, and cannot bear either to see the form, or to smell the scent of him." And the stratagem of Cyrus succeeded, for the horses no sooner saw and smelt the camels, than they turned back, and the hopes of Cræsus were destroyed.—*Wern. Club.*

² Pliny, in the original, implies that there are two other kinds of

some sort the Camel: one of them is called by the Ethiopians, the Nabis; with a Neck like a Horse, and the Leg and Foot like the Ox; the Head resembles that of a Camel, and it is marked with white Spots upon a red Ground, from which it taketh the Name of *Camelopardalis*;¹ and the first Time it was seen at Rome was in the Games of the Circus given by *Cæsar* the Dictator; since which Time it is sometimes seen, being more remarkable for the Sight than for any wild Nature that it hath; on which Account some have given it the Name of the Wild Sheep.

CHAPTER XIX.

Of the Chau and Cephus.

THE Chau,² which the Gauls called Rhaphius, having the Shape of a Wolf with Leopard's Spots, was shewed first in the Plays exhibited by *Pompey the Great*. He also brought out of Ethiopia the Animals named Cephi,³ whose fore Feet

animal which resembles the camel *in name*, that is, the *camelopardalis*, and the *struthiocamelus*, or ostrich.—*Wern. Club*.

¹ The giraffe was certainly well known to the ancients long before the time of Julius Cæsar, when, as Pliny says, it first appeared in Italy. It occurs, though rarely, in the Egyptian hieroglyphics, and is mentioned by Agatharchidas, a Greek writer, who flourished about 150 B.C. In his description of the animal, Pliny appears to have taken the darker parts of the skin as forming the ground colour, which is relieved by the lighter tints.—*Wern. Club*.

² *Felis Lynx*.—LINN. The European Lynx.—This animal is again mentioned, Lib. viii. c. 22, where it is called the *Lupus Cervarius*, or Stag-Wolf; and Dr. Fischer supposes it also to be the lynx mentioned, Lib. xi. ch. 46. It is probable that Pliny has confounded together this and the Marsh-Lynx, *Felis Chau*, CUVIER.—*Wern. Club*.

³ *Cercopithecus Ruber*, of Authors. The Patas, or Nismas.—Ælian, "Hist. Anim." xvii. 8, on the authority of Pythagoras, describes the Cephi as inhabiting the country bordering on the Red Sea. They are said to have been called *κάρραι*, that is, *gardens*, from the various colours for which they are distinguished. The Patas being one of the most beautiful of the monkey tribe, the author of the volume on monkeys in the

were like Men's Hands, and the hind Feet and Legs resembled those of a Man. This Creature was never seen afterwards at Rome.

CHAPTER XX.

*Of the Rhinoceros.*¹

IN the same Plays of *Pompey*, and many Times beside was shewed a Rhinoceros, with a single Horn on his Snout. This is a second begotten Enemy to the Elephant.² He fileth this Horn against hard Stones, and so prepareth himself to fight; and in his Conflict he aimeth principally at the Belly, which he knoweth to be the tenderest Part. He is full as long as his enemy; his Legs much shorter; his Colour a palish Yellow.

"Library of Entertaining Knowledge," thinks there is no doubt of its being the Cephus here mentioned. "It is seldom, indeed," he says, "that we are able to identify an animal so satisfactorily with the ancient description." The Cephus of Pliny must not be confounded with the Cebus of Aristotle, which is the *Papis Gelada*. — *Wern. Club*.

¹ *Rhinoceros Indicus*.—Cuv. The Indian Rhinoceros. It has been asserted by Bruce and Salt that the Indian or one-horned Rhinoceros has never been found in Africa; from whence, since it was led in the triumph of Pompey, it was implied that this animal was brought. But in confirmation of the above inference, Dio Cassius states, though indirectly, that Augustus, in the celebration of his triumph over Cleopatra, gave a one-horned rhinoceros to be slain in the circus. And Strabo describes another which he saw at Alexandria; while Burckhardt says expressly, that it is the one-horned rhinoceros that is found in the country above Sennaar. — *Wern. Club*.

² The first is the Dragon, mentioned Lib. viii. c. 12. — *Wern. Club*.

CHAPTER XXI.

Of *Lynxes* and *Sphinges*; of *Crocūtæ*, *Cercopithecæ*, *Indian Oxen*, *Leucrocūtæ*, *Ealè*; *Ethiopian Bulls*, the *Mantichora*, *Monoceros*, *Catoblepa*, the *Basilisca*.

LYNXES are common;¹ and so are Sphinges:² with brownish Hair, and two Breasts on their Chests (*pectus*). Ethiopia produceth them, and many other similar monstrous Beasts, as Horses with Wings, and armed with Horns, which they call Pegasi.³ Also Crocutæ,⁴ which appear as if begotten between



T. Q. Couch. From Montf. tom. iii. pl. 17

¹ *Felis Caracal*.—LINN. The Caracal.—Bennet ("Tower Menageries,") thinks that the Caracal is unquestionably identical with the lynx of the ancients, though the name has been usurped in modern times for an animal of northern origin, utterly unknown to the Greeks, and known to the Romans by a totally different appellation. But although it is generally agreed that the Caracal is the lynx of the ancients, it is to be observed that they use the term to denote various animals; and particularly in the case of the animal accorded to Bacchus as one of his attributes, they seem to have had no precise idea respecting it. The terms, Lynx, Panther, and Tiger, seem to be all employed to designate this animal, or these animals.—*Wern. Club*.

² The term "Sphinx," which Dr. Holland translated "Marmozet," was undoubtedly used to designate some species of Simia, but what sort it does not seem possible to determine.—*Wern. Club*.

³ Pliny has, on more than one occasion, manifested an inclination to regard as real the fabulous creations of the heathen mythology. But modern inquiry has failed to discover either the Pegasus, the Syren, or the Mantichora, — the latter, an imaginary monster, mentioned also by Aristotle ("Hist. Anim." Book ii. ch. 11); by Pausanias (Lib. ix.); by Ælian (c. iv. 21), and by Ctesias, "Apud Photium."—*Wern. Club*.

⁴ *Canis Hyæna*.—LINN. The Striped Hyæna.—The most monstrous fables were rife among the ancients respecting this animal. It would be a waste of time and space to enumerate all the wonderful powers that were

a Dog and a Wolf; they crush every Thing with their Teeth; and a Thing is no sooner devoured but presently it is passed through the Body; and Cercopithecæ,¹ with black Heads, and Hair like Asses, differing from other (Apes) in

their Voice: also Indian Oxen with one Horn,² and others with three. Also the Leucocrotæ,³ a very swift Beast, almost as big as an Ass, with Legs like a Deer; with a Neck,

Tail, and Breast of a Lion, the Head of a Badger, with a cloven Foot; the Gape of his Mouth reaching to his Ears; and instead of Teeth, an entire Bone. They

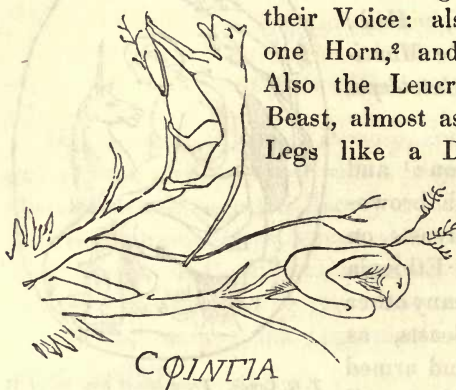
report that this Beast imitateth the human Voice. They have among them, also,

attributed to it; but among other accomplishments it was said to imitate the language of men, in order to draw to it shepherds, whom it devoured at leisure, and to have the power of charming dogs, so that they became dumb; and the early modern naturalists repeat the fables of the ancients. See ch. 30, and Ælian, Book i. ch. 25; Book vi. ch. 14; Book vii. ch. 22.—*Wern. Club.*

¹ *Cercopithecus Griseus*.—F. Cuv. The Grey Guenon.—It has been usual to consider the term "Cercopithecus," as employed generically by the ancients. The Greeks and Romans, however, were acquainted with only two species of Cercopithecus, viz., that here alluded to, and the Cæpus (*Cercopithecus Ruber*). It is, therefore, highly improbable that they should have had a generic term for these two animals, and we therefore consider it most likely that Pliny here referred to the present species. See "Natural History of Monkeys," in "Library of Entertaining Knowledge."—*Wern. Club.*

² The reader is referred to the note on the Oryx, Lib. xi. c. 46; and also to Vol. i. p. 75, note.—*Wern. Club.*

³ The best editions of Pliny have Leucocrota, and the animal intended was probably a species of antelope. Leocrocota would imply a fabulous monster deriving its origin from the Hyæna and the Lioness. See chap. 30.—*Wern. Club.*



From the Pavement of the Temple of Fortune at Palestrina.
Montf. tom. iv. pl. 60.

another Beast, named Ealè,¹ of the size of the River-Horse, with the Tail of the Elephant, the Colour either black or tawny (*fulvus*); his Jaws resemble those of a Boar; he hath Horns above a Cubit long, which he can fix on either Side in Fight, or alter them in a formidable Manner obliquely, as he sees occasion. But the most cruel are the Wild Bulls of the Forest,² which are greater than the field Bulls; swifter than all the others; of a tawny Colour, the Eyes bluish, their Hair reversed, the Gape of their Mouth reaching to their Ears; their Horns, near them, movable;³ their Hide as hard as a Flint, resisting every Wound; all other Wild Beasts they hunt, but these cannot be taken except in Pit-falls; and in this Fierceness they die. *Ctesias* writeth, that there is a Beast which he calleth Mantichora,⁴ having three Rows of Teeth, which meet together like the Teeth of a Comb; with the Face and Ears of a Man; blue Eyes; the Colour like Blood, the Body like a Lion, and having a Tail armed with a Sting like a Scorpion; his Voice resembleth the Sound of a Flute and Trumpet (*Fistula et Tuba*) sounded together; very swift, and before all others, he desireth Man's Flesh. In India there are also Oxen with solid Hoofs and a single

¹ Pliny appears to be the only author, with the exception of his copyist, Solinus, who has described the animal which he here calls Ealè; it is impossible to conjecture what he meant.—*Wern. Club.*

² *Bos Bubalus*.—LINN. The Buffalo.—According to the accounts of travellers the Buffalo still exists in a wild condition in many parts of Africa, more particularly in Abyssinia, — the Ethiopia of the ancients.—*Wern. Club.*

³ This seems to be Pliny's representation of the condition of the Ealè, and also the wild bull. *Ælian* says, that the Erythræan oxen have horns as moveable as their ears. Book iii. ch. 34.—*Wern. Club.*

⁴ *Ælian*, Book iv. c. 21, under the name of Mantichora, gives a somewhat lengthened description of this animal, from *Ctesias*, who pretended to have seen it. The latter author, who is also the only authority for some other very wonderful accounts of Indian animals, appears to have been just such a traveller as our own Maundeville; honest, but highly credulous, and trusting more to the authority of others than to his own eyesight. What the creature was, to which this name was attached, could only be recovered by finding the same name still in use in the East.—*Wern. Club.*

Horn; also a Wild Beast named Axis,¹ with its Skin like a Fawn, but marked with more Spots, and those whiter. This Creature is sacred to *Liber Pater*. The Orsians of India hunt Apes, which are white all over the Body. But the most furious Beast is the Monoceros:² his Body resembleth an Horse, his Head a Stag, his Feet an Elephant, his Tail a Boar; the Sound he utters is deep; there is one black Horn in the Middle of his Forehead, projecting two Cubits in Length: by Report, this Wild Beast cannot possibly be caught alive. Among the Hesperian Ethiopians there is a Fountain named Nigris, the Head (as many have thought) of the Nilus, and good Reasons there are for it, as we have alleged before.³ Near this Spring there is found a Wild Beast called Catoblepas,⁴ of small Size otherwise, and heavy in all his other Limbs; but his Head is so great that his Body is hardly able to bear it; it is always carried downwards toward the Earth, for otherwise he would destroy all Mankind: for every one that looketh upon his Eyes immediately dieth. The like Property hath the Serpent called a Basilisk,⁵

¹ *Cervus Axis*, of Authors. The Spotted Axis Deer. This beautiful animal is found in India, and the larger islands of the Indian Archipelago. — *Wern. Club*.

² If credit is given to the ancient writers on natural history, nothing can be more clear than that there once existed a creature which answered to the modern idea of what is termed the Unicorn, and is represented as one of the supporters of the royal arms of Britain. Ælian, book xvi. ch. 20, describes it under the name of Cartazonos, as inhabiting a limited district in the interior of India; where, however, modern research has failed to discover it. For a long time the tooth of the Narwahl was supposed to be the horn that projected from between the eyes of the Unicorn; although it did not exactly answer to the description, being white instead of black. See note on the Oryx, Book xi. ch. 46; and Vol. i. p. 75; Book ii. note. — *Wern. Club*.

³ Lib. v. c. 9. — *Wern. Club*.

⁴ *Antelope Gnu*. — GMELIN. The Gnu.—This animal, which inhabits the plains of South Africa, is generally supposed to be the Katoblepas of the ancients.—ÆLIAN, Book vii. ch. 5. — *Wern. Club*.

⁵ This fabulous creature is often referred to by ancient authors, and also by some comparatively modern; by the latter of whom even its eyes were supposed to convey poison. Thus, Shakspeare makes the Lady

which is produced in the Province of Cyrenaica, and is not above twelve Fingers' Breadth long; with a white Spot on the Head, as if distinguished with a Diadem: with his Hiss he driveth away other Serpents; he moveth not his Body forward by multiplied Windings like other Serpents, but he goeth with Half his Body upright and aloft from the Ground; he killeth all Shrubs not only that he toucheth, but that he breatheth upon; he burns up Herbs, and breaketh the Stones; so great is his Power for Mischief! It is received for a Truth, that one of them being killed with a Lance by a Man on

Ann say, in answer to Richard's observation on her eyes: "Would they were basilisk's, to strike thee dead!" Its touch was also said to cause the flesh to fall from the bones of the animal with which it came in contact. The Basilisk was a wingless dragon, and derived its name from bearing on its head the figure of a crown. The Egyptians believed it was produced from the egg of the ibis, and some, more modern, from the egg of the common cock; and, strange as it may appear, the latter supposition may explain much of the superstition regarding it. It is now known that, from some change in the structure and action of the ovary, a hen sometimes assumes the plumage of a cock; as is the case also with other gallinaceous fowls, and even the duck. The final result is barrenness; but previous to this an egg may be produced, that is unnatural in its size and contents; and such a one is figured by Aldrovandus, and copied from him by Ruysch (Table of Serpents, X.). Such an egg resembles the produce of some serpents, and the latter might be easily mistaken for the former. The egg of a snake may be often found on a dung-heap, over which a fowl may roost; and an individual who had seen an egg from such a transformed fowl, might mistake a snake's egg for it, and watch it to its hatching. Hens also sometimes lay soft eggs (without a shell), and when they do so, as wanting the firmness natural to it, the egg escapes from them when on the perch, without the consciousness of laying. The Editor has known such eggs to fall on the dunghheap below; and when so, it would not be easy to distinguish them from those laid by snakes in the same place. An egg so laid produces nothing living; but the uncertainty attending it, especially if laid by a hen in a condition of transformed plumage, in the same place with those deposited by a snake, would be a sufficient foundation for all the superstition attending it. The eggs of the Basilisk, and their liability to be mistaken for those which were wholesome, are referred to by the prophet Isaiah, lix. 5. Ruysch thinks that the cobra da capella, or hooded snake, is one of the serpents that have been called the Basilisk, or the royal serpent. — *Wern. Club.*

Horseback, the Poison was so strong that it passed along the Staff, and destroyed both Horse and Man; and yet a Weasel hath a deadly Power to kill even such a Monster as this (for Kings have been desirous to see the Manner how he

is killed). So Nature hath delighted to match every Thing in the World with its equal! They cast these Weasels into their Holes, which it is easy to know by the Poison alone. They destroy them at the same Time with their strong Smell, but they die themselves; and so the Combat of Nature is finished.



Basilisk. Montfaucon, tom. iii. pl. 60.

CHAPTER XXII.

*Of Wolves.*¹

It is also commonly believed in Italy that the Eye-sight of Wolves is hurtful;² so that if they look on a Man before he see them, they cause him to lose his Voice for the time. Those which are produced in Africa and Egypt are small, and without Spirit; but in colder Climates they are more Fierce and Cruel. That Men are transformed into Wolves, and restored again to their former Shapes, we must confidently believe to be False, or else give credit to all those Tales which we have for so many ages found to be mere Fables. But whence this Opinion came to be so firmly settled, that when we would give Men the most opprobrious Words, we term them *Versipelles*, or Turn-coats, I will shew. *Euanthes*, a not contemptible Writer among the Greeks, reporteth having found among the Records of the Arcadians

¹ *Canis Lupus*.—LINN. The Wolf.—Wern. Club.

² So Virgil, Ecl. ix.—

“His very voice the hapless Mæris lost;

His path some wolf’s first darted glance hast crost.”—Wern. Club.

that there was a certain Race of the Antæi, out of which one must be chosen by Lot, to be conveyed to a Pool in the Country; and when all his Clothes are taken off and hung upon an Oak, he swimmeth across the Lake, and goeth away into the Wilderness to be turned into a Wolf, and so to keep company with others of that Kind for the space of nine Years; during which time, if he forbear to eat Man's Flesh, he returneth again to the same Pool, and having swam back over it, he receiveth his former Shape, except that he shall look nine Years older than before. *Fabius* addeth one thing more, that he findeth again the same Garment. It is wonderful to what extent Grecian Credulity can proceed; so that there is not so impudent a Lie but it findeth some one to bear Witness to it. And therefore *Agriopas*, who wrote the *Olympionicæ*, telleth of one *Dæmænetus Parrhasius*, who at a Sacrifice of a Human Being, which the Arcadians celebrated to *Jupiter Lycæus*, tasted of the Inwards of a Boy, and was turned into a Wolf; and the same Man ten Years after was changed to a Man again, became a Wrestler, contended in Boxing, and went away home again with Victory from Olympia. Besides, it is commonly believed that in the Tail of this Animal there is a little Hair that is effectual to procure Love; and that when he is taken he casteth it away, because it is of no Force unless it is taken from him while he is Alive. He goeth to rut in the whole Year no more than twelve Days. When he is very hungry he devoureth Earth. Among Auguries, if a Wolf, in going about, turn to their Right Hand, with the Interruption of his Journey, it is good; but if his Mouth be full when he doth so, there is not a better Sign in the World. There are some of this Kind that are called Stag-Wolves,¹ such as we have said that *Pompey* shewed in the Circus, brought out of Gallia. This Animal, they say, however hungry he may be when he is eating, if he chance to look backward, forgetteth his Meat, and wandereth away to seek for some other Prey.

¹ Lib. viii. c. 19.—*Wern. Club.*

CHAPTER XXIII.

Of Serpents.

As regards Serpents, it is commonly observed that for the most part they are of the Colour of the Earth in which they lie hidden: and a very great number of Sorts there are of them. The Cerastes¹ hath standing out on the Body some small Horns, which are often four Double; by moving which, while the rest of the Body is hidden, she enticeth the Birds into her Power.

The Amphisbæna hath two Heads,² that is to say, one at the Head and another at the Tail, as if it were little to cast out her Poison at one Mouth only. Some have Scales, others are painted; but all have deadly Venom. The Jaculus darteth itself from the Boughs of Trees: so that we are not only to guard against Serpents with our Feet, but also to look to them that fly as a Dart from an Engine. The Aspides swell about the Neck³ (when they purpose to sting); and there is no Remedy for the Bite unless the Parts that are wounded are cut off immediately. This destructive Creature hath one Point yet of Understanding,

¹ *Vipera (Cerastes) caudalis*.—SMITH. Near the middle of each of the arched eyebrows of this venomous snake there is a slender, pointed, slightly recurved spine, about a line, or a line and a quarter in length. This in part answering the description of Pliny, renders it not improbable that it is the reptile intended by our author. It inhabits the dry sandy districts of Africa. A harmless serpent much like this is mentioned by Herodotus, book ii. as being esteemed sacred by the Egyptians.—*Wern. Club.*

² The modern genus Amphisbæna is perfectly harmless and inoffensive, and confined to Brazil and other parts of South America; it could not, therefore, have been known to the ancients. What their Amphisbæna was, must be left to conjecture.—*Wern. Club.*

³ *Vipera Haje*.—DAUBIN. The Asp.—The asp is often mentioned both by Greek and Roman writers; and from the discrepancies which are observable in the accounts given by different authors, it seems probable that two or three different species of poisonous serpents were known to the ancients under this common name. From various circumstances, however, and particularly from the description of Pliny, it is evident that

or rather of Affection: they for the most part wander abroad in Pairs; nor can they live without their Mate: so that if one be killed, it is incredible how the other seeketh to be revenged. It pursueth the Murderer; it knoweth him again amongst a great number of People, and followeth him closely; it overcometh all Difficulties, goeth to any Distance, and nothing will save him unless it is stopped by some River, or that the Individual betake himself to a hasty Flight. I am not able to say whether Nature hath been more free in producing such Evils, or in giving us Remedies. For, in the first place, she hath afforded to this hurtful Creature but a dim Pair of Eyes, and those not placed in the fore Part of the Head, to see directly forward, but in the Temples. And therefore these Serpents are oftener directed by their Hearing than Sight.

CHAPTER XXIV.

*Of the Ichneumon.*¹

THERE is mortal War between the Asp and the Ichneumon. This Animal is known by this Distinction especially, that it is bred likewise in the same Egypt. It wallows oftentimes within the Mud, and then dries itself again in the Sun; and when he hath thus armed himself with many Skins, he goeth forth to combat. In Fight he sets up his Tail, and turning it to the Enemy, receiveth all the Strokes (of the Asp) without harm, until he spies a Time to turn his Head on one Side, that he may catch the Asp by the Throat. And not



From the Pavement of the Temple of Fortune at Palestrina. Montf. tom. vi. pl. 60.

the most common and celebrated is the present species. The animal measures from three to five feet in length, and is closely allied to the cobra capello, or spectacled snake of India. It inhabits Egypt and other parts of Africa.—*Wern. Club.*

¹ *Herpestes Pharaonis.*—*DESMAR.* The Ichneumon.—There is no reason to doubt this being the animal intended by Pliny.—*Wern. Club.*

contented with this, he addresseth himself to a Conflict with another, as hurtful as the former.

CHAPTER XXV.

Of the Crocodile, Scink, and Hippopotamus.

THE Nilus is inhabited by the Crocodile,¹ an ill-disposed Creature, four-footed, as dangerous upon Land as on the Water. This Animal alone, of all other that live on the Land, hath no use of a Tongue. He only moveth the upper Jaw, with which he biteth hard; and the grasp of his Mouth is otherwise terrible, by means of the row of his Teeth, which close within one another as if two Combs penetrated each other. Ordinarily he is above eighteen Cubits in Length. The Female layeth Eggs as big as those of a Goose, and sitteth continually upon them out of the Water. By a certain Fore-knowledge she is aware how far the Nile will rise that Year when it is at the highest. There is no other Creature that from a smaller Beginning groweth to a greater Size. He is armed with Claws, and his Skin will resist any Injury whatever. By Day it keepeth on the Land, but passeth the Night in the Water; being guided by each according to the Season. When it hath satisfied its Appetite with Fishes, it lieth asleep on the Shore, and always with some of the Meat in his Mouth. Then cometh a little Bird, called there Trochilos,² and in Italy the King of Birds, and for the sake of her Food she instigates the Creature to gape by hopping first about its Mouth, which she pecks and cleanses, and then the Teeth, after which she getteth within to the Back of his Mouth, which it openeth the wider because it taketh such great Delight in this scouring. When the Crocodile is lulled fast asleep with

¹ *Crocodylus vulgaris*.—CUVIER. The Crocodile.—Wern. Club.

² This account is taken from Herodotus (Euterpe, lxxviii.) who says, "The mouth of the crocodile is filled in the inside with leeches. All birds and animals in general avoid him; the trochilus is the only animal at peace with him; and that on account of the services he receives from that bird; for when the crocodile comes out of the water to land, and

this Pleasure, the Ichneumon, having discovered the Opportunity, shooteth himself down his Throat like a Dart, and gnaweth a Hole through his Belly.¹

In the Nilus there breeds also the Scincos,² which is like the Crocodile, but less than the Ichneumon. It is the chief Antidote against Poisons, and also provokes the Heat of Lust in Men.

But the Crocodile produceth so much Mischief, that Nature is not content to have given him only one Enemy ;

opens his mouth, the trochilus goes into his throat and devours the leeches : the crocodile is pleased at being relieved, and hurts not the trochilus." Although this statement is confirmed by Aristotle, Pliny, and other ancient writers, it has been very generally discredited in modern times. Recent inquiries, however, shew that in this, as in most of his relations, the father of history is justified by the fact. The term "bdella" has hitherto been translated "leech." But M. Geoffrey St. Hilaire has adopted the opinion that it corresponds to "culex," that is, "a gnat," myriads of which insects swarm on the banks of the Nile, and attack the crocodile when he comes to repose on the sand. His mouth is not so hermetically closed but that they can enter, which they do in such numbers, that the interior of his palate, which is naturally of a bright yellow, appears covered with a darkish brown crust. The insects strike their trunks into the orifices of the glands which abound in the mouth of the crocodile ; and the tongue of the animal being immoveable, it cannot get rid of them. It is then that the trochilus, a kind of plover, closely allied to the *Charadrius minor* of Meyer, or in the opinion of M. St. Hilaire, *C. Egyptiacus*, but which Pliny, confounding with another bird of the same name, calls "the king of birds," in its pursuit of the gnats, hastens to his relief ; the crocodile always taking care, when he is about to shut his mouth, to make certain movements which warn the bird to fly away. Thus the ancient story is not so unreasonable as might be thought. It is matter of every-day observation, that gnats will attack bulls and other large terrestrial animals of the fiercest nature ; and that wagtails and other insectivorous birds will peck the former from their muzzles. While in India it is common to see the ox approaching its eye deliberately to the ground, by holding its head on one side, to enable the mina, a species of starling, to take an insect from the hairs of the eyelid. There appears, therefore, no reason why the crocodile should not have recourse to similar aid on similar necessity.—*Wern. Club.*

¹ It can hardly be worth while to refute such a fable as this, but it was long entertained as worthy of serious belief.—*Wern. Club.*

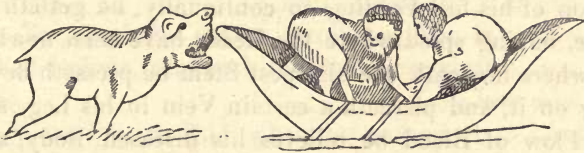
² Lib. xxviii. c. 8.—*Wern. Club.*

and therefore when the Dolphins pass into the River Nile, where the Crocodiles assume to be Kings, as if the River were their peculiar Property, and therefore drive them away and prevent them from taking Food: seeing themselves to be otherwise inferior to the Crocodiles in Strength, but being armed on the Back with a Fin as Sharp as a Knife, they manage to destroy them by Craft. For all Creatures are herein very skilful, and know not only their own Advantages, but also what may hurt their Enemies. They know what offensive Weapons they have, and the fit Occasions of using them; as also the weak Parts of those opposed to them. The Skin of the Crocodile's Belly is thin and soft; and therefore the Dolphins,¹ as if afraid of them, dive under Water, and getting beneath until they have gotten under his Vent, rip it up with this sharp Spine. Also, there is a Kind of People that bear a Hatred to the Crocodile, and they are called Tentyrites, from an Island of the Nile which they inhabit. These Men are of small Stature, but when opposed against the Crocodiles, and then only, it is wonderful to see how resolute they are. Indeed this Crocodile is a terrible Beast to them who fly from him; but on the other Hand he runneth away from such as pursue him. Now, these People are the only Men that dare to approach right in front of him. They will even swim into the River after them, and mount upon their Backs,² and sit on them

¹ Lib. ix. c. 8.—*Wern. Club.*

² The exploits of these Tentyrites have not been unmatched in modern times. A ride on the back of a crocodile does not seem a very tempting thing; but that it has long been occasionally performed in the process of killing these monsters is shewn by Dr. Pocock, in his "Observations on Egypt," where he says, "They make some animal cry at a distance from the river, and when the crocodile comes out they thrust a spear into his body, to which a rope is tied: they then let him go into the water to spend himself, and afterwards drawing him out, run a pole into his mouth, and, *jumping on his back*, tie his jaws together."—(Vol. i. p. 203.) Mr. Waterton, in his "Wanderings in South America," tells us he performed the same extraordinary feat. His Indian assistants having secured a monster of the Essequibo, by a baited hook fastened to a long pole, "they pulled the cayman," as he describes (p. 231), "within two

like Horsemen ; and as they turn up their Heads, with their Mouth wide open to bite, they thrust a Club into it across, and so holding with the Hands each End of it, the one with the right and the other with the left as with a Bridle, they bring them Prisoners to land ; and then, when they have them there, they so frighten them with their Voice only, that they compel them to vomit up those Bodies which they have newly swallowed, and bury them. And therefore this is the only Island which the Crocodiles will not swim to ; for the very Smell of these Tentyrites drives them away, just as the Psylli¹ do with Serpents. This Animal is said to see but badly in the Water ; but out of it they are very quick-sighted. The four Winter Months they pass in a Cave, and eat nothing. Some are of Opinion, that this is the only Creature that groweth as long as he liveth ; and certainly he liveth a long Time.



The same River Nile produceth another Beast of greater Height, called Hippopotamus.² He hath a cloven Foot like an Ox ; the Back, Mane, and Neighing of an Horse ; his Snout turning up. The Tail and hooked Teeth are like those of Boars, but less formidable ; the Skin of his Back impene-

yards of me ; I saw he was in a state of fear and perturbation ; I instantly dropped the mast, sprang up, and *jumped on his back*, turning half round as I vaulted, so that I gained my seat with my face in a right position. I immediately seized his fore legs, and by main force twisted them on his back : thus they served me for a bridle.”—*Wern. Club*.

¹ Lib. vii. 2.

² *Hippopotamus Senegalensis*. — DESMOULIN. The Hippopotamus. — In this account of the Hippopotamus, Pliny seems to have followed Aristotle (Lib. ii. c. 7), who in like manner copied from Herodotus (Lib. ii. c. 71). It is probable that the two latter writers never saw the animal, but trusted to the wild accounts of others ; and Pliny himself, although he says, in the next chapter, that Marcus Scaurus exhibited the Hippo-

trable if made into Shields and Helmets, unless it be soaked in some Liquor. He feedeth on the standing Corn; and they say that he fixeth beforehand where he will feed by Day; and his Footsteps are always backward, in order that against his Return no Snare shall be laid for him.

CHAPTER XXVI.

*Who first showed the Hippopotamus and Crocodiles at Rome.
Also the Medicines discovered by Animals.*

MARCUS SCAURUS was the first, who, in the Games which he displayed at Rome in his Office of Edileship, produced one Hippopotamus and four Crocodiles, swimming in a temporary Pool.

The Hippopotamus hath taught a Practice in a certain Part of the Art of Healing. For finding himself overfat, by Reason of his full Feeding so continually, he getteth to the Shore, having spied where the Reeds have been newly cut; and where he seeth the sharpest Stem he presseth down his Body on it, and pierceth a certain Vein in his Leg, so that by a Flow of Blood he relieves his diseased Body, and he covereth over the Orifice again with Mud.

CHAPTER XXVII.

What Herbs certain Creatures have showed us: Deer, Lizards, Swallows, Tortoises, the Weasel, Stork, the Boar, the Snake, Dragon, Panther, Elephant, Bears, Doves, Pigeons, Cranes, the Raven.

SOMETHING like this was showed us by a Bird which is called Ibis in the same Country of Egypt. This Bird having

potamus at Rome, can hardly be supposed to have seen it, or he never could have fallen into so great an error as to give it the mane of an horse. It need hardly be observed, that in all probability the Romans derived their Hippopotamus from Northern Africa; if, therefore, there be more than one species, the *Hippopotamus Senegalensis* is, in all likelihood, the one intended. — *Wern. Club.*

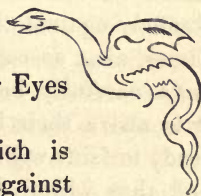
¹ Lib. x. 30.

a crooked Bill, useth it to squirt Water through that Part through which it is most healthy to discharge the Burdens of Meat. Neither have dumb Creatures directed us to these Practices only, which might serve for use to Man. For Deers¹ first showed us the Virtue of the Herb Dictamnus² to draw out Arrows. Being shot with that Dart, with feeding on this Herb it is driven out again. The same Creatures being also stung by the Phalangium,³ a kind of Spider, or any of like Nature, cure themselves by eating Cray-fishes.⁴

There is an Herb called Calaminth,⁵ of remarkable Efficacy against the biting of Serpents; with the Application of which the Lizards, when they have fought with them, cure their Wounds.

The Swallows taught us the Usefulness of Chelidonia⁶ for the Eyesight; for with it they heal their young Ones when their Eyes are injured.

The Tortoise,⁷ by eating Cunila, which is also called Bubula, reneweth his Powers against Serpents.



Montf. tom. i. pl. 84.

The Weasel useth Rue⁸ when he purposeth to hunt for Rats, in case he should fight with any of them.

The Stork goeth to the Herb Origanum for a Remedy; and the Boar, when he is sick, is his own Physician, by eating Ivy and Crabs, such especially as the Sea casteth on Shore.

The Snake,⁹ by lying still all the Winter, hath a Membrane growing over the Body; but with the Juice of Fennel she throweth off that Incumbrance, and appeareth fresh and elegant again. She beginneth to throw it off first at the Head; and she is so slow as to occupy a whole Day and a Night in folding it backward, before the Inside of the Mem-

¹ Lib. viii. 32.

² Lib. xxv. 8.

³ Lib. xi. 24.

⁴ Lib. ix. 50, 51.

⁵ That is, the Condrillon. Lib. xxii. 22.

⁶ Lib. xxv. 8, 12. The juice of *Chelidonium majus*, diluted with milk, is said to consume white opaque spots on the eyes. — *Wern. Club*.

⁷ Lib. xx. 16.

⁸ Lib. xx. 13.

⁹ Lib. xx. 23.

brane can be turned outward. Also, when by keeping close all the Winter, her Sight is become dim, she rubbeth herself with the Herb Marathrum, and also anointeth and comforteth her Eyes. But if the Scales be hard and insensible, she scratcheth herself with the Prickles of the Juniper.

The Dragon,¹ feeling a Loathing of Meat in the Spring, removeth it with the Juice of the wild Lettuce.²

The Barbarians, when they hunt Panthers,³ thoroughly rub the Flesh (which they lay as a Bait for them) with Aconitum⁴ (which is Poison). The Beasts have no sooner touched the Flesh, but immediately they are seized with great Anguish in their Throat; on which Account some have called this Poison Pardalianches. But the wild Beast hath a Remedy against this in the Ordure of a Man; and at other Times, also, so eager is he for it, that when the Shepherds have carefully hanged it up aloft in some Vessel, so that it is above their Power to reach it by leaping, he becomes ready to faint with straining to get up and seize it, and in the end thus killeth himself. And yet otherwise he is of such enduring Vitality, that he continueth to fight when his very Bowels are cut out.

The Elephant, if he swallow the Chameleon among the Leaves which this Creature is like in Colour, goeth straight to the wild Olive for a Remedy against this his Poison.

Bears, when they have tasted Mandrake Apples,⁵ lick up Emmets.

The Stag uses as an Antidote against poisonous Weeds in its Pasture, the Herb Cinara (Artichoke).⁶

Pigeons,⁷ Graculus,⁸ Merulæ,⁹ purge away their yearly Loss of Appetite with eating Bay-leaves. Partridges,¹⁰ Doves,¹¹ Turtle-doves,¹² and Poultry,¹³ do the like with the

¹ Perhaps some species of Boa. Lib. viii. 14.—*Wern. Club.*

² Lib. xix. 8. ³ Lib. viii. 17. ⁴ Lib. xxvii. 2. ⁵ Lib. xxix. 6.

⁶ This word *Cinara*, here translated Artichoke, is not mentioned any where else by Pliny, and it is by no means certain that the artichoke is the plant intended.—*Wern. Club.*

⁷ Lib. x. 35. ⁸ Lib. xi. 29. ⁹ Lib. x. 29. ¹⁰ Lib. x. 33.

¹¹ Lib. x. 34. ¹² Lib. x. 24. ¹³ Lib. x. 21.

Herb called Helxinè.¹ Ducks,² Geese,³ and other Water-Fowls, purge with the Herb Sideritè.⁴ Cranes,⁵ and Birds of that kind, with the Marsh-reed.⁶

The Raven, when he hath killed the Chameleon, and is hurt by him, extinguisheth the Venom that he is infected with by Aid of the Bay-tree.

CHAPTER XXVIII.

Prognostications from Animals.

THERE are a thousand Properties besides bestowed on Beasts; and particularly many of them are endued by the same Nature with the Observation of the Air above, to foresee what Weather we shall have, what Winds, Rain, Tempests; which to search out in particular is not possible, no more than their other Qualities, respective to the Society with every Man. For they warn us beforehand of Dangers, not only by their Fibres and Bowels, about which a large Part of the World fixeth its Attention,⁷ but also by other Significations. When a House is ready to tumble, the Mice are sure to have quitted it; and the Spiders, with their Webs, are the first to fall. Augury, indeed, hath formed itself into an Art; and among the Romans there is a College of Priests, instituted for the most Party early. In Thracia, where Places are frozen, the Fox, an Animal that is otherwise sharp in his Hearing, will not pass over any River or Pool that is frozen, before he hath tried the Ice by his Ear; and then he does not venture, except when he goeth to feed, or returneth. It is observed that he judgeth of the Thickness of the Ice by applying his Ear to it.

¹ Helxinè, Lib. xxi. 16.

² Lib. x. 38.

³ Lib. x. 22.

⁴ Sideritè, Lib. xxv. 5.

⁵ Lib. x. 23.

⁶ Juncas Palustris, Lib. xix. 2.

⁷ Alluding to the art of Divination by these means; so constantly practised by the Ancients. — *Wern. Club.*

CHAPTER XXIX.

The Cities and Nations which have been utterly destroyed by small Animals.

NOTHING is more notorious than the Fact, that much Injury hath come from contemptible Creatures. *M. Varro* writeth, That there was a Town in Spain undermined by Rabbits; and one in Thessaly, by the Moles. In Gallia, the Inhabitants of one City were driven out by Frogs. In Africa, the People were expelled by Locusts. Out of Gyaros,¹ an Island of the Cyclades, the Inhabitants were driven away by Rats and Mice. In Italy, Amyclæ was destroyed by Serpents. In Ethiopia, on this Side the Cynamolgi, there is a wide Country which lieth desert, from being dispeopled by Scorpions and Solpugæ.² *Theophrastus*, also, reporteth, that the Trierienses were forced away by Scolopendres. But let us return to other Kinds of wild Beasts.

CHAPTER XXX.

Of the Hyæna and Crocuta, and Mantichora, and Beavers, and Otters.

THE common People believe that Hyænas³ possess a double Nature, and that every second Year they change their Sex, from Males to Females, and that the latter bear without the Male; but *Aristotle* denieth it. Their Neck and Mane is stretched out in Continuation of the Spine, and he denies that it has the Power to bend without turning about the whole Body. Many strange Matters besides this are reported; and above the rest, that he will counterfeit Man's Speech among the Shepherds' Cottages, and will call

¹ See more of this, *Lib. viii. 57*; also, *Lib. x. 65*.

² *Lib. xxii. 25*, and *Lib. xxix. 4*.

³ *Canis Hyæna*.—*LINN.* The Striped Hyæna.—This seems to be the same animal that our author in the 21st chapter has named *Crocuta*. See the note there.—*Wern. Club*.

one of them forth by Name; and when he hath obeyed the Call, he will tear him in Pieces. Also that he will imitate the Vomiting of a Man, to entice the Dogs to come to him, and then devour them. This Beast alone will dig up the Graves in search of Bodies. The Female is seldom taken. There are a thousand Variations in their Eyes, through the change of Colour. Moreover, if a Dog come within his Shadow, he becometh dumb. Again, by certain magical Arts, if he go round about any other living Creature three Times, it shall not have the Power to stir a Foot. The Lioness of Ethiopia, by Copulation with this kind, brings forth the *Leocrocota*; ¹ which likewise knoweth how to imitate the Voice both of Man and the Sheep. His Sharpness of Sight is constant; he hath one continuous Tooth (in either Jaw), and no Gums. That these Bones may not become blunt by continual rubbing against one another, they are enclosed as if within a Sheath.

Juba reporteth that the *Mantichora* ² in Ethiopia imitateth Men's Language. Many *Hyænas* are produced in Africa; which also yieldeth a Multitude of wild Asses. ³ And one of the Males ruleth whole Flocks of the female Asses. These Beasts are so jealous, that they look narrowly to the Females great with young; and as soon as they have foaled, they castrate the young Males. On the other Hand, the she-Asses, when they are with young, seek hiding-places, from a Desire to bring forth secretly; and they delight in the Abundance of their Gratification.

The Beavers in Pontus ⁴ do the same as the male Asses, by the same Parts, when Danger presses; as knowing that they are sought after for this; and these Parts Physicians call *Castoreum*. And otherwise, the Bite of this Creature is

¹ Lib. viii. 21.

² Lib. viii. 21.

³ Lib. viii. 15. Pliny tells us here, and again in the 44th chapter, that the wild ass was found in Africa; but no traveller has since met with it. And as far as we know, the species in a wild state is confined to Asia. It has even retired from Syria and Asia Minor, where it was formerly found.—*Wern. Club.*

⁴ Lib. xxxii. 3.

terrible; for he will bite down the Trees by the River-sides, as if they were cut with an Axe; and when he catcheth hold of a Man, he never letteth loose his Bite until he have heard the broken Bone crack. The Tail of this Creature is like a Fish, but otherwise he resembleth the Otter.¹ Both these Animals live in the Water, and their Hair is softer than the Down of Feathers.

CHAPTER XXXI.

Of Frogs, Sea-Calves, and Stelliones.

THE Frogs called Rubetæ,² which live both on Land and in Moisture, yield many Medicines. It is said that they lay aside these Medicines, reserving only to themselves the Poison; and when they have taken their Food, they resume the same again. The Sea-Calf³ likewise feedeth both in the Sea and upon the Land; and hath the same Habits with the Beaver. He vomiteth up his Gall, which is good for many Medicines; and so he doth his Runnet, which is a Remedy for the Epilepsy: for he is well aware, that Men seek after him for these two Things. *Theophrastus* writeth, that the Stelliones⁴ cast off their old Coat as Snakes do; but they immediately eat it up again, and so prevent Men from obtaining the Remedies for the Epilepsy. He reporteth that their biting in Greece is deadly; but in Sicily harmless.

CHAPTER XXXII.

Of Deers.

To the Deer,⁵ also, though he is amongst the gentlest of Animals, belongs a Degree of Malevolence. If he be overdriven by Hounds, then willingly he hath recourse to Man. Likewise, the Hinds, when they are about to calve, choose

¹ Lib. xxxii. 11.² Lib. xxxii. 5.³ Lib. xi. 40.⁴ Lib. xi. 26.⁵ *Cervus Elephas*. — LINN. The Red Deer. — Pliny, in this chapter, describes the Elephas of Aristotle, which is, doubtless, the common stag, or red deer, and was well known to the ancients. — *Wern. Club*.

rather some Place near the Ways that are trodden with Man's Steps, than secret Corners which lie open to wild Beasts. They are got with Young after the rising of the Star Arcturus; they go eight Months, and sometimes produce two Calves at once. Finding themselves with Young, they part Company with the Stags. But the Males, seeing themselves left, fall into the Rage of Heat, and dig Pits in the Ground. Then their Muzzles become black, and so continue, until such Time as the Rain washeth away the Colour. The Hinds, before they calve, purge themselves with the Herb called Seselis,¹ whereby they have more easy Deliverance. After Parturition they have two Herbs, which are called Arus² and Seselis, after having eaten of which they return to their Young, being willing, for some unknown Reason, that their first Milk should taste of these Herbs. They exercise their new-born little ones in the Race, and teach them to know how to fly away. They lead them to high and craggy Rocks, and show them how to leap. And now the Stags being past the Heat of Rut, fall eagerly to their Food. When they find themselves to be grown very Fat, they seek Lurking-places, confessing how incommodious their Weight is to them. At other Times always they delight in flight; and stand still to look behind. But when the Hunters are come near them, then they seek the Shelter of Flight again; and this they do for a Pain in their Bowels, which Parts are so tender, that with a slight Blow they will burst within. When they hear the barking of the Hounds they fly, but always in the Course of the Wind, that the Scent of their Tracks may pass away with them. They take great Delight in the Sound of the Shepherd's Pipes, and in Song. When they erect their Ears, they are very quick of Hearing; when they let them hang down, they are deaf. In other respects it is a simple Creature, stupidly wondering at everything; inso-much that if an Horse or an Heifer approach near, it will

¹ Lib. xx. 5.

² Lib. xxiv. 16. This plant is the Arum of Dioscorides (lib. ii. c. 142), and must not be confounded with the Egyptian Arum.—*Wern. Club.*

not regard a Man that is hunting it; or if they discover him, they will look with Wonder at his Bow and Arrows. They pass the Seas, swimming by Flocks, in a long Row, each one resting his Head upon the Haunches of the one before him; and the foremost retireth behind by turns. This is chiefly observed by those that pass from Cilicia to Cyprus. They do not see the Land, but swim towards it by their Smell. The Males possess Horns, and are the only Animals that cast them every Year at a certain Time of the Spring: and to that Purpose, a little before the very Day, they seek the most secret Places. When the Horns are shed, they keep close hidden, as being unarmed; and this they do as if they grudged that any one should have any Good from them. It is denied that the Right Horn can ever be found, as being endued with some singular Virtue as a Medicine; and this must be granted to be a very wonderful Thing, considering that in Parks¹ they change them every Year; so that it is thought they bury them in the Earth. But burn which of them you will, the Smell of it driveth Serpents away, and discovereth them who are subject to the Epilepsy. They carry the Marks of their Age on their Heads; for every Year addeth one Branch to their Horns, until they come to six (sexcennes), after which Time the same Number is renewed; so that their Age cannot be discerned any more by the Head, but old Age is shown by their Teeth: for in the latter Case they have few or no Teeth, and are without Branches at the Root of the Horns; whereas, when they were younger they used to have them standing out in front of the very Forehead. When they have been castrated² they

¹ *Vivarius*, Lib. viii. 52. — *Wern. Club*.

² "The sympathy between that part of the system which regulates the development of the horns in the deer tribe, and the organs of generation, is very remarkable. For instance, if a stag is castrated when his horns are in a state of perfection, they will, it is affirmed, never be shed; if the operation is performed when the head is bare, the horns, it is said, will never be regenerated; and if it is done when the secretion is actually going on, a stunted, ill-formed permanent horn is the result, more or less developed, according to the period at which the animal is emasculated." — See *Penny Cyclopadia*: Art. "Deer." — *Wern. Club*.

neither cast the Horns which they had before, nor do any new ones grow. When they first break out again, they are like renewed Kernels of dry Skin; then they grow with tender Stalks into reed-like round Excrescences, feathered all over with soft Down. So long as they are destitute of Horns they go out to seek Food by Night; the Horns grow hard by the increasing Heat of the Sun; and then they occasionally try them against Trees; and when they are satisfied that they are strong, they go abroad boldly. It has happened that some of them have been taken with green Ivy on their Horns, inbred there since the Time when they employed them in their tender State against some Trees. Sometimes they are of a shining white Colour, such as was the Hind which *Q. Sertorius*¹ was reported to have had, and which he persuaded the People of Spain to believe to be his Soothsayer. This kind of Deer maintain a Fight with Serpents: they will track them to their Holes, and by the Strength of the Breath of their Nostrils force them out: and therefore there is nothing so good to drive away Serpents as the Smell of burnt Hartshorn. But against their Bite there is an excellent Remedy from the Runnet in the Maw of a Fawn killed in the Dam's Belly. It is generally acknowledged that Stags live long; for an hundred Years after *Alexander* the Great, some were taken with golden Collars that had been affixed to them by that Prince, but then overgrown by the Skin through great Stoutness. This Creature is not subject to feverish Diseases, but he is effectual to cure it. I have known great Ladies accustomed to the Use every Morning of eating this Venison, and thereby to have lived to a great Age without having Fevers; but it is thought an established Remedy in the highest Degree if the Stag be struck dead with one Wound only.

