

# HAKLUYT SOCIETY

## COUNCIL AND OFFICERS, 1988-89

### PRESIDENT

Sir HAROLD SMEDLEY, K.C.M.G., M.B.E.

### VICE-PRESIDENTS

Professor K. R. ANDREWS, F.B.A.  
Professor C. F. BECKINGHAM, F.B.A.  
Professor C. R. BOXER, F.B.A.  
Professor EILA M. J. CAMPBELL

Dr E. S. DE BEER, C.B.E., F.B.A.  
Professor D. B. QUINN, HON.F.B.A.  
Professor GLYNDWR WILLIAMS

### COUNCIL (with date of elections)

R. C. D. BALDWIN (1985)  
Professor J. S. CUMMINS (1988)  
Miss MARGARET DEACON (1987)  
STEPHEN EASTON (Co-opted)  
Dr R. L. EDMONDS (1988)  
Dr G. S. P. FREEMAN-GRENVILLE (1986)  
Professor P. E. H. HAIR (1988)  
MICHAEL LAMB (1986)  
Dr ANITA McCONNELL (1987)  
J. F. MAGGS (1986)

Professor PETER MARSHALL (1985)  
Rear-Admiral R. O. MORRIS (1987)  
M. J. MOYNIHAN, C.M.G., M.C. (1984)  
Royal Commonwealth Society  
(D. H. SIMPSON) (1986)  
Royal Geographical Society  
(Mrs DOROTHY MIDDLETON)  
Mrs ANN SHIRLEY (1986)  
Dr PATRICK TUCK (1985)  
Dr HELEN WALLIS, O.B.E. (1985)

### TRUSTEES

H. H. L. SMITH  
M. F. STRACHAN, C.B.E., F.R.S.E.  
G. H. WEBB, C.M.G., O.B.E.  
Professor GLYNDWR WILLIAMS

### HONORARY TREASURER

G. J. ELLERTON, C.M.G., M.B.E.

### HONORARY SECRETARIES

Dr T. E. ARMSTRONG  
Scott Polar Research Institute, Cambridge CB2 1ER

Mrs SARAH TYACKE  
Special Collections (Manuscripts), The British Library, Great Russell Street,  
London WC1B 3DG

### HONORARY SECRETARIES FOR OVERSEAS

*Australia:* D. McD. HUNT, The State Library of New South Wales, Macquarie  
Street, Sydney, New South Wales, 2000  
*Canada:* Professor J. B. BIRD, McGill University, Montreal, Quebec  
*New Zealand:* J. E. TRAE, The Alexander Turnbull Library, P.O. Box 12-349,  
Wellington, C.1  
*South Africa:* Dr F. R. BRADLOW, 401/402 French Bank Building, 4 Church Square,  
Cape Town 8001  
*U.S.A.:* Dr NORMAN FIERING, The John Carter Brown Library, Brown University,  
Box 1894, Providence, Rhode Island 02912  
*Western Europe:* PAUL PUTZ, 54 rue Albert I, 1117 Luxembourg, Luxembourg.

### ADMINISTRATIVE ASSISTANT

Postal address only: Mrs ALEXA BARROW, Hakluyt Society, c/o The Map Library,  
The British Library, Great Russell Street, London WC1B 3DG (to whom  
application for membership may be made). (Telephone 025-125 4207)

# AGATHARCHIDES OF CNIDUS

## ON THE ERYTHRAEAN SEA

Translated and edited by  
STANLEY M. BURSTEIN

THE HAKLUYT SOCIETY  
LONDON

1989



<i>Fragment</i>	<i>Source</i>
76b.	Diodorus 3.35.6
77a.	Photius, Cod. 250.76, 455b–456a
77b.	Diodorus 3.35.7–9
77c.	Strabo 16.4.16, C775
78a.	Photius, Cod. 250.77, 456a
78b.	Diodorus 3.35.10
78c.	Strabo 16.4.16, C775
79.	Aelian, <i>NA</i> 5.27
80a.	Photius, Cod. 250.78, 456a
80b.	Diodorus 3.36–37.9
80c.	Strabo 16.4.16, C775
81.	Diodorus 3.38.1–5
82a.	Photius, Cod. 250.80, 456a
82b.	Diodorus 3.38.5–39.1
82c.	Strabo 16.4.5, C769
83a.	Photius, Cod. 250.81, 456b
83b.	Diodorus 3.39.1–2
83c.	Strabo 16.4.5, C769
84a.	Photius, Cod. 250.82, 456b
84b.	Diodorus 3.39.3–9
84c.	Strabo 16.4.5–6, C769–770
85a.	Photius, Cod. 250.83, 456b–457a
85b.	Diodorus 3.40.1–9
85c.	Strabo 16.4.7, C770
86a.	Photius, Cod. 250.84, 457a
86b.	Diodorus 3.41.1–4
87a.	Diodorus 3.42.1–4
87b.	Strabo 16.4.18, C776
88.	Photius, Cod. 250.86, 457a
89a.	Photius, Cod. 250.87, 457a–457b
89b.	Diodorus 3.42.5
89c.	Strabo 16.4.18, C776
90a.	Diodorus 3.43.1–5
90b.	Strabo 16.4.18, C777
91a.	Photius, Cod. 250.89, 457b
91b.	Diodorus 3.43.6–7
91c.	Strabo 16.4.18, C777
92a.	Photius, Cod. 250.90, 457b

<i>Fragment</i>	<i>Source</i>
92b.	Diodorus 3.44.1–2
92c.	Strabo 16.4.18, C777
93a.	Photius, Cod. 250.91, 457b
93b.	Diodorus 3.44.3
93c.	Strabo 16.4.18, C777
94a.	Photius, Cod. 250.92, 457b
94b.	Diodorus 3.44.4
94c.	Strabo 16.4.18, C777
95a.	Diodorus 3.44.4–45.2
95b.	Strabo 16.4.18, C777
96a.	Photius, Cod. 250.94, 457b
96b.	Diodorus 3.45.3
97a.	Photius, Cod. 250.95, 457b–458a
97b.	Diodorus 3.45.3–5
97c.	Strabo 16.4.18, C777
98a.	Photius, Cod. 250.96, 458a
98b.	Diodorus 3.45.6–8
98c.	Strabo 16.4.18, C777–778
99a.	Photius, Cod. 250.97, 458a–458b
99b.	Diodorus 3.46.1–5
99c.	Strabo 16.4.19, C778
100a.	Photius, Cod. 250.98, 458b
100b.	Diodorus 3.47.1–2
100c.	Strabo 16.4.19, C778
101a.	Photius, Cod. 250.99, 458b
101b.	Diodorus 3.47.3
101c.	Strabo 16.4.19, C778
102a.	Photius, Cod. 250.100, 458b–459a
102b.	Diodorus 3.47.4
102c.	Strabo 16.4.19, C778
103a.	Photius, Cod. 250.101, 459a
103b.	Strabo 16.4.19, C778
104a.	Photius, Cod. 250.102, 459a–459b
104b.	Diodorus 3.47.5–8
104c.	Strabo 16.4.19, C778
105a.	Photius, Cod. 250.103, 459b
105b.	Diodorus 3.47.8–9
106a.	Photius, Cod. 250.104, 459b



## Fragment

## Source

- |       |                                  |
|-------|----------------------------------|
| 106b. | Diodorus 3.48.1-2                |
| 107a. | Photius, Cod. 250.105, 459b-460a |
| 107b. | Diodorus 3.48.3-4                |
| 108.  | Diodorus 3.48.5                  |
| 109.  | Photius, Cod. 250.107, 460a      |
| 110.  | Photius, Cod. 250.108, 460a      |
| 111.  | Photius, Cod. 250.109, 460a-460b |
| 112.  | Photius, Cod. 250.110, 460b      |

## APPENDIX: UNPLACED FRAGMENTS

## Fragment

## Source

- |    |  |
|----|--|
| 1. | Plutarch, <i>Quaestiones Convivales</i> 8.9.16 |
| 2. | Pliny, <i>HN</i> 8.24-5                        |
| 3. | Strabo 16.4.5, C769                            |
| 4. | Strabo 16.4.7, C770                            |

## SELECT BIBLIOGRAPHY

## I. ANCIENT SOURCES: TEXTS AND TRANSLATIONS

- Agatharchides, *Agatharchide von Knidos Über das Rote Meer, Übersetzung und Kommentar*, edited and translated by Dieter Woelk (Diss. Freiburg, 1965).
- Aelian, *On the Characteristics of Animals*, edited and translated by A. F. Scholfield (London, 1958-9).
- Athenaeus, *The Deipnosophists*, edited and translated by Charles Burton Gulick (London, 1927-41).
- Cosmas Indicopleustès, *Topographie Chrétienne*, edited and translated by Wanda Wolska-Conus (Paris, 1968-73).
- Diodorus, *Bibliotheca Historica*, edited by F. Vogel *et al.* (Leipzig, 1888-1906).
- Diodorus of Sicily*, edited and translated by C. H. Oldfather *et al.* (London, 1933-67).
- Epiphanius, *De Gemmis*, edited and translated by Robert P. Blake (London, 1934).
- Frisk, H., ed., *Le Périphe de la Mer Erythrée* (Göteborg, 1927).
- Huntingford, G. W. B., *The Periplus of the Erythraean Sea* (London, 1980).
- Oppian, *Cynegetica* in *Oppian Colluthus Tryphiodorus*, edited and translated by A. W. Mair (London, 1928).
- Photius, *Bibliothèque*, edited and translated by P. Henry (Paris, 1959-77).
- Pliny, *Natural History*, edited and translated by H. Rackham *et al.* (London, 1938-62).
- Ptolemy, *Claudii Ptolemaei Geographia*, edited by C. F. Nobbe (Leipzig, 1843-5; rpr. Hildesheim, 1966).
- Strabo, *The Geography of Strabo*, edited and translated by Horace Leonard Jones (London, 1917-32).
- Theophrastus, *Enquiry into Plants*, edited and translated by Sir Arthur Hort (London, 1916).



