

# PERIPLUS *of the* OUTER SEA

EAST AND WEST, AND OF THE  
GREAT ISLANDS THEREIN

by

MARCIAN OF HERACLEA

A translation from the Greek text,  
with commentary

by

WILFRED H. SCHOFF

*Secretary of the Commercial Museum, Philadelphia*

PHILADELPHIA:  
PUBLISHED BY THE COMMERCIAL MUSEUM  
1927

2 239 387



## FOREWORD

Change in the form of government at Rome from republic to empire coincided with the conversion of the local city-state into a world power. This change was due in part to a notable enlargement of international relations, which began with the conquests of Alexander and gathered volume and strength with the growing consolidation of many small states into a few large empires. Our histories have most to say of the working out of these tendencies in the Mediterranean world, but like causes were producing like effects at the same time all along the great highways of trade that stretched from the Western Ocean to the China Sea. Broadly speaking, at the Christian era, there were four great empires in the world—Rome, Parthia, India and China—whose boundaries were in part contiguous and whose annals showed a certain knowledge each of the others. This coincident centralization of power brought about stability and prosperity in commerce and industry, and an enormous growth in import and export trade. Roman historians of the first and second centuries of the Christian era all testify to the popular demand for the products of the Orient and the strain on the Roman finances in providing for specie payments to balance that trade, for which Rome had comparatively little to offer in the way of commodities. Wars were waged with the Parthian monarchs to lessen their exactions upon the transit of silks from China and of gems and aromatics from India. The sea route from Egypt across the Indian Ocean was explored and its use encouraged. Military expeditions were despatched to lessen the exactions upon that trade by Arab states claiming an ancient monopoly therein. The record is one of continually expanding adventure, travel, and commerce for two centuries; and then toward the close of the second century of our era, a decline set in. The great empires began to disintegrate; with internal disorder trade and industry could not flourish, nor could trade routes be kept open and unmolested; incursions of wild hordes from central Asia broke down the overland caravan routes, and as they made headway in India, the sea routes



were likewise obstructed; before the end of the third century international trade had again become mainly a local matter; knowledge and enterprise were languishing and were not revived until the conquests of the followers of Mohammed again brought East and West into contact and orderly relations.

Of the records of the ship and caravan masters of that time, few remain. The elder Pliny, in the 6th book of his *Natural History*, summarizes Roman knowledge or opinion of eastern lands as of 70 A. D. The unknown author of the *Periplus of the Erythraean Sea* gives a detailed record of the various ocean routes as far as India and Ceylon; and in the *Geography of Claudius Ptolemy*, we have the result, surprising in some of its erroneous conclusions, of an attempt to put into scientific form the records and personal impressions of a number of merchants, travelers and others of his time. Then followed a long period without original observation or authorship—a period of copying, compilation and imitation, wherein thought more and more gave place to fancy until humor, conjecture and folklore became sober statement of fact in the fantastic books of pseudo-travel of mediaeval Europe.

Among these followers of Ptolemy is Marcian of Heraclea, to whom Bunbury in his *History of Ancient Geography* refers, with the remark that "he merely re-cast the tables of Ptolemy into another form so as to give the distances in stadia instead of latitude and longitude, and thus to present the results in a more popular and easily intelligible, though less scientific form". He remarks, however, that Marcian added "almost nothing to the knowledge of the external oceans and their shores which could not be derived by a careful student from the statements of Ptolemy himself."

Admitting that Marcian owed much to Ptolemy and freely acknowledged that debt, it is likewise true that he was a man well informed in the geographical knowledge of his day, familiar with the works of Artemidorus and Protagoras, and many others; and that his compilation does contain, as he says, a "supplement of those things that have been discovered subsequently." If it had been preserved to us in complete form, it might indeed have been a more useful compilation of Roman geography for general reference than the highly technical work of Ptolemy. But although no

more than fragments remain, it is still of interest in that it expresses popular knowledge in plain language; whereas Ptolemy's work, which was the attempt of an astronomer to translate popular opinion into mathematical formulae, because of its form and method acquired a reputation beyond its real value.

The geographical ideas of Greece and Rome were developed from the notion that the length of the inhabited world was more than double its breadth. The earliest extensions of knowledge of the earth's surface were in a northerly or southerly direction, and consequently tended to exaggerate the ideas of the east to west dimensions. Three centuries before Ptolemy's time, Hipparchus had suggested an accurate mapping of the earth according to latitude and longitude; but there existed no material on which such a work could be based. Marinus of Tyre, whose work, except for a few quotations, is lost, although his data and method were both inexact, attempted to assemble and systematize all information available from the reports of travelers; but the very indefiniteness of his material led to a further exaggeration of the supposed length of the earth. Calculating upon hearsay, and the itineraries of the silk caravans, he assumed the distance from the "Stone Tower" (Tashkurghan) in the Pamirs to Sera Metropolis, the Chinese capital Singanfu, as 36,200 stadia. His information concerning the eastern voyages to India was more accurate as to distance, if not as to direction, and must have been based on some original record. Ptolemy, working from the same data as Marinus, reduced the silk caravan route by one-half (which left it still in excess of the actual distance) and further exaggerated the distance between the Euphrates and the Pamirs, which he fixed as 24,000 stadia; probably because he failed to take into account the intervening deserts over which caravans would move more slowly, and consequently required a greater number of days to cover a given distance than would have been needed over the Roman roads.

Eratosthenes in the third century B. C. had determined the earth's circumference as 252,000 stadia, which was approximately correct. Poseidonius a century later reduced this calculation to 180,000 stadia, in which he was followed by both Marinus and Ptolemy. Under Eratosthenes' figuring a degree on the equator



was equivalent to 600 stadia, but under the reduced calculation, it was equivalent to 500 stadia, or 50 geographical miles. There were few observations for arriving at latitude, and almost none for longitude. The use of the log was as yet unknown, and estimates of distance both by land and sea depended on time—a most uncertain factor. Such information as existed was further distorted by Ptolemy's calculations, for a reported distance of 5,000 stadia would be projected by Ptolemy as 10 degrees, for which 6,000 stadia were required. The prime meridian was placed at the "Fortunate Islands", which were incorrectly located. The actual calculations were made hypothetically from Alexandria. The equator was wrongly placed by calculation of degrees from the tropic of Syene. For his data as to coasts and distances at sea, Ptolemy followed Marinus of Tyre, who, in his turn, depended on Timosthenes of Rhodes, an admiral of Ptolemy Philadelphus. He did not use all the data as to land and sea routes available at his time. He was, in short, an astronomer rather than a geographer; he stated in scientific form what should have been, but was not, based on scientific observations. His two most notable errors profoundly influenced the course of discovery. The shores of the Gulf of Martaban were the Golden Chersonese of the classical writers, and the southern trend of the coast line from that point was correctly indicated but incorrectly extended. Perhaps from correct data as to the westerly extension of Sumatra and in ignorance of the Straits of Malacca, he connected his Golden Chersonese with a southern continent united to Africa; thus enclosing the Indian Ocean as an inland lake. This doubtless deterred mariners from seeking for a China Sea; for southern China was known to him as an inland region reached from Martaban—a trade route well known in later days and parallel to the Burma railway system as projected to Yunnan. On the other hand, from his miscalculation of the overland silk route he computed the distance from the "Fortunate Islands" to Sera Metropolis, actually about  $130^\circ$ , as  $180^\circ$ . This error diminished by  $50^\circ$  the distance between eastern Asia and western Europe; and by following the errors of Marinus and Poseidonius in reducing the earth's circum-

ference, he still further diminished that distance and thus stimulated Columbus to undertake the western voyage. The best edition of Ptolemy is that of Didot, Paris, 1883-1901, 2 vols. *Bibliotheca graecorum scriptorum* (Claudii Ptolemaei Geographia).

A useful work of reference is T. G. Rylands, *Geography of Ptolemy Elucidated*, Dublin, 1893.

The text of Marcian of Heraclea is contained in three manuscripts: Codex Parisinus 443 of the 12th century, Codex Vaticanus 142 of the 15th century, and Codex Monacensis 566 of the 16th century. They are unfortunately fragmentary.

Printed editions of Marcian are as follows:

Hoeschelius, Augsburg .....	1600
Dodwell's Hudson, Oxford .....	1798
Zosimiadon, Vienna .....	1807
E. Müller, Paris .....	1839
Hoffman, Leipzig .....	1841
C. Müller, Paris .....	1853

The present translation is made from the text of C. Müller in his *Geographi Graeci Minores*, Paris, Didot, 1853.

The date of Marcian can only be inferred. He was earlier than Stephen of Byzantium, by whom he is quoted, and later than Ptolemy, upon whose work his own depends. Salmasius in his *Exercitationes Plinianae* placed him about the time of Synesius, who speaks of a Marcian in his "Epistola C" to the Heracleote rhetor Pylaemenes. But there is danger of error in assuming this to be the same Marcian. Müller places him about A. D. 400.

Known works of Marcian are:

- 1—An epitome of the 11 books of geography of the Ephesian Artemidorus
- 2—Periplus of the Outer Sea (in 2 books)
- 3—On the Distances of Cities from Rome
- 4—Epitome of the three books of the Periplus of the Inner Sea by Menippus of Pergamus (in 3 books)

Of these the Epitome of Artemidorus is lost save for a few quotations and notes in Stephen of Byzantium and Apollonius of Rhodes. It seems to have been not so much a compendium of Artemidorus, as a Periplus of the Inner Sea compiled also from Ptolemy and Protogoras.



PERIPLUS OF THE OUTER SEA BY MARCIAN  
OF HERACLEA

Periplus of the Outer Sea, East and West, and of the  
Great Islands Therein

In two parts

BOOK I.

This includes the first book of Marcian's Periplus of the Eastern  
and Western Ocean.

Foreword.

Periplus of the right side of the Arabian Gulf, the Erythraean Sea  
and the Indian Ocean.

Periplus of the left side of the Arabian Gulf, the Erythraean Sea  
and the Indian Ocean.

It includes also the following local sailing-courses:

Periplus of the Arabian Gulf and of the regions on the left side next  
to Arabia Felix.

Periplus of Susiana.

Periplus of Persis.

Periplus of Carmania.

Periplus of Gedrosia.

Periplus of India within the Ganges and of the bays and islands  
thereof.

Periplus of the island of Taprobana.

Periplus of the Gangetic Bay.

Periplus of India beyond the Ganges and of the neighboring rivers  
and bays.

Periplus of the Sinae and of the neighboring bays.

Periplus of the Bay of Wild Beasts.

Periplus of the Bay of the Sinae.

Summary of all the foregoing intervals.

FOREWORD

The sailing-course of the sea which lies within the Columns  
of Hercules, which ends in the ocean that flows along the land on  
the west, was described most diligently by Artemidorus of Ephesus  
in eleven books of his Geography, and we, having made a general  
study of the books of that famous author, and having omitted the  
cities of the Berbers in Ethiopia, have compiled a clear description  
in brief summary, together with an accurate supplement of those  
things that have been discovered subsequently, so that nothing is  
left wanting for the widest knowledge of those who wish to learn  
this part of Geography; and of both oceans, the eastern and the  
western, (the knowledge of which, so far as man may pursue it,  
has been made manifest to us by the industry and learning of  
many), we have made a description in two books, from the Geog-  
raphy of the divine and most learned Ptolemy, and from the meas-  
urements of stadia by Protagoras, which he appended to his books  
on Geography, and also from many other early authors; of the  
eastern and southern ocean in the first book, and of the western  
and northern in the second; together with the principal islands that  
lie therein, such as that called Taprobana, but formerly known as  
Palaesimundu, and the two Britannic Islands, of which the former  
is known to be in the midst of the Indian Ocean, and the latter in  
the Northern Ocean.

