

Scylax' Circumnavigation of India and Its Interpretation in Early Greek Geography, Ethnography and Cosmography, I

It is argued in the Part I of this paper that some knowledge of the Ganges and Ceylon was available to the Greeks at the time earlier than Alexander's expedition and that this knowledge ultimately derived from the account of Scylax of Caryanda. In the course of this study, we will also arrive at suggestion that the Persian India is to be found in the Punjab and the Ganges valley rather than in Sind. The Part II of this paper will be devoted to the use and misuse of Scylax' account in early Greek geographical lore and cosmographical speculations.

1. The context of Herodotus' account

There is a very interesting digression in the fourth book of the *Histories* of Herodotus, which is devoted to the question of how the continents should be represented on the world map (4. 36–45). Herodotus is very critical of his predecessors: "I laugh to see how many have ere now drawn maps of the world, not one of them showing the matter reasonably; for they draw the world as round as if fashioned by compasses, encircled by the river of Ocean, and Asia and Europe of equal size" (4. 36).¹ He insists, among other things, that Europe is as long as Libya and Asia together and in all probability broader than either (4. 42; 45). To argue this point, Herodotus refers to the fact that Libya is everywhere surrounded by the sea except the area on the border with Asia, this having been demonstrated by the Phoenicians sent by pharaoh Necho and in part confirmed by less successful navigation of Sataspes. As for Asia, the analogous facts were established by Scylax and other explorers sent

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¹ English translations of the Greek and Latin authors quoted in this paper all come from the *Loeb Classical Library*; minor modifications are not specified.

by Darius, but it remains unknown whether or not Europe is encompassed by waters to the east and to the north (4. 42–45). Such is the context of Herodotus' account of Scylax' voyage. The account itself runs as follows:

Τῆς δὲ Ἀσίας τὰ πολλὰ ὑπὸ Δαρείου ἐξευρέθη, ὃς βουλόμενος Ἴνδὸν ποταμόν, ὃς κροκοδείλους δεύτερος οὗτος ποταμῶν πάντων παρέχεται, τοῦτον τὸν ποταμὸν εἰδέναι τῆ ἐς θάλασσαν ἐκδιδοῖ, πέμπει πλοίοισι ἄλλους τε τοῖσι ἐπίστευε τὴν ἀληθεῖν ἐρέειν καὶ δὴ καὶ Σκύλακα ἄνδρα Καρυανδέα. Οἱ δὲ ὄρμηθέντες ἐκ Κασπατύρου τε πόλιος καὶ τῆς Πακτυκῆς γῆς ἔπλεον κατὰ ποταμὸν πρὸς ἠῶ τε καὶ ἡλίου ἀνατολᾶς ἐς θάλασσαν, διὰ θαλάσσης δὲ πρὸς ἐσπέρην πλέοντες τριηκοστῷ μηνὶ ἀπικνέονται ἐς τοῦτον τὸν χώρον ὅθεν ὁ Αἰγυπτίων βασιλεὺς τοὺς Φοίνικας τοὺς πρότερον εἶπα ἀπέστειλε περιπλέειν Λιβύην. Μετὰ δὲ τούτους περιπλώσαντας Ἰνδοὺς τε κατεστρέψατο Δαρεῖος καὶ τῆ θαλάσση ταύτῃ ἐχράτο. Οὕτω καὶ τῆς Ἀσίας, πλὴν τὰ πρὸς ἡλίου ἀνίσχοντα, τὰ ἄλλα ἀνεύρηται ὅμοια παρεχομένη τῆ Λιβύῃ.

As to Asia, most of it was discovered by Darius. There is a river Indus, which of all rivers comes second in producing crocodiles. Darius, desiring to know where this Indus issues into the sea, sent ships manned by Scylax, a man of Caryanda, and others in whose word he trusted; these set out from the city Caspatyrus and the Pactyic country, and sailed down the river towards the east and the sunrise till they came to the sea; and voyaging over the sea westwards, they came in the thirtieth month to that place whence the Egyptian king sent the Phoenicians afore-mentioned to sail round Libya. After this circumnavigation Darius subdued the Indians and made use of this sea. Thus was discovered that Asia, saving the parts towards the rising sun, was in other respects like Libya (4. 44).

One may tentatively infer from some indirect data that the expedition took place c. 515 B. C., but we have no additional information about the expedition itself. Scylax, the native of a Carian city, apparently left a written account in Greek. It is generally agreed that Herodotus had not read it. The book was possibly available to Aristotle; he cites a testimony of Scylax which states that the difference between the kings and their subjects is especially great in India. Marcianus knows that Scylax used to express the maritime distances in terms of the days of navigation rather than of stadia. Atheneus quotes remarks related to the plant *kynara*, though he is not quite sure about the authorship of Scylax. According to Philostratus and Tzetzes, Scylax reported about various fantastic peoples of India. Strabo and some later authors use Scylax as a source for Mediterranean geography and history. It is however unclear whether or not the latter group of testimonies comes

from the same work in which Scylax described India and his voyage. A periplous falsely attributed to Scylax has been handed down to us.²

2. Which Indian river did Scylax of Caryanda navigate?

The evidence we possess, albeit sparse, lends credibility to the character of Scylax and therefore the expedition he described,³ but it provides no help for interpreting what Herodotus says. And what he says is astonishing: he makes the Indus flow east, whereas this river flows south and south-west!

Two solutions to this puzzle, sometimes combined, were proposed. According to the first, the words of Herodotus "are not necessarily based on what Scylax said about the actual direction; as India was the easternmost country bounded by the Eastern Ocean, it was only natural to suppose that the Indus flowed eastwards".⁴ According to the second, if we "ignore the words ἐς θάλασσαν it is easy to think of a beginning of the voyage on the Kabul, where the direction indeed would be to the east; and the Kabul somewhere near its confluence (in any case after Khaibar) has been suggested by the majority of scholars".⁵

Neither explanation seems convincing. It is unclear why one should think that a river in the easternmost country must flow eastwards or why Herodotus or his source should have neglected the actual words of Scylax. Moreover, early Greek maps depicted the river called the *Indus* flowing "between the south and the east", which makes certain that we are not dealing with Herodotus' mistake or arbitrary correc-

² Fragments: *FGrH* 709. Most important studies: Wilhelm Reese, *Die griechischen Nachrichten über Indien bis zum Feldzuge Alexanders des Grossen* (Leipzig 1914) 39–52; F. Gisinger, "Skylax", *RE* III A (1927) 619–646; Klaus Karttunen, *India in Early Greek Literature* (Helsinki 1989) [hereafter quoted as Karttunen] 40–48, 65–68. Scylax' voyage is discussed in all histories of ancient geography and explorations and frequently treated in works dealing with the Persian Empire as well as India of that time. Standard date of the expedition is based on the assumption that Herodotus is correct saying that Scylax' expedition preceded the military one.

³ Doubts about the authenticity of the expedition were repeatedly raised in the nineteenth century. Lionel Pearson, *The Lost Histories of Alexander the Great* (London 1960) 140 considers these doubts more than reasonable. I hope this paper will settle this question.

⁴ Karttunen, 42.

⁵ *Ibid.* Karttunen cites *exempli gratia* thirteen scholars.

tion.⁶ The second explanation is against the actual wording of the Greek text and it makes Herodotus, or his authority, a careless person who fails to distinguish between the very beginning of the voyage and a long way along the other and major river and who neglects the essential change of direction.

There is, however, a possibility of an alternative interpretation. For there is *an* Indian river which flows predominantly towards the east. This suggests “the obvious conjecture that the east-ward flowing river with crocodiles is the Ganges”. Such was formulation of John L. Myres in his paper published in 1896.⁷ He also made another simple observation: a voyage of thirty months to Egypt fits far better with that from the mouth of the Ganges, which involves the circumnavigation of India, than from the mouth of the Indus, the latter being too long.

Standard works on Scylax as well as ancient geography or history present it as an established fact that the man of Caryanda and his fellows sailed down the Indus. Myres’ conjecture is neither discussed nor even referred to in such works. It is mentioned in the commentary on Herodotus by How and Wells and even tentatively accepted elsewhere,⁸ but no elaborate argumentation to support it was brought about. Here I will try to advance necessary arguments to make Myres’ conjecture a confirmed truth.

It is not to deny that *the Indian river* of Greek texts is normally the Indus, but the expedition described by Scylax took place in the time when geographical nomenclature of the region was just in the state of formation. *The Indian river* was used to refer to the most important river of India. Since there were two such, in two different parts of India, it is much easier to assume a confusion or misapplication of the names rather than confusion of the east and south. A formulation in Arrian can be instructive: “The Indian river is the greatest river of Asia and Europe except the Ganges, which is also an Indian river”.⁹

⁶ Strabo (2. 1. 34) cites Hipparchus that the Indus was shown on early maps to flow “between the south and the equinoctial sunrise”.

⁷ John L. Myres, “An Attempt to Reconstruct the Maps Used by Herodotus”, *Geographical Journal* 8 (1896) 605–629, esp. 623.

⁸ W. A. Heidel, “A Suggestion Concerning Plato’s Atlantis”, *Proceedings of the American Academy of Arts and Sciences* 68 (1933) 6: 189–228, esp. 216 f.; Jean W. Sedlar, *India and the Greek World* (Totowa 1980) 11; Dmitri Panchenko, *Plato and Atlantis* (Leningrad 1990) 93 [in Russian].

⁹ *Anab.* 5. 4. 1: ὁ δὲ Ἴνδός ποταμὸς ὅτι μέγιστος ποταμῶν ἐστὶ τῶν κατὰ τὴν Ἀσίαν τε καὶ τὴν Εὐρώπην, πλὴν Γάγγου, καὶ τούτου Ἴνδοῦ ποταμοῦ, κτλ.