of the capital of the Sabaeans to Mariaba in Fragment 101c. Others, however, were more important. First, since Artemidorus' primary interest in the *On the Erythraean Sea* was its value as a source of geographical information, he also omitted all of its programmatic and narrative sections. Second, he completed the partial description of the African coast of the Red Sea in Book 5 of the *On the Erythraean Sea* by interpolating additional material drawn both from the first book and other now unidentifiable sources.<sup>1</sup> Third and most important, Artemidorus abandoned the thematic organization of Agatharchides' description of the African coasts and hinterlands of the Red Sea, inserting instead the information he culled from the ethnographic and zoological sections of the *On the Erythraean Sea* at various points in his coastal description of the west coast of the Red Sea. For these reasons, thereafter, the value of Strabo's epitome to the editor of the *On the Erythraean Sea* is limited primarily to the fact that it preserves information missing in the other two abridgements<sup>2</sup> and occasionally confirms the Agatharchidean origin of passages attested otherwise only in Diodorus.<sup>3</sup>

The format of the translation reflects these facts. Its basic principles are two: first, to give priority to texts based on direct rather than indirect knowledge of the *On the Erythraean Sea*; and, second, to provide to the extent possible on the same page the full evidence concerning any particular passage. Thus, in those cases in which a passage is preserved only by Photius or Diodorus it is printed without qualification. If different versions of the same passage are found in both Photius and Diodorus, then that of Photius is printed in the left column and that of Diodorus in the right.<sup>4</sup> Finally, passages for which Strabo provides either the only evidence or confirmation of the versions of Photius or Diodorus are placed at the foot of the page and identified with superscript letters. For the reader this format means that not only are the several

<sup>1</sup> Leopoldi, pp. 13–17, pointed out that Artemidorus drew on Book 1 of the *On the Erythraean Sea* for his description of the coast from Arsinoe to Ptolemais of the elephant hunts and an unknown *Periplus* for a series of references to islands, coastal stations and hunting grounds south of Ptolemais mentioned in Strabo 16.4.9–10, C771 and 16.4.14, C773.

<sup>2</sup> For examples see Fragments 58c, 62c and 103b.

<sup>3</sup> E.g. Fragment 80.

<sup>4</sup> The only exceptions are Fragments 71b and 79, the source of both of which is Aelian.



other animals of equal size, but that they even join battle with elephants. They do this by entwining their coils around their legs and hindering their natural movement. Then, having raised their necks above the trunk, they position their head opposite the elephants' eyes and deprive them of sight by shooting flashes like lightning by means of the fiery character of their eyes.<sup>1</sup> Then hurling them to the ground, they eat the flesh of their defeated victims.

## AFRICAN COAST OF THE RED SEA

81. Now that we have examined in sufficient detail Aithiopia and Trogydytice and the adjacent territory as far as the region that is uninhabited because of the heat and, in addition, the coast of the Erythraean Sea and the Atlantic ocean which faces southward,<sup>2</sup> we shall describe the remaining portion, I mean, the Arabian Gulf, on the basis of information that we have obtained from the royal *hypomnemata* at Alexandria and that we have learned from eyewitnesses. . . .<sup>3</sup>

The Arabian Gulf, as it is called, opens into the ocean that lies in the south. In length the gulf extends for very many stades<sup>4</sup> and its

<sup>1</sup> Pliny reports a number of similar stories of snakes killing elephants in *HN* 8.33-4; and a python tripping an elephant is depicted on a late Roman mosaic discovered at Carthage (Toynbee, p. 26). For this theme at Meroe see Inge Hofmann, 'Zur Kombination von Elephant und Riesenschlange in Altertum', *Anthropos*, LXV (1970), pp. 625-6.

<sup>2</sup> The Persian Gulf and Indian Ocean, the latter viewed as part of a single ocean encircling the earth (cf. Strabo 1.4.6, C64, for this usage of the term Atlantic Ocean).

<sup>3</sup> Omitted is a promise by Diodorus to summarize new information concerning Britain when he narrates the campaigns of Julius Caesar. For the '*hypomnemata*' and 'eyewitnesses' see Introduction.

<sup>4</sup> For the various ancient estimates of the length of the Red Sea from Suez to Bab al-Mandab, which range from a low of 10,400 stades (=1,300 miles) by Ptolemy (*Geography* 5.17) to a high of 15,000 stades (=1,875 miles by Strabo (1.2.28, C35) see Müller, *GGM*, I, 165. The actual length is 1,380 miles (*Western Arabia*, p. 12).

innermost recess<sup>1</sup> is bounded by the furthest regions of Arabia and Trogydytice. Its breadth at the mouth and the innermost recess is about sixteen stades.<sup>2</sup> The crossing from the harbour of Panormus<sup>3</sup> to the opposite mainland is a day's run for a warship. Its greatest width is at Mount Turcaeus<sup>4</sup> and the offshore island of Maria,<sup>5</sup> where the two mainlands are not mutually visible. But from this point its breadth steadily decreases and contracts as far as the mouth. At many points in the course of the sailing route along the coast there are long islands divided by narrow straits and strong and turbulent currents.

82a. <sup>a</sup> Since there are many places that are remarkable and situated far off the beaten

82b. Such is the general character of the gulf. Beginning from the furthest points of the

<sup>1</sup> From Fragment 82 it is clear that 'innermost recess' is Agatharchides' term for the northernmost portion of the Gulf of Suez.

<sup>2</sup> I.e. two miles which is far short of the actual breadth of sixteen miles (*Western Arabia*, p. 58) as are the estimates of sixty stades (=7.5 miles) by Eratosthenes as reported by Strabo (16.4.4, C769) and the author of the *Periplus of the Erythraean Sea*, 25 and the seven and a half miles of Pliny (*HN* 6.170).

<sup>3</sup> The statement that the distance from Panormus to the Arabian coast was equivalent to one day's sail for a warship is useless for reconstructing Agatharchides' views concerning the breadth of the Red Sea for two reasons: first, the location of Panormus is unknown (Müller's [*GGM*, I, 165-6] equation of Panormus with Myus Hormus is unconvincing); and second, no consistent ancient rule survives for converting distances stated in terms of days sail into stades (cf. Bunbury, I, 544-6).

<sup>4</sup> Müller, *GGM*, I, 165-6, plausibly suggested that the otherwise unattested Mount Turcaeus (τὸ τῦρκαιον ὄρος) was a corruption of ταυρικῶν ὄρων, i.e., the Tauri (cf. Fragment 86). This suggestion is strengthened by Agatharchides' reference to the coast narrowing beyond Mount Turcaeus, clearly the same eastward trend of the coast as that mentioned in Fragment 84. Woelk's objection, pp. 190-1, that the Red Sea's widest point is as Massawa (c. 230 miles; cf. *Western Arabia*, p. 58) and not Suakin is not compelling in view of Agatharchides' ignorance of the coast of Eritrea.

<sup>5</sup> Probably also correct is Müller's (*ibid.*) rejection of Strothius' emendation of the manuscripts' Μαρίαν δυσπελάγιν to Μακαρίαν νήσον πελάγιν on the basis of Ptolemy, *Geography* 4.7.37 in favour of the reading Μαρίαν νήσον πελάγιν, since Agatharchides associates the island closely with the Tauri while Ptolemy places them four degrees apart, locating the island of Macaria at 14°N and the Tauri at 18°N (*Geography* 4.7.6). The island is probably the same as that located by Strabo (16.4.7, C770) north of Ptolemais of the Hunts and Mareu island, one of those in a gulf south of Berenice that, according to Pliny (*HN* 6.169; cf. Müller, *ibid.*) were administered in earlier times by Ptolemaic governors, i.e., probably the Suakin group.

<sup>a</sup> 82c. Then . . . Arsinoe, then springs of hot water that are bitter and brackish and pour out from a certain high cliff into the sea.

NB = La vraie position de M. Hormos n'avait pas encore été découverte en 1989. (Peacock & Blue 2006)  
Müller avait probablement raison!



track, I shall discuss those that are worthy of notice.<sup>1</sup>

Immediately after Arsinoe<sup>2</sup> as one sails along with the coast on the right hand side streams of hot water are encountered which pour out from a high cliff through several channels into the sea. The channels are narrow, and the water is not sweet but brackish and salty as it has a source of that kind.<sup>3</sup>

<sup>1</sup> Agatharchides' limitation of his description to highlights, which has been noted by all commentators (e.g. Müller, *GGM*, I, 166; Woelk, pp. 191–2; Fraser, I, 544), applies primarily to his account of the African coast of the Red Sea, probably because, as he notes in Fragment 86, he had already dealt in detail with Ptolemaic activity along this coast elsewhere in the *On the Erythraean Sea*.