2. Although other early writers have dealt with this subject,  
and have issued various local descriptions, we know of none who  
have touched upon more places; and we have set forth the work  
with care, lest we should seem inferior to any of them; hoping that  
because of such diligence we might produce a work stating the  
exact truth as they have given it. For this reason we have thought  
that the discrepancy which attaches to the measurements of stadia  
should be explained to our readers. For while in any case the  
account of the situation of countries, cities, islands and ports  
should be accurate, it seems desirable so to present the facts that  
they shall be evidently true, even to those who from interest in



Nature may wish to consider the attributes of the sea while taking their measurements as they navigate; although none of those who have written of these things has given such an account, but all have set down the numbers of stadia, as if they were measuring the sea with a line. We must add that it is not easy to determine the accurate numbers of stadia in some parts of the sea. When a shore line is comparatively straight and even, and has no concave recesses of the bays nor any jutting points, the measurement of navigation along that shore is very easy. But we consider it impossible to state the exact diameters of the bays and of the capes or peninsulas; unless, just like a land-route running over military roads, the course at sea is held between ascertained points. Let us assume, for example, a bay with a circuit around its shore line of 100 stadia; a person navigating close in shore will find the number of stadia less than one walking around the shore line afoot, although he would not err greatly from the true number; and a person navigating the same bay farther offshore would again find the stadia less than the one navigating close inshore, and less still than the one walking around the shore. For just as in the case of circles, if within the outer circumference you should describe another circle from the same center, and again another and after that still another, you would find the second circle less than the first, and the third again less than the second, and the fourth likewise than the third, and so on with the rest, if you should go on in that way; so also with the bays, in describing their circumferences, it is possible for navigators to determine the courses in a greater or less number of stadia. The same thing is evident in a direct crossing. If you should prefer not to navigate around the shore, but to cross straight over, that crossing would be the shortest; therefore in the judgment of navigators the number of stadia is always variable, if it concerns bays and capes. For some measure in one way, and others in another. Therefore bear in mind, if you find any mistake in the numbers of stadia, that you should not lay the blame too strongly; because all the early writers, when they describe a sailing-course, disagree among themselves as to the numbers of stadia in all the seas. It would take too long to state the causes of this discrepancy. However it may be, they have made similar statements of peoples

and maritime and naval cities [and islands, so that they never differed lightly, but disagreed as to distances in certain parts.]

3. [Our sea is joined] by the Western Ocean, coming in from the so-called Atlantic Sea, and flows within the land as far as the Gulf of Issus. The entrance to it by the Columns of Hercules or the Herculean Strait is very narrow, being 80 stadia across, and that is the mouth of this gulf or sea; for by no other way can one reach the ocean from the inner sea, than by the Strait of Hercules. This sea of ours extends as far as Egypt, which lies to the south, so that what we call the Egyptian Sea is opposite to the Arabian Gulf, and the land lying between that part of our sea and the Arabian Gulf forms a great isthmus. The sailing-course of this sea we have set down in that epitome of the eleven books of the geographer Artemidorus, already mentioned, and we shall now of our own effort describe the sailing-course of the outer sea or ocean, both eastern and western.

4. Eratosthenes the Cyrenaean stated the greatest circumference of the whole earth to be 259,200 stadia [this should be 252,000]; and thus it was measured also by Dionysius, the son of Diogenes. But that divine Ptolemy, the elder of Eratosthenes in experience and true learning, although his junior in time, demonstrated the earth's circumference to be 180,000 stadia, the width being 80 meridian degrees, and the length 180. The whole earth is contained within this measurement, in three separate continents, as all know, Asia, Libya and Europe. Europe is separated from Libya by the mouth of the ocean near Gades, which they call the Herculean Strait, through which, as we said before, the ocean flows into our sea; and from Asia by the river Tanais, which borders it also on the north, flowing into the Maeotic Marsh, which in turn flows into the Euxine Sea. Libya also is separated from Europe by the Strait of Hercules aforesaid, and from Asia by the Canobic mouth of the Nile. Asia is separated from Europe by the river Tanais, from Libya by the Canobic mouth, as we have said. Thus our sea, which joins the Western Ocean through the Strait of Hercules, bounds three continents.

5. The coast of Europe, if one should circumnavigate all the bays which are in our sea, begins at the river Tanais, and ends



at the Strait of Hercules and the island of Gades, and the whole sailing-course of it is 69,000 stadia. The sailing-course of Libya from the town of Tingis to the Canobic mouth of the Nile is 30,280 stadia; and the sailing-course of Asia and Egypt from the Canobic mouth to the river Tanais is 40,120 stadia. Thus the whole coast of our sea, through Europe, Libya and Asia, is 139,400 stadia.

6. The first among these regions in size is Asia, the second Libya, the last Europe. Of the three seas the first in size is the Indian Ocean; in the second place is our sea, which flows between Libya and Europe, beginning at Gades or the Strait of Hercules and reaching as far as Asia; the third is the Hyrcanian.

The extent of the inhabited earth from east to west is measured as 78,545 stadia; that is, extending from the mouths of the Ganges, the easternmost of the rivers of the Indians, to the extreme westernmost cape of the whole earth, which is called the Sacred Cape, among the Lusitanians, a people of Iberia, which extends westward beyond Gades or the Columns of Hercules about 3,000 stadia. The direct line of width, where it is the widest, is placed at 43,060 stadia, and it extends from the Ethiopian sea to the island of Thule.

7. Among the greatest bays the first is the Gangetic, the second the Persian, the third is that called the Great, the fourth the Arabian, the fifth the Ethiopian, the sixth the Euxine, the seventh that of the Aegean Sea, the eighth the Maeotic Marsh, the ninth the Adriatic or Ionic, the tenth that of the Propontis.

8. Among the greatest islands and peninsulas, the first in order is the island of Taprobana, which was formerly called Palaesimundu and now also Salica; the second is Albion, one of the Britannic islands, the third the Golden Chersonese, the fourth Ivernia, likewise one of the Britannic islands, the fifth the Peloponnesus, the sixth Sicily, the seventh Sardinia, the eighth Corsica, the ninth Crete, the tenth Cyprus. Enough of these; now let us return to our subject.

9. We shall begin the sailing-course, as already explained, at the Arabian Gulf, at its inmost recess, which they call the Elanitic Gulf, where the continent, as we have said, is the narrowest, and hardly prevents our sea from joining with the Arabian Gulf. This recess is between Egypt and Arabia Petraea, which lies next to

Judaea, in which the people of Palestine dwell along our sea; for from Gaza, a city of Palestine, to the aforesaid Elanitic recess of the Arabian Gulf, as you go afoot toward the south, is 1,260 stadia.

10. Now we shall set forth an accurate sailing-course, with the numbers of stadia, of those parts of Asia which lie on the left hand, that is, Arabia Felix and the Erythraean Sea, and then of the Persian Gulf, and the whole Indian Ocean as far as the people of the Sinac and the end of the known earth. Of those parts of Libya on the right hand, to the so-called Cape Prasum [green] and the island of Menuthias, we shall state the names of some of the towns and harbors, and especially the names of the bays of the sea, the capes and islands; but the distances between the places in numbers of stadia we shall rarely mention. For of these parts on the right hand we have not obtained the measurements and know only that they are by land and sea opposite to Asia, that is, to the Arabs and Indians and the other peoples; but on the left-hand side, as already promised, we have diligently set down the sailing-course.

#### SAILING-COURSE OF THE RIGHT-HAND SIDE OF THE ARABIAN GULF AND OF THE ERYTHRAEAN SEA AND INDIAN OCEAN

11. The statement and description of the right-hand parts of Libya are as follows (for before the local description it is best to give the names of places and countries). If you sail southward on the Arabian Gulf, never steering eastward, and hold the land on the right hand, you come first to Egypt, touching that Gulf on one side, where dwell the Arab-Egyptian Fish-Eaters. Beyond Egypt for a long way is the region of the Cave-Dwellers; it reaches along the Arabian Gulf and the Erythraean Sea, which follows beyond the mouth of the Arabian Gulf. When you navigate this sea, and hold the land on the right, you come first to the Avalitic Gulf, on the right-hand side of the Erythraean Sea. Here dwell the aforesaid Cave-Dwellers and the Avalitae and beyond them the people of the Mossyli.

12. Going forth from the Arabian Gulf and the Erythraean Sea, which is narrowed, a little outside the gulf, by the cape [of



Mossylum], you come to the Indian Ocean, extending far and wide; for in its length it reaches toward the rising sun as far as the people of the Sinae, who dwell at the last limit of the inhabited earth next to the unknown eastern land; while in its width it flows far to the south, as far as another unknown land, which extends under it on the south, where the sea called Prasodes [green] (a part of the Indian Ocean, the name being derived from the color) extends toward the east along all this unknown southern land.

13. If you hold a southerly course beyond the Erythraean Sea, and hold the land always on the right, you come to the Elephant mountain and the Land of Spices; beyond which you come to the people called Berbers and the Berber Sea, in which there are many bays and the so-called Courses of Azania. And first among the bays is that called Apocopa; and then follow the Small and Great Coasts; and then another great bay as far as the cape of Rhaptum. Beyond this is the so-called Shallow Sea, and a great bay in it, where dwell savage Man-Eaters. At the end of this bay is a great cape called Prasum and the island of Menuthias, not far distant from Cape Prasum.

14. This is the general statement and description of the right-hand side of the Arabian Gulf and the Erythraean Sea, and of the Indian Ocean beyond, which extends toward the south, and the local description is as follows:

[The local description is lacking]

#### FRAGMENTS

Astarte, an island of Ethiopia, Marcian in the first book of his Periplus: "Here begins Ethiopia, which is above Egypt. Beyond Cape Bazium follows the Prionotus Mountain. Facing this is the island of Astarte". (Steph. Byz.)

Aspis, a town of Libya, as Philo says. It is also a cape of Ethiopia next to Egypt, as Marcian says in the first book of his Periplus.

Gypseis, an island of Ethiopia, as Marcian says in the first book of his Periplus.

Mosylum, a cape and market-town of Ethiopia, according to Marcian in the first book of his Periplus.

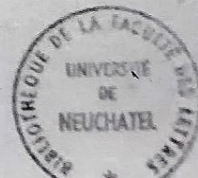
Aroma, a town of the Ethiopians, according to Marcian.  
Myrica, an island in the Erythraean Sea, as Marcian says in his Periplus.

Apocopa, a bay in the Berber Sea; Marcian in his Periplus.

#### SAILING-COURSE OF THE LEFT-HAND SIDE OF THE ARABIAN GULF AND ERYTHRAEAN SEA AND OF THE WHOLE INDIAN OCEAN

15. On the left or Asiatic side the location of continent and seas is as follows. It is understood here again that it is best to state general names before local, and to give the relation of countries. So if you navigate the Arabian Gulf, and hold the continent on the left, you come first to Arabia Felix, which extends along the whole Arabian Gulf as far as the aforesaid Arabian Strait. Beyond the narrows of the Arabian Gulf follows the Erythraean Sea, and if you navigate along it and hold the continent on the left you come to the well-known people of the Arabs, who inhabit all this continent. In this part of the sea is also the people of the Homerites, settled on the land of the Arabs and holding as far as the beginning of the Indian Ocean. Then beyond the Erythraean Sea follows the Indian Ocean. Now if you navigate the left hand side of this sea, holding next to the land of the Arabs as far as the mouth of the Persian Gulf, you come to the mountain of Syagrus and the great bay of Sachalites, which runs as far as the mouth of the Persian Gulf. If you enter the Persian Gulf and navigate it, holding the continent on the left as far as the mouths of the river Tigris [you come to the bay of the Fish-Eaters, which extends a long way, and the Laeanite bay of Arabia Felix and after that, the bay of Mesanites; then, beyond the river Tigris] along the same Persian Gulf you come to the province of Susiana, not to omit Persis which lies next to Susiana, and after that the greater part of Carmania as far as the narrows of the Persian Gulf. Furthermore the Persian Gulf is opposite to the Caspian Sea, which is also called Hyrcanian, and the two, narrowing the intervening land, make a great isthmus of Asia.

16. If you go forth from this gulf and navigate eastward, al-





ways holding the continent to the left, you come back to the Indian Ocean, where dwells the remainder of the people of Carmania. Beyond is the people of Gedrosia, and then India within the river Ganges; and opposite to the middle of this continent lies the great island which they call Taprobana. After this is the other India beyond the river Ganges; which is the boundary of either India. In India beyond the Ganges is the so-called Golden Chersonese; [Suvarna-bhumil]; beyond which is the so-called Great Bay, in the midst of which are the borders between India beyond the Ganges and the Sinae. Then you come to the people of the Sinae, whose metropolis, which is called Thinae, is the boundary between the known and the unknown land.