¹ See Plutarch's Life of Sertorius.—*Wern. Club.*

CHAPTER XXXIII.

Of the Tragelephus, and the Chameleon.

OF the same Kind is one that differs only in the Beard and long Shag about the Shoulders, and which they call Tragelephon;¹ and this breedeth nowhere but about the River Phasis. Africa is almost the only Country that breedeth no Stags, but it produceth Chameleons;² although India hath them in greater Number. In Shape and Size it resembleth a Lizard, but it standeth higher and straighter upon its Legs. The Sides are joined to the Belly, as in Fishes; and it hath Spines projecting as they have; the Snout is prominent, not unlike a small Swine, with a very long Tail sloping away so as to become slender at the End, winding round and entangled like the Viper's; the Claws are hooked, and the Motion is slow, as in the Tortoise; the Body is rough as the Crocodile's; the Eyes are in a hollow Cavity, and they are very large, near each other, of the same Colour with the rest of the Body: it never openeth its Mouth, and there is no Motion in the Pupil when it looketh about, but it views Things by moving the whole Ball of his Eye; it liveth aloft, gaping with its Mouth, and is the only Creature that feedeth neither of Meat nor Drink, but hath its Nourishment of Air only: about wild Fig-trees³ it is a wild Beast, but elsewhere harmless. But the Nature of its Colour is more wonderful; for every now and then it changeth it, as

¹ *Antelope Picta*. — PALLAS. The Nyl-ghau. — According to Ogilby ("Zool. Proc." 1536), the Tragelephus, which is the same as the Hippelaphus of Aristotle, is the Nyl-ghau; but Cuvier, in the last edition of his "Règne Animal," seems to consider that the *Cervus Aristotelis* (Cuv.), a deer living in the north of India, is the animal alluded to. — *Wern. Club*.

² *Chamæleo vulgaris*. — LINN. Book xxviii. c. 28. — There is a contradiction in this description; the author saying in one place, "Nunquam os aperit," and presently afterward, "Ipse celsus hianti semper ore." The first portion of this quotation Holland has rendered, — "He is always open-eyed, and never closeth hem." — *Wern. Club*.

³ About the time when they offered sacrifices to Vulcan under the wild fig-tree; that is, during the dog-days. — *Wern. Club*.

well in the Eyes as Tail and the whole Body: and whatever Colour it only toucheth,¹ the same it always assumeth, unless it be red and white. When it is dead, it becometh pale; the Flesh on its Head and Jaws, and at the Junction of the Tail, is very little; and in all the Body besides, none at all. All its blood is in its heart, and about its Eyes; among the Bowels there is no Spleen. It lieth concealed all the Winter, like the Lizards.

CHAPTER XXXIV.

Of the Tarandus, the Lycaon, and the Thoos.

IN Scythia there is the Tarandus,² which also changeth its Colour; and no other Creature bearing Hair doth the same, unless it be the Lycaon³ of India, which, by Report, hath a maned Neck. For the Thoos⁴ (which is a Kind of Wolves

¹ The most noticed peculiarity of this reptile is its change of colour; and the exposition of this feature in its physiology has exercised both the ingenuity and the imagination of many observers. Whatever the true cause may be, it has little to do with the colour of objects placed in juxtaposition, as Pliny maintains: but in a series of experiments carried on for six months by the Editor, on a specimen in his possession, it seemed to proceed from sensitive, though often unconscious, impressions made upon the circulating system of the skin. While asleep, the slightest shaking of the stalk on which it rested produced a change: and while the faint light of a candle altered the tints, a shade thrown on particular parts prevented the colour from extending to them. There are several species of the chameleon, although the ancients seem to have recognised only one.—*Wern. Club.*

² *Cervus Tarandus.*—LINN. The Rein-deer.—The fact that the rein-deer is subject to great variety of colour, even in a wild state, probably gave rise to the fancy of Pliny, that he took “the colour of all trees, shrubs, plants, flowers, and places wherein he lieth when he retireth for fear.”—*Wern. Club.*

³ The Lycaon was doubtless a species of Hyæna, but it is not easy to identify it; it cannot be the Hyæna-dog, *Canis Lycaon* of Fischer, as that species has no mane, and is, besides, indigenous to South Africa.—*Wern. Club.*

⁴ The Theus, or Thos, was in all probability some species nearly allied to the Jackal, *Canis Aureus*, LINN. It is mentioned by Oppian, on lib. x. 74. Hunting, b. iv.—*Wern. Club.*

somewhat longer than the others, and differing in being shorter legged, swift in leaping, living by Chace, without doing any Harm to Man, change their Habit, not their Colour; through the Winter being Shaggy, but in Summer naked. The Tarandus is as big as an Ox, with a Head not unlike a Stag's, but greater; the Horns branched, cloven-hoofed, and the Hair as deep as in the Bear. The Hide of his Back is so hard, that they make Breast-plates of it. He taketh the Colour of all Trees, Shrubs, Plants, Flowers, and Places in which he lieth when he retireth for Fear; and therefore he is seldom caught; but when he likes to be in his own Colour, he resembleth an Ass. It is strange that the bare Body should alter into so many Colours; but more strange that the Hair also should so change.

CHAPTER XXXV.

Of the Hystrix.

THE Hystrix¹ is produced in India and Africa, and is a kind of Hedgehog. The Spines of the Hystrix are longer than those of the Hedgehog; and when he stretcheth his Skin he shooteth them from him; when the Hounds press hard upon him, he fixeth them in their Mouths, and darteth them at them when farther off. In the Winter Months he lieth hid, as it is the Nature of many Beasts to do, and the Bears above the rest.

CHAPTER XXXVI.

Of Bears² and their Young.

THEY couple in the beginning of Winter, and not after the common Manner of four-footed Beasts, but lying both

¹ *Hystrix cristata*.—LINN. The Porcupine.—Aristotle merely glances at the power which this animal was thought to possess of shooting its quills to a distance at its enemies. But Pliny here dwells upon it with his usual love of the marvellous: and Ælian, Oppian, and Claudian have repeated the tale with exaggerations.—*Wern. Club*.

² *Ursus Arctos*.—LINN. The BROWN Bear.—*Wern. Club*.

along, and embracing one another : then they go apart into Caves, where thirty Days after they produce their Cubs, commonly five at a Time. These are a Lump of white unformed Flesh,¹ little bigger than Rats, without Eyes, and without Hair; only the Claws are put forth. This Lump, by licking, they fashion by little and little; and nothing is more rare than to see a she-Bear bringing forth her Young: and this is one Cause why the male Bears lie hid for forty Days, and the Female for four Months. If they have no Caves, they build themselves Cabins of Wood, by gathering together Boughs and Bushes, in order to be impervious to Rain; and they strew soft Leaves upon the Floor. For the first fourteen Days they sleep so soundly, that they cannot possibly be awaked, even with Wounds. In this state of Drowsiness they grow exceedingly Fat. This their Grease² is a good Medicine for those that shed their Hair. These (fourteen) Days being past, they sit up, and live by sucking their fore Feet. Their young Cubs, when stiff with Cold, they cherish by pressing to their Bosom, much as Birds do that sit upon their Eggs. A wonderful Thing is told, and believed by *Theophrastus*, that if Bears' Flesh³ be taken during those Days, and cooked, and then kept safe, it will grow. At this Time there doth not appear any Token [of Excrement] of Meat that they have eaten; and very little Moisture is found within their Belly. Of Blood some few small Drops lie about the Heart only,⁴ and none at all in the whole Body besides. When Spring is come, they quit their Den; and at that Time the Males are exceedingly fat: but the Reason of this cannot be readily rendered: for, as we said before, they had no more than

¹ In proof of the errors of this account, young bears have been extracted from the mother after she has been killed; and they have been found to have their parts as distinct as other animals. — *Wern. Club.*

² Lib. xxviii. 11. It is also a famous prescription for the same purpose in the present day. — *Wern. Club.*

³ *Theophrastus* (de *Odoribus*), from whom *Pliny* borrows this, does not speak of bears' *flesh*, but bears' *grease*; but this does not diminish the wonder. — *Wern. Club.*

⁴ Lib. xi. 38.

that fortnight's Sleep to fatten them with. Being now gotten abroad, the first Thing is to devour a certain Herb named Aron,¹ to loosen their Intestines, which otherwise were grown together; and they prepare their Mouths and Teeth with the young Shoots of Brambles. They are subject many Times to Dimness of Sight, for which Cause especially they seek after Honeycombs, that the Bees might settle on them, and with their Stings make them bleed about the Mouth, and by that means relieve the Heaviness which troubleth their Eyes. Bears are as weak in the Head as Lions are strong in that part; and therefore when they are chased hard, and ready to cast themselves headlong from a Rock, they cover their Heads with their Paws, as with Hands, and so throw themselves down. And often in the Arena they are deprived of Life with a Blow on the Ear with a Man's Fist. In Spain it is believed, that in their Brain there is a poisonous Quality; and if it be taken in Drink, it driveth Men into a kind of Madness, as if they were Bears: in proof of which, when they are killed in the Shows, they burn the Heads. They also walk erect on their two hind Feet: they creep down from a Tree backward: when they fight with Bulls their Manner is to hang with all their Feet about their Mouth and Horns, and so with the Weight of their Bodies weary them. There is not a living Creature more crafty, and at the same time foolish in its Viciousness. It is recorded in the Annals, that when *M. Piso* and *M. Messala* were Consuls, *Domitius Ænobarbus*, Curule Ædile, on the fourteenth Day before the Calends of October, exhibited one hundred Numidian Bears in the Circus, and as many Æthiopian Hunters. And I wonder that the Chronicle nameth Numidian, since it is known that Bears are not produced in Africa.²

¹ Lib. viii. 32, p. 57.

² Lib. viii. 58. The existence of bears in Africa has been a subject of dispute in modern times, and even Cuvier seems to have entertained doubts as to their being found in that vast continent. But Ehrenberg (*Symbolæ Physicæ*) says he has hunted the bear in Abyssinia, and adds, that "Forskal has brought tidings of an indigenous African bear."—*Wern. Club.*

CHAPTER XXXVII.

Of the Rats of Pontus, and the Alps; also of Hedgehogs.

THE Rats of Pontus,¹ those at least which are white, come not abroad in the Winter: they have a most exquisite Taste in their Feeding; but I wonder how the Authors that have written this, should be able to know it. Those of the Alps,² also, which are as big as Badgers,³ lie concealed during Winter; but they are provided with Victuals before-hand, which they gather together and carry into their Holes. And some say, that when the Male or Female, by turns, is laden with a Bundle of Herbs, as much as it can grasp within the four Legs, it lieth upon the Back, and then the other taketh hold by the Tail with its Mouth, and draweth it into the Cave: and hence it is that at that Time their Backs are bare. The like of these live also in Egypt;⁴ and in the same Manner they sit upon their Buttocks,⁵ and go by Starts on their two hind Feet, using their Fore Feet instead of Hands.

Hedgehogs⁶ also prepare their Provisions for Winter. They roll themselves upon Apples that lie on the Ground, and which thus become fixed on their Spines; and one more besides they take in their Mouth, and so carry them into hollow Trees. By their stopping one or other of the Holes of their Shelter, Men know when the Wind will change from North to South. When they perceive some one hunting them, they draw their Mouth and Feet close together, with all their lower Part, where they have a thin and soft Down, and so roll themselves into the Shape of a Ball

¹ *Mustela erminea*. — LINN. The Ermine Weasel. — The *Ponticus Mus* is supposed to be the Ermine, or some nearly allied species. — *Wern. Club*.

² *Mus Marmota*. — LINN. The Marmot. — The *Alpinus Mus* is probably identical with the Marmot. — *Wern. Club*.

³ Lib. viii. 38.

⁴ *Dipus Sagitta*. — SWAIN. The Gerbo. — That the Egyptian Mus of Pliny is the Gerbo, or Jerboa, there can be no doubt. — *Wern. Club*.

⁵ Lib. x. 65.

⁶ *Erinaceus Europæus*. — LINN. The Hedgehog. — *Wern. Club*.

that they cannot be laid hold of but by their Spines. In the last Extremity¹ they let their Water go; and this Fluid hath a poisonous Quality to rot their Skin and Spine, for which they know that they are chased and taken. And therefore it is a point of Skill not to hunt them before it is ascertained that they have let their Urine go, and then their Skin is very good; but otherwise it is rotten and weak: all the Spines falling off as being putrified, even though they should escape and continue alive. And this is the Cause that they never drench themselves with this Mischief except in the last Hope, for they cannot endure the Smell of their own Poison, and they do what they can to spare themselves, reserving it for the utmost time of Extremity, so that they are ready to be taken before they do it. The Ball into which this Creature forms itself is compelled to open by sprinkling it with warm Water, and then by hanging it up by one of its hind Feet; it then dies with Famine and Suspension; for otherwise it is not possible to kill them and save their Skin. Many do not hesitate to say, that this Animal contributes no good to human Life, except those Spines; and that the soft Fleece of Wool that Sheep bear without them would have been bestowed upon Mankind in vain: for with this Skin² Garments are polished. Fraud hath gotten great Gain by the Monopoly of this Commodity; although there hath not been any one Evil against which there have been more frequent Acts of the Senate; and almost every Prince hath been troubled concerning it with grievous Complaints out of the Provinces.

CHAPTER XXXVIII.

Of the Leontophonos, Lynx, Meles, Sciurus.

THERE are two other kinds of Animals whose Urine worketh remarkable Effects. We have undertaken to call

¹ This strange assertion, in which Pliny has been followed by his numerous plagiarists, and amongst them by Buffon, appears at least to be unsupported by later observation, and is probably a mere fiction.—*Wern. Club.*

² Or, rather, instead of teazels that shearmen use.

the small one *Leontophonos*; ¹ and it is bred in no Country but where the Lion is produced; and such is its Violence, that the Lion, before whom all other Creatures tremble, dieth immediately if he taste of it. And therefore they that chase wild Beasts burn the Body of this Animal, and sprinkle the Powder on the Pieces of other Flesh, as Flour is dusted over Meat in cooking, by way of Bait; and thus with the Ashes of his Enemy they kill him, so adverse to his Nature is this Pest! No Wonder, therefore, if the Lion hate it, and so soon as he spieth it he crusheth it, and so killeth it without setting Tooth to its Body. The *Leontophonos*, for its part, is also prepared to sprinkle him with its Urine, knowing that this is a deadly Poison to the Lion.

In those Countries where the *Lynxes* breed, ² their Moisture, after it is made, congealeth and hardeneth into precious Stones resembling Carbuncles, shining of the Colour of Fire, and called *Lyncurium*. ³ And on this Account many have written, that Amber is formed after the same Manner. The *Lynxes* know thus much, and for Envy understand to cover their Urine with Earth; and so it hardeneth the more quickly.

¹ The *Leontophonos* is a name invented by Pliny himself, and the creature meant by it altogether unknown. — *Wern. Club.*

² Lib. viii. 19.

³ Lib. xxxvii. 2, 3, 10. The *Lyncuria* have been thought to be fossil *Belemnites*. The ancients had a legend that these substances came from the *Lynx*, and they called them *Lapides Lyncis*, as well as *Lyncuria*. Those which were found in Mount *Ida* were called *Idæi ductyli*, or *Idæan fingers*, from their supposed resemblance to those members. It is, however, by no means clear, that the ancients intended to describe *Belemnites* under these appellations. Ovid, *Met.* xv. 413, says:—

“India when conquer’d, on the conquering god
For planted vines the sharp-eyed lynx bestow’d,
Whose moisture, shed before it touches earth,
Congeals in air, and gives the *gems* their birth.”

The different accounts of Pliny, indeed, are by no means uniform, and seem rather to refer to several kinds of gems. *Theophrastus* also describes them as gems of a very solid texture, on which seals were engraved. — *Wern. Club.*

The Badger¹ (*Meles*) hath another sort of Craft when under the Influence of Fear; for they will so draw in their Breath as to distend their Skin, and thus repel the biting of the Dogs and the Blow of the Hunters.

Squirrels² also foresee a Change of Weather; and they shut up their Holes on that Side from which the Wind is about to blow, and open the Doors on the other Side. Moreover, they possess a broad bushy Tail with which to cover their whole Body. Thus some Creatures provide Food against Winter, and others are fed with Sleep only.

CHAPTER XXXIX.

Of the Viper, Snails, and Lizards.

OF Serpents it is said, that the Viper³ alone lieth hid in the Ground; whereas the rest keep within Hollows of Trees or Rocks; and otherwise they endure Hunger a whole Year, provided they be kept from extreme Cold. All the Time of their Retreat they sleep, and are without Poison.⁴

In like manner do Snails;⁵ and not only in the Winter, but in Summer again, adhering so closely to Rocks, that although by Force they are plucked off and turned upward, still they will not come out of their Shell. In the Balearic Islands there are some called *Cavaticæ*, which never creep out of the Holes in the Ground; neither do they live on any Herb, but they hang together like Clusters of Grapes. Another Sort there is of them, but not so common; which hide themselves within the Cover of their Shell, which sticks fast to them: these lie always buried in the Ground, and were in

¹ *Meles vulgaris*. — DESMAREST. The Badger. — *Wern. Club*.

² *Sciurus vulgaris*. — LINN. The Squirrel. — *Wern. Club*.

³ *Coluber Berus*. — LINN. The Common Viper. — *Wern. Club*.

⁴ "The Viper, like the other reptiles, seeks a secret and secure place in which to hibernate during the cold months of the year. Here several are found entwined together, and in a very torpid condition; and if at this period a viper be made to wound an animal with its poison fang, no injury is likely to result from it: the poison does not exist at all, or is inert." — BELL'S *British Reptiles*. — *Wern. Club*.

⁵ *Cochleæ*. Lib. ix. 56.

Times past digged up only about the Sea-coast of the Alps; but of late they have been dug up in Veliternum also. But the very best of them all are in the Island Astypalæa.

Lizards¹ are the most deadly Enemies to Snails; and Men say that they do not live above six Months. In Arabia are Lizards of a Cubit in Length: and in the Mountain Nisa, in India, they are four-and-twenty Feet long; some tawny, some light red, and others sky-blue.

CHAPTER XL.

*Of Dogs.*²

AMONG those Creatures which associate with us there are many Things worthy of being known; and the Dog is beyond all others the most faithful to Man, and the Horse next. We have heard, beyond doubt, of a Dog, that in Defence of his Master fought hard against Thieves; and although he was wounded through the Body in many Places, yet would he not abandon him, but drove away the wild Birds and savage Beasts: also of another in Epirus, who in a great Assembly of the People, recognising the Man who had murdered his Master, by barking at and tearing him furiously, compelled him to confess the Crime. Two hundred Dogs restored from Exile a King of the Garamantes; fighting against all that opposed him. The Colophonians, and also the Castabaleans, possessed Squadrons (Cohorts) of Dogs for War; and these were put in the front of the Battle, and were never known to draw back. These were their trustiest Auxiliaries, and never in want of Pay. In a Battle when the Cimbri were slain, the Dogs defended their Houses placed upon the Waggon. *Jason* the Lycian had a Dog, which, after his Master was slain, would never eat Meat, but

¹ When Pliny tells us that some Lizards were a cubit in length, while others were twenty-four feet, it will hardly be necessary to inform the reader that the Romans included many different species, and even genera, under the terms *Lacerta* and *Lacertus*. — *Wern. Club.*

² *Canis familiaris*. — LINN. The Dog. — *Wern. Club.*

pined himself to Death. *Duris* maketh mention of another Dog, which he named *Hircanus*, that when the funeral Fire of King *Lysimachus* was set a-burning, leapt into the Flame. And so did another at the Funeral of King *Hiero*. Also *Phylistus* commemorateth the Dog of King *Pyrrhus*, and another belonging to the Tyrant *Gelo*. They report of a Dog belonging to *Nicomedes*, King of Numidia, which flew upon *Consingis* his Wife for toying overwantonly with her Husband. And even with us, *Volcatius*, a noble Gentleman, who taught *Geselius* the Civil Law, as he returned Home one Evening, riding upon an Hackney from a Village near the City, was defended from a Highwayman by his Dog. *Cælius*, likewise, a Senator, lying sick at *Placentia*, was violently attacked by armed Men, but they were not able to wound him, until they had killed the Dog. But that exceedeth all, which happened in our Time, and standeth upon Record in the Registers: when *Appius Junius* and *P. Silus* were Consuls, and *T. Sabinus* and his Servants were punished on account of *Nero* the Son of *Germanicus*: one of them that was put to Death had a Dog which could not be kept from the Prison; and when his Master was thrown down the Stairs called *Scalæ Gemoniæ*, he would not depart from his dead Body, but kept up a most piteous Howling about it, in the Sight of a great Multitude of Romans that stood about it; and when one of the Company threw the Dog a piece of Meat, he carried it to the Mouth of his dead Master. When the dead Body was thrown into the *Tiber*, the Dog swam after it, and endeavoured to bear it afloat; and a large Number of People poured out of the City to behold the Fidelity of the Animal. They are the only Animals that know their Master; and if an unknown Person approach suddenly, they are aware of his coming. They are the only Animals that know their own Names, and the People of the House by the Sound of their Voice. They remember the Way, however long it is, if they have once gone over it. And there is no Creature, beside Man, that hath a better Memory. Their Violence and Fury are appeased by a Man sitting down

upon the Ground.¹ The longer we live the more Things we observe still in Dogs; but their Skill and Sagacity are chiefly displayed in Hunting: they examine and follow up the Footmarks, leading the Hunter who attends them to the very Place where the Beast lieth; and having gotten an Eye of his Game, how silent and secret, how significant is their Discovery to the Hunter, first wagging the Tail, and marking with their Nose! And even when Dogs are worn out, weak and blind, Men carry them in their Arms to hunt, to wind the Beast, and by Scent to show by their pointing of the Nose where the Beast is at Harbour. The Indians desire to procure a Cross between the Dog and the Tiger; and for this Purpose, at the proper Time, they tie the Bitches in the Woods. They suppose the first and second Litter of such as are thus bred to be too fierce; but the third they bring up. The Gauls do the same by their Dogs that are produced from Wolves; and of which they have Flocks,

¹ That the fury of a dog is mitigated by a man's sitting down, Homer also informs us, *Odyssey*, xiv. 33 :—

“ Soon as Ulysses near the inclosure drew,
With open mouths the furious mastiffs flew :
Down sat the sage, and cautious to withstand,
Let fall the offensive truncheon from his hand.
Sudden the master runs; aloud he calls;
And from his hasty hand the leather falls;
With showers of stones he drives them far away;
The scattering dogs around at distance bay.”— POPE.

Mure, in his “*Journal of a Tour in Greece and the Ionian Islands*,” tells us, that “at Argos one evening, at the table of General Gordon, then commanding in chief in the Morea, the conversation happened to turn, as it frequently does when tourists are in company, on the subject of the number and fierceness of the Greek dogs; when one of the company remarked that he knew a very simple expedient for appeasing their fury. Happening, on a journey, to miss his road, and being overtaken by darkness, he sought refuge for the night at a pastoral settlement by the wayside. As he approached, the dogs rushed out upon him, and the consequences might have been serious had he not been rescued by an old shepherd, the Eumæus of the fold, who sallied forth, and finding that the intruder was but a benighted traveller, after pelting off his assailants,

that have for their Leader and Captain some one Dog: him they accompany when they hunt; him they are directed by: for they keep an Order among themselves of Mastership. It is certain that the Dogs which live near the Nile lap of the River¹ as they run, that they may not afford an Opportunity to the Greediness of the Crocodiles. When *Alexander* the Great made his Journey into India, the King of Albania gave him a Dog of extraordinary Size; and *Alexander* taking great Delight in such an Example of a Dog, commanded them to let loose on him Bears, and afterwards wild Boars; and last of all, fallow Deers; but he lay still with silent Contempt. This great Commander, a Man of high Mind, offended at the Laziness of so great a Body, commanded that he should be killed. News of this went presently to the King; and therefore he sent a second Dog, with this Message: That he should not make trial of this too against small Beasts, but set him against a Lion or an Elephant: adding, that he had no more than those two; and if this were killed likewise, it was not likely he would have more of that Race. *Alexander* made no delay, and presently saw a Lion torn to Pieces. Afterwards he commanded them to bring out an Elephant, and in no Sight did he take greater Pleasure than in this. For the Dog's rough, shaggy Hair,

gave him a hospitable reception in his hut. His guest made some remark on the watchfulness and zeal of his dogs, and on the danger to which he had been exposed on their attack. The old man replied that it was his own fault for not taking the customary precaution in such an emergency,—that he ought to have stopped, and *sat down*, until some person whom the animals knew came to protect him. As this expedient was new to the traveller, he made some further inquiries, and was assured, that if any person in such a predicament will simply seat himself on the ground, laying aside his weapons of defence, the dogs will also squat in a circle round him; that as long as he remains quiet, they will follow his example; but as soon as he rises, and moves forward, they will renew the assault.”—*Wern. Club.*

¹ “I was very well pleased to see here, for the first time, two shepherd dogs lapping up the water from the stream, then lying down in it with great seeming leisure and satisfaction. It refuted the old fable that the dogs living on the banks of the Nile run as they drink, for fear of the crocodile.”—*BRUCE'S Travels*, vol. ii. p. 7.—*Wern. Club.*

stood erect over his whole Body, and his loud barking sounded like Thunder. Soon after he leapeth and flieth upon him, rising and mounting against the great Beast, now on one Side, and then on the other, in skilful Combat, according as Opportunity offered, one while assailing and another while avoiding his Enemy; so that with continual turning round, the Elephant grew giddy in the Head, so that he came tumbling down to the Ground, which shook with the Fall. Dogs bear Young once in a Year; and the due Time for them to be with Whelps is when they are a Year old. They go with Young threescore Days. Their Puppies come blind into the World; and the more Milk they suck, the later it is before they receive their Sight: but it is never above twenty Days before they see, and they do not open their Eyes under seven Days old. Some say that if but one be born at a Litter, it will see in nine Days; if two, it will be in ten Days; and the more Puppies she hath, the more Days it will be in that Proportion before they see: also, that the Bitch-whelp which cometh of the first Litter discerns Fairies.¹ The best of the whole Litter is that Whelp which is last to begin to see; or that which the Bitch carrieth first into her Kennel. The Madness of Dogs is most dangerous to a Man, as we have said before, while Syrius is burning hot; for they that are so bitten have a deadly Fear of Water. To prevent this, therefore, it is good for thirty Days to mingle Hen's Dung with the Meat of the Dogs; or, if the Disease be coming on, Hellebore.

CHAPTER XLI.

Against the Bite of a mad Dog.

THE sovereign Remedy against this Bite was revealed lately by a certain Oracle:² being the Root of a wild Rose,

¹ The Fauni here mentioned, and again Lib. xxv. 4, and which we have translated by the modern term "Fairies," were a species of Incubi, supposed to occasion the nightmare and other similar diseases.—*Wern. Club.*

² Lib. xxv. 2.

called Cynorrhodos. *Columella* writeth, that when a Whelp is exactly forty Days old, if his Tail be bitten off at the nethermost Joint, and the Sinew that cometh after be taken away, neither will the Tail grow any more, nor the Dog ever become mad. I have myself observed, that among the Prodigies it is reported, that a Dog spoke; as also that a Serpent barked at the Time when *Tarquin* was driven from the Kingdom.

CHAPTER XLII.

*Of the Nature of Horses.*¹

THE same *Alexander* of whom we have spoken, had a very uncommon Horse, which they called Bucephalus; either from his stern Look, or from the Mark of a Bull's Head imprinted on his Shoulder. It is reported of *Alexander*, that being but a Boy, he was so much attracted by his handsome Appearance, that he bought him out of the Flock of *Philonicus* the Pharsalian, at the Price of sixteen Talents. He would suffer no Man to sit on his Back but *Alexander*, when he had the royal Saddle and Furniture on; rejecting others entirely. The same Horse was of memorable service in Battles, and being wounded at the Assault of Thebes he would not suffer *Alexander* to alight and mount upon another. Many other Things of the same kind he did; on Account of which, when he was dead, the King conducted his Funeral sumptuously; erected a Tomb for him, and about it built a City that bore his Name. *Cæsar* the Dictator likewise had a Horse which would not suffer any Man to ride him but his Master; and the same Horse had his Forefeet resembling those of a Man; and its Statue so formed is placed before the Temple of Venus Genetrix. *Divus Augustus* also formed a Tomb for his Horse; concerning which there is a Poem by *Germanicus Cæsar*. At Agrigentum there are Pyramids on the Tombs of many Horses. *Juba* reporteth, that *Semiramis* loved a Horse *usque ad coitum*. The Scythians make a great Noise of the Glory of their

¹ *Equus caballus.* — LINN. The Horse. — *Wern. Club.*

Horses and Cavalry. A Chieftain of theirs happening in Combat on a Challenge to be slain by his Enemy, when the Conqueror came to take the Spoil, he was killed by the Kicks and Biting of the Horse of the conquered. There was another Horse, that when the Covering was removed from his Eyes, and he knew that he had served as a Stallion to his own Dam, rushed to a Precipice, and threw himself down and died. We find, also, that in the Territory of Reatè, an Horsekeeper was torn upon the same Occasion of a Mare. For surely these Animals understand their Relationship; and therefore Colts will in the Flock more willingly keep Company with their Sisters of the former Year, than with the Mare their Mother. Horses are so docile, that we find in the Army of the *Sybaritani*, the whole Troop of Horsemen had their Horses accustomed to be moved to a certain Dance at the Sound of Music. They have an Anticipation of a Battle, and mourn the Loss of their Masters; sometimes also, they shed tears for Love of them. When King *Nicomedes* was slain, his Horse starved itself to Death. *Philarchus* reporteth, that King *Antiochus* having in Battle slain *Centaretus*, a Galatian, became possessed of his Horse, and mounted him in a triumphant manner; but the Horse, seized with Indignation, would not be restrained by the Bridle, but ran furiously to a Precipice, and threw itself down; where both Horse and Man perished together. *Philiatus* writeth, that when *Dionysius* left his Horse sticking fast in the Mire that he might save himself, the Animal followed the Tracks of his Master, with a Swarm of Bees settling in his Mane; which was the first Presage that induced *Dionysius* to usurp the Tyranny. The variety of their Skill cannot be expressed; and those who throw Darts have Proof of their entire Obedience, in urging them to the most difficult Attempts with great Dexterity and striving of the Body. They even gather up Darts from the Ground, and reach them to the Horseman; and when they are fastened to the Chariots in the Circus they display beyond a doubt their Consciousness of Encouragement and Glory. At the Secular Circensian Games exhibited by *Claudius Cæsar*,

although the Driver was thrown from the Chariot within the Bars, the Horses with the white Livery won the Palm, and obtained the first Honour; throwing down whatever stood in the Way, and doing all that needed to be done against their Rivals, as well as if the most skilful Driver had been in the Chariot; so that Men were ashamed to see their Skill over-matched by Horses; and when they had performed their Race according to Law, they stood still at the Goal. A greater Augury happened in old Time, when in the Plebeian Circensian Games, the Driver was thrown out of the Chariot, and yet the Horses ran directly into the Capitol, as if he had stood still in his Place; and there they ran three times round the Temple. But the greatest of all was, that the Horses of *Ratumenas* came thither from Veij, with the Palm and Crown which they had won there, after they had thrown out their Master, who had conquered in the Games at that City; from whom the Gate (*Ratumena*)¹ took its Name. The Sarmatians, when they intend to take a great Journey, prepare their Horses two Days before, by giving them no Meat, and only allow them a little Drink; and thus they will ride them an hundred and fifty Miles at one Stretch. Some Horses live fifty Years, but Mares not so long. In five Years the latter come to their full Growth, but Horses grow one Year longer. The Beauty of Horses, such as a Man would choose for the best, hath been very elegantly and completely described by the Poet *Virgil*.² And we also have spoken of the same Thing in a Book lately put forth, concerning Dart-throwing on Horseback; and about what is

¹ Plutarch's account of this circumstance, which he gives in the Life of Publicola, is as follows:— "It happened that there was a chariot race at Veii, which was observed as usual; except that, as the charioteer, who had won the prize and received the crown was gently driving out of the ring, the horses took fright from no visible cause; but, either by some direction of the gods, or turn of fortune, ran away with their driver, at full speed towards Rome. It was in vain that he pulled the reins, or soothed them with words; he was obliged to give way to the career, and was whirled along till they came to the Capitol, where they flung him, at the gate now called *Ratumena*."—LANGHORNE'S *Translation*.—*Wern. Club*.

² Georg. Lib. iii. 72, *et seq.*—*Wern. Club*.

there set down, I see almost all agree. But for Horses trained to the Circus, a different mode of Proceeding is to be sought for. For whereas they may be broke into other Employments when they are two Years old, they must not be brought to enter into that Contest before they are five Years of Age. The Females in this kind go eleven Months with Young, and in the twelfth they Foal. The Sexes are put together at the Spring Equinox, when both of them are two Years old ; but if they be kept until they are three Years of Age, they produce stronger Colts. The Male is fertile to three-and-thirty Years old ; so that when they are dismissed from the Circus, after their twentieth Year, they are sent to produce Offspring. And it is said that they will continue to forty Years with a little Help put to the Forepart of the Body, to lift him up. Few Beasts besides are less capable of Fertility than the Male ; for which Cause they are allowed some Space between, and in one Year the most that can be allowed is fifteen. The Way to quench the Heat of a Mare is to shear her Mane. And yet Mares can bear every Year until they come to forty Years. It is reported that an Horse hath lived three-score and fifteen Years. Mares only among all Races produce their Foals standing on their Feet ; and they love them more than any other Creatures do their Young. Foals truly have on their Forehead a black Thing of the Bigness of a Fig, called Hippomanes,¹ which is a powerful Charm to procure Love ; and this the Dam devours as soon as the Colt is born ; and if it chance that any Person hath managed to secure it before her, she will not permit the Foal to suck her. Horses are driven into Madness by the Smell. If a young Foal lose her Dam, the other Mares of the com-

¹ Lib. xxviii. 11. The Hippomanes was a sort of poison famous among the ancients as an ingredient in amorous philters, or love-charms. At the end of Bayle's Dictionary is a very learned dissertation on the Hippomanes, and all its virtues, both real and imaginary. Ælian (B. xiv. c. 18) says that this caruncle was either affixed to the forehead, loins, or *κατα του αιδοιου*. But the virtues ascribed to it were so singular, that, credulous as this author commonly is, he is compelled to express some doubts of their truth.—*Wern. Club.*

mon Herd rear up the Orphan in common. It is said, that for three Days after they are newly foaled, the young Colts cannot lay their Mouth to the Ground. The hotter stomached an Horse is, the deeper he thrusteth his Nose into the Water as he drinketh. The Scythians chose rather to use their Mares in War, because their staling is no Hindrance to their Running. It is an admitted Fact that in Lusitania, along the River Tagus, and about the City Olyssipo (Lisbon) when the West Wind bloweth,¹ the Mares set themselves full against it, and so conceive that genital Air from which they become pregnant, and bring forth Foals of exceeding Swiftmess; but they live not above three Years. In the same Spain, from the Parts called Gallaica (Gallicia) and Asturica (Asturia) there is produced a Race of Horses which we call Thieldones; and others of less Stature, named Asturcones. These Horses have a pleasant Pace peculiar to themselves; with one Foot set down before another softly and roundly in order by turns; from which our Horse-breakers have obtained the Art by Cords to bring an Horse to the like Amble. A Horse is subject to almost the same Diseases as a Man: and also to the turning of the Bladder: as likewise all other Beasts that labour.

CHAPTER XLIII.

*Of Asses.*²

M. VARRO writeth, that *Q. Axius*, a Senator, bought an Ass at the Price of four hundred thousand Sesterces: a Price, in my Opinion, above the Worth of any Beast whatever: and yet (no Doubt) he was able to do wondrous good Service in carrying Burdens, ploughing the Ground, and principally in getting Mules. In the Purchase there is special Regard to the Country from whence they come; as from Arcadia in Achaia, and Reatè in Italy. This Animal is exceedingly im-

¹ Virgil has the same monstrous tale (*Georg.* iii. 273); and such absurdities may be pardoned in a poet, but are inexcusable in a natural philosopher.—*Wern. Club.*

² *Asinus vulgaris.*—*GRAY.* The Ass.—*Wern. Club.*

patient of Cold; which is the Cause that none are bred in Pontus. Neither do they go with Young, like other Cattle, in the Spring Equinox, but at the Solstice. He-Asses are the worse for being spared in their Work. The Females have bred early, at the Age of thirty Months; but three Years is the due Time: as often as Mares, and just so many Months, and after the same Manner. But after Reception they must be forced to run by beating them, or else they will let go their Seed. They seldom produce two at once. The Ass, when about to Foal, avoideth the Light, but seeketh some dark Place, that she may not be seen by Man. She breeds all her Life-time, which is to her thirty Years. They love their young Foals exceedingly well: but they cannot abide Water. To their little ones they will go through Fire; but if there be the least Brook between, they are so afraid, that they dare not dip their Feet therein. They will not drink, except of their accustomed Fountains, within their Feeding-ground; and in such a Manner that they may go along a dry Path to their Drink: neither will they go over any Bridges where the Planks are not so close together as that they see the Water through. Strange to say, they are thirsty; but if their Water be changed, they must be forced to drink, or else unloaded of their Burdens. They love to lie at large, and have Room enough. For in their Sleep they dream of various Fancies appearing to them; and so they fling about them with their Heels in every Direction; by which, if they should beat against some hard Thing, they would soon be lame. They are more profitable to their Masters than the Revenues of good Farms. It is well known, that in Celtiberia she-Asses, by breeding, have produced the Value of 400,000 Sesterces. For the foaling of Mules, they affirm that the principal Thing to be regarded in the Ass is the Hair of the Ears and the Eyelids. For however the whole Body besides be of one Colour, yet shall the Mules foaled have as many Colours as were in those Parts. *Mecænas* was the first that introduced at Feasts a Dish of young Ass-flesh;¹ and

¹ See the note on the Lalisiones in the next chapter. — *Wern. Club.*

he preferred their Flesh at that time before that of wild Asses. But after him the Reputation of their Delicacy decayed. If an Ass be seen to die, the whole Race will very soon follow to the very last.

CHAPTER XLIV.

Of Mules.

BETWEEN the He-Ass and a Mare a Mule is produced in the twelfth Month: a Creature of exceeding Strength for Labour. For breeding such Mules they choose Mares that are not under four Years old, nor above ten. They relate that they will drive away one another in both kinds, unless they sucked the Milk of the Dam, when they were young, of that kind by which they would produce. And for this Purpose they remove away either the young Ass-Foals, and set them in the dark to the Teats of the Mare, or else the young Colts to suck of the she-Ass. For there is a Mule also that cometh of a Horse and a female Ass: but they are unruly, and of unconquerable Slowness: and much more if they be far in Age. If, when a she-Ass hath conceived by an Horse, she admit an Ass, an Abortion follows; but it is not so if an Horse follow an Ass. It is observed, that seven Days after an Ass hath foaled is the best Time for another Conception; and, also, that the he-Asses succeed best when weary with Travel. That Ass is understood to be barren which hath not conceived before she hath cast her Foal's-teeth; and also she which doth not conceive at the first. In old Time they used to call those Hinuli, which were begotten between an Horse and an Ass: and, on the other Hand, Mules, such as were between an Ass and a Mare. Also it is observed, that a Creature born from Beasts of two different kinds, formeth a third Sort, resembling neither of the Parents; and that such as are produced in this Manner, whatever kind of Creatures they are, are themselves barren; and therefore she-Mules never breed. We find in our Chronicles, that oftentimes Mules have brought forth, but it was always taken for a Prodigy. *Theophrastus* saith,

that in Cappadocia ordinarily they produce Foals; but there they are a distinct kind of Animal. Mules are broken of their Kicking if they are often made to drink wine. It is found written in what remains of many Greeks, that there has been produced between an he-Mule and a Mare, a Creature which the Latins call Hinnus, that is, a little Mule. Between Mares and wild Asses that have been made tame are produced a kind of Mules, very swift in running and exceedingly hard-hoofed, slender of body, of unconquered but generous spirit. But the Mule that cometh of a wild Ass and a female tame Ass exceeds all the rest. Wild Asses (Onagri) are the best in Phrygia and Lycaonia. Africa boasts of the Flesh of their Foals, which is excellent Meat;¹ and such they call Lalisiones. It appeareth in the Chronicles of Athens, that a Mule lived eighty Years; and that when they built the Temple in the Citadel at that Place, this old Mule being set aside for Age, would yet accompany the other labouring Beasts, and if any of them were ready to fall under their Load, would relieve and encourage them according to his power: by which the people were so much pleased, that they made a Decree that the Corn-Merchants should take good Care that this Mule should not be driven away from their Cleansing-Sieves.

CHAPTER XLV.

*Of Oxen.*²

IT is said that the Oxen of India are as high as Camels, and four Feet broad between the Horns. In our Part of the

¹ Ælian, Hunting, book iii. The Persians and Tartars hold the flesh of the wild ass in high esteem, and hunt it in preference to all other descriptions of game. Olearius assures us that he saw no fewer than thirty-two wild asses slain in one day by the Schah of Persia and his court, and their bodies were sent to the royal kitchens at Ispahan. We know from Martial that the epicures of Rome held the flesh of the Onager in the same estimation as we do venison:—

“Cum tener est Onager, solaque lalisio matre
Pascitur: hoc infans, sed breve nomen habet.”

Lib. xiii. 97. — *Wern. Club.*

² *Bos Taurus.* — LINN. The Ox. — *Wern. Club.*

World, those that come out of Epirus are most commended; and they report that they were much attended to by King *Pyrrhus*, who would not suffer them to breed before they were four Years old. Therefore they were of great Size; and so they continue in their Posterity to this Day. In the present Day, however, they are permitted to breed when they are one Year old, or at most two; which is more tolerable. Bulls are generative when they are four Years old; and one is a sufficient Companion for ten Cows through the Year. If a Bull, after Copulation, go away toward the right Hand, he hath gotten a male Calf; but if to the left, a Cow Calf. Cows are fertile at the first; but if it chance that they fail, the twentieth Day after they again seek their Fellow. In the tenth Month they calve; and whatever cometh before that Term is worth nothing. Some write that they calve just upon the last Day of the tenth Month complete. They seldom bring forth two Calves at a Time. Their Time of Propagation continueth thirty Days from the rising of the Dolphin to the Day before the Nones of January; but some propagate in Autumn. Indeed, in those Countries where the People live on Milk, they order the Matter so, that they are not without this Food all the Year long. Bulls do not serve above two Cows in one Day. Oxen alone of all Animals go backward as they feed; and among the Garamantæ they scarcely ever feed otherwise. Cows live not above fifteen Years at the most; but the Males come to twenty. They are in their full Strength when five Years old. It is said they will grow fat if they are bathed with hot Water; or if a Man slit their Hide, and with a Reed blow Wind into their Entrails. Oxen are not to be despised as defective, although they may look but ill-favouredly; for in the Alps those that are least of Body are the best for Milk. And the best labouring Oxen are they which are yoked by the Head, and not the Neck. In Syria they have no Dewlaps, but a Bunch standing on the Back. They of Caria also, a Country in Asia, are ill-favoured to be seen, having between their Necks and Shoulders a projecting Tumour; and their Horns are loose, as if out of Joint; and yet by Report, they are excellent for

Labour: but the black or white in this kind are condemned for Work. Bulls have less and slenderer Horns than Cows or Oxen. The Time to bring the Ox or Bull to the Yoke is at three Years of Age; after this it is too late, and before it is too soon. A young Steer is soonest trained to draw, if he be coupled with another that hath been taught already; for this Animal is our Companion in Labour and the Cultivation of the Ground: and so highly regarded was the Ox by our Forefathers, that we find it on Record that a Man was judicially condemned on a given Day by the People of Rome, because, to gratify a wanton Concubine of his, who said he had not eaten any Tripe all the while he was in the Country, he had killed an Ox,¹ although it was his own; and for this Fact he was banished, as if he had slain his own Manager of Husbandry. There is a Majesty in the Aspect of a Bull; their Countenance stern, their Ears covered with stiff Hairs, and their Horns standing as if they were ever demanding to fight. But all his threatening appears in his Fore-feet; bestirring himself now with one Foot, and then with another, as his Anger bursts forth, flinging the Sand aloft into the Air: and of all other Beasts he alone with such an Incitement stirs up his Anger. We have seen them fight one another for the Mastery; and thus viewed to be swung round, in their Fall to be caught up by the Horns, and to rise again: when only lying along, to be raised from the Ground; and when they have run with a rapid Pace, in two-wheeled Chariots, they have stood still suddenly, as if the Charioteers had caused them to stop. It was an Invention of the Thessalians, with a Horse to gallop close to the Bull's Horns, and kill it by twisting its Neck. The first that exhibited this Show to the People of Rome, was *Cæsar* the Dictator. The Bull forms the most worthy and sumptuous Offering of Reconciliation to the Gods. This Animal alone, of all those that are long-tailed, when newly-born, hath not the Tail of the full Measure, as others; but it continueth to

¹ According to *Ælian*, B. xii. c. 34, among the Phrygians death was the regular punishment of any one who killed his plough ox. — *Wern. Club.*

grow until it reacheth down to the very Heels. And hereupon it is, that in approving Calves for Sacrifice, those are allowed whose Tail cometh down to the Joint of the Gambril : but if shorter, they will not be an effectual Sacrifice. This also is noted, that Calves brought on Men's Shoulders to the Altars are not for the most Part accepted for Sacrifice ; nor one that is lame ; nor can the Gods be appeased with those Sacrifices which are foreign to them, nor with such as draw themselves back from the Altar. Among the Prodigies that we read of in ancient Times, we find that an Ox hath spoke ;¹ and when this was announced, the Senate was accustomed to be held in an open Place.

CHAPTER XLVI.

Of the Ox Apis.

IN Egypt, also, an Ox² is worshipped as a God, and they call it Apis.³ It was marked with a white Spot on the right Side, like the Horns of the new Moon ; a Knob under the Tongue, which they call Cantharus :⁴ it was not lawful to

¹ When a report was brought that an ox had spoken, the senate was held in the open air. (Adams' "Rom. Antiq." p. 9.) This was against the custom, because under ordinary circumstances the senate could only meet in stated places—at first limited to two within the city, and the temple of Bellona without it ; afterwards the right was extended to several temples and curiæ—the latter being consecrated by the augurs, but not to any particular deity. The places and circumstances of meeting are recited more at length in Livy, xxvi. 10 ; iii. 63 ; xxxi. 47 ; xxxiii. 22, 24 ; xxxiv. 43 ; xxxvi. 39 ; xlii. 36. — *Wern. Club.*

² See Herodotus, Lib. iii. 28. — *Wern. Club.*

³ The Scarabæus. — *Wern. Club.*

⁴ Ælian, B. xi. c. 10, gives a different account of the Egyptian ox-god Apis ; derived, as he strongly intimates, from the best Egyptian authority, and differing from that afforded by Herodotus and Aristagoras. According to him it was designated by twenty-nine marks in different parts of its body, and each one conveying some important figurative meaning : as one, the increase of the Nile, and another, that darkness existed previously to light. As Apis was held sacred at Memphis, so another ox was revered there under the name of Mnevis : the latter dedicated to the sun as the former to the moon. — Ælian, B. xi. c. 11. — *Wern. Club.*

suffer him to live above a certain Number of Years; at the end of which they drown him in a Fountain of the Priests, and then, with Mourning, seek another, which they substitute in his Place. Until they find him they mourn and shave their Heads. But they never are long before they meet with another: and when they have found him, he is by the Priests brought to Memphis, where he hath two Shrines (Delubra), which they call Thalami (Bed-chambers), which are the Auguries of the People. For if this Ox enter into one of them, it is a good Sign; but if into the other, it portendeth Misfortune. He gives Answers to private Persons by taking Meat from the Hand of such as consult him. He turned away from the Hand of *Germanicus Cæsar*, and not long afterwards he died. He is kept secret for the most Part: but when he hath got forth to the Multitude, he proceeds with a Guard of Lictors, and a Flock of Boys accompany him, singing a Hymn to his Honour: for he seemeth to understand, and is pleased to be worshipped. These Companies presently become beside themselves, and foretell future Things. Once a Year there is presented to him a Cow, which hath Marks as he hath, but differing from his; and it is said that always upon what Day this Cow is found, on the same it dieth. At Memphis, there is a Place in the Nile which, from its Figure, the Inhabitants name Phiala; and there every Year the Egyptians drown a silver and gold Cup on the Days in which they celebrate the Nativity of Apis. These Days are seven in Number; and it is wonderful, that while they last no one is hurt by Crocodiles: but on the eighth Day, after the sixth Hour of the Day, they return to their former Ferocity.