There are in fact some signs of the confusion of the Indus and the Ganges in ancient geographical literature. I will cite only one more or less clear case. Pliny 6. 71 says that the Indus “forms a huge island named Prasiane” (*amplissimam insulam efficiens quae Prasiane nominatur*). It is most natural to relate the name Prasiane to the Prasii, as Indian people frequently mentioned in the sources. The Sanskrit equivalent of the name means “the easterners”; and indeed, the Prasii are normally located on the Ganges, somewhere around Palibothra (Pataliputra, modern Patna),¹⁰ where the Ganges forms in fact an island of quite a considerable size.¹¹ How would Prasiane have been misplaced? A great deal of the information about the Ganges valley came to the Greeks from Megasthenes who spent some time in Palibothra (c. 300 B. C.) as the ambassador of Seleucus to Chandragupta. He could, of course, have mentioned the island. But Megasthenes certainly distinguished the Indus and the Ganges,¹² therefore it is unlikely that the confusion originated with him. One may suspect that the information about Prasiane goes back to that stage of Greek geography at which it was not yet clearly recognised that there were two great rivers in India, so that at times the one and at times the other was referred to as *the Indian river*. It is remarkable that Herodotus' description of India has only one river without giving its name;¹³ it seems that Herodotus was perplexed by conflicting accounts. One may even suspect that the cartographic tradition of presenting the Indus as flowing towards the south-east emerged as a scientific compromise. A cartographer was confronted with two contradictory sets of information. What he heard about the Indus suggested that this river flowed southwards, but Scylax asserted that *the Indian river* flowed eastwards. Both sources of information were trustworthy. Then a compromise came, and *the Indian river* (the Indus) was drawn on the map to flow towards the south-east.

There is, of course, another possibility to account for the cartographic tradition in question. It is quite likely that not only did Scylax give the main direction of the Indian river he had sailed down, but he also

¹⁰ See Hans Treidler. “Prasii”, in *RE* 22 (1954) 2548–2559. esp. 2548.

¹¹ And this is reflected in the cartographic tradition. see Konrad Miller, *Die ältesten Weltkarten*. III. Heft (Stuttgart 1895) Tab. 1 (a very large island. called simply *insula*. is shown as formed by the Ganges in its middle flow).

¹² *Arr. Ind.* 2. 1: “Megasthenes wrote that the Ganges is much greater than the Indus”.

¹³ 3. 98: “There are many Indian nations, none speaking the same language... some dwell in the river marshes”.

mentioned its bent towards the south. However, this specification did not receive an adequate reflection in the concise exposition of Scylax' expedition given by Herodotus, which might have been itself based on a summary of Scylax' account rather than on his book. If this was the case, early Greek maps just reproduced, with some simplification, the actual course of the Ganges as described by Scylax.¹⁴ It is worth noting that Aristotle (*apud* Strab. 15. 1. 23) also considered the system of Indian rivers, and apparently India as a whole, to be oriented towards the south-east rather than the south. For he contrasted the Nile which "passes across many *klimata*", that is, latitudes, to the streams of India as "lingering for a long time in the same *klimata*". And yet he knows the most important river of India, under the name of the *Indus*, while the *Ganges* is never mentioned in his extant works or fragments.¹⁵ It seems that the Indus flowed towards the east and south-east for Aristotle too. And we should not forget that Aristotle is one of those ancient writers who cite Scylax' account of India.¹⁶

The reports about the river Araxes in the *Histories* give us a good analogy to the supposed case of confusion. Hdt. 1. 202 describes the river

¹⁴ It should be noted that Herodotean expression πρὸς ἡῶ τε καὶ ἡλίου ἀνατολάς, "towards the dawn and sunrises", does not necessarily mean eastwards in the narrow sense. It is repeatedly used in fact to refer to a wider range between ἀνατολαί, that is between the summer solstice sunrise and the winter solstice sunrise. This would mean for the Greeks roughly thirty degrees from the line towards the east, northwards and southwards respectively. Cf. Hdt. 1. 201, 204; 3. 98; 7. 58. Thus in 4. 44, our case, the expression may imply the direction towards the east and the winter solstice sunrise, which is quite a faire description of the actual flow of the Ganges.

¹⁵ *Meteor.* 350 a 26 calls the Indus "the greatest of all rivers". *De inundacione Nili* mentions 'Indorum fluvium' as well as some other great Indian river, unnamed, "fluens ex monte vocato Aleto. ex quo quidem Indus". Aristotle shows caution in respect to the information about this latter river.

¹⁶ There are good reasons to assume that Aristotle was familiar with Scylax' account of India. In his *History of Animals*, Aristotle mentions the Indian ass which has a single horn and is solid-hoofed (499 b 18; also *part. an.* 663 a 23). Ctesias had much to say about the Indian ass, presenting this animal as the fabulous unicorn rather than the real rhinoceros. But it is unlikely (contrary to the common view) that Ctesias was Aristotle's source for the Indian ass. Every time Aristotle mentions Ctesias in the *History of Animals* he specifies that Ctesias is not reliable (501 a 24; 523 a 26; 606 a 8). If the one-horned Indian ass is real for Aristotle without qualifications, it strongly suggests that the information came from a source other than Ctesias. The information came, then, from Scylax. For the same reason Scylax is more likely source than Ctesias for the description of Indian elephants in *hist. an.* 610 a 15.

Araxes as flowing from the country of the Matieni into the Caspian Sea. Such a river is easily identified with the modern Aras.¹⁷ However, Herodotus makes this Araxes one of the greatest streams of the world, such that "contains islands as big as Lesbos". Already the ancients recognised that something had gone hopelessly wrong in Herodotus' description.¹⁸ Modern scholars have often discussed the identity of the river with which Herodotus confused the true Araxes.¹⁹ Less attention was paid to the question of how the confusion itself could have emerged. The only possibility I see is that the name *Araxes* was applied in Herodotus' sources to more than one river.²⁰

Indeed, various indications in the *Histories* as to where the Araxes flows are mutually contradictory. The Araxes is repeatedly mentioned in connection with the Massagetae; in order to reach the Massagetae, Cyrus had to cross the Araxes (1. 201; 205; 209–11; 216; cf. 4. 11). Herodotus makes the Massagetae occupy a part of a boundless plain which stretches *eastwards* from the shores of the Caspian Sea (1. 204). It follows that the Araxes of the Massagetae cannot be the 'true' Araxes, which is *west* of the Caspian Sea.

Herodotus' Araxes provides us not only with a likely parallel case of confusion. We will shortly see that Herodotus' descriptions of the Araxes are of special value for our purpose, for they possibly reveal the echoes of early knowledge of the Ganges.

Herodotus says once that the Araxes flows "towards the sun's rising" (4. 40). Let us consider the context in which this remark appears:

I laugh to see how many have ere now drawn maps of the world, not one of them showing the matter reasonably; for they draw the world as round as if fashioned by compasses, encircled by the river of Ocean, and Asia and Europe of a like binges. For myself, I will in a few words show the extent of the two, and how each should be drawn. The land where the Persians dwell reaches to the southern sea, that sea which is called Red; beyond these to the north are the Medes, and beyond the Medes the Saspies, and beyond the Saspies the

¹⁷ In words of George Rawlinson, "the Araxes, which rises in the *Matienian* mountains, whence the *Gyndes* flows, can only be the modern Aras, which has its source in the Armenian mountain-range near Erzeroum, and running eastward joins the Kur near its mouth, and falls into the Caspian on the west". How and Wells maintain that "in Herodotus' day the Aras flowed into the Caspian direct".

¹⁸ See Strab. 11. 14. 13.

¹⁹ How and Wells assume that Herodotus combines four rivers, the Aras, the Oxus, the Jaxartes, and the Volga. Some scholars prefer to omit one or two of the list (except the Aras).

²⁰ Aldo Corcella, ad Hdt. 4. 40, arrives at the same conclusion.

Colchians, whose country reaches to the northern sea into which issues the river Phasis; so these four nations dwell between the one sea and the other. But westwards of this region two peninsulas stretch out from it into the sea... So much for the parts of Asia west of the Persians. But what is beyond the Persians, and Medes, and Saspies, and Colchians, eastward and toward the rising sun, this is bounded on the one hand by the Red Sea, and to the north by the Caspian Sea, and *the river Araxes, that flows towards the sun's rising*. As far as India, Asia is inhabited land; but thereafter to the east is desert, nor can any man say what kind of land is there. Such is Asia and such its extent. But Libya is on this second peninsula... I wonder, then, at those who have mapped out and divided the world into Libya, Asia, and Europe; for the difference between them is great, seeing that in length Europe stretches along both the others together, and it appears to me to be beyond all comparison broader (4. 36–42; then follow the stories of the Phoenicians and Scylax).

Some scholars do not hesitate to identify this Araxes with the Aras.²¹ But the passage is difficult. Herodotus is remarkably vague. He does not say that this Araxes issues into the Caspian Sea, and if he means the Armenian Araxes, then the border of Asia in the north-east is left unspecified. He seems to have been perplexed by conflicting accounts. His whole description of the map of the world is rather illogical. He ridicules his predecessors, but fails to conceal his dependence on them. For his assertion that Europe is as long as Libya and Asia together is groundless, if one accepts that nobody can say what kind of land is east of India, as Herodotus does; this equation goes only with the world surrounded by the Ocean. We should now try to specify what kind of map, or maps, Herodotus had before his eyes. I see two principal possibilities.

The first one is that this was an antiquated map on which the Caspian Sea was shown as the eastern gulf of the Ocean, constituting thus the north-eastern border of Asia, with the Araxes corresponding to the Aras. Note that Hdt. 2. 37 calls the Black Sea “the northern sea”, and we know that the Assyrians called the Caspian Sea “the great sea of the rising sun”.²²

The other possibility is that the Araxes was shown in his source to flow east of the Caspian Sea and issue into the Red Sea, as a part of the Ocean, stretching from India to Libya. Such a conclusion is confirmed by the cartographic tradition, for the *Tabula Peutingeriana* shows indeed the Araxes as one of the longest rivers of the world, flowing eastwards and

²¹ Tomaschek. “Araxes”, in *RE* 2 (1895) 402–404, esp. 402; I. V. Kuklina, *Ethno-geography of Scythia* (Leningrad 1985) 125 [in Russian].

²² Ernst Herzfeld, *The Persian Empire* (Wiesbaden 1968) §§ 50, 162.

issuing into the Ocean on the eastern side of what we would call Eurasia (near its north-eastern corner).²³

The Araxes, as it is shown in the *Tabula Peutingeriana* and may be tentatively assumed for Herodotus' source, corresponds, strictly speaking, no reality. Yet it is not very likely that the notion of a great river far in the east, issuing into the eastern Ocean emerged as purely fictional. And if this notion reflects any geographical reality, there is only one fitting river: the Ganges (the Yamuna being possibly taken as the upper Ganges).