17. This is the general statement of countries and the description of the left-hand parts of Asia and the Arabian Gulf and the Erythraean Sea, also of the Persian Gulf and the whole Indian Ocean, but the local description is as follows:

#### SAILING-COURSE OF THE LEFT-HAND SIDE OF THE ARABIAN GULF NEXT TO ARABIA FELIX

17 a. Arabia Felix is bounded on the northern side by Arabia Petraea and Arabia Deserta, and on the southern side by the Persian Gulf as far as the mouths of the river Tigris, [on the eastern side also by the Persian Gulf] and by part of the Indian Ocean; then on the south by the Erythraean Sea [and finally on the west by the Arabian Gulf]. Its description is as follows: toward the south, it extends a great way into the Erythraean Sea and the Indian Ocean, as if it were a great peninsula, attached to the continent by a very broad isthmus, washed by the sea. From either side of that isthmus extend two gulfs; of which one, proceeding from the west, forms the so-called Arabian Gulf, of which we have already spoken; the other, trending toward the east, is called the Persian Gulf; around the whole intermediate tract, that is from the head of the Arabian Gulf to the aforesaid Persian Gulf, where the river Tigris empties, Arabia is circumnavigated, having the form of a peninsula, as we have said. It comprises within its area many and great peoples, of whom those bordering on the sea will be

mentioned in the sailing course. The parts at the neck of Arabia Felix beyond Arabia Petraea and Arabia Deserta are inhabited by those who are called Saracens, who have many different names and hold a great area of desert land. And so they are neighbors of Arabia Petraea and Arabia Deserta and of Palestine and Persis and finally of the aforesaid Arabia Felix.

[The local description of Arabia is lacking.]

#### FRAGMENTS

18. Onne, a market-town of Arabia Felix; Marcian in his Periplus.

Sideni, a people dwelling along the Erythraean Sea, according to Marcian in his Periplus.

Zadrame, a kingdom of the Cinaedocolpitae, who are a people of Arabia Felix. Marcian in his Periplus: "Zadrame, a city of the Cinaedocolpitae." Tribe-name, Zadramaeon.

Cassanitae, a people on the banks of the Erythraean Sea. Marcian in his Periplus says "Then follow the people of the Cassanitae."

Minnaei, a people on the banks of the Erythraean Sea. Marcian in his Periplus.

Homeritae, a people of the Ethiopians. Marcian in the first book of his Periplus.

Chatramotitae, a people by the Indian Gulf, dwelling along the river Prionis, as Marcian states in his Periplus.

Ascitae, a people dwelling by the Indian Gulf and navigating on bladders, as Marcian says in his Periplus: "By the bay of Sachalites dwell a people also called Sachalitae, and another people of the Ascitae, (who navigate on bladders)."

This is as if the word Ascites were from *Askos* [bladder] just as *Astites* is from *Astos* or *Mesites* from *Mesos*.

Istriana, a city on the Persian Sea, as Marcian says in his Periplus.

Mallada, a Persian city, Marcian in his Periplus of the Persian Gulf.

Adarupolis, a Persian city, as Marcian says in his Periplus of the Persian Gulf.



Coromane, a city on the Persian Gulf, Marcian in his Periplus. The Gulf of Mesanites, Marcian in his Periplus of the Persian Sea.

Ladisacites (? Maesanites?) a bay in the Persian Sea. Marcian in his Periplus.

Ctesiphon, a city of Assyria; Marcian in his Periplus.

19. Arabia Felix extends in length 11,700 stadia, and in width 8,850 stadia. It has 54 provinces or satrapies, 164 notable cities and towns, 15 notable mountains, 4 notable rivers, 6 notable ports, 5 notable bays, 2 great coast-lines, 35 notable islands mentioned in the sailing course. From the cape of the Asabi at the Maesanite Gulf, which is next to Arabia Felix, is [8]140 stadia in all. The sailing of the whole sea-coast of Arabia Felix, from the Elanite recess of the Arabian Gulf to the Maesanite Gulf and the head of the Persian Gulf by Arabia Deserta and the mouths of the river Tigris, is altogether 38,150 stadia.

#### SAILING-COURSE OF SUSIANA

20. Susiana lies on the Persian Gulf; it is bounded on the north by Assyria, on the west by the aforesaid Babylonia along that part of the river Tigris which is near the sea, on the east by Persis, on the south by the Persian Gulf from the mouths of the Tigris to the mouths by which the river Oroatis discharges into the Persian Gulf. This is the general description of the region, but the local sailing-course is as follows:

21. From the eastern mouth of the river Tigris to Charax Spasini 80 stadia. Off this coast lies an island called Apphana, which some include in the sailing course of Arabia Felix, counting 35 islands in that course. From Charax Spasini to the mouths of the river Mogaeus 700 stadia. From the river Mogaeus to the bay of Pelode [Coenosus] 400 stadia. On this bay and the neighboring district dwell the Elymaei, who are of the region of Susiana. Off the coast of this bay lies the island of Taxiana. From this bay to the mouths of the river Eulaeus 690 stadia. Inland on this river is the city of Susa, the metropolis of Susiana. From the river Eulaeus to the [sandy] shoal 110 [stadia]. From the sandy [shoal] to the mouths of the river Oroatis 1,450 stadia.

22. Susiana extends in length 3,500 stadia, in width 2,350 stadia. It has 6 provinces or satrapies, 17 notable cities and towns, 4 notable rivers, the bay of Pelode, the sandy shoal, the columns of Hercules. The whole sailing course along the coast of Susiana from the mouth of the river Tigris to the mouths of the river Oroatis is 3,430 stadia.

#### SAILING-COURSE ALONG PERSIS

23. Persis itself is situated on the Persian Gulf. It is bounded on the north by Media, on the west by Susiana aforesaid, on the east by Carmania, on the south by the Persian Gulf from the river Oroatis to the mouths of the river Bagrada. This is the general description of the region, but the local sailing-course is as follows:

24. From the mouths of the river Oroatis to Cape Taoce 500 stadia. From Cape Taoce to the mouths of the river Rhogomanis 700 stadia. In this course lies an island called Sophtha. From the river Rhogomanis to a peninsula 500 stadia. Opposite this is an island called Alexandri. From the peninsula to the mouths of the river Brisoana 650 stadia. From the river Brisoana to Ausinza 600 stadia. From Ausinza to the mouths of the river Bagrada 450 stadia. Here, as we have said, is the boundary of Persis.

25. Persis is 4,000 stadia in length, 1,400 stadia in width; it has 10 peoples or satrapies, 32 notable cities and towns, 3 notable rivers, 1 notable cape, 1 notable peninsula, 2 notable islands. The sailing-course along the coast of Persis, from the Oroatis to the mouths of the river Bagrada, is altogether 3,400 stadia.

#### SAILING-COURSE OF CARMANIA

26. Carmania lies partly on the Persian Gulf and partly on the Indian Ocean outside the Persian Gulf. It is bounded on the north by Carmania Deserta, on the west by Persis aforesaid, by the river Bagrada already mentioned and further by the remaining part of the Persian Gulf, which as you face the west is called Carmanic; on the east by the province of Gedrosia as far as the Parsic mountains; on the south beyond the straits of the Persian Gulf by the Indian Ocean. This is the general description; but the local sailing-course is as follows:



27. From the mouths of the river Bagrada aforesaid to the river Dara 300 stadia. Here dwell the Camelobosci, a people of Carmania. From the river Dara to the mouths of the river Cathrapis 500 stadia. [From the river Cathrapis] to the mouths of the river Corius 700 stadia. Off this coast lies an island called Agedana [Sagdana?] in which much red-lead is produced. From the river Corius to the mouths of the river Achidana 400 stadia. From the river Achidana to the mouths of the river Andanis 500 stadia. Near this coast is the island of Oorachtha. From the river Andanis to the mouths of the river Saganus 400 stadia. From the mouths of the river Saganus to the city of Armuza 200 stadia. From Armuza to the so-called cape of the Armozi 800 stadia. From the cape of the Armozi to Cape Carpella 750 stadia. Here is the aforesaid round mountain of Semiramis, which, as we have said, is opposite to the mountain and cape of the Asabi in Arabia Felix; and the two mountains, with their capes, make the straits of the Persian Gulf. The course along Carmania in the Persian Gulf, from the river Bagrada to the round mountain and Cape Carpella, is altogether 4,250 stadia. And the sum of the sailing-courses around the entire Persian Gulf from the mountain and cape of the Asabi to the round mountain of Semiramis and Cape of Carpella is [16,790 stadia.]

28. [Beyond Cape Carpella] follows the Indian Ocean, extending eastward, next to which is the remaining part of Carmania as far as the land of the Musarnaei. Beyond Cape Carpella follows a very great bay, called Paragon, which extends as far as the Cape called Alambater and the island called Ziba [Liba?]. The local description is as follows: From Cape Carpella to the city of Canthatis 1,000 stadia. Here dwell the so-called Pasargadae, of the people of the Carmani. From the city of Canthatis to the city of Agrisa 250 stadia. From the city of Agrisa to the notable market-town of Ommana 600 stadia. From Ommana to Rhogana 150 stadia. From Rhogana to the mouths of the river Salarus 150 stadia. From the river Salarus to Pasis 200 stadia. From Pasis to the city of Samydace 200 stadia. Thereabouts dwell the Tortoise-Eaters, also a people of Carmania. From the city of Samydace to the mouths of the river Samydacus 500 stadia. From the river

Samydacus to the city of Tesa 400 stadia. From the city of Tesa to the mouths of the river Hydriacus 200 stadia. From the mouths of the river Hydriacus to Cape Bagia 400 stadia. From Cape Bagia to the port of Cyiza 250 stadia. From the port of Cyiza to Cape Alambater 400 stadia. Off shores from these places lies an island called Pola [Polla?]. Off Cape Alambater is an island called Ziba [Liba?]. This, as we have said above, marks the end of the bay which is called Paragon. And the whole sailing-course from the Cape Carpella to Cape Alambater is 4,700 stadia.

29. From Cape Alambater to Derenobilla 250 stadia. Off shore lies an island called Carmina. From Derenobilla to the port of Cophanta 250 stadia. From the port of Cophanta to the mouths of the river Zorambus 200 stadia. From the river Zorambus to Badara 250 stadia. From Badara to the city of Musarna 300 stadia.

30. Carmania extends in length 7,000 stadia, in width 1,500 stadia. It has 10 peoples or satrapies, 23 notable cities and towns, 3 notable mountains, 10 notable rivers, 3 notable capes, 2 notable ports, 5 notable islands. The sailing-course of Carmania along the Indian Ocean, from Cape Carpella to the city of Musarna, is altogether 5,950 stadia. The sailing-course of the whole coast of Carmania, from the river Bagrada to the city of Musarna, totals 10,200 stadia.

#### SAILING-COURSE OF GEDROSIA

31. Gedrosia is bounded on the north by Drangiana and Arachosia, on the west by Carmania aforesaid, as far as the sea, on the east by part of India along the river Indus as far as the boundary of Arachosia already mentioned, and on the south by the Indian Ocean. This is the general description; the local description is as follows:

32. From the city of Musarna to the mouths of the river Artabis [Arabis] 1,300 stadia. If you navigate up the river you come to a city on the right bank called Arbis, and above it also on the right bank Parsis, the metropolis of Gedrosia. From the river Artabis [Arabis] to the city of Rhapraua is 550 stadia. From the city of Rhapraua to the Port of Women 500 stadia. Thereabouts



are towns of the Arbiti. From the Port of Women to Coeamba 400 stadia. [From Coeamba to Rhizana 1,110 stadia]. Then begins the region of Patalene, the greater part of which is comprised within the mouths of the river Indus; and it contains the metropolis called Patala, which is situated beyond the third mouth of the Indus, as if on an island, and many other towns.

33. Gedrosia extends in length 6,600 stadia, in width 5,250 stadia. It contains 8 provinces or satrapies, 12 notable cities and towns, 1 very great mountain, 1 great river, 1 notable port, 2 notable islands. The whole course along the coast of Gedrosia from the city of Musarna to Rhizana is 3,850 stadia.

#### SAILING-COURSE OF INDIA WITHIN THE RIVER GANGES AND OF THE BAYS AND ISLANDS THEREOF

34. India which is within the river Ganges is bounded on the north by the Imao mountains, along the Sogdiani and Sacae who dwell above them; on the west by the sea and by Gedrosia aforesaid, inland by Arachosia and the region of the Paropanisadae which lies above it, on the east by the river Ganges, on the south by the Indian Ocean. This is the general description; the local description is as follows:

[The local description is lacking]

The whole sailing-course of the aforesaid part of India within the Ganges from the port of Naustathmus to Cape Cory is 21,725 stadia.