CHAPTER XLVII.

The Nature of Flocks of Sheep,¹ and their breeding.

GREAT is the Advantage from the Flock, both as regards Sacrifices to pacify the Gods, and the use of their Fleece:

¹ *Ovis aries*. — LINN. The Sheep. — *Wern. Club*.

for as Men are indebted to the Ox's Labour for their Food, so they owe the clothing of their Bodies to the Sheep. They are fertile from two Years of Age upward to nine, and some until they are ten Years old. The first Lambs are smaller than the others. They go with Young about the Setting of Arcturus, that is, from the third Day before the Ides of May to the Setting of the Eagle, on the tenth Day before the Calends of August. They are with Young 150 Days. If any are conceived after that Time they prove weak. Lambs born after that Season they called in old Time *Cordos* (later Lambs). Many prefer these Winter Lambs before those that come in Spring; because it is much better they should be strong before the Solstice than before the shortest Days: and they think that this Creature only is useful by being born in the midst of Winter. It is natural for Rams to loathe young Lambs, and to follow after old Ewes. Himself also is better when old, and more effective for them. To make them more gentle, they bore his Horn through near his Ear. If his right Testicle be tied up, he getteth Ewe Lambs: if the left, Males. If Ewes be by themselves when it thundereth, they cast their Lambs. The Remedy is to gather them together, that by Company they may have help. They say that if the North Wind blow they will conceive Males; but if the Wind be South, Females. Moreover, great Regard is had in this Kind to the Mouths of the Rams: for of what Colour the Veins be under their Tongue,¹ of the same will the Fleece be of the Lambs; and they will be of a Variety of Colours if the Veins were so. Also the Change of Water and Drink maketh them to alter their Colour. There are two principal Kinds of Sheep; one reared within House, and the other abroad in the Field: the first is the tenderer, but the other more deli-

¹ Virgil, Georg. iii. 387, in giving directions to choose a ram, says,—

“But if dark hues his tongue and palate stain,
Drive him far distant from thy spotless train,
Lest the dim blemish that the sire defiled
Infect the fleece, and taint the motley child.”

—Wern. Club.

cate in Taste ; for those within the House feed upon Brambles. The Coverings made of the Arabian Wool are the most valuable.

CHAPTER XLVIII.

Of the Kinds of Wool and Cloths.

THE Wool of Apulia is held in the highest Estimation ; then, that which in Italy is named the Greek Sheep's Wool, but in other Countries is called Italian. In the third Rank stands the Milesian Sheep. The Wool of Apulia is of a short Staple, and is of Reputation for nothing beside Mantles. About Tarentum and Canusium the richest of this Kind are found : as also at Laodicea in Asia. For Whiteness there is none better than that which groweth along the Po ; and yet to this Day a Pound of it hath not exceeded the Price of an hundred Sesterces. They do not shear Sheep everywhere ; for the Custom of plucking their Fleece continueth still in some Places. There are several Sorts of Colours in Wool, so that we are not able to give distinct Names to all that we call Native. Black Fleeces¹ are chiefly in Spain ; Pollentia, near the Alps, has grey ; Asia is distinguished for red, and these Wools are called Erythrææ : in Bœotia the same. In Canusia the Colour is yellow : and at Tarentum they are brown. All Wool, in its native Grease, is used in Medicine.² About Istria and Liburnia the Fleece resembleth Hair rather than Wool, and is not good to make Clothes with a high Nap ; but serveth only for the Workman in Portugal, whose Weaving in Net-work with Squares commendeth this Wool. The like Wool is common about Piscenæ, in the Province Narbonensis (Languedoc) ; and such is found in Egypt : the Cloth made of it, after it is worn bare, is dyed, and again will wear during a Man's Life. The coarse, rough Wool, was in old

¹ Ælian says that all the sheep are black in Abydena, B. iii. c. 32 ; and Budiana, B. xvi. c. 33. In some soils of our country the fleece has a strong red tinge, and on the granite in the middle of Cornwall they are more than usually white. — *Wern. Club.*

² B. xxix. c. 22.

Time highly commended for Tapestry; for even *Homer* witnesseth,¹ that the Ancients used it. But this Tapestry is adorned with Colours in Gallia (France), after one Manner, and among the Parthians after another. Wool of itself, driven together into a Felt, serveth to make Garments with: and if Vinegar is added to it, such Cloth is proof against Steel; and more than that, it will check the Force of Fire. And the last cleansing of it, when it is taken out of the Caldrons of those that dress it, serveth to stuff Mattresses:² an Invention, as I suppose, which came first out of Gaul; for certainly it is at this Day distinguished by Gallic Names. But I am not able easily to say at what Time this Workmanship began: for in old Time Men made their Beds of Straw, as now in the Camp they use hairy Rugs (Gausapè). Our Mantles (Amphimalia), shagged without and within, were invented within my Father's Memory; and also these downy Aprons (Ventralia): for the Tunic of the Latus Clavus, woven in the Manner of the Gausapè or hairy Rug, is now first begun. Black Fleeces will take no other Colour. We will speak of the dyeing of other Wools in their proper Places;³ where we shall treat of Shell-fishes, and the Nature of Herbs. *M. Varro* writeth, that in the Temple of *Sangus* there continued to the Time when he wrote the Wool that *Tanaquil*, who is also called *Caia Cæcilia*, spun; together with her Distaff and Spindle; and, also, in the Chapel of Fortune, the royal Robe made by her in Wave-work, which *Servius Tullius* used to wear. And hence came the Custom, that when Maidens were married there attended upon them a Distaff dressed, and also a Spindle with Flax. She was

¹ *Odyss.* iv. 427:—

“Beneath an ample portico they spread
The downy fleece to form the slumberous bed;
And o'er soft palls of purple grain, unfold
Rich tapestry, stiff with interwoven gold.”

—*Wern. Club.*

² “*Tomente*,” or “*tormente*,” to stuff mattresses, or for ropes of engines.—*Wern. Club.*

³ *Lib.* ix. 36, *et seq.*, and *Lib.* xxi. 8.

the first that made the Tunic that is woven right through,¹ such as young Persons (Tyrones) and newly-married Ladies put on with the pure Toga. The waved Garment was, from the Beginning, among the most esteemed; and from thence came the branched Works. *Fenestella* writeth, that in the later Time of *Augustus Cæsar* they began to use shorn Gowns, as also with a curled Nap. The Robes called *Crebræ Papaveratæ*² (wrought thick with Flower-work, resembling Poppies, or pressed smooth) are of greater Antiquity; for even in the Time of *Lucilius* the Poet, *Torquatus* was noted for wearing them. The *Prætextæ* had their Origin among the Etruscans. The *Trabæ* I find worn by Kings. In *Homer's* Time³ they used painted Garments: and from thence came the triumphant Robes. The Phrygians invented that which is wrought with a Needle: and so they are called Phrygiones. And in Asia, King *Attalus* invented the working of Gold into the same; and from him such Cloths are called Attalica. Babylon was much celebrated for the weaving of Cloth of various Colours into a Picture, and Cloths so wrought were called Babylonica. To weave with many twisted Threads was the Invention of Alexandria, and these were named Polymita; but Gallia invented the Method of dividing the Work into Shields or Escutcheons. *Metellus*

¹ The reader will be reminded of the garment of our Lord, woven without a seam. (Gospel by St. John, c. xix. v. 23.) The Babylonish garments of beautiful interwoven colours were of high antiquity, since they proved too great a temptation to the virtue of Achan at the time of Joshua's invasion of Palestine. (Joshua, c. vii.) The painted garments referred to were as the name imports; for among the Chinese the arts are preserved without change from times of remote antiquity, and in their own representations of them, the liquid colours are laid on the texture in the manner of drawing, with a brush. — *Wern. Club.*

² Lib. xix. 1, and Lib. xx. 9.

³ *Iliad*, iii. 125, where Iris finds Helen weaving at the loom:—

“ Here in the palace, at her loom she found;
The golden web her own sad story crown'd.
The Trojan wars she weav'd (herself the prize),
And the dire triumphs of her fatal eyes.”

— *Wern. Club.*

Scipio, among the Crimes alleged against *Capito*, accused him that the Babylonian Hangings of his Dining-room cost 800,000 Sesterces; and such-like of late stood Prince *Nero* in 400,000,000 Sesterces.¹ The Prætextæ of *Servius Tullius*, with which he covered the Image of Fortune which he had dedicated, remained sound to the death of *Seianus*. And it was a Wonder that they neither fell from the Image nor were Moth-eaten in 560 Years. We have in our Day seen the Sheep's Fleeces while they are alive, dyed with Purple, with Scarlet in Grain, and from the Shell-fish, by the means of certain Barks, a Foot and a half long, dipped in those Colours; as if Luxury should make Wool to grow of those Colours. For the Sheep itself, she is known to be of the best Breed if she be short-legged, and well woolled under the Belly; for such as are naked there, they called *Apicæ*, and condemned. In Syria, Sheep have Tails a Cubit long, and they bear most Wool there. It is thought to be too early to castrate Lambs before they are five Months old.

CHAPTER XLIX.

*Of the Musmon.*²

THERE is in Spain, but especially in Corsica, a Kind of Musmones, not altogether unlike Sheep, having a Shag more like the Hair of Goats than the Fleece of Sheep. That Kind which is produced between them and the Sheep they called in old Time Umbri. This Creature hath a very tender Head, and therefore in feeding it is to be forced to stand with its Tail to the Sun. Of all living Creatures, those that bear Wool are the most foolish; for if one of them be drawn by the Horn, all the rest will follow, though otherwise they

¹ Quadragies, vel quadrengenties sestertio. — *Wern. Club.*

² Most naturalists look to the Mouflon, or Musmon, of Corsica (*Ovis musimon*), as the wild type of the sheep, and some regard this to be the origin of the European breeds; but the reasons upon which this is assumed appear very problematical. The domestic breeds of sheep are most probably the descendants of a race subjected from the beginning to man, and no longer in an independent state. — *Wern. Club.*

were afraid to go that Way. The Length of their Life is ten Years; but in Ethiopia, thirteen. In the same Country, Goats also live eleven Years; whereas in the rest of the World, for the most Part, they live only eight. Both Sorts become fertile in four Opportunities.

CHAPTER L.

Of Goats¹ and their Breeding.

GOATS bring forth four Kids, but not often. They go with Young five Months, like Ewes. She-Goats become barren with Fatness. When three Years old they are not so good to breed; and when they are older, not beyond four Years of Age. They begin at the seventh Month, even while they suck their Dams. Both Sexes are more useful if they have no Horns. The first Time in the Day that the she-Goats go with the Male is void: the second is more fertile, and so forward. They conceive in the Month of November, so that they may bring Kids in March, when Shrubs begin to bud; and this is sometimes when they are a Year old, but always at two Years; and when three, they are not utterly decayed: for they are fertile for eight Years. In cold Weather they are liable to Abortion. The she-Goat, when her Eyes are overspread with Opacity, pricketh them with the Point of a Rush, and so letteth them bleed: but the Buck useth the Brier for the same Purpose. *Mutianus* reporteth the Shrewdness of this Creature as seen by himself, when, upon a very narrow Bridge, one Goat met another coming opposite to him from a different Direction; now because the Place was so narrow that they could not pass each other, nor turn about, nor yet retire backwards without seeing, considering how long and slender the Plank was, and also because the Torrent that ran beneath was rapid and dangerous, one of them lay flat down, and so the other walked over his Back. Male Goats are held for the best which are the most flat-nosed, with long Ears that are crumpled in, and with very long,

¹ *Capra hirtus*. — LINN. The Goat. — *Wern. Club*.

shaggy Hair about their Shoulders. But the Mark to know the noblest Females is, that they have two Folds hanging down along their Body on either Side from the Neck. All have not Horns; but in those which are horned, a Man may know their Age by the Increase of the Prominences: and the unhorned she-Goats are more abundant in Milk. *Archelaus* writeth, that they breathe through the Ears,¹ and not at the Nostrils; and also that they are never without a Fever. And this, perhaps, is the Cause that they have hotter Breath than Sheep, and more eager in their Love. They say, also, that they see by Night as well as by Day; and therefore they who in the Evening are able to see nothing, which Disease we call *Nyctalipia*, recover their perfect Sight again by eating the Liver of Goats.² In *Cilicia* and about the *Syrtes*, People clothe themselves with the Goat's Hair, for there they shear them. It is said that Goats, toward the Sun-setting, cannot in their Pasture see directly one another, but by turning Tail to Tail; but at other Hours of the Day they keep towards each other, among their Fellows. They have all of them a Tuft of Hair under their Chiu, which they call *Aruncus*. If any one take one of them by this Beard and draw it out of the Flock, all the rest will stand gazing at it, as if they were astonished; and so they will do if any one of them chance to eat a certain Herb.³ Their Bite is destructive to Trees. They make the Olive-Tree barren by licking it, for which Cause they are not sacrificed to *Minerva*.

¹ The ancient Greeks and Romans were of opinion that goats breathed through their ears; and even some modern naturalists entertain the idea that the tear-pits found in the stag and fallow-deer are furnished to enable them to breathe more freely during their long and rapid flights. These opinions may be accounted for in some measure by the fact that certain species of antelope have a pit or fold of skin nearly half an inch in depth, opening externally by a small aperture immediately behind each ear, the use of which is not clearly understood. — *Wern. Club*.

² *Lib. xxviii. 11.*

³ This herb is said to be *Eryngium*. See *Theoph. in Fragmento de Animalibus*. — *Wern. Club*.

CHAPTER LI.

Of Swine¹ and their Natures.

THE SEXES of the Herd of Swine are united from the Time of the western Wind (Favonius) to the Spring Equinox; and when they are eight Months old; and in some Places even at the fourth Month of their Age up to the seventh Year. They farrow twice a Year; they go with Young four Months. One Sow may bring at a Farrow to the Number of twenty Pigs; but she cannot rear so many. *Nugidius* saith, that those Pigs which are farrowed on the ten Days about the shortest Day of the Year, are born with Teeth. They are fertile at one coupling, but because they are subject to Abortion it requires to be repeated. The Way to prevent Abortion is to keep them asunder at their first seeking, and before their Ears hang down. The Males are not fertile after three Years old. Sows, when they are feeble for Age, are rendered fertile as they lie along. That a Sow should eat her own Pigs is not a Prodigy. A young Pig is pure for Sacrifice five Days after it is farrowed; a Lamb at eight Days; and a Calf at thirty Days. But *Coruncanus* denieth that Beasts which chew the Cud are pure for Sacrifice until they have two Teeth. Swine that have lost one Eye are not thought to live long after; otherwise they may continue until they are fifteen Years old, and some to twenty. But they grow outrageous, and subject to many other Kinds of Diseases, especially the Quinsy and Scrofula. A Mark to show that Swine are sick is to pluck a Bristle from the Back, and it will be found bloody at the Root: also he will carry his Head with a Twist as he goeth. An overfat Sow soon wanteth Milk; and at her first Farrow bringeth fewest Pigs. All the Kind of them love to wallow in the Mire. They twist their Tails; wherein this also is



Montf. tom. iii.

¹ *Sus scrofa*.—LINN. The Hog.—Wern. Club.

observed, that they more easily appease the Gods in Sacrifice, when they turn their Tails to the right rather than the left. Swine will be fat in sixty Days; and the rather if, before you set them up for feeding, they be kept fasting for three Days. Of all other Animals they are the most brutish; so that there goeth a witty saying of them, *That their Life is given them instead of Salt.*¹ It is known that when Thieves had driven away a Company of them, on hearing the Voice of the Swineherd they leaned all to one Side of the Vessel, and sunk it, and then returned to their Keeper. Moreover, the Hogs that lead the Herd are so well trained, that they will of themselves go to the Swine Market-place, and from thence Home again; and the Wild ones have the Wit to confound the Prints of their Feet in the marshy Ground, and to render their Flight more easy by first voiding their Urine.² Sows also are spayed as Camels are; but two Days before, they are kept from Meat: then they hang them by the Forelegs to make Incision into the Part; and by this means they grow to Fat sooner. There is an Art also to prepare the Liver of a Sow, as also of a Goose,³ which was the Invention of *M. Apicius*,⁴ by feeding them with dry Figs, and when they have eaten till they are full, presently to kill them with a Drink of Water, Wine, and Honey (Mulsus).⁵ There is not the Flesh of any other living Creature that affordeth more Matter for Gluttony: for there are nearly fifty Sorts of Tastes, whereas others have but one each. From hence came so many Books of Laws by the

¹ Cicero ("De Nat. Deorum," lib. ii.) tells us that this was the saying of Chrysippus the philosopher; intimating that the hog lived only to be eaten, and that his life preserved his flesh from corruption, as salt would do.—*Wern. Club.*

² Lib. xxviii. 15.

³ Lib. x. 22.

⁴ Lib. xix. 8. He is referred to again (B. x. c. 48), and at a time when luxury in food was carried to a higher pitch than it had ever been in the world before, he attracted attention by his enormous excess. Athenæus says, that Appion the grammarian wrote a treatise on the luxury of Apicius (B. vii. c. 12), quoted in the Notes to Bowyer's "Ælian," p. 1010.—*Wern. Club.*

⁵ Lib. xxii. 24.

Censors, prohibiting to serve up at Suppers the Belly and Paps of a Sow; the Glands, Testicles,¹ Womb, and the Forepart of the Boar's Head: and yet *Publius*,² the comic Poet, after he obtained his Freedom, is remarked to have been never without an Hog's Belly; who also gave the Name of *Sumen* to it. The Flesh of wild Hogs also came into great Request; so that *Cato* the Censor, in his Orations, reproached them for making Brawn.³ And yet when they made three Portions of the wild Boar, the Loin was served up in the midst, under the Name of Brawn (*Aprugnus*). The first Roman that brought to the Table, in Feasts, a whole Boar, was *P. Servilius Rullus*, Father of that *Rullus* who, when *Cicero* was Consul, published the Agrarian Law. So little while ago it is since the Beginning of what is now an everyday Occurrence. And the Thing was recorded in the Annals; no doubt, to correct such Customs. In them one Supper had a Mark set on it at the Beginning; but now, two and three Boars are eaten at one Time.

CHAPTER LII.

Of Parks for Beasts.

THE first Man of the long Robe that formed Parks for these and other wild Animals was *Fulvius Lippinus*, who, in the Territory of Tarquiny, set up an establishment to feed wild Beasts. And it was not long before others followed his Steps, as *L. Lucullus* and *Q. Hortensius*. Wild Sows bring forth once a Year; and the Boars in rutting-time are exceeding fierce: then they fight one with another: they harden their Sides by rubbing them against Trees, and coat their Backs with Mud. The Sows at their farrowing are still more fierce, as is the Case with almost every kind of Beast. Wild Boars are not fertile before they are a Year old. The wild Boars of India⁴ have two curved Tusks of a Cubit in Length, growing

¹ Lib. xxxvi. 2.² Lib. xxxv. 17.³ Lib. xi. 37.⁴ *Sus babirussa*. — Cuv. The Babiroussa. — This animal, a species of wild hog, is found in some of the Indian isles. Its long upper tusks,

out of their Snout ; and as many from their Forehead, like Calves' Horns. The Hair of the wild sort is like Brass ; but in others, black. In Arabia, Swine will not live.

CHAPTER LIII.

Of Beasts half wild.

THERE is no Creature that mixeth so easily with the wild kind as the Swine ; and such Hogs in old Time they called Hybrides (half wild) ; and this Term hath been transferred to Mankind, as in the Instance of *C. Antonius*, the Colleague of *Cicero* in the Consulship. And not in Swine only, but also in all other Creatures, of whatever Kind there is any one tame, you may find also the wild of the same Kind ; and even of Men there may be said to be so many wild Kinds. As for the Goats, they are changed into a variety of Forms.¹ There are (Capræ) Roes,² (Rupicapræ) the Shamois,³ the wild Goat (Ibex),⁴ of wonderful Swiftness, although his Head is loaded with very large Horns like Scabbards for Swords ; by these they poise themselves when they swing round as by a Rope from one Rock to another ; and chiefly when they endeavour to skip along from one Mountain to another, and fetch a Leap to what Place they please with a rapid Spring. Of this kind are the Oryges,⁵ the only Beasts, as some say, that have their Hair growing reversed, and turning toward the Head. To these belong the (Damæ) Does,⁶ and Pygargi ;⁷ as also Strepsicerotes,⁸ and many others much like.

passing through the skin of the snout, and curving round over the forehead, so as to protect the head and eyes, render it applicable to Pliny's description of the wild boar of India. — *Wern. Club.*

¹ Lib. vii. 2. "No animal," says Pennant, "seems so subject to varieties (the dog excepted) as the goat." — *Wern. Club.*

² *Capræ*, Lib. xi. 37.

³ *Rupicapræ*, Lib. xi. 37.

⁴ *Ibices*: *Capra ibex*. — LINN. The Ibex. — *Wern. Club.*

⁵ *Oryges*, Lib. xi. 46, and vol. i. p. 75, note. In the 30th chapter, the wild bulls of India are said to have their hair set backwards as well as the oryx. — *Wern. Club.*

⁶ *Damæ*, Lib. x. 37. The African species. — *Wern. Club.*

⁷ *Pygargus*, Lib. x. 3.

⁸ *Strepsicerotes*, Lib. xi. 37.

The former sort come out of the Alps: these last are sent from other Parts beyond the Sea.

CHAPTER LIV.

Of Monkeys.

ALL the Kinds of Monkeys¹ approach very near to the human Figure; but they differ one from another in the Tail. They possess wonderful Shrewdness; and are said to do as they see Hunters do before them: even to besmear themselves with Birdlime, and to entangle their Feet in Snares, as if they were putting on Shoes. *Mutianus* saith, that they have played at Chess; and that at first Sight they knew Nuts made of Wax from others; that when the Moon is in the wane those Kinds which have Tails are sad, but the new Moon they adore with Skipping for Joy: for the Eclipse of Sun or Moon these and all other four-footed Creatures greatly dread. Monkeys of all Sorts are very fond of their Young Ones; and those which are kept tame in Houses will display them to every one as soon as they are born, carrying them about: they also take Pleasure to have them dandled, as if they understood it to imply Congratulation, and in this Way they generally end in killing them by their Embraces. The Nature of the *Cynocephali*² is the most savage; as that of the *Sphinges* and *Satyri* is the most gentle. The *Callitriches*³ differ almost entirely in their Appearance: they have a Beard on their Face, and the Forepart of their Tail is widely

¹ Lib. xi. 44.

² *Cynocephalus anubis*.—F. Cuv. This is the baboon, which, according to the author of the work on Monkeys, in the "Library of Entertaining Knowledge," was, "without a shadow of doubt," the *Cynocephalus* of the ancients; but other authorities attribute the *Cynocephalus* to the *Derrias* or *Cynocephalus hamadryis* of modern zoologists.—*Wern. Club*.

³ *Colobus guereza*.—RUF. The Guereza.—"The conjecture as to the identity of the Guereza with the *Callithrix* of the ancients, is by no means void of probability: at all events it appears to be much nearer the truth than any other we have met with on the subject."—*See Natural History of Monkeys in "Library of Entertaining Knowledge,"* p. 278.—*Wern. Club*.

spread. This Creature is said to live in no other Climate but in Ethiopia, where it is produced.

CHAPTER LV.

Of Hares and Rabbits.

OF Hares there are many sorts.¹ On the Alps they are white; and it is thought that in the Winter Months they feed on Snow; and certainly when it is thawed, all the Year after they are brownish red; and this Creature is otherwise bred up in extreme Cold. Of the Hare kind are they also which in Spain they call (*Cuniculi*²) Rabbits, which are exceedingly fruitful; so that having devoured all the Corn in the Field before Harvest in the Balearic Islands, they brought thereby a Famine on the People. There is a very dainty Dish at Table made of the young, either cut out of the Dam's Belly, or taken from them when they are sucking, without cleansing their Entrails: and they call it *Laurices*. It is certain that the Inhabitants of the Balearic Islands made a Petition to *Divus Augustus Cæsar* for military Aid to destroy the great Increase of these Creatures among them. Ferrets³ are a favourite Resource for hunting them. They put them into their Holes, which within the Ground have many Passages (from whence these Creatures are called *Cuniculi*): and when they are driven out of their Earth they are soon taken. *Archelaus* writeth, that so many Passages as the Hare hath for his Dung, so

¹ *Lepus timidus*.—LINN. The Hare.—Baron Cuvier says that during the second Punic War, Fulvius Hirpinus devised the mode of retaining quadrupeds in parks. And that these parks were named *Leporaria*, because three sorts of hares were reared in them; the common hare, the original Spanish rabbit, and the variegated or alpine hare, a species now almost entirely destroyed.

The flesh of the hare was highly valued: Martial says (*Xenia*, 87):—

“ Inter aves turdus, siquis me Judice certet,
Inter Quadrupedes gloria prima Lepus.” —*Wern. Club.*

² *Lepus cuniculus*.—LINN. The Rabbit.—*Wern. Club.*

³ *Mustela furo*.—LINN. The Ferret.—*Wern. Club.*

many Years old he is; and certainly some have more than others. The same Writer says, that every Hare is in possession of a double Faculty, and can breed without the Buck. Herein Nature hath showed her Bounty, that so harmless an Animal, and so good to eat, should produce so abundantly. The Hare is naturally exposed to be a Prey to all; it is the only Creature, except the *Dasytus*,¹ which superfœtates; so that she hath one sucking her; another within her, covered with Hair; another is naked; and another scarcely well-shaped: all in the Womb together. An Attempt has been made to make Cloth of Hare's Fur; but to the Touch they are not so soft as upon the Skin; and the Hair is soon shed, because of its shortness.

CHAPTER LVI.

Of Beasts half tame.

HARES are seldom rendered tame; and yet they cannot rightly be called wild. For many other Creatures there are that are neither wild nor gentle, but of a middle Nature between both. Such is among Birds, Swallows, Bees; and in the Sea, Dolphins.

CHAPTER LVII.

Of Mice² and Dormice.

IN the Class of those which are neither tame nor wild, many have arranged the Mice that haunt our Houses: a Creature not to be despised in considering public Prodigies. By gnawing the silver Shields³ at Lavinium, they portended the Marsian War. To *Carbo* the Imperator, by eating the Bandages which he used in fastening his Shoes, at Clusium,

¹ It is not possible to determine what animal Pliny intended by the term *Dasytus*: some have supposed the word to be no more than an epithet for a species of *Lepus*, all of which are *soft-footed*. See B. x. c. 62. — *Wern. Club.*

² *Mus musculus*. — LINN. The common Mouse. — *Wern. Club.*

³ Cicero mentions this circumstance, "De Divin." Lib. i. and Lib. ii. — *Wern. Club.*

they prognosticated his Death. There are many kinds of them in the Country of Cyrenè: some with a broad Forehead, others with a sharp-pointed; and some with sharp Bristles, like Hedgehogs. *Theophrastus* reporteth, that they drove away the Inhabitants of the Island Gyaros, and gnawed even the Iron: a Thing which it seems their Nature to do; for among the Chalybes they eat the Iron in the Smiths' Workshops; and, indeed, in Gold Mines¹ on this Account they cut open their Bowels, and so they always find their stolen Goods again: such Delight this Creature taketh in thieving. We read in the Chronicles, that when *Annibal* besieged Casilinum, a Mouse (*Murem*) was sold for two hundred Sesterces; and the Man who bought it lived, but he that sold it died for Hunger. If white ones abound, it presageth Prosperity. Our Annals are full of Instances, that when Rats (*Sorices*) are heard to squeak the Auspices are broken off. *Nigidius* saith, that Rats also lie hid in Winter, like Dormice² (*Glires*). By the Laws of the Censors, and principally by an Act of *M. Scavrus*, in his Consulship, it was provided that these should be kept away from Suppers in no other Manner than were Shell-fish, or Birds brought from foreign Countries. The Dormouse is a half-wild Creature; and he who first contrived to keep Boars in Parks, also fed these Animals in Tubs. In which Practice it hath been observed, that these little Creatures will not associate unless they were Inhabitants of the same Wood; and if there be mingled among them any Strangers, such as had some River or Mountain between the Places where they were bred, they kill one another with fighting.

¹ Livy tells us, Lib. xxviii. 23, that at Cumæ mice gnawed some gold in the temple of Jupiter; and again, Lib. xxx. 2, that at Antium some mice gnawed a golden crown. — *Wern. Club.*

² *Myoxus glis*. — Cuv. An animal as big as a rat, and not to be confounded with the little English creature of the same name: the *M. Avelanarius* of Cuvier. The Romans regarded dormice as a great delicacy, rearing them in enclosures, and lodging them in earthen jars of a peculiar form; and fattening them with worms and chestnuts. — B. xxxvi. c. 2. The writers on agriculture speak of the rearing of these creatures as they do of any other country work. — *Wern. Club.*

They feed with distinguished Piety their Parents, when they are feeble with Age. They renew their Age by sleeping all the Winter; for they lie close and snug all the while. But when the Summer is come, they grow young again. The Fieldmice (Nitelæ) likewise take similar Rest.

CHAPTER LVIII.

What Creatures are not to be found in certain Places.

It is wonderful that Nature hath not only assigned different Creatures to different Countries, but also in one Region hath denied some to certain Situations. In the Forest of Mœsia in Italy, these Dormice are found only in one Part. In Lycia, Roebucks¹ never pass the Mountains that border on the Syrians; nor do the wild Asses that Mountain which divideth Cappadocia from Cilicia. Within Hellespont the Stags never wander away into the Borders of other Countries; and those which are about Arginussa do not pass beyond the Mountain Elatus; which may be known by the Fact, that all upon that Mountain have their Ears divided. In the Island Poroselenium, the Weazels do not cross over the Highway. And about Lebadia in Bœotia, those Moles which are brought thither from other Parts fly from the very Soil; although near by, in Orchomenus, they undermine all the Corn-fields; and I have seen all the Bed-clothing made of their Skins. In this Manner, even Religion will not prevent our seeking Pleasures out of the Portents themselves. The strange Hares that are brought to Ithaca are found dead about the very Banks of the Sea. In the Island Ebusus there are no Rabbits; but in Spain and in the Balearic Islands they abound. Frogs were mute in Cyrenæ; but those which were brought thither from the Continent

¹ *Antelope dorcas*.—PALLAS. The Gazelle.—This animal is generally supposed to be the Dorcas of the ancients; but there are those who would rather identify it with either the *Antelope Arabica*, Hemp. et Ehren.; or the *Antelope subgutturosa*, Guldenst. — *Wern. Club*.

were vocal; and this kind still continueth there. Even now in the Island Seriphos they are silent; but if the same are carried to other Places, they sing. And they say that the like happeneth in a Lake of Thessaly named Sicendus. In Italy the Bite of the Shrew-mouse¹ (*Mus araneus*) is venomous; but beyond the Apennines there are no more such to be found. In whatever Country they are, if they cross over the Track of a Cart-wheel, they die. In Olympus, a Mountain of Macedonia, there are no Wolves; nor in the Island of Crete. And there also are no Foxes nor Bears; and in one Word, no hurtful Creature, except the Phalangium,² a kind of Spider, of which we will speak more in its proper Place. It is more surprising that in the same Island there are no Deer, except only in the Region of the Cydoniates: no wild Boars likewise, nor the Attagen, or Hedgehogs. To conclude, in Africa there are no wild Boars, no Stags, no Roes, nor Bears.

CHAPTER LIX.

What Creatures are hurtful to Strangers.

SOME Creatures there are which do no Harm to the Natives of the Country, but kill all Strangers: such as some small Serpents in Tirthè, which are supposed to be produced out of the Earth. So, in Syria, there are Snakes, especially along the Banks of the Euphrates, that do not touch the Syrians while lying asleep; and even if a Native treads upon them and receives a Bite, he does not receive any Hurt; but to the People of any other Nation they are

¹ *Sorex araneus*.—LINN. The Shrew.—Among the ancients the Shrew-mouse had a very bad reputation. Thus Aristotle declares that its bite is dangerous to horses and other beasts of burden; and that it is more dangerous if the Shrew-mouse be with young. The bite, he says, causes boils, and these burst, if the Shrew-mouse be pregnant when she inflicts the wound; but if she be not, they do not burst.—“Hist. Anim.” Lib. viii. 24.—*Wern. Club.*

² Lib. xi. 24; and Lib. xxix. 4.

very dangerous: so that they will eagerly assail and kill them with extreme Pain. And therefore it is that the Syrians do not destroy them. On the other Hand, *Aristotle* reporteth,¹ that in Latmos, a Mountain of Caria, the Scorpions will do no Harm to Strangers, but they will sting to Death the Inhabitants of the Country.

Now let us proceed to speak of the Kinds of other living Creatures, besides those of the Land.

¹ "Hist. Anim." Lib. viii. 39.—*Wern. Club.*



IN THE NINTH BOOK

ARE CONTAINED THE

HISTORY AND NATURE OF CREATURES OF THE WATER.

CHAP.

1. The Nature of Creatures of the Water.
2. The Reason why Creatures of the Sea are of all others the biggest.
3. The monstrous Beasts of the Indian Sea.
4. The greatest Fishes in every Part of the Ocean.
5. Of Tritons, Nereids, and Sea-Elephants: their Forms.
6. Of Whales (called Balænæ) and Orcaæ.
7. Whether Fishes breathe or sleep.
8. Of Dolphins and their wonderful Properties.
9. Of the Tursions.
10. Of Tortoises, and how they are taken.
11. Who first devised to separate the Tortoise-shells into Leaves.
12. The Coverings of Sea Animals: the Division of them into their several Kinds.
13. Of the Seal.
14. Of Fishes without Hair: how they breed: and how many Sorts there are.
15. The Names and Natures of many Fishes.
16. Augury by Fishes, and their Variety.
17. Of the Mullet and other Fishes. That the same Fishes are not in request in all Places.

CHAP.

18. Of the Barbel, the Coracinus: of Stockfish and Salmon.
19. Of the Exocetus, Calamaries, the Muræna.
20. The Division of Fishes by the Shape of their Bodies.
21. Of Eels.
22. The Manner of taking them in the Lake Benacus.
23. The Nature of the Muræna.
24. Of flat Fishes.
25. Of the Echeneis, and its wonderful Nature.
26. The Variety of Fishes.
27. Of the Fish called the Lantern, and the Sea Dragon.
28. Of Fishes wanting Blood.
29. Of the Loligo, the Sepia, the Calamary, and Nautilus.
30. The Fish Ozæna, and Nauplius: also of the Lobster kind.
31. Of Crabs, Echini: and of the greater Sort named Echinometræ.
32. Of wreathed Shells.
33. Of Scallops, Murex, and other such.
34. The Treasures of the Sea.
35. Of Pearls, how they are produced, and where: also how they are found.
36. Of the purple Shell-fish and the Murices.
37. How many Kinds there are of purple Shell-fishes.

CHAP.	CHAP.
38. How the purple Shell - fishes are taken.	48. Of venomous Fishes.
39. When Purple was first worn in Rome.	49. The Diseases incident to Fishes.
40. The Price of purple Cloth at Rome.	50. The surprising Generation of Fishes.
41. The dyeing of the Amethyst Colour, of the Scarlet in Grain, and the light Scarlet Hysginus.	51. Another Discourse of their Generation : and what Fishes lay Eggs.
42. Of the Pinna and Pinneres : also the Intelligence of Creatures of the Water.	52. The Wombs of Fishes.
43. Of Scolopendres, Sea Foxes, and the Fishes Glani.	53. What Fishes live longest.
44. Of the Fish called the Sea Ram.	54. Of Oyster Pits, and who first devised them.
45. Of those Things which have a third Nature, being neither living Creatures, nor yet Plants; of Sea Nettles and Sponges.	55. Who first invented Ponds to feed the Muræna in.
46. Of Hound-fishes.	56. The Ponds for other Shell-fishes, and who first used them.
47. Of such as have stony Shells : of those that have no Sense : of other sordid Creatures.	57. Of Fishes that haunt the Land.
	58. The Rats of the Nile.
	59. Of the Fish called Anthias, and how it is taken.
	60. Of Sea Stars.
	61. Of the Fishes Dactyli, and their admirable Properties.
	62. What Fishes entertain Amity one with another, and which are ever at War.

In sum, this Book containeth Histories and Observations to the Number of 650, collected

OUT OF LATIN AUTHORS :

Turanius Gracula, Trogus, Mecænas, Alfus Flavius, Cornelius Nepos, Laberius the Writer of merry Epigrams, Fubianus, Fenestella, Mutianus, Ælius Stilo, Statius Sebosus, Melissus, Seneca, Cicero, Macer, Æmylius, Messala Corvinus, Trebius Niger, and Nigidius.

OUT OF FOREIGN WRITERS :

Aristotle, King Archelaus, Callimachus, Democritus, Theophrastus, Thrasyllus, Hegesidemus of Cythnos, and Alexander Polyhistor.



THE NINTH BOOK
OF THE
HISTORY OF NATURE.

BY
C. PLINIUS SECUNDUS.

CHAPTER I.

Of the Nature of the Inhabitants of the Water.

WE have pointed out the Nature of those Animals which are called Terrestrial, and which have some Society with Men. And considering that among the others they that fly are the least, we will first treat of the Inhabitants of the Sea; and of those also that live in Rivers or Ponds.

CHAPTER II.

Why the Sea should breed the greatest living Creatures.

THE Waters bring forth greater Abundance of living Creatures, and these also of larger size, than the Land. The Cause is evident, in the excessive Abundance of Moisture. For the Birds, which live suspended in the Air, their Case is otherwise. But in the Sea, which is so widely spread abroad, so soft and proper to yield Nourishment and increase, and receiveth the Causes of Propagation from

on high, Nature is always framing some new Creatures, many of which are found to be monstrous Things. For the Seeds and universal Elements are so interlaced and mingled one with another, partly by the blowing (of the Winds), and at other Times by the Agitation (of the Waves), that it may truly be said, according to the vulgar Opinion, that whatever is bred in any Part of Nature is to be found also in the Sea; and many more Things besides, which nowhere else are to be seen. For there truly not only exist the Forms of Land Animals, but also of many other Things; and there may one see also what appear like Bunches of Grapes, Swords, and Saws; yea, and also Cucumbers, which for Colour, Smell, and Taste, resemble those that grow on the Land. And therefore we need the less to wonder, if in such little Snails there are some Things standing out like the Heads of Horses.

CHAPTER III.

Of Beasts in the Indian Sea.

THE Indian Sea breedeth the most and biggest Animals; among which Whales (*Balænæ*)¹ are as large as four Acres of Land; and *Pristes* two hundred Cubits: and no Wonder, for

¹ To avoid a confusion of references, the species of whales mentioned by Pliny are here arranged at one view; and, so far as the subject admits, identified with those recognised by modern naturalists.

The term "*Balænæ*" appears, in its widest extension, to have been a general name for the whole tribe; in which also were comprised some inhabitants of the ocean, of large size, which had nothing in common with the proper whales but their magnitude. The *Pristis*, perhaps the Basking Shark (*Selachus maximus*, Cuv.), and some other species, and certainly the Tunny, when, as sometimes happens, it has attained enormous growth, were anciently arranged among cetaceous fishes. But besides this, the word "*Balæna*," or "*Phalæna*," was the proper name of the animal known as the *Balænoptera musculus*, or the Rorqual of Cuvier; which they did not distinguish from *B. Boops*.

The creatures referred to at the end of Ch. 3, and compared to horses, asses, and bulls, were probably Dugongs, or Sea-cows; the *Manatus* and *Halichorè* of Cuvier, and comprised in the genus *Trichecus* of Linneus. *Physeter*, a modern as well as ancient genus of whales, is still known on

Locusts are there to be found of full four Cubits : and Eels in the River Ganges of thirty Feet. But these Beasts in the Sea are chiefly to be seen about the Solstice. For then by the Whirlwinds, Rains, and Tempests, which rush with Violence down from the rugged Mountains, the Seas are turned up from the very Bottom ; and thus the Billows roll and raise these Beasts out of the deep Parts of the Ocean. For in that Manner so great a Multitude of Tunnies were on one occasion driven up, that the Fleet of *Alexander* the Great was able to make head against them in no other Manner than by advancing as if to contend with an Host of Enemies ; for otherwise if they had sailed singly and asunder, there had been no Way to escape. By no Voice, no Noise, no Blows, but by the Crash only were they terrified ; nor are they disturbed but by Destruction.

In the Red Sea there is a great Peninsula named Cadara, projecting so far as to form an extensive Bay, which it took King *Ptolemæus* twelve Days and Nights to row through ; for there was not any Wind to help him. Through the Stillness of this Place, the Beasts grow to such bigness, that their Weight renders them not able to stir. The Commanders of the Fleets of *Alexander* the Great reported, that the Gedrosi, a People dwelling on the River Arbis,

the west coasts of Britain, by the corresponding term "Blower." The enormous creature cast on shore at Gades, as mentioned at the end of Chap. 5, must have been of this genus ; and as the number of teeth assigned to it was probably counted collectively, after the jaws were denuded of flesh, when some also are seen in the upper jaw, it may be supposed probable that it was *Ph. macrocephalus*.

The other species mentioned by Pliny belong to the genus *Delphinus* :—

D. Orca. The Grampus. — It is also the Aries or Ram of Pliny ; from a white crescent over the eye, marked on the skin, fancifully supposed to resemble a ram's horn.

D. Delphis. The real Dolphin.

D. Tursio.

The *Platanista* of Pliny is the *D. gangeticus*, Cuv.

The *Porcus marinus*, c. 15, is probably the *D. Phocæna*, or common Porpus.

Whale oil is mentioned, B. xxxii. c. 1.

The *Pristis* is probably the *P. antiquorum*, or Sawfish. — *Wern. Club.*

used to make the Jaws of such Beasts the Doors of their Houses; that they form the Rafters of their Roofs with the Bones; and that many of them were found to be forty Cubits long.

In those Parts the Beasts go forth to the Land like a Flock of Cattle, and feed upon the Roots of Plants, and then return. There are others also which have Heads like Horses, Asses, and Bulls; and these eat the standing Corn.

CHAPTER IV.

Which are the greatest Creatures in any Ocean.

THE largest Creature in the Indian Sea is the Pristis and Balæna (Whale). In the Ocean of Gaul the largest is the Physter, which lifteth itself up in the Manner of an immense Pillar, higher than the Sails of Ships; and spouteth forth almost a Flood. In the Ocean of Gades there is a Tree¹ spreading abroad with mighty Arms, to such an extent that it is believed to be the Cause why that Arm of the Sea is never entered. There are to be seen also what from their Shape are called Wheels, distinguished by four Rays; with their two Eyes closing over the Naves on each Side.

CHAPTER V.

Of the Forms of Tritons, Nereids, and Sea-Elephants.²

WHEN *Tiberius* was Sovereign, an Embassy of the Inha-

¹ This and the wheel may be referred to some large species of coral, and asterias, or sea-star; which report had magnified enormously. But the former is thought by Dr. Hamilton to be the Kraken of Pontopidan: perhaps a species of Medusa, or Cuttle-fish, of which a wonderful figure is given by Denys Montford, where one of these creatures is seen capturing a Chinese junk.—*Wern. Club.*

² Of the existence of these beings, as they are represented by the poets, the people of that day had as little doubt as of the god whose attendants they were supposed to be. The stories told in this chapter were probably due to some deception practised on the credulity or fear of the neighbourhood by some skilful swimmers. That some species of Seal

bitants of Ulyssipon¹ was sent to inform him, that there was seen and heard within a certain Cave a Triton, sounding a Shell; and that he was known by his Form. And it is not false that there is such a Creature as a Nereid; only their Body is rough with Scales, even in those Parts where they possess the human Form. For such a Female Being was beheld on the same Shore; and the neighbouring Inhabitants heard its Moaning from a Distance when it was dying. Also, a Governor of Gaul, under *Divus Augustus*, wrote, that many of these Nereids were seen dead upon the Shore. I possess Authors, illustrious in the Equestrian Order, who testify that in the Ocean near Gades they saw a Sea-man, in the whole Body perfectly resembling a Man: that in the Night Season he would come aboard their Boats; and on whatever Part he sat, he weighed it down; so that if he continued there any long Time he would even sink it. When *Tiberius* was Sovereign, in an Island opposite the Coast of the Province of Lugdunensis, the Sea, when it ebbed, left upon the Sands, at one Time, above three hundred Beasts, of a wonderful Variety and Bigness. And there were no fewer found upon the Coast of the Santones. And among the Rest there were Elephants and Rams, with Horns like those (of the Land), except that they were white: and many Nereids also. *Turanius* hath reported, that a Beast was cast upon the Shore at Gades, of which the Breadth of the two Fins forming the Ends of the Tail was sixteen Cubits; it had 120 Teeth, of which the biggest were nine Inches in Measure, and the least half a Foot. *M. Scaurus*, among other wonderful Things in his *Ædile-*

(Phoca) has been seen, so closely resembling the human figure as to obtain the name of Merman, has, even in modern times, been confidently asserted. But the evidence has failed in proportion to the progress of inquiry; and the opinion of naturalists of the present age appears to be, that the casual and hasty appearance of the young of the Walrus, before it has obtained its tusks, has been the cause of this mistaken idea. The same creature, in its adult growth, was, beyond doubt, the sea-elephant of the ancients. — *Wern. Club.*

¹ The modern Lisbon. — *Wern. Club.*

ship, showed the Bones of that Beast to which *Andromeda*¹ is said to have been exposed; and which were brought to Rome from Joppè, a Town in Judæa: in Length they were forty Feet, and in Height they exceeded the Ribs of the Indian Elephant; the Bone of the Spine was a Foot-and-half thick.

CHAPTER VI.

Of Balænæ and Orçæ.

BALÆNÆ come even into our Seas also. They say that in the Ocean about Gades, they are not seen before Mid-winter; for at their set Times they lie close in a certain calm and large Bay, where they wonderfully delight to show themselves. The Orçæ know this; they are a Beast that are a deadly Enemy to the others; and their Likeness cannot be represented by any other Figure than that of a mighty Lump of Flesh, armed with terrible Teeth. These break into those secret Retreats, and bite and tear the young Calves, or those newly born, with the old ones that are great with Young; they also pierce into them, like Ships of War attacking with their Prows. The Balænæ (Whales) that cannot turn aside, and are helpless to resist, being unwieldy by reason of their own Weight, being then heavy with Young, or weak with the Pains of Parturition, know no other Means of Safety but to escape into the Deep, and so defend themselves by the Aid of the whole Ocean. On the other Side, the Orçæ endeavour to lie between them and the Way of Escape, and kill them among the Straits and ragged Rocks, to drive them upon the Shallows, or force them upon the Stones. When these Combats are seen, the

¹ See B. v. c. 13, vol. ii. p. 67. When it became an object of political importance to occupy and amuse the public attention by subjects alien to the affairs of government, every thing which could minister to the curiosity of the people was sought for in the wide range of the Roman empire, and brought to the city; where the credulity of the populace was equal to its ignorance. The supposed relics of this monster may have been the fossil bones of some gigantic animal: or perhaps nothing more than the bones of a whale. — *Wern. Club.*

Sea appeareth as if it were angry with itself; for although there are no Winds in the Bay, yet the Waves are so great from their panting, and the Blows, as no Whirlwinds are able to raise. In the Harbour of Ostia, also, one of these Oræ was seen, and was assailed by *Claudius* the Prince. It had come when he was making the Harbour, enticed by the Shipwreck of Beasts' Hides that were brought from Gaul, on which for several Days the Creature had been glutting itself; and so it had made a Channel in the Bottom of the Shallows, which was so narrowed in by the Action of the Waves, that it became too narrow for the Creature to turn round; but while it still goeth after this Gluttony, being thrown by the Billows upon the Shore, its back appeared high above the Water, like the Bottom of a Ship turned upside down. *Cæsar* commanded Nets and Cords with many Folds to be spread along the Mouth of the Harbour, and himself, accompanied with the Prætorian Cohorts, exhibited it for a Show to the People of Rome; the Soldiers being brought together, darted their Spears from the Ships, one of which I myself saw sunk, as it became filled with the Waves that this Beast spouted up. Balænae have Openings in their Forehead; and so as they swim on the Surface of the Water, they blow up aloft Showers of Rain.