<sup>2</sup> Named after Arsinoe II, the queen and sister-wife of Ptolemy II, Arsinoe was founded in 270/69 B.C. on the site of an earlier Egyptian settlement named Kemouer near the southern end of the canal that connected the Nile with the Gulf of Suez via the Wadi Tumilat and the Bitter Lakes and served as a nodal point for various roads entering Egypt from the east (Naviile, 'Stele', p. 72, lines 17–20; Pliny, *HN* 6.167; Oertel, pp. 25–6). Its exact location, however, is uncertain. Agatharchides and Strabo (17.1.25, C804), who says it was also called Cleopatris, perhaps having been renamed by Cleopatra VII (51–30 B.C.), seem to place it at the head of the Gulf of Suez. This has occasionally led to its being identified with Suez, but more probably it should be placed either north of Suez at Kabret on the southwest shore of the Great Bitter Lake or somewhere east of the canal linking the Great Bitter Lake to the Gulf of Suez (cf. Oertel, *ibid.*; Bernard Bruyère, *Fouilles de Clyasma-Qolzoum (Suez) 1930–1932* [Cairo 1966], pp. 17–21; Woelk, pp. 192–3).

<sup>3</sup> On the west coast of the Gulf of Suez the only possible identification is with the sulphur springs at Ayn Sukhna (29°35'N, 32°20'E; *Western Arabia*, p. 86). The description, however, fits better the hot springs at Jebel Hammam Fara'un (Bath of Pharaoh), 3 miles south of Ras Ma'ab (29°12'N, 32°55'E; cf. Wellsted, 2.34–5; *Western Arabia*, p. 79) where there is a 'precipitous cliff . . . near the sea' and 'hot salt-springs gush out near the foot of the cliff'. Most likely Agatharchides mistakenly interpolated in his account of the Egyptian side of the Gulf of Suez information concerning the west coast of the Sinai Peninsula (cf. Müller, *GGM*, I, 167, for discussion of a similar error).

innermost recess, we shall describe the voyage along the coasts of both mainlands and the most noteworthy peculiarities of each. We shall treat first the right side, the coast of which Trogydyte tribes inhabit as far as the desert.

Now, people, who sail from Arsinoe with the mainland on the right, encounter numerous streams which fall in many places from the cliffs into the sea and have a bitter brackish taste.

Then after the lake one encounters the Nile which flows through some gaps into a deep recess.<sup>1</sup>

83a.<sup>b</sup> Near the lake, in the midst of a broad plain is a red mountain which is distinguished by no other peculiarity except that it reflects this colour so strongly from the topmost point of its peak that the eyes of those who stare at it intently are generally harmed.<sup>2</sup> Immediately following is a large harbour which previously was called Myus

83b. Passing by these streams one reaches a large plain above which rises a mountain that is red in colour and impairs the sight of persons who stare at it for a long time. At the edge of the skirts of the mountain lies a harbour which has a twisting entrance<sup>3</sup> and is named Aphrodite. Above this harbour are three islands, two of which are full of olive trees and

<sup>1</sup> This passage, which is preserved only by Photius, has been condensed to the point of unintelligibility. No lake is mentioned in the fragments, and the Nile does not reach the Gulf of Suez. Probably, as Woelk, p. 194, suggested, the reference is to a deep bay into which a wadi drains that could be mistaken for a branch of the Nile such as al-Zayt Bayl (entrance 27°46'N, 33°33'E) or al-Jamsa Bay (entrance 27°38'N, 33°36'E). Certainty, however, is impossible.

<sup>2</sup> Red granite mountains are common along the coast of the Red Sea (Schweinfurth, 'Kosseir', p. 135; H. Kees, 'Miltodes Mons', *RE*, XV, 2 [1932] cols. 1707–8). Identification of the particular mountain question is, however, not possible. Although, as Wellsted, II, 125n, noted, no such mountain exists in the immediate vicinity of Abu Shar, such do exist nearby. Thus, Jules Couyat, 'Le Route de Myos Hormos et les carrières de porphyre rouge', *BIFAO*, VII (1910), p. 24, reported such a mountain a little north of Abu Shar. Wilkenson, 'Notes', p. 51, suggested that the reference might be to the al-Zayt mountains while Murray, 'Trogydytica', p. 32, identified it with 'the red granite Shayib al-Banat, 7217 feet high, the tallest of the Red Sea hills north of the Sudan border', southwest of Myus Hormus, an identification that is supported by Pliny's reference (*HN* 6.168) to a *Mons Eos*, 'Dawn Mountain', immediately after mentioning Myus Hormus.

<sup>3</sup> Cf. Wellsted, II, 124–5, who noted that H.M.S. *Palinurus* entered Abu Shar harbour 'by a winding and intricate passage. . . .'

<sup>b</sup> 83c. Nearby there is also a red mountain situated in a plain. Then Myus Hormus, which is also called the anchorage of Aphrodite, a large harbour with a twisting entrance. Three islands lie in front of it, two covered with olive trees and one, less covered, is full of Guinea Fowl.



Hormus,<sup>1</sup> but later was re-named Aphrodite.<sup>2</sup> In front of this harbour there are three islands,<sup>3</sup> two of which are thickly covered with olive trees<sup>4</sup> and one of which is less densely overgrown, but bears in great numbers the birds

thickly shaded while one is deficient in the number of the trees just mentioned but abounds with the birds called Guinea Fowl.

<sup>1</sup> Certainly 'Mussel Harbour' and not 'Mouse Harbour'. Myus Hormus together with Berenice (23°56'N, 35°29'E) at the northern end of Foul Bay and Coptus and Apollonopolis on the Nile and the desert roads linking them formed a quadrilateral characterized by Strabo (17.1.45, C815) as an 'isthmus' through which by the late first century B.C. passed the bulk of commerce between the Nile and the Red Sea. Myus Hormus' non-royal name and the silence concerning the port in the Pithom Stele suggests that it was not an official Ptolemaic foundation, but one that developed because the experience of sailors along the Egyptian coast of the Red Sea demonstrated its usefulness as a port. Although various locations have been proposed as the site of Myus Hormus including Ras Abu Soma (Müller, *GGM*, I, 167-9; Bunbury, I, 607), Safaga (Jules Couyat, 'Ports Gréco-Romains de la Mer Rouge et grandes routes du désert Arabique', *Comptes rendus de l'Académie des Inscriptions et Belles-Lettres* [1910], pp. 527-8) and Kosseir (Desanges, *Recherches*, pp. 270-1), Bir Abu Shar (27°22'N, 33°41'E; cf. Wilkinson, 'Notes', pp. 50-1; Wellstead, II, 123-5; H Kees, 'Myos Hormos', *RE*, XVI, 1 [1935], cols. 1081-3; Murray, 'Trogodytica', p. 32; and Woelk, pp. 195-6) has been generally considered the site that best meets the indications of the ancient texts, namely: (1) 1,800 stades (=225) miles from Berenice (*Periplus* 1); (2) nearby Red Mountain (cf. above note 13); (3) a water source ca. 3 miles from the site at Bir Abu Schar which could be identified with Pliny's *fons Tarnos* (*HN* 6.168); and, most important, (4) three nearby offshore islands (cf. below note 16). The only visible traces of ancient occupation at Abu Shar, however, are the ruins of a small late Roman fort for which trial excavations conducted by Professor S. Sidebotham in the summer of 1987 suggest a fifth to seventh century A.D. date (personal communication). For descriptions of the site see Wilkinson, 'Notes', *ibid.* David Meredith, 'The Roman Remains in the Eastern Desert of Egypt', *JEA*, XXXVIII (1952), pp. 102-4; L. A. Tregenza, *The Red Sea Mountains of Egypt* (London, 1955), pp. 89-108; and Murray, 'Trogodytica', *ibid.*

<sup>2</sup> This name for Myus Hormus is not attested elsewhere. Müller (*GGM*, I, 169) suggested that the name actually should be connected with the island of Iambe (cf. below note 16) which Ptolemy (*Geography* 4.5.77) refers to as Aphrodite Island. Equally possible, since Arsinoe II was posthumously identified with Aphrodite as protectress of sailors (Fraser, I, 239), the name may indicate a later official attempt to regularize the status of Myus Hormus.

<sup>3</sup> Probably the islands of Shadwan, Tawayla and Jubal (27°39'N, 33°48'E). According to Pliny (*HN* 6.168) their ancient names were Sapirine, Scytala and Iambe.