#### SAILING-COURSE OF THE ISLAND OF TAPROBANA

35. Opposite to the cape of India which is called Cory, is the cape of the island of Taprobana called Boreum. The island of Taprobana was formerly called Palaesimundu, but now Salica. This cape of the island, which we said is called Boreum, opposite to Cape Cory, is distant from the eastern horizon 26,460 stadia, from the western 61,626 stadia, while on the south it is at a distance of 6,350 stadia north from the equator.

[The local description is lacking]

#### FRAGMENT

[Margana, a town of India, Marcian in his Periplus. There is also Marganae, in the plural.]

36. Beyond the promontory of Boreum the whole description and sailing-course of the island of Taprobana is as follows: the length through the diameter is 9,500 stadia, the width 7,500 stadia. It has 13 peoples or satrapies, 22 notable cities and market-towns, 2 notable mountains, 5 notable rivers, 8 notable capes, 4 notable ports, 2 great bays, 1 great coast-line. The whole sailing-course of the island of Taprobana is 26,385 stadia. We have said enough about the island of Taprobana. Let us return to the sailing-course along India within the Ganges.

[The local description is lacking]

#### SAILING-COURSE OF THE GANGETIC BAY

37. From this Point of Departure [for those bound to Chryse] begins the very great bay called Gangetic, into the head of which empties the river Ganges, discharging through five mouths; which, as we have said, is the boundary between India within the Ganges and India beyond the Ganges.

[The local description is lacking]

38. The length of India within the river Ganges, where it extends the greatest, from the fifth mouth of the river Ganges, which is called Antibole, to the port of Naustathmus situated on the gulf of Canthi, is 18,290 stadia; and the width from the cape of the Point of Departure, so-called, to the sources of the river Ganges is 13,000 stadia. It has 54 peoples or satrapies, 216 notable cities and towns and market-towns, 6 notable mountains, 23 notable rivers, 2 notable capes, 1 notable port, 5 notable bays, 12 notable mouths of rivers, 1 notable Point of Departure, 10 confluences of notable rivers, 8 notable islands.

39. The whole sailing-course through that part of the Gangetic Bay which is between the Point of Departure and the fifth mouth of the Ganges, called Antibole, is 5,660 stadia. All the sailing-courses of India within the river Ganges, from the port of Naustathmus to the fifth mouth of the river Ganges which is called Antibole, total 35,695 stadia.



## SAILING-COURSE OF INDIA BEYOND THE RIVER GANGES AND OF THE BAYS THEREOF

40. India beyond the river Ganges is bounded on the north by parts of Scythia and Serica, on the west by the river Ganges itself, on the east by the region of the Sinae as far as the so-called Great Bay, and by that Bay, on the south by the Indian Ocean and part of the sea of Prasodes, which begins at the island of Menuthias and extends on a parallel line to the opposite parts of the Great Bay, as we said above.

[The local description is lacking]

41. The length of India beyond the Ganges, where it extends the longest, is 11,650 stadia; the width, where it is extended widest, is 19,000 stadia. It has 50 peoples or satrapies, 67 notable cities, towns and market towns, 18 notable mountains, 5 notable capes, 3 notable ports, 1 very great bay, 30 notable islands.

42. The whole sailing-course from the [Great] Cape to the country of the Sinae, in that part of the Great Bay which is next to India without the Ganges, is 12,550 stadia. All the sailing-courses of the coast of India beyond the Ganges, from the fifth mouth of the Ganges which is called Antibole, to the country of the people of the Sinae, total 45,350 stadia.

## SAILING-COURSE OF THE COUNTRY OF THE SINAE AND THE BAYS THEREOF

43. The people of the Sinae are bounded on the north by part of Serica, on the west by India beyond the river Ganges along the aforesaid border in the Great Bay, on the east by unknown land, on the south by the southern sea and the unknown southern land. This is the general description: [the local description is as follows]

[The local description is lacking]

44. Beyond dwell the Fish-Eating Sinae as far as the unknown southern land. For there are two unknown lands that must be understood; one of them extends eastward, which the Sinae inhabit as we have said; and the other southward, which stretches out along the whole Indian Ocean, or rather along the sea called Prasodes, which is part of the Indian Ocean; so that where these lands

come together it makes a sort of angle near the gulf of the Sinae. Above the Sinae is the region of the Seri and their metropolis. Eastward beyond them is unknown land, having stagnant lakes, in which great reeds grow, so closely crowded together that men cross over the lakes by walking upon them.

## SAILING-COURSE OF THE BAY OF WILD ANIMALS

45. Now beyond the Great Bay and the Cape of the South Wind, if you navigate toward the south and hold the land of the Sinae to the left and eastward, you come to the so-called Bay of Wild Animals, reaching as far as the so-called Cape of Satyrs. The sailing-course of the Bay of Wild Beasts, from the Cape of the South Wind to the Cape of Satyrs, is altogether 10,503 stadia.

## SAILING-COURSE OF THE BAY OF THE SINAE

46. Beyond the Cape of Satyrs follows a very great bay, called the Bay of the Sinae. This extends as far as the unknown southern land, which adjoins the unknown eastern land, next to which, as we have said, dwell the Sinae. From the Cape of Satyrs to the mouths of the river Cottiaris, which empties into the Gulf of the Sinae, is 1,250 stadia. Across the river Cottiaris you come to Cattigara, the leading port of the Sinae and the end of the known and inhabited land in the regions of the south. It is not easy to set down the stages and figures of this sailing-course; for there are no witnesses to point out the course beyond the port of the Sinae unless it be some God who knows; and of the coast to the south along the unknown land, and of the unknown land to the east beyond the Sinae, accurate knowledge does not exist among men.

47. The greatest length of the land of the Sinae is 3,000 stadia, and the greatest width 17,250 stadia. It has 5 peoples or satrapies, 7 notable cities and towns, 1 notable mountain, 4 notable rivers, 2 notable bays (that is the Bay of Wild Animals and the Bay of the Sinae), 2 notable capes. (Altogether there are 560 cities and towns in the eastern land).

48. The whole sailing-course along the coast of the Sinae, from the boundary between the Sinae and India beyond the Ganges in the Great Bay, to the mouths of the river Cottiaris, totals 12,650 stadia.



## SUMMARY OF ALL THE AFORESAID DISTANCES

50. The whole sailing-course and description of the seacoast of the regions of Asia, from the Arabian Gulf and the Erythraean Sea, through the Persian Gulf and the Indian Ocean, is put together in this way; and the entire distance, if you circumnavigate all the bays from the Elanite recess to the mouths of the river Cottiaris in the Bay of the Sinae, is 153,295 stadia.

The particulars of the distance of the seacoast on the left hand are as follows:

51. From the Elanite recess (from which we made the beginning of the sailing course of the left-hand regions of Asia) to the narrows of the Arabian Gulf 11,670 stadia.

From the narrows of the Arabian Gulf the sailing-courses of the Erythraean Sea and part of the Indian Ocean are 21,530 stadia (21,340?).

From the mouth of the Persian Gulf until you come back to the same mouth the sailing course of the whole Persian Gulf [is 16,790 stadia].

[From the Persian Gulf] to the end of the coast of Carmania is 5,950 stadia. From the aforesaid borders of Carmania to the town of Rhizana on the coast of Gedrosia is 3,850 stadia.

From the aforesaid borders of Gedrosia and from the first and greatest western mouth of the river Indus, which is called Sagapa, to the fifth mouth of the river Ganges, which is called Antibole, the seacoast of India within the river Ganges is 35,695 stadia.

From the fifth mouth of the river Ganges, which is called Antibole, to the line of the region of the Sinae, which is in the midst of the Great Gulf, [the coast] of India beyond the Ganges is 43,350 stadia.

From the border of the Sinae which is in the Great Bay to the mouth of the river Cottiaris, the sea-coast of the Sinae is 12,650 stadia.

The totals of all the aforesaid sailing-courses of the left hand regions of Asia, from the Elanite recess to the Sinae and the mouths of the river Cottiaris, amount to 153,295 stadia.

52. Here, then, we shall make an end of the first book, in which

we have written down the sailing-course of the whole Arabian Gulf and the whole Erythraean Sea, and of both the right and left sides of the Indian Ocean, so far as it can be done by the diligence and study of men, to the unknown land on both continents, eastern and southern. Now we shall begin on the sailing-course of the western ocean; for that is what we promised to do at the beginning of the book.

The Periplus of the Outer Sea, and of the Great Islands Therein, by Marcian of Heraclea on the Euxine. The first book of a work in two parts.

Periplus of the Outer Sea by Marcian of Heraclea on the Euxine. Periplus of the Outer Sea, East and West, and of the Great Islands therein, in two parts.

Book II. This includes the second book of Marcian's Periplus of the Eastern and Western Ocean.

Foreword.

Periplus of Iberia or Hispania, as far as it joins the western and northern ocean, including the following parts:

Periplus of the Country of Baetica from Calpe to the boundaries of Lusitania.

Periplus of Lusitania.

Periplus of Tarraconensis.

Periplus of the region of Celtogalatia so-called, the parts of which are:

Periplus of Aquitania.

Periplus of Lugdunensis.

Periplus of Belgica; together with Lower and Upper Germany.

Periplus of Greater Germany.

Periplus of European Sarmatia.

Concerning the Britannic Islands.

Periplus of Hibernia, a Britannic Island.

Periplus of Albion, a Britannic Islands.

Periplus of the Regions of Libya which adjoin the Western and Southern Ocean as far as the lower coast of Ethiopia—of which the parts are:

Periplus of Mauretania Tingitania.

Periplus of Interior Libya.



## FOREWORD

The second book will contain the general sailing-course from the Strait of Hercules, then along the Western and Northern Ocean as far as the extreme north, and then along the southern regions as far as the unknown land of the other continent. This sailing-course is on the right-hand side along Iberia or Hispania as far as it adjoins the ocean and along Aquitania, Lugdunensis and Belgica, and Greater Germany, as far as European Sarmatia, after which follows the unknown northern land; and further of two islands of the Northern Ocean which are commonly called by the name of Britannic, but also properly one is called Hibernia and the other Albion; and then on the left-hand side along Libya and the Western and Southern Ocean including the places adjacent thereto as far as the lower coast of Ethiopia, where it is known that the ocean ceases to flow toward the south and then follows an unknown land.

2. For of the whole sea within the Columns of Hercules, as we have already said, we have made an accurate sailing-course, according to our opinion, in a summary of eleven books of the Ephesian geographer Artemidorus, which sailing-course we think that we have written down with diligence in the books of the geography of our sea; but of the outer sea, which is called by most the Ocean, and which in some of its regions the aforesaid Artemidorus briefly described, we have chosen the most accurate sailing-course from the geography of the most divine Ptolemy and furthermore from the books of Protagoras and other early writers. The sailing-course of the Arabian Gulf and of the Erythraean Sea along either continent, and also of the whole Indian Ocean as far as it could be done in order, we have set down in Book I; and now we shall proceed to the sailing-courses of the western ocean.

3. We shall make a beginning of the sailing-course of the outer sea from the Strait of Hercules. This strait separates the two continents; Iberia, which is also called Hispania, a part of Europe, and Libya, opposite thereto. Now if you go forth from the Strait of Hercules, and hold a course toward the ocean, Baetica, a province

of Hispania is on the right hand, on the left the provinces of Libya called Mauretanian; between them lies a bay of the inner sea called the Iberic. And when you sail through the Strait of Hercules and pass by the Temple of Juno (which is on the right as you go out of the strait) you come to the ocean flowing along either continent, that is Iberia and Libya, and extending westward in unmeasured and unknown width.

4. First on the right hand is the island of Gades, where the Columns of Hercules are stated to be. Now some say that these columns are located at the mountain of Calpe, which lies within the Strait of Hercules, and others at the island of Gades, as the geographer Artemidorus; but nothing hinders us from making the sailing-course of Iberia from the mountain of Calpe, which most would have to be the Column of Hercules. Now Calpe belongs to the province which is called Baetica; the end of this people and the boundary, is the river Anas, flowing into the western ocean; beyond which the remaining provinces of Hispania are situated along the outer sea and ocean. The sailing-course will begin then, with Calpe of Iberia and that part of the province of Baetica.