CHAPTER VII.

Whether or no Fish breathe or sleep.

ALL Writers allow that a very few other Fishes in the Sea, which among other inward Bowels have a Lung, breathe; for without the latter Organ no Animal is thought to draw breath. And they who are of this Opinion suppose, likewise, that no Fishes having Gills draw in and return their Breath by turns; nor many other Kinds besides, although they are without Gills: of which Opinion, I see, was *Aristotle*; and he supported the Doctrine by many profound Researches. But I must not conceal that I do not entirely agree with this Opinion; for, if Nature be so disposed, other internal Organs are able to carry on the Function of Breathing in

the Place of Lungs, just as in many Creatures another Kind of Humour is in the Place of Blood. And who would wonder that this vital Breath should penetrate within the Waters, considering that he seeth how it is returned from them; and that it penetrateth even into the Earth, which is the grossest Part of Nature, we perceive by the Example of the Creatures, as the Moles, which live, although always buried in the Ground. I have effectual Reasons to lead me to believe, that all Things in the Waters breathe, each one after its Nature. First, I have often observed in Fishes an evident Action of breathing in the Heat of Summer; and also that they gape when the Weather is calm; and they also who believe the contrary, confess that Fishes sleep.¹ For what Place is there for Sleep without Breathing? Moreover, whence those Bubbles which are breathed from under Water? and the increase of the Bodies of Shell-fishes by the Influence the Moon? But above all, Fishes possess the power of Hearing and Smelling,² and no doubt both these Senses are from the Matter of Air: for it can be understood that Smell is nothing but the Air infected. However, let every one think as he pleases on these Points. Neither Whales, called *Balænae*, nor Dolphins, have any Gills. Both these Kinds breathe through Passages which reach down to the Lungs: from the Forehead in the *Balæns*, and in the Dolphins, from the Back. Also the Sea-calves, which they call *Phocæ*, breathe and sleep on the Land. So do Tortoises, of which more by and by.

CHAPTER VIII.

Of Dolphins.

THE swiftest of all living Creatures, not of the Sea only, is the Dolphin; more rapid than a Bird, swifter than an Arrow; and but that its Mouth is far beneath its Snout, (being almost in the middle of its Belly), not a Fish could escape from its rapid Pursuit. But Nature in its Providence

¹ See B. x. c. 75.² B. x. c. 70.

hath afforded an Hinderance ; for unless they turn upright upon their Back, they cannot lay hold ; from whence chiefly appeareth their Swiftnes. For when the Dolphins are urged by Hunger to pursue a Fish that flies before them down to the very Bottom, and hold their Breath for a long Time, to take Breath again they dart aloft as if they were shot out of a Bow ; and with such Force do they spring up, that many Times they pass over the Sails of Ships. They act almost as if they were united in Marriage. They produce their young ones in the tenth Month, in the Summer-time ; and sometimes they have two at once. They suckle them at their Teats, as the (Whales) Balæns do ; and so long as their little ones are feeble from Youth, they carry them about ; so that even when they are become of full size they bear them Company through their great Affection to their Young. Young Dolphins come very speedily to their Growth ; for in ten Years they are thought to have come to their full Bigness ; but they live thirty Years, as hath been known by the Trial of cutting a Mark in their Tail. They lie close for the Space of thirty Days, about the Rising of the Dog-star ; concealing themselves in some unknown Manner, which is the more wonderful if they cannot breathe under Water. They are accustomed to spring forth to the Land from some uncertain Cause ; and as soon as they touch the dry Ground they die : and so much the sooner because their Pipe is closed. Their Tongue is movable, contrary to the Nature of other Creatures living in the Waters ; it is also short and broad, not much unlike that of a Swine. Their Voice resembleth the Moaning of a Man ; they are Saddle-backed, and the Snout is flat. And this is the Cause that all of them, in a wonderful Manner, acknowledge the Name *Simo*, and like to be so called. The Dolphin is not only a friendly Creature to Man, but also to the Art of Music : it is delighted with Harmony in Song, but especially with the Sound of the Water Instrument. Of Man it is not afraid as of a Stranger ; but meeteth their Ships, playeth as if in Joy, enters into Competition, and out-goeth them, although they carry full Sails.

When *Divus Augustus* was Sovereign, a Dolphin in the Lake Lucrinus loved with wonderful Affection a Boy who was the Son of a poor Man ; and who, using to go every Day to a Grammar-School from Baianum to Puteoli, was accustomed about Noon to loiter and call the Dolphin by the Name of *Simo* ; and many Times he would give him Fragments of Bread, which for that Purpose he brought with him. I should be reluctant to relate this, but that *Mecænas*, *Fabianus*, *Flavius Alfius*, and many others, have committed the Matter to Record. At whatever Time of the Day this Boy called him, however hidden and concealed, he would hasten from his Retreat ; and being fed from his Hand, he gently offered him his Back to mount upon, lowering down the Spines of his Fins, as into a Sheath. And when on his Back he carried him over the broad Sea as far as Puteoli to School ; in the same Manner conveying him back again for many Years. But when the Boy fell sick and died, the Dolphin frequented at Intervals the accustomed Place, as one that was sadly distressed ; at last (in a Manner that no one could doubt) he also died from Regret.¹

¹ The works of ancient naturalists abound in stories concerning the Dolphin and its friendliness to the human race ; and from circumstances which the Editor has been made acquainted with, it would appear that on some occasions slight signs of recognition have been occasionally manifested between at least some species of cetaceous animals and voyagers. There is reason to believe, however, that these approaches to intimacy have been directed rather to the ship than the sailors, and that the creature has mistaken the vessel for one of its own kind. It must be allowed that nothing similar to the circumstances ascribed to this creature by Pliny, Ælian, and the Greek writers quoted by Aulus Gellius, has been seen in modern times ; but the multitude of witnesses, and the alleged publicity of some of these occurrences, may be regarded as warrants that something at least unusual had occurred at the time referred to. It may serve in eliciting the truth, if we compare the narratives of these ancient authors with one another, and with the well-known habits and appearance of the Dolphin (*Delphinus Delphis*). Ælian's account of a circumstance exceedingly similar to this of Pliny, is, with a slight abridgment, thus (B. vi. c. 15) :—"The celebrated instance of affection which a Dolphin at Jasos (in Caria) expressed for a beautiful boy must not be passed over in silence. The gymnasium of the people of Jasos overlooks the

Another Dolphin, not many Years since, upon the Coast of Africa, near to Hippo Diarrhytus, in like Manner would

sea; and after the races were over, it was the custom of the young men to go to the shore and bathe. On one occasion when they were indulging themselves in swimming, a dolphin was attracted with the most vehement love to one of these youths, who was remarkably beautiful. When first the creature approached him he was not a little afraid; but as the familiarity increased the young man became so conciliated, that he learned to regard him with kindness and friendship. They played together, and contended in swimming; and the boy would sit on his back, and be carried about as on a horse. The sight soon attracted the attention of the people of the place, and also of strangers. The dolphin continued to manifest his love for this young man, and would carry him out to sea, as far as was agreeable to his friend; and then he would return and deposit him on the shore. This dolphin was accustomed to make his appearance at the time when the young man was dismissed from the gymnasium; and their joy on meeting appeared to be mutual. This, however, at last, met with a fatal termination; for the boy, being tired with exercise, on one occasion threw himself, naked as he was, on the back of the dolphin, not observing the sharp spine on the back of the animal, as it stood erect; and thus he pierced himself at the navel with its point: a vein being wounded, by which he bled to death. The dolphin was not slow in discovering that his friend was seriously injured — partly by the difference of weight, for he did not sit on his back in the light and active manner he had been accustomed to, and partly by seeing the water stained with blood; he therefore resolved not to survive him whom he had so affectionately loved. He ran himself, with all his might, upon the shore, and both of them died together. A monument was raised by the people of the city to commemorate this love between the young man and the dolphin." And the author concludes by saying, that he had heard of other instances of similar affection: one of which had occurred at Puteoli, in Italy; and which, doubtless, was the same as is mentioned by Pliny.

Aulus Gellius adds to this an instance which he had derived from Apion, whom, as an author on the subject of wonders, we have mentioned before (Vol. i. p. 21), and who authenticates the story by affirming that he saw it himself: — "I saw," says he, "near Dicearchia (Puteoli), a dolphin that had great affection for a boy, and manifested this feeling at the sound of his voice. The fish would then swim near, and take the lad on his back; he would fold back the spines of his fins that he might not hurt him, and then would carry him to the distance of two hundred stadia, astride on his back. Rome, therefore, and all Italy, were poured out to see this affectionate fish." It is to be regretted that the works of Apion have perished; but the little that remains is sufficient to show that

take Meat from a Man's Hand, suffer himself to be handled, play with them that swam in the Sea, and carry on his Back

his authority must not carry great weight, even when he professes to have himself witnessed the occurrence. This Egyptian is also the authority for the story of Androclus and the Lion; which he also asserts to have occurred under his own notice. Yet, setting aside the negative evidence derived from the silence of Pliny, who, if he had believed it, would have found it an excellent illustration of his history of that beast, there is one portion of it which is altogether incredible: and the doubt arising from which must render suspicious whatever of a surprising nature the same author anywhere reports. He says, that with the gift of freedom, Androclus also was presented with the lion; which he led quietly about the city, with a slight string, collecting money at the taverns. To enhance the wonder, the beast is represented to have been of unusual size and ferocity; but however well disposed such an animal might be to recognize one from whom it had received an obligation, it is contrary to its nature for a fierce and hitherto untamed lion to have changed its character so far as to have been reconciled suddenly to the noisy crowd of a city, and to have been led, only by a slight string, crowned with flowers, without fearing or doing harm.

The narratives of the dolphin are equally contrary to nature, and that in several particulars, in which an intelligent observer could not be mistaken: whether that observer was Apion, whom A. Gellius characterizes as being "vitiò studioque ostentationis loquacior," and "sane quam prædicandis doctrinis suis venditator:" or Mæcenas himself. Of these errors one concerns the form of the animal, which is described as having the mouth beneath the head, and a dorsal fin armed with sharp-pointed spines, capable of voluntary motion: the latter, especially, not only unlike what belongs to the dolphin, but to anything that could have been mistaken for it. The mode of progress in the water of the real dolphin, is also known to be such as does not admit these stories to be applied to it. The dolphin rises to the surface for the purpose of breathing; and then is compelled to roll itself forward in a manner which does not admit of its continuing to pass along the surface, even to the extent of a few yards. But what thus appears inapplicable to the structure and habits of the real dolphin is not exceedingly foreign to another inhabitant of the ocean. The common Seal (*Phoca Vitulina*) has on some occasions manifested all the affectionate attachment to man which the ancients ascribed to the dolphin. A little instruction will secure this; and however it might have been concealed for interested purposes, there can be little doubt that the creatures of which these stories were related in ancient times, had been previously trained to the actions they displayed. — *Wern. Club.*

those who placed themselves on it. But being anointed with Unguent by *Flavianus* the Proconsul of Africa, the Creature (as it should seem) being rendered sleepy by this new Smell, and floating about as if had been half dead, avoided Intercourse with Man for several Months, as if it had been driven away by some Injury. But after a Time he returned to the same surprising Practice. But the Wrongs that some great Persons were the cause of, in their Entertainment, as they came to see this Sight, caused the Men of Hippo to kill the Dolphin.

Long before this the like is reported concerning a Boy in the City of Jassus, where a Dolphin was observed for a long Time to express Love to a Boy; but while he eagerly followed the Lad to the Shore as he was going away, he threw himself upon the Sand, and died. *Alexander* the Great appointed this Boy to be the Priest of *Neptune* at Babylon: interpreting the Love of this Dolphin as a Sign of the special Favour of that god to him.

Egesidemus writeth, that in the same City of Jassus there was another Boy named *Hermias*, who having used in the same Manner to ride upon a Dolphin over the Sea, was in a sudden Storm drowned in the Waves, and was brought back by the Dolphin; who, confessing that he was the Cause of his Death, did not return into the Sea, but died on the dry Land.

The like happened at Naupactum, by the Report of *Theophrastus*. But there is no End of such Examples; for the *Amphilochi* and *Tarentini* relate the same concerning Boys and Dolphins; which Instances induce us also to believe that *Arion*, who was a skilful Player on the Harp, when the Sailors were preparing to kill him, by throwing him into the Sea, and so intercept all his Gains, by conciliating them, obtained the Favour that he might first be permitted to sing to his Harp; and a number of Dolphins having flocked about him in consequence of his Music, when they threw him into the Sea, he was received by one of them, and carried to the Shore of *Tænarus*.

In the Province of *Narbonensis*, and in the Territory of *Næmausium*, there is a Pond called *Laterra*, where Men and

Dolphins fish in company: for at one certain Time a very great Abundance of Mulletts,¹ taking the Advantage of a Change of the Tide at the narrow Passages of the Pond, break forth into the Sea; and because of that Violence no Nets can be spread out against them by any Means strong enough to bear their huge Weight with that of the Stream of Water, if Skill were not employed at the proper Time. In like Manner the Mulletts immediately urge on to the Deep, which they do very soon, as the Channel is near; and they make all Haste to pass the only Place that is convenient for spreading the Nets. The Fishermen being aware of this, and all the neighbouring People (for a Multitude of People come thither, knowing when the fishing Time is come; and the rather as they are eager to see the pleasant Sport), shout as loud as they can from the Shore, and so call *Simo* to partake of the Sight. The Dolphins soon hear what they would have; and the better if the North Winds blow and carry the Sound: for a South Wind more slowly bears it in the opposite Direction. But before one would be aware of it, the Dolphins fly thither to assist in the Fishing. The Squadrons of those Dolphins quickly take their Station, and are presently arranged in the Place where the Battle is disposed, to oppose themselves, and keep them from the Deep; and so urge them, terrified as they are, into the Shallows. Then the Fishermen enclose them with Nets, which they prop up with forked Sticks; yet notwithstanding this, the Mulletts are so active that they will leap over them. But these are caught by the Dolphins, who, contenting themselves for the present to kill only, put off the Time of feeding until they have achieved the Victory. And now the Work of the Battle is hot, for the Dolphins are very eager, and take Pleasure to be enclosed within the Nets; but lest this should drive the Enemies to flight, they pass so gently between the Boats and Nets, or the Men there swimming, that it cannot be seen where they get out. And although at other

¹ See chapter xvii. The habits here ascribed to this fish, and the necessity of staking up the nets when it is enclosed in it, are well known at the present time.—See YARRELL'S *British Fishes*.—Wern. Club.

Times they take great Delight in leaping, yet none endeavour to get forth by that Means, except where the Nets lie under them ; but no sooner are they out, than a Contest begins before the Bulwark ; and so the Capture being accomplished, the Dolphins tear to Pieces those they have killed. But conscious to themselves that their Labour hath earned a richer Reward than what belongs to one Day, they conceal themselves until the next ; and are not contented with Fish only, but wait to receive Crumbs of Bread soaked in Wine. *Mutianus* maketh mention of some Things of a similar Kind of Fishing in the Bay of Jassus ; but they differ in this, that the Dolphins come of their own accord, without calling, take their Part of the Prize from the Fishermen's Hands ; and every Boat hath a Dolphin attending upon it as a Companion, although it is by Night, and with Torchlight.

Also Dolphins have a public Society among themselves ; for a King of Caria having taken a Dolphin, and kept him confined in the Harbour, a great Multitude of the others resorted thither, and by Signs of Mourning, evident to be understood, craved Mercy for the Prisoner : until the King had given Command to set him at Liberty. Also the little ones are always accompanied with some larger one, as a Keeper. And they have been seen to carry one of their Companions when he is dead, that he might not be torn by Beasts.

CHAPTER IX.

Of Tursiones.

The Creatures which are called Tursiones, are much like the Dolphins ; but they differ in having a more gloomy Aspect : for they are not so playful ; but especially in having Snouts like little Dogs when they snarl.

CHAPTER X.

Of Sea-Tortoises, and how they are taken.

THERE are Tortoises in the Indian Sea so great that the Natives cover the Cottages in which they dwell with the Shell

of a single one of them. And among the Islands, principally in the Red Sea, they use them for Boats.

Many Ways the Fishermen have to catch them; but especially as in the Mornings, when the Weather is still, they float on the open Sea with their Backs high above the calm Surface; and then the Pleasure of breathing freely so entirely deceives them into Forgetfulness, that their Crust becomes dried with the Sun's Heat, and they cannot dive, but are forced against their Wills to float, and so are exposed as a Prize to those that hunt them. Some say that they go out in the Night to feed; and with eating greedily, grow weary; so that in the Morning, when they are returning again, they fall asleep on the Surface of the Water; and then they utter such a Snoring as to be easily taken. But three Men must swim to every one of them: two of them to turn him upon his Back, and the third to throw a Cord about him as he lieth with his Belly upward; and then is he hauled by many to the Land. In the Phœnician Sea they are taken with very little Difficulty; for at a certain Time of the Year they resort of themselves, in great Multitudes, to the River Eleutherus.

The Tortoise hath no Teeth, but the Borders of his Snout are sharp; the upper part shutting close upon the under, like a Box. In the Sea they live on Shellfish, for their Mouths are so hard that they crush Stones. They go to Land, where, among the Herbage, they lay Eggs resembling the Eggs of Birds, to the number of a hundred. They hide them in the Ground at some Distance from the Water, cover them with Earth, beat it hard down and smooth it with their Breast, and by Night sit upon them: the Young are produced in the Course of a Year. Some suppose that the looking upon their Eggs with their Eyes serveth also to hatch them. The Female flieth from the Male until he places some Stick upon her as she turns away.

The Trogloditæ possess some that carry Horns, like the broad Horns fastened to the Lyre, but movable, with which in swimming they help themselves as with an Oar. And this Kind of Tortoise is called Celtium: of remarkable Big-

ness, but rare; for the exceeding sharp Rocks terrify the Chelonophagi. But the Trogloditæ, to whom these Tortoises swim, worship them as sacred.

There are also Land-Tortoises, which, on Account of the Works that are made of them, are called Chersinæ; they are found in the Deserts of Africa, and principally in that part which is gloomy from the dry Sands; and they are believed to live upon the moist Dew. And, in Truth, no other living Creature is found there.

CHAPTER XI.

Who first set on Foot the cleaving of Tortoise-Shells.

THE first Man that invented the cutting of the Shells of Tortoises into thin Plates, and with them to cover Beds, and Cupboards, was *Carbilus Pollio*,¹ who was very ingenious and inventive in the Instruments of Luxury.

CHAPTER XII.

The Arrangement of Water Animals into their several Kinds.

THE Coverings of Creatures that live in the Water are of many Sorts; for some are clothed with a Skin and Hair, as Seals and Hippopotami. Others have only a bare Skin,

¹ On this passage Mr. Bruce remarks, that the Romans seem to have been ignorant of the art, as practised by the Arabians and Egyptians, of separating the laminæ by fire placed inside the empty shell. Martial says, "Beds were inlaid with it;" and the immense use made of it by the Romans is shown by what Velleius Patereulus says,—“that when Alexandria was taken by Julius Cæsar, the warehouses were so full of it, that he proposed making it a principal ornament of his triumph.”—See B. xxxii. c. 4. The comparison which Pliny makes (c. 10) of the size of the shell of a tortoise to a cymba or boat, Ælian refers to a scapha, the origin of the English word “skiff”; and he represents it as capable of holding ten medimni, or sixty bushels: in another place (B. xii. c. 41) he compares it to a barrel that would hold twenty amphoræ, or one hundred and eighty gallons. Each shell (B. x. c. 17) is said to be fifteen cubits in size; which, not to exceed the bounds of probability, must be understood as square cubits. He says that the Land-Tortoises of India were fat and sweet, and those of the sea, bitter.—*Wern. Club.*

as the Dolphins; a Bark, as Tortoises; the Hardness of Flint, as Oysters and Cockles; Crusts, as Crayfishes (*Locustæ*); Crusts and Spines, as Sea-eggs (*Echini*); Scales, as Fishes; or a rough Skin, as the Skate (*Squatina*); which is used to polish Wood and Ivory. Some have a soft Skin, as *Murænæ*; others none, as the *Polypus*.

CHAPTER XIII.

Of the Sea-Calf.¹

THOSE which are clothed with Hair, as the *Pristis*, *Balæna*, and *Sea-Calf*, bring forth their Young alive. The latter calveth on dry Land, in the Manner of Cattle; and returneth *Secundines*. The Female adheres to the Male, in the Manner of Dogs: she never produceth more than two at a Birth; and she suckles her Young at her Paps. She doth not bring them to the Sea before the twelfth Day, and then she accustometh them to it frequently. It is difficult to kill them unless the Head is crushed. They utter a Lowing in their Sleep, from whence they are called *Calves*. Nevertheless they learn what is taught them; and they salute the People at the same Time with the Voice and Look; the Sound being a rude Murmuring. If called by their Name, they answer. No living Creature sleepeth more soundly than they. The Fins they use to swim with in the Sea serve them to creep along with instead of Feet when on Land. It is said that their Skins, after they are stripped from their Bodies, retain a Sensibility of the Seas; for as the Water ebbeth they become rugged. Moreover, their right Fins are thought to have a soporific Power, and to produce Sleep, if laid under one's Head.

¹ *Sea-Calf. Phoca Vitulina.*—LINN.—*Wern. Club.*

CHAPTER XIV.

Of Fishes¹ that are without Hair, how they breed; and how many Sorts of them.

OF the Creatures that want Hair, two only bring forth their Young alive: the Dolphin and the Viper. Of Fishes there are seventy-four Kinds; besides those that are covered with Crusts, of which there are thirty Sorts. Of every one in particular we will speak elsewhere: but now we are to treat of the Nature of the principal.

CHAPTER XV.

Of the Names and Natures of many Fishes.

THE Tunnies² are exceeding large Fishes: we have found some to have weighed fifteen Talents, and the breadth of the Tail to be two Cubits and a Span. In some Rivers, also, there are Fish scarcely of less size: as the Silurus³ in the Nile; the Esox⁴ in the Rhine; the Attilus⁵ in the Po; which groweth so

¹ The reader may consult a note in the Wernerian edition of Ray's "Wisdom of God in Creation," p. 9; where, however, there is only an approximation to the real number: to which should be added, that the fossil species of animals and vegetables, already classified, amounted, in 1846, to about 10,000.—*Wern. Club.*

² *Scomber thynnus.*—LINN. *Thynnus vulgaris.*—Cuv. See, concerning this fish, B. xxxii. c. 11. The Ancients were not at all particular in the discrimination of species; and, therefore, what were formerly supposed to be the different stages of growth of the Tunny, are now known as different species. In confirmation of the enormous size to which the Tunny sometimes attains, Ruysch records an instance of one taken near Cadiz that was thirty-two feet in length. The preparation of Tunny (Athenæus says, of the larger sort) is referred to by Martial (B. iii. Ep. 60) as high and rank food: "Teque juvant gerres, et pelle melandrya canã."—*Wern. Club.*

³ *Silurus glanis.*—Cuv. and LINN. Silurus and Glanis are sometimes regarded by the Ancients as synonymous, sometimes as distinct. The Shilbè is also a fish of the Nile, of the same family. The voracity of the Silurus Glanis gave rise to a proverb:—"Piscem pisci prædam esse, at Siluro omnes:" Every fish preys on some other one, but the Silurus on all.—*Wormius.*—*Wern. Club.*

⁴ *Esox lucius.*—LINN. Pike.—*Wern. Club.*

⁵ *Accipenseo huso.*—LINN. Erroneously supposed to be peculiar to the Po.—*Wern. Club.*

fat by its Sluggishness, as sometimes to reach the weight of a thousand Pounds; and being taken with a Hook fastened to a Chain, cannot be drawn out of the River but with Yokes of Oxen. And yet there is a very little Fish called *Clupea*,¹ that killeth him; for through a great Desire after a certain Vein within his Throat, he biteth it, and so despatcheth him.

The *Silurus* is a great Robber, and devoureth every Animal; often dragging under the Water the Horses as they swim; especially in the *Mœnus*,² a River of Germany, near Lisbous.

Also, in the Danube is taken the *Mario*,³ a Fish much like the Sea-Pig (Porpoise); and in the *Borysthenes*, mention is made of a Fish of large size, with no Bones or Spines interspersed, and the Flesh very sweet.

In the Ganges of India there are Fishes with a Snout and Tail like a Dolphin, fifteen Cubits long, and which they call *Platanistæ*. And *Statius Sebosus* reporteth as strange a Thing besides: that in the same River there are Worms or Serpents with double Gills,⁴ sixty Cubits long, of Colour blue, and from that Colour they take their Name (*Cyonœides*). He saith, moreover, that they are so strong, as when the Elephants come to drink, to catch hold with their Teeth by their Trunks, and drag them under Water.

The male Tunnies have no Fins under the Belly. In the

¹ Ray supposes this to be the Shad, *Clupea alosa*, LINN.; but it is not capable of the action here ascribed to it. — *Wern. Club*.

² A river of Germany. Daleschampus notes on this passage, that in Pliny's time no river in Germany was called *Mœnus*: it is a modern appellation, though now generally acknowledged. An alteration must, therefore, have been made in the text, and Rondeletius proposes to read, "in Rheno:" in the Rhine. — *Wern. Club*.

³ No fish has been found of this name; and it has been supposed that the word ought to be read "major:" that is, a greater fish than the last-named, and much like the *Porcus marinus*, a kind of Shark. — *Wern. Club*.

⁴ Daleschampus observes that Solinus quotes *Sebosus* in a different manner from Pliny: "that their colour is blue, from whence they take their name: their length six cubits, and they have two arms so strong that when elephants come to drink they seize them with their bite, and with their hand drag them under water." — *Wern. Club*.

Spring-time they enter into the Pontus from the great Sea, in Troops; for in no other Sea do they bring forth their Young. Their Young, which accompany their Dams back into the Sea in the Autumn, are called Cordylæ. Afterwards they begin to call them Pelamydes,¹ and *Limosæ*, from the Mud: and when they are above one Year old, they are called Tunnies. These Tunnies are cut into Portions; the Neck, Belly, and the Throat being commended for Meat: but only when they are fresh, and even then they will rise on a Man's Stomach. The other Parts being full of good Meat, are laid in Salt. They are called Melandrya, and when cut in Slices, are exceedingly like to Oak Boards. The worst Pieces of these are those nearest the Tail, because they are not fat: the best is that which is toward the Throat: but in other Fishes the Tail-piece (is in greatest request), as being the most exercised. Pelamides are divided into Parcels, which are named Apolecti; but when they are separated into Sorts, named Cybii.

All Kinds of Fishes grow with remarkable Rapidity to their full Size, and especially in the Pontus: the Reason is, because a number of Rivers bring fresh Water into it. There is one called *Amia*,² which groweth so fast, that a Man may perceive it from Day to Day. These Fishes, together with the Tunnies and the Pelamides, enter in great Schuls into the Pontus, for the sweeter Food they find there; each Company with its own Leader: and before them all, the Mackerels lead the Way; which, while they are in the Water, have a Colour of Brimstone; but out of it they are like the rest. The Mackerels³ fill the Fish-markets in Spain, when the Tunnies do not find their Way into their Seas. But into the Pontus there enter no Beasts that injure Fishes, unless it be Seals and little Dolphins. The Tunnies enter along the right Bank, and pass out by the left. And

¹ *Pelamys vulgaris*, CUVIER; who says, that Cordyla is the young state of the Pelamys; and Limosa only another name for it. A further account of these fishes of the Tunny kind, B. xxxii. c. 11. — *Wern. Club.*

² *Sarda vulgaris*. — CUV. — *Wern. Club.*

³ *Scomber scombrus*. — LINN. and CUV. — *Wern. Club.*

this is thought to happen because they see better with their right eye; and yet neither of them by Nature is dull. Within the Channel of the Thracian Bosphorus, by which the Propontis is joined to the Euxine, in the very Straits of the Firth that divideth Asia from Europe, near to Chalcedon on the Side of Asia, there is a Rock, exceedingly bright, and shining in such a manner from the Bottom of the Sea to the Top, that the Tunnies are instantly affrighted at the Sight; and to avoid it, they rush with Violence in whole Flocks towards the Cape overagainst Byzantium: which Cape on this Account beareth the Name of Auricornu (Golden Horn). And therefore it is, that all the Fishery is at Byzantium; and there is great Scarcity at Chalcedon, although the Breadth of the Passage between them is not more than half a Mile. They wait for the North Wind, that by the aid of the Waves they may pass out of the Pontus; but the only taking of them at Byzantium is when they enter into the Pontus. In Winter they do not wander; but wherever they are then found, there they remain for the Winter, and until the Spring Equinox. Many a Time they accompany the Ships that proceed under Sail, and it is a wonderful pleasant Sight to see them from the Stern, for Hours together, and for the Space of several Miles, and not terrified even though the Sailors strike at them with the Trident.¹ Some People make a Distinction between those that follow the Ships under Sail and Tunnies, and call them Pompili.² Many of them pass the Summer in the Propontis, and never enter into the Pontus. Solæ³ likewise do the same,

¹ Familiarly termed Grayns by sailors of our day; who still use the instrument, skilfully fitted with a line which causes it to become reversed when the blow is struck, by which means the struggles of the prey only cause it to become the more securely fixed. — *Wern. Club.*

² This has been mistaken for the Pilot-fish, *Naucrates Ductor*; but the true Pompilus is the *Centrolophus Pompilus*, CUV.—YARRELL'S *British Fishes*, vol. i. The Black-fish. — *Wern. Club.*

³ *Pleuronectes solea*. — LINN. *Solea vulgaris*. — CUV. Rhombus is the Turbot. *Pleuronectes Rhombus*. — LINN. *Rhombus maximus*. — CUV. — *Wern. Club.*

while Rhombi (Turbot) enter. Neither is the Sepia¹ there, although the Loligo is found. Of such as live among Rocks, the Turdus and Merula² are wanting, as also Shell-fish; but Oysters (Ostreæ) are in Abundance: for all such Things pass the Winter in the Ægean Sea. Of them that enter into the Pontus, none stay there except the Trichiæ:³ for I think it good, in such Diversity of Fishes' Names, because the same Fish is in many Countries called by different Denominations, to use the Greek Name for most of them. These Fish alone go up the River Ister; and out of it they pass again by Communications under the Ground into the Adriatic Sea, and therefore they are seen coming down thither, but never ascending out of that Sea. The Fishery for Tunnies is from the Rising of the (Stars) Vergiliæ,⁴ to the Setting of Arcturus. All the Winter-time besides they lie hid in the Gulfs at the Bottom, unless they are enticed forth by some warm Season, or at the full Moon. They grow so fat, that their Skins burst. The longest of their Life does not exceed two Years. There is a little Creature in Shape like a Scorpion, and as big as a Spider, which will pierce with its sharp Sting under the Fin of the Tunny, and also of the Sword-fish (Gladius),⁵ (which many Times exceeds the Size of the Dolphin), and put them to such Pain, that they often are driven to spring into the Ships. Which they do also at other Times, for fear of the Violence of other Fishes; and most of all, the Mulletts⁶ do so with such exceeding

¹ Sepia.—Wern. Club.

² The various species of Wrass: the Labri of modern naturalists, who have applied the first of these names to designate a genus of birds: both the birds and fishes being characterised by spots on their scales or plumage.—Wern. Club.

³ A species of Clupea.—Wern. Club.

⁴ In the beginning of May.—Wern. Club.

⁵ *Xiphias Gladius*.—LINN.—Wern. Club.

⁶ Two kinds of fishes are termed Mulletts in England: the Grey Mullet (*Mugil*), and the Surmullet (*Mullus*). The former is the fish here meant; but although the Mugil is much in the habit of throwing itself out of water, to escape from an obstruction, they rarely do it through fear of other fishes; and few fishes are less liable to the attacks of parasites.—Wern. Club.

Swiftness, that they will fling themselves sometimes over the Ships from one Side to the other.

CHAPTER XVI.

Of Presages by Fishes, and of their Diversity.

THERE are also in this Portion of Nature, Auguries: there is Prescience even among Fishes. During the Sicilian War, as *Augustus* walked along the Shore, a Fish leapt out of the Sea and fell at his Feet; the Prophet (*Vates*) concluding from this Circumstance, that although *Sextus Pompeius* was at that Time the adopted of Father *Neptune* (so great was his naval Glory), yet those who had to this Time held the Power of the Sea were about to fall below the Feet of *Cæsar*.

Female Fishes are larger than the Males. And there are some Sorts of them of which there are altogether no Males; as the *Erythini*,¹ and the *Chani*: for they are taken always heavy with Spawn.

Scaly Fishes for the most part swim in Schûls, each according to its Kind. The Fishing is before the Sun is up; for then Fishes are most liable to be deceived in their Sight. If the Nights are bright, they see as well then as by Day. They affirm it is good fishing twice in the same Gulf; for so more are caught in the second Cast than by the first. Fishes greatly delight in the Taste of Oil; and next to this, in gentle Showers; and with these they become fat. For Reeds,

¹ *Erythini*: more properly, *Erythrini*. *Chani*. Cuvier supposes the former to be probably the *Serranus scriba*: the latter certainly is *Serranus cabrilla*. The following quotation from the second edition of Mr. Yarrell's "History of British Fishes" (vol. i. p. 13) will illustrate the question, hitherto generally received in the affirmative, of the hermaphroditism of these fishes:—"Since the publication of the first edition of this work, Mr. Couch has been kind enough to send me the roes of two specimens of this *Serranus* (*Cabrilla*). These, on examination, contained true ova only; and Mr. Owen, of the College of Surgeons, whose microscope was used on this occasion, agreed with me, that although these organs were of small size, there was nothing equivocal either in the structure or appearance."—*Wern. Club*.

also, although naturally belonging to marshy Grounds, yet do not attain their perfect Growth without Rain; and so wherever Fish are kept continually in the same Water, unless Rain fall, they will die. All Fishes feel the Cold of a sharp Winter; but those especially which are thought to have a Stone in their Head; as the *Lupus*,¹ the *Chromis*,² *Scienæ*,³ and *Pagri*.⁴ When there have been sharp Winters, many are taken blind. And, therefore, during those Months they lie hid in Caverns, as we have said some Land Creatures do. For the most Part the *Hippurus*⁵ and *Coracinus*⁶ are never caught in Winter; except a few on particular Days: and always of the same Sort. Also the *Muræna*, the *Orphus*,⁷ *Conger*,⁸ *Perca*,⁹ and all Fishes that keep near Rocks. It is said that the *Torpedo*,¹⁰ *Psitta*,¹¹ and *Solea*,¹² conceal

¹ *Labrax lupus*.—Cuv. The Bass. See B. xxxii. c. 2.—*Wern. Club*.

² Cuvier says it is an unascertained fish with a Greek name; but, on the contrary, Ray ("Synopsis," p. 141) says that it is common in the Mediterranean Sea.—*Wern. Club*.

³ *Sciena umbra*.—Cuv.—*Wern. Club*.

⁴ *Sparus pagrus*.—Linn. *Pagrus vulgaris*.—Cuv. The Becker.—*Wern. Club*.

⁵ *Coryphæna hippurus*.—Linn. But it is probable that the *Hippuris* of Oppian is our Stone Bass, *Polyprimum cernium*.—Cuv.—*Wern. Club*.

⁶ Cuvier says, it is his *Chromis vulgaris*, the *Sparus chromis* of Linn.—*Wern. Club*.

⁷ This name has been referred to several very different fishes; and especially to the *Rudd*, *Cyprinus Erythrophthalmus* of Linn., *Leuciscus E.* of Cuvier.

But the ancient authors represent it as a sea-fish; though even then their accounts apply to a variety of species. The true *Orphus veterum* of Rondeletius is not the *Pagrus Orfus* of Cuvier; and the only representation to which reference can be made occurs in a paper on the subject by the Editor of this work in the first volume of the "Zoologist," p. 81. The great rarity of this fish appears to have led to the errors of naturalists concerning it.—*Wern. Club*.

⁸ *Muræna Conger*.—Linn. *Conger vulgaris*.—Cuv.—*Wern. Club*.

⁹ *Perca marina* of Linn., and Ray, who says it is common at Venice.—*Wern. Club*.

¹⁰ See also B. xxxii. c. 1. *Raia Torpedo*, Linn.; which is now divided into two or three distinct species.—*Wern. Club*.

¹¹ Probably the Dab, *Platessa limanda*; but confounded with the Plaice and Flounder.—*Wern. Club*.

¹² *Solea vulgaris*.—Cuv. The Sole.—*Wern. Club*.

themselves through the Winter in the Ground ; that is to say, in Depressions which they make in the bottom of the Sea. Some again are impatient of Heat ; and therefore about the hot Season of the Year, for sixty Days, they lie hid : as the Glaucus,¹ Aselli,² and Auratæ.³ Of River Fishes, the Silurus at the rising of the Dog-star is blasted ; and at other Times is struck insensible by Lightning. And some think the like happeneth in the Sea to the Cyprinus.⁴ And beyond Doubt the Sea is affected by the rising of this Star ; but most of all this Influence appears in the Bosphorus. For then Sea-weeds and Fishes float on the Surface, and every Thing is cast up from the Bottom.

CHAPTER XVII.

Of the Mugil and other Fishes ; and that the same do not in all Places please.

THE Habit of the Mugil⁵ is ridiculous ; for when afraid, they will hide their Head, and then believe that they are entirely concealed. These Mugils nevertheless are so libidinous, that in the Season of Increase, in Phœnicè and the Province of Narbonensis (Languedoc), if they take a Male out of their Ponds, and draw a long Line through the Mouth and Gills, and so tie it fast, and then put him into the Sea, holding the other end of the Line, if they draw him back again, the Females follow him to the Shore. And again in Spawning Time, the Males thus follow a Female.

Among our Ancestors the Accipenser⁶ was esteemed the most noble of Fishes. He is the only Fish that hath the Scales turned toward the Head ; he makes his Way against

¹ *Lichia glaucus*. — CUV. — *Wern. Club.*

² The Haddock : *Gadus aeglefinus*. — LINN. *Morrhua* Æ. — CUV. — *Wern. Club.*

³ Gilt-head : *Sparus auratus*. — LINN. *Chrysophrys aurata*. — CUV. — *Wern. Club.*

⁴ Naturalists agree in applying this name to a class of river or pond fishes : the Bream and Carp. — *Wern. Club.*

⁵ The Grey Mullet : *Mugil cephalus*. — CUV. — *Wern. Club.*

⁶ The Sturgeon : *Accipenser sturio*. — LINN. — *Wern. Club.*

the Stream. Now he is in no Honour; which I wonder at, considering he is so seldom to be found. Some call him Elops. Afterwards, *Cornelius Nepos* and *Laberius* the comic Poet have written, that the *Lupus* and *Asellus* obtained the chief Credit. Of the *Lupus*, those that are the most commended are those which are called *Lanati*, from the Whiteness and Tenderness of their Flesh. Of *Aselli*, there are two Sorts: *Callariæ*,¹ which are the less; and *Bacchi*, which are never taken but in deep Water, and therefore they are preferred to the former. But the *Lupi* that are caught in the River are preferred to the others. The *Scarus*² hath now assigned to it the chief Place; and it is said to be the only Fish that cheweth the Cud, and to live on Herbs and not on other Fishes. It is chiefly found in the *Carpæthian Sea*; and of its own accord never passeth the *Promontory Lectos* in *Troas*. When *Tiberius Claudius* was Sovereign, *Optatus*, his Freedman and Admiral of the Fleet, brought them out of that Sea, and dispersed them between *Ostia* and the Coast of *Campania*. Care was taken by strict Command, for almost five Years, that if any were taken they should be returned into the Sea. After this they were frequently found along the Coast of *Italy*, whereas before they had not been taken. And thus *Gluttony* hath supplied its Taste by sowing Fish, and given a new Inhabitant to the Sea, to take away our Wonder that foreign Birds are prepared at *Rome*. Next to these Fishes, at least, the Table is served with a Kind of *Mustela*,³ which, wonderful to say, are bred in a Lake of

¹ It may be, that the name *Callarias* is synonymous with *Asellus*, and therefore the Haddock; but *Linneus* has given it to the Dorse: the *Bacchus* is believed to be the Cod-fish, *Gadus morrhua* of *Linneus*; *Morrhua vulgaris*, *Cuv.* *Baccata* is still the name for this fish in *Italy*.—*Wern. Club.*

² *Scarus creticus*.—*Cuv.* See B. xxxii. c. 2. It became the fashion to carry this fish alive to table, as the Surmullet also was, and for the same reason—that the guests might observe their changes of colour in the act of dying. Those of the Surmullet are never restored as they existed during life.—*Wern. Club.*

³ *Gadus lota*.—*LINN.* *Lota vulgaris*.—*Cuv.* The Eelpont.—*Wern. Club.*

Rhœtia among the Alps, called Brigantius; and yet they are equal to those of the Sea. Of the other Fishes the Mullus¹ is the best, as well in Excellency and Favour as in Plenty; but they are only of moderate Size, for it is uncommon to find them weigh above two Pounds: nor will they grow in Store-Ponds. They are bred only in the North Sea; and never in the nearest Coast of the West Ocean. Moreover, of this Fish there are several Sorts. And they live on Sea-weeds, Oysters, Mud, and the Flesh of other Fishes. They

¹ *Mullus surmuletus*, and *M. barbatus*.--LINN. Surmullet. Among the Romans this fish was indispensable at tables which made any pretensions to fashion; and at the same time it was the most costly of all their dishes: so that it is referred to by the poets as a glaring example of the extravagance that pervaded the city. When this first reached the weight of two pounds, the ordinary price was its own weight in silver. Horace mentions as enormous one which weighed three pounds; though this does not exceed what the Editor has seen on the coast of Cornwall. Two, which were caught nearly together, weighed two and two-and-a-quarter pounds avoirdupois: the latter being precisely the weight of Horace's fish of thirty-six ounces. Martial speaks of a Surmullet of four pounds; and Seneca relates a story of the avarice of Tiberius, who sent a mullet weighing four-and-a-half pounds to market, where, perhaps to flatter the emperor, two noblemen contended who should purchase it; by which it reached the price of 5000 sesterces. Juvenal, perhaps with exaggeration, speaks of one that weighed six pounds. Suetonius states, that for three of these fishes was paid at one time 30,000 sesterces; and Martial wrote an epigram on one who sold a servant to raise the means of making a sumptuous supper, at which the principal dish, and the one that swallowed up the chief expense, was the enormous Surmullet above-mentioned.—(B. x. Ep. 30.) Those who wished to ape the great, without sufficient means, were obliged to be satisfied with half a mullet. “Mulum dimidium, lapumque totum, murænæque latus”—(Martial): the “side” of muræna being on the same scale of stinted luxury. When an epicure was asked whether these prices were not absurd, he replied that two morsels of the fish were worth the expense: the head and the liver. The latter formed a delicious sauce; but the head must have been valued only because there was so little in it. Attempts were made to breed these fishes in ponds; but they could not bear the confinement; so that not only did they cease to grow in size, but not more than one or two in a thousand continued alive.

The fish mentioned at the beginning of the next chapter, as a mullet of the Red Sea, must have been of another species, and even genus.—*Wern. Club.*

are distinguished by two Beards on the lower Lip. The worst of all this kind is called Lutarius.¹ And this Fish hath another, named Sargus, which always beareth him Company; and while he is digging into the Mud, the Sargus devoureth the Food that is raised up. Neither are those which keep near the Shore in Favour. But these that are in highest Regard taste like the (Shell-fish) Conchylium. *Fenestella* thinks, that the Name Mullus was given them because their Colour resembles that of the purplish-red Shoes. They spawn three Times in the Year; for so often their Young are certainly seen. The principal Epicures say, that a Mullus, when dying, changeth his Colour, which may be seen to take a great Variety of Tints; passing from pale by a Variety of Mutations to glowing red all over his Scales, particularly if it be looked at as he is held in a Glass. *M. Apicius*, who was wonderful for every Ingenuity that belonged to Luxury, thought it a most excellent Improvement to stifle them in the Sauce of the Allies, for this Thing also hath found a Sur-name. And he also incited them to contrive a Pickle made from their Livers. For surely it is more easy to say this than to set down who excelled in it. *Asturius Celer*, a Man of consular Rank, showed his Prodigality in this Fish, for when *C. Caligula* was Sovereign, he gave for one Mullet eight thousand Sesterces: the Consideration of which carrieth far away my Mind to the Contemplation of those who, in their Reproof of Luxury, complained that a Cook was purchased at a greater Price than a Horse. For now a Cook will cost as much as the Expense of a Triumph; and Fishes are as dear as Cooks. And no mortal Man is esteemed more than he who hath the most Skill to waste the Goods and consume the Property of his Lord.

¹ Probably *Trigla lineata*: a fish which has much the habits of the Mullus, and is often taken in the same net; on which account, and some resemblance of form, it was called by the older naturalists, *Mullus imberbis*. — *Wern. Club*.

CHAPTER XVIII.

Of the Mullus, and Coracinus, Salpa, and Salmon.

LICINIUS MUTIANUS reporteth, that in the Red Sea a Mullet was taken that weighed fourscore Pounds. What a Price would he have brought in our Luxury if he had been taken upon our Coasts near the City! Also this is the Nature of Fish, that some obtain the Pre-eminency in one Place, and some in another: as the Coracinus in Egypt: at Gades, the Zeus,¹ which is also called Faber: about Ebusus the Salpa,² which in other Places is counted base, and which nowhere else are they able to cook unless it is first well beaten with a Cudgel. In Aquitania the River Salmon³ is preferred to all Sea-fishes.

Of Fish, some have many Gills: some have them simple, others double. At these Gills they discharge the Water they take in at the Mouth. Hardness of the Scales is a Mark that the Fish is old; and yet all Fishes have not Scales alike. There are two Lakes in Italy, at the Foot of the Alps, named Larius and Verbanus,⁴ in which there are Fishes that every Year at the rising of the Stars Virgiliae, have their Scales remarkable for the Thickness and the Sharpness of their Points; much like the Nails (or Tongues) of the military Boots; and never longer than about that Month do they appear.

¹ *Zeus faber.* — LINN. — *Wern. Club.*

² *Sparus salpa.* — LINN. *Boops salpa.* — CUV. — *Wern. Club.*

³ *Salmo salar.* — LINN. — *Wern. Club.*

⁴ Larius and Verbanus: now known as Lakes Major and Como. The fish mentioned is the *Cyprianus* of Rondeletius: *Cyprinus clavatus*, sive *Pigus*, of Ray's "Syn. Pis.," p. 115, a local variety of the common Carp: *Cyprinus carpio.* — *Wern. Club.*

CHAPTER XIX.

*Of the Exocætus.*¹

ARCADIA makes a Wonder of its Exocætus; so called because it leaveth the Water to sleep on dry Land. This Fish is reported about the Clitorius to have a Voice, and is without Gills. By some it is named Adonis. Also those Creatures which are called Mures Marini² and Polypes and Murænæ leave the Water for the Land. Moreover, in the Rivers of India there is a certain kind of Fish that doth so, but it presently leapeth back again. For there is an evident Reason why many Fishes pass into Rivers and Lakes; it is that they may with more Safety produce their Young where the Water is not so rough, and there are no Enemies to devour them. That these Creatures should have the Understanding thus to know the Causes, and observe the Changes of Times, is the more wonderful, if we would only consider how few Men there are aware that the best Season for fishing is while the Sun passeth through the Sign Pisces.