<sup>4</sup> The shora (cf. Fragment 43a). G. W. Murray, 'The Roman Roads and Stations in the Eastern Desert of Egypt', *JEA*, XI (1925), p. 141, noted that the islands were largely denuded when he visited them but that patches of shora still existing on them suggested that they may have been more densely covered with the tree in earlier times.

that are called Guinea Fowl.<sup>1</sup>

84a.<sup>c</sup> Near these places is a gulf which people call Foul Bay.<sup>2</sup> Sailing past it one encounters an island situated out to sea.<sup>3</sup> It is about eighty stades in length<sup>4</sup> and is called Snake Island.<sup>5</sup> It previously

84b. After these islands there is a large gulf which is called Foul Bay, and near it there is an extremely long peninsula. Across its neck, which is narrow, people drag ships to the sea on the opposite

<sup>1</sup> The Guinea Fowl is attested as a domesticated bird in Greece as early as the fifth century B.C. The reference is probably to the northeast African species *Numida meleagris meleagris* which is the most probable ancestor of the domesticated form (D'Arcy Wentworth Thompson, *A Glossary of Greek Birds* [Oxford, 1985], pp. 114-5; Grzimek, VIII, 43-4).

<sup>2</sup> Cf. Pliny, *HN* 9.6. The bay is located between Ras Banas (23°55'N, 35°47'E) and Abu Dara, seventy-five miles SSE. According to the *Red Sea and Gulf of Aden Pilot* (12th edition, 1980), p. 104, the coast south of Port Berenice 'is encumbered with reefs and submerged rocks. . . The whole coast . . . is foul and should not be approached. . .

<sup>3</sup> Gazirat Zabarjad (St. John's Island), 32 miles southeast of Ras Banas (23°36'N, 36°12'E); (cf. G. A. Wainwright, 'Zeberged: The Shipwrecked Sailor's Island', *JEA*, XXXII [1946], pp. 31-8; E. Bonatti et al., 'Zabargad (St John's Island): an uplifted fragment of sub-Red Sea lithosphere', *Journal of the Geological Society*, CXL [1983], pp. 677-90). Nothing is known of its history in antiquity prior to the first half of the third century B.C. when it was discovered by sailors of Ptolemy I and subsequently occupied and ruled by the Ptolemies and then the Romans until the fourth century A.D. when it, together with the Dodecaschoenus and much of the eastern deserts of Egypt, came under Blemmy, i.e. Beja, control (Pliny, *HN* 6.168, 37.24, 108; Robert P. Blake, *Epiphanius de Gemmis* [London, 1934], pp. 109, 246-7).

<sup>4</sup> Ten miles. This is greatly exaggerated since the island actually is only 4.5 square kilometres in area (Bonatti, 'Zabargad', p. 677).

<sup>5</sup> Also known as Necron (*Nekron*, the Island of the Dead), perhaps reflecting the ancient Egyptian idea that the dead lived in islands in the ocean, Pliny, *HN* 37.24; (cf. C. Conti Rossini, 'Comenti a notizie di geografi classici sovra il Sudan Egiziano e l'Etiopia', *Aegyptus*, VI [1925], pp. 8-9); Cytis, 'chest' (Pliny, *HN* 37.107) and Topazos (Pliny, *HN* 6.169, 35.39, 37.108).

<sup>c</sup> 84c. Then next is Foul Bay, and it is situated opposite the Thebaid just as is Myus Hormus. It is really 'foul' for it is rendered treacherous by submerged reefs and rocks and wind squalls most of the time.

After the gulf is the island called Snake Island from the fact that the king freed it from snakes. He did this because of the destruction of men who landed there by the beasts and also on account of the topazes. This is a translucent stone that glows with a golden lustre. In the daytime, however, it is not easy to see since it is obscured by the overall brightness; but those who collect it see it at night. They fit around each gem a vessel to serve as a marker and dig it up the next day. There used to be a detachment of men assigned to the guarding and collection of the stone which was supplied with provisions by the kings of Egypt.



supported in great numbers all sorts of serpents, but in our time it is free of them. On this island is also found the stone called Topaz.<sup>1</sup> This is a stone that is transparent, similar to glass and has a pleasant golden appearance. The inhabitants of the island, who guard and collect the stone by royal decree, gather it in the following way.

side.<sup>2</sup> One who has passed by these places encounters an island that lies some distance out to sea and which extends for eighty stades in length. It is called Snake Island; and in ancient times it was full of all kinds of fearful snakes from which it gained its name. Later, however, the kings in Alexandria strove so vigorously to reclaim the island that not one of the animals that previously existed there is still to be seen on it.

<sup>1</sup> References to its green (actually yellowish-green) colour in Pliny (*HN* 37.108) and Epiphanius, pp. 105–9, identify the stone they call topaz as peridotite which is found in gem quality in the southeastern portion of Gazirat Zabarjad (Bonatti, 'Zabargad', p. 687; 'Peridotites from the island of Zabargad (St. John), Red Sea: Petrology and Geochemistry', *Journal of Geophysical Research*, XCI, B1 [1986], pp. 602–3). The mines were visited and described by Wellsted, II, 310–11, in the early nineteenth century. Agatharchides' description of its nocturnal brilliance, however, suggests that he may have conflated in his account information concerning peridotite with data regarding another mineral found in close association with it on Zarbagad and also mined by the Ptolemies under the name *iris* (Pliny, *HN* 37.24, 136–7; Bonatti, 'Zabargad', p. 688), namely, cancrinite, a silicate of sodium, magnesium and calcium which forms large hexagonal crystals and was noted for the spectacular visual effects that could be produced with it under darkened conditions.

The meaning of the term Topazus is unclear. Pliny quotes Juba (*HN* 37.108 = *FGrH*, 275 F 75) as saying *topazin* means 'to seek' in the language of the Trogodytes, sailors often having to search for the island because it was always fog-bound. On the basis of this text Schaefer, p. 100, and Wainwright, 'Zeberged', p. 32, n. 1, proposed an Old Nubian etymology for *topazos*, deriving it from a conjugated form of a verb *tabe*, 'to seek'. The word, however, is not securely attested, as Professor Gerald Browne has informed me, nor is there evidence suggesting that the Trogodytes were Nubian speakers. More probable, therefore, is Desanges' (*Sources de Plinie*, p. 283, n. 29) suggestion that Pliny misunderstood Juba who followed the familiar ancient practice of exploiting superficial similarities of sound to suggest Greek etymologies for non-Greek names, *topazin* being merely the Greek infinitive τῶπάζειν, 'to guess or conjecture'.

<sup>2</sup> Ras Banas peninsula (23°N, 35°47'E). The practice of dragging ships across a narrow peninsula or isthmus is well attested in antiquity as a means of shortening sailing distances, in this case, probably for ships bound for Berenice from the north because of the prevailing northerly winds in this portion of the Red Sea. The best known example is the archaic shipway across the isthmus of Corinth (the so-called *diolkos*; cf. J. Wiseman, *The Land of the Ancient Corinthians* [Goteborg, 1978], p. 45) of which there is still preserved a stretch of the ancient roadway together with the ruts that guided the wagons used to transport the ships.

At night they traverse the island area by area with bowls of various sizes. By day the stone, overwhelmed by the brightness of the daylight, is invisible among the rocks because of the glare. But when darkness falls, wherever it is, it shines in all directions. When a guard observes one, he covers the gleaming stone with a bowl that matches in size the phenomenon seen by him and serves as a marker. Then, when day comes, he cuts out a circle of rock equal in size to the aforementioned bowl and turns it over to skilled workmen who are able to polish it.<sup>1</sup>

We must not, however, omit the reason for their vigorous attempts to reclaim the island. For the stone called topaz is found on this island. It is a delightful transparent stone, similar to glass, and with a wonderful golden appearance. For this reason the island is kept closed to visitors, and any person who lands on it is put to death by the guards stationed there. These guards, who are few in number, lead a wretched life. For, in order to prevent any stone being stolen not a single boat is left on the island. Those sailing by do so at a distance because of fear of the king. The supplies that are imported are quickly consumed, and other sources of food native to the island are wholly lacking. Consequently, whenever there are few provisions left, the people all sit around the village awaiting the arrival of the ship bringing their supplies. Whenever these are delayed, however, they are reduced to despair.

<sup>1</sup> The island is barren and without sources of fresh water (*Western Arabia*, p. 106). The miners were probably free men performing a liturgy, that is, a compulsory public service (Fitzler, pp. 50–1) rather than convicts as suggested by Wellsted, II, 311). The security measures described by Agatharchides are similar to those attested for other Ptolemaic monopolies involving the production and processing of valuable goods (cf. Pliny, *HN* 12.59 on the processing of aromatic substances at Alexandria). Presumably, after preliminary cleaning and polishing the stones were sent to Berenice for transshipment to Alexandria via Coptus. The use of the imperfect tense by Strabo in Fragment 82c suggests that organized royal exploitation of Gazirat Zabarjad's mineral deposits had ceased by the early first century A.D.



The aforementioned stone, however, which is found among the rocks, is invisible during the day because of the glare since it is overwhelmed by the brightness of the sun; but when night falls, it shines in the dark and is visible from afar wherever it may be. The island's guards, who have divided up these places by lot, go the rounds and cover a stone that has become visible with a bowl the same size as the glowing stone, which serves as a marker. In the daytime they then go around and cut away the marked piece of rock and turn it over to the craftsmen who are able to polish it properly.