Further, there is an interesting detail in Herodotus' description of the Araxes, which did not receive the attention it deserves. That is the comparison of the river with the Ister and that of its islands with Lesbos: "the Araxes is by some said to be greater and by some less than the Ister; it is reported that there are many islands in it as big as Lesbos".²⁴ It is easy to see that these comparisons are very important. They show that Herodotus received the information neither from hearsay nor from the Persian sources, but from the Greek geographic literature. And this strongly suggests, in turn, that one should not follow Albert Hermann's easy solution, who simply calls Herodotus' river a *Phantasiefluß*.²⁵

Is, in fact, the river described by Herodotus so fantastic? Let us forget for a while about the name and ask ourselves: is there any great river in Asia (excluding the Far East) that flows eastwards, has huge islands, and, as Herodotus specifies (1. 202), issues by one stream into the sea, while many others disappear into swamps? There is of course only one: the Ganges. The confluence of waters at the lower Ganges forms "a broad estuary". This estuary, however, "is the only the largest and most easterly of a great number of mouths or channels", while "towards its southern base, resting on the sea,

²³ That the Araxes of Hdt. 4. 40 flows east of the Caspian Sea was assumed by E. H. Bunbury, *A History of Ancient Geography*. 2nd ed. (New York 1959; reprint of the original published in 1883). Vol. 1. 223 f. (who, however, ascribes to Herodotus a patently absurd way of reasoning) and Felix Jacoby, "Hekataios", in *RE* 7 (1912) 2667–2769, esp. 2708; Jacoby tentatively admits that Herodotus' source (identified by him as Hecataeus) made this river issue into the Ocean (without advancing any argument or explanation of how such a notion could emerge). Hdt. 4. 11 seems to constitute another instance of the idea that the Araxes is a border river separating Europe and Asia; Herodotus says that "the nomad Scythians *inhabiting Asia*, being hard pressed in war by the Massagetae, fled away across the river Araxes to the Cimmerian country" (4. 11; the Cimmerian country is clearly in Europe). The first idea to come to mind is that this Araxes cannot be the Aras, but see Strab. 11. 8. 4–5, which may suggest the contrary.

²⁴ Hdt. 1. 202: 'Ο δὲ Ἀράξης λέγεται καὶ μέζων καὶ ἐλάσσων εἶναι τοῦ Ἴστρον νήσους δὲ ἐν αὐτῷ Λέσβῳ μεγάθρα παραπλησίας συχνάς φασὶ εἶναι.

²⁵ Hermann, "Issedoi", in *RE* 9 (1916) 2239.

the country sinks into a series of great swamps".²⁶ Moreover, there is a number of large islands in the estuary, and one of them, Dakshin, is indeed as big (615 sq. m) as Lesbos (623 sq. m).²⁷ Further, the Ganges forms the islands of considerable size not only in the estuary, but also in the plains through which it flows (one of such islands, named by the ancients Prasiane, was mentioned above).

Under what circumstances, we should ask now, could have emerged the comparison of islands of a remote Asian river with Lesbos? Apparently this comparison was due to someone who was familiar with the navigation in the Aegean Sea and also travelled along that Asian river. We know, it seems, only one fitting name: Scylax of Caryanda. There is only one river fitting with Herodotus' description: the Ganges.²⁸

As a matter of fact, there is actual description of the Ganges which has the Lesbos comparison. The text comes from Aelian:

At its rising from wells the Ganges, the river of India, is 20 fathoms deep and 80 stades wide, for it is still flowing with its own native waters unmixed with any other. But as it flows on and other rivers fall into it and join their water with it, it reaches a depth of 60 fathoms, and widens and overflows to an extent of four hundred stades. And it contains islands larger than Lesbos and Cynus, and breeds monstrous fishes, and from their fat men manufacture oil. There also in the river turtles whose shell is as large as a jar holding as much as 20 amphorae. And it fosters two kind of crocodiles. Some of them are perfectly harmless, but others eat flesh with the utmost voracity and ruthlessness, and on the end of their snout they have an excrescence like a horn. These the people employ as agents for punishing criminals, for those who are detected in the most flagrant acts are thrown to the crocodiles, and there is no need of a public executioner (*NA* 12. 41).

²⁶ *The Encyclopaedia Britannica*. 11th ed. (1910) 451 (more recent editions provide less information). Cf. Strab. 15. 1. 13: "The Ganges, which is the largest of the rivers of India, flows down from the mountainous country, and when it reaches the plains bends towards the east and flows past Palibothra, a very large city, and then flows on towards the sea in that region and empties by a single outlet".

²⁷ *Webster's Geographical Dictionary* (Springfield, Mass. 1965) s. v.

²⁸ Richard Hennig, "Der Araxes des Herodot = die Wolga". *Petermanns Mitteilungen* 75 (1929) 169–174 argues with energy the case for the Volga. But the Volga flows more south-east, than the Ganges, moreover the Volga's main channel turns near the mouth south and south-west, while the Ganges flows a long way more or less strictly eastwards right after Patna (where Scylax' navigation possibly began, as we shall see). The Volga does not form islands comparable with Lesbos and its delta, as far as I remember, is not the swamp.

It was observed that Aelian's remarks about the crocodiles of the Ganges are both nontrivial and generally correct.²⁹ Aelian's information ultimately derives from an eyewitness source. Kiessling was sure that comparison of the Ganges' islands with those of Lesbos and Cynus (Corsica) came from Megasthenes.³⁰ Megasthenes might have had it in his book indeed, but this is quite unlikely that he invented it. His audience, in the early third century B. C., was not interested in either Lesbos or Cynus. The former belonged to an area now of lesser significance, the latter was in the remote west, while common interest turned to the east. The situation was reversed before Alexander's time, in the sixth century B. C. in particular. Lesbos was a natural point of reference, while Cynus was an outstanding place in the fascinating west. Moreover, we have a good analogy in one of the few Scylax' fragments. He made his readers conceive the breadth of the strait at the Pillars of Heracles by comparing it with that of Bosphorus (*FGrH* 709 F 8).

It is of course surprising if the Ganges appears in Herodotus under the name of the Araxes. A possible explanation is, however, available. We already saw the reason to suppose that the Araxes was shown on a very early world map (that of Anaximander?) to flow into the eastern gulf of the Ocean = the Caspian Sea. Now Scylax (or someone familiar with his account) took the river Araxes as one which issues into the eastern gulf of the Ocean, so to speak, by definition. Since the location of the eastern gulf was drastically changed, the name *Araxes* was applied to the Ganges, as that river which issued into the newly discovered eastern gulf. However, the true Araxes retained its name too. Hence a confusion emerged.

It is also surprising if the Araxes beyond which the Massagetae dwell is to be identified with the Ganges. But first of all such a conclusion is not inevitable. The *Araxes* seems to have been an Iranian name for a *kind* of rivers. The fact is that the ancients mention also the Persian Araxes which flows near Persepolis (Strab. 15. 3. 6; Diod. 17. 69; Curt. 5. 4. 7, 5. 2-3, 7. 9), and Xenophon knows the Araxes in Syria (*Anab.* 1. 4. 19). This suggests that the Persians could call the *Araxes* some other river as well, for instance that in the land inhabited by the Massagetae. And this could be a ground for another confusion. However, one should not overlook a striking similarity between two Herodotus' passages. What Herodotus says about the men who live in the marshes of the Araxes and whose food is raw fish (1. 202) is

²⁹ Otto Keller. *Die antike Tierwelt*, 2. Bd. (Hildesheim 1963; reprint of original published in 1913) 268; Kiessling, "Ganges", in *RE* 7 (1910) 707.

³⁰ Kiessling, *Op. cit.*, 706.

echoed in his description of India: "There are many Indian nations... some dwell in the river marshes and live on raw fish" (3. 98). It is tempting to think that the reason why Herodotus gave no name of the river in India was that he found in his source the name *Araxes*, which he considered unfitting for India. Is it, after all, impossible that the Massagetae invaded the northern India in the sixth century B. C.? And if they did, then the appearance of the Ganges in the *Histories* under the name *Araxes* is easy to explain. The Persians gave such a name either to the Ganges or rather to its western tributary Yamuna for the reason that they were prone to apply such a name to a kind of rivers. Scylax, who was in Persian service, adopted this name and applied it to the whole stream constituted by the Yamuna and the Ganges. Thus the Ganges (with the Yamuna as the upper Ganges) became the *Araxes*.³¹

With Scylax probably originated another comparison related to the Ganges. Namely Megasthenes, while giving a list of the tributaries of the Ganges, said that none of the mentioned tributaries was "inferior to the Maeander, where the Maeander is navigable" (*Arr. Ind.* 4. 3. 6; *FGrH* 715 F 9). It is difficult to imagine that the ambassador of Seleucus to Chandragupta invented the reference to the Maeander himself. One should not of course infer from such a reference that Megasthenes was born somewhere in Caria or Ionia.³² Wherever he was born, he was addressing the audience in Seleucia, Alexandria and Athens, and not the Carians or the Ionians. The opposite was the case for Scylax. The Maeander valley was not only his homeland, but also the cultural centre of the

³¹ The river *Araxes* appears also in a Hecataeus' fragment: "from the Myci to the river *Araxes*" (*FGrH* 1 F 289: ἐκ Μύκων ἐς Ἀράξην ποταμόν). The Myci belonged to the fourteenth province of Darius' empire together with the Sagartii, Sarangeis, Thamanaci, Utii, and the dwellers of the islands of the southern sea (*Hdt.* 3. 93). Hence the river is probably the Persian *Araxes*, although other interpretations are also possible (one may, for instance, suppose that Hecataeus referred to the north-south axis of Asia, similarly to *Hdt.* 4. 37). – The *Araxes* of Aristot. *Meteor.* 350 a 24, the branch of which is the Tanais, reflects speculations rather than any real account: in any case this *Araxes* is not the *Aras*. Aristotle's disciple Callisthenes seems to have identified the *Araxes* of the Massagetae with the *Oxus* (*Strab.* 11. 14. 13; *FGrH* 124 F 38), as Eratosthenes almost certainly did (see *Strab.* 11. 8. 8). Now Strabo cites the authority of Artemidorus for the fact that "the Ganges flows down from the Emoda mountains (Ἠμωδῶν)" (15. 1. 72; cf. *Mei.* 3. 68), while Dionysius Periegeta (748) makes the *Oxus* flow from the mountain Ἠμωδός. This could be a coincidence, but one may suspect that it was the river 'Araxes' which originally was said to flow from the Emoda mountains.