5. Because many of those who have navigated in these parts were deceived in the number of stadia, although we summarized the causes of this error in Book I., for greater certainty we have written down two numbers of stadia, adding to the text *not more* and *not less*; so that he who holds to the mean of both figures, goes as if by the rule of truth from those who have accurately explored the matter. Protagoras, wisely observing this same thing in his Geography, seems to avoid this error about the stadia.

## SAILING-COURSE OF THOSE PARTS OF IBERIA, WHICH IS ALSO CALLED HISPANIA, LYING NEXT TO THE OCEAN

6. Iberia, which is also called Hispania, begins at the Pyrenaean Mountains, and is of very great extent, surrounded on either side by the sea, both the Northern and Western Oceans, and our sea, The Pyrenaean Mountains also begin at our sea and extend as far as the Northern Ocean. And one extremity of this range rises



above our sea, while the other extremity projects toward the north and the Northern Ocean. Also it separates and divides Iberia from the neighboring Celtogalatia, so that Iberia has the form of a very great peninsula, which adheres by its neck to the Pyrenaean Mountains; also the range is curved in the same way toward Hispania.

7. Formerly Iberia was divided by the Romans into two provinces, but now into three: Hispania Baetica, Hispania Lusitania, and Hispania Tarraconensis. A part of Baetica extends a great way along our sea within the Columns of Hercules, and a part is situated next to the Western Ocean. Of the two remaining provinces Lusitania lies entirely along the Western Ocean; Tarraconensis for the greater part adjoins the Northern Ocean, but some part also adjoins our sea, reaching from the south at either sea as far as the Pyrenaean Mountains. And now we shall set down the sailing-course of those parts of Iberia which are next to the ocean; for this we promised that we should do.

#### SAILING COURSE OF THE PARTS OF BAETICA FROM CALPE AS FAR AS THE BORDERS OF LUSITANIA

8. Hispania Baetica is bounded on the north and west by Lusitania and by part of the province of Tarraconensis, on the east by the so-called Balearic Gulf (which adjoins the Iberian Sea); on the south, at the sea which is beyond the Strait of Hercules, by the Western ocean, and at the sea within the strait, by the Iberian Gulf. This is the general description; the local description is as follows:

9. From Calpe Mountain and the Column, which is at the beginning of the inner sea, when you sail forth from the strait into the ocean and have the continent of Iberia on the right hand, it is 50 stadia to Carteia. Here dwells a people of the Bastuli, who are called Poeni. From Carteia to Barbesola 100 stadia. From Barbesola to Transducta not more than 200 stadia, nor less on a straight line than 145 stadia. From Transducta to Menralia not more than 115 [155?] stadia, nor less than 123 stadia. From Menralia to the city of Belone not more than 140 stadia, nor less than 100 stadia. Here begins the people of the Turduli. From the city of Belone to

the mouths of the river Belone, not more than 75 stadia, nor less than 50 stadia. From the mouths of the river Belone to the Cape at the beginning of the strait at which is a temple of Juno, 200 stadia, 150 stadia. (Henceforth the stadia only will be set down, and the first number will indicate the maximum and the second the minimum; so that we shall not further write down *more than* or *less than* for each separately.) From the Cape, then, at which is the strait and the Temple of Juno, if you navigate the ocean toward the north, and hold the continent on the right hand, and on the left the Western Ocean, you come to the port of Menestheus; to which it is 225 stadia, 160 stadia. Next to these places is the island of Gadir or Gades in the outer sea, in which is a city, with the same name, Gadir. From the promontory at the strait to the island of Gadir, it is 270 stadia, 240 stadia. From the port of Menestheus to the bay by Astra, 210 stadia. Here the dwellings of the Turduli begin. From the bay by Asta to the eastern mouth of the river Baetis 385 stadia, 285 stadia. From the mouths of the river Baetis to the sources of the same river, 3,350 stadia, 2,400 stadia. From the eastern and greater mouth of the river Baetis to the bay of Onoba, 420 stadia, 300 stadia. From the bay of Onoba to the mouths of the river Anas, 210 stadia, 150 stadia. From the mouths of the river Anas to the sources of the same river 2,145 stadia, 1,550 stadia. Here is the boundary of Hispania Baetica, which region adjoins the seas on either side of the strait of Hercules, not only our sea, but also the outer or Ocean Sea.

10. The length of all Baetica begins at the mouths of the river Anas and ends at the sources of the same river Anas, so that following the longest line it is 3,709 stadia. The width of Baetica begins at the sources of the same river and descends toward the south to the temple of Juno aforesaid, or the city of Belone or the great Portum; so that the entire width following the longest line is 1,158 stadia. The circumference of Mediterranean Baetica is 6,709 stadia, 5,140 stadia. It has 5 peoples, 85 notable cities, 3 notable mountains, 5 notable rivers, 2 notable capes, 1 notable port.

11. The sum of the stadia of the whole sailing-course of Baetica does not exceed 4,345; and of the coast of Baetica on the ocean, of which we made the sailing-course from Calpe Mountain and the



Column to the mouths of the river Anas, it is not more than 2,380, nor less than 1,245 [1,745?].

### SAILING-COURSE OF LUSITANIA

12. Hispania Lusitanica is bounded on the north by Hispania Tarraconensis along the western part of the river Dorius, on the east by the same Tarraconensis, on the west by the western ocean, on the south by Baetica aforesaid, (which, as we said, also adjoins the western ocean), and by our sea. This is the general description; the local description is as follows:

13. From the mouths of the aforesaid river Anas to Balsa 380 stadia [240 stadia?]; in this region dwell the Turditani. From Balsa to Ossonoba 340 stadia, 300 stadia. From Ossonoba to the Sacred Cape 360 stadia, 260 stadia. This cape extends far into the ocean, and is among the most celebrated. From the Sacred Cape to the mouths of the river Calipos 1,350 stadia, 950 stadia. From the mouths of the river Calipos to Salacra [Salacia] 230 stadia, 210 stadia. From Salacra [Salacia] to Caetobriga 105 stadia, 90 stadia. From Caetobriga to the Barbarian Cape 190 stadia, 160 stadia. From the Barbarian Cape to Oliosipo 380 [280?] stadia, 250 stadia. From Oliosipo to the mouths of the river Tagus 155 stadia [130 stad a?]. To the sources of the river — stadia. From the mouths of the river Tagus to the cape of the mountain of the Moon 150 stadia, 120 stadia. Next lies the island called Lanobris [Londobris]; to that island from the Cape of the Moon it is 940 stadia, 670 stadia. From the Sacred Cape to that island it is 1,510 stadia, 1,130 stadia. From the Mountain of the Moon to the mouths of the river Monda 150 stadia, 120 stadia. From the river Monda to the mouths of the river Vaca 380 stadia, 275 stadia. Beyond the river Vaca follow the mouths of the river Dorius, along which the boundary of Hispania Lusitanica extends. From the mouths of the river Dorius to the sources of the same river 1,370 stadia. [And from the mouths of the river Vaca to the mouths of the river Dorius — stadia, — stadia].

14. The length of Lusitania begins on the western side at the Sacred Cape, and ends at the sources of the river Dorius, so that on the line of the greatest length it is 3,335 stadia. The width of

Lusitania begins on the sea at the northern shore by the mouths of the river Vaca, and extends southward to the city of Balsa, so that on the line of the greatest width it is 1,793 stadia. The whole land circuit of Lusitania is 4,400 stadia, 4,000 stadia. It has 4 tribes, 56 notable towns, 5 notable mountains, 6 notable rivers, 2 notable capes.

15. The sailing-courses on the ocean along the shores of Lusitania from the mouths of the river Anas to the mouths of the river Dorius total not more than 4,140 stadia, nor less than 3,265.

### SAILING-COURSE OF TARRACONENSIS

16. Hispania Tarraconensis is bounded on the north by the Cantabrian ocean; and this is of the northern regions; on the rising of the summer sun by all the Pyrenees, from the Oeassus Cape of the Pyrenees to another Cape of the same which reaches to our sea, on which is placed a temple of Venus; [on the rising of the winter sun by the Balearic Gulf]; on the south by Lusitania aforesaid and [by that part of Baetica which adjoins] our sea; on the west by the Western Ocean. This is the general description; the local description is as follows:

17. The length of Tarraconensis begins on the western shore at Cape Nernis, and ends at the Cape of the Pyrenees which is on our sea, where the temple of Venus is situated; so that the length of the province along the lines drawn through its midst is 7,230 stadia. The width of Tarraconensis [begins on the northern shore at the Cantabrian ocean and the Pyrenees mountains, and extends southward to the northern parts of Lusitania] and Baetica, (and to Urce, a city of Baetica), so that the full width along the greatest line is 4,250 stadia. And the land circuit of it is 4,500 stadia, 3,300 stadia. It has 55 peoples, 273 notable cities, 5 notable mountains, 23 notable rivers, 8 notable capes, 2 notable ports.

18. The sailing-course of those parts of the province of Tarraconensis adjoining the ocean, on the western and northern shores, has been thus set down; but the remaining portion of it next the Balearic Gulf, extending from the Cape of the Pyrenees Mountains where we said the temple of Venus is situated, to Urce, beyond which follows the province of Baetica, the parts of which adjoining



the strait of Hercules and the western ocean we have gone over at the beginning of this book, [this part we have described accurately in our epitome of the Geography or Periplus of Artemidorus]. Altogether, then, from the mouth of the river Dorius to Oeassus, a cape of the Pyrenees, the sailing-courses along the sea-coast of Tarraconensis are not more than 10,327 stadia, nor less than 8,012. From the mountain of Calpe by the strait of Hercules to Oeassus, a cape of the Pyrenees, the sailing-courses altogether amount to not more than 16,845 stadia, nor less than 13,282. The sailing course of Iberia along the western and northern ocean, from the mountain of Calpe and the strait of Hercules to the Pyrenees Mountains and their northern extremity called Oeassus, is set down in this manner; but now we shall proceed to those that follow.

#### THE SAILING-COURSE OF CELTOGALATIA

19. Celtogalatia, as they call it, extends a long way by land and sea; and it is divided into four provinces, Gallia Aquitania, Gallia Lugdunensis, Gallia Belgica and Gallia Narbonensis. Of these the three provinces which we named first adjoin the ocean, in succession northward; but Narbonensis is situated on our inner sea, looking toward the south. Beginning in order with Aquitania, we shall set down the sailing-course of those tribes who dwell along the northern ocean of Celtogalatia; for this we are enabled to do. We outlined clearly the sailing-course of Gallia Narbonensis in our epitome of the Geography or Periplus of Artemidorus; although the aforesaid Artemidorus made no distinction [of Celtogalatia, as if it were one] of the provinces of Iberia.

#### SAILING-COURSE OF AQUITANIA

20. Aquitania is bounded on the north by part of the neighboring province of Lugdunensis, and by the adjacent northern ocean; on the east by part of the province of Lugdunensis along the river Liger as far as its sources, and by part of Narbonensis as far as its termination in the Pyrenees Mountains; on the west by the Aquitanic Ocean; and on the south by part of the Pyrenees next to the Oeassus Cape which juts into the Ocean, and by part of the province of Narbonensis from the head of the Liger to the aforesaid

boundary in the Pyrenees Mountains. And the general boundaries of the province are after this manner; but the particular localities in the coast region along the Aquitanic Ocean are as follows:

21. After the Oeassus Cape of the Pyrenees follow the mouths of the river Aturius; to them it is not more than 1,250 stadia, nor less than 750 stadia. From the mouths of the river Aturius to the mouths of the river Signatis 500 stadia, 450 [stadia]. From the mouths of the river Signatis to Cape Curiannum, 500 stadia, 370 stadia. From Curiannum to the mouths of the river Garunna (being 50 stadia wide at the mouth) 600 stadia, 430 [stadia]. From the mouth of the river Garunna to the sources thereof there are 900 stadia, 600 stadia. If you sail up the river Garunna you come to Burdigala, a city of Aquitania. In it dwell the Santones, whose city Mediolanium is on the sea, next to the river Garunna. From the mouths of the Garunna to the Cape of the Santones 475 stadia, 325 stadia. From the Cape of the Santones to the mouths of the river Canentellus 560 stadia, 550 stadia. From the mouths of the river Canentellus to the promontory of the Pictonii 210 stadia, 150 stadia. From the promontory of the Pictonii to the harbor of Sisor 300 stadia, 290 stadia. From the harbor of Sisor to the mouths of the river Liger [of which the extreme width is —], 185 stadia, 155 stadia. The people of the Samnitae dwell along the river.