85a.<sup>d</sup> After these places the sea is so shallow that it measures not more than two fathoms. Everywhere it is green, not because of the nature of the waters but because of the seaweed and other vegetation that is visible through the water. For this reason innumerable sea dogs<sup>1</sup> are found there. For

85b. After sailing by these places one comes to a section of coast inhabited by many tribes of Fisheaters and numerous Trogydyte nomads. In these regions there are all kinds of mountains with their own peculiarities as far as the harbour called Soteria, which received this name from the

<sup>1</sup> Cf. Fragment 33a. → sharks

<sup>d</sup> 85c. After this island there are numerous tribes of Fisheaters and nomads. Then there is the harbour of Soteria, which some of the commanders, who escaped great perils, so-named from this occurrence. After these places there is a great change in the character of the coast and the gulf. For the voyage along the coast is no longer difficult, the track running somewhat closer to Arabia and the sea being shallow, reaching a depth of almost two fathoms. The surface has a grassy appearance because the seaweed and vegetation that flourish in the strait are visible through the water. In some places in this region trees also grow under water. The strait is also full of sea dogs.

the same reason, the part of the sea just described<sup>1</sup> is well suited to war ships and small oared vessels, as it is calm, undisturbed by waves from a distance and furnishes unbelievable fishing.

The disasters that befall the elephant transports,<sup>3</sup> however, arouse great pity for their victims from spectators. For sudden waves impale the ships on

first Greek sailors to find safety there.<sup>2</sup> After these areas the gulf begins to narrow and to turn towards Arabia. The nature of the land and the sea take on a different character also because of the peculiarity of the region. For the mainland is observed to be lowlying without high ground rising above it anywhere; and the sea, being all shoals, is found to be not more than three fathoms in depth and extremely green in colour. People say this phenomenon does not occur because the nature of the water is of such a sort but as a result of the

<sup>1</sup> Fragment 86b makes it clear that the reference is to the coast after Soteria/Suakin, which is low and sandy as far as Ras Asis (18°25'N, 38°08'E; *Western Arabia*, p. 113). Cf. the similar remarks of the sixteenth century A.D. Portuguese navigator Don John de Castro (B. Kennedy Cooke, 'The Red Sea Coast in 1540', *SNR*, XVI [1933], p. 153) on dangers of the waters near Suakin: 'For strength, the City seems naturally well secured, by the many shoals, islands, Rocks, Sandbanks, and intricate channels, that lie for sixteen leagues about it; which makes the approach by Sea very dangerous and terrible to Navigators. . . .'

<sup>2</sup> Salvation Harbour. Probably to be identified with Ptolemy's (*Geography* 4.7.6) Harbour of the Saviour Gods (*Theon soteron limen*), i.e., Ptolemy I and Berenice who were posthumously deified by Ptolemy II in the 270s B.C. Two locations have been proposed for Soteria, namely, Port Sudan (19°37'N, 37°14'E; Crowfoot, *Red Sea Ports*, p. 530) and Suakin (19°07'N, 37°20'E; Müller, *GGM*, I, 172; Woelk, pp. 200–1). Although indications of possible ancient occupation have been reported at both sites (cf. H. N. Chittick, 'A cistern at Suakin, and some remarks on burnt bricks', *Azania*, XVI [1981], pp. 181–3), Agatharchides' reference to the eastward trend of the coast after Soteria suggests the latter is to be preferred.

<sup>3</sup> The term *elephantegos*, found only in this passage of Agatharchides and P. Petrie II 40 (a), designates a ship specifically designed for the transport of elephants. Unfortunately, no details survive concerning the design of these ships, which P. Petrie II 40 (a) indicates were built and based at Berenice, but Professor L. Casson has pointed out to me that Agatharchides' emphasis on the problems they encountered *when running under sail* suggests that they were modified large merchant galleys (personal communication). The more detailed reconstruction proposed by Walter Krebs, 'Einige Transportprobleme der antiken Schifffahrt', *Das Altertum*, XI (1965), pp. 96–101, on the assumption that such a ship should have been able to transport ten elephants together with sufficient food and water for ten days is too speculative to be convincing.



rocks or drive them onto sandbars and make rescue impossible for the sailors that man them. At first, the sailors are depressed by great sadness, but they do not give up hope for a good outcome since some, who were thus stranded, have been saved by the tide which lifts them off as the mass of water rises suddenly from the sea. But when their supplies begin to fail, they endure a myriad of ills and then, finally, they all die either from hunger or – not enduring a lengthy period of hunger – by the knife or by hurling themselves into the sea.

abundant seaweed and vegetation that is visible under the water. The region presents no problems for oared ships as waves do not come in from afar, and it furnishes abundant fishing. But the elephant transports, which ride deep in the water because of their weight and are burdened with their gear, encounter great and terrible dangers sailing in these areas. For running with sails set and often continuing through the night because of the strong winds, they are wrecked when they run aground on the rocks or submerged bars. The sailors are unable to disembark because generally the water is deeper than the height of a man. When they do not succeed in saving their ship with their poles, they throw overboard everything except the food. If they do not escape in this way, they fall into great despair because there is neither island nor headland nor another ship to be seen in the vicinity. For these places are completely inhospitable, and rarely do people sail through them in ships. Besides these evils the tide quickly throws so great an amount of sand around the hull of the ship and heaps it up in so remarkable a way that a circular mound is built up, and the ship becomes

bonded to the land as though it were done intentionally.

Those who experience such a misfortune, at first, bewail their fate moderately to a mute land as they have not completely abandoned hope of ultimate salvation. For often the tidal swell has come on such men, lifted up their ship and, like the manifestation of a god, saved those who were in the most extreme peril. But when the divine aid just mentioned does not materialize and the food begins to run out, the stronger sailors throw the weaker into the sea so that the remaining supplies might last several days longer. Finally, however, after having lost all hope, they die a far worse death than those who had perished previously. For they returned to nature in a brief moment the spirit it had given them. These men, however, by dividing the process of dying into many wretched moments, suffer an end to living that is a long drawn-out agony. These ships, thus pitifully deprived of their crews, remain like cenotaphs for a long time buried on all sides in sand. With their sails and masts set, they impel to pity and sympathy for the dead sailors people who see them from afar. For there is a royal decree that they be left as



markers to signal to mariners the places that produce destruction. Among the Fisheaters who live nearby there is a traditional tale, whose outline has been preserved by their forefathers, to the effect that during one particularly great ebb tide the whole portion of the gulf that appears green became dry land as the sea divided into opposing parts and the land under the water was uncovered. Then a huge flood came back and restored the water to its former place.

86a. The places as far as the Tauri<sup>1</sup> and Ptolemais<sup>2</sup> have

86b. As for the voyage along the coast after these places, we

<sup>1</sup> I.e., the Bulls. Presumably a prominent mountain group near Suakin since Strabo (16.4.7, C770) and Ptolemy (*Geography* 4.7.6) both place them in the immediate vicinity of Soteria, the former before and the latter after, but identification with particular mountains is not possible.

<sup>2</sup> It is clear from the reference in the Pithom stele (Naviile, *Stele*, p. 73, line 24) to cultivated fields that Ptolemais of the Hunts was a true self-supporting colony and not a hunting station (Conti Rossini, pp. 5–10). Unlike most of the Ptolemaic foundations south of Egypt Ptolemais survived into the Roman imperial period, albeit having lost much of its importance as the principal gateway to the African interior to Adulis as a result of the emergence of the kingdom of Axum in the Ethiopian highlands as an important power in the first century A.D. (Pliny, *HN* 6.173; *Periplus* 4).

Although it is clear that Ptolemais was located somewhere between Suakin and Ras Kasar (18°02'N, 38°35'E), the bulk of scholarly opinion concerning its exact location is divided between the vicinity of Trinkitat (18°41'N, 37°45'E: Müller, *GGM*, I, 172; Hans Treidler, 'Ptolemais', *RE*, XXIII, 2 [1959], cols. 1879–80; Woelk, pp. 203–4) and 'Aqiq (18°12'N, 38°10'E: Crowfoot, *Red Sea Ports*, pp. 530–4; Hofmann, pp. 89–94; Desanges, *Recherches*, pp. 273–4) where Crowfoot reported the discovery of classical architectural fragments. The few explicit classical references to Ptolemais' location, Pliny (*HN* 2.183, 6.171) placing it 602.5 miles and the *Periplus of the Erythraean Sea* (3) (4,000 stades (=500 miles) south of Berenice, unfortunately, are of little use since both are greatly exaggerated, the actual distance being c. 350 miles. More important, however, is the circumstantial evidence. Particularly significant are three facts, namely, that Ptolemais lay south of the mouth of a branch of the Atbara River, i.e., the Baraka whose headwaters are, in fact, near those of the Atbara (Strabo 16.4.8, C770); its being an open roadstead rather than a proper harbour (*Periplus* 3); and the eastward turn of the coast after Ptolemais. Taken together these facts point to 'Aqiq rather than Trinkitat as the correct location of Ptolemais.

been described.<sup>1</sup> Beyond those places, however, the coast changes significantly since the land further on no longer faces towards the south but turns continually more and more eastward<sup>2</sup> and casts shadows for up to two hours<sup>3</sup> in the direction opposite north. In addition, it is watered by rivers that arise from sources in the Psebaean Mountains.<sup>4</sup> The

described the segment from Ptolemais until the promontories of the Tauri when we recounted Ptolemy's hunting of elephants. From the Tauri, however, the coast turns towards the east, and at the time of the summer solstice shadows fall to the south – the reverse of what happens in our country – until the second hour. The area contains rivers which flow from

<sup>1</sup> The reference to the connection of this description with Agatharchides' account of Ptolemy (II?)'s elephant hunting activity in Fragment 86b suggests that it was in book 1 of the *On the Erythraean Sea*. For possible fragments see Appendix.