CHAPTER XX.

An Arrangement of Fishes according to the Shape of their Bodies.

OF Sea-Fishes some are flat, as Rhombi, Soleæ, and Passeres;³ and the latter differ from the Rhombi only in the Position of their Bodies. In the Rhombus the right Side turneth upward, and in the Passer the left. Others are long, as the Muræna and Conger. On this Account they have Distinctions formed by their Fins, which Nature hath given

¹ *Blennius cristatus*, LINN.: but the same habit is common to the *B. pholis*, or Shanny. — *Wern. Club.*

² *Mures marini*, or Sea-Mice; some copies read *Myri*. The Mus of Aristotle is a freshwater Turtle; and probably these *Mures marini* are some small sea Turtles. — *Wern. Club.*

³ *Platessa flesus*, CUV. *Pleuronectes F.* of Linn., but including also the Plaice. — *Wern. Club.*

to Fish instead of Feet. None have above four; some have two, some three, and others none. Only in the Lake Fucinus there is a Fish, which in swimming useth eight Fins. All Fishes that are long and slippery, as Eels and Congers, have ordinarily two. *Murænæ*¹ have none, nor any Gills: all of these Kinds act upon the Sea by bending their Bodies, as Serpents on the Land. They creep also on dry Land; and therefore such are more retentive of Life. Also among flat Fishes some have no Fins, as the *Pastinaca*;² for their Breadth serveth them sufficiently to swim with. And among those which are denominated Soft, the *Polypi* have no Fins, because their Feet stand them instead of Fins.

CHAPTER XXI.

*Of Eels.*³

EELS live eight Years. And if the North Wind blows, they continue without Water six Days; but not so long in a South Wind. Yet in Winter-time they cannot endure the same Exposure in a small Quantity of Water; nor if it be muddy; and therefore about the rising of the Star *Virgilix* they are most abundantly taken, because the Rivers about that Time are the most muddy. Their Feeding is by Night. Of all Fish they alone do not float when dead.

CHAPTER XXII.

Of taking them in the Lake Benacus.

THERE is a Lake in Italy called *Benacus*, in the Territory of *Verona*, through which the River *Mincius* runneth: at the Outlet of which every Year, about the Month of October,

¹ The *Muræna* has a fin passing along the back to the extremity of the body, where it is united to the anal, and forms a caudal fin, as in the Eel. It has gills, also, with a perfect organization concealed within the integument; but the aperture is obscure.—*Wern. Club.*

² *Raia pastinaca*.—LINN. *Trygon P.*—CUV. The Sting Ray or Fireflair.—*Wern. Club.*

³ *Muræna anguilla*.—LINN. *Anguilla vulgaris*.—CUV.—*Wern. Club.*

when the Autumn Star (Arcturus) ariseth, whereby (as is evident) the Lake is troubled with a Winter Storm, there are found rolling among the Waves a wonderful Number of Eels, entwined one with another into a Heap, so that in the Receiving-places or Traps on this River, sometimes a thousand of them may be found wrapped together in a single Ball.

CHAPTER XXIII.

Of the Muræna.

THE Muræna spawneth at all Times of the Year, whereas other Fishes shed their Spawn at one certain Season. The Eggs grow very rapidly. The common People believe that they creep out of the Water to the dry Land, and become impregnated by Serpents. *Aristotle* calleth the Male or Milter, Myrus. The Difference, that the Muræna is of a Variety of Colours, and weak; but the Myrus¹ is of a uniform Colour, and strong, with Teeth projecting beyond his Mouth. In the North Parts of Gallia all the Murænæ have on their right Jaw seven Spots, distributed like the seven Stars about the North Pole (Septentrio). These are of a golden Colour so long as the Muræna is alive: but they are not seen after it is dead. *Vedius Pollio*, a Roman Knight, and one of the Friends of *Divus Augustus*, contrived Experiments of Cruelty by Means of this Creature. For he caused his Slaves that were condemned to die, to be thrown into the Ponds where his Murænæ were kept: not because the Wild Beasts of the Land were not sufficient to do this, but because in any other Way of Proceeding he would not have been able to view a Man plucked in Pieces all at once, and at his Leisure. It is said, that if they taste Vinegar they are driven to Madness. They have a very thin Skin; and, on the contrary, Eels have it thick: so that *Verrius* writeth, that Children under seven

¹ The Myrus is a distinct species, *Mur. myrus*, LINN. and CUV. The Muræna was one of the petted objects of luxury of the Romans, and therefore sedulously propagated in ponds.—*Wern. Club.*

Years of Age (*Prætextati*) usually were whipped with Eels' Skins, and on that Account were freed from all other Punishment.

CHAPTER XXIV.

Of Flat Fishes.

OF Flat Fishes there is another Sort, which instead of a Back-bone have a Cartilage: as the Raia, Pastinaca, Squatina, and Torpedo: and also, those which the Greeks have termed by the Names of the Bos Lamia, Aquila, and Rana. In this Number are to be ranked the Squali (Sharks) also; although they are not flat. All this kind in general *Aristotle* was the first to call in Greek Selachè: we cannot distinguish them by this Name, unless we are permitted to call them Cartilaginous Fishes. But all the Sort of them that devour Flesh are such; and they feed as they lie supine, like as we observed in the Dolphins. And whereas other Fishes cast Spawn, this Class only, in the same manner as those which we call Cetè,¹ bring forth their Young alive; with the Exception, however, of that one which they call Rana.

¹ The name of Cetè is here mentioned as equivalent to Balæna for the Whales, ch. 6: but the mode in which they bear their young is very different from that of the cartilaginous fishes, though both, or at least the Sharks among the latter, are viviparous. The Whales are placental animals, but all true fishes produce eggs, although in some instances they are hatched within the body of the parent.

The fishes here mentioned are: Raia, — several species of Rays and Skates; Pastinaca, mentioned before, ch. 20; Squatina, *Squalus squatina*, Linn., and *Squatina vulgaris*, Cuv.; the Monk, or Angel-fish; and Torpedo, ch. 16. The Bos is a gigantic species of Ray, *Raia cephaloptera*: forming the genus *Cephaloptera* of Cuvier; and Oppian (B. ii.) gives an account of the great injury it does to the divers for coral, by clasping them and preventing their ascent to the surface. Lamia is the White Shark: *Squalus carcharias* of Linn., and *Carcharias vulgaris*, Cuv. Aquila, *Myliobatis aquila*, Eagle Ray. Rana, *Lophius piscatorius*, Linn.: Fishing Frog, or Angler. — *Wern. Club.*

CHAPTER XXV.

Of the Echeneis.

THERE is a very little Fish called Echeneis,¹ that keeps ordinarily about Rocks. It is believed that if it adhere to the Keel of a Ship it goeth the more slowly; and from this it took its Name: for the same Cause also it hath a bad Reputation for its use in amatory Medicines, and in causing Delay of Actions at Law and judicial Decisions. But both these Offences are counterbalanced by one commendation: for it restraineth Hæmorrhage threatening Abortion in pregnant Women, and holdeth the Child to the full Time of Birth. Notwithstanding, it is not allowed to be eaten. *Aristotle* thinketh that it hath Feet, as the Fins stand thick one by another.

The Murex, *Mutianus* saith, is broader than the Purpura, having a Mouth neither rough nor round, and with a Beak not protruding in an Angle, but simple, the Shell on both Sides turning itself inward. These Shells adhered to a Ship conveying Messengers from *Periander* with Commission to emasculate the Noblemen's Sons, and caused it to remain still, although it was under Sail with a strong Gale. And the Shells which accomplished this are Objects of Worship in the Temple of *Venus* of the Gnidians.

Trebius Niger saith that the Echeneis is a Foot long, and five Fingers thick; that it hinders the Progress of a Ship;

¹ The proper Echeneis is the *E. remora*, Linn.; but from its possessing similar, or even firmer powers of adhesion, though by a different organ, it was confounded with the larger Lamprey, *Petromyzon marinus*. From allusion to the feet, Aristotle, as well as Gesner, who follows him, appears to include in the same class a species of Cyclopterus; of which there is one that adheres with more facility, although with less firmness. We cannot avoid believing that the popular impression concerning this fish was often laid hold of as an excuse, in some of the instances where an unpleasant task had been slowly performed or entirely counteracted. The narrative of Antony's delay at the battle of Actium (see B. xxxii. c. 1.) will only excite a smile in those who consider the much more formidable attraction that existed at the time. — *Wern. Club.*

and, moreover, that it hath the Virtue, if preserved in Salt, of drawing up Gold that is fallen into even a very deep Well, if let down so as to touch it.

CHAPTER XXVI.

Of the Variety in the Nature of Fishes.

THE Mænæ¹ change their Colour; for these Fishes being white in Winter, become black in Summer. Also the Phycis² is subject to Alteration; being all the Year besides white, but in the Spring speckled. This is the only Fish that buildeth a Nest³ with Sea-weed, and spawneth in this Nest. The Hirundo⁴ flieth: truly almost in the same manner as the Bird so called. The Milvus doeth the same.

CHAPTER XXVII.

*Of the Fish called the Lucerna, and the Draco Marinus
(Sea Dragon).*

THERE is a Fish that cometh above the Water, called Lucerna,⁵ for the Resemblance it hath to a Light; for it thrusteth forth its fiery Tongue out of the Mouth, and in calm Nights giveth Light. There is Fish that raiseth Horns above the Sea, almost a Foot and a half long; which therefore took the Name Cornuta.⁶ Again, the *Draco Marinus*

¹ *Sparus mæna*. — LINN. *Mæna vulgaris*. — CUV. — WERN. CLUB.

² Cuvier says it was a Goby; perhaps *Gobius niger*, or *G. capito*. Martial says,—

“In Venice, where the joy of feasts is priz’d,
The Goby is the supper’s chief.” — WERN. CLUB.

³ The particulars of British fishes which construct nests may be seen in the Editor’s “Illustrations of Instinct,” c. 15. — WERN. CLUB.

⁴ *Exocoetus exiliens*. — CUV. The Flying Fish. *Milvus, trigla volitans*. — LINN. *Dactylopterus volitans*. — CUV. The Flying Gurnard. — WERN. CLUB.

⁵ *Trigla hirundo*. — LINN. The Tub-fish. — WERN. CLUB.

⁶ *Peristedion malarimat*. — CUV. Mailed Gurnard. *Draco marinus, Trachinus draco*. — LINN. Wiever. — WERN. CLUB.

(Sea Dragon) if caught and let loose upon the Sand, digs for himself an Excavation with his Snout, with wonderful Celerity.

CHAPTER XXVIII.

Of Fishes destitute of Blood.

SOME Fishes are without Blood :¹ of which we will now speak. Of them there are three Sorts. First, those which are called Soft : secondly, such as are covered with thin Crusts : and in the last Place, they that are enclosed within hard Shells. The soft are reckoned the Loligo, Sepia, Polypus, and the rest of that Sort. These have their Head between their Feet and the Belly, and every one of them has eight Feet. The Sepia and Loligo have each two Feet, very long and rough ; by which they convey Meat to their Mouths : and also stay themselves as with an Anchor against the Waves. The rest of their Feet are Tendrils, with which they catch their Prey.

CHAPTER XXIX.²

Of the Loligo,³ Sepia,⁴ Polypus,⁵ and Nautilus.⁶

ALSO the Loligo flies, springing out of the Water as if he were an Arrow ; and even Pectunculi do the same. The

¹ Not without a circulating fluid, but destitute of red blood.—*Wern. Club.*

² The Mollusks mentioned in this chapter are :—Loligo : *Sepia Loligo.*—LINN.—*Wern. Club.*

³ *Loligo vulgaris.*—Cuv., and perhaps, also, *L. media.* Common Cuttle.—*Wern. Club.*

⁴ *Sepia officinalis.*—LINN. and Cuv. Bone Cuttle.—*Wern. Club.*

⁵ *Sepia octopodia.*—LINN. *Eledone vulgaris.*—Cuv. See B. xxxii. c. 2.—*Wern. Club.*

⁶ *Argonauta Argo.*—LINN. The story of hoisting its membranous sails to the wind is found to be an error : the use of these parts being to clasp the sides of the shell as it swims. It was the Polypus chiefly that was so highly prized as food by the Greeks, but it was necessary to bruise it well before it was cooked. The Loligo was also employed in the same manner ; as it is at this day.—*Wern. Club.*

Males of the Sepia kind are mottled, and blacker, as well as more firm, than the Female. If the Female be smitten with a Trident, they will help her; but if the Male be struck, she flies. But both of them, when they perceive that they are laid hold of, throw out a Quantity of Ink, which is in the Place of Blood to them; and when the Water is obscured with it they hide themselves by means of it.

Of Polypi there are many Kinds. They that keep near the Shore are bigger than those that haunt the Deep. All of them employ their Arms in the manner of Feet and Hands; but the Tail, which is sharp and two-forked, serveth them in their Coupling. The Polypi have a Pipe in their Back, by which they throw out the Sea: and it they can shift, one while to the right Side, and another to the left. They swim obliquely on their Head, which is very hard by being blown up while they are alive. Moreover, by hollow Concavities, arranged along their Arms, they will adhere, as it were by sucking, to any Thing; which they hold so fast (lying upward with their Bellies) that they cannot be plucked from it. They never fasten on the Bottom; and the greater they are, the less strong they are to hold any Thing. Of all soft (Fishes) they alone go out of the Water to dry Land, at least into some rough Place; for they cannot abide those that are smooth. They devour the Flesh of Shell-fishes, the Shells of which they break by the Compression of their Tendrils; and therefore the Place where they lie may be detected by the Number of Shells that lie before their Place. And though in other Respects it may be regarded as a very senseless Creature, so that it will swim to a Man's Hand, yet in what concerns its Family Affairs it possesses Understanding: for all they can take they carry to their Home; and when they have eaten the Meat of the Fishes they throw away the empty Shells, and watch to catch the little Fishes that approach them. They change their Colour to that of the Place where they are, and especially when under the Influence of Fear. That they gnaw their own Arms is a great Error; for they owe this Injury to the Congers: but it is scarcely false that they will grow again, like

the Tail of Adders and Lizards. But among the greatest Wonders of Nature, is that Creature which by some is called Nautilus, by others Pompilos. It comes to the Surface of the Water upon its Back, so that it raiseth or heaveth itself up by little and little; and that it may swim with Ease, it dischargeth all the Water through a Pipe, as if it were unloaded by a Pump. After this, turning back the two foremost Arms, it stretcheth out between them a Membrane of wonderful thinness; which serveth it for a Sail in the Air, whilst with the rest of its Arms it roweth under Water; and with the Tail in the midst it directeth its Course, as with an Helm. Thus does it make its Way in the Deep with the Imitation of a little Boat, and if any Thing alarm it with a Draught of Water it sinks itself to the Bottom.

CHAPTER XXX.

Of the Ozæna, the Nauplius, and Locustæ.

THE Ozæna¹ is a kind of Polypus, and it derives its Name from the strong Smell of its Head; from which Cause especially the Murænae pursue it. The Polypi lie hid for two Months, and do not live above two Years. They always die of a Consumption: the Female sooner than the Males, and ordinarily after they have brought forth their Young. I cannot pass over the Reports of *Trebius Niger*, one of the Retinue of *L. Lucullus*, Proconsul in Bœtica, which he delivered as collected by the latter concerning these Polypi: that they are exceedingly greedy after Conchæ (Cockles, Mussels, and such-like Shell-fishes): and that they, as soon as they feel themselves touched, shut their Shells, and so cut off their Arms, and thus feed upon those which sought to make a Prey of them. These Shell-fishes are without Sight, and every other Sense, but those of tasting their Meat and Sensibility to Danger. These Polypi lie in wait for Cockles as they gape wide open, and put in a little Stone

¹ *Eledonè moschatus*.—Cuv. Professor Edward Forbes says, it was probably *Eledonè macropodiu*.—*Wern. Club*.

between the Shells; but not close to the Body of the Fish, lest if it felt it, it might be thrown out again; and thus they carry on their Attacks in Security, so as to get out the Flesh; for although the Cockles close their Shells, it is in vain, because of the Wedge between them: so great is the Subtilty of Creatures which otherwise are very dull in their Faculties! Moreover, *Trebius Niger* affirmeth that there is no other Creature so dangerous to destroy a Man in the Water; for it catcheth him fast in its Embrace, and sucks him with the Cups, so that it exhausts him with the Number of its drawing Instruments, at such a Time as it has obtained an Advantage over those which are shipwrecked, or are engaged in diving. But if it be turned upside down, its Strength is soon gone; for then they stretch themselves out on their Back. And truly also, all Creatures in the Sea are attracted by their Smell, which is the Cause that Fishermen besmear their Traps with them.

Other Things which this Author hath related may seem rather like something monstrous; for he affirmeth, that at Carteia there was one which used to go from the Sea into their open Cisterns, among their Ponds, and there rob them of their salt Fish; and this Thievery was so enormous and long continued, that it gat itself the great Displeasure of the Keepers. Fences were erected to stop the Passage, but these it passed over by means of a Tree; nor could it have been taken but by the Sagacity of the Dogs: for as it was returning one Night, they set upon it on all Sides, and so raised the Keepers, who were affrighted at the strange Sight. For, first of all, it was of unheard-of bigness; then its Colour was covered over with the Pickle, and the Stink was horrible. Who would have looked for a Polypus there, or have known it in such a condition? They thought they had to encounter with some Monster: for with its terrible Vapour it drove away the Dogs; and with the Ends of its long Tendrils it would lash them; sometimes with its stronger Arms it knocked them, as with Clubs; so that it was with Difficulty they were able to kill it with several three-pronged Spears. Its Head was shown to *Lucullus*, and

was as big as a Barrel that would contain fifteen Amphoræ; and its Beards (for I quote the exact Words of *Trebius*,) a Man could scarcely encompass with both his Arms; they were full of Protuberances like Clubs, and thirty feet long. The Cavities or Cups, and hollow Vessels, were like great Basins; and the Teeth were conspicuous for their size. The Remains were preserved for a Wonder, and weighed seven hundred Pounds. The same Author affirmeth that *Sepiæ* also, and the *Loligo*, have been cast upon that Shore, full as big. Indeed, in our Sea, *Loligines* are taken of five Cubits long, and *Sepiæ* of two: and these do not live above two Years.¹

Mutianus reporteth, that himself saw in Propontis another kind, having the Likeness of one carrying a Ship: that it was a Shell-fish, with a Keel like that of a Barge, with a Poop turned inward; the Prow with a Beak. Within this lay hid the *Nauplius*, an Animal resembling a *Sepia*, only to play with it for Company. And this was done in two Ways: for when it is calm, the Passenger would put down its Feet, and row as with Oars; but if the Breeze invited, it would stretch out the same to serve for a Rudder; and then the Cavity of the Shell would be spread to the Wind. So one of them takes a Pleasure to carry, and the other to direct; and they unite to sink the Shell: though both are destitute of Sense; unless, indeed, Misfortune be intended to Man: a sad Presage, as is well known to Sailors.

*Locustæ*² (being of that Kind which wanteth Blood) are defended with a brittle Crust. For five Months they lie hid.

¹ *Ælian* relates some accounts of enormous *Polypi*: B. xii. c. 6. One dragged into the sea an eagle that had attempted to seize it; B. vii. c. 11. — *Wern. Club.*

² This seems a general name for long-tailed Crustaceans, including the Lobsters and Crawfishes. But when applied to a distinct species, the *Carabos* of the Greeks and *Locusta* of the Latins is the genus *Palinurus*, Cuv., of which *P. quadricornis* was, probably, that which *Tiberius* employed to lacerate the face of the fisherman at *Capri*: its shell being covered with prominent spines. *Astacus* (*A. marinus*) is the common Lobster. — *Wern. Club.*

The Crabs (Cancr¹) likewise, which at the same Time keep close; and both of them in the beginning of Spring cast their old Coats in the manner of Snakes, and renew them fresh. The others swim within the Water; but the Locustæ float aloft, in the manner of creeping Things. So long as they feel no Fear they go straight forward, their Horns, which naturally have a round Arming, being stretched out towards the Sides; but if they be in any Fear, these Horns are erected, and they advance by passing from Side to Side. With these Horns they contend with one another. Of all Creatures this only hath no Solidity in its liquid Flesh, unless it is boiled alive in scalding Water.

CHAPTER XXXI.

Of the Cancer, Echinus, and Echinometra.

LOCUSTÆ live in rocky Places; Crabs in those which are soft. In Winter they seek after Shores exposed to the Sunshine: but in Summer they retire into shady Places in Gullies. All of this Family decline in the Winter; but in Autumn and Spring they grow fat; and especially when the Moon is full, because by Night that Star is

¹ A general name for the short-tailed crustaceans, which comprise the crabs; but individually *Cancer pagurus*, LINN.: The edible crab. The other species are: *Maja*: *Cancer squinado*, LINN.; *Maia Sq.*, CUV.; sometimes seen on Greek coins, and supposed to be endowed with more wisdom than other crustaceans. It was sensible to the charms of music, and Ælian says of the Pagurus (which, as expressing this crab, may include this species), that fishermen employed the music of the Photingium to allure them out of the water. *Heracleoticus*: *Cancer granulatus*, LINN.; *Calappa granulata*, CUV.; *Leones*: *Galathæa rugosa*, CUV.; *Hippæ*: *Cancer cursor*, LINN.; *Ocypodè*, CUV.; a species which comes on land by day, and returns to the water at night. Belonius says, that its motions are so swift, that a man cannot overtake it: it seems rather to fly than run. *Pinnotheres*, CUV., of two or three species: sometimes seen on Greek coins, and apparently confounded by Pliny with Hermit Crabs: the *Paguri* of Cuvier; solely because both these sorts seek refuge in the shells of Mollusks. Errors like this, which are common in ancient writers, are proofs that they possessed very slight practical knowledge of Natural History. — *Wern. Club.*

mitigated by the warm Light. Of Crabs there are many kinds: as Carabi, Astaci, Majæ, Paguri, Heracleotici, Leones, and others that are less esteemed. The Carabi differ from other Crabs in the Tail. In Phœnicia there is a kind called Hippæ, which are so swift, that it is impossible to overtake them. Crabs live long: they have eight Feet, all turned obliquely: the Female hath the Fore-foot double, the Male single. Moreover, two of their Arms have toothed Pincers. The upper Part of these Fore-claws is moveable; the lower Part doth not move. The right Arm in all is the larger. When they come in Sculls together, sometimes they are not able to pass the Mouth of the Pontus; for which Reason they return and fetch a Compass, so that the beaten Way may be seen. The least of all these kind of Crabs is called Pinnotheres¹; and on this Account it is the most exposed to Injury. But it possesses the Wisdom to hide itself within the Shells of empty Oysters; and as it groweth bigger, it changes its Quarters to larger ones. Crabs, when they are afraid, will run backward as fast as they went forward. They fight with one another, and then butt with their Horns like Rams. They are a Remedy against the Stings of Serpents. It is reported, that while the Sun is passing the Sign Cancer, the Bodies of dead Crabs that lie on the dry Land are turned into Scorpions. Of the same Class are the Echini;² which have Spines instead of Feet. Their Manner of going is to roll themselves round; and, therefore, many Times they are found with their Spines rubbed off. Of the same Sort are those which are called Echinometræ, which have the longest Spines and the smallest Cases. Neither are they all of the same glassy Colour; for those produced about Toronè are white, and have

¹ Or Pinnoteres.

² Professor Edward Forbes believes the species intended by Pliny to be *E. lividus*; and *Echinometra*, *Echinus esculentus*. But in regard to the latter there is some doubt. Ruysch represents it as having a small cup and long spines. One that is elongated, with soft, weak spines, is *Amphidelus Mediterraneus*; and a little species with long spines, *Cidaris histrix*. What Pliny calls eggs are the ovaries, the only eatable parts.—*Wern. Club.*

small Spines. They have all of them five Eggs, which are bitter. Their Mouths stand in the Middle of their Bodies, directed towards the Earth. It is said that they foretell the raging of the Sea: for they labour to gather Stones, by the Weight of which to fix themselves from being rolled over: for they dread to have their Spines worn off by being tossed about; and when the Sailors have seen this, they immediately moor their Ships with many Anchors.

CHAPTER XXXII.

*Of Cochleæ.*¹

IN the same Rank are the Cochleæ, both of the Land and Water; which stretch themselves out of their Habitation, and extend or withdraw two Horns. They have no Eyes; and therefore they feel the Way before them with the little Horns.

CHAPTER XXXIII.

Of the Pecten,² the Murex, and other Kinds of Shell-fishes (Conchæ).

THE Pectens in the Sea are considered of the same Race. They also lie hid in the Times of great Heats, and also in great Cold. They have Nails, which shine as if with Fire in the Dark: even in the Mouth of those that are eating them. Murices have a stronger Shell; as also the Kinds of Conchæ, in which is a great Variety of Nature's

¹ Turbinated shells, as snails and periwinkles. It is strange that Pliny should deny them eyes, when these organs are so plainly situated at the ends of the peduncles on the land species, and at their base in those of the sea.—*Wern. Club.*

² Pecten: then as now the genus of Scallops, but not precisely limited to the modern sorts. Conchæ are supposed to be the beautiful family of Cowries, Cyprææ, and Olivæ. It is not improbable, also, that other shells, having no other natural connexion with these than beauty of form or colouring, were comprised in the same name; and the habits ascribed to the Veneriæ are much like those of a turbinated shell, the *Janthina fragilis*: although it may be a Cowry, the *Concha venerea* of the old naturalists.—*Wern. Club.*

Play: so many different Colours, such diversity of Forms: flat, hollow, long, moon-shaped, rounded into a Globe, cut into half a Globe, rising up on the Back, smooth, rough, toothed, ridged, the Top bent into a Wreath, the Border projecting into a Point, spread out externally, rolled back within: then, again, with distinct Bands, hairy, curled, channelled, formed like a Comb, waved with Plaits like Tiles, having Cells like Network, spread out straight, or oblique; some are thickly compact, others stretched forth, or crooked; bound round into a short Knot, all their Sides united together: some open, adapted to give a Clap; others curved on themselves, like a Cornet. Of all these Sorts, the *Veneriæ* swim on the Water, and expose their hollow Part to gather the Wind: by which they sail upon the Surface of the Ocean. The *Pectens* skip, and fly out of the Water; they also make a Boat of themselves.

CHAPTER XXXIV.

Of the Riches of the Sea.

BUT why do I recount these small Matters, when the Degeneracy of Manners and Luxury proceedeth not from any other Thing so much as from these Shell-fishes? For now, of all the Things in Nature, nothing is so destructive as the Sea, in so many Fashions, such Variety of Tables, such different Tastes in Fishes; which bear a Price according to the Danger of obtaining them.

CHAPTER XXXV.

Of Pearls; how and where they are found.

BUT what is this to those who consider the *Purpuræ*,¹ *Conchyliaë*, and Pearls? It was, therefore, but a little Matter to bring the Seas into the Throat, unless Men and Women might carry them about on their Hands, and Ears, Head, and all over the Body. What hath the Sea to do with

¹ See Chap. xxxvi.

Apparel? What the Waves and Billows with the Fleece? For this Element naturally doth not receive us unless we are naked. And be it that there is so great a Fellowship with it and our Bellies; what Fellowship with the Back? But we are not contented to be fed with so many Perils, we must be clad with them also. So throughout the whole Body, that which is obtained with the utmost Hazard is most regarded by the Mind of Man. The principal and summit of all these Things, as regards the Price,¹ are Pearls. The Indian Ocean sends the chief Supply: and they are searched for amongst those many and terrible Beasts which we have spoken of before;² we must pass over so many Seas, through so great an Extent of Countries, where the Heat of the Sun is excessive: even the Indians themselves go to seek them among the Islands, and even then meet with very few. The greatest Plenty is found in Taprobanè and Toidis, as hath been said in our Review of the World: and likewise about Perimula, a Promontory of India. But they are praised as the most perfect, which are obtained about Arabia, within the Persian Gulf of the Red Sea. The Origin and Mode of breeding of this Shell differ not much from that of the Shells of Oysters: for when the Season of the Year urgeth them, they spread themselves with a Kind of Gaping, and then are said to be filled with a prolific Dew, with which they grow pregnant: and the Fruit of which these Shell-fishes are delivered are these Pearls, according to the Quality of the Dew which they received. For if the Dew were pure which went into them, the Pearls are white and brilliant; if muddy, the Product likewise is foul: it is pale, also, if the Weather were threatening at the Time of Conception. Whereby, no doubt, it is plain that they have more Affinity with the Sky than with the Sea: for, according as the Morning is fair, they are clear; or foul, if that was cloudy. If they have Time to feed sufficiently, the Pearls, also, will grow large; but if there be Lightning, they close

¹ At the opening of the 4th chapter of the 37th Book, our author tells us that *diamonds* bear the highest price. — *Wern. Club.*

² *Vide* Chap. iii. — *Wern. Club.*

their Shells, and, for want of Nourishment, diminish in size. But if it Thunder, suddenly they shut their Shells through Fear, and produce those which are called *Physemata*, a Kind resembling an empty Bladder blowed up with Wind, without any Body; and these are the Abortions of Shells. Those which are sound are formed of many Skins, which may not improperly be thought the solid Substance of the Body; which they that are skilful cleanse them from. I wonder that they so greatly rejoice in the Air; for with the Sun they become red, and lose their Whiteness, just like the Body of a Man. Therefore those Shells that keep in the main Sea, and lie deeper than the Sunbeams can pierce to them, have the finest Pearls. And even these become yellow with Age, and dull with Wrinkles; so that the Lustre which is so much sought for, only continueth during their Youth. When they are old, they grow thick, and stick fast to the Shells, so that they cannot be separated but with a File. These have only one Face, and from that Side are round; for the back Part is flat; for which Reason such are called *Tympania*. We may see them growing together in these Shells which serve to carry Ointments.¹ There is a Pearl that is soft when in the Water, but when taken out it presently hardeneth. When this Shell perceiveth the Hand, it shutteth itself, and so covereth over her Riches, being aware that it is for these she is sought after. But if the Hand come in the Way of the Shell, it will be cut off by its sharp Edge; and the Punishment cannot be more just, although she is armed with other Means of Revenge. For they keep for the most Part about Rocks; and if they are in deep Water they are accompanied with Sea-dogs. And yet all this will not keep them away from the Ears of the Ladies. Some say that, like Bees, every Company of these Shells has one Chief, distinguished for his Size and Age,

¹ These boxes, made of beautifully-coloured shells, and ornamented with rare pearls, for holding precious unguents, will remind the reader of the alabaster box for the same purpose spoken of in the Gospels. From what Pliny says of these alabaster boxes, they must have been turned with a lathe.—*Wern. Club.*

like a Leader, and endued with wonderful Shrewdness, to guard his Flock from Danger. These the Divers use their Efforts to obtain; for if they are caught the rest are scattered, and are easily taken in the Nets. When thus obtained, they are put into earthen Pots, and covered with Salt; and when all the Flesh is consumed, certain Kernels within their Bodies, that is, the Pearls themselves, fall down to the Bottom. There is no Doubt but they will become worn, and change their Colour, if they be not well looked to. Their Reputation consisteth in their brilliant Whiteness, Size, Roundness, Smoothness, and Weight: Qualities not readily found, insomuch that it is impossible to find two perfectly fitted together. And hence it is that our very elegant People at Rome have given them this Name of Uniones. For the Greeks have no such Terms for them: nor among the Barbarians, who discovered them, is there any other Name than Margaritæ. In the very Whiteness itself there is a great Difference among them. That which is found in the Red Sea is the clearer. The Indian Pearl resembleth the Plates of the Stone called Specularis; but otherwise it excels all others in Magnitude. The greatest Commendation of their Colour is to be called Exaluminatræ. They that are more lengthened are commendable in their Degree. For those that are elongated and pointed at the Top, and grow into a full Globe at the Bottom, in the Shape of Alabaster Boxes, are favoured with the Name of Elenchi. The Ladies take great Pride to have these dangling from their Fingers, and two or three pendent at their Ears. There is Luxury conveyed in the Names they have devised for these, and wanton Excess in what they carry about; for when they knock one against another they call them Crotalia (Cymbals), as if they delighted to hear the Sound of their Pearls rattling together. Now, also, poor People affect to wear them; and it is a Saying among them, that a fair Pearl is to a Woman instead of a Lictor.¹ Nay, upon the Feet, also,

¹ That is, they are a warrant of her rank, and so make way for her in a crowd. — *Wern. Club.*

they place them, not on the upper Portion of their Slippers, but also over all their Sandals. For it is not enough to carry Pearls about with them, but they must tread upon them, and even walk among Pearls.

Pearls were accustomed to be found in our Seas, and more abundantly about the Thracian Bosphorus; but they were small and ruddy in the Shells, which they call *Myæ*:¹ In Acarnania the Shell called *Pinna*¹ produceth them. Whereby it appeareth that they are bred in more than one Sort of *Concha*. King *Juba*, also, hath recorded, that on the Arabian Coasts there is a Kind of Shell like a notched *Pecten*, but rough, something like the *Echinus*; and this beareth Pearls in the Flesh like a Hailstone. But no such Shells are brought to us. Neither in Acarnania are any found of much Reputation, being of irregular Form, and of a Marble Colour. There are better about *Actium*, but they are small; and so are they which are taken on the Sea Coasts of Mauritania. *Alexander Polyhistor* and *Sudines* are of Opinion that they will show Signs of Age, and lose their Colour. That they are solid in their Substance, is evident by this, that with no Fall will they break. But they are not always found in the Middle of the Flesh, but sometimes in one Place, and sometimes in another. I have seen them at the very Edges, as if they were going out of the Shell; and in some four, in others five together. Unto this Day few have been known to weigh above half an Ounce and a Scruple. In Britain it is certain that some are produced, but they are small and dim of Colour: for *Divus Julius* wished it to be understood that the Breastplate which he dedicated to *Venus Genetrix* in her Temple, was made of British Pearls.

I myself have seen *Lollia Paulina*, who was the Wife of the Prince *Caius*, not when she was dressed in State, or for

¹ *Myæ*: *Pinna*:—gaping Bivalves, still known to science by the same names. The shell here compared to an *Echinus* may be *Pecten echinatus*; but there are several Bivalves with spines projecting from their surface. The Editor has obtained a jet black and perfectly round pearl from an English *Pinna*: *P. ingens*.—*Wern. Club*.

some great Solemnity, but only to go to a betrothing Supper of People of ordinary Rank; at which Time she was covered all over with Emeralds and Pearls, shining as they were arranged in alternate Rows; over all her Head, the Wreaths of her Hair, her Ears, Neck, Hands, and Fingers. The Value of these Ornaments she rated at 400 hundred thousand Sestertii;¹ and offered to prove it immediately by her Books of Accounts. Yet these Jewels were not the Gifts of the prodigal Prince, but the Riches of her own Ancestors, that is, the Product of the Spoiling of the Provinces. This is the Issue of those Depredations; this it was for which *M. Lollius* was reproached through all the East for receiving Presents from the Kings; and being forbidden the Friendship of *C. Cæsar*, Son of *Augustus*, he drank Poison, that his Niece should be gazed at by Lamp-light as she was covered with the Value of Jewels of 400 hundred thousand Sestertii.

On the other Hand, let any Man reckon how much *Curius* or *Fabricius* bore in their Triumphs; let him imagine what their Shows were: and on the other Side, make an Estimate of *Lollia*, one only Woman, allied to the Emperor, reclining; would not he wish rather that they had been pulled out of their Chariots than to have conquered only for this? And yet this is not the greatest Example of excessive Prodigality.

There were two Pearls, the very largest that ever were known in any Age, and they were possessed by *Cleopatra*, the last Queen of Egypt; having descended to her by means of the Kings of the East. When *Antony* had feasted her Day by Day very sumptuously, and under the Influence, at one Time, of Pride and petulant Disdain, as a Royal Harlot, after undervaluing his Expense and Provision, he demanded how it was possible to go beyond this Magnificence: she replied, that she would consume, in one Supper, 100 hundred thousand Sestertii.² *Antony* desired to learn how that could be possible, but he thought it was not.

¹ Forty millions.

² Ten millions.

Wagers were, therefore, laid ; and on the following Day, when the Decision was to be made (for that a Day might not be lost, *Antony* appointed the next succeeding one), she provided a Supper, which was, on the whole, sumptuous ; but *Antony* laughed at it, and required to see an Account of the Particulars. But she said, that what had been served up already was but the Over-measure, and affirmed still, that she would in that Supper make up the full Sum ; and herself alone consume in this Supper 600 hundred thousand Sestertii.¹ She then commanded the second Table to be brought in. As soon as the Order was given, the Attendants placed before her one only Vessel of Vinegar,² the Strength and Sharpness of which wasted and dissolved the Pearls. Now she wore at her Ears that most remarkable and truly singular Work of Nature. Therefore, as *Antony* waited to see what she was going to do, she took one of them from her Ear, steeped it in the Vinegar, and when it was liquefied, drank it. As she was about to do the like by the other, *L. Plancius*, the Judge of that Wager, laid hold upon it with his Hand, and pronounced that *Antony* had lost the Wager : whereat the Man became very angry. The Fame of this Pearl may go with its Fellow ; for after this Queen, the Winner of so great a Wager, was taken Prisoner, the other Pearl was cut in two, that the half of their Supper might hang at the Ears of *Venus*, in the Pantheon, at Rome. Still, however, these shall not bear away the Palm in

¹ Sixty millions.

² Cleopatra must have employed a stronger vinegar than that which we now use for our tables, as the pearls, on account of their hardness and their natural enamel, cannot be easily dissolved by a weak acid. Nature has secured the teeth of animals against the effect of acids, by an enamel covering of the like kind ; but if this enamel happen to be injured only in one small place, the teeth soon spoil and rot. Cleopatra, perhaps, broke and pounded the pearls ; and it is probable that she afterwards diluted the vinegar with water, that she might be able to drink it ; though it is the nature of the basis or calx to neutralise the acid, and so render it imperceptible to the tongue.—See BECKMAN'S *Hist. of Inventions*, vol. ii. p. 1.

The pearl which Cleopatra swallowed is said to have been worth 80,729*l.* 3*s.* 4*d.* — *Wern. Club.*

this, but shall be deprived of the Glory of Luxury. For before this, *Clodius*, the Son of *Æsop*,¹ the Tragedian, being left by him Heir to very great Wealth, practised the same with Pearls of great Price; so that *Antony* needed not to be over-proud of his Triumvirate, being almost equalled by a Stage-player; and that, too, when he was not urged to it by a Wager, which was much more like a King. His Experiment was the Glory of the Palate, for he wanted to try what Taste Pearls had; and as they pleased him wonderfully, because he would not be the only one who knew the Taste, he gave to every Guest at his Table a Pearl to sup up in like Manner.

Fenestella writeth, that after Alexandria was reduced to Subjection, Pearls came into frequent and indiscriminate use at Rome; but that about the Time of *Sylla* they began first; and those were but small ones, and mean. But this is a great Error. For *Ælius Stilo* reporteth, that in the Time of the War with *Jugurtha*, the great Pearls, for the most Part, had the Name of *Uniones* imposed on them.

And this is almost a perpetual Possession: it followeth the Heir. When sold, they pass with Warranty, as any Estate would do.*

Purpuræ and Conchylia are found thrown about on every Coast; and yet to them the same Mother Luxury hath assigned almost an equal Value with Pearls.

¹ Horace, Lib. iii. Sat. 3:—

“ An actor’s son dissolved a wealthy pearl
 (The precious ear-ring of his favourite girl),
 In vinegar, and thus luxurious quaffed
 A thousand solid talents at a draught.
 Had he not equally his wisdom shown,
 Into the sink or river were it thrown ? ”—FRANCIS.

—Wern. Club.

CHAPTER XXXVI.

The Nature of the Purpura¹ and the Murex.

PURPURÆ, for the most Part, live seven Years. They lie hid for thirty Days about the rising of the Dog Star, like the Murices. They collect together in the Spring, and with rubbing one against another they spit a clammy Substance, in the Manner of Wax. The Murices do the like. But that Bloom which is so much in request for dyeing Garments the Purpuræ have in the midst of their Throat. Here is placed a white Vein, containing a very little Fluid; from whence is derived that precious and bright Colour of deep red (Nigrantis) Roses. The Rest of the Body yieldeth Nothing. Fishermen endeavour to take them alive, for when they die they cast up that Juice with their Life. Now the Tyrians, when they obtain any great Purpuræ, remove the Shell from the Flesh; but the lesser, they break in a Mill, and so at last collect that Humour. This is the best in Asia; but in Africa, that in the (Island) Meninx, and the Coast of the Ocean by Getulia; and in Europe, that of Laconica. It is for this the Roman Fasces and Axes make Way; this is it that stands for the Majesty of the Childhood; this maketh the Distinction between the Senate and a Knight; this is summoned when they offer Sacrifice to pacify the Gods: this giveth a Lustre to every Garment; and in their triumphal Procession it is interlaced with the Gold. It is thus that the Madness after the Purpuræ is to be excused. But how should the Conchylia be so highly prized? What strong Smell in the rank Colour, so harsh a Colour in the blue, and resembling rather the angry Sea? But to come to the particular Description. The Purpura hath a Tongue the length of a Finger, so sharp and hard at the End that it pierces into other Shell-fishes, and feeds on them. In fresh

¹ This name included more than one species; but more particularly it is the *Murex trunculus*, Cuv. *Conchylia*: a name for Bivalve shells in general. The Buccinum may be our common Whelk. — *Wern. Club.*

Water they die, and so also if they are plunged into a River; otherwise, after they are taken, they will continue alive fifty Days in their own slimy Humour. All Shell-fish grow very rapidly, but *Purpuræ* remarkably so; for in one Year they come to their full Size. Now if I should proceed no further, Luxury would think itself defrauded, and condemn me for Negligence. Therefore we will follow the Subject into the Shops, that as every Man for the Necessity of this Life knoweth the Price of Victuals, all who take Pleasure in these Things may be well versed in the Costs of this their Existence. These Shell-fishes that serve for purple Colours, and the *Conchylia*, all consist of one Material: the Difference is only in the mixing. They are of two principal Sorts. The *Buccinum* is a smaller Shell, resembling that Horn with which Sound is uttered; and from this it took its Name. The round Orifice is cut in at the Edges. The other is named *Purpura*, protrudes a long Snout like a Channel, and within the Side of this Channel it is tubulated, to allow a Passage for the Tongue. Besides this the Shell is studded as far as to the Wreath with sharp Spines, in about seven Rows, placed in a Circle; which the *Buccinum* doth not possess. But so many Circles as each of them has, so many Years old they are. The *Buccinum* fastens to Nothing besides Rocks, and therefore is gathered about rough Places.

CHAPTER XXXVII.

How many Sorts there are.

PURPURÆ have another Name, and are called *Pelagiæ*. There are many Sorts of them, which differ either in their Situation or Food. The first is the *Lutensè*, nourished by rotten Mud: the *Algensè*, the worst of all, feeding upon Sea-weeds close to the Shore; and the *Tæniensè*, which is better than either of the former, and is gathered about the Borders of the Sea called *Tenci*. And yet this Kind yieldeth only a light and diluted Colour. There are also some termed *Calculosæ*, from the Sea-gravel, which is wonderfully good for

Conchylia. And by far the best, the *Purpuræ dialutensè*, that is, a Kind which is fed by various Kinds of Soil. Now these *Purpuræ* are taken with very small Snares, like Nets, thrown into deep Water. Within these, for a Bait, are some Shells, that will shut, and are ready to snap, as we may see the *Mituli*. These, when half dead, are put back into the Sea, when reviving and gaping for Water, the *Purpuræ* eagerly seek for them with their pointed Tongues, which they thrust out and so annoy them: but the others, feeling themselves pricked, presently shut their Shells together, and compress those that bite them. Thus the *Purpuræ*, through their Greediness, are taken, hanging by their Tongues.

CHAPTER XXXVIII.

The Fishing-time for Purpuræ.

THE best Time to take *Purpuræ* is after the Dog-Star is risen, or before the Spring. For, when they have borne Young their Juice is waterish. But the Shops of the Dyers do not know this, although their highest Skill turns on this Point. When they are caught they extract the Vein before-mentioned; and they lay it in the necessary Salt, in the Proportion of a Pint and half (of Salt) to every Hundred-weight. It is right to soak it for about three Days, for the newer the Colour is, so much is it stronger. They heat it in Lead, and to every Amphora of Water¹ they put one hundred and fifty Pounds of the Colour so prepared. They boil it with a gentle Fire, and therefore the Pipe must lead a good Way off from the Furnace. During this Time, the Flesh being now and then skimmed off (for some of this cannot be prevented from sticking to the Veins), for the most Part about the tenth Day the Kettle is sufficiently prepared; and to make Trial of it, they dip into it a Fleece of Wool that has been washed out of one Water into another: and until their Wish is satisfied, they persist in trying the Liquor. The red Colour is worse than that which is dark.

¹ See Chap. xxxix. — *Wern. Club.*

The Wool absorbs the Colour in five Hours : then they card it, and put it in again, until it hath drunk up all the colouring Matter. The Buccinum maketh no good Colour of itself; for it loses the Dye again. And, therefore, usually they join to it the Pelagium ; which, to its too great Blackness, giveth that Depth and Brightness which is sought for in Cloth dyed in Grain. Thus by mixing the Force of both they raise one another, or bind each other more closely. The amount of the Preparation to each Pound of Wool is two hundred of the Buccinum to a hundred and eleven Pelagian Purpuræ. In this Manner is made that rich Amethyst Colour. But the Tyrians thoroughly dye the Wool in the Furnace of the Pelagian Purpuræ only, while not yet thoroughly prepared, but still green ; and afterwards they change it into another, where the Buccinum has been boiled. It is most highly commended when it is as deep a red as congealed Blood ; blackish at the first Sight, but when viewed between you and the Light, it shows a shining Lustre. And hereupon it is that *Homer* calleth Blood Purple.

CHAPTER XXXIX.

When they began at Rome to wear Purple.

I SEE that Purple hath been always used in Rome ; but *Romulus* wore it in his royal Robe (only). It is well known that *Tullus Hostilius* was the first of the Kings who, after he had subdued the Hetruscans, put on the Toga Pretexta and the Latus Clavus. *Nepos Cornelius*, who died under the Reign of *Divus Augustus*, says: When I was a young Man, the Violet Purple was in great Request, and a Pound of it was sold for a hundred Denarii :¹ and not long after the Tarentine red Purple. After this came the double-dyed Tyrian Purple, which could not be bought for a thousand Pounds of Denarii.² *P. Lentulus Spinter*, in his Curile Ædileship, is reproached for having first worn it in his Robe. But now (says *Nepos*), who does not form the Hangings of

¹ 3 lib. 2 shil. 6d. sterl.

² 31 lib. 5 shil.

his Parlour with Purple? *Spinter* was *Ædile* in the seven hundredth Year after the Foundation of the City, when *Cicero* was Consul. This Purple was then called *Dibapha*, which was twice dyed; as being of magnificent Expense; whereas now almost all the genteel Purple Cloths are thus dyed. In the Cloths dyed with the *Conchyliæ* the other Things are the same, except that there is no *Buccinum*. Moreover, the Broth is tempered with Water instead of the Excrement of a Man's Drink; and only a half of the Preparations is added. And thus is made that pale Tint so highly commended, as being deprived of the full Colour; and it is so much the more diluted, as the Wool has been suffered to drink it up.

CHAPTER XL.

The Prices of these Cloths.

THE Prices are lower, according to the Abundance of the dyeing Material found on the Coast. But it was never known in any Place that a Pound of the *Pelagian* (Colour) has exceeded five hundred *Sesterces*:¹ nor a Pound of the *Buccinum* (Purple) cost above one hundred: which they who sell these Things raise to an extravagant Price. But this is far from being the End; and Men have a Delight to trifle with the Expense: to deceive by mixing over again, and so double the Produce, adulterating even the Adulterations of Nature; as to stain the *Tortoise*, to mix Silver with the Gold, and so form *Electrum*: and by adding Brass to these, to make the *Corinthian Metal*.

CHAPTER XLI.

The Manner of Dyeing the Amethystine Colour, Scarlet, and colour Hysginum.