³² O. Stein, "Megasthenes", in *RE* 15 (1931) 230–326, esp. 231 is properly sceptical in respect of such efforts.

Greek-speaking world as he knew it. It seems, it follows that it was not John Myres, but Megasthenes who was the first to identify the Indian river navigated by Scylax with the Ganges.³³ It is not, however, excluded that Scylax himself mentioned the aboriginal name.

We have an instructive parallel case of the use of the earliest geographers in Hellenistic accounts of India. Strabo (15. 1. 16) cites under the name of Nearchus (*FGrH* 133 F 17) a reference to the Maeander valley:

Nearchus, speaking of the aluvia deposited by the rivers (of India), gives the following examples: that the Plain of the Hermus River, and that of the Cayster, as also those of the Maeander and the Caicus, are so named because they are increased, or rather created, by the silt that is carried down from the mountains over the plains – that is all the silt that is fertile and soft; and that it is carried down by the rivers, so that the plains are, in fact, the offspring, as it were, of these rivers; and that it is well said that they belong to these. This is the same as the statement made by Herodotus in regard to the Nile and the land that borders thereon, that the land is the gift of the Nile; and for this reason Nearchus rightly says that the Nile was also called by the same name as the land Aegyptus.

This reference to the Maeander valley and other plains of the Asia Minor goes ultimately back to Hecataeus of Miletus. This follows from the parallel passage in Arrian (*Anab.* 5. 6. 4–8):

Thus men speak of a plain of Hermus, which rises in Asia from the mountain of Mother Dindymene and runs into the sea near the Aeolic city of Smyrna, and again of the plain of Cayster, a Lydian plain from a Lydian river, and of Caicus in Mysia, and of the Carian plain of Maeander, stretching to Miletus, an Ionian city. And as for Egypt, the historians Herodotus and Hecataeus (though possibly the work on Egypt is not by Hecataeus) both call it similarly 'the gift of the river', and Herodotus has shown by very clear proofs that this is so, as the country itself is actually called after the river. For that Aegyptus was the old name of the river which the Egyptians and men outside Egypt now call the Nile, Homer is ample evidence, when he says that Menelaus stationed his ships at the mouth of the river Aegyptus.

Felix Jacoby takes as a Hecataeus' fragment (*FGrH* I F 301) only a small portion of the text, equivalent to that of English translation from "and as for Egypt" to "this is so". He considers Hdt. 2. 10 the prototype of Nearchus' fragment and ascribes to Arrian some expansion of his own. Jacoby's interpretation is certainly misleading. Both Nearchus'

³³ Megasthenes was as far as Pataliputra (Patna) and he did not see the lower Ganges and its tributaries. This could be his reason to look at the information in Greek books. The most of the tributaries of the Ganges mentioned by Megasthenes are difficult to identify (see O. Stein, *Op. cit.*, 289–91; Baijnath Puri, *India in Classical Greek Writings* [Ahmedabad 1963] 45–48), therefore it cannot be established how many of them he could see himself.

and Arrian's passages have one and the same series of the four rivers, Hermus, Cayster, Maeander and Caicus, while it is different in Herodotus who refers to "the country about Ilion and Teuthrania and Ephesus and the plain of the Maeander". It is clear that either Arrian draws from Nearchus or both passages derive directly or ultimately from a common source. Should we think that this was Nearchus who introduced the reference to the rivers of the Asia Minor, Hermus, Cayster, Maeander and Caicus? It is much more natural to assume that this was made already by Hecataeus who apparently was the first to treat in a published book the land of Egypt as the gift of the Nile and who was addressing first of all to the Greeks of the Asia Minor. Herodotus' reference to the same region in analogous context only confirms such a conclusion. His dependence on Hecataeus in discussing the nature of Egypt has been long recognised,³⁴ and the slight discrepancy between his passage and those in Nearchus and Arrian is easy to explain. Herodotus would never acknowledge his debt to a predecessor, on the one hand, and yet he knows that plagiarism is a bad thing, on the other hand (see Hdt. 2. 123). Therefore, he would typically borrow from a predecessor, while introducing some additional information and rearrangement.³⁵ I suppose that the argument of Homer also originated with Hecataeus, for it appears in a similar context already in Aristotle (*Meteor.* 351 b 28 sqq.; cf. Strab. 12. 2. 4).

Now it should be specified that Arrian's immediate source was not Nearchus, but Eratosthenes. For it was Eratosthenes who discussed and confirmed authenticity of Hecataeus' *Asia*³⁶ and who is cited by Arrian in the preceding passage (5. 6. 2.).³⁷ Was it through Eratosthenes or due to Arrian's own reading, echoes of Hecataeus are also discernible in the geographical excursus on India in the *Anabasis of Alexander*:

Mount Taurus divides Asia, beginning from Mycale, the mountain opposite the island of Samos, then cutting through between the land of Pamphylia and Lycia it reaches Armenia, and from Armenia runs to Media past the Parthyaean and Chorasmian country, and in Bactria joins Mount Paramisus, which the Macedonians who served with Alexander called Caucasus... This Caucasus extends to the great sea on the east and the Indian side (5. 5. 2-4).

A basic axis drawn on the world map, which begins at the mount Mycale points to a Milesian cartographer (Miletus is just few miles south of the mount), that is Hecataeus.³⁸

This excursus shows that the later authors sometimes preserve the echoes of the earliest Greek geography, even though it is not recognised by

³⁴ See Felix Jacoby, "Hekataios", 2676.

³⁵ Cf. Jacoby, "Hekataios", 2685.

³⁶ See Jacoby, "Hekataios", 2673.

³⁷ Hugo Berger. *Die geographischen Fragmente des Eratosthenes* (Leipzig 1880) 172, 227 identifies only Arr. *Anab.* 5. 6. 1 and 5. 6. 2 f. as fragments of Eratosthenes, but he does not take into account the significance of the remark about Hecataeus.

³⁸ The scheme, with the mount of Mycale, is known also to Philostratus (*Vit. Apoll.* 2. 2). Its likely origin with Hecataeus (or Scylax?) seems to have escaped attention of the scholars. The idea of the mountain range dividing the whole Asia became very common in the ancient geography.

those authors themselves. It follows that there is nothing extraordinary in assuming that comparisons of the island formed by the Ganges with Lesbos and of the tributaries of the Ganges with the Maeander go back to Scylax of Caryanda.

But is there anything which speaks against the conclusion that Scylax navigated the Ganges? The words of Herodotus that Scylax after reaching the sea sailed to the west do not really contradict this conclusion, for these words indicate in any case only the main direction, be that from the mouth of the Ganges or from the mouth of the Indus.

3. Scylax and Taprobane

A further trace of Scylax' voyage is discernible in our sources. Onesicritus, one of Alexander's officers, knows surprisingly much about Taprobane (that is Ceylon). Surprisingly, because the mouth of the Indus, whence Alexander and his fleet turned back, is still very far from Ceylon. We are told by Strabo:

Onesicritus, for example, says of Taprobane that it is 'five thousand stadia in size', without distinguishing its length or breadth; and that it is a twenty days' voyage distant from the mainland, but that it is difficult voyage for ships that are poorly furnished with sails and are constructed without belly-ribs on both sides; and that there are also other islands between Taprobane and India, though Taprobane is farthest south; and that amphibious monsters are to be found round it, some of which are like kine, others like horses, and others like other land-animals" (15. 1. 15; *FGrH* 134 F 12).

Pliny adds that, according to Onesicritus, elephants in Taprobane "are bred of larger size and more warlike spirit than in India" (6. 81; *FGrH* 134 F 13).

Where did this information of Onesicritus come from? A good deal of it derives clearly from a mariner's account. Had Onesicritus been a man who was able to obtain the information of such a kind from the Indians, he would have been recognised by both the ancients and moderns as a precious source, which is certainly not the case. The clue lies in the remark that Taprobane is twenty days' voyage from the mainland. Provided that Ceylon comes very close to the continent, this sounds astonishing. But fortunately, Pliny provides a helpful explanation. He specifies that Taprobane "was

formerly believed to be a distance of 20 days' sail from the nation of the Prasii".³⁹ The Prasii were the inhabitants of the Ganges valley. The information, therefore, came not from an Indian mariner that Onesicritus met at the mouth of the Indus, but from a *mariner who sailed to Taprobane from the mouth of the Ganges*.

Twenty days for the sail from the mouth of the Ganges to Ceylon is quite a reasonable value, and we are told that Scylax used to express the maritime distances in terms of the days of navigation (*FGrH* 709 T 6). The estimation of the size of the island in terms of the stadia points to a Greek-speaking authority of Onesicritus. Moreover, a figure as great as five thousand stadia points to Scylax, for in his time a short stadion, about either 99 or 105 meters, was in use;⁴⁰ and the use of such a stadion would make the estimate cited by Onesicritus nearly correct.

One may, of course, suppose that in his descriptions of amphibious monsters, Onesicritus was "merely repeating what he heard from the Indians", but I see no good explanation for twenty days' journey from India to Ceylon except that this figure came from Scylax who sailed to Ceylon from the mouth of the Ganges.⁴¹ And if this was the case, then it is easy to discern some other likely echoes of Scylax' account in Onesicritus and other writers:

³⁹ 6. 82: *quondam credita XX dierum navigatione a Prasiana gente distare*.

⁴⁰ This assertion is based primarily on Hdt. 2. 6 sqq., where 1 Egyptian schoenus contains 60 and not 30 or 32 (as normally in later sources) or 40 (as in Eratosthenes) stadia. I discuss this issue in detail elsewhere.