<sup>2</sup> The similar reference to the sharply eastward turn of the coast beyond Ptolemais by Eratosthenes (Strabo 16.4.4, C768) clearly indicates that Agatharchides' third century B.C. sources ignored or were ignorant of the southerly trend of the coast between Ras Kasar and Massawa (15°37'N, 39°29'E).

<sup>3</sup> The reference is probably to the report of a naval officer of Ptolemy II named Philon that at Ptolemais for a period of forty-five days before and after the summer solstice shadows fell to the south from noon to sunset (Strabo 2.1.20, C77; Pliny, *HN* 2.183–5, 6.171) because Ptolemais was south of the Tropic of Cancer. On the basis of this and reports that the longest day at both Ptolemais and Meroe was thirteen hours (Strabo 2.5.36, C133; Ptolemy, *Geography* 8.16.9–10) Eratosthenes wrongly concluded that Meroe and Ptolemais were on the same parallel of latitude (Ptolemais is further north; cf. Strabo, *ibid.*; Pliny, *HN* 6.220; Treidler, 'Ptolemais', cols. 1876–7). The puzzling claim that shadows fell to the south for 'up to two hours' (τέως δυεῖν ὥρων) in Fragment 84a or 'until the second hour' (ἄχρι πρὸς ὥραν δευτέραν), i.e., until c. 7 a.m., in Fragment 84b suggests, however, that Agatharchides may have misunderstood his source since ancient astronomers considered only the direction of the sun's shadow at noon as significant for the determination of latitude.

<sup>4</sup> Psebaean Mountains, as Woelk, p. 205, noted, is Agatharchides' term for the chain of mountains that begins east of the Baraka river and extends southward through Eritrea and Ethiopia to Bab al-Mandab (cf. *Western Arabia*, p. 144). The interpretation of the significance of the adjective Psebaean is not clear. First attested in the late fourth century B.C. in the form Psebo or Psepho as the name of a region in southern or southeastern Aithiopia, i.e., the southern Sudan or western Eritrea (Aristagoras, *FGrH*, 609 F 10; Theophrastus, *De Lapidibus* 6.34), it also occurs as the name of a lake south of Meroe containing an island, presumably Lake Tana (Strabo 17.2.3, C822; Stephanus, s.v. *Psebo*). Taken together this evidence indicates that Psebo and the related adjective Psebaean designated not just the coastal mountains but the Ethiopian plateau as a whole and its western approaches. II. Treidler, 'Psebaia ore', *RE*, XXIII, 2 (1959), col. 1320, plausibly suggested that the usage originated from the presence of an ethnic group of that name in this area, but the sources contain no reference to such a group. Conceivably, Psebo might be explained as a transcription of an Egyptian toponym consisting of the article *Pa* + *Sebo* and be interpreted as referring to the Sabaeans whose presence along the coast of



part of the country that stretches into the interior is full of elephants, rhinoceroses, bulls and pigs,<sup>1</sup> but the whole coastal region is dotted with numerous islands that are naturally infertile but abound with unknown species of birds.<sup>2</sup>

From this point on the sea is deep and navigable, and contains whales so huge that observers experience anxiety. No one, however, has died as a result unless they accidentally fell on their backs because of ignorance of the

the mountains that are called Psebaean. The region is divided up into large plains which bear an unbelievably large amount of mallow, cress and palm trees. These plains also bear all kinds of fruits that have a bland taste and are unknown in our countries.<sup>3</sup> That part of the country that extends into the interior abounds in elephants, wild bulls, lions and numerous other fierce beasts of all kinds. The sailing route near the coast is broken up by islands which bear no domesticated fruit but species of birds which are unique and remarkable in appearance.

Further on, the sea is very deep and brings forth all kinds of sea monsters of extraordinary size, which, however, cause no harm to men unless one unwittingly falls on their backs. For they cannot pursue sailors since their eyes, should

Eritraea is attested in Hellenistic sources (Strabo 16.4.8, C770; 16.4.10, p. 771; Ptolemy, *Geography* 4.7.8) and archaeologically on the Ethiopian plateau as early as the beginning of the fifth century B.C. (Kobishchanov, p. 25), a suggestion that is strengthened by Stephanus' (*ibid.*) possible reference to a related ethnic in the form of *Saboites*.

<sup>1</sup> The list of animals indicates the region is the same as that discussed in Fragments 50–6 and 67–79. Like the Egyptians before them, Ptolemaic agents gained access to this area via the Baraka River valley (cf. Kitchen, pp. 202–3; Fattovich, *In Search of Punt*, pp. 108–9).

<sup>2</sup> Probably the islands of the Dahalak Archipelago (from c. 17°11'N, 39°24'E to 15°23'N, 40°38'E).

<sup>3</sup> Probably a reference to the Tokar district which has become an important cotton growing area in the twentieth century (*Western Arabia*, pp. 113–4).

reports concerning these beasts. For they cannot boldly follow sailors because these creatures' eyes are blinded whenever they raise their heads out of the sea.

they be raised out of the water, are blinded by the glare of the sun. These, therefore, are the most distant portions of Tro-godytice that are known, those which are delimited by the peaks people call Psebaean.

## ARABIAN COAST OF THE RED SEA

87a.<sup>a</sup> But we shall take up the remaining portion, the opposite shore which joins Arabia,<sup>1</sup> and describe it, beginning again from the innermost recess. This is named *Poseideion*<sup>2</sup> and was founded by Ariston, who was despatched by Ptolemy to explore Arabia as far as the ocean and established there an altar dedicated to Poseidon Pelagaeus. Immediately after the innermost recess is a place by the sea which is exceptionally highly regarded by the natives because of the benefit derived from it. The place is named *Palm-Grove*,<sup>3</sup> and it contains an abundance of this kind of tree which is extraordinarily fruitful and particularly conducive to pleasure and luxury. All the nearby surrounding country, however, lacks springs and is fiery hot

<sup>1</sup> As in Fragment 81 Agatharchides begins his description from the head of the Gulf of Suez, describing first the west coast of the Sinai Peninsula before passing to the coast of the Arabian Peninsula in Fragment 89.

<sup>2</sup> Exact location unknown, although clearly somewhere on the northwest coast of the Sinai Peninsula. The foundation of an altar to Poseidon Pelagaeus, 'Poisedon of the sea', one of the commonest forms of Poseidon (Pausanias 7.21.3) marked the formal beginning of Ariston's voyage.

<sup>3</sup> More probably to be identified with the oasis near the village of *Tor* (14.5°N, 33°37'E; cf. Woelk, pp. 209–10; *Western Arabia*, p. 81) than Feiran as suggested by Avraham Negev, *Nabataean Archaeology Today* [New York, 1986], p. 114). In the early nineteenth century, when Wellsted, II, 9–13, visited and described it, the palm trees were watched over by a priest who lived in a small tower in one corner of the grove.

<sup>a</sup> 87b. After saying these things about the Trogodytes and the neighbouring Aithiopians, Artemidorus turns to the Arabs, and describes first the Arabs who border on the Arabian gulf and are located opposite the Trogodytes, beginning from Poseidion. He says that this place is located further in than the Aelanites Gulf. Adjacent to Poseidion is a palm grove that is well-watered and is highly valued because the whole surrounding area is fiery hot, waterless and shadeless, but the fertility of the palms there is remarkable. A man and woman watch over the grove. They are appointed on a hereditary basis, wear skins and derive their sustenance from the palms. They build huts in the trees and sleep in them because of the numerous wild animals.



because of its southern orientation. For this reason the barbarians rightly designated as sacred the place that supports trees and that, although situated in the midst of the most desolate regions, supplied their food. For not a few springs and streams emerge in it that are not inferior in their coldness to snow. These make the land on either side of them green and pleasant in every way. There is also an ancient altar that is made of hard stone and bears an inscription in lettering that is archaic and unintelligible. The sanctuary is cared for by a man and a woman who occupy their sacred office for life. The inhabitants of this place are long-lived and make their beds in the trees because of their fear of wild animals.

88. The portion of the interior that is visible from the Palm-Grove is filled with rocky peaks of various heights, but the part that extends towards the sea is narrow and long.

89a.<sup>b</sup> Adjacent to the coast just mentioned is a region people have named Duck Country<sup>1</sup> because of the abundance of these creatures. Duck Country itself lies near a very thickly wooded promontory.<sup>2</sup> If one sights along a straight line drawn through it, the line would extend to the so-called Rock<sup>3</sup>

89b. After sailing past the Palm-Grove one encounters near a promontory of the mainland an island which has been named Seal Island from the animals that live on it. For so great a number of these animals frequent these places that observers were amazed. The promontory, which is situated

<sup>1</sup> In fact, the reference is to Seal Island as is clear from Fragments 89b and 89c, 'Duck Country (Νῆσος)' in Fragment 89a being the result of a misinterpretation of the word νῆσος, 'island', by Photius (cf. Woelk, p. 73, n. 1). Seal island is the Island of Tīrān (27°55'N, 34°34'E; cf. Alois Musil, *The Northern Hegāz: A Topographical Itinerary* [New York, 1926], p. 302).