22. The length of Aquitania beginning at the mouths of the Aturis river and ending at the city of Avaricum, along the line of the greatest length, is 1,408 stadia. The width of Aquitania begins at its boundary in the Pyrenees, and extends as far as the bending of the river Liger toward the south, about 2,250 stadia. The whole land circuit of it is not more than 4,770 stadia, nor less than 3,370 stadia. It has 16 peoples, 16 notable cities, 5 notable rivers, 4 notable capes, 1 notable port.

23. The whole sailing course along the shores of Aquitania, from the Oeassus Cape of the Pyrenees to the mouths of the river Liger, is not more than 4,800 stadia, nor less than 3,525 stadia.

#### SAILING-COURSE OF LUGDUNENSIS

24. Gallia Lugdunensis is bounded on the north by the Britannic ocean; on the east by the Belgic province as far as the river



Sequana; on the west by the Aquitanic ocean; on the south by part of the province of Narbonensis. This is the general description; the local description is as follows:

25. The length of Lugdunensis begins at the promontory of Gabaeus and follows the eastern side, where it joins the Belgic province at the river Sequana, so that its length is 3,376 stadia. The width of Lugdunensis begins on the south at the city of Cabyllinum, and extends to the mouth of the river Sequana, so that the width is 3,080 stadia. The land circuit of the province is 7,290 stadia, 6,420 stadia. It has 25 peoples, 26 notable cities, 1 notable mountain, 4 notable rivers, 1 notable cape, 3 notable ports.

26. The whole sailing-course along the shores of Lugdunensis, from the mouths of the river Liger to the mouths of the river Sequana, 3,370 stadia, 3,065 stadia.

#### SAILING-COURSE OF BELGICA WITH UPPER AND LOWER GERMANY

27. Belgica with the two Germanies is bounded on the north by the Northern Ocean where it extends along Britannia; on the east by the river Rhenus next to Greater Germany as far as the head of the river, and thence by the mountain extending from the source thereof to the Alps, which is called Adulas; on the west by the province of Lugdunensis and the aforesaid river Sequana; on the south by the remaining part of Narbonensis. This is the general description [the local description is as follows]:

28. The region which extends from the sea to the river Obrinca is called Lower Germany, and beyond the river Obrinca it is called Upper Germany.

29. The length of Belgica with the two Germanies begins at the mouths of the river Phrudis, and ends on the east at the river Rhenus, which extends along Greater Germany as far as the head of the river, so that the length is 2,685 stadia. The width of it begins at the Adulas mountain and the continuing boundary of the Alps and the Adulas mountain, and extends to the western mouth of the river Rhenus, so that it is 4,375 stadia in width. The whole land circuit of Belgica with the two Germanies is 15,160 stadia, 12,300 stadia. Belgica with the Germanies has 24 peoples, 38

notable cities, 2 notable mountain ranges, 7 notable rivers, 1 notable cape.

30. The whole sailing course along the shores of Belgica with upper and lower Germany, from the river Sequana to the river Rhenus, that is to that mouth which is called the western, is not more than 3,850 stadia, nor less than 3,180 stadia.

31. Greater Germany is bounded on the north by the ocean called Germanic, on the east by the Sarmatian Mountains, and by that part of Sarmatia below the mountains as far as the source of the river Vistula, and then by that river; on the south by the western part of the Danube river (and the Danube at the beginning of this part has a width of one stadium, beyond of two, and then of three; the name, too, changes and is called Ister); on the west by the river Rhenus. This is the general description; the local description is as follows:

32. From the mouths of the river Rhenus, that is from the so-called western mouth of it, to the mouths of the river Vidrus 380 stadia. From the river Vidrus to the port of Mararmanum 350 stadia, 250 stadia. From the port of Mararmanum to the mouths of the river Amasius there are 655 stadia, 470 stadia. From the mouths of the river Amasius to the sources of the same river 2,350 stadia, 1,300 stadia. From the mouths of the river Amasius to the mouths of the river Visurgis 560 stadia. From the mouths of the river Visurgis to the sources of the same river 1,780 stadia, 1,600 stadia. From the river Visurgis to the mouths of the river Albis 925 stadia. From the mouths of the river Albis to the sources of the same river 5,370 stadia, 3,300 stadia. Opposite this section lie the so-called islands of the Saxons. And from the mouth of the river Albis to them is 750 stadia.

33. After the river Albis follows the so-called Great Cimbric peninsula. And from the mouths of the river Albis to the first extension of the peninsula, which lies beyond the river Albis, is 570 stadia, 400 stadia. From the first cape of the peninsula to the next succeeding cape of the same peninsula 1,600 stadia, 1,100 stadia. From the second cape of the peninsula to that which follows next and is the greatest northward extension of it 1,450 stadia, 1,150 stadia. From the northernmost projection of the peninsula to the



first cape after turning, 650 stadia, 550 stadia. From the first cape after turning to the easternmost part [of the peninsula] 720 stadia, 520 stadia. And from the easternmost part of the peninsula to the next cape 2,000 stadia, 1,500 stadia. From the first cape after that extension to the turning point of the peninsula toward the east, 1,060 stadia, 750 stadia. Here ends the sailing-course of the Cimbric peninsula, which extends a great way into the ocean, bending also obliquely to the continent, which extends toward the east, so that it makes a very great strait with the region adjacent to the river Suevus, extending inland from the river.

34. The neck of the peninsula is inhabited by a tribe of the people called Saxons; and the peninsula itself by many tribes. Above the peninsula lie three islands called Alocian; they are distant from the peninsula 550 stadia, 500 stadia. On the eastern side of the peninsula lie the four so-called Scandian Islands, three small (to the midst of which from the peninsula is 2,000 stadia, 1,700 stadia) one very large and farther to the east; it also is called Scandia by itself. It lies opposite the mouths of the river Vistula, from which it is distant 1,600 stadia, 1,200 stadia. And the whole sailing-course around Scandia is 2,500 stadia, 2,000 stadia.

35. From the bending of the peninsula toward the east to the mouths of the river Suevus is 1,260 stadia [       stadia]. From the river Suevus to the mouths of the river Viadus 850 stadia [       stadia]. From the mouths of the river Viadus to the mouths of the river Vistula 700 stadia [       stadia]. From the mouths of the river Vistula to the head of the same river 2,000 stadia, 1,850 stadia.

36. The length of Germany begins in the west at the city of Asciburgium, and ends at the mouths of the river Vistula, so that the total length of the region is [5,500 stadia] 4,350 stadia. The width of it begins at the parting of the river flowing from the south which is called Arrabo, and ends in the north next the longest line that is in the Cimbric peninsula and at the northernmost extension thereof; so that it has a width of 6,250 stadia. The land circuit of Greater Germany is 12,300 stadia, 11,250 stadia. It comprises 68 peoples, 94 notable cities, 7 notable mountain ranges, 14 notable rivers, the Cimbric peninsula, a notable port, the Orcynian forest, the Gabretan forest.

37. The sailing-course along the coast of greater Germany from the river Rhenus, that is from its westernmost mouth to the mouths of the river Vistula, amounts altogether 13,400 stadia, 10,030 stadia.

38. Sarmatia in Europe is bounded on the north by the Sarmatic Ocean next the Wendic Gulf, and by a region of unknown land; on the east by an isthmus (which begins at the Carcinite river) and the marsh of Byce and the Maeotic Marsh on the side next the river Tanais, and then by the river Tanais itself, and beyond toward the south, extending from the sources of the river Tanais into unknown land; on the west by the river Vistula and Greater Germany beyond the Sarmatic Mountains, and by those mountains themselves; on the south by the Iazygi and Metanastae from the southern end of the Sarmatic Mountains to the beginning of the Carpathian Mountains, and then by Dacia as far as the mouths of the river Borysthenes, and thence by the shore of the Euxine Sea as far as the innermost recess of the Carcinite Gulf. This is the general description; but we give the local description of Sarmatia in summary, not adding the number of stadia, because the correct sailing-course along this northern ocean is unknown, as it lies next to unknown land at the north, which is situated above the Maeotic Marsh for the most part, not easily explored by man, especially as Protagoras also seems to have omitted the numbers of these stadia. For the same reason also in describing these places we make mention only of the mouths of rivers.

39. After the mouths of the river Vistula follow the mouths of the river Chronus: after the river Chronus then come the mouths of the river Rhudon. These rivers flow into the Wendic Gulf, which begins at the river Vistula and is of very great extent. The river Rhudon is followed by the river Turuntas; beyond the river Turuntas is the river Chesynus and its mouths. Beyond the river Chesynus is the unknown Hyperborean Ocean, contiguous with the unknown Hyperborean land. Along the river Chesynus dwell the Agathyrsi, a tribe of European Sarmatia. The rivers Chesynus and Turuntas flow down from mountains extending above them, which are called Ripaeae, in the midland regions lying between the Maeotic Marsh and the Sarmatic Ocean. The river Rhudon is de-



rived from the Alanus mountain; this mountain and the region next it has long been inhabited by the Alani, a tribe of the Sarmatians, among whom also are the sources of the river Borysthenes which flows into the [Euxine] Sea. The region about the Borysthenes beyond the Alani is inhabited by the so-called European Chuni.

40. The length of Sarmatia is 7,700 stadia, the width 7,650 stadia. It has 56 tribes, 53 notable cities, 9 notable mountains, 4 notable rivers, 3 notable capes, 3 notable ports, 4 notable gulfs, that is the one called Wendic and three others. Now the course around the right-hand regions of Europe, as promised, we have made with due care and diligence; and so we cross to the Britannic Islands.

41. There are two Britannic islands, one called Albion, the other Hibernia. Albion is much the greater; and it is situated beyond the region of Celtogalatia, projecting from opposite Gallia Lugdunensis and Belgica toward Greater Germany. For it is not compact like other islands, but as if disjointed and dispersed it extends through a great part of the northern ocean, having two extremely long isthmuses like feet, of which the greater points toward the Cimbric peninsula and the lesser toward Aquitania. The other island, Hibernia, lies near it but more to the west and of less magnitude, and it has a situation as above described. We shall describe the sailing-course around this latter first, and then pass to the greater.

#### SAILING-COURSE AROUND THE BRITANNIC ISLAND HIBERNIA

42. The Britannic island Hibernia is bounded on the north by so-called Hyperborean Ocean, on the east by the ocean which is called Hibernic, on the west by the western ocean, and on the south by the so-called Vergivian Ocean. This is the general description of the island [and its local description comprises]:

The Aebudae, five Britannic islands, according to Marcian in his Periplus.

(Stephanus Byz.)

43. The greatest length of the Britannic island Hibernia, taken from the beginning of its southern cape to the end of the Rhobogdian Cape, gives about 3,170 stadia as the length of the island.

The width, beginning at the Sacred Cape and ending at the same Rhobogdian Cape, gives a width of the island of about 1,834 stadia. Its capes are distant from the horizons as follows: the northern cape is distant from the northern horizon 14,250 stadia; the western cape [from the western horizon—stadia:] the southern cape from the equator 38,317 [38,900?] stadia; the eastern cape from the eastern [horizon] 40,317 [40,900?] stadia. It has 16 tribes, 11 notable cities, 15 notable rivers, 5 notable capes, 6 notable islands. The sailing-course around the island of Hibernia is not more than 9,085 stadia, nor less than 6,845 stadia.

#### SAILING-COURSE AROUND THE BRITANNIC ISLAND ALBION

44. Next we set down the sailing-course around the island of Albion. The Britannic island Albion is bounded on the north by that ocean which is called Duecaledonian, on the east by the Germanic Ocean, on the west by the Hibernic Ocean, beyond which lies the island of Hibernia, and by the Vergivian Ocean; and on the south by the Britannic ocean and the aforesaid regions and provinces of Gallia. This is the general description of the island, [and the local description includes ———]

(Steph. Byz.) Lindonium [Londinium]

A city of Britain, according to Marcian in his Periplus.