⁴¹ The quotation from Truesdell S. Brown, *Onesicritus: A Study in Hellenistic Historiography* (Berkeley and Los Angeles 1949) 93. Brown keeps silence about twenty days' journey, as Jacoby does too. Albrecht Dihle, *Antike und Orient: Gesammelte Aufsätze* (Heidelberg 1984) 139 notes the parallelism of Onesicritus' and Pliny's accounts about 20 days' sail. He fully recognises that Pliny's information refers to the mouth of the Ganges. However, Dihle admits that both accounts are independent and refer to two different routes. Although such an attempt at harmonisation seems to have been already undertaken in antiquity (Plin. 6. 57: "a great many authors give the entire length of the coast of India as being 40 days' and nights' sail"), I do not find it plausible. Dihle's view requires too many assumptions, that (1) 20 days' sail in both cases is just a coincidence, that (2) the Indians expressed the size of Taprobane in linear measures (and not in terms of the days of navigation) and Onesicritus was able to convert Indian measures into Greek stadia, that (3) Onesicritus was interested in obtaining detailed information about the circumstances of the navigation in waters he was not going to visit, and (4) while being eager to obtain such a knowledge, he failed to grasp the fact of the southwards extension of Indian peninsula; for Onesicritus made Musicana, a region adjacent to the Indus delta, the most southern country of India (Strab. 15. 1 21; *FGrH* 134 F 22). It is, however, possible that Onesicritus made his reader to identify the 20 days' sea-route to Taprobane as that from the mouth of the Indus (whence the combination in Plin. 6. 57).

Onesicritus wrote that the Great Bear is not visible in the places of India where there are no shadows, and that these places are called Shadeless, and no reckoning is kept of the hours there (Plin. 2. 185; *FGrH* 134 F 10).

The sea between the island of Taprobane and the mainland is shallow, no more than 18 feet deep, but in certain channels so deep that no anchors hold the bottom: for this reason ships are used that have bows at each end, so as to avoid the necessity of coming about while negotiating the narrows of the channel; the tonnage of these vessels is as much as three thousand amphorae. The aborigines take no observation of the stars – indeed, the Great Bear is not visible; but they carry birds on board with them and at fairly frequent intervals set them free, and follow the course they take as they make for the land. They only use four months in the year for voyages, and they particularly avoid the hundred days following midsummer, when those seas are stormy. So far the facts stated have been recorded by the ancient writers (Plin. 6. 82–84).

The remarks about the difficulties of navigation and particular construction of ships recall clearly Onesicritus' fragment, which presents the assertion about twenty days' voyage from the mainland to Taprobane, the assertion which in all probability derives from Scylax.⁴² What follows the remarks about difficulties of navigation and particular construction of ships continues the theme of navigation and probably was in both Onesicritus and his source too. The connection of the use of the birds for orientation in the open sea with the invisibility of the Great Bear cannot go back to an eyewitness' account, for the birds cannot be effectively observed by night. Pliny possibly did not recognise that ἄστρα of his Greek source were used to refer to both the stars and the sun, which was not uncommon in Greek literature of the fifth and fourth centuries B. C. Pliny's source meant of course that it is no longer possible in those southern waters to determine where is the north by observing the stars by night and where is the south by observing the sun at midday.⁴³

The confusion is easy to explain if Scylax (or an intermediate source) used the name of the Indus, while talking in fact about the Ganges.

⁴² It should be specified that in the case of Onesicritus' fragment I cited a translation of the corrected text. But even at the point of corruption the Greek text of Strabo (κατασκευασμένους δὲ ἀμφοτέρωθεν ἐγκοιλίων μητρῶν χωρὶς) bears similarity with Latin text of Pliny (*navibus utriusque prorae*). For this kind of ships see: Plin. L'ancien. *Histoire Naturelle*. Livre VI, 2^e partie, texte établi, traduit et commenté par J. André et J. Fillozat (Paris 1980) 158 f. The use of the birds is well attested (see *ibid.*, 159).

⁴³ Cf. Orthogoras' remark cited by Philostratus (*Vit. Apoll.* 3. 53; *FGrH* 713 F 2) that in the Indian Ocean μήτε ἢ ἄρκτος φαίνοντο μήτε σημαίνοντο τὴν μεσημβρίαν οἱ πλέοντες. The invisibility of the Great Bear is an exaggeration; one finds more correct statement ("the

Thus we have a complex of accounts in which three topics appear in close association: circumstances of navigation, the difficulty of orientation by the sun and the stars, and the island of Taprobane. It is likely that all three topics originally belonged to one coherent account. It does not matter whether this account was confined to the island of Taprobane or included the description of the southern India in general. What matters is how the relevant information came to the writers like Onesicritus and Nearchus. Alexander's ships never went far beyond the tropic, and if they ever crossed the tropic they did so in the autumn, when the sun was above the equator and farther south. Neither Onesicritus nor Nearchus observed themselves the phenomena they describe.⁴⁴ Nor did they have any reason to be interested in details of navigation in the remote south-east, while they were preparing to sail westwards. But we already know of one mariner who made his way from the mouth of the Ganges to Taprobane. He was a man who had sailed many seas before he was chosen by the Great King for most difficult and honourable commitment. We can easily imagine how striking this was for him, to find himself in waters where the north and south were no longer easy to determine and where new configurations of the stars appeared to his eyes.

Pliny also notes that "Taprobane, under the name of the Counter-Earth, was long considered to be another world" (6. 81). He specifies that this view about Taprobane was held till the time of Alexander. Thus we have another indication that Taprobane was known to the Greeks already before the expedition of Alexander. As to the counter-earth, this was a specific notion of the Pythagoreans of the fifth-fourth centuries B. C., and the association of the counter-earth with Taprobane confirms an early knowledge of the

Bears set") in Megasthenes (*FGrH* 715 F 7; Strab. 2. 1. 19). We have one more detail about Onesicritus' description of the 'shadeless' places. "Onesicritus says that in the places of India where there are no shadows there are men five cubits and two spans high, and people live a hundred and thirty years, and do not grow old but die middleaged" (Plin. 7. 28; *FGrH* 134 F11). Onesicritus probably located these places in Musicana as the southernmost country of India (Strab. 15. 1. 21; *FGrH* 134 F 22) where people live "thirty years beyond one hundred" (Strab. 15. 1. 34; *FGrH* 134 F 24). But we are told (*loc. cit.*) that Onesicritus lauded this country "for things of which some reported as common also to other Indians, as, for example, their length of life". And indeed, Artemidorus placed the people who "live very long lives without any loss of bodily activity" in Taprobane (Plin. 7. 30).

⁴⁴ Arr. *Ind.* 25. 4-6: "Nearchus states that when men were sailing along the land of India (from that point the people were no longer Indians) their shadows were not always cast in the same way; wherever they were sailing a long distance by sea on a southerly course, their shadows were seen to fall southerly too; but whenever the sun was at midday, then everything appeared to them shadowless". It was correctly observed that "Nearchus cannot have seen shadows fall to the south during the voyage home" (Brown, *Onesicritus*, 100).

island. One can hardly suggest any plausible source for the knowledge of Taprobane before the time of Alexander except Scylax of Caryanda. The association with the counter-earth implies, moreover, a specific knowledge. The only reason I see to make Taprobane a part of the counter-earth was the special position of the sun, that is north of an observer at midday. This phenomenon takes place in Ceylon for several weeks. Was the data not specific enough or one's imagination too strong, it was apparently concluded that Taprobane belongs to the southern hemisphere.⁴⁵

There is another fragment of Onesicritus related to the observation of shadows in India.

It is reported that at the town of Syene, 5000 stadia south of Alexandria. at noon in midsummer no shadow is cast... and this is stated in the writings of Onesicritus also to occur at the same time in India beyond the river Hypasis (Plin. 2. 183; *FGrH* 134 F 9).

In Hellenistic geography, the river Hypasis (or Hyphasis, or Hypanis) is the eastern most of the major rivers of the Punjab (Strab. 11. 11. 1; 15. 1. 27, 32, 37). Thus the India beyond the Hypasis is the farther India, that of the Gangetic plain. The phenomena mentioned by Onesicritus take place there indeed.⁴⁶ In the historians of Alexander, the river Hypasis marks the limits of Alexander's advancement. Even if the river at which Alexander stopped was the Sutlej rather than the Beas, it is still several degrees north of the tropic. In any case Onesicritus is talking again about the parts of India that he never saw. It is not impossible that the information came from the Indians. Yet one may suspect that Onesicritus once more used Scylax' account.

A justification for such a suspicion is provided by Philostratus, one of those ancient authors who mention Scylax' account of India. A good part of his *Life of Apollonius of Tyana* describes Apollonius' journey to India. The river Hyphasis is repeatedly mentioned by Philostratus and plays an important role in his Indian scenery. While describing the river,

⁴⁵ Cicero knows indeed the tradition according to which the counter-earth is the inhabited southern part of the earth (*Tusc.* 1. 68). The Pythagorean notion of the counter-earth was much debated, but I cannot recall any discussion of the Pliny's passage. To be sure, Pliny's formulation has 'an island' as the antithesis of 'another world' (*Taprobanem alterum orbem terrarum esse diu existimatum est Antichtonum appellatione: ut insulam esse liqueret Alexandri Magni aetas resque prestitere*; a similar formulation in Mela 3. 70). But as what was Taprobane initially known to the Greeks if not as an island? A huge island could be easily treated as belonging to another world, all the more so that there was a wide-spread view according to which Europe, Asia, and Libya were islands too. In the *De Mundo*, preserved under the name of Aristotle, Taprobane is a very big island "beyond the Indians", which "lies obliquely to the oikumene" – consequently, outside of the oikumene (393 b 14). Interestingly, the author has a more adequate notion of how Ceylon is situated against Indian sub-continent than Eratosthenes, Strabo or Ptolemy.

⁴⁶ The line of the tropic crosses the delta of the Ganges and comes very close to its middle flow; for the epoch in question, we should envisage this line about half a degree farther north.

Philostratus employs a comparison that is already familiar to us: "in breadth the Hyphasis approaches to the river *Ister*, and this is allowed to be the greatest of all the rivers which flow through Europe; and the woods along the high banks closely resemble those of the river in question" (3. 1). The last phrase recalls a piece of Scylax' description of India, cited by Atheneus: "From that point a high mountain range extends on both sides of the river,⁴⁷ covered with virgin forest and with prickly *kynare*" (70 c: *FGrH* 709 F 4). There is a further sign in our sources that Scylax of Caryanda saw the banks of the Hyphasis and mentioned this river. One reads in Strabo (who calls the river Hypanis):

the country between the Hypanis and the Hydaspes is said to contain nine tribes, and also cities to the number of five thousand – cities no smaller than Cos Meropis, though the number stated seems to be excessive (15. 1. 33).