<sup>2</sup> The description of the promontory as oriented towards Palestine and lying in front of (προκειμενον) Tiran indicates that it is to be identified with Ras al-Qasbah (28°02'N, 34°37'E) which terminates the mountain chain that extends along the eastern side of the Gulf of 'Aqaba and not Ras Muhammed (27°44'N, 34°15'E) at the southern tip of Sinai as suggested by Woelk, p. 211.

<sup>3</sup> I.e. Petra, the religious and political centre of the Nabataeans located at and around the flat topped cliff of Umm al-Bayrah at Selah (30°19'N, 35°26'E) in Jordan. Archaeology indicates that in the early Hellenistic Period Petra was primarily a place of refuge and a sanctuary (cf. Diodorus 2.48.2, 19.94.5) rather than a city, since the extensive ruins still visible at the site date to the first century B.C. and first and second centuries A.D. (cf. J.-P. Rey-Coquais, 'Petra', *The Princeton Encyclopedia of Classical Sites*, ed. Richard Stillwell et al. [Princeton, 1976], pp. 694-5; Avraham Negev, 'The Nabataeans and the Provincia Arabia', *ANRW*, II, 8 [Berlin, 1977], pp. 590-1).

<sup>b</sup> 89c. Next in order is Seal Island which is named from the abundance of these

and Palestine to which the Gerrhaeans,<sup>1</sup> Minaeans<sup>2</sup> and all the Arabs, whose settlements are nearby, bring frankincense, as is the report, together with cargoes of incense from the upper country.

in front of the island, lies below the area called the Rock and Palestine. It is to this region that the Gerrhaeans and Minaeans bring, as is the report, frankincense and other aromatic products from what is called upper Arabia.

<sup>1</sup> Linkage of the Gerrhaeans and Minaeans in the third century B.C. incense trade is confirmed by the reference to Gerrhaean and Minaean weights in P. Cairo Zeno 59536, lines 11-12. When first mentioned by Greek historians during the reign of Alexander (Aristobulus, *FGH*, 139 F 57=Strabo 16.3.3, C766; cf. Polybius 13.9), Gerrha was an Arab state whose prosperity depended on its role as middleman in the commerce between the Persian Gulf region and Syria via a route that ran up the Euphrates River to Thapsacus and thence westward to Syria-Palestine. The site of Gerrha has not been located, a problem that is complicated by two facts: (1) Gerrha may not be a proper name at all but merely a Greek transcription of Arabic *qariya*, 'town', (A. F. L. Beeston, 'Some Observations on Greek and Latin Data Relating to South Arabia', *BSOAS*, XLII [1979], p. 7, n. 5); and (2) it was not merely a port but a state in eastern Arabia opposite Bahrain with a sizable territory that included both inland and coastal districts. Nevertheless, among the various possible locations for the capital of the state of Gerrha that have been proposed most scholars now favour Hufuf in the Hasa Oasis although the ruined city of Thaj west of Jubayl and the coastal site of Doha Dhalum are still considered possible (cf. the recent reviews of the problem by Geoffrey Bibby, *Looking for Dilmun* [New York, 1969], pp. 307-28; W. E. James, 'On the Location of Gerra', in Franz Altheim and Ruth Stiehl, *Die Araber in der Alten Welt*, V, 2 [Berlin, 1969], 36-57; N. St. J. Groom, 'Gerrha: A Lost Arabian City', *ATLAL*, VI [1982], pp. 97-108; and Daniel T. Potts, 'Thaj and the Location of Gerrha', *PSAS*, XIV [1984], pp. 87-93).

<sup>2</sup> The earliest mention of the kingdom of Ma'in with its capital Carna (Qarnawu) is found in Strabo's summary (16.4.2, C768) of Eratosthenes' description of Arabia. At its peak between the fourth century B.C. and its conquest by Saba c. 120 B.C. the kingdom extended from its centre in the oasis of al-Jawf southeastward to the Hadramawt and enjoyed a virtual monopoly of the caravan trade in aromatic substances from the incense growing areas in Dhufar through the Hejaz via Medina and al-Ula, where there was a Minaean trading colony, to Palestine (cf. Doe, pp. 66-70; H. von Wissmann, 'Die Mari Erythraeo', p. 307; 'Geschichte', pp. 341, 415-21; Groom, *Frankincense and Myrrh*, pp. 177-8; and David F. Graf, 'Dedanite and Minaean (South Arabian) Inscriptions from the Hisma', *Annual of the Department of Antiquities*, XXVII [Amman, 1983], pp. 563-5). Besides the Papyrological evidence cited in note 1 Minaean involvement in the trade in aromatics is attested outside the Arabian peninsula in the third and second centuries B.C. by the sarcophagus of a Minaean merchant who supplied Egyptian temples with incense (cf. Abdel Monem A. II. Sayed, 'Reconsideration of the Minaean Inscription of Zayd'il bin Zayd', *PSAS*, XIV [1984], pp. 93-9 with the comments of A. F. L. Beeston, 'Further Remarks on the

animals. Near this island is a promontory which stretches towards the Rock of the Arabs called Nabataeans and the country of Palestine. To this region the Minaeans, Gerrhaeans and all their neighbours bring cargoes of aromatic substances.



90a.<sup>c</sup> In former times the Maranitae occupied the next section of the coast,<sup>1</sup> but later the Garindanes, who were their neighbours. The Garindanes gained control of the country in the following manner. During a festival that was celebrated every four years in the Palm-Grove, which was described earlier, the neighbouring peoples would come from every direction to sacrifice in the sanctuary hecatombs of finely reared camels to the gods and, in addition, also to bring back to their homelands some of the water from it because of a tradition that a drink of it brings good health to those who make use of it. When, therefore, the Maranitae had gone to the festival for these reasons, the Garindanes slaughtered those who had been left behind in the country and then ambushed and wiped out those who were returning from the festival. Having thus emptied the country of its inhabitants, they divided up the plains which were fertile and produced rich pasturage for their flocks. This coast has few harbours and is broken up by numerous large mountains which, as they have a variety of colours, furnish an amazing sight to those sailing by it.

After sailing past this country, one encounters the Laeanites Gulf<sup>2</sup>

Zayd'il Sarcophagus Text', *PSAS*, XIV [1984], pp. 100–2) and a dedication by two similar merchants to the god Wadd on Delos (Felix Durrbach, ed., *Choix d'Inscriptions de Délos* [Paris, 1921–2], 129). The organization of the caravan trade is described by Pliny, *HN* 12.52–5.

<sup>1</sup> I.e. of the Sinai Peninsula.

<sup>2</sup> Cf. Pliny, *HN* 6.156 for the ancient debate concerning the name of the Gulf of 'Aqaba. The name Laeanites Gulf in Fragment 90a reflects the influence in northwestern Arabia between approximately the fourth and second century B.C. of the Arab kingdom of Lihyan which was centred in the oasis of al-Ula (cf. Musil, p. 303; F. V. Winnett, and W. L. Reed, *Ancient Records from North Arabia* [Toronto, 1970], pp. 116–20; and A. J. Drewes, 'Lihyan', *Encyclopedia of Islam*, New Edition, Vol. V, Fasc. 89–90 [Leiden, 1983], pp. 761–3). The alteration of the name to Aelanites Gulf by Artemidorus, thereby deriving it from the port of Aelana or Aila (modern Elath in Israel; cf. Strabo 16.2.30, C759; A. Negev, 'Aelana or Aila', *Princeton Encyclopedia of Classical Sites*, p. 12) equally clearly indicates that by 100 B.C. the Lihyanite kingdom had disappeared, perhaps as a result of the expansion of the Nabataeans in the second century B.C.

<sup>c</sup> 90b. Then there is another stretch of coast, formerly called the land of the Maranitae, some of whom were farmers and some tent-dwellers, but now that of the Garindanes who destroyed the former people by treachery. For they attacked and killed some of them while they were conducting a certain festival that was celebrated every four years. They also set on and utterly destroyed the rest of the people. Then there is the Aelanites Gulf and Nabataea, a land that is populous and rich in pasturage. These people also inhabit the nearby offshore islands. Formerly, they were peaceful, but later they began to use rafts to plunder those sailing from Egypt. They paid the penalty for this, however, since a fleet attacked and ravaged their country.

around which there are many villages of the so-called Nabataean Arabs.<sup>1</sup> They occupy much of the coast and not a little of the adjacent country which extends into the interior and contains a population that is unspeakably great as well as herds of animals that are unbelievably numerous. In ancient times they led a just life and were satisfied with the livelihood provided by their flocks, but later, after the kings in Alexandria had made the gulf navigable for merchants, they attacked those who suffered shipwreck. They also built pirate vessels and plundered sailors, imitating the ferocity and lawlessness of the Tauri in the Pontus.<sup>2</sup> But later they were caught at sea by quadriremes and properly punished.<sup>3</sup>

91a.<sup>d</sup> After what is called the Laeanites Gulf, around which Arabs live, is the land of the Bythemaneans.<sup>4</sup> It is a large plain, all of which is well-

91b. After these places there is a well-watered plain which, because of the streams that flow through it everywhere, grows dog's tooth grass, lucerne and

<sup>1</sup> It is not clear if the Nabataeans were a single tribe or union of tribes at the time their presence as a semi-nomadic Arab population near Petra is first attested in 312 B.C. by Hieronymus of Cardia, who led an unsuccessful campaign against them in that year and whose account is preserved in Diodorus 2.48 and 19.94–100 (cf. Jane Hornblower, *Hieronymus of Cardia* [Oxford, 1981], pp. 144–50). Agatharchides' description of their life prior to the beginning of Ptolemaic activity in the Red Sea is considerably idealized since Hieronymus already described them as both middlemen in the trade in aromatic substances and raiders (Diodorus 2.48.2, 19.94.5). By the first half of the second century B.C. at the latest, however, they had coalesced into a kingdom which at the time of its suppression by the Romans in 106 A.D. included much of Sinai, the Negev and Transjordan from the Syrian Haurān to the Gulf of 'Aqaba and the northern Hejaz as far south as al-Ula (cf. Nelson Glück, *Deities and Dolphins* [New York, 1965; Negev, 'The Nabataeans and the Provincia Arabia', pp. 521–686; G. W. Bowersock, *Roman Arabia* [Cambridge, Mass., 1983], pp. 12–28, 59–75).