45. The length of the Britannic island Albion begins on the western horizon at the Damnonian Cape which is also called Ocrian; it ends at the Cape of Tarveduneum, which is also called Orcas; so that the greatest length is 5,225 stadia [?]. And the width of it begins at the Damnonian cape, which is also called Ocrian; and it proceeds to the peninsula of the Neuanti, and the cape of the same name; so that the width of it by the longest line would be 3,083 [?] stadia. It comprises 33 tribes, 59 notable cities, 40 notable rivers, 14 notable capes, 1 notable peninsula, 5 notable bays, 3 notable ports. The sailing-course around the whole island of Albion is not more than 28,604 stadia, nor less than 20,526 stadia.

46. The sailing-course of the Western and Northern Ocean, in those parts which adjoin Europe, here has its end. Just as in the former book we set down by intervals the sailing-courses along



Libya, on the right-hand side of the Arabian Gulf and the Erythraean Sea and the Indian Ocean southward, rarely giving the numbers of stadia, and followed an accurate sailing-course along all the left-hand regions of Asia as far as the people and unknown land of the Sinae, indicating the stadia in the separate intervals; so now we have set down according to our ability, the sailing-course on the right-hand side of the ocean which adjoins Europe, from the Columns of Hercules as far as the unknown land and the Sarmatic Ocean extending along it, and also of the Britannic Islands, setting down the numbers of stadia. And on the left-hand side of the Western [and Southern Ocean we shall state the names of the cities and ports, and of the bays and capes and islands, and also more rarely we shall define the intervals by adding the numbers of stadia].

47. (Steph. Byz.) There are two divisions of Mauretania, the one Tingitana, the other Caesariensis, according to Marcian in his *Periplus*.

48. Tingis, a city of Maurusia; a citizen should be called Tingites, just as one says Memphites and Zelites; and but Marcian says Mauretania Tingitana; and so the tribe-name is Tingitanus, and in the feminine gender Tingitana. "There are 80 stadia from Tingis."

49. Babae, a city of Libya; Marcian in his *Periplus* of Libya—Of the Distances from Rome to notable cities of the lands of the earth.

(Steph. Byz.) Amisa, a city of Germany; Marcian in Distances from Rome to notable cities [cf. § 31].

## NOTES TO FIRST BOOK

1. ARTEMIDORUS OF EPHEBUS: flourished in the 169th Olympiad, B. C. 104—101.

2. CLAUDIUS PTOLEMY: his Geography is assigned to the latter part of the reign of Antoninus, about A. D. 150—160.

3. PROTAGORAS: his date is unknown, but he was later than Ptolemy, whose work he summarized.

LATITUDE AND LONGITUDE: the expressions "breadth" and "length" in the text are to be so understood; "breadth" being distance north to south, "length" distance east to west.

2. MEASUREMENT OF STADIA: according to Ptolemy, the earth's circumference was 180,000 stadia with 500 stadia to the degree. The correct figure is 600. The Olympic stadium was 600 Greek feet or 8 to the Roman mile. A later stadium, the Phileterian, ran  $7\frac{1}{2}$  to the Roman mile (1,000 paces, 4,854 English feet). This survived in Arabic science, whence it reached mediaeval Europe, being nearly equivalent to the English furlong.

1 Olympic stadium = 606.75 Eng. ft.

10 " " = 6067.50 " "

1 nautical mile = 6075.50 " "

1 admiralty knot = 6086.50 " "

10 Olympic stadia = 1 minute of the Equator

600 " " = 1 degree " " "

1 Roman mile = 1000 passus = 4854 Eng. ft.

1 Old English mile = 1000 paces = 5090 " "

1 Modern statute mile = 5280 Eng. ft.

75 Roman miles = 1 degree

4 Roman miles = 19,416 Eng. ft. = 1 Marine league

The Earth's circumference = 21,600 nautical miles

= 25,020 statute miles

A degree on the Equator = 69.5 statute miles

9. ELANITIC GULF: the Gulf of Akaba.



11. ARABIAN GULF: the Red Sea.

FISH-EATERS and CAVE-DWELLERS: tribes inhabiting the Egyptian coast of the Red Sea.

ERYTHRAEAN SEA: the title is nearly equivalent to the Arabian Sea of modern geographies. For discussion of the origin of the name, see the present author's *Periplus*, pp. 50-51, also *JAOS*, vol. 33, pt. 4, pp. 349-362.

AVALITIC GULF: the Bay of Zeila at the head of the Gulf of Aden. The name is the same as Obal of the Old Testament and Ubulu of the Assyrian inscriptions. It appears at various places from the lower Euphrates to the mouth of the Red Sea.

12. MOSSYLUM: the Mosyllum of the *Periplus*. Ras Hantara in British Somaliland. Here, says Pliny, the Atlantic Ocean begins!

PRASODES (green-looking): this is the name applied by Arab and Hindu writers to the Indian Ocean.

13. ELEPHANT MOUNTAIN: Ras-el-Fil on the Somali coast, 40 m. W. of Cape Guardafui.

LAND OF SPICES: the Horn of Africa, where myrrh, aloes, dragon's blood and various drugs, and where ships from India, Arabia and Egypt met and traded.

BERBER SEA: the coast below Ras Hafun, south of Cape Guardafui.

AZANIA: Arabic, Bahr-el-Ajami, "coast of the foreigners", or Bahr-ez-Zangi, "Coast of the blacks." The name survives in the modern Zanzibar.

APOCOPA BAY: El Hazin, ending at Ras-el-Kil, Italian Somaliland.

13. SMALL AND GREAT COASTS: Sif-el-Tautil to Ras Aswad.

CAPE RHAPTUM: may be Cape Puna beyond Dar-es-Salaam in Tanganyika territory. The name is Arabic, the root being *rabata*, to bind or sew, from the sewed boats noted on that coast.

SHALLOW SEA: the Bight of Zanzibar.

BAY OF MAN-EATERS: possibly the estuary of the Rufiji River.

CAPE PRASUM: whether Kilwa or Cape Delgado is quite uncertain.

MENUTHIAS ISLAND: the name is the same as the modern Monfieh, the southernmost of the Zanzibar group. All three, Pemba, Zanzibar and Monfieh, are probably included in the imperfectly-known Menuthias.

15. SYAGRUS MOUNTAIN: Ras Fartak on the S. coast of Arabia. It is an Arabic tribe-name: the Saukar, pl. Sawakir.

SACHALITES BAY: early geographers erroneously thought that there was a deep indentation in the Arabian coast between Ras-el-Kelb and Ras Hasik, bisected by Ras Fartak or Syagrus Cape. This strip of coast is called by the Arabs Es-Shehr. The word Sachalities is from the Arabic *sahil*, coast.

BAY OF FISH-EATERS: this may be Moseirah Channel.

LAEANITE BAY: Arabic Lihyar; Bay of Bahrein.

MESANITES BAY: northern shore of Persian Gulf; the name is Maisan, near the modern Basra, long an important trading port.

TIGRIS RIVER: Arabic Diklath, Hebrew Hiddekel. Mention of the single stream indicates that at this time, as now, the Euphrates and Tigris discharged through a single mouth, the Shatt-el-Arab.

17. ARABIA FELIX: this classical name for the southwestern corner of Arabia is a mistranslation of the Arabic *yemen*, (right-hand, i. e. south). If read *yumn* the rendering, happy or fortunate, is possible.

ARABIA PETRAEA: Arabic, El Hejr.

ARABIA DESERTA: Arabic, Nefud.

ARABIA CIRCUMNAVIGATED: stated as a theoretical possibility by Alexander's admiral Nearchus, (*Arrian*, *Indica* 43: *Anab. Alex.* 7:20) these voyages became frequent in later times. Cf. *Hirth*, *China and the Roman Orient*, p. 39, where the Chinese envoy Kan Ying, about to take ship at some Persian Gulf port for Egypt, was dissuaded from so doing on the ground that there was "something in the sea that made one long for home" (*Chinese Annals, Hou-han-shu*, ch. 88).



SARACENS: Arabic, *shargīn*, "easterners". This was not a tribe-name, but a general appellation used by Greeks and Romans for their Arabian neighbors nearest Syria and Palestine.

18. ONNE: on the E. bank of the Gulf of Akaba. Arabic 'Anah; Hebrew, 'Unnah.

SIDENI: E. shore of Red Sea just below Gulf of Akaba; in the land of Midian.

ZADRAME OF THE CINAEDOCOLPITAE: In northern Hijaz. Zadram was near the modern Jiddah. It has been suggested that the tribe-name is transliterated from two Arabic names, Kunaida, diminutive of Kinda, and Aklub or Kalb.

CASSANITAE: a tribe of Asir. The name survives in the Wadi Kasan.

MINNAEI: the Minaeans, the kingdom of Ma'in in Eastern Yemen and Asir. They were probably Beduins.

HOMERITAE: the tribe of Himyar of the Joktanite Arabs of S. Arabia.

CHATRAMOTITAE: Hadramaut ("Valley of Death"), the Hazarmaveth of Gen. X. The river Prionis is the Wadi Hadramaut.

ASCITAE: Arabic, Hasik; but the Greeks, by a fancied derivation from *askos*, bladder, explained the name as referring to the inflated rafts used on this coast: cf. Pliny, VI.34: Periplus, 27.

ISTRIANA:

MALLADA:

ADARUPOLIS:

COROMANE: the Corodamum cape of Ptolemy (?)  
Ras Nus.

CTESIPHON: on the E. bank of the Tigris, opposite Seleucia, and a few miles downstream from Baghdad: It was the winter capital of the Sassanian kings. Arabic Taisafun. The name probably represents a Persian original.

19. CAPE OF THE ASABI: an Arabic tribe-name, the Assab or Yashshabi. The mountain range is now called Jebel Sibi; it is continued to the tip of the cape, where it ends in the promontory of Ras Musandum.

20. SUSIANA: the modern Khuzistan.

21. CHARAX SPASINI: the modern Mohammarah, on the Shatt-el-Arab at its confluence with the Karun. An important stronghold of the Parthian monarchy, protecting its communications in the Persian Gulf.

34. Unlike Ptolemy, who greatly underestimated the southern extension of India, Marcian overestimates it, but places it too far north.

35.-36. Ceylon also is placed too far above the equator. The "eastern horizon" as Marcian locates it with reference to Ceylon, would be near the Canton River. The "western horizon" would be near the Tagus River. The area of Ceylon Marcian greatly overestimates. It may be inferred that the first-hand knowledge of the Greeks ended at the Tamil ports. "Boreum" is probably not Jaffna, but rather Manar, at the Ceylonese end of "Adam's Bridge".

37. POINT OF DEPARTURE:

34. NAUSTATHMUS: (which in § 38 is said to be situated on the Gulf of Canthi) is probably Mandvi on the Gulf of Cutch, or Kachchh, an important commercial port in western India from early times.

CAPE CORY is Comorin, the southernmost point of India.

38.-39. The dimensions of India are vaguely stated. The "length" or longitude, calculated between the deltas of the Indus and Ganges, the length of the Ganges, the sailing course around India, and the width of the Ganges delta, are all overestimated, but the error is not great.

40-41. Scythia is Turkestan; Serica, Tibet and China; the Sinae, Indo-China; the Great Bay, the Gulf of Siam and perhaps, the South China Sea. The statements of the longitude of Indo-China, and the distance from the Ganges delta to the southern tip of the Malay Peninsula, are nearly correct.

42. The sailing-course beyond the Ganges to the "country of the Sinae", as stated, would very nearly reach the Gulf of Tong-King.

43.-44. The geography is confused. The "Fish-eating Sinae" are, perhaps, people of Tong-king and Kwang-tung. The "metro-



polis of the Seri" is Singan-fu or Sianfu, the ancient capital of China, on the Wei River about 100 miles above its confluence with the Hoang-ho. The land of stagnant reedy lakes is Yün-nan. Cf. Marco Polo, *Travels*, 2: 48.

45-46. The Cape of the South Wind may be Cape Padaran in Cochin-China. The Cape of Satyrs may be at the mouth of the Song-ka River. The Cottiaris River is probably the harbor of Canton, within which was the port of Cattigara. The sailing-distances as given would be reasonably near the facts. The great error in assuming the course from the Malay Peninsula to be south, rather than northeast, may be due to a misapprehension of the Chinese custom of "boxing the compass" from the south. Cf. Hirth, *Ancient History of China*, pp. 126-136, also the present writer in *JAOS*, vol. 37, pp. 240-249.