We need not concern us here with the number; we are interested in the comparison to Cos. It is hardly conceivable that any of the historians of Alexander would refer to such an insignificant city; the antiquated *Cos Meropis* contributes to such a doubt. Besides, "no smaller" sounds strange provided that Strabo says explicitly that the city of Cos "is not large" (14. 2. 19). Perhaps, the old city, when it was still normally called Cos Meropis, was larger; this Cos Meropis was ruined by an earthquake at the time of the Peloponnesian war (Thuc. 8. 41). Perhaps, the scale has been changed. In any case the island of Cos was the closest big island to Caryanda.

That Onesicritus and Philostratus probably used the same source is confirmed by the fact that they both share a notion that was normally rejected by the writers on India: both believe that the hippopotamus is to be found not only in Egypt and Ethiopia, but also in India (Strab. 15. 1. 13; *FGrH* 134 F 7; *Vit. Apoll.* 2.19; 6. 1). The mistake could easily be due to Scylax. As we remember, a mariner (most likely Scylax) compared 'the amphibious monsters' of the sea between Indian mainland and Taprobane to kines, *horses*, and other land-animals. Such an early writer as Scylax did not necessarily have "the horse of the Nile" in mind while comparing an Indian 'amphibious monster' to a horse. He simply tried to provide an idea about the appearance of the animal. Even the modern nomenclature of the Pinnipeds shows that this was a difficult task.⁴⁸

To summarise the last two sections, we can see that the Greeks possessed some knowledge of the Ganges, Ceylon and the sea-route between the mouth of the Ganges and Ceylon already in the time before Alexander and that Scylax' account must be recognised as the ultimate source of this knowledge. In the next three sections I will consider those scholarly beliefs which appear in conjunction with the opinion that Scylax sailed down the Indus. We will see that the toponymic and ethnonymic considerations as well as historical records and archaeological data are in fact in better agreement with the conclusion that Scylax made his way down the Ganges.

⁴⁷ A marginal note identifies the river as the Indus.

⁴⁸ For further likely connections between Philostratus and Scylax see Appendix.

4. Caspapyrus and its location

According to Herodotus (4. 44), the starting point of the expedition in which Scylax took part was the city Caspatyrus in the Pactyic country. The whole body of later geographical texts provides no help for identifying this place. Hecataeus did, however, mention Caspapyrus. This is evidently the same city. Since the name *Caspapyrus* conforms to the Old Iranian and Sanskrit words for 'town', one should proceed from Hecataean version.

As was mentioned above, the majority of scholars identified the eastwards flowing river navigated by the Scylax as the Kabul, a tributary of the Indus. There remained to find a city on the Kabul recalling Caspapyrus or Caspatyrus. Peshawar was repeatedly suggested, but it was pointed out that Peshawar was founded many hundred years after Scylax' expedition.⁴⁹

Several etymologies have been proposed for *Κασπάπυρος/τυρος*. Since I cannot hope to carry out a competent etymological study, I have to rely here on Klaus Karttunen's discussion. He finds no proposal convincing, however for different reasons. So he objects Josef Marquart's *Kusumapura*, synonymous with *Puspapura*, because "both *Kusumapura* and *Puspapura* seem to be known only as names for Pataliputra".⁵⁰ Marquart himself did not mean to arrive at such a result, and this result is a ground for Karttunen to dismiss Marquart's etymological reconstruction.⁵¹ But Pataliputra fits perfectly well with the words of Herodotus. This city is situated on a river which flows basically towards the east; moreover, from Pataliputra the river flows directly east for about 250 km. This river is of course the Ganges. And it is easy to understand why Pataliputra would have been suitable starting point for navigation. There was a land road from western India up to Pataliputra (Strab. 15. 1. 11; Arr. *Ind.* 2. 4).

Caspapyrus makes one also recall such a name as the Caspians. Curiously, the Caspians are located by modern scholars at the mouth of the Armenian Araxes or somewhere in vicinity.⁵² However, a number of

⁴⁹ Karttunen, 43.

⁵⁰ See also Nundo Lal Dey. *The Geographical Dictionary of Ancient and Mediaeval India*, 4th ed. (New Delhi 1984) 111, 151 ff., 164.

⁵¹ Karttunen, 42 f.

⁵² Herzfeld, *The Persian Empire*, § 162; Herrmann, "Kaspioi", in *RE* 10 (1919) 2272-75, esp. 2272.

similar names is attested for northern India. Ptolemy locates in the Punjab *Κασπειραῖοι* and the town *Κάσπειρα* (*Geogr.* 7. 1. 47–49);⁵³ his *Apotelesm.* 2. 4. 3 presents a series of three countries: *Βακτριανή*, *Κασπειρία*, *Σηρική*. The *Tabula Peutingeriana* shows in northern India a territory (?) called *Caspyre*.⁵⁴

According to Hecataeus, Casparyrus was a πόλις Γανδαρική (F 295). Γανδαρική is not easy to identify because one has to choose between several possibilities. All relevant fragments come from Stephanus:

F 294 a: s. Γανδάραι· Ἰνδῶν ἔθνος. Ἑκαταῖος Ἀσία. λέγονται καὶ Γανδάριοι παρ' αὐτῷ καὶ Γανδαρική ἡ χώρα.

F 294 b: s. Γάνδροι· ἔθνος Πάρθων ἀντιταχθὲν ἐν Διονύσῳ, ὡς Διονύσιος Βασσαρικῶν δ. Ἑκαταῖος δὲ Γανδάρας αὐτοῦς καλεῖ.

F 295: s. Κασπάπυρος· πόλις Γανδαρική, Σκυθῶν δὲ ἀκτὴ. Ἑκαταῖος Ἀσία.

Unambiguous assertion of F 294 a implies that Hecataeus' Γανδαρική is to be found in India. The identification suggested in F 294 b looks like an inference rather than a real testimony, yet one cannot simply dismiss a possible conclusion from the fragment that Γανδαρική was in Parthia. Neither the Indians nor the Parthians appear, however, in F 295. Σκυθῶν ἀκτὴ is somewhat surprising. Jacoby even adopts Sieglin's emendation, ἀντίη, which makes Casparyrus, or possibly Γανδαρική, to be situated "opposite to the Scythians". But such a reading were likely only if the Scythians occupied a compact territory with clearly defined borders, which is not the case. The most natural rendering of ἀκτὴ in a geographical context is either promontory

⁵³ See further related *RE* articles.

⁵⁴ Cf. Plin. 6. 55: "After the Attacorae there are the Thuni and Focari tribes, and (coming now to natives of India) the Cas(p)iri, situated in the interior in the direction of the Scythians – the Cas(p)iri are cannibals; also the Nomad tribes of India reach this point in their wanderings. Some writers state that these tribes are actually in contact with the Cicones and also the Brisari on the north". A likely interpretation of the enigmatic last assertion (*aliqui ab aquilone contingi ab ipsis et Ciconas dixere et Brisaros*) is that Plinius' ultimate source meant to say that the Caspiri are situated as far in the north as the dwellers of Thrace (the Cicones; the Brisari seem to appear only in this passage of Pliny), that is, in modern terms, approximately on the same latitude – so I. V. Pyankov, *Central Asia in Classical Geographic Tradition* (Moscow 1997) 139 f. [in Russian]. The involvement of the Cicones may point to a very early source. The Indian nomads who eat human flesh are mentioned in the *Histories* (3. 99).

or peninsula. The word is used, however, in somewhat special sense in Herodotus' description of the world map. He makes all Asia west of Persia consist of two 'peninsulas'. The one corresponds to the Asia Minor; Herodotus specifies that it is inhabited by thirty different nations (4. 38). The other is as large as to include even Libya (4. 39–41). If such a use goes back to Hecataeus, as some scholars believe it does, then Σκυθῶν ἄκτῆ may refer to one of the larger units of Hecataeus' world map. Hence the location of Caspapyrus and Γανδαρική in the Σκυθῶν ἄκτῆ does not necessarily denote its location in Scythia. There is also another possibility. ἄκτῆ meaning 'bank' of a river appears regularly in fifth-century poetry (Pind. *I.* 2. 42; *N.* 9. 40; Aesch. *Ag.* 697; Soph. *Ant.* 813; the singular is used, however, only in Sophocles). Rivers were regularly used in early Greek geography to designate the borders separating various tribes, nations or parts of the oikumene. Then Σκυθῶν ἄκτῆ might specify that non-Scythian town Caspapyrus is situated on the Scythian bank of the border river. Note a remark of Curtius (9. 2. 3): the Gangaridae (a distortion of the Gandaridae, see below) dwell on the farther bank of the Ganges.⁵⁵ On either interpretation, India remains for both Caspapyrus and Γανδαρική the preferable and Parthia a possible location.

A standard scholarly view identifies Hecataeus' Γανδαρική with the land of the Γανδάριοι, the people mentioned by Herodotus (3. 91) and located by modern scholars around the confluence of the Indus and the Kabul.⁵⁶ Such an identification is hardly justified. Hecataeus was a contemporary of Darius I, and we learn from Herodotus that India, Parthia and the country of the Γανδάριοι belonged to *different* provinces of Darius' empire, namely India constituted the twentieth province (3. 94), while the two other countries were parts of the sixteenth and the seventh provinces respectively (3. 91, 93).

Now Strabo (15. 1. 30) knows of a country called Gandaris which lies somewhere in the eastern Punjab. Furthermore, Greek and Latin authors mention many times an Indian people called the Gandaridai, which is regularly located in the Ganges valley, so that they even repeatedly appear under the name of the Gangaridai.⁵⁷ The *Tabula Peutingeriana* has *Gandari Indi* and shows them at the middle Ganges. It follows that Hecataeus' Γανδαρική was quite likely the land in the eastern Punjab or the Ganges valley.

⁵⁵ A review of various interpretations of Σκυθῶν ἄκτῆ see in Karttunen, 45 f.: see also Pyankov, *Central Asia*, 161 f.

⁵⁶ Kiesling, "Gandaritis", *RE* 7 (1910) 696–701, esp. 696; Karttunen, 42.

⁵⁷ See related *RE* articles.