It is not enough to have robbed the precious Stone *Amethyst* of its Name, but when they had it perfect, they must

¹ 3 lib. 18 shil. 1d. ob.

have it drunk¹ again with the Tyrian Dye, that they might have it degraded with a Name compounded of both (Tyriamethystus), correspondent to their two-fold Luxury. Also, after they have accomplished the (Colour) Conchylium, they think it better prepared to pass into the Tyrian. It should seem that these double Dyes came first from the after-thought of the Workman, when he employed his Skill to change what he had done and disliked. And from this is come a Consideration, and a Desire is derived from a Fault by those portentous Contrivances; and the twofold Way of Luxury is displayed, by laying one Colour upon another, with great Labour, so as to render it what is called more pleasant and delicate. Nay, they also mix the Dye of Land-colours; for what is already dyed with the Coccus, they dye again in the Tyrian Purple, to make the Hysginum.

The Coccus is a red Grain that cometh from Galatia, as we shall show in our Account of (Plants) of the Land; or else about Emerita, in Lusitania (Portugal), and that, of all other, is most esteemed. But to sum up in one Word these noble Colours, note this, that when this Grain is one Year old, it maketh but a weak Tincture; but after four Years, the Strength of it is gone. So that, neither young nor old, is it of any great Strength. Thus I have sufficiently treated of those Means which both Men and Women think best fitted to set themselves out in the best Manner.

CHAPTER XLII.

Of the Pinna, and the Pinnoter: and the Perception of Fishes.

THE Pinna² is also of the Class of Shell-fishes. It is produced in muddy Places, always standing nearly upright; but never without a Companion, which they call Pinnoteres, or, according to some, Pinnophylax.³ This is a little Shrimp, or

¹ Alluding to the word "Amethyst," which resisteth drunkenness.—*Holland.*

² *Pinna ingens* and *P. rotundata*, LINN.—*Wern. Club.*

³ *Pinnoteres veterum* and *P. pisum*.—*Wern. Club.*

in some Places a Crab, an Attendant upon him for his Victuals. The Pinna gapes abroad, and showeth to the little Fishes her Body within, which has no power of seeing. They make a close Attack on it; and as their Boldness increases with their Impunity, they enter and fill the Shell. The Sentinel discerns this Opportunity, and giveth Token of it by a gentle Pinch. She shuts her Mouth, and crusheth whatever is within; and then she delivers its proper Share to her Companion.¹ This Fact causes me to be so much the more surprised, that there are some who are of Opinion that Creatures of the Water have no Understanding. The Torpedo knoweth her own Power, while she herself is not benumbed. She lieth covered over and hidden in the Mud, ready to catch those Fishes which, as they unsuspectingly swim over her, she strikes with Numbness. There is no Meat that in Tenderness is to be preferred to the Liver of this Fish. Nor is the Craftiness of the Rana less than this; which is the same that is called the Fisher in the Sea. She lifts up the Horns which stand erect a little before the Eyes, so as to project above the Mud which she hath stirred up; and so attracts the little Fishes which gather about her, until they come so near as to enable her to seize them. In a similar Manner the Squatina and Rhombus lie concealed, and stretch out their Fins, which they move about, as if they were some little Worms; and the Fish called Raia does the same. For the Pastinaca lieth in wait like a Thief in a Corner, ready to pierce the Fishes that pass by with a sharp Spine, which is his Dart. It is a Proof of the Craftiness of this Fish, that whilst they are the most sluggish of Fishes, they are found to have in their Belly the Mugil, which is the swiftest of all Fishes.

¹ "The pinna and the crab together dwell,
For mutual succour, in one common shell.
They both to gain a livelihood combine;
That takes the prey, when this has given the sign.
From hence this crab, above his comrade fam'd,
By ancient Greeks was *pinnatores* nam'd."

OPPIAN: *Halicut*, lib. ii. l. 186, et seq.—Wern. Club.

CHAPTER XLIII.

Of the Scolopendræ, Vulpes, and the Glanis.

THE Scolopendræ¹ are like those of the Land which they call Centipedes. When this Creature hath swallowed an Hook, it vomits up its Entrails, until it hath delivered itself of the Hook, and then it supbeth them in again. But the *Vulpes marinæ*,² in the like Danger, swallow down more and more of the Line, until it comes to the weakest Part, which it can easily gnaw asunder. The Fish called Glanis is more cautious; it bites the Back of the Hook, and does not devour the Bait, but nibbles it away.

CHAPTER XLIV.

Of the Fish called Aries.

THE Ram³ attacks like a Robber; for sometimes it hides itself under the Shade of large Ships in the salt Sea, where it waiteth for any Man whom the Pleasure of Swimming may invite within its Reach; at other Times it lifteth its Head above Water, to spy any small Fishing-boats, and then it slily swimmeth close to them, and sinketh them.

CHAPTER XLV.

Of those that have a third Nature, and are neither Animals nor Plants: also of Urticæ and Sponges.

I TRULY am of Opinion, that those which are neither Animals nor Plants, but possess a third Nature, or are com-

¹ The creatures referred to appear to be Holothuriæ, and chiefly of the class Cucumariæ; which, when near death, eject their entrails, but without the power of re-absorbing them. But the name Scolopendræ more properly applies to marine worms: *Nereides*.—*Wern. Club*.

² *Squalus vulpes*, LINN.—*Carcharias vulpus*, CUV. The Sea Fox, or Thrasher.—*Wern. Club*.

³ See Chap. v. p. 108.—*Wern. Club*.

pounded of both (I mean *Urticæ*¹ and Sponges²), have yet a Kind of Sense in them. *Urticæ* wander about by Night, and likewise by Night change their (Colour). Their Nature is formed of fleshy Leafage, and on Flesh they feed. Their Quality is to raise an itching Smart, like the Land Nettle. Its Manner is to gather in its Body exceedingly close and stiff; and when a little Fish swimmeth before it, it spreadeth abroad its Branches, and thus claspeth and devoureth it. At other Times, as if it were withered, suffering itself to be tossed to and fro among the Weeds, with the Waves of the Sea, if any Fishes come in contact with it, it seizes them, as they scratch the Itching they feel by rubbing themselves against the Rocks. By Night it seeks for *Pectens* and *Echini*. When it feeleth one's Hand to touch it, it changeth Colour, and contracteth itself. When touched, it discharges something that causes an Itching; and if a little Interval is permitted after it is touched, it becomes concealed. It is thought that its Mouth lieth in the Root, and that it voideth its Excrements through a small Pipe above.

Of Sponges we find three Sorts: the first thick, exceeding hard, and rough; and this is called *Tragos*: a second, not so thick, and somewhat softer; and that is named *Manon*: the third is fine and compact, wherewith they make Rubbers (to cleanse with), and this is termed *Achilleum*. They grow all upon Rocks, and are fed with Shell-fish, Fish, and Mud. That they possess Understanding appeareth from this, that when they feel that one would pluck them away, they draw in, so as with the greater Difficulty to be pulled from the Rock. They do the like when they are beaten with the

¹ *Actinææ*, a class of naked Zoophytes. Macrobius, in his account of the supper given by Lentulus, on the occasion of his being inaugurated *Flamen martialis*, enumerates *Urticæ* among the dishes.—*Wern. Club.*

² Pliny's opinion, that Sponges are living animals, is still held by some eminent naturalists. Others contend that they are vegetable; and their natural station seems to be on that debateable line where each of these great kingdoms verges on the other: some really animal structures appearing disguised in vegetable forms,—and vegetables with animal appearances.—*Wern. Club.*

Waves. That they live upon some Food is manifest by the little Shell-fishes which are found within them. And some say, that about Toronè they take Food after they have been plucked from the Rocks; and that from the Roots which are left behind, they grow again. Also, upon those Rocks (from whence they are pulled), there is to be seen some Appearance of Blood sticking; and especially in those of Africa, which breed among the Syrtes. The Manæ become very large, and also the softest, about Lycia. But they are more soft when they grow in the very deep Water, out of the Influence of Wind. They are rough in the Hellespont; and dense about (the Cape) Malea. In Places exposed to the Sun they will putrify; and therefore the best are in deep Gullies. They are of the same blackish Colour when they live, as when full of Moisture. They adhere to Rocks neither by any one Part, nor yet all over; for there are dispersed certain hollow Pipes, four or five commonly, by which they are supposed to receive their Food. There are more (of these Pipes), but above they are grown together. A certain thin Skin may be perceived to be at their Roots. It is known that they live long. The worst Kind of them all are those called *Aplysiæ*, because they cannot be made clean; in them the Pipes are large; and they are throughout thick and massy.

CHAPTER XLVI.

*Of the Caniculus marinus.*¹

THE Divers are annoyed very much with a great Number of *Caniculi marini* that come about them, and put them in great Danger. And they say, that these Fishes have a certain Cloud growing thick over their Heads, like that of the flat Fishes, which presseth them, and hindereth them from retiring backward; on which Account the Divers have with them sharp-pointed Weapons fastened to long Poles; for unless they be pricked with them, they will not turn away:

¹ The smaller kind of Sharks, and, perhaps, particularly the Ground-sharks, *Scymnium*. — *Wern. Club*.

by Reason (as I suppose) of the Mist before their Eyes, and their Fear. For I never heard of any Man that found the like Cloud or Mist (for this Term they give to this Mischiefe) in the Range of living Creatures. But the Contest with Caniculi is furious, for they snap at their Groins, their Heels, and every Part of their Bodies that is white. The only safe Way is to oppose them in front, and so to terrify them; for they are as much afraid of a Man as he is of them. Thus within the Deep the Chance is equal; but when the Divers mount to the Surface of the Water, there the Danger is double, because while he laboureth to get out of the Water, he faileth of Means to encounter the Creature proceeding in an opposite Direction; therefore his only recourse is to his Comrades: for, having a Cord bound about his Shoulders, by which they draw him up, he shaketh it with his left Hand to give a Sign of his Danger, whilst he maintaineth a Fight with the right, by holding with it the sharp-pointed Spear; but otherwise they haul him up softly. When he is come near the Ship, unless they snatch him up very quickly, they may be sure to see him devoured before their Face: and when they are at the point of being plucked up, they are caught away out of their Hands, if they do not themselves help them who are drawing them up, by gathering up their Bodies together, into the form of a Ball. Some, indeed, thrust at these Fishes with Tridents; but it is the Craft of this Monster to get under the Bottom of the Ship, and so maintain the Combat in safety. And therefore all their Care is employed to guard against this Evil.

CHAPTER XLVII.

Of those Fishes that are shut within a flinty Shell; also of those that have no Sense: and of other sordid Creatures.

THE greatest Security that Fishermen have, is to discover the flat Fishes; for they are never in any Place where hurtful Beasts are; which is the Cause that Divers call those Fishes sacred.

We must confess, that Fishes enclosed in flinty Shells, as

Oysters, have no Sense. Many are of the same Nature as Plants, as the *Holothuria*,¹ *Pulmones*,² and *Stellæ* (Star-fishes); and thus there is nothing that is not bred within the Sea; as the Creatures which in Summer Time abound within our Inns, and vex us with their active Leap; as also that which lies close under the Hair of our Heads: for often the Fishermen find a Number of these *Skippers*³ settled thick about their Baits as they draw them up. And these are thought to infest the Fishes in their Sleep by Night in the Sea. But some Fishes produce these Creatures within themselves; among which is reckoned the *Chalcis*.⁴

CHAPTER XLVIII.

Of venomous Sea-fishes.

NOR is the Sea without deadly Poisons, as in the *Lepus*,⁵ which in the Indian Sea is so venomous when touched, that vomiting and breaking down of the Stomach is the Consequence. They which are found in our Sea are a shapeless Lump of Flesh, in Colour only resembling the Hare. But in the Indian Seas they are as big as the *Pilum*, only it is

¹ A molluscous form of the *Asteriadæ*: the *Stellæ*, or Star-fishes, constitute another section of the same family of *Asteriadæ*.—*Wern. Club*.

² A species of *Botryllus*.—*Wern. Club*.

³ This distant allusion to the parasites of the human body is still maintained in the language of modern fishermen; who speak of sea-lice and sea-fleas as pestering them in their avocations, by devouring their baits, and sometimes even devouring the flesh of the fish that has swallowed the hook, if not immediately drawn up. These voracious creatures, which are different species of the Linnean genus *Oniscus*, obtain an entrance at the mouth, and devour the internal substance, leaving the skin and scales an empty bag, or filled only by bones.—*Wern. Club*.

⁴ A species of *Clupea*, and probably *C. Sardina*, *Cuv.*—*Wern. Club*.

⁵ *Aplysia*: a genus of Mollusks, possessing the power of exuding from the skin a fluid of an acrid quality. The *A. depilans* is found on the British shores. The head and antennæ, when stretched out, bear a resemblance in miniature to the same parts in the hare. It is only when alarmed that they contract and become "a shapeless lump of flesh."—*Wern. Club*.

harder; and they cannot be taken there alive. The Araneus¹ is equally as dangerous a Creature; and inflicts Injury with the Point of a Spine on its Back. But in no Place is there any one more detestable than is the Dart or Ray that projecteth upon the Tail of the Trygon, which we call Pastinaca;² which ray is five Inches long. If it be struck into the Root of a Tree, it killeth it; it pierces Armour like a Dart, with the Force of Iron and the Injury of Poison.

CHAPTER XLIX.

Of the Diseases of Fishes.

WE do not hear that all Sorts of Fishes are subject to Diseases, as other Beasts, and even those that are wild. But that this or that Fish may be sick appeareth evidently from the wasting we see in them; whereas others of the same Sort are taken exceedingly fat.

CHAPTER L.

The wonderful Manner of their Breeding.

IN what Manner they breed, the Inquiry and Wonder of Mankind will not suffer me to put off to another Opportunity. Fishes couple by the rubbing of their Bellies one against another; which they perform with such Celerity as to deceive the Sight. Dolphins and other Whales have no other Way, but they are somewhat slower. The Female Fish, in the Time of coupling, followeth the Male, striking his Belly with her Snout. In the like Manner, about Spawning Time, the Males follow the Female, devouring their Spawn. But this coupling of theirs is not sufficient of

¹ *Trachinus vipera*, Cuv. — *Wern. Club.*

² Ch. xxiv. Ælian makes the destructive property of the spine of the Fire-flair the subject of several chapters; but if he or our author had had recourse to experiment, they might have soon ascertained the error of the popular opinion. It is capable, however, of inflicting serious laceration, when the tail is twisted about an object; and the creature is well aware of the way to render it a formidable weapon. — *Wern. Club.*

itself to accomplish Fecundity, unless when the Eggs are cast; both Male and Female between them, by turning it over, sprinkle it with a vital Power. But in such a Multitude of Eggs this living Power doth not fall on all of them; for if it did, all Seas and Lakes would be full of Fishes: for there is not one of these Females but conceiveth an inconceivable Number.

CHAPTER LI.

More concerning the Generation of Fishes, and which of them produce Eggs.

THE Eggs of Fishes grow in the Sea, some of them exceedingly soon, as those of the *Murænæ*: others are somewhat later. Flat Fishes,¹ which have no Tails and sharp Prickles, when they couple, come over one another, like Tortoises. The *Polypi* fasten one of their Strings to the Nose of the Female. The *Sepiæ* and *Loligo* with their Tongues, clasp one another with their Arms, and swim one contrary to the other: they also produce their Eggs from the Mouth. But the *Polypi* couple with their Heads downwards to the Ground. The other soft Animals couple, Back to Back, as Dogs. This is the Case with *Locustæ*, *Squillæ*, *Canceri*, at the Mouth. Frogs lie on one another: the Male with the Fore-feet clasping the Arms of the Female, and with the Hind-feet the Haunches. They bring forth very small Bits of black Flesh, which they call Tadpoles, only distinguished by having Eyes and a Tail. Soon after their Feet are framed, and their Tail is divided into hinder Parts. It is wonderful that, after they have lived six Months, they are dissolved into Slime, no Man seeth how; and afterward with the Rains in the Spring, they are restored to their former State, as they were first shaped, by an unknown Way of Proceeding, although it happeneth in this Way every Year. *Mussels* and *Pectens* also, are produced of themselves by Nature in the Sands: those which are of a harder Crust, as

¹ *Pleuronectidæ*. — *Wern. Club.*

the Murex and Purpura, from a viscous Mucilage : so also Gnats proceed from a Sourness of the Water; as the Apuæ¹ from the Froth of the Sea, when it grows warm, and is mixed with a Shower. They that are covered with a stony Shell, as Oysters, are bred from the putrified Mud, or out of the Froth that hath stood long about Ships, or Posts fixed in the Water, and especially if they are formed of Holly-wood. It hath been lately discovered in Oyster Banks, that there passeth from them a fertile Liquid resembling Milk. Eels² rub themselves against Stones, and those Scrapings come to Life; and they have no other Generation. Fishes of different Kinds do not mix their Breed with another, except the Squatina and the Raia; from them there is produced a Fish which in the Forepart resembleth a Raia, and in Greek hath a Name compounded of both.³ Some Fishes breed both on Land and in the Sea, according to the Warmth of the Year. In the Spring, Pectens, Limaces (Slugs), Hirundines (Leeches), are produced; but in the corresponding Time of Autumn they turn to nothing. Among Fishes the Lupus and Trichias breed twice a Year, and also all that keep among Rocks. The Mullus thrice, as also the Chalcis; the Cyprius six Times; the Scorpenæ⁴ and Sargi twice, namely, in Spring and Autumn. Of flat Fishes, the Squatina only twice; in the Autumn, and at the Setting of the Stars Vergiliæ. The greatest Number of Fishes spawn in the three

¹ Minute fishes seen swimming at the surface of the sea, and therefore sapiently supposed to have sprung, by spontaneous generation, from the froth. If any particular species is intended, it is probably *Motella glauca*. — YARRELL'S "*British Fishes*." — *Wern. Club*.

² The manner in which this fish is propagated was long a matter of doubt, from the very obscure development of the ova in the ovaries; but it has been rendered certain that in their mode of increase they do not differ from other fishes. The author makes several references to the opinion, which was prevalent in his day, that creatures might spring into existence by the spontaneous influences of heat and moisture; but from the days of the illustrious Harvey, every claim of this sort for particular instances has been successfully controverted. — *Wern. Club*.

³ *Rhinobatis*. — *Wern. Club*.

⁴ *Scorpena scropha* and *Sc. porcus*, CUV. — *Wern. Club*.

Months, April, May, and June: Salpæ in Autumn: the Sargi, Torpedo, and Squali, about the Equinox: soft Fishes in the Spring: and the Sepia in every Month. The Spawn of this Fish, which hangeth together like a Cluster of Grapes, by Means of the Glue of the Ink, the Male follows with its Breath, for otherwise it is barren. The Polypi couple in Winter, and produce the Eggs in Spring; being curled like the Tendrils of a Vine; and that in such Plenty, that when they are killed they are not able to receive the Multitude of Eggs in the Concavities of their Head which they bare when they were pregnant. They hatch them in fifty Days, but many of them perish from their great Number. The Locustæ and the rest with thinner Shells, lay Egg over Egg, and so brood upon them. The female Polypus one while sitteth on her Eggs, at other Times shuts up the Cavity (where she hath laid them), with her Arms enfolded across, one over another. The Sepia layeth also on the Land among the Reeds, or else where she can find Seaweeds growing, and by the fifteenth Day it is hatched. The Loligo layeth Eggs in the deep Water, which hang close together as those of the Sepiæ. The Purpuræ, the Murex, and such like, lay in the Spring. The Echini are with Egg at the Full-Moons in the Winter: and the Cochleæ are bred in the Winter also. The Torpedo is found to have fourscore Young at once, and she hatcheth her soft Eggs within her Body, shifting them from one Place of the Womb to another, and then excludes them. In a similar Manner do all they which are called Cartilaginous. By which it cometh to pass, that Fish alone both conceive Eggs, and bring forth a living Creature. The Male Silurus, of all others, keepeth the Eggs after they are deposited, many Times for fifty Days, that they may not be devoured by others. Other Females hatch in three Days, if the Male touch them. The Acus or Belone¹ is the only Fish which has such an Abundance of Eggs that their Womb gapeth when they lay them: but

¹ *Syngnathus acus*, LINN. For the marsupial habits of this fish, see Yarrell's "British Fishes." Pliny could not have imagined that it is the male which hatches the eggs in his caudal pouches. — *Wern. Club.*

after they are produced the Womb uniteth again: a Thing usual (as they say) in Blind Serpents. The *Mus marinus*¹ diggeth a Furrow within the Ground, and there layeth her Eggs, which she covereth with Earth; and so lets them alone for thirty Days, when she openeth the Place again, and leadeth her Young to the Water.

CHAPTER LII.

Of Fishes' Wombs.

THE Erythrini and Chanæ have Wombs. The Fish which in Greek is called Trochos² is thought to get itself with Young. The Young of all Creatures of the Water, at first, are without Sight.

CHAPTER LIII.

Of the exceeding long Life of Fishes.

IT is not long since that we heard of one memorable Example, which proved the long Life of Fishes. Pauslippum is a Country-seat in Campania, not far from Naples; where (as *Anneus Seneca* writeth) there died a Fish in the Fish-ponds of *Cæsar*, threescore Years³ after it had been put

¹ Aristotle gives the name of *Mus*, or the Mouse, to a freshwater turtle; some of which, of small size, are as active in the water as a mouse on land. It is probable, therefore, that the *Mus marinus* is a small Sea-turtle; and the mice of the Nile (Ch. lviii.), of the same natural family. See p. 136. — *Wern. Club.*

² Turbinated Shell-fish are hermaphrodite; but it is believed that in these, as in the others, self-impregnation is not possible. — *Wern. Club.*

³ But what is this in comparison with a Pike, of which Gesner gives the following account? "In the year of our Lord 1497, a Pike was caught in a pond near Haylprun, an imperial city of Suevia, and fixed to the skin of its gillcovers was a brass ring, of which we give the figure and inscription: with the interpretation, as it was deciphered by John Dalburgus, bishop of Uvormaciensis: 'I am the first fish which, before all others, was placed in this pond by the hand of the Governor of the World, Frederic the Second, on the 5th day of October, (A.D.) 1230:' from whence it was concluded that the fish had already lived 267 years; and if not caught, it appeared likely to have survived much longer." — GESNER'S "*Nomenclator*," &c. p. 316. — *Wern. Club.*

in by *Pollio Vedius*: and there remained living still two more of that Age, and of the same Kind. And since we mention Fish-ponds, we should do well to write a little more of them before we give over this Discourse of Creatures of the Water.

CHAPTER LIV.

Of Oyster-beds, and who first invented them.

THE first who invented Oyster-beds was *Sergius Orata*, who made them at Bajanum, in the Time of *L. Crassus* the Orator, before the Marsian War. And this he did, not for his Appetite, but for Profit; and by this Invention, and others, he gathered great Revenues: for he it was that invented the Hanging-baths, and so sold his Villa to better Advantage. He was the first Man who pronounced the Lucrine Oysters to be of the most excellent Taste: for the same Kinds of Creatures of the Water in one Place are better than in another: as the Lupus-fish in the River Tiber, between the two Bridges: the Rhomnus (Turbot) at Ravenna: the Muræna in Sicily: the Elops at Rhodes, and in like Manner of other Sorts of Fishes; for I do not intend to give a long Criticism on Cookery. At this Time the British Shores were not employed to prepare them when *Orata* ennobled those of the Lucrine Lake; but afterwards it was thought profitable to seek Oysters from Brundusium, in the furthest Part of Italy. And to prevent Controversy between opposite Tastes, it was of late devised that the Oysters, which in the long Carriage from Brundusium were almost famished, should be fed in the Lucrine Lake. A little before this same Time, *Licinius Murena* invented Ponds for keeping other Fishes; and his Example was followed by Noblemen, as *Philippus* and *Hortensius*. *Lucullus* cut through a Mountain near Naples (for this Purpose), and let in an Arm of the Sea into his Fish-ponds; the Cost of which was greater than that of the House which he had built. For this Reason *Pompey* the Great gave him the Name of *Xerxes Togatus*. The Fishes of that Pond, after his death, were sold for thirty hundred thousand Sesterces (three millions of Sesterces).

CHAPTER LV.

Who invented Store-ponds for Muræna.

CAIUS HIRTIUS was the Man who, of himself, before all others, thought of a Pond to keep *Muræna* in. He it was that lent *Cæsar* the Dictator, for his triumphal Suppers, six hundred *Muræna* in Number, to be paid again; for he would not sell them for Money, nor exchange them for other Merchandise. Although his Villa was of moderate size, yet the Fish-ponds about it sold the House for four millions of Sesterces. After this the Love of some one particular Fish became general. The Orator *Hortensius* had a Pond at Bauli, upon the Side that lieth toward *Bæiæ*, in which was a *Muræna* for which he felt such regard, that when it was dead it is believed that he wept for it.¹ At the same Villa, *Antonia* the wife of *Drusus* affixed Ear-rings to a *Muræna* in which she delighted; the Report of which caused some People to wish to visit Bauli.

CHAPTER LVI.

The Preserves for Snails,² and who first invented them.

FULVIUS HIRPINUS was the first Inventor of Store-preserves for Snails within the Territory of *Tarquinius*, a little before the Civil War with *Pompey* the Great. And those had their distinct Partitions for their several Sorts: so that

¹ *Ælian* (B. viii. ch. iv.), perhaps from hearsay, has jumbled these two incidents into one; but he has added a piece of wit, which renders it worth transcribing. "The Romans celebrate the *Muræna* of *Crassus*, which he adorned with ear-rings and precious stones, as if it had been a beautiful girl. He also taught the fish to know his voice, and to swim to him and take food from his hand. I have been informed that when this fish died he wept for it, and gave it an honourable funeral. When on some occasion *Domitius* said to him: 'What a fool, *Crassus*, to weep for the death of a *Muræna*!' To which he answered: 'True, I wept the death of an animal; but that is more than any one saw you do at the funerals of your three wives.'"—*Wern. Club.*

² See B. viii. ch. xxxix.—*Wern. Club.*

the white, which came from the Parts about Reatè, should be kept by themselves: as also the Illyrian, which are remarkable for size: and the African, which are the most fruitful; and the Solitanæ, which are the renowned. Nay, he had a Contrivance to feed them with boiled Wine and Wheat Meal, and other similar Things; to the End that Riot might be served plentifully with home-fed Snails. And the Glory of this Art produced them at last of such Bigness, that one of their Shells would contain fourscore (Measures called) Quadrants,¹ according to *M. Varro*.

CHAPTER LVII.

Of Land-fishes.

THEOPHRASTUS also telleth strange Wonders of some kinds of Fishes: that about Babylon there are Places subject to the Inundations of the Rivers, and in which the Water standeth in Pits, and the Fish remain after the Waters are returned within their Banks; and that some of these Fishes quit those Retreats to seek for Food, walking with their Fins, and wagging their Tails as they go. And if any pursue them they retreat into their Pits, and when in them, stand opposed to them: that their Heads are like those of the *Rana marina*, but the other Parts like the *Gobius*; and the Gills as in other Fishes. Also that about Heraclea and Cromna, and the River Lycus, and in many Parts of Pontus, there is one Kind that haunteth the utmost edges of the Rivers, and maketh itself Holes in the Land, and liveth in them, even when the Shore is dry, and the Rivers are gathered into narrow Channels. Therefore they are digged out; and that they are alive appears finally by the Motion of their Bodies. Near the abovesaid Heraclea and the River Lycus, when the Water is ebbed, there are Fishes bred from the Eggs left in the Mud; and these, in seeking their Food,

¹ Three wine gallons and three quarts: for a Quadrans is three Cyathi, *i. e.* the fourth part of a Sextarius, and a Sextarius is a wine pint and a half, or eighteen ounces.

By quoting an author, Pliny sufficiently testifies that he had never seen a shell of a snail (*Calix*) of such size. — *Wern. Club.*

pant with their little Gills: which they do when they do not want Water: and that is the Reason also why Eels live a long Time after they are taken out of the Water. He affirmeth, also, that the Eggs (of Fishes) lying upon the dry Land, will come to their Maturity, as those of the Tortoises. Also, that in the same Country of Pontus, there are taken Fishes in the Ice, and Gobiones¹ especially, which do not show a vital Motion, but by the Heat of the Cooking-Vessels. In this some Reason may be given, although the Thing is wonderful. The same Author reporteth, that in Paphlagonia there are digged out of the Ground Land-fishes that are very excellent as Food: but they are found in deep Furrows, in such Places where no Waters settle. Himself wondereth how they are produced without the help of Moisture. He supposeth that there is in them a certain Force of Liquid in Wells, as Fishes are found in some of them. Whatever it is, surely it is less wonderful, considering how Moles live (a Creature naturally keeping under Ground), unless, perhaps, that these Fishes are of the same Nature with Earth-worms.

CHAPTER LVIII.

Of the Mice of the Nile.

BUT the Inundation of the Nile brings Credibility to all these Matters; for it exceedeth all other Wonders. For when the Ground becometh again uncovered, little Mice are found imperfectly formed from the generative Virtue of Water and Earth: having one Part of their Body living, but the rest of the Form no better than the Earth.

CHAPTER LIX.

Of the Fish Anthias,² and how it is taken.

I DO not think it proper to omit that which I perceive many have believed concerning the Fish Anthias. We have

¹ Perhaps some fish resembling the Gudgeon. — *Wern. Club.*

² It appears from Oppian, B. i., that four different sorts of fish were called by this name. The fish referred to by Pliny may be the *Labrus anthias*, LINN., and *Serranus anthias*, CUV. — *Wern. Club.*

made mention of the Islands Chelidoniæ in Asia, situated in a Sea full of Rocks under the Promontory; and here this Fish is in Abundance; and they are rapidly taken in one Manner. For the Fisherman goes in a small Boat for certain Days together, to a certain Distance in the Sea, with his Garments of one Colour, at one Hour, and there he casteth his Bait. But whatever is thrown from the Boat becomes an Object of Suspicion to the intended Prey; and what it feareth it guards against; until at length, after this has been often practised, one Anthias, enticed by the Repetition, seizeth the Bait. The Fisherman carefully notes this one Fish as the Foundation of his Hope, and the Enticer of others that will be caught. And that is no hard Matter for him to do, because for some Days that Fish alone dares to come to the Bait. At length he meets with some others, and by little and little he is better accompanied, until in the End he brings with him large Sculls, so that now the oldest of them being so well accustomed to know the Fisherman, they will snatch Meat out of his Hand. Then he thrusteth forth an Hook with the Bait, somewhat beyond his Fingers, and flieth upon them more truly than catcheth them, with a short Snatch; seizing them from the Shadow of the Ship, in such a Manner as not to scare the others away. It is important to Success that he should know the first Enticer, that he may not take him. The Fisherman spareth him, that he may fly to some other Flock. It is reported that one contentious Fisherman, out of Ill-will, captured this Captain-fish which led the rest into the Snare, for he was well known: but when the Fisherman recognised him in the Market in the Possession of a fellow-Fisherman, regarding himself as wronged, he brought his Action for the Damage, so that the other was condemned. *Mutianus* adds, that the Fine was ten Pounds. The same Anthiæ, if they see one of their Fellows caught with a Hook, are reported to cut the Line with the serrated sharp Spines which they have upon their Back; and that one which hangeth at it, stretcheth it out straight, that it may be cut asunder more easily. But the Sargus, if he find himself taken, rubs the Line against a Rock.

CHAPTER LX.

Of the Sea-Stars (Stellæ marinæ).

BESIDES these, I see that some Authors, celebrated for Wisdom, have made a Wonder at the Star in the Sea.¹ It is of small size, fleshy within; but without of a harder Substance. They say it is so fiery hot, that whatever it toucheth in the Sea it burneth: and whatever Food it receiveth, it immediately digesteth. What Proof there is of this I cannot readily say. I would think that more worthy to be recorded which hath daily Experience.

CHAPTER LXI.

Of the Dactyli,² and their wonderful Properties.

THE Dactyli are a kind of Shellfish; and they derive their Name from their Likeness to Men's Nails. The Nature of this Fish is to shine in the Dark, when all other Light is taken away. The more Moisture they have, the more Light they give; they shine in Men's Mouths as they chew them: they shine in their Hands: on the Floor, and on their Garments, if any Drops fall on them: so that it appeareth to proceed from the very Nature of that Juice, which we so wonder at in the Body.

CHAPTER LXII.

Of the Enmity and Amity of Fishes between themselves.

THERE are wonderful Instances of Enmities and Agreement. The Mugil and Lupus burn with mutual Hatred; likewise the Conger and Muræna: so that they gnaw off one another's Tails. The Locusta is so afraid of the Polypus,

¹ The various species of Star-fishes: *Asteriadae*. The ancients indulged the idea that the sea contained a counterpart of every thing that was to be found on the land or in the sky; but to support this opinion, they were contented with very loose analogies, or mere quibbles.—*Wern. Club.*

² *Pholades*, and especially *Ph. dactylus*, LINN.—*Wern. Club.*

that if he spy him near, he immediately dieth. Locustæ tear the Conger :¹ the Congers again do the same to the Polyus. *Nigidius* writeth, that the Lupus biteth off the Mullet's Tail : and yet these Fishes in certain Months are good Friends. But he saith that those Fishes live, although their Tails are so gnawed off. On the other side, there are Examples of Friendship among Fishes, besides those of whose Society I have already written : as between the Balæna, and the Musculus.² For whereas the (Balæna) hath no use of his Eyes, by reason of the heavy Weight of his Eyebrows that cover them, the other swimmeth before him, and serveth him instead of Eyes, to show the Shallows, on which his vast Bulk might be grounded.

From this we will proceed to speak of the Nature of Birds.

¹ Locustæ congrum, ex Arist. lib. vii. cap. ii. Histor. Animal.

² However small their eyes, Whales are, in general, sharp of sight. What the Musculus is, seems uncertain. — *Wern. Club.*



IN THE TENTH BOOK

ARE CONTAINED THE

NATURE AND HISTORY OF FLYING CREATURES.

CHAP.

1. The Nature of Birds.
2. Of the Phoenix.
3. Of Eagles.
4. When the Roman Legions began the Standard of the Eagle, and other Ensigns. Also with what Creatures Eagles maintain fight.
5. A wonderful Case of an Eagle.
6. Of Vultures.
7. Of the Bird Sangualis.
8. Of Falcons and Hawks.
9. Of the Cuckoo, which is killed by Birds of its own Kind.
10. Of Kites.
11. A Division of Birds into their Kinds.
12. Of unlucky or ominous Birds, the Crow, the Raven, and the Owl (Bubo).
13. Of the Bird that carrieth Fire.
14. Of the Bird Clivina.
15. Of many Birds unknown.
16. Of Birds that fly by Night.
17. Of Owlets.
18. Of the Woodpecker.
19. Of Birds which have Claws and crooked Talons.
20. Of Peacocks: and who first killed them for the Table.
21. Of Cocks: how they are castrated: of a Dunghill Cock that spoke.

CHAP.

22. Of Geese: who first devised a Dish of the Goose-liver: the Fat of Geese, called Comagenum.
23. Of Cranes, Storks, Swans, strange Birds of foreign Countries; of Quails, and the Bird Glottis.
24. Of Swallows and Martins, of Blackbirds, Thrushes, of Starlings, Turtle-doves and Ring-doves.
25. Of Birds that tarry with us all the Year; of Birds that continue half a Year only, and others that remain but three Months.
26. Strange Stories of Birds.
27. Of the Birds called Seleucides.
28. Of the Ibis.
29. What Birds will not abide in some Places: which they are that change Colour and Voice: also of Nightingales.
30. Of Merls.
31. The Time wherein Birds breed.
32. Of the Birds Halcyons, the navigable Days they show: of the Gaviæ and Mergi.
33. The Subtlety of Birds in building their Nests: of the common Swallow, the River Martin, Argatilis: the Birds Cinnamologi, and Partridges.

CHAP.

34. Of House-doves.
35. Of Stock-doves.
36. Of Sparrows.
37. Of the Kestrel.
38. Of the Flight and Walk of Birds.
39. Of certain footless Martinets, called Apodes.
40. Of Caprimulgi: also of Spoon-bills, or Plateæ.
41. The Ingenuity of Birds.
42. Of the Goldfinch, Parrot, and Birds that will learn to speak.
43. The Understanding that Ravens have.
44. Of the Birds of *Diomedes*.
45. Of Birds that will learn nothing.
46. The Manner how Birds drink.
47. Of Birds called Himantipodes, and Onacrotali, and of other strange Birds.
48. The Names of many Birds and their Natures.
49. Of new Birds and such as are supposed to be fabulous.
50. Who devised first to cram Hens and Capons; of Coops to keep and feed Fowls, and the first Inventor thereof.
51. Of *Æsop's* Dish.
52. The Generation of Birds, and what four-footed Beasts lay Eggs as well as Birds.
53. The Generation of Eggs, the laying and sitting of them, the Manner and Time of Birds coupling.
54. The Accidents that befall Breeding Birds, and the Remedies.
55. Anguries by Eggs.
56. What Hens are of the best Kind.

CHAP.

57. The Diseases incident to Hens, and the Cure.
58. The Manner how Birds conceive: what Number of Eggs they lay, and how many they hatch.
59. Of Peacocks and Geese.
60. Of Herons and Bitterns. The Way to preserve Eggs.
61. The only Bird that bringeth forth her Young alive, and feedeth the same with Milk.
62. The Conception of the Viper, and how she is delivered of her Young; also what Land Creatures lay Eggs.
63. The Generation of Land Creatures.
64. The Variety of Propagation of Land Animals,
65. The Young of Mice and Rats.
66. Whether the Marrow of a Man's Back-bone will produce a Serpent.
67. Of the Salamander.
68. What Things are engendered of those that were never engendered; and what Creatures which, being engendered themselves, breed not.
69. The Senses of Animals.
70. That Fishes both hear and smell.
71. That the Sense of Feeling is common to all living Creatures.
72. What Creatures live on Poisons, and eat Earth.
73. Of the Meat and Drink of some Creatures.
74. What Creatures evermore disagree: and which they are that agree well together.
75. Of the Sleep of Animals.

This Book hath in it of Histories and Observations 904, gathered out of

LATIN AUTHORS AND RECORDS :

Manilius, Cornelius Valerianus, the Public Records and Registers, Umbricius surnamed Melior, Massurius Sabinus, Antistius Labeo, Trogus Cremutius, M. Varro, Macer Æmylius, Melissus, Mutianus, Nepos, Fabius Pictor, T. Lucretius, Cornelius Celsus, Horatius Desulo, Hysginus, Sarsennæ, both Father and Son, Nigidius, and Manlius Sura.

FOREIGN WRITERS :

Homer, Phæmonoes, Philemon, Boëthius, who wrote a Treatise called Ornithogonia, Hylus, who made a Discourse of Auguries, Aristotle, Theophrastus, Callimachus, Æschylus, Hiero, Philometer, Archytas, Amphilo-chus the Athenian, Anaxipolis the Thasian, Apollodorus of Lemnos, Aristophanes the Milesian, Antigonus the Cymæan, Agathocles of Chios, Apollonius of Pergamus, Aristander the Athenian, Bacchius the Milesian, Bion of Soli, Chæreas the Athenian, Diodorus of Pryæne, Dion the Colo-phonian, Democritus, Diophanes of Nicæa, Epigenes of Rhodes, Evagoras of Thasos, Euphoni-us of Athens, King Juba, Androcion, who wrote of Husbandry, and Æschrion, likewise who wrote thereof, Dionysius who translated Mago, and Diophanes who reduced his Work into an Epitome, Nicander, Onesicritus, Philarchus, and Hesiodus.



THE TENTH BOOK
OF THE
HISTORY OF NATURE.

WRITTEN BY
C. PLINIUS SECUNDUS.

CHAPTER I.

The Nature of Birds.

IT followeth that we should speak of the Nature of Birds, of which the greatest are the Ostriches.¹ They almost approach to the Nature of Beasts, and inhabit Africa or Ethiopia. They are higher than a Man sitting on Horseback; and they are also swifter than a Horse: their Wings being only given them to help them in running; for otherwise they do not fly, nor do they even rise from the Ground. They have Hoofs like Deer, and with them they fight; for as they are cloven, they serve to catch up Stones, which with their Legs they hurl back in their Flight against those that chase them. It is a Wonder in their Nature, that whatever they eat, although it is without choice, they digest. But their Stupidity is not less remarkable; for, high as the rest of their Body is, if they hide their Head and Neck in a Bush, they think themselves altogether concealed. The

¹ *Struthio camelus.*—*Wern. Club.*

Advantages obtained from them are their Eggs, which are so big, that some use them for Vessels; and their Feathers adorn the Crests and Helmets of Soldiers.

CHAPTER II.

Of the Phœnix.¹

THE Birds of Ethiopia and India are for the most part of a variety of Colours, and such as can hardly be described: but the Phœnix of Arabia is more noble than all others. I

¹ The Phœnix is one of the most renowned of the fabulous creatures of antiquity. The first detailed description and history of this bird that we meet with is in Herodotus (Lib. ii. cap. lxxiii.), whose story is substantially the same as what was afterwards, though with various embellishments, repeated and believed for more than a thousand years.

The passage in which Tacitus notices the Phœnix is very remarkable, and deserves to be quoted at length, as being the most authentic account of it that has been preserved, and also as showing that so cautious and accurate a man as he is always considered to be, entertained no kind of doubt as to its real existence, and its periodical appearance in Egypt.

“A. U. C. 787, A. D. 34. Paulus Fabius and Lucius Vitellius succeeded to the consulship. In the course of the year the miraculous bird, known to the world by the name of the Phœnix, after disappearing for a series of ages, revisited Egypt. A phenomenon so very extraordinary could not fail to produce abundance of speculation. The learning of Egypt was displayed, and Greece exhausted her ingenuity. The facts, about which there seems to be a concurrence of opinions, with other circumstances, in their nature doubtful yet worthy of notice, will not be unwelcome to the reader. That the Phœnix is sacred to the sun, and differs from the rest of the feathered species in the form of its head, and the tincture of its plumage, are points settled by the naturalists. Of its longevity the accounts are various. The common persuasion is, that it lives five hundred years, though by some writers the date is extended to fourteen hundred and sixty-one. The several eras when the Phœnix has been seen are fixed by tradition. The first, we are told, was in the reign of Sesostris; the second in that of Amasis; and in the period when Ptolemy, the third of the Macedonian race, was seated on the throne of Egypt, another Phœnix directed his flight towards Heliopolis, attended by a group of various birds, all attracted by the novelty, and gazing with wonder at so beautiful an appearance. For the truth of this account we do not presume to answer. The facts lie too remote; and, covered as they are with the mists of antiquity, all further argument is suspended.

can scarcely tell whether it be false or no, that there is never more than one of them in the whole World, and that it is very rarely seen. It is said to be of the size of an Eagle: as bright as Gold about the Neck; the rest of the Body purple: the Tail azure blue, with Feathers distinguished by being of a Rose-colour; and the Head and Face adorned with a Crest of Feathers on the top. *Manilius*, the noble Senator, excellently well versed in most kinds of Learning, by his own unassisted Efforts was the first and most diligent

From the reign of Ptolemy to Tiberius, the intermediate space is not quite two hundred and fifty years. From that circumstance it has been inferred by many that the last Phœnix was neither of the genuine kind, nor came from the woods of Arabia. The instinctive qualities of the species were not observed to direct its motions. It is the genius, we are told, of the true Phœnix, when its course of years is finished, and the approach of death is felt, to build a nest in its native clime, and there deposit the principles of life, from which a new progeny arises. The first care of the young bird, as soon as fledged, and able to trust to its wings, is to perform the obsequies of its father. But this duty is not undertaken rashly. He collects a great quantity of myrrh, and to try his strength, makes frequent excursions with a load on his back. When he has made his experiment through a long tract of air, and gains sufficient confidence in his own vigour, he takes up the body of his father, and flies with it to the altar of the sun, where he leaves it to be consumed in flames of fragrance. Such is the account of this extraordinary bird. It has, no doubt, a mixture of fable; but that the Phœnix, from time to time, appears in Egypt, seems to be a fact satisfactorily ascertained."—*MURPHY'S "Tacitus," Annals, Book vi. sect. 28.* The concluding paragraph of this second chapter of Pliny is the best comment on this passage of Tacitus.

The fable of the Phœnix, however, is not only found in heathen authors, but is mentioned and believed by many of the Jewish Rabbinical writers also, and even by some of the early Fathers of the Christian Church. Nor are accounts of it wanting in modern authors, even down to so late a period as the middle of the seventeenth century; for Sir Thomas Brown, in the 12th chap. of the 3d book of his "Vulgar Errors," thinks it necessary to state, at some length, his reasons for disbelieving the existence of the Phœnix. Cuvier is of opinion that the original description of the Phœnix might have been taken from the *Phasianus pictus*, a native of China; which, if it ever once flew into Egypt, would be a sufficient foundation for the portent. See Art. "Phœnix," in the "Penny Cyclopædia;" also, "Habits of Birds," in the "Library of Entertaining Knowledge."—*Wern. Club.*

of the long Robe (Toga), who wrote of this Bird; and he reporteth, that no Man was ever known to see him feeding: that in Arabia he is sacred to the Sun: that he liveth 660 Years: and when he groweth old, he builds a Nest with the Twigs of Cassia (Cinnamon) and Frankincense Trees: and when he hath filled it with Spices, he dieth upon it. He saith, also, that out of his Bones and Marrow there breedeth at first, as it were, a little Worm, from which proceeds a young Bird; and the first Thing this young one does, is to perform the Funeral Rites of the former Phœnix, and then to carry away the whole Nest to the City of the Sun, near Panchæa, and to lay it down upon the Altar. The same *Manilius* affirmeth, that the Revolution of the great Year agreeth with the Life of this Bird; in which Year the same Signification of the Times and Stars return again to their first Points: and that this should begin at Noon, that very Day when the Sun entereth the Sign *Aries*. And by his saying, the Year of that Revolution was by him showed when *P. Licinius* and *M. Cornelius* were Consuls. *Cornelius Valerianus* writeth, that while *Q. Plautius* and *Sex. Papinius* were Consuls, the Phœnix flew into Egypt. He was conveyed to the City (Rome) in the Time that *Claudius* the Prince was Censor, in the eight hundredth Year of the City, and was showed openly in the Assembly of the People, as appeareth in the Public Records; but no Man ever made any doubt that this was a counterfeit Phœnix.

CHAPTER III.

*Of Eagles.*¹

OF all the Birds we know, the Eagles excel both in Honour and Strength. There are six Kinds of them. The

¹ In his account of the Eagles, when Pliny does not follow Aristotle, he may have been chiefly led by the authority of the books of the Augurs; to whom the appearance of all strange birds was officially reported, and whose office led them to study minutely their habits. The absence of description in their writings is explained by the fact, that their books contained coloured figures of all the species that came within their

first named by the Greeks *Melænâetos*, which is the same as *Valeria*: the least in size, but the strongest, and in Colour black: in the whole Race of Eagles, she alone feedeth her young: for the rest (as we shall say hereafter) beat them away: she only crieth not, nor keepeth a-grumbling; and she keepeth commonly on the Mountains. Of the second Sort is *Pygargus*. It keepeth about Towns and Plains, and hath a whitish Tail. The third is *Morphnos*, which *Homer* calleth also *Percnos*. Some name it *Plancus* and *Anataria*:¹ the second in Bigness and Strength, loving to live about Lakes. *Phæmonöë*, who was said to be the Daughter of *Apollo*, hath reported, that this Eagle has Teeth; otherwise mute, and without Tongue: also, of all others she is the blackest, and hath the longest Tail. With this agrees *Boëthius*. She is subtle; for when she hath seized on Tortoises, she throweth them down from aloft to break their Shells. It was the Fortune of the Poet *Æschylus* to die by such Means. For it is said to have been foretold by the Fates that he should be killed on a given Day by something falling from the Sky; which he guarded against by trusting to the Safety of the open Sky. Of the fourth Kind is *Percnopterus*, the same as *Oripelargus*, a kind of Vulture with very small Wings, a Body bigger than the rest; but a very

notice. It is also probable, from Ch. xv., that the works of the ancient naturalists were illustrated with representations of the objects referred to, although no such copies have come down to our times.