50. The distance stated from the Gulf of Akaba to the Canton River, following the coast-line, is not more than 10 per cent beyond the facts; a close approximation, considering that log line, compass and sextant were unknown.

This calculation assumes that the coast-line was closely followed.

Rylands (*Geography of Ptolemy Elucidated*) would place Ptolemy's Thynae (Thinae of the *Periplus*) and Cattigara both in Borneo; but this seems doubtful. Thinae (Theinni) the ancient capital of the Shans, was probably in Burma, in the Salwin valley north of Rangoon; Cattigara, from other considerations, is to be located on the continent, and east of Hainan Island. This identification receives reasonable support in the statement of distances, whereas that of Rylands involves a substantial error in distance.

### 37. POINT OF DEPARTURE (Greek, *Aphetērion*.)

Said to be "the beginning of the Gangetic Bay" (§ 37) and chosen as the southern limit for the latitude of India (§ 38). The distance of 5660 stadia to the fifth mouth of the Ganges (probably the Mātālā estuary) would place it near Masulipatam (Mausalipatam). Why it should be taken as the southern limit of India is uncertain. The writer may have regarded the Tamil Kingdoms of the south as non-Indian, or his ideas of the configuration of the peninsula, like those of Ptolemy, may have been confused. Maisolia of

Ptolemy, Masalia of the *Periplus*, is the land between the Krishnā and Godāvari Rivers—the Mahāsāla of the *Padma Purāna*. In the *Mahāvagga* (SBE 17, 38) this is mentioned as a border country on the east of South India.

In correspondence exchanged with Nundo Lal Dey of Calcutta, author of the *Geographical Dictionary of Ancient and Mediaeval India*, the suggestion was made that Greek *Aphetērion* (which means a place from which a course was set) might here represent a corruption of Trivenī, one of the seven villages which formed Saptagrāma or Satgaon, a great emporium of commerce in the Ganges delta. Trivenī was also a sacred place of pilgrimage, being the point where the three rivers, Ganges, Jamunā and Saraswatī separated.

But the text seems clear as to this *Aphetērion* being at the beginning of the Gangetic Bay, or Bay of Bengal, into the head of which the Ganges empties. It seems more probable, therefore, that it represents Masulipatam, another great emporium of commerce.

38. ANTIBOLE: this is identified by Nundo Lal Dey with Atopur or Antahpura in Nadia district, perhaps formerly Antardvīpa. He considers that it is now represented by the Mātālā estuary. The delta of the Ganges has extended southward since the days of Marcian and Ptolemy, and place-names have shifted with it. The ending *dvīpa* suggests an island port off the mainland. Cf. his papers on "The Early Course of the Ganges" in the *Indian Antiquary* for 1921, Vol. 50. Also "Notes on the District of Hūgli or the Ancient Rada", *JASB*, New Series, Vol. 6, No. 11, 1910:

"A part of the delta . . . in Mid-Bengal was formed subsequent to the main body of the delta on the eastern and western sides, and the configuration of the area which remained unformed was of a triangular shape which has been gradually filled up, the apex, so far as tradition goes, being at Gour. . . . Within this area the very names of places by which they are still designated, indicate emergence from the sea."

38. SOURCE OF THE GANGES: A natural limit of measurement of the area of India. According to all the ancient works, Ganges is the daughter of the Himālaya. The *Rāmāyana* states that the river got the name of Bhāgīrathi because she was



brought to earth by Bhāgīratha. This source, at Gangotri in the mountains of Garwal, is the first and holiest. But according to the Mahābhārata and some of the Purānas, the main stream rises at Badarikāsrama near the temple of Badrimātha. Fraser describes the source at Gangotri as in a semi-circular hollow of the great mountain Rudra Himālaya, "held to be the very throne of Mahādeo", also called Pancha Parvata, from its five peaks (Himālā Mountains, pp. 470-271).

Like most of the Greek writers on Indian topography, Marcian seems to be following some abstract of the sacred writings.

37. COURSE OF THE GANGES: The present configuration of the Ganges delta, and the discharge channels of the two great rivers, Ganges and Brahmaputra, were quite different in earlier times from their present condition. According to a letter received from Nundo Lal Dey, the later Purānas agree in the statement that the river Padmā or Paddā, now the main channel of the Ganges, was a mere spill channel as late as the 15th century, and did not become the main channel until the 17th century, when the river Hūgli silted up. The Brahmaputra, or Jamunā, joins the Ganges or Padmā at Goalanda. It is believed that the Brahmaputra changed its course gradually during the 18th and early 19th centuries. The river Tistā changed its main course in 1787.

## NOTES TO SECOND BOOK

This book, dealing with European countries, covers a field already so familiar to classical students that only a few observations seem called for. In but one section—that dealing with the land of the Sarmatians, the modern Russia—does Marcian incorporate matter not found in the works of the classical geographers.

Even here his remarks indicate coincidence rather than knowledge. He speaks of rivers flowing into the eastern Baltic which rise in the so-called Ripaeen mountains lying between the Maeotic Marsh and the Sarmatic Ocean. As a matter of fact, the Dwina, Lovat and the Dnieper, also some of the head waters of the Volga, do have their sources in the region of the Valdai Hills. But this hypothetical Ripaeen range seems more probably to be a confusion of the Carpathians and the Urals, both of which were but hazily known to the Roman world. During their comparatively brief occupation of Dacia, the modern Rumania, Romans learned something of the vast Sarmatic plains beyond the Carpathians, the modern Russia, but their relations were those of warding off nomadic tribes rather than of commercial dealings with them. In later centuries the port of Constantinople, through its relations with the Khazars, did develop relations of some importance with Eastern peoples traversing the steppes of Asia, but for centuries the Roman world probably knew less of lands now Russian than did the Greeks of the classical period.

Marcian's text dates perhaps from the early 5th century of the Christian Era. By that time Western Eutrope, which had been the core of the Roman Empire, was over-run by wandering barbarians. Rome of the Caesars no longer existed. Rome was no longer the capital of the empire. The capital had been removed to Constantinople, which was then undoubtedly the richest and most populous city in the world. The interests of Constantinople were those of the Greek speaking world and of the East. The



Latin lands, with their barbarian infiltration, no longer furnished a purchasing power of consequence in world trade. Roman legions had been withdrawn from Britain, which was over-run by Picts and Scots and Saxons. The Visigoths were in Aquitaine, the Vandals and the Suevi in Spain. The Vandals within a few years over-ran and pillaged all North Africa. The Huns were in central Europe with their Gothic vassals, who later gained independence. Rome was sacked by Alaric, the Goth, 410—perhaps almost at the very time Marcian was writing. But a few years later, in 455, Rome was again sacked by the Vandals. There were continual quarrels between the rival Caesars East and West. Europe was being steadily barbarized by settlements on lands awarded to the wandering tribes under Imperial consent. The great coalition of the Huns was in formation and the invasion of Attila, ending with his defeat at Châlons, came in the middle of this same century. Under such conditions it is not surprising that a geographer writing in a suburb of Constantinople and using materials in the Greek language there available should repeat the errors of his predecessors concerning the topography, coastline, mountain ranges, ports and rivers of western Europe and the adjacent islands.

Roman navigators in the prosperous days of the Empire knew less perhaps about the Atlantic coasts of Europe than their predecessors, the Carthaginians. The Empire was self-contained. Its trade-routes were over the splendid system of roads and river navigation. Britain was reached through the valleys of the Rhône and the Seine rather than by sea through the Pillars of Hercules. Therefore it is not surprising that Marcian fell into error as to the principal features of the coastline beginning even with the Straits of Gibraltar. The same errors may be checked on the maps of Ptolemy and need not be here recounted. The British Islands were distorted in size and shape. The Hebrides were supposed to be the northern ultimate. The Peninsula of Denmark was magnified and that of Scandinavia reduced to an insignificant island. The Baltic was supposed to communicate with the Northern Ocean and Romans knew of its coast line only as far as the Wendic Gulf, the modern Gulf of Danzig. Even

here their knowledge was by hearsay for Wends and Germans and Franks shut them out of Baltic navigation.

Following Marcian's text in briefest way, the Strait of Hercules is Gibraltar.

The Island of Gades the modern Cadiz.

The Mountain of Calpe, the Promontory of Gibraltar.

The River Anas, is the Guadiana.

We may note the so-called "Sacred Cape," the present

Cape St. Vincent distorted beyond its true position. Oliosipo is the modern Lisbon.

The River Dorius is the Duoro of northern Portugal.

The Oeassus Cape is the Modern Irun on the boundary between Spain and France but it has no promontory of the importance suggested in the text.

The River Garunna is the Garonne.

The River Liger is the Loire

The harbor Burdigala is the modern Bordeaux

The river Sequana is the Seine, and the Rhenus the Rhine.

The Adulas mountain is St. Gothard but Marcian knew The Amasius is the Ems, and the Albis the Elbe.

The erroneous information given as to the Cimbric peninsula (Denmark) and the island of Scandia (Norway and Sweden) has been noted.

The river Viadus is the Oder, and the Wendic Gulf the Gulf of Danzig

The Maeotic Marsh is the modern Sea of Azov.

The river Tanais the Don, and the Borysthenes the Dnieper.

The north-flowing rivers, the Chronus, the Rhodon, the Turuntas, the Chesynus, cannot be certainly identified. The Chronus probably the Niemen; the Chesynus perhaps the Dwina.

The Ripaeen Mountains might coincide with the Valdai Hills, the source of these rivers, but the remark in the text is probably an accidental coincidence.

Albion in the text is of course Britain, and Hibernia, Ireland.

The Aebudae Islands are the Hebrides.



Britain is distorted in shape, the Mull of Galloway being given as its northern extremity, the Caledonian portion of the island being turned sharply toward the east.

The contrast between Marcian's first book and the second is striking. Constantinople knew the caravan routes and the sea-ways to India, Burma and the Malay Peninsula. Of lands further to the East knowledge was vague and sailing courses possibly confused by the cardinal directions in these different lands,—north to the Roman world, east to the Semitic, south to the Chinese, so that within the range of knowledge of the Roman sailor the words "right-hand" could come to mean precisely opposite directions. Out of this confusion perhaps grew Ptolemy's misapprehension of the Indian Ocean as an enclosed sea with a southern continent reaching out in some mysterious way from the Malay Peninsula and the Island of Sumatra around the Madagascar channel and the east coast of Africa.

## BOARD OF TRUSTEES OF THE PHILADELPHIA MUSEUMS

EX-OFFICIO	
JOHN S. FISHER	The Governor of Pennsylvania
HARRY A. MACKEY	The Mayor of Philadelphia
EDWIN R. COX	The President of City Council
WILLIAM ROWEN	The President of the Board of Public Education
EDWIN C. BROOME	The Superintendent of Schools
JOHN A. H. KEITH	The State Superintendent of Public Instruction
CHARLES E. DORWORTH	The State Secretary of Forests and Waters

BY APPOINTMENT	
WILLIAM P. BARBA	ELLIS A. GIMBEL
CHARLES S. CALWELL	ALBERT M. GREENFIELD
JULIEN L. EYSMANS	ALBA B. JOHNSON
DAVID T. FLEISHER	EDGAR S. McKAIG
EDGAR S. GARDNER	ERNEST T. TRIGG
CHARLES J. WEBB	
Representative Appointed by City Council	Representative Appointed by the Board of Education
CHARLES M. KEEGAN	WILLIAM H. ZIEGLER

OFFICERS OF THE BOARD	
ERNEST T. TRIGG	President
W. P. BARBA	Vice President
EDGAR S. GARDNER	Treasurer
CHARLES S. CALWELL	Chairman Executive Committee
WILFRED H. SCHOFF, A.M.	Secretary and Assistant Treasurer
EDGAR S. McKAIG	Counsel

F. M. HUNTINGTON WILSON  
Director  
WILLIAM P. WILSON, Sc.D.  
Founder and Director, 1894-1927

CURATOR  
CHARLES R. TOOTHAKER  
WILLIAM L. FISHER, Assistant Curator

LIBRARIAN AND STATISTICIAN  
JOHN J. MACFARLANE

FOREIGN TRADE BUREAU	
DUDLEY BARTLETT	Chief
GEORGE C. GIBSON	Assistant Chief
C. CLIFFORD BARNES	Editor of Publications
WILLIAM L. GORMAN	Circulation Manager
JAMES R. BALLANTINE	Foreign Credits