None of the three discussed fragments of Hecataeus is easy to reconcile to Herodotus. For Herodotus locates Caspatyrus (that is, Caspapyrus?) neither in Γανδαρική, nor in India, nor in Parthia, but in Πακτυϊκή. Moreover, Herodotus has apparently two different Pactyic countries.⁵⁸ The one is clearly located somewhere near Armenia (3. 93), the other, with the town of Caspatyrus, adjoins the northernmost parts of India.⁵⁹ Neither emerges elsewhere in ancient literature. Herodotus also mentions several times the Pactyans (7. 67–68; 7. 85), but he does not specify to which Pactyic country they are to be related. Thus Herodotus' Πακτυϊκή provides us with no help. Moreover, there is something suspicious about Herodotus' version. Namely, the Armenian Pactyic country is most likely to be located in the Armenian Araxes valley and near the Caspian Sea. Perhaps Herodotus' source had the town of Caspatyrus (Caspapyrus) at the river Araxes, meaning the river far in the east. Herodotus (or an intermediate source) identified the river with the Armenian Araxes and located the town in the Pactyic country near the Caspian Sea.⁶⁰ But it is also possible that Herodotus used a summary of Scylax' account, which presented the Pactyic country, near Armenia, as the starting point of Scylax' advancement towards the east; since Herodotus used an abridgement of the original account he failed to recognise that there was a long way from the Pactyic country to India, and the Pactyic country adjacent to India emerged as his erroneous conclusion.

Suppose, however, that the location of Caspatyrus in a frontier region on the border with the northernmost parts of India is adequate. One may still think not only about Kabulistan, but also about the eastern Punjab or even the Ganges valley.

⁵⁸ This was already suggested by George Rawlinson (ad Hdt. 3. 93) and more recently argued by Igor N. Khlopin in *Altorientalische Forschungen* 3 (1975) 47–54 [in Russian].

⁵⁹ Hdt. 3. 102: "Other Indians dwell near the town of Caspatyrus and the Pactyic country, northward of the rest of India; these live like the Bactrians". It was repeatedly observed by scholars that Herodotus did not describe in fact the Bactrian way of life, which suggests that the comparison came from one of his predecessors.

⁶⁰ Cf. also what is said above about Κάσπεραιοί etc. Note, further, a curious remark about a rare (and not identified) bird in Ael. *NA* 17. 33: "The following bird also is a Caspian, or rather an Indian, for its generic type is spoken of both in the latter and in the former connection". – It is possibly worth noting that our sources repeatedly mention the Gandaridai or Gangaridai in one breath with the Prasii, the inhabitants of the Ganges valley, first of all of Magadha. Megasthenes called their country Πραξιακή or, if one should accept Schneider's emendation, Πρασιακή (Ael. *NA* 17. 39: *FGrH* 715 F 21). One may consider the possibility that Herodotus' Πακτυϊκή is a distortion of the same name. (Note the alternative readings Προκλαΐς/Ποκλαΐς for an Indian city in Ptolemy's *Geogr.* 7. 1. 44.)

To sum up, the toponymic considerations provide no clue to the route of Scylax. They leave too much uncertain. In any case they point to the area east of the Indus at least as well as to the area of the Kabul river.

5. *India ultima* in Herodotus

In the context of his description of the correct layout of the countries and continents, Herodotus makes a memorable remark: "As far as India, Asia is an inhabited land; but thereafter all to the east is desert, nor can any man say what kind of land is there" (4. 40).

He is more specific elsewhere: "All to the east of the Indian country is sand; among all men of whom hearsay gives us any clear knowledge the Indians dwell farthest to the east and the sunrise of all nations of Asia; for on the eastern side of India all is desert by reason of the sand" (3. 98).

Klaus Karttunen concludes that "Herodotus' India ended at the Thar desert".⁶¹ He even goes on to generalise that "in early times India was only the Indus region with its confines. In the east its boundary more or less coincided with the Thar desert".⁶² His formulations are more straightforward than usual, but the view he expressed is standard rather than dissident. From the first sight, such a view seems entirely justified. Under closer examination, it turns to be most implausible.

This view is not confirmed by the text of Herodotus, to begin with, for we are explicitly told that the sandy desert is to be found *north* of the rest of India.⁶³ The plain fact that the Thar desert lies south of the Kabul river, Taxila, and the Punjab means that identification suggested by Karttunen and other scholars contradict Herodotus.

Now some of Indians were subjects of Persian kings, and there is common agreement that Persian control reached the Punjab. Wherever Herodotus' information about the desert beyond India came from, be it the book of Hecataeus or conversations with the Persians, this information must have ultimately derived from the Indians interrogated by the Persians or by a curious Greek about the sort of land beyond their own. Should we then believe that the Indians of the Punjab c. 500 B. C. had no slightest knowledge

⁶¹ Karttunen. 157.

⁶² Karttunen. 159; cf. also 36, 73, 220.

⁶³ Hdt. 3. 102: "Other Indians dwell near the town of Caspatyrus and the Pactyic country, northward of the rest of India... in these parts all is desert by reason of the sand".

about the Indians of the Ganges valley? This could possibly be the case some five hundred years earlier. But the Ganges is mentioned in a late Vedic hymn (RV 10. 75), and archaeology suggests that rather homogeneous culture was emerging c. 550 B. C. on the territory including both the Punjab and the Ganges valley.⁶⁴

An additional point comes from the fact that Herodotus knows of the population of the South India, i. e. far beyond the Indus and the Thar desert, but on the way of Scylax, if Scylax circumnavigated India. These Indians, Herodotus says, “are all black-skinned, like the Ethiopians”, they “dwell far away from the Persians southwards, and were no subjects of King Darius” (3. 101; last words show that Herodotus depends in his account of black Indians on a Greek literary source, for the situation is given as contemporary to Darius and not to Herodotus and his audience).

Thus the sandy desert on the edge of India, mentioned by Herodotus, neither confirms Scylax’ route along the Indus nor justifies minimalist view of early Greek knowledge of India.

It should be noted now that a desert beyond the Indus appears in a fragment of Hecataeus, and the context of its appearance is quite remarkable. *FGrH* I F 299: “In these parts people live on the river Indus, the Opiai, in a royal fort. As far as that are the Opiai; from there on is a desert, as far as the Indians” (ἐν δ’ αὐτοῖς οἰκεῖουσιν ἄνθρωποι παρὰ τὸν Ἰνδὸν ποταμὸν Ὀπίαι, ἐν δὲ τεῖχος βασιλῆιον. μέχρι τούτου Ὀπίαι. ἀπὸ δὲ τούτου ἐρημίη μέχρις Ἰνδῶν). Strange as it is, we are told that the Indians are separated from the Indus river by a desert. But if this desert is the Thar desert and the Indians are the inhabitants of the Yamuna and the Ganges valleys, then Hecataeus’ description is perfectly reasonable.

Whatever Hecataeus’ remark really means, it can be shown that the Greeks adopted the notion of the enormous size of India much earlier than the time of Alexander, which contradicts the view that their India was only the Indus region with its confines. One reads in Strabo (15.1.12):

Ctesias says that India is not smaller than the rest of Asia; Onesicritus that it is a third part of the oikumene.

Now according to Agathemerus (1. 1. 2; *Democr. fr.* 407 Luria; 68 B 15 DK),

⁶⁴ See George Erdosy’s chapters in *The Archaeology of Early Historic South Asia*, ed. F. R. Allchin (Cambridge 1995), esp. 79 ff.

the ancients draw the oikumene as being round, with Hellas in the middle... Democritus was the first to recognise that the oikumene is elongated and that its length is half as much again its breadth.

Considering these testimonies together, one can easily infer what kind of new knowledge made a Greek geographer (Democritus, in Athemerus' view) revise the earliest maps: India was added to the west-east extension of the oikumene. The addition of another "half of Asia" (as in Ctesias) or, which is much the same, of another "third of the oikumene" (as in Onesicritus) stretches the oikumene, increasing its length to exactly "half as much again its breadth".

6. Where did the Persian India lie?

Herodotus tells us that after Scylax' voyage "Darius subdued the Indians and made use of this sea". Both points are confirmed. A new province of the Empire appears indeed in Darius' inscriptions under the name Hinduš. Darius' Suez inscription commemorating the digging of the channel from the Nile to the Red Sea asserts opening of the maritime routes in the Indian Ocean and the Red Sea. The name Hinduš is the Old Persian equivalent for Sind. The combination with Herodotus' assertion that Scylax navigated the Indus suggests an apparently coherent picture: Darius conquered the Indus valley. Such is a standard scholarly construction. Minor disturbing difficulties were of course recognised, but they were practically ignored.

The most obvious difficulty is Herodotus' remark about the river which flows eastwards. It was also observed that the descriptions of Nearchus' expedition with Macedonian fleet from the mouth of the Indus to the Persian Gulf do not imply that this sea route was well-known, nor there is anything in accounts of Alexander's advancement along the Indus river to suggest that he was conquering the former subjects of the Persian Kings. Another surprising detail did not completely escape attention too. In the description of the Persian Empire, Herodotus says: "The Indians made up the twentieth province. These are more in number than any nation known to me, and they paid a greater tribute than any other province, namely three hundred and sixty talents of gold dust" (3. 94). It is surprising that the population of Sind, a region of deficient rainfall, should have been so remarkably numerous.

Now one can see that Darius' Suez inscription speaks in fact about established route only between Egypt and the sea of Persia.⁶⁵ Herodotus is basically right, but his words must be taken in a limited sense. Further, there is no archaeological confirmation of Persian presence in Sind; according to the experts, "no material evidence of Achaemenid activity in this region is so far available".⁶⁶ It follows that the whole construction, so commonly accepted, is based in reality only on the correspondence of the names. But this correspondence can be easily accounted for in a different way. Wherever extended the Persian Empire in India, it began in north-western India, in the region of the middle flow of the Indus. The people inhabiting this region were apparently called the Indians. It is quite natural that the neighbouring region of the low Indus acquired in the course of time related name Sind. However, there was nothing to prevent the Persians to apply the name of the Indians to the population east of the border region, that of the Punjab and the Gangetic plain. The new province could have called Hinduš irrespectively of the direction of the conquest. Therefore, the question of where Persian India lay should be considered anew.

Herodotus' account implies that Darius' conquest followed the direction of Scylax' expedition. If the latter was directed eastwards, the former was such too.⁶⁷

What was the purpose of the conquest? One should infer this from what Darius gained from the conquered land. This was the gold. There was no gold in Sind and the routes of the gold trade were far from it.⁶⁸ Gold came from Siberia and possibly from Yunnan.⁶⁹ Significantly, Herodotus locates

⁶⁵ Roland G. Kent. *Old Persian*, 2nd ed. (New Haven 1953) 147: "I gave order to dig this canal from a river by name Nile which flows in Egypt, to the sea which goes from Persia. Afterward this canal was dug as I had ordered, and ships went from Egypt through this canal to Persia thus as was my desire".