Eagles: *Malænâetos*, *Valeria*; *Falco fulvus*, CUV. The common Eagle.
Gnesios: *F. fulvus*, in perfect plumage. The Golden Eagle.

Besides which, there is *F. imperialis*, CUV., or Eagle of the Sun; a more powerful bird than the former, and to which Cuvier assigns the stories concerning the Eagle to be found in the books of the ancients.

Pygargus: perhaps *Falco albicilla*, LINN.

Haliætos: *Haliætus ossifragus*, CUV. Fishing Eagle, or Osprey. The *Falco H.* of Linneus is the *Pandion H.* of Cuvier.

Barbata: *ossifraga*: *Falco barbatus*, GMELIN; *Gypuëtos barbatus*, CUV.
Morphnos, &c., is said by Cuvier to be an undetermined species.

Percnopterus: the large and small Vultures may be *Vultus cinereus*, and *V. percnopterus*, LINN. — *Wern. Club.*

¹ For killing of ducks and mallards.

Coward, and of an inferior Race, for a Raven will buffet her. She hath a greedy Appetite, and a continued whining Murmur. Of all the Eagles she only carrieth away the dead Prey; whereas when the others have killed it, they settled upon it. This Kind causeth the fifth to be called *Gnesios*, as being the true, and the only one of pure descent. This Eagle is of a middle size, of a reddish Colour, and rare to be seen. There remaineth the *Haliaetos*; which hath the sharpest Sight of all others, poising herself on high; and when she spieth a Fish in the Sea, down she comes upon it with a Rush, and dashes the Waves aside with her Breast as she snatcheth it up. That Eagle which we have made the third, haunteth standing Waters to prey upon Water-fowl, which now and then dive under the Water; but she seizeth them as they become wearied and confounded. The Contest is worth looking at; while the Bird endeavours to gain the Shore for Refuge, especially if it be well covered with thick Reeds, and the Eagle for her Part drives her from thence with a Blow of the Wing; and whilst the Eagle striketh, and in so doing falleth into the Lake, the Fowl that swimmeth beneath the Water, seeing the Shadow of the Eagle hovering about the Shore, riseth up again in another Place, where her Pursuer could least have looked for her. This is the Cause why these Wild-fowl commonly swim in Flocks; for when they are many together, they are not troubled, because with dashing the Water with their Wings, they dazzle the Sight of their Enemy. Often, also, the very Eagles, not able to bear up the Weight they have seized, are drawn under the Water with it. The *Haliaetos* only, before her young ones are yet feathered, beats them, and thereby forces them to look full against the Sunbeams; and if she notices any one of them to wink, or their Eyes to water, she throws it out of the Nest, as a bastard and inferior Sort; but she educates that one whose Eye-sight is strong enough to sustain the Gaze. *Haliaeti* are not a separate Kind of Eagles, but proceed from the coupling of different Sorts. And that Kind which is produced by them is regarded as a Sort of *Ossifragus*; from which are propagated the lesser

Vultures; and they again the greater, which propagate none whatever. Some add a Kind of Eagle which they call *Barbata*, and the Tuscans *Ossifragæ*.

But the three first and the fifth Kind of Eagles have in their Nest a Stone named *Ætites*,¹ which some call *Gagates*; of extensive use as a Medicine, and suffering no Injury from Fire. Now this Stone is also pregnant; for if it is shaken, another is heard to rattle within, as if it were in its Womb. But that medical Virtue is not in these Stones if they are not taken away out of the very Nest. They make their Nests in Rocks and upon Trees: they lay three Eggs, but two only are hatched: but sometimes they have been seen to have three young ones. But one of them they turn out of the Nest, because they will not be troubled with feeding it. And truly Nature hath well provided that at such a Time they shall not be able to provide Meat; for otherwise they were enough to destroy all the Young of the wild Beasts. Also at this Time their Talons are bent inward; and through Hunger their Feathers grow white, so that they have good Cause to hate their Young. But when they have cast them off, the *Ossifrages*, which are near of Kin to them, receive them and bring them up with their own Birds. But the parent Eagles persecute them still when they are full grown, and drive them a great Way off, as being their Rivals in the Prey. And were it not so, one pair of Eagles needeth a large Extent of Country to furnish them with sufficient Food. They have, therefore, their several Coasts for Prey, and do not trespass on those of a neighbouring pair. When they have seized a Prey, they do not carry it away presently, but first lay it down, and try the Weight before they fly off with it. They do not die for Age or Sickness, but of Famine, by reason that the upper Beak of their Bill so far overgrows inward, that the Crookedness does not permit them to open it.²

¹ B. xxx. ch. xiv.; B. xxxvi. ch. xxi.; B. xxxvii. ch. xi.—*Wern. Club.*

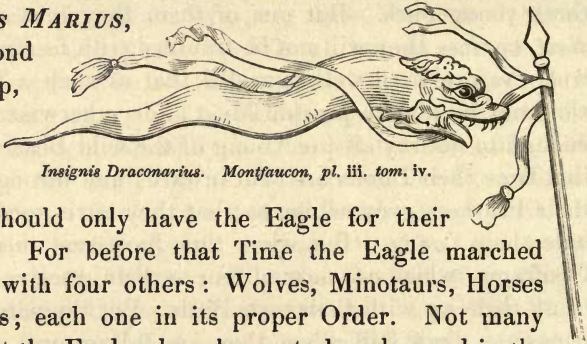
² But this remarkable growth of the hook of the beak in time exfoliates; when the bird becomes capable of feeding, and again gathers health and strength. To this reference is made, Psalm ciii. 5.—*Wern. Club.*

Their Manner is to go to their Business and to fly after Noon-day. For all the former Hours of the Day they sit idle, waiting until Men are got together about their Markets in the Towns. The Feathers of Eagles laid among those of other Fowls will consume them. It is said that the Eagle only is never smitten with Lightning; and therefore it is judged that she serveth *Jupiter* as his Armour-bearer.

CHAPTER IV.

When Eagles began to be the Standards of the Legions; and what Fowls they are that have War with Eagles.

CAIUS MARIUS,
in his second
Consulship,
ordained
that the
Roman



Insignis Draconarius. Montfaucon, pl. iii. tom. iv.

Legions should only have the Eagle for their Standard. For before that Time the Eagle marched foremost, with four others: Wolves, Minotaurs, Horses and Boars; each one in its proper Order. Not many Years past the Eagle alone began to be advanced in the Battle; and the Rest were left behind in the Camp. But *Marius* rejected them altogether. And since this it is observed that scarcely is there a Camp of a Legion wintered at any Time, without having a pair of Eagles.

Of Eagles, the first and second Kind do not prey only upon the lesser Quadrupeds, but also maintain Battle with Deer. She walloweth in the Dust and gathereth a great deal of it among her Feathers, and then settling upon the Horns she shakes it off into his Eyes, flapping it about his Face with her Wings, until she drive him down over the Rocks. Nor is one Enemy enough for the Eagle; but her Fight with the Dragon is more sharp and much more dangerous, although it is in the Air. The Dragon, out of a greedy Desire to do Mischief, watcheth to destroy the Eggs of the Eagle; but the Eagle again for this, wherever she

can see him, catcheth him up. The Dragon, with many Folds windeth about his Wings, and so entangleth them that they fall down both together.

CHAPTER V.

A wonderful Thing of an Eagle.

THE Glory of an Eagle is much celebrated at the City of Sestos; for a young Maiden having brought up a young Eagle, the Bird requited her Kindness by first catching Birds for her, and in process of Time brought to her the Produce of its Hunting. At length the young Girl died; and when her Funeral-fire was set a-burning, the Eagle threw itself on it, and was consumed to Ashes with her. For which Cause the Inhabitants erected in that Place a Monument, such as they call Heroum, denominated (the Tomb) of *Jupiter* and the *Virgin*, because that Bird is consecrated to the God.

CHAPTER VI.

Of Vultures.

THE black Vultures are the best of that kind of Birds. No man ever could meet with their Nests; and therefore some have thought (but untruly) that they fly to us out of an opposite World. But they build in the very highest Rocks; and their young ones have many Times been seen, two generally together. *Umbricius*, who was the most skilful Aruspex of our Age, saith, that usually they lay three Eggs; of which they take one of them to purify the other Eggs and the Nest, and soon after they cast it away: also that they fly two or three days before to the place where there will be dead Carcasses.

CHAPTER VII.

Of the Sangualis and Immussulus.

THE Roman Augurs entertain much Doubt concerning the Sangualis and the Immussulus. Some are of opinion that the Immussulus is the Young of the Vulture: and the Sangualis, the Young of the *Ossifraga*. *Massurius* saith,

that the *Sangualis* and *Ossifraga* are the same, and that the *Immussulus* is the Young of the Eagle, before it comes to have a white Tail. Some have affirmed confidently, that after (the Death of) *Mutius* the Augur, there was never any of them seen at Rome: but I am rather of Opinion (as being nearest the Truth) that, through the supine Negligence of Men in all Things, they do not know them.

CHAPTER VIII.

Of the Accipiter, or Hawk kind.

WE find sixteen Kinds of Hawks:¹ of which the *Circos*, which is lame of one Leg, is held for the most prosperous Augury in Treaties of Weddings and of Cattle. Also the *Triorches*, so called from the Number of its Testicles, to which *Phemonoe* hath given the principal Place in Augury. The Romans called it *Buteo*; and there is still a Family surnamed from it, because it had settled upon the Admiral's Ship, with favourable Auspices. The Greeks name that Kind *Æsalo*, which alone is seen at all Times; whereas the rest are gone when Winter cometh. Hawks are divided into distinct Kinds, by their Greediness: for some never seize a Fowl but upon the Ground: others, again, never attempt a Bird except it is flying about Trees: and others when it is sitting on high: and some when they fly in the open Air. Therefore the Pigeons, knowing the Danger of these Things, so soon as they espy them, either alight upon the Ground, or else fly low; and thus help themselves in a contrary Course to them. There is in the Ocean an

¹ *Accipiter* is a general name for Hawks; but when, as at Ch. xvii., it is used for a certain species, it is *Falco nisus*, Sparrow Hawk.

Triorches: *Falco buteo*, LINN. *Buteo vulgaris*, the Buzzard.

Circus: *Falco æruginosus*, Moor Buzzard.

Buteo: *Falco*, *Subbuteo*, Hobby; with the moderns is a different species from the *Triorches*: and which Belon found to be used as food in Crete.

Æsalo: *Falco asalon*, the Merlin.

Cymindis: Cuvier says, a species not determined. — *Wern. Club.*

Island of Africa called Cernè, in which all the Hawks of Massesyliaë build their Nests on the Ground: and being accustomed to those Nations, they do not breed elsewhere. In a Part of Thracia beyond Amphipolis, Men and Hawks¹ catch Birds together, in a sort of Fellowship; for the Men drive the Birds from the Woods and Reeds, and the Hawks, flying over their Heads, bear them to the Ground. On the other Side the Hawkers divide the Prey with the Hawks: and by Report they let some Birds fly again aloft into the Air, for the Hawks to catch for themselves. When the Time of Hawking arrives, they will by their Cry and Manner of Flying together invite them to take the Opportunity. It is said that Lupi (Bass) do the like, about the Lake Mœotis: for unless they have their Part with the Fishermen, they tear their Nets when they are stretched forth. Hawks do not eat the Heart of any Bird. The Night-Hawk is called Cymindis: it is seldom seen in the Woods, and by Daylight seeth little. There is deadly War between it and the Eagle; and often they are both taken, by holding fast one with the other.

CHAPTER IX.

Of the Coccoyx, which usually is killed by Birds of its own Kind.

THE Cuckoo² appeareth to be formed of an Hawk, changed in its Shape at one certain Time of the Year: for then the other Hawks are not to be seen, unless for some very few Days. It showeth itself also only for a small Sea-

¹ Falconry was little known to the Romans, but it was held as honourable in some parts of Greece. Hence the Greeks denominated the falconry hawks *Hierax*, and the falconer *Hieracaros*; although, perhaps, this idea of their sacred character may have been derived from Egypt, where the *Accipiter Ægyptius* was so deemed, because it preyed on serpents. — *Wern. Club.*

² The history of the Cuckoo may be seen in Mr. Yarrell's "British Birds." The ancient opinion that this bird became changed into a Hawk, was derived from the fact that one of the migratory Hawks appeared about the time when the Cuckoo departed. — *Wern. Club.*

son in Summer, and afterwards appeareth no more. It is the only one of the Hawks that hath no hooked Talons, nor is its Head like theirs, nor is it like them in anything but Colour; and the Gape of the Mouth more resembleth that of the Dove. Nay, the Hawk will devour it if they appear together; and it is the only Bird of all others that is killed by those of its own kind. It altereth its Voice also. In the Spring it cometh abroad, and at the rising of the Dog-star it hideth itself. It lays always in other Birds' Nests, and most of all in the Stock-doves', commonly one Egg only, which no other Bird doth besides; and seldom two. The Reason why they place their Young under other Birds is because they know that all Birds hate them, for even little Birds annoy them; therefore, that the whole Race of them should not be utterly destroyed, they make no Nest of their own, being otherwise timorous in their Nature. The Nurse, therefore, bringeth up the substituted Chick in the adulterated Nest. And this young Cuckoo, being Greedy by Nature, intercepteth the Meat from the other young Birds, and so groweth fat; whereby it cometh into favour with the Nurse. She rejoiceth in its Appearance, and wonders at herself that she hath hatched such a Chick. The rest, which are her own, she condemns in comparison with this one, as being Strangers, and suffereth them to be devoured before her Face; and at last the young Cuckoo, being able to fly, seizeth also her Nurse. And by that Time no other Bird is to be compared to the young Cuckoo for Sweetness of Flesh.

CHAPTER X.

*Of the Milvus.*¹

THE Milvus is of the same Kind of Hawks, but it differs in size. This hath been observed in them: that being a most ravenous Bird, and ever hungry, yet they are never known to snatch any Food from the Dishes of the Funeral Feasts; nor from the Altar of Olympia; nor will they pluck it

¹ *Falco milvus*, LINN.; *Milvus vulgaris*, YARRELL. The Kite, or lead.—*Wern, Club.*

out of the Hands of those that served, unless as a mournful Portent of the Town's-people that sacrificed. These Birds seem, by the turning of their Tails to and fro, to have taught the Art of Steering; Nature showing that in the Air which is necessary in the Deep beneath! The Milvus also, is not seen in the Winter Months; but they do not go away before the Swallows. Moreover, it is said that after the Solstices they are troubled with the Gout.

CHAPTER XI.

Arrangement of Birds into Genera.

THE first Distinction in Birds is chiefly taken from their Feet, for they have either hooked Talons or Toes; or else they are in some sort broad and flat, as Geese, and almost all the Water-birds. Those which have hooked Talons for the most part feed only upon Flesh.

CHAPTER XII.

Of unlucky Birds: the Cornix, Corvus, and Bubo.

THE Cornix¹ liveth also on other Food: for when they meet with a hard Nut which resists their Bill, they will fly aloft and fling it against the Rocks or Tiles many Times together, until it is so bruised that they can easily break it. This Bird's Chattering is inauspicious, although by some it is praised. It is observed, that from the (going down) of the Star Arcturus to the coming of the Swallow, it is not seen elsewhere but in the Groves and Temples of *Minerva*, and that but seldom, as at Athens. Moreover, this Bird only feedeth her Young for a good while after they are able to fly. She is most unlucky at the Time of Young, that is, after the Solstice. All other Birds of the same Race drive their young ones out of the Nest, and force them to fly; as the *Corvus* also, which likewise feed not on Flesh only; and they likewise, when they perceive their young ones to be

¹ *Cornix*: *Corvus coronè*, the Crow. *Corvus*, *C. corax*, the Raven.—*Wern. Club.*

strong, drive them away far off. Therefore about little Villages there are commonly not above two Pair of them. And about Cranon in Thessaly, there is not above one Pair of them: for the Parents yield the Place to the Offspring. There are some different Properties in this Bird, and that before-mentioned. The Corvi breed before the Solstice, and for sixty Days they are sick, chiefly with Thirst, until the Figs are ripe in Autumn: and from that Time the Corvix is diseased. The Corvus for the most part layeth five Eggs, and the Vulgar are of opinion that they conceive and lay Eggs at the Bill; and therefore if Women with Child eat a Raven's Egg, they shall be delivered of their Children at the Mouth: and generally they have difficult Labour if such an Egg be brought into the House. *Aristotle* denieth this: no more, by *Hercules*, than the Egyptian Ibis: but that the kissing which we see them do often, is like what Pigeons also do. The Corvi alone seem to have a Knowledge of their own Significations in Presages; for when the Guests of Media were all slain, they all flew away out of Peloponnesus and the Region of Attica. The worst Signification they afford is when they swallow their Voice as if they were choked.

The Night-birds have also crooked Talons; as the *Noctua Bubo* and *Ulula*.¹ All these see but badly in the Day-time. The *Bubo* betokeneth Mourning, and is most execrable, especially in the Presages of public Affairs: it keepeth in solitary Places; and not desolate only, but also such as are horrible, and hard of access. It is the Monster of the Night, not uttering a clear Sound, but muttering a Groan; and therefore, if seen in Cities, or otherwise abroad in the Light, it is a dreadful Portent. I myself know, however, that it hath perched upon many Houses of private Men, and yet no deadly Accident followed. It never flieth directly whither it would itself go, but is carried away across. One of them entered the very Sanctuary of the Capitol, in the Year

¹ *Noctua*, *Strix otus*, LINN.; *Otus vulgaris*, YARRELL.—Eared Owl. *Bubo*, *strix bubo*, LINN.; see Ch. xvi. *Noctua*, *strix flammea*, LINN.—Barn Owl.—*Wern. Club*.

when *Sext. Papellio Ister* and *L. Pedanius* were Consuls; on which Account, at the Nones of March, the City that Year passed through a Lustration.

CHAPTER XIII.

Of the Bird Incendiaria.

THE Bird *Incendiaria* is likewise inauspicious; and we find in our Annals, that on account of it the City many a Time hath been lustrated; as when *L. Cassius* and *C. Marius* were Consuls: in that very Year when, by Occasion of a *Bubo* being seen, the Lustration also was performed. But what Bird this is, neither do I know nor yet find in any Writer. Some give this Interpretation of *Incendiaria*, that it is any Bird which hath been seen carrying a Coal from any kind of Altar. Others called this Bird *Spinturnix*; but hitherto I have not met with the Man who would say, that he knew what Bird this should be.

CHAPTER XIV.

Of the Clivina.

LIKEWISE the Bird named in old Time *Clivina*, which some call *Clamatoria*, and *Labeo* by the Name of *Prohibitoria*, I perceive is as little known as the other. *Nigidius* also maketh mention of a Bird called *Subis*, which breaks the Eggs of Eagles.

CHAPTER XV.

Of unknown Birds.

IN the Tuscan Learning¹ there are many Birds drawn which have not been seen for Ages. And it is surprising

¹ Augury appears to have particularly flourished among the Tuscans, and it was that portion of ancient religious practice which mixed itself most with the habits of ordinary life; so that no important step in life could be taken without its authority, and no strange circumstance, more particularly regarding birds, be noted without the professors of this art being called upon to supply an interpretation and provide a ceremony for

that they are now extinct, when those still continue in Abundance which human Appetite consumes.

CHAPTER XVI.

Of Nocturnal Birds.

OF Foreigners, one who is called *Hylas* is thought to have written learnedly concerning Auguries. He reporteth

averting the omen. The science was divided into two portions: one of which referred to the auspices, or the view of birds; and the other, which more especially bore the name of augury — *abavium garritu* — consisted in attending to the sounds uttered by birds. The birds themselves that afforded these prognostications were supposed to be moved *ab anima sua*, by an inward action proceeding from the influence of Deity: those which by their singing attracted the attention of the augurs, were termed *Oscines* (Ch. xxix.): a name which thus became a denomination for all singing-birds: such as were supposed to signify that an action ought not to be persevered in were called *Prohibitoria* (Ch. xiv.), and the word obscene was simply descriptive of birds of ill omen, although the term has been subsequently applied with another meaning. A journal of the transactions of this college of religious naturalists was kept of the occurrence of every rare event, and the appearance of every strange bird, coloured representations of which were drawn, for reference on any future emergency. For the conveniency of official observation, a measured space, termed Pomarium, round the walls of the city, and separating it from the country, was kept free from buildings or enclosures; and the Palatine hill of Rome was in old time excluded from the city and the Pomærium, because it was the resort of birds of ill omen. Spaces in the sky were measured out by the official staff; and the birds themselves were arranged in classes, to render the rules of prognostication more precise. An augur who entered into the spirit of his profession was necessarily skilful in ornithology; but those who were more speculative would make additions to species or classes, which the experience of others would fail to confirm. The public terror was thus entirely in the power of the augurs, for even a slight change of structure, discovered when the bird was cut asunder for sacrifice, was deemed a portent: and there are proofs that some among them might be induced to shape their reports in a manner to suit private purposes. The opinion of Accius on augurs is thus given:—

“Nihil credo auguribus, qui aures verbis divitant
Alienas, suas ut auro locupletent domos.”

— *Wern. Club.*

that the Noctua Bubo, the Picus¹ that pecketh Holes in Trees, the Trogon² and the Cornix come out of their Shells with their Tails first; because through the Weight of their Heads the Eggs are turned (with the wrong End downward), and so the hinder part of their Bodies lieth next under the Hen to cherish with her Heat.

CHAPTER XVII.

Of the Noctua.

THE Contest of the Noctua with other Birds is with much Skill; for when they are beset with a Multitude of them, they lie upon their Backs, and resist with their Feet; gathering themselves into a narrow Compass, so as to cover their whole Body with their Bill and Talons. The Accipiter, by a peculiar Society of Nature, renders Assistance, and shareth the War. *Nigidius* writeth, that the Noctua for sixty Days in Winter keepeth close, and hath nine different Notes.

CHAPTER XVIII.

Of the Picus Martius.

THERE are also some small Birds which have hooked Claws, as the Picus; which is distinguished by the Name of Martius, and are of great Account in Auspices. They that peck Holes in Trees, and climb in a pilfering Way like Cats, are of this Race. They lie supine, and when they strike with their Bills against the Bark, they know by the Sound that there is Food within. These Birds alone bring up their young ones in Excavations of Trees. And if a Shepherd wedge up their Holes, the Vulgar believe that they will unstop it by the means of an Herb which they apply. *Trebis* writeth, that if a Man drive a Spike or Wedge with all his Might into the Tree in which this Bird hath its Nest, when she settleth upon the Tree, it will instantly fly out (with such a Force) that the Tree will give a Crack. In

¹ *P. Martius*, the greater Woodpecker. — *Wern. Club.*

² Perhaps Trygon; *Columba turtur*, the Turtle-dove. — *Wern. Club.*

Latium these are the principal Birds in Auguries, from that King¹ who gave them their Name. And one Presage of theirs I cannot pass over: one of them alighted upon the Head of *L. Tubero*, Prætor of the City, as he was distributing Justice on the Judgment-seat in the Forum, and there rested so gently, that it suffered him to take it with his Hand. The Prophet answered, that if the Bird were let go it would portend the Ruin of the Empire; but if it were killed, it denounced Death to the Prætor; and he immediately tore the Bird in pieces: nor was it long before the Prodigy was fulfilled. There are also some of this Kind that feed upon Mast, and many on Apples; but they do not live on Flesh only, except the *Milvus*, which causes that Bird to be mournful in Auguries.

CHAPTER XIX.

Of Birds that have hooked Talons and Fingers.

THOSE which have crooked Claws do not assemble in Flocks, but prey each one for itself. And almost all these fly aloft except the Night-birds; and the greater Sort especially. They are all of them great winged, little bodied, and walk with Difficulty. They seldom perch upon Rocks, being hindered by the bending inward of their Talons. It remaineth that we speak of the second Order of Birds, which is divided into two Sorts: *Oscines* and *Alites*. For the singing of the one Kind, and the Bigness of the other, maketh the Distinction. Therefore they are treated of first in Order.

CHAPTER XX.

Of the Pavo;² and who was the first that killed them for Food.

THE Class of the *Pavo* excels all the others, as well in Form as in his Understanding and Glory. For when he is

¹ *Picus*.

² *Meleagris pavo*, LINN.; *Pavo cristatus*, Peacock. Martial expresses his regret that so beautiful a bird should be delivered over to the cruelty

praised he spreadeth his Colours, which shine like precious Stones, and which he most commonly turneth towards the Sun; for so they shine with the most glittering Lustre. And at the same Time also his Tail takes the Shape of a Shell, and Shades are formed by the Reflexions of other Colours, which shine the brighter when contrasted with the dark; and he draws the whole of his Feathers together into an Accumulation, which it rejoiceth the Eyes to look at. When he hath lost this Tail, which is at the turn of the Year, when Trees shed their Leaves, until it grows again with the Flowers, as if ashamed and lamenting, he seeketh retired Places. The (Peacock) liveth twenty-five Years. At three Years of Age he beginneth to pour forth his Colours. Authors say that he is not only a vain-glorious Creature, but also as malicious as the Goose is unassuming; for so have some of them recorded their Remarks on these Birds: but they are not satisfactory to me.

The first that killed a Peacock for the sake of Food was the Orator *Hortensius*, in his solemn Supper when he was consecrated Priest. And *M. Aufidius Lurco* was the first that contrived to fatten them; which was about the Time of the last Pirates' War; by which Invention of his he obtained a yearly Profit of 60,000 Sesterces.¹

CHAPTER XXI.

Of Cocks; and how they are emasculated. Also of a Dunghill Cock that spoke.

NEXT, these our Sentinels by Night, and whom Nature hath created to break Men of their Sleep, to arouse them to their Work, have also a Sense of Glory. They know the Stars; and they distinguish the third Hour portions by their crowing.

of a cock (*Xenia*, 65); and Tiberius put a man to death for stealing a peacock *e viridario*, from a green-house. Long before this they were so rare, and so much admired, as to be among the importations of Solomon (1 Kings, ch. x). They appear to have been kept tame, even so early as the time of Job (ch. xxxix). — *Wern. Club.*

¹ 468 lib. 15 shil.

They go to roost with the Sun; and at the fourth watch in the Camp they call Men up to their Cares and Labour: they will not suffer the Sun to steal upon us unwarned; but by their crowing they proclaim the coming Day, and they foretel their crowing likewise, by clapping their Sides. They are Rulers of their own Kind; and in whatever House they are, they exercise Sovereignty. This is gotten by fighting one with another, as if they knew that naturally they had Weapons given them on their Legs for this Purpose; and many Times there is no end until they kill one another. But if one of them obtains the Palm, immediately he croweth for his Victory, and makes it known that he is truly the Chief. He that is beaten hideth himself in Silence; but beareth his Bondage with Reluctance. And the very common Sort, also, are as proud; marching with their Neck stretched upright, and the Comb lifted aloft. And there is not a Bird besides that so often looketh at the Sky, at the same Time erecting his arched Tail; and therefore it is, that they are a terror to Lions, which of all wild Beasts are the most courageous.

Now of these Cocks, some are bred for nothing but Wars and constant Battles; and these Cocks have rendered illustrious the Countries from whence they come, as Rhodus and Tenagra; in a second Place of Honour are esteemed those of Melos and Chalcis; so that to those Birds, for their Worth, the Roman Purple affords much Honour. These are they from which the *Tripudium solistimum*¹ is observed. These rule our Magistracy every Day; and they open or shut their Houses to them; they urge forward or hold back the Roman Rods; they order or forbid the Battle, and were the Auspices of all our Victories throughout the World; and,

¹ A kind of omen derived from the manner of their eating. It was the business of the proper officers to watch this: of others, their mode of walking; of others, their voice and crowing; of others, their air and countenance; and the principal of all attended to the appearance of their entrails in sacrifice. As the cock was peculiarly an emblem of watchfulness, the augury derived from him was of particular importance in the army; and cocks continued to be carried with armies in comparatively modern times, professedly to proclaim the hours by their crowing, but certainly through the lingering remains of ancient custom. — *Wern. Club.*

more than all, these Birds govern the Government of all Nations upon the Earth : acceptable to the Gods in Sacrifice with the small Fibres of their inwards, as the best Victims. Their crowing out of Order, and in the Evening, possesseth a Portent ; for by their crowing all Night long, they presaged to the Bœotians that noble Victory over the Lacedæmonians ; this Interpretation being offered, because that Bird never croweth if he is overcome. If they are castrated they cease to crow. And this Operation is practised upon them in two Ways : either by burning their Loins with a hot Iron, or by cauterising their Thighs beneath, and then presently applying to the Ulcer Potter's Chalk ; and thus they will sooner grow fat. At Pergamus every Year there is an Exhibition publicly afforded to the People, of Cocks, as of Gladiators. We find in our Annals, that in the Territory of Ariminum, when *Marcus Lepidus* and *Quintus Catulus* were Consuls, a Dung-hill Cock spoke ; and it was at the Villa of *Galerius*. But this only happened once, so far as I can learn.

CHAPTER XXII.

Of Geese: and who first ate the Liver of the Goose. Also of the Fat of the Goose of Comagenè.

THE Goose¹ likewise is very vigilant, as witness the Capitol defended at that Time when, through the Silence of the Dogs, all was betrayed. And therefore the first Thing the Censors do, is to place Food for the Geese. Moreover, they are said to be much given to Love ; for at Argos there was a Goose that was enamoured of a fair Boy named *Olenus* : as also of *Glaucè*, who used to play on the Luté (Cithara) before King *Ptolemy* : and it is reported that at the same Time a Ram was in love with her. It may be thought also that there is visible in this Creature some

¹ *Anas anser*, LINN. The narrative of the preservation of the Capitol from the attack of the Gauls, is found in all the Roman histories. But Geese were held sacred long before this : perhaps as an emblem of watchfulness. — *Wern. Club.*

Sparks of Wisdom. For *Lacydes* the Philosopher is said to have had one of them attached to him as a constant Companion, which would never leave him Night or Day, neither in the open Street, nor at the Baths. But our Countrymen are wiser, who know how to make a Dainty of their Liver.¹ In those Geese that are crammed (the Liver) groweth exceedingly great; and when it is taken out it plumps up if it is steeped in Milk and Mead. With good Cause, therefore, it is in Controversy who first invented so great a Good: whether it was *Scipio Metellus*, a consular Man, or *M. Sestius*, who in the same Age was a Roman Knight. But it is certain that *Messalinus Cotta*, Son of *Messala* the Orator, found out to broil the broad Feet of Geese, and with Cocks' Combs to compose a Dish of Meat: for I will truly give every Man his Due for the Praise of his Cookery. It is a wonderful Thing of these Birds, that they should walk all the Way from Morini to Rome. Those that were weary were brought forward to the Forefront; and so the rest, by crowding together as they naturally do, drive these tired ones before them. A second Revenue of such Geese as are white is their Down. In some Places they are plucked twice a Year: and they are clothed with Feathers again, and the nearer to the Flesh so much the softer. But that which is brought out of Germany is most esteemed. The Geese there are white, but of less size; and they are called *Ganzæ*.² The Cost of these Feathers is at five *Denarii*³ a Pound; and hence it is that so many Charges are made against the Prefects of the auxiliary Soldiers, that they send whole Cohorts from the Guard

¹ Martial says, they caused the liver to grow to be as large as the goose:—

“Adspice quam tumeat magno jecur ansere majus!”

Palladius says, that for this purpose they were fed on pounded figs soaked in water, and rolled into pellets: and that this treatment began when they were thirty days old. They were also exposed to intense heat.—*Wern. Club.*

² Some copies read *Gantæ*; a word this, perhaps, the origin of our word Gander.—*Wern. Club.*

³ 3 shil. 1d. ob.

Station to hunt Geese. And to this extent is Delicacy grown, that without this Material even our Men are not able to bear their Pillows.

To that part of Syria called Comagenè,¹ we are beholden for another Invention. The Grease of Geese with Cinnamon is put into a brazen Pot, and covered over with abundance of Snow, and they let it steep well infused in this cold Matter, to use in that noble Medecine which from that Country is called Comagenum.

Of the Geese kind are the Chenalopeces;² and (than which there is not a daintier Dish known in Britain) the Chenerotes,³ which are less than the wild Geese.

The Tetrao⁴ have a shining Appearance, that looks becoming in their absolute Blackness; and their Eyebrows are red like Scarlet.

Another Kind there is of them, bigger than Vultures,⁵ and in Colour much resembling them. And there is not a Fowl, except the Ostrich, that weigheth more heavy than they. For they grow to that size, that a Man can hardly lift them from the Ground. These breed in the Alps and the North Countries. If they are confined in an Aviarium, they loose their Flavour: they die through Sullenness, by holding in their Breath. Next to these are such as in Spain are called the Avis Tarda,⁶ and in Greece Otides: but they are not approved as Food, for the Marrow in their Bones, if let out, instantly produceth an insufferable Smell.

¹ See B. xxix. ch. iii. — *Wern. Club.*

² *Anas Ægyptiaca*, CUV. Egyptian Goose. — *Wern. Club.*

³ A word equivalent to *Anser amiabilis*, and supposed to describe the *Anas Bernicla*, LINN. Bernacle Goose. — *Wern. Club.*

⁴ *Tetrao Tetrix*, LINN. Black Cock. — *Wern. Club.*

⁵ *Tetrao Urogallus*, LINN. Caper Cailzie. — *Wern. Club.*

⁶ *Otis tarda*, Great Bustard. — *Wern. Club.*

CHAPTER XXIII.

Of the Grus,¹ Ciconia,² Olor,³ some foreign Birds, and the Coturnix and Glottis.

THE Nation of the Pigmies enjoys a Truce when (as we have said before) the Cranes, who wage War with them, depart into other Countries. And if a Man consider from how far they come, from the Levant Sea, it is an immense Extent. When they set forward it is by general Consent. They fly high, to have a good look out; and they choose a Leader, whom they follow. In the extremity of their Host there are some disposed which utter Cries, and keep the Flock in orderly Arrangement with their Voice; and this they do by turns. They maintain a Watch all the Night long, and the Sentinels hold a little Stone⁴ in their Foot, which by falling from it, if they sleep, reproves them for their Negligence. All the rest sleep, couching their Heads under their Wings; and they stand sometimes upon one Foot, and sometimes on the other. The Leader beareth his Neck aloft in the Air as he looks forward, and giveth his Word what is to be done. These

¹ *Ardea grus*, LINN. The Crane. For their hostility to the Pigmies, see B. iv. Ch. xi. — *Wern. Club.*

² *Ardea ciconia*, LINN. The Stork. — *Wern. Club.*

³ *Anas olor*, and *A. cygnus*, LINN. The wild and tame Swan.

The lamentable singing referred to by the author is often alluded to by ancient writers; but nothing of the sort has been witnessed by modern observers. — *Wern. Club.*

⁴ “The old grammarian, Johannes Tzetzzer, has rendered this story into Greek verse; and the historian Ammianus Marcellinus tells us, that in imitation of the ingenuity of the Crane to insure vigilance, Alexander the Great was accustomed to rest with a silver ball in his hand, suspended over a brass basin, which, if he began to sleep, might fall and awake him.” — “Habits of Birds,” in *Library of Entertaining Knowledge.* — *Wern. Club.*

Cranes, when tamed, are very playful; and they will, one by one, dance round with an odd sort of Walk. It is certain that when they are about to take flight over the Pontus, they will fly first of all to the Straits between the two Capes, Criu-Metophon and Carambis, and then presently they steady themselves with Ballast. When they have passed the middle they fling away the Stones from their Feet; and when they are come to the Continent they discharge the Sand from their Throat.

Cornelius Nepos, who died when *Divus Augustus* was Sovereign, where he wrote, That a little before his Time Men began to fatten the captured Thrushes, adds, That Storks were held for a better Dish than Cranes. But now, no Man will touch (a Stork); while the Crane is sought after among the principal Delicacies. From whence these Storks should come, or whither they return, is not yet known. No doubt they come from remote Countries, and in the same manner as the Cranes; only that the Cranes are our Guests in Winter, and the Storks in Summer. When they are about to depart they assemble in a Place appointed, and they form such a Company that not one of the Kind is left, unless it be some one that is not at Liberty. They take their Departure on the given Day, as if by an established Law. Although it appeared that they were about to remove, yet no Man hath seen the Flock as it went; neither do we see them come, but we know that they are come, and they do the one and the other always by Night. And although they fly away and return, yet they are supposed never to have arrived anywhere but in the Night. There is a Place in the open Plains of Asia, called Pithonos-Comè, where they assemble, and make a murmuring Noise among themselves, and tear in Pieces that one which was the last to arrive; and then they depart. It hath been noted, that after the Ides of August they are not easily seen there.

Some affirm that Storks have no Tongues. So highly are they respected for destroying Serpents, that in Thessaly it was a capital Crime to kill a Stork, and by Law he is punished the same as for slaying a Man.

After the same manner Geese and Swans associate together; but they are seen in their Flight. They make Way forcibly after the Manner of the Beaks of Ships, for by this Means they more easily divide the Air than if they drove it before them with a straight Front. The Flock is spread out by Degrees, expanding itself like a Wedge behind, and so affords a great Space to the Wind, which impels them. They rest their Necks upon those that are before them, and as the Leaders become weary they retire behind. Storks seek the same Nest, and they support their aged Parents in return for their Kindness.

Some say there is lamentable singing at the Death of Swans, but untruly, as I suppose; for, from some Experience, these Birds devour one another's Flesh among themselves.

But this Discourse of those Fowls that make Voyages in Flocks over Seas and Lands will not allow me to put off speaking of lesser Birds also, which are of the same Nature; for those before-named may seem to be induced to do so by the size and strength of their Bodies. Quails,¹ therefore, always come before the Cranes. It is a little Bird, and when it comes to us, it belongs to the Ground rather than the Air. The Manner of their flying is like the former; not without some Danger of the Sailors when they approach near to Land. Because they often settle upon their Sails, which they do always in the Night, and sink Vessels. Their Journey is through established Resting-places. In the Southwind they do not fly; because it is wet and heavy. And yet they choose to be conveyed by the Wind, on Account of the Weight of their Bodies and their feeble Strength. Hence as they fly their complaining expresses their Effort. Commonly, therefore, they fly with a North Wind, the *Ortygometra* being the Leader. The first of them, as it approacheth

¹ *Tetrao coturnix*, LINN. Some have supposed the *Ortygometra* (Mother of Quails) to be only a larger individual of this species; others suppose it the Rail, *Rallus crex*. It is judged with some probability that not this species, but the Katta (*Tetrao alchata*, LINN.) is the bird referred to, under the name of Quail, in the Books of Moses, and by David, Ps. lxxviii. — *Wern. Club.*

the Land, is seized by the Hawk. Whenever they are upon their Departure hence they solicit other Birds to accompany them, and by their Inducements there go with them the Glottis,¹ Otis,² and Cychramus.³ The Glottis putteth forth a long Tongue; from which it hath its Name. This Bird is very forward at the first setting out on the pleasant Journey; but it findeth Repentance in the Pain of the Flight. To go back again without Company it is ashamed; and so to lag behind; neither does it ever persevere for more than one Day; for at the next Resting-place it deserteth the Company; but it meeteth with others which the Year before were left behind: and thus they do from Time to Time. The Cychramus is of a more persevering Nature, and maketh Haste to reach those Parts which it so much desireth: and therefore in the Night it rouses them, and puts them in mind of the Journey. The Otis is less than the Bubo, and larger than the Noctua, having two Ears, formed of Feathers standing aloft; from which it took its Name. But in Latin some have called it Asio. This Bird, besides, is skilful in Imitation, like a Parasite; and, in a particular Way, a Dancer. It is easily taken as the Noctua, while it looks intently on any one, by another that goes round it. But if a contrary Wind should begin to hinder the Flight of the Troop, they render their Progress steady by grasping small weighty Stones, or stuffing their Throat with Sand. The Seed of the Veratrum is a grateful Food to Quails; for which Reason they are banished from Table. At the same Time they are accustomed to slaver at the Mouth, by Reason of the comital Disease;⁴ which they only are the Creatures, except Man, that are subject to.

¹ *Totanus glottis*, Cuv. Greenshank.—*Wern. Club.*

² *Otus brachyotus*, Cuv. Small-ear'd Owl.—*Wern. Club.*

³ *Cychramis*, or *Cynchrasmus*. Belon supposes it the *Emberiza miliaria*, Common Bunting; but according to Aldrovandus, *E. hortulana*, the Ortolan.—*Wern. Club.*

⁴ Comital disease, or Epilepsy. The author forgets what he had said of the Elk being subject to it.—*Wern. Club.*

CHAPTER XXIV.

Of the Hirundo, Merula, Turdus, Sturnus, Turtur, and Palumbus.

THE *Hirundo*¹ also (the only Birds among those that have not crooked Claws, which feed upon Flesh) are gone from us all the Winter. But they go no further than to neighbouring Places, where they follow the sunny Recesses of the Mountains, and where many Times they are found naked, and without Feathers. It is said they never build under any Roof in Thebes, because that City had often been taken; nor at Bizia in Thrace, on Account of the Wickedness of *Tereus*. *Cæcina* of Volaterræ, of the Equestrian Order, and Master of the Chariots, was accustomed to bring with him into the City a Number of these Swallows, which he sent off to his Friends as Messengers of Victory; and they would return to the same Nest from which they were taken, smeared over with the Colour of Victory. Also *Fabius Pictor* reporteth in his Annals, that when a Roman Garrison was besieged by the Ligustini, a Swallow was taken from her little ones and brought to him, that by the Number of Knots in a Thread tied to her Foot he should signify to them on what Day they ought to make a Sally to meet the coming Help.

Merulæ,² *Turdi*, and *Sturni*, after the same manner, quit us for the neighbouring Places. But these do not cast their Feathers, nor lie hid; but are seen often in Places where they seek Meat to serve them in Winter. And therefore *Turdi* are chiefly seen in Germany in Winter.

The Turtle more truly hides herself, and sheds her Plumage.

Palumbes also leave us, but where they go is uncertain.

¹ The Swallow tribe. See Chap. xxxiii. — *Wern. Club.*

² *Turdus merula*, LINN.; the Blackbird. *Turdi*: *Turdus musicus*, the Thrush; and perhaps, also, *T. Iliacus*, LINN.; the Redwing. *Sturni*: *Sturnus vulgaris*, LINN.; the Starling. — *Wern. Club.*

The Race of Starlings have the Property to fly in Troops,¹ and in their Flight to gather round into a kind of Ball, where every one hath a tendency to be in the midst.

Of all Birds, the Swallow alone fieth in a bending Course, which is swift and easy; and therefore it is not so liable to be seized by other Birds. To conclude, it is the only Bird that never feedeth but while flying.

CHAPTER XXV.

What Birds continue with us all the Year; which are half-year Birds, and which only for three Months.

THERE is great Difference in the Seasons of Birds. Some remain the whole Year, as Columbæ; others half the Year, as Hirundines; and some but a quarter, as Turdi and Turtures. Some go away as soon as they have brought out their Young, as the Galgulus² and Upupa.³

CHAPTER XXVI.

Strange Stories of Birds.

THERE are Writers who affirm, that every Year there are Birds which fly out of Ethiopia to Ilium; and there, about the Sepulchre of *Memnon*, fight each other: for which Cause they call them *Memnonides*.⁴ And *Cremutius* delivers it as

¹ Mr. Knapp, in his "Journal of a Naturalist," observes, "there is something singularly curious and mysterious in the conduct of these birds previous to their nightly retirement, by the variety and intricacy of the evolutions they execute at that time. They will form themselves, perhaps, into a triangle, then shoot into a long pear-shaped figure, expand like a sheet, wheel in a ball, as Pliny observes, each individual striving to get into the centre, with a promptitude more like parade movements than the actions of Birds."—*Wern. Club*.

² Sometimes written Galbulus. *Oriolus galbula*, LINN.; Golden Oriole.—*Wern. Club*.

³ *Upupa epops*, LINN. Hoopoe.—*Wern. Club*.

⁴ *Ælian* (B. v. ch. i.) describes these birds as being black, and bearing a general resemblance to the Hawk tribe; but feeding on seeds, and not on flesh. Their visits to the Tumulus were in the autumn; and they

upon his own Knowledge, that every fifth Year the same Birds do the like in Ethiopia about the royal Palace of *Memnon*.

In a similar manner, the *Meleagrides*¹ fight in Bœotia. These *Meleagrides* are a kind of gallinaceous Birds of Africa, hunch-backed, the Bunch scattered with Feathers of different Colours. Of all foreign Birds these are the last admitted at Table, by reason of their strong, harsh Taste. But it is the Sepulchre of *Meleager* which hath given them Credit.

CHAPTER XXVII.

*Of Birds named Seleucides.*²

THE Birds are called *Seleucides*, which come in consequence of the Prayers offered to *Jupiter* by the Inhabitants of Mount Casius, against the Locusts, when they devastate their Crops. But from whence they come, or whither they go, no Man knoweth; for they are never seen but when there is need of their Help.

CHAPTER XXVIII.

*Of the Ibis.*³

THE Egyptians also invoke their *Ibis* against the coming of Serpents; and the Eleans the God *Myiagros*,⁴ to be deli-

flew about it, divided into two troops, with the appearance of a combat, such as were common to the Greeks around the tombs of their heroes: and it was probably this habit which chiefly attracted their attention. Dalechampius supposes them to have been a kind of crows. Ovid gives the popular legend of these birds, as deriving their origin from the funeral pile of *Memnon*. (B. xiii. ch. iii.)—*Wern. Club*.

¹ *Numida meleagris*, CUV. Guinea Fowl. At Rome they were known by the name of African Hens.—*Wern. Club*.

² It seems impossible to trace what these Birds are.—*Wern. Club*.

³ *Ibis religiosa*, CUV. The *Ibis*. Mummies of this bird are now found in abundance in Egypt.—*Wern. Club*.

⁴ Many of the gods of the Heathens obtained names or epithets from from such exploits as this. *Bœlzeboul*, or *Bœlzeboub*, mentioned in the New Testament, was so denominated for the same reason.—*Wern. Club*.

vered from the Pestilence of a Multitude of Flies, which Flies died all at once on the very Day on which he was appeased.

CHAPTER XXIX.

What Birds do not exist in some Places; and which change their Colour and Voice: and of the Nightingale.

BUT, concerning the Departure of Birds, Noctuæ¹ also are reported to lie hid for a few Days; and of this kind there are none in the Island of Crete. Even if any one is brought there it dies. For this also is among the wonderful Differences of Nature; she denies some Things to certain Places, as the Kinds of Seeds and Fruits; and so also that living Creatures do not breed is commonly noted: but that those Things should die as soon as they are brought thither is wonderful.² What is that which is so contrary to the Health of one Kind, or what is this Envy of Nature? or why should Birds be restrained within any Limits in the whole Earth? Rhodes doth not possess an Eagle. In the Tract of Italy beyond the Po, near the Alps, there is a Lake which the Inhabitants call Larius; and it is pleasant for Groves and Fields; and yet the Stork never travels thither; nor within the eighth Milestone from it. In the extensive Country of the Insubres,³ near adjoining, there are Swarms of Gracculi⁴ and Monedulæ;⁵ which are the only Birds whose Thievishness for Silver and Gold is wonderful. It is said, that in the Territory of Tarentum there are no Woodpeckers. It is but

¹ A very small species of Owl: probably *Noctua passerina*, Cuv. Ælian, who confirms what Pliny says of this bird in Crete (B. v. ch. ii.), distinguishes it from the Scops Owl, ch. xlix. — *Wern. Club*.

² The instance of a similar nature in Ireland is a strong corroboration of this; and in explanation modern philosophy is as much at a loss as the ancient. — *Wern. Club*.

³ A Gallic people, mentioned B. iii. ch. xvii. — *Wern. Club*.

⁴ The word "Graculus" is sometimes employed by the older writers as a generic name: but when otherwise, it is commonly understood as the *Fregilus Graculus*, Cuv.; Cornish Chough. The same with the Pyrrhocorax, Ch. xlvi. — *Wern. Club*.