⁶⁶ A. D. H. Bivar in *The Cambridge Ancient History*, 2nd ed. (Cambridge 1988) Vol. 4. 204.

⁶⁷ It is sometimes asserted that Scylax' expedition was possible only after the conquest. The sequence of events does not affect my argument, but it is better, methodically, to follow Herodotus, for we are not in a position to imagine all circumstances. Perhaps, the Prasii were interested in Scylax' explorations: some scholars believe that they colonised at some later time Ceylon.

⁶⁸ To be sure, Onesicritus speaks about gold in Musicana, but this is accompanied by an instructive remark: they do not use it (Strab. 15. 1. 34; *FGrH* 134 F 24). It was recognised that Musicana of Onesicritus was much more an utopian rather than real country (Brown. *Onesicritus*, 54–77).

⁶⁹ W. W. Tarn, *The Greeks in Bactria and India*, 3rd ed. (Chicago 1984) 105–108.

that Indian people which was charged with getting of the gold in northernmost parts of India (3. 102). But this cannot be Kabulistan = Gandara (gold came from the twentieth and not the seventh province to which Gandara belonged), therefore one should look again at eastern direction, the Punjab and the Ganges valley.⁷⁰

Herodotus characterises the Indians as the most numerous nation. The Ganges valley is one of the most densely populated regions in the world. This was not of course always so, but archaeology suggests enormous growth of population in the Ganges valley already by 600 B. C.⁷¹

According to Herodotus, those Indians who dwell north of the rest and are charged with getting of the gold "are of all Indians the most warlike" (3. 102). This does not provide of course a very reliable criterion, and yet the Prasii of Magadha would fit especially well with this description, for they created a huge empire about two centuries after Darius.

Furthermore, Persian influence was detected in a number of cultural phenomena of the Mauryan Empire.⁷² It was reasonably suggested that such an influence should have come back to the time before Alexander and thus before the time the Mauryan empire was established.⁷³ But it follows that the region of Magadha should be considered particularly receptive of Persian influence. This also agrees well with the hypothesis that Persian India was the Ganges valley rather than Sind.

⁷⁰ Tarn, *loc. cit.*, denies that India paid the tribute in gold-dust as recorded in Herodotus. Such a strong conclusion is based, however, only on a Darius' inscription according to which the gold for the palace at Susa was brought from Sardis and from Bactria, while India contributed the ivory (the text and the translation of this inscription see in Kent, *Old Persian*, 142 ff.). But the inscription speaks about a particular case and not about regular practice. And how can we know that Darius' assertion is accurate and does not follow the logic of propaganda (that is to show that so many regions of the Empire contributed to the palace at Susa)? Should we for instance conclude that neither Lydia nor Bactria taken alone had enough gold for the palace, so that it was necessary to activate resources of the two countries? I would rather suppose that the gold of Lydia and Bactria enjoyed by that time greater prestige than the gold of India.

⁷¹ See Erdosy in *The Archaeology of Early Historic South Asia*, 81, 99, 110: cf. Strab. 15. 1. 37: "Writers are agreed that the country as a whole on the far side of the Hypanis is best".

⁷² D. B. Spooner, "The Zoroastrian Period of Indian History", *Journal of the Royal Asiatic Society* 1915, 63-90. 405-456; Sudhakar Chattopadhyaya, *The Achaemenids and India*, 2nd ed (New Delhi 1974) 61 ff.; Karttunen, 60-64 (with references to further literature).

⁷³ David Pingree, "The Mesopotamian Origin of Early Indian Mathematical Astronomy", *Journal for the History of Astronomy* 4 (1973) 1-12, esp. 10: "it is arguable that enormous and often-studied Iranian influence discerned in Mauryan polity, architecture, sculpture, epigraphy, and the like in the third century B. C. was an inheritance from the pre-Mauryan Nandas' rather than from the post-Alexandrian Greeks' adaptation of Achaemenid forms".

Finally, we have actually a rather detailed testimony as to where the Persian India was. It comes from Diodorus of Sicily, who is dealing with “the situation of Asia as a whole, and the size and characteristics of the satrapies” (18. 5–6):

Now from the Cilician Taurus a continuous range of mountains extends through the whole of Asia as far as the Caucasus and the Eastern Ocean... Asia is thus separated into two parts, one sloping to the north, the other to the south... The satrapies likewise are divided, some sloping toward the north, the others toward the south... Of those satrapies that face the south, the first one along the Caucasus is India, a great and populous kingdom, inhabited by many Indian nations, of which the greatest is that of the Gangaridae, against whom Alexander did not make a campaign because of the multitude of their elephants. The river Ganges, which is the deepest of the region and has a width of thirty stades, separates this land from the neighbouring part of India. Adjacent to this is the rest of India, which Alexander conquered, irrigated by water from the rivers and most conspicuous for its prosperity. Here were the dominions of Porus and Taxiles, together with many other kingdoms, and through it flows the Indus.

Diodorus' description is hardly compatible with the belief that the Persian satrapy of India was in Sind. The text certainly implies that the satrapy was in the northern India, though it remains unclear how far eastwards it extended.⁷⁴

Is it likely that the Persians were able to conquer such a distant, numerous and, besides, war-like population of the Ganges plain? As for distance, the farthest points of Persian penetration in Scythia were more distant from Susa than Pataliputra, nor does the version of the conquest of

⁷⁴ It should be noted that Eratosthenes (*apud* Arr. *Ind.* 2. 4; Strab. 15. 1. 11; fr. III B, 6 Berger) called the road to Palimbothra (Pataliputra) ἡ βασιλικὴ ὁδός. It is true, the road was maintained by Mauryan kings and yet ἡ βασιλικὴ ὁδός must normally refer to the roads of the Persian Empire. It is said that this road has been measured either “with measuring-lines” (Strabo: σχοινίους) or “in terms of the schoenus” (Arrian: σχοίνοισι). It is easy to imagine that a copyist would correct unknown to him *schoenus*, and it is surprising if a measurement “with measuring-lines” provided such a round number as ten thousand stadia. It follows that *schoenus* is to be preferred, which is confirmed by the use of the schoenoi in Isidorus' *Parthian stations*. A measurement “in terms of the schoenus” has nothing to do with the Indians, but the schoenus was equal to Persian parasang, and the conversion of the schoenoi into the stadia was used in Eratosthenes (Plin. 12. 53). The source of Eratosthenes was, according to Strabo, Ἀναγραφὴ τῶν σταθμῶν: such a *Register of stations* points again to the Persian royal roads. Ctesias, who lived several decades before Chandragupta, seems to have been already aware of the royal road to India (*FGrH* 688 F 23: ἀπὸ Ἐφέσου μέχρι Βάκτρων καὶ Ἰνδικῆς ἀριθμὸς σταθμῶν, ἡμερῶν, παρασαγγῶν).

the Indus valley make essential difference. It is clear, further, from our sources that the Persian army was very efficient and that the Persian kings were able to mobilise manpower in huge quantities. As for the war-like population the Persians had to overcome, the archaeology reveals a plausible explanation. The fact is that strong fortifications were still lacking in the Ganges valley by the end of the sixth century B. C. The agricultural population could not have adopted the Scythian tactics and have just escaped, but there were no adequate means for defence against an invader so well-trained and doubtless numerous as the Persian army.⁷⁵

To sum up, the available data suggest that the Persian India lay in the Punjab and the Ganges valley. The future excavations and long expected publications of what has been already unearthed will either confirm or undermine this conclusion. Our interpretation of Scylax' route can stay even with negative result. The positive result is, however, more likely.

(To be continued)

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Геродот сообщает об экспедиции, организованной по поручению Дария I, участником которой был Скилак из Карианды. Скилак и его товарищи достигли устья "индийской реки", а оттуда морем добрались до Египта. "Индийская река" греческих текстов – это обычно Инд, и соответствующее представление о маршруте Скилака стало безусловно господствующим

⁷⁵ Cf. a curious remark in Diod. 2. 37. 3. "Dionysus came to the Indians from the regions to the west of them with a notable army; and he traversed all India, since there was as yet no notable city which would have been able to oppose him". For the archaeological data and its interpretation see George Erdosy, "City States of North India and Pakistan at the time of Buddha", in *The Archaeology of Early Historic South Asia*, 99–122. It should be noted that Erdosy accepts "short chronology for Buddha's *nirvana* of c. BC 358–378, which thereby provides a much better fit with every aspect of the archaeological record than the traditionally favoured date of BC 486" (105). For this short chronology of Buddha's *nirvana* see Heinz Bechert (ed.), *The Dating of the Historical Buddha*. Pt. 1–2 (Göttingen 1991–1992), Pt. 3 (Göttingen 1997); L. S. Cousins, "The Dating of the Historical Buddha: A Review Article", *Journal of the Royal Asiatic Society*. 3. Ser. Vol. 6. Pt. 1 (Apr. 1996) 57–63. Bechert himself proposes a larger frame for Buddha's *nirvana*, c. 420–350 B. C.

в научной литературе. Однако, по словам Геродота, река текла на восток, тогда как Инд течет на юг и юго-запад, и еще в 1896 г. Джон Майрис высказал предположение, что в действительности Скилак спускался по Гангу, совершив затем плавание вокруг Индии. В статье предпринимается попытка превратить догадку Майриса в установленный факт. В противоречивых сообщениях Геродота о реке Араксе удается выявить вероятные отголоски ранних сообщений о Ганге. Вероятным представляется и то, что к Скилаку восходит сравнение притоков Ганга с Меандром, используемое Мегасфеном, но совершенно не актуальное для его современников. Особенно важным является парадоксальное утверждение Онесикрита, одного из участников похода Александра, согласно которому от Индии до Тапробаны (Цейлона) двадцать дней плавания. Параллельное сообщение Плиния позволяет понять, что речь идет о плавании от устья Ганга, и знание об этом могло прийти к Онесикриту, судя по всему, только от Скилака; с таким выводом хорошо согласуются и другие данные. Одним из сопутствующих результатов работы является предложение локализовать персидскую сатрапию Индия не в низовьях Инда, а в Пенджабе и долине Ганга.