⁵ *Corvus Monedula*, LINN. Jackdaw. — *Wern. Club*.

of late (and it is now rare) that from the Apennine toward the City, a kind of Pica¹ began to be seen; they are distinguished by their long Tails, and are called Variæ. It is their Property to become bald every Year, at the Time when Rape is sowed. The Partridges² in Attica do not fly over the Borders of Bœotia: and not a Bird in the Pontus, in the Island where *Achilles* was buried, will pass beyond the Temple consecrated to him. In the Territory of Fidenæ, near the City, Storks build no Nests, and have no Young. But into the Country about Volaterræ every Year a Quantity of Stock-doves fly from beyond Sea. At Rome no Flies or Dogs enter the Chapel of *Hercules* in the Beast-market. I could alledge many such Examples in other kinds, which I purposely pass over, because I would not be tedious: for *Theophrastus* reporteth, that the Doves, Peacocks, and Ravens in Asia have been brought thither from other Countries; and in Cyrenaica the vocal Frogs.

There is another admirable Thing concerning the Singing-Birds (Oscines)³: for usually at a certain Time of the Year they change their Colour and Voice, so as of a sudden to become other Birds: a Thing that doth not happen to the larger kinds of Fowls, except only to Cranes: for they become black with Age. The *Merula* from black turneth reddish; in Summer it singeth, in Winter it babbles; and about the Solstice it is mute. When a Year old, in the Cock at least, their Bill turns to be like Ivory. The *Turdus*, in Summer, is mottled about the Neck; but in Winter it is all of one Colour.

The Nightingale,⁴ for fifteen Days and Nights together, never giveth over its chaunt, rattling away incessantly at the Time when the Trees begin to put out their Leaves thickly. And this Bird is not to be set among the last

¹ *Pica, variæ*. *Corvus pica*, LINN. Magpie. Ch. xlii.—*Wern. Club*.

² *Perdix cinerea*, LINN. Ch. xxxiii.—*Wern. Club*.

³ This word was originally applied to singing-birds, only as their music was observed in augury; but it would appear that subsequently it was understood of singing-birds in general.—*Wern. Club*.

⁴ *Sylvia luscinia*, CUV.—*Wern. Club*.

Things that deserve Admiration: it is, indeed, among the first, that such a Voice should come from so very little a Body, as well as such a persevering Breath. Then the Tone is given out, modulated according to the one perfect Science of Music; for a while in one entire Breath she draweth out her Tune at length; now it is varied in Inflections; sometimes it is distinguished by Stops; it is united by entwining, it is extended in being drawn back; on a sudden it is drowned: now and then she records to herself full, grave, sharp, short, drawn out where she sees fit; vibrating, high, middle, low. In short, there is not any manufacture of a Pipe so exquisitely contrived by the Art of Man that can accomplish such a Variety of Things as proceed out of that little Throat of hers. So that no doubt this Sweetness was foreshown by a powerful Presage, when it sang in the Mouth of the Infant *Stesichorus*.¹ And that no Man may doubt that it is the Effect of Art, there is not one Nightingale but hath many Tunes, and each one his own peculiar one. They strive who can do best; and it is evident that they contend with all their Heart; for often she that is conquered ends her Life in the Contest, and yieldeth up her Breath sooner than her Song. The young Nightingales study the others, and understand the Lessons which they imitate. The Scholar listens with close Attention, and rehearseth what she hath heard; and both of them repeat it over by turns. The Correction of what is amended is understood; and also something of Reproof in the Teacher. Therefore one of these Nightingales obtains the Price of a Slave; yea, indeed, more than might in old Time have bought an Armour-bearer. I myself have known one of them, which also was white, a Circumstance not commonly seen, to have been sold for 6000 Sesterces, to be given as a Present to *Agrippina*, Wife of the Prince *Claudius*. And now of late we have seen many of them begin to sing at command; and to take their turn in Symphony. Also Men have been found, who, by placing Reeds across, and adding some Water, blowing into an Hole with

¹ An ancient Greek poet, whose works are lost. — *Wern. Club.*

a very little Stop of the Tongue interposed could imitate the Note so perfectly, that the Difference could not be distinguished. But these Mistresses of Song, so great and clever as they are, after fifteen Days, by Degrees abate their Music; yet so, as a Man cannot say they are either weary, or satisfied with Singing. Soon after, when the Weather groweth hotter, their Voice is entirely altered; being neither musical nor various. Their Colour, also, is changed: and finally, in Winter she is not seen. Their Tongues are not like other Birds', with a thin Tip before. They breed in the prime of the Spring, and commonly lay six Eggs.

The *Ficedula*¹ observes another Course, for it changeth both Colour and Form at the same Time. They have not that Name except in the Autumn; for afterwards they are called *Melancoryphi*.

So also the Bird named *Erithacus* in Winter, is the same as the *Phœnicurus* in Summer.

The *Upupa*,² as *Æschylus* the Poet saith, also changeth. This is an unclean Bird otherwise in the manner of feeding; with a handsome Crest, that can be folded up: for sometimes she will draw it in, and at others erect it along the length of the Head.

The *Cœnanthè*³ also has certain Days in which to lie close, being hidden when the Dog-star ariseth: but after its setting she cometh abroad: a strange Thing, that in those Days it should do both. Also the *Chlorion*,⁴ which is all over yellow, and not seen in the Winter, but appeareth about the Solstices.

¹ *Sylvia hortensis*, Great Pettychaps. It is not improbable that the author confounded this Bird with *S. atricapilla*, or Blackcap. A similar error has led him to regard the *Erithacus*: *Sylvia rubecula*, or Redbreast, with the *Phœnicurus* (*S. P.*), or Redstart.—*Wern. Club*.

² *Upupa epops*, LINN. Hoopoe.—*Wern. Club*.

³ *Saxicola*, O. Wheatear.—*Wern. Club*.

⁴ Supposed to be *Picus viridis*, or common Woodpecker.—*Wern. Club*.

CHAPTER XXX.

Of the Merula.

ABOUT Cyllenè in Arcadia, and nowhere else, white Merulæ¹ are produced. The Ibis, about Pelusium only, is black; in all other Places it is white.

CHAPTER XXXI.

The Time of Birds' Breeding.

ALL Singing-birds, besides those that are excepted before, do not unwarily breed before the Spring Equinox, nor after the Autumn. And those they hatch before the Solstice are doubtful; but after the Solstice they are lively.

CHAPTER XXXII.

Of the Halcyones; and the Days good for Navigation which they show. Of the Gavia and Mergus.

AND in this especially the Halcyones² are remarkable. The Seas, and they that sail on them, know the Days when they breed. This Bird is little bigger than a Sparrow; for

¹ Albinos are not uncommon in most sorts of birds; but the black Ibis is a separate species: *Ibis falcinellus*, CUV. — *Wern. Club*.

² *Alcedo ispida*, LINN., Common Kingfisher; and *A. halcyon*, the smaller Kingfisher. The former is commonly silent; but the latter is highly musical. Belon praises highly its varied notes; which were uttered so incessantly through the day and night, as to cause him to wonder at its powers of song; and to pity it, as if condemned to such persevering labour. In addition to Pliny, who probably copies Aristotle, Ælian (B. ix. ch. xvii.) also so minutely describes the nest of the Kingfisher, as to prove that he had closely examined something which had been represented as such. But it was very different from what has been since known when this bird builds a nest; for it will not always undertake the labour, but sometimes contents itself with leaving the eggs on the bare earth, at the end of a hole in the ground. The only natural object resembling that which Pliny and Ælian describe as the nest of the Kingfisher, is the crust of a spatangus. For the Halcyon days, see Vol. i. p. 85. — *Wern. Club*.

the greater Part of a Sky-blue Colour, yet with white and purple Feathers intermingled, and having a long and slender Neck. There is another Kind of them that differs in size and Song. The lesser sing among the Reeds. It is very rare to see an Halcyon, and never except at the setting of Virgilæ, or about the Solstices or Mid-winter; for sometimes they fly about a Ship, but immediately they go into Concealment. They breed in Mid-winter, and the Days when this is are called the Halcyon Days: for while they last, the Sea is calm and navigable, especially in Sicily. In other Parts, also, the Ocean is not so boisterous; but surely the Sicilian Sea is navigable, both in the Straits and the open Ocean. Now, seven Days before Mid-winter they build their Nests; and within as many after, they have hatched. Their Nests are wonderfully made, in the shape of a Ball: the Entrance narrow, and standing somewhat out, much like that of great Sponges. They cannot be cut asunder with an iron Instrument; but they will break with a strong Blow, like the dry Foam of the Sea: and no Man could ever find of what they are made. Some think they are formed of the sharp pointed Prickles of Fishes; for these Birds live on Fish. They come up also into Rivers. They lay five Eggs.

The Gaviæ¹ build in Rocks: and the Mergus² also in Trees. They usually lay four Eggs: but the Gaviæ in Summer, the Mergi in the beginning of Spring.

CHAPTER XXXIII.

Of the Skill of Birds in building their Nests. Of the Hirundo,³ the Argatilis, Cinnamologus, and Perdix.

THE Form of the Halcyon's Nest puts me in mind of the Skill of other Birds: and in no other Thing is the Ingenuity

¹ A general name for all the Gulls. — *Wern. Club.*

² *Mergus merganser*, LINN. Goosander. — *Wern. Club.*

³ The first, *H. rustica*, LINN.; Chimney Swallow. Second: *H. urbica*, LINN.; House Martin. The third: *H. riparia*, Bank Martin. The story of an embankment of the Nile formed by Martins' nests, must be set down among the Wonders of Egypt. — *Wern. Club.*

of Birds more admirable than in this. The Hirundines frame their Nests of Clay, but they strengthen them with Straw. If at any Time there is a scarcity of Clay, they wet their Feathers with a quantity of Water, and sprinkle the Dust with it. They line the Nest itself with soft Feathers or fine Flox, to keep the Eggs warm, and also that it may not be hard to the young Birds. They distribute the Food by turns to the Young with strict Equality. They remove the Excrement of the young ones with remarkable Attention to Cleanness; but when they are grown something more, they teach them to turn about, and discharge their Fulness beyond it.

There is another kind of Hirundo, that keeps in the country Villages and Fields, which seldom build their Nests in Houses; but their Nests are formed of the same Material as the former, although of a different Shape, supine, with the Entrance thrust forward straight and narrow; but the Capacity within is large; so that it is wonderful how skilful and capable they are in concealing their young ones, and in lining it with soft Materials. In the Heracleotic Mouth of Egypt, there is a mighty Bank raised by a continual Course of Nests for the length almost of one Stadium (half-a-quarter of a Mile); which is impregnable against the spreading abroad of the Nile: a piece of Work which could not have been accomplished by human Labour. In the same Egypt, near the Town Coptos, there is an Island sacred to *Isis*, which, that the same River may not tear to Pieces, these Swallows fortify by their Labour: in the beginning of the Spring, for three Days and Nights, employing their Bill to make it strong with Straw and Chaff; and they continue their Work by Night with so much Labour, that it is known many of them have died with the Labour. This public Work always recurs to them with the return of the Year.

There is a third sort of these Swallows, which dig Holes in the Banks, and so form Nests within. The young Birds of these, if burnt to Ashes, are a Remedy for the deadly Quinsey, and many other Diseases of the human

Body. These do not build Nests; but if they perceive that the River is going to increase, and will rise as high as their Holes, they go away many Days before.

There are Birds of the kind of Parræ,¹ which with dry Moss make a Nest, resembling so perfectly a round Ball that the Entrance cannot be discovered. Another, called Argatilis,² makes her Nest of the same form, but it is woven of Flax.

A kind of Picus³ maketh a Nest in the manner of a Goblet, and hangeth it at a Twig, on the uppermost Branches, that no Quadruped may be able to reach it. It is established that Galguli (Orioles) take their Sleep hanging by their Legs, hoping by that means to be in more Safety. It is, indeed, commonly known, that all these Birds, with good Providence, choose some cross Boughs for Rafters, to support their Nests; and then cover them from the Rain with an arched Roof, or else enclose them among the thick Leaves.

In Arabia there is a Bird called Cinnamologos,⁴ which builds her Nest with Twigs of the Cinnamon-tree. The Inhabitants of that Country shake them down with Arrows headed with Lead, for the sake of Profit. In Scythia, there is a Bird of the bigness of an Otis, which layeth two Eggs; and she always wraps them in a Hare's Skin; and hangeth them upon the top Branches of Trees. The Picæ, when they perceive with their watching Eye that a Man hath discovered their Nest, presently remove their Eggs to another.

¹ In this place Gaza reads, *Ripariarum*; that is, of bank birds; and Gesner, *Parorum*, or Tomtits; Gelenius reads *Perrarum*. Dalechampius' reading is "In genere paratum est, cui Nidus;" which leaves the species still more uncertain. — *Wern. Club.*

² An uncertain species. — *Wern. Club.*

³ It is certain that no species of Woodpecker suspends its nest in this way. Aldrovandus, therefore, supposed it to be the *Galbula*, or Oriole; which he, on that account, denominated *Picus nidum suspendens*. It is just as probable that it is the *Parus caudatus*, or Long-tailed Tit. — *Wern. Club.*

⁴ An unrecognised species. Dalechampius remarks, that the cinnamon does not grow in Arabia. — *Wern. Club.*

In those Birds whose Toes are not fitted to clasp and convey the Eggs, this is reported to be done after a strange Manner: for they lay a Twig over two Eggs, and glue them fast with a Cement from their own Bowels; they then put their Necks under the middle, which, hanging equally poised on each Side, they carry away to another Place.

No less skilful are they that make their Nestling-cradles in the Ground, as being forbidden by the Weight of their Body to mount aloft. One is called *Merops*,¹ that useth to feed her Parents as they lie hid. The inside of her Feathers in the Wing is pale, the outside blue; and those above about the Neck, reddish. She maketh her Nest in a Hole six Feet deep within the Ground. Partridges so fortify their Place of deposit with Thorns and Twigs, that they are sufficiently fenced against wild Beasts. They heap up over their Eggs a covering of fine Dust; neither do they sit in the Place where they laid them first, but lest their more frequent resort to it should lead to Suspicion, they convey them to some other Place. And, indeed, the Hens deceive also the Males; for so lecherous are they, that they break their Eggs, because they may not be occupied about sitting. Then through desire after the Hens, the Males fight among themselves; and they say that the one which is overcome, suffereth *Venus*. *Trogus* reporteth the same of Quails, and sometimes of Dunghill Cocks. He saith, also, that tame Partridges use to tread the wild; and those which are new taken or conquered by others promiscuously. This libidinous Heat maketh them so quarrelsome; that oftentimes it leads to their being taken. For when the Fowler cometh with his Call, out goeth the Leader of the whole Flock to fight him; and when he is caught, another followeth after, and so the rest one after another. Again, they take the Females at the Time of the Copulation; for then forth they go against the female

¹ *Merops apiaster*, LINN.—Bee-eater. Ælian says, that the young of this bird exceeds in piety the young of the Stork in the care with which they feed their parents when worn out with age; which Cuvier explains from their remaining a long time in the same retreats with them.—*Wern. Club.*

Fowl that with their scolding they may drive her away. There is not to be found in any other living Creature the like amount of Lust. If the Hens stand over-against the Cocks, the Air that passeth from them causes them to conceive. For so hot are they in that Season, that they gape and hang out the Tongue. And if the Males fly over them, with the Breath that cometh from them they conceive: and many Times if they do but hear their call. And so effectually does their Lechery overcome their Affection to their Young, that while they are incubating in some secret Place, if they hear the Fowler's (Decoy) Female coming towards the Male, she returns the Song, and calls back the Males, and offers herself to his Pleasure. Indeed they are borne away with such Rage, that, as if blind with the Trepidation, they will settle upon the Head of the Fowler. If he begins to approach the Nest of the breeding Hen, she will run forth to his Feet, counterfeiting that she is very heavy and feeble; and either in her running, or some short flight, she will suddenly fall, as if she had broken a Wing or her Leg: then will she run again, and when he is just ready to take her up, yet will she shift away, and so disappoint his Hope, until she hath led him a contrary Way from the Young. When she is free from Fear, and void of motherly Care, then will she get into a Furrow of the Ground, lie on her Back, catch a Clot of Earth with her Feet, and with it hide herself. Partridges are supposed to live sixteen Years.

CHAPTER XXXIV.

*Of the Columba.*¹

AFTER Partridges, the Nature of Doves is to be considered, since they have in a manner the same Habits; but they are highly chaste, and neither Male nor Female are

¹ Pliny and Varro believe the existence of no more than two species of Pigeons: *Columba livia*, or Rock-dove; and *C. palumbus*, Ring-dove (c. 35); and the latter author mentions a third sort, which he supposes to be a hybrid between them, and which we may judge to be the *C. Œnus*, or Stockdove. — *Wern. Club.*

charged with Adultery. They do not violate the Bond of Marriage, but keep at home together. They abandon not their own Nests, unless they are in state of single Life, or a Widow. The Females endure their imperious Males, and even those which are churlish; because they are jealous, though their Nature is not that Way. Then the Throat is full of Complaint, and they peck them cruelly with their Beaks; and yet soon after, by way of Satisfaction, they kiss them, and will make court to them, by turning round about many Times with their Feet, and utter the Prayers of Venus. The Male and the Female love their Young alike: and often there is Correction, because the Hen does not more frequently visit her Young. When they are about to lay, they comfort and minister to them. So soon as the Eggs are hatched they discharge into the Mouths of the Young a salt kind of Earth, which they have gathered in their Throat, to prepare their Stomachs in Time for Food. Doves and Turtle-doves have this Property, that when they drink they do not draw their Necks back, but take a large Draught in the manner of Cattle.

CHAPTER XXXV.

Of the Palumbus.

WE have some Authors who affirm that the Palumbus lives thirty Years, and some to forty Years, with no Inconvenience but this: that their Claws become overgrown, which is a Sign of old Age; but they may be pared without Danger. They have all one and the same manner of Tune; they make three Rests in their Song, besides the close, which is a Moan. In Winter they are silent; in Spring they are loud. *Nigidius* is of opinion, that if a Palumbus is called by Name in a House as she is sitting upon her Eggs, she will leave her Nest. They lay after Midsummer. *Calumbæ* and *Turturs* live eight Years.

CHAPTER XXXVI.

Of Sparrows.

ON the other Hand, the Sparrow¹ is very short-lived, and his Leachery is equal to it. The Cock Sparrow is reported to live but one Year; the Proof is, because in the Beginning of Spring not one of them is found with a black Bill, which begins from the Summer. The Hens live somewhat longer. But to come again to Doves, it is true that they have a certain Understanding of Glory; and you would think that they have a Knowledge of their Colours, and their changeable Disposition. Moreover, they seem to take a Pride in flying in the Air, and cutting the Air every way. In which Display, while they flap with their Wings with much Noise (which cannot be without the dashing of the Feathers of their Wings against their Shoulders), they are exposed to the Hawks as if they were bound; for otherwise, if the Flight were free, they were much more swift of Wing. But the Thief lieth hid among the Branches, and seizeth him as he rejoices in his Glory.

CHAPTER XXXVII.

Of the Tinnunculus.²

To prevent this (Danger), the Doves need to have with them the Bird which is called the Tinnunculus, for she defendeth them, and (by a natural Power) terrifieth the Accipiters, insomuch that they fly from her Sight or Voice. It is on this Account that there is such remarkable Love among the Doves to these Birds. And it is said that Pigeons will not leave their own Dovecote if in the four Corners of it there are buried four of the Tinnunculi in four new earthen Pots well smeared over. But others have used Means to keep Pigeons in their Dove-house (for otherwise they are

¹ *Fringilla domestica*, LINN. House-sparrow. — *Wern. Club.*

² Supposed to be the Cenchris (B. xxix. ch. vi.). *Falco cenchris*, CUV. — *Wern. Club.*

Birds that wander abroad) by slitting up the Joints of their Wings with Gold; for without this Precaution their Wounds will be dangerous. And in Truth, these Birds have the Art to flatter and entice one another; and thus they return to their Homes the better accompanied on Account of their Roguery. Doves also have served for Messengers in great Affairs: as at the Siege of Mutina, *Decimus Brutus* sent out of the Town Letters tied to their Feet, to the Camp of the Consuls. What good, then, did the Rampart and Watch in the Siege, and the Nets stretched across the River, to *Antony*, when the Messenger was able to pass through the Air? Many Men are gone mad in their Love to these Birds: they build Towers above the tops of their Houses for them; and they reckon up their Origin and Nobility, as in one old Example. *L. Axius*, a Roman Knight, before the Civil War with *Pompey*, sold every pair (of Pigeons) for four hundred Denarii,¹ as *M. Varro*² reports. Besides this, they have rendered their Country noble; for Campania is supposed to produce by far the greatest. Their manner of flying leads me to the Consideration of the Flight of other Fowls.

CHAPTER XXXVIII.

Of the Pace and Flight of Birds.

ALL other living Creatures have one certain and uniform manner of going, each according to its kind. Birds only vary their Course, whether they go upon the Ground or fly in the Air. Some walk as Crows (*Cornices*); others hop, as Sparrows and Thrushes (*Passeres*, *merulæ*); some run, as

¹ 12 lib. 10 sh.

² The care of Pigeons for profit entered more into the rural economy of the ancients than with us of the present day. They were fattened for the market under the parent; their food being made easy of access, while a few quill-feathers were drawn from the wing, and the thighs broken. It was found that fastening the legs made them more uneasy, and thus proved a greater hindrance to their fattening than the fracture. The Romans had their favourite varieties, for which they paid enormous prices: varying from one or two to twelve or fourteen pounds a couple. — *Wern. Club.*

Partridges, Woodcocks (*Perdices*, *Rusticulæ*); others, again, throw out their Feet before them, as Storks and Cranes (*Ciconiæ*, *Grues*); some spread their Wings broad, and hang on them, shaking them but now and then; others more rapidly; but the utmost Feathers only. Some Birds stretch out their whole Wings, and others in their Flight keep them in, for the most part close. Some of them give one or two Claps with their Wings, and are borne away with the Air; or they press the Air as if enclosed within their Wings, and shoot themselves up aloft, straight forward, or fall flat down. Ye would think some were hurled with Violence, and others to fall down plump from on high, or to leap. Ducks, and such only as are of that kind, lift themselves up aloft presently from the Ground, and instantly mount into the Sky, even out of the very Water: which is the Cause, that if they fall into those Pits in which we take wild Beasts, they alone will make their Escape. The Vulture, and for the most part all heavy Birds, cannot take flight, unless they fetch a Run, or else rise from some high Heap. And such are directed in the Air by their Tails. Some look about, others bend their Necks; some feed on the Prey which they have snatched away in their Talons. Most Birds utter their Voice as they fly; yet some, on the contrary, in their Flight are always silent. Some fly half upright; others tending downward: some fly obliquely; to the Sides, to the Bills: and some are bent backward, so that if many Sorts could be seen together, they would appear to pass along as if they were of a very different Nature.

CHAPTER XXXIX.

*Of the Apus.*¹

THE Birds which they call Apodes (because they are without the use of the Feet), and others, *Cypseli*, are very strong on the Wing. They are a kind of Swallows. They

¹ *Cypselus apus*, Cuv. The Swift.—Strong on the wing: *plurimum volant*; probably referring to a supposition repeated in most books on natural history, that the Swift spends more time on the wing than other

build their Nests in Rocks. These are the same that are seen over all the Sea: for however distant the Ships may be from Land, and their Course ever so continued, these Apodes will always be flying about them. All other kinds alight and perch: these never rest, but when they are in their Nest. Either they hang or lie along. Their Shifts are equally various, and chiefly when they feed.

CHAPTER XL.

Of the Caprimulgus¹ and Platea.

THE Birds called Caprimulgi have the Appearance of the bigger Merula; and they are Night-Thieves; for by Day kinds of Swallows; which is not the fact. Their efforts in flight are for a time more strenuous; but they spend more hours in rest than the kindred species — *Wern. Club.*

¹ *Caprimulgus Europæus*, LINN. Goat-Sucker, or Night Jar. The ancient superstition attached to this bird, bears much resemblance to that of the more modern Vampire: —

“ There is a class of birds, of greedy kind —
 Not Harpeys they, and yet of kindred mind;
 The head is large, and fierce with staring eye,
 The beak well formed for rapine, wings that fly
 With hoary feathers; feet that grasp the prey
 With claws like fish-hooks; from the light of day
 They shrink affrighted; but when darkness shrouds
 The face of Nature with its veil of clouds,
 Their flight begins; where infants sink in sleep
 Uncared for by the nurse, they glide, and deep
 Within their tender entrails fix their claw,
 And tear them with their beak; they fill their maw
 With milk but newly drawn, and reeking blood;
 And ravenously obscene they swill the flood.
 From horrid sounds that fill the air by night,
 And strike the listening mortals with affright,
 They take the name of Strix; but whence they came —
 If, with the muttered charm of some old dame,
 By melancholy verse transform'd; or fowl
 From the first hand of Nature (like the owl).”

OVID'S *Fasti*, vi.

The effect of such an awful visit could only be obviated by a magical sacrifice. — *Wern. Club.*

they cannot see. They enter the Sheep-folds, and fly to the Goats' Udders, to suck the Milk from their Teats; and from the Injury so done to it, the Udder wasteth away, and the Goats which have been so milked are rendered blind.

There is a Bird named Platea.¹ Their Manner is to fly at those which use to dive in the Sea, and so bite them by the Heads that they compel them to let go their hold of the Fish they have caught. This Bird, when his Belly is full of Shell-fish that he hath devoured, and hath by the Heat of his Crop concocted them, vomits them up again, and then picketh out the Meat, leaving the Shells behind.

CHAPTER XLI.

The Ingenuity of Birds.

THE Hens of Country-houses possess some Religion.² When they have laid an Egg they fall a trembling, and shake themselves. They turn about, also, to be purified, and with some Sprigs of a Bush they purify by Lustration themselves and their Eggs.

CHAPTER XLII.

Of Carduelis,³ Psittacus, of Birds that speak.

THE Carduelis is the smallest of Birds; and they execute Commands, not only with their Voice, but also with their Feet and Mouth, as if they were Hands. In the Territory of Arelatè, there is a Bird called Taurus,⁴ because it loweth like a Bull, although otherwise a small Bird. There is another also named Anthus,⁵ which imitates the neighing of Horses; and if by the Approach of Horses it is driven from their Grass on which it feeds, it will neigh, and so be revenged of them. But above all other Things they repeat human Lan-

¹ *Platalea leucorodia*, LINN. Spoonbill.—*Wern. Club.*

² See B. viii. ch. i.—*Wern. Club.*

³ *Fringilla carduelis*, LINN. Goldfinch.—*Wern. Club.*

⁴ *Ardea stellaris*, LINN. Bittern.—*Wern. Club.*

⁵ Some have supposed this to be *Emberiga citrinella*, LINN.; the Yellow Ammer: but it is more probably *Anthus pratensis*, CUV. Titlark.—*Wern. Club.*

guage, and the Psittaci¹ even hold a Conversation. This Bird cometh from India, where they call it Sittacè. It is green all over the Body, only it hath a distinct Collar about the Neck of vermilion red. The Parrot salutes Emperors, and pronounces what Words she heareth; she is also very wanton under the Influence of Wine. Her Head is as hard as her Beak. When she learns to speak, she must be beaten about the Head with a Rod of Iron: for otherwise she careth for no Blows. When she taketh her Flight downward, she alighteth upon her Bill, and leans upon it, and by that means favoureth her Feet, which are but feeble.

There is a kind of Pica (Magpie) of less excellency, because she does not come from so far; but she pronounceth what is taught her more freely and distinctly. These take a Love to the Words they speak; for they not only learn them, but they delight in them: insomuch that they study them inwardly, and by their careful thinking upon what they learn, they show how attentive they are. It is known that they have died for Grief that they could not conquer the Difficulty of some Words; as also, that unless they hear the same Words repeated often, their Memory fails to retain them. If they are in search of a Word, and chance to hear it pronounced, they will show wonderful Signs of Joy. Their Beauty is not ordinary, although not very lovely. But they are handsome enough in the Power to imitate human Speech. It is said, that none of their kind are able to learn, except such only as feed upon Mast; and among them, those acquire the more easily that have five toes to their Feet: but not even these unless in the two first Years of their Age. Their Tongue is broader than ordinary: as they are all in every separate kind that counterfeit Man's Voice: although this happens to almost all Birds. *Agrippina*, the Wife of *Claudius Cæsar*, had a *Turdus* (Thrush) at the Time I compiled this Book, which imitated Man's Speech; a Thing never known before. The young *Cæsars*, also, had a *Sturnus* (Starling) and Nightingales taught to speak Greek and

¹ *Psittacus Alexandri*, LINN. Parrot. — *Wern. Club.*

Latin. Moreover, they would study their Lessons all Day, and continually come out with new Words formed into a long Speech. To teach them, these Birds must be in a Place apart, where they can hear no other Voice to mingle with what they learn; and one is to sit by them, who must repeat often what he would have them fix in their Memory, and please them also with giving them Meat.

CHAPTER XLIII.

The Understanding of Ravens (Corvi).

LET us not defraud the Ravens also of their due Praise, as witnessed not only by the Knowledge but the Indignation of the People of Rome. When *Tiberius* was Prince, there was a young Raven hatched in a Nest upon the Temple of *Castor* (and *Pollux*), which took his Flight into a Shoemaker's Shop overagainst the Temple, and thus was commended to the Master of the Shop by the Obligation of Religion. This Raven in Time became accustomed to Man's Speech, and every Morning would fly to the Rostra, and turning to the Forum, he would salute *Tiberius*, and after him *Germanicus* and *Drusus*, the *Cæsars*, by their Names; and presently the People of Rome that passed by. And when he had so done, he would fly again to the Warehouse. This Practice he continued for several Years together, to the Wonder of all. The Master of the nearest Shoemaker's Shop, either through Envy of his Neighbour, or some sudden fit of Anger (as he wished it to appear) because the Raven had made a Spot upon a Pair of his Shoes with his Dung, killed the Bird; at which the People took such Indignation, that they first drove him out of that Neighbourhood, and not long after murdered him; and the Funeral of the Raven was solemnly performed with all the ceremonial Obsequies. For the Bier was formed and bedecked, and so carried upon the Shoulders of two Ethiopians, with a Piper going before, with Crowns of all kinds, as far as to the funeral Fire; which was piled at the right Hand of the Appian Way, at the second Stone, in a Field called *Rediculi*. Thus the

People of Rome regarded the ready Wit of this Bird a sufficient Cause to justify a sumptuous Funeral, and also to excuse the Murder of a Citizen of Rome in that City, wherein many Princes have died, and no Man solemnized their Funerals: one Instance of which is, that no one avenged the Death of *Scipio Æmilianus*, after he had destroyed both Carthage and Numantia. This happened the fifth Day before the Calends of April, in the Year when *M. Servilius* and *C. Cestius* were Consuls. Even at this Time, when I am writing, there is in the City of Rome a Crow (*Cornix*) belonging to a Roman Knight, who brought it from Bætica, which was an admirable Bird for the exceeding black Colour of its Feathers, and also for pronouncing many Words formed into a Sentence; and it learns more and more every Day. It is not long since that there arose a Report of a Man in Erizena, a Country of Asia, whose Name was *Craterus Monoceros*: who used to hunt by the Help of Ravens, which he carried with him into the Woods, perching upon his Shoulders and his Hunting-horns: and these would seek out and put up others, and bring them to him in their Company; so that when he returned homeward out of the Forest, the wild ones also would accompany him. Some have thought it worth the setting upon Record, that a Raven was seen, when she was thirsty, to cast Stones into the Bucket belonging to a Sepulchre, in which there was some Rain-water remaining, but which he was not able to reach: and being afraid to go down into it, he thrust in so many Stones that he was enabled to drink as much as he pleased.

CHAPTER XLIV.

Of the Birds of Diomedes.

NEITHER will I pass over the Birds (called) *Diomedæ*,¹ which *Juba* nameth *Cataractæ*; and he says they have

¹ This appears to be *Lestris cataractes*, Cuv.; Skua, or a kindred species. Ælian speaks of it as a kind of Heron: B. i. ch. i.—*Wern. Club.*

Teeth; with Eyes of the Colour of Fire; but otherwise they are white. They have always two Leaders, one to lead the Host, and the other to guard the rear. With their Bills they dig Furrows, over which they strew Bundles of Sticks, and cover them with the Earth that they have before thrown out; and in these Recesses they breed. Every one of these Trenches hath two Doors: one looking toward the East, through which they go out to feed; and the other looking westward, by which they return. When these Birds discharge themselves, they always fly against the Wind. They are found only in one Place of all the World, which is an Island, ennobled, as we have written before, for the Tomb and Shrine of *Diomedes*, opposite the Coast of Apulia. These Birds are like the *Fulicæ*. They annoy Strangers that come thither with their Cries; but they fawn upon Greeks only, as if they give such friendly Welcome to the Race of *Diomedes*. Every Day they fill their Throat and Wings with Water, and so wash and purify the Temple; and hence arose the Fable, that the Companions of *Diomedes* were turned into the Shapes of these Birds.

CHAPTER XLV.

What Animals cannot learn anything.

AND now that we are in this Discourse on Ingenuity, I must not omit to note, that among Birds, the Swallows (*Hirundines*), and of land Animals the Mouse (*Mures*), are very untoward in being brought to learn. Whereas Elephants do what they are commanded. Lions draw under the Yoke: Seals (*Vituli*) in the Sea, and very many sorts of Fishes grow to be tame.

CHAPTER XLVI.

The manner of Birds in their drinking.

BIRDS drink by sucking; and those which have long Necks make Pauses between, with the Head thrown backward, as if they would pour the Water into themselves. The

(Bird) Porphyrio¹ alone seemeth to bite the Water as he drinketh. And this Bird hath the Property by himself to dip all his Meat at Times in Water, and then with his Foot in the Place of a Hand, to reach it to his Bill. The best of his kind are in Comagenè. Their Bills and very long Thighs are red.

CHAPTER XLVII.

Of the Himantopos,² the Onocrotalis, and other foreign Birds.

LIKE in that respect to the Porphyrio, is the Himantopos; which is far less, but full as long-legged. They are bred in Egypt, and stand upon three Toes. Their chief feeding is upon Flies. In Italy they will not live many Days. All the heavier Fowls live on Fruits. They that fly high prey only upon Flesh. Among Water-fowls the Mergi are accustomed to devour what other Birds disgorge. The Onocrotali³ much resemble Swans, and they might be thought to be not altogether different, but that they have within their Throat another kind of Receptacle, into which these insatiable Fowls gather all they can get, so wonderful is its Capacity. Now when they have accomplished their Ravening, they return it from thence by little and little into their Mouth, from whence it is conveyed to the true Belly, after the manner of a ruminating Creature. These Fowls are sent from the parts of Gallia lying nearest the North Ocean. In Hercinia, a thick Forest of Germany, we have heard that there are unaccustomed kinds of Birds, with Feathers shining like Fire⁴ by Night. In other respects, I have nothing to say of them worth the Writing, except that they are of some Excellency for being brought from far.

¹ *Fulica porphyrio*, LINN. A species of Coot. — *Wern. Club.*

² *Himantopus melanopterus*, CUV. Stilt Plover. — *Wern. Club.*

³ *Pelicanus onocrotolus*, CUV. Pelican. — *Wern. Club.*

⁴ Gesner makes a supposition that these birds may be *Garrulus Bohemicus*, LINN. The Bohemian Chatterer. — *Wern. Club.*

CHAPTER XLVIII.

The Names and Nature of many Birds.

OF Water-fowl, the Phalerides¹ in Seleucia of the Parthians, and also in Asia, are the most praised. Again, the Phasianæ² of Colchis, which have two Ears, consisting of Feathers, which they set up and lay down: the Numidian Fowls, in a part of Africa called Numidia, as also throughout Italy. *Apicius*, the deepest of all Gluttons, taught that the Tongue of the Phœnicopterus,³ was a most delicate piece of Meat. The Attagen⁴ of Ionia is very much commended. When this Bird is taken, she becomes mute; but otherwise she is vocal: and in old Time she was reputed a rare Bird. But now they are caught in Gallia and Hispania, and also among the Alps: where also are the Phalacracoraces,⁵ which were peculiar to the Balearic Islands: as the Pyrrhocorax⁶ with the yellow Bill, was (supposed to breed only) among the Alps; and the Lagopus,⁷ a dainty Bird for the Table. This Name it took, because its Feet are covered with Hair like the Hare's-foot: otherwise it is all over white, and of the size of a Pigeon. Beyond the Ground you will hardly get her to feed: neither will she be made tame while she lives: and if killed, the Body presently putrifies. There is also another of the same Name, which differs from Quails only in

¹ *Gallinula chloropus*, CUV. Water-hen; but Belon supposes it one of the larger Divers. — *Wern. Club.*

² *Phasianus colchicus*. Pheasant. — *Wern. Club.*

³ *P. ruber*, LINN. Flamingo. — *Wern. Club.*

⁴ There appears to be some doubt which species of *Tetrao* this was. Cuvier supposes the Attagen of Aldrovandus to be the female of *Tetrao bonasia*, LINN.; but the true Attagen to be probably *T. alchata*, LINN., the bird which Dr. Kitto has thought the Quail of the Israelites. Martial speaks highly of its excellency at table:

“Inter sapes fertur alitum primus
Ionicarum gustus Attagenarum.”—*Xenia*, lix.

⁵ *P. carbo*, CUV. Cormorant. — *Wern. Club.*

⁶ *Fregilus graculus*, CUV. Cornish Chough. — *Wern. Club.*

⁷ *Tetrao lagopus*, LINN. Ptarmigan. — *Wern. Club.*

bigness; and with a Dipping of Saffron it is a very delicate Food. *M. Egnatius Calvinus*, Prefect of the parts about the Alps, reporteth, that he hath seen there the Ibis, a Bird proper to the Land of Egypt.

CHAPTER XLIX.

Of new Birds, and such as are fabulous.

DURING the Civil Wars at Bebriacum, beyond the Po, there came these new Birds (for so they are still called) into Italy. They are a kind of Turdi, somewhat less than House-pigeons (Columbæ), pleasant to eat. The Balearic Islands send us another Porphyrio, better than that before-named.¹ There also the Buzzard (Buteo), a kind of Hawk, is held as excellent for the Table. Likewise the Vipio, for so they call the lesser Crane. As for the Fowls called Pegasi, with Heads like Horses'; and the Gryphæ (Griffins), with long Ears and a hooked Beak, I take them to be Fables: and yet they say that the Pegasi are in Scythia, and the Gryphæ (Griffins) in Ethiopia. Moreover, I think the same of the Tragopanades, which many affirm to be greater than the Eagle, having crooked Horns on each side of the Head, of the colour of Iron, and the Head only purple. Neither do the Syrens obtain Faith, although *Dino*, the Father of *Clitarthus* the celebrated Writer, affirms that they exist in India: and that with their Singing they will lull People into deep Sleep, and then tear them in Pieces. He that will give Credit to these Things will not deny that Dragons, in Truth, taught *Melampus*, by licking his Ears, to understand the Language of Birds; or the Things that *Democritus* telleth, who nameth the Birds, of whose Blood mingled together there is engendered a Serpent; which whoever eateth shall know what Birds say one to another: and the Things he telleth particularly of that one Bird, the Galerita:² although without these there is an immense Collection to occupy Life about Auguries. *Homer* maketh mention of a

¹ Chap. xlvi.² *Alauda arvensis*; Field Lark.—*Wern. Club.*

kind of Birds called Scopes :¹ but I cannot readily conceive in my Mind those satirical Gesticulations of theirs when they are perched, which so many talk of: neither are these Birds known at the present Time. And therefore it is better to write of those we certainly know.

CHAPTER L.

Who first invented to cram Hens. Of Aviaries, and who first invented them.

THE Inhabitants of Delos began the cramming of Hens. And from thence arose that Plague of eating the Birds so fat, as to be larded with their own Body. Among the old Statutes ordained to repress inordinate Suppers, I find in one Law made by *C. Fannius*, the Consul, eleven Years before the third Punic War, That no Man should place (on his Table) more than one Hen, which should not be fattened; which Head or Injunction was afterwards taken from this and inserted in all the other Laws. But a Bye-path was found out to deceive the Meaning, by feeding the Barn-door Fowls also with a Paste soaked in Milk, by which their Flesh was rendered much more tender. It is not always that Hens only are selected for fattening; but they are only thought well crammed when they are fat in the Skin about the Neck. Afterwards the Skill of the Cooks began to look to their Haunches; and that they may be divided along the Chine, and be extended from one Leg, so as to take up the whole Sideboard. The Parthians also have taught our Cooks their Fashions. And yet for all this fine dressing out of Meat, there is nothing that wholly pleaseth; for one praises nothing but the Haunch, and in another Place the Breast only is commended. The first that invented an Aviary in which to shut up all kinds of Fowls, was *M. Lenius*

¹ The Scops is described by *Ælian* (B. xv. ch. xxviii.) as a very small-eared owl, of a lead colour, with white spots. The ridiculous gesticulations which were doubted by *Pliny*, are affirmed by *Ælian*; who says that fowlers imitated them, and by so doing attracted its attention, and succeeded in catching it. — *Wern. Club.*

Strabo, of the Equestrian order, at Brundisium. And by his Example we began to confine Animals within Prisons; to which Creatures Nature had assigned the wide Air.

CHAPTER LI.

Of Æsop's Platter.

BUT in this Relation the most distinguished is the Platter of *Clodius Æsopus*, the Actor of Tragedies; which was valued at six hundred Sestertia.¹ In this he served up all kind of Birds remarkable for Song or capable of human Speech; and they cost him six hundred Sesterces a-piece. And it was no Pleasure that guided him in this, beyond the Fact that he would eat the Imitators of Man: without any Consideration that, in Truth, all his own rich Revenues had been procured by his Tongue: a Father verily worthy of a Son who, as we said before, devoured those Pearls.² And, to speak the Truth, it is hard to judge which of the two committed the greatest Baseness; unless that it is less to sup on the greatest Riches of Nature than on Men's Tongues.

CHAPTER LII.

The Generation of Birds; and besides Birds, what four-footed Beasts lay Eggs.

THE Generation of Birds seemeth to be simple; and yet therein are to be found some wonderful Things. For four-footed Animals also produce Eggs; as Chamæleons, Lizards, and such as we named among Serpents. Of Fowls, those that have hooked Claws are less fertile, and among these, only the *Cenchrus* layeth above four. Nature hath assigned this to the Class of Fowls, that the Powerful should be less fruitful than those which fly from the others. *Struthio Cameli* (Ostriches), *Gallinæ* (Hens), *Perdices* (Partridges),

¹ 600,000 sestertii, 150,000 denarii.

² See B. ix. ch. xxxv. — *Wern. Club.*

and Sali,¹ are great layers. Their Embrace is performed two Ways: for either the Female croucheth to the Ground, as do the Hens; or they stand up, as the Cranes. Of Eggs, some are white, as those of Doves and Partridges; others are pale, as those of Water-fowl: some spotted, as in the Turkey-hens (Meleager), others, again, reddish; as those of Pheasants (Phasiani), and Cenchrides.

All Birds' Eggs within the Shell are of two Colours. In Water-fowls, the Yolk is more than the White, and the same is more duskish than in others. The Eggs of Fishes are of one Colour, and in them there is no White. Birds' Eggs are brittle, by reason of the Heat: Serpents' Eggs are more tough, because of the Cold: but those of Fishes are soft, from the Liquid. Those of such Creatures as live in Water are round: others are, for the most part, pointed at the top. Birds lay their Eggs with the roundest End foremost: the Shell being soft; but presently they harden according as the Portions protrude. *Horatius Flaccus* is of opinion, that the longer the Egg is, the better they taste. The rounder Eggs produce Hens, the others yield Cocks. The Navel of the Egg is beneath the top; or it is a prominent Drop in the Shell.

CHAPTER LIII.

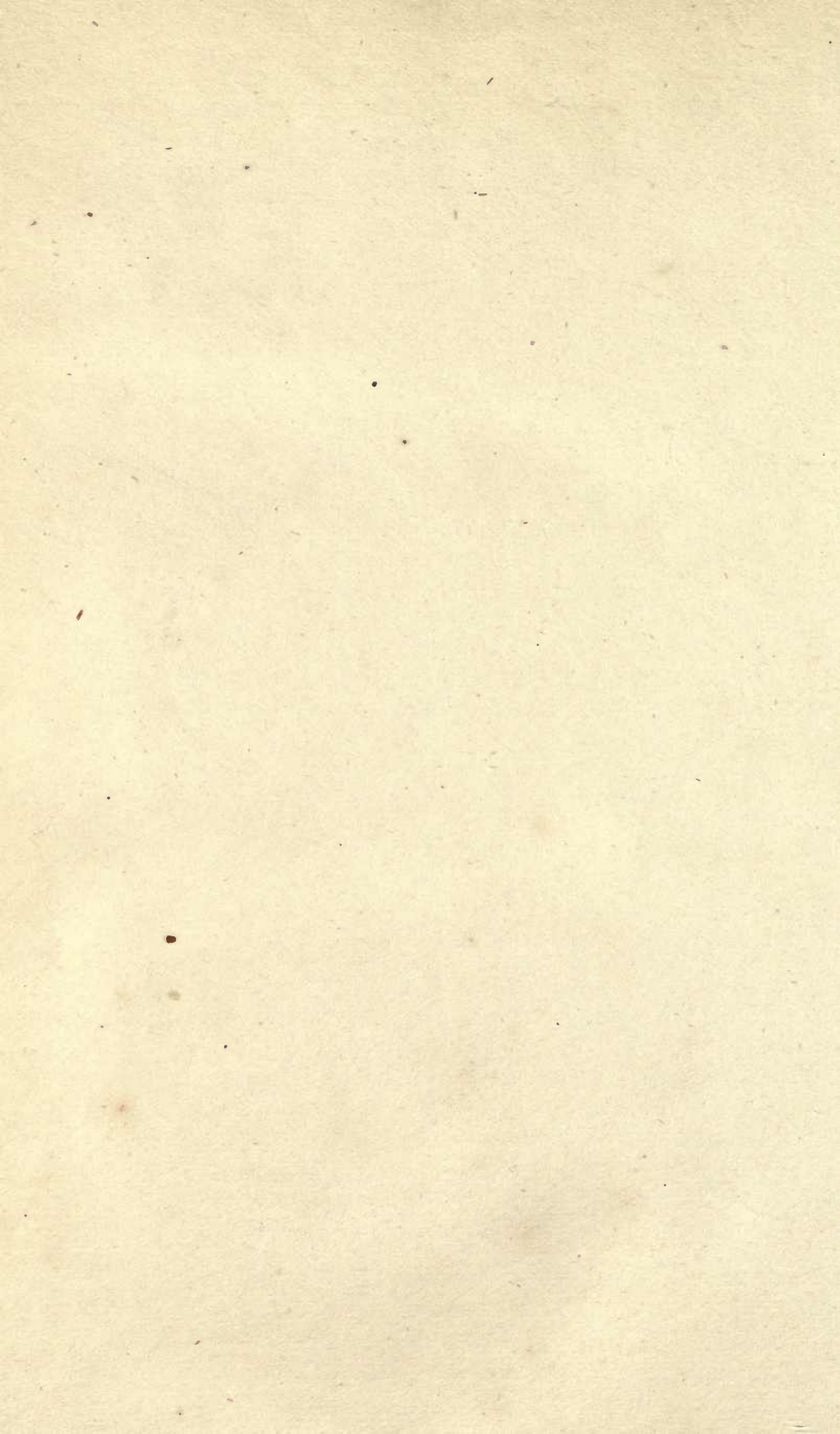
The Propagation of Eggs: the Sitting of Birds, and their manner of Embrace.

SOME Birds associate in breeding at all Times of the Year, as the Barn-door Fowls; and they lay with only the Intermission of two Months in Mid-winter. Of those, Pullets lay more than old Hens, but the Eggs are less, especially the first and last. So fruitful are they, that some of them will lay threescore Eggs: some lay every Day; others, twice a Day: and some will so over-lay, that they become worn out, and die. The Hens called Hadrianæ are accounted best. Doves (*Columbæ*) lay ten Times in the Year, and sometimes eleven: and in Egypt they continue even in

¹ What these are seems uncertain. Holland supposed them Linnets. — *Wern. Club.*









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