<sup>2</sup> A non-Greek population inhabiting the southern coast of the Crimea who were notorious for their activities as wreckers and for their reputed practice of sacrificing foreigners who fell into their hands to their patron goddess (cf. E. E. Minns, *Scythians and Greeks* [London, 1913], p. 100; V. F. Gaidukevič, *Das Bosporianische Reich* [Berlin, 1971], p. 303, n. 1).

<sup>3</sup> Probably during the reign of Ptolemy II (cf. Fraser, II, 300, n. 350, who dates this campaign to the 270s B.C.).

<sup>4</sup> The reference is to the lower portion of the Wadi al-Abjaz, namely, the so-called Wadi al 'efal, a lowland 50 km long by 20 km wide just east of the Gulf of 'Aqaba (Musil, p. 303; *Western Arabia*, p. 40).

<sup>d</sup> 91c. Next there is a plain that is well-wooded, copiously supplied with water and full of grazing animals of all sorts including onagers. Wild camels, deer and gazelles also abound in it together with numerous lions, leopards and jackals. Further, an island called Dia lies offshore.



watered and lush with vegetation, albeit only dog's tooth grass, lucerne and lotus as tall as a man. All crops are restricted to this, and people cultivate nothing else. For this reason there are many wild camels in the plain and numerous herds of antelope and gazelles, many flocks of sheep and untold numbers of onagers and cattle. Joined to these advantages, however, is a countervailing evil since the region abounds with lions, wolves and leopards so that the natural bounty of the land is the cause of misfortune for its inhabitants.

92a.<sup>c</sup> Next after this section of the coast is a bay which extends into the interior of the country for a distance of not less than five hundred stades.<sup>2</sup> Those who inhabit the territory within the gulf are called Batmizomaneis<sup>3</sup> and are hunters of land animals.

also lotus the height of a man. Because of the abundance and excellence of the pasturage it not only supports flocks and herds of all sorts in unspeakably great numbers but also wild camels and, in addition, deer<sup>1</sup> and gazelles. In response to the abundance of animals which breed there, crowds of lions, wolves and leopards gather from the desert. Against these the herdsmen are compelled to fight day and night in defence of their flocks. Thus, the advantage of the country is the cause of misfortune to its inhabitants because Nature generally gives men together with good things those that are harmful.

92b. Sailing past these plains one encounters a bay which is of a paradoxical character. For it narrows to a point as it penetrates into the heart of the country. In length it extends for five hundred stades and is bounded on all sides by cliffs of amazing size. Its mouth is

<sup>1</sup> Deer are not found in Arabia. Presumably antelope of some kind was intended.

<sup>2</sup> Probably 'Aynuna Bay (28°02'N, 35°03'E) whose 'approach is much encumbered with rocks and reefs' but can be entered from the south by 'a tortuous channel (*Red Sea Pilot*, p. 155; cf. Müller, *GGM*, II, 180)'.  
<sup>3</sup> Identification uncertain. Musil, pp. 292–3, 304, interprets the name as Bani Zomejn and suggests that they be identified with the Marsimanu (=Barsimanu; James B. Pritchard, ed., *Ancient Near Eastern Texts Relating to the Old Testament*, 3rd ed. [Princeton, 1969] encountered by the Assyrians in the Hejaz in the late eighth century B.C.

<sup>c</sup> 92c. Then there is a bay, about five hundred stades in extent, encircled by mountains and with an entrance that is difficult to penetrate. Men who hunt wild land animals live around it.

twisting and difficult of egress for a rock, which juts out to sea, blocks the entrance and make it impossible to sail in or out of the gulf. Further, when the current increases and the winds change, waves crash on the rocky shore and create eddies everywhere around the projecting rock. The people who inhabit the country beside the gulf, who are named the Banizomenes, support themselves by hunting and eating the flesh of land animals. A very sacred temple has been established there which is highly revered by all the Arabs.

93a.<sup>f</sup> Off shore from the territory just mentioned lie three islands which create numerous harbours.<sup>1</sup> The first of these islands is named the Shrine of Isis, the second Soukabya and the third Salydo. All are uninhabited and densely covered with olive trees, not, however, the kind that grows in our countries but that native to these places.<sup>2</sup>

93b. Immediately after the stretch of coast just described are three offshore islands which provide numerous harbours. Historians record that the first of these is sacred to Isis. It is deserted but there are found on it stone foundations of ancient houses and steles inscribed with barbarian characters. The other islands are likewise also deserted, but they all are overgrown with olive

<sup>1</sup> Probably, as suggested by Müller, I, 180, and Woelk, p. 221, the three large islands southeast of Tiran, namely, Sinafir, Shusha and Barqan. If, however, the island of Dia, i.e. 'Zeus Island', mentioned in Fragment 91c is to be identified with Sinafir as suggested by Musil, pp. 124, 305, then the third island may be either Al Rayman or Al-Maksud.  
<sup>2</sup> I.e. the Shora Tree.

<sup>f</sup> 93c. Then there are three uninhabited islands that are full of olive trees, not those found in our countries but a local variety which we call Aithiopian, the gum of which, moreover, has medicinal power.



94a.<sup>g</sup> After these offshore islands one can see a rocky and long stretch of coast. It is the territory of the Thamoudeni Arabs.<sup>1</sup> The voyage along this stretch of coast is more than a thousand stades in length and is the most difficult of all, for there is nothing, no harbour offering a safe anchorage, no open roadstead to anchor at, no gulf providing shelter, no manner of breakwater capable of providing the sailor with a refuge if necessary.<sup>2</sup>

95a.<sup>h</sup> A mountain range with sheer and frighteningly high rocks on its summits runs along this coast. At its base there are numerous sharp rocks in the sea, and behind them are ravines which have been eaten away from below and are twisted in shape. As these are interconnected and the sea is deep, the tide when it comes in and

<sup>1</sup> The Thamud. First attested in central Arabia in the eighth century B.C. as a nomadic Arab tribe in conflict with the Assyrians (*ANET*, p. 286), the Thamud were from the sixth century B.C. until the fifth century A.D. the head of a confederation of tribes located in the northern Hejaz with an extensive territory which included not only the stretch of coast indicated by Agatharchides but also a sizable territory with several towns in the interior (Pliny, *HN* 6.157; cf. A. van den Branden, *Histoire de Thamoud* [Beirut, 1960] 1-30; and David F. Graf, 'The Saracens and the Defense of the Arabian Frontier', *Bulletin of the American Schools of Oriental Research*, CCXXIX [1978] 10-12).

<sup>2</sup> 125 miles. The reference is to the rugged stretch of coast from Al Muwaylih (27°41'N, 35°06'E) to Al Wajh, (26°13'N, 36°27'E); *Western Arabia*, pp. 126-7; and Woelk, pp. 221-2.

<sup>g</sup> 94c. Next is a rocky shore and after it a section of coast extending for about a thousand stades that lacks harbours and anchorages and is rough and difficult to sail along. For a rugged and high mountain stretches along it. Then rocky cliffs reach the sea and present a danger for which there is no recourse, especially at the time of the etesian winds and the storms that occur at that time.

<sup>h</sup> 95b. Next is a gulf with scattered islands and in succession three extremely high dunes of black sand. After these is the harbour of Charmothas which is a hundred stades in circumference and has an entrance that is narrow and dangerous for all kinds of craft. A river also flows into it, and in the middle is an island that is well-wooded and suitable for cultivation.

trees that differ from those found in our countries.

94b. After these islands the shore is full of sheer cliffs and difficult to sail along for a thousand stades. For there exists neither harbour nor roadstead for ships to anchor at and no breakwater to furnish needed shelter to sailors in distress.

when it rushes back gives off a sound like a great thunder clap. The surf crashing in on the enormous rocks rises on high and produces an amazing amount of foam. Again when the tide is swallowed up in the hollows, it agitates the water so terrifyingly that those who unwillingly approach these spots almost suffer a premature death because of their terror.<sup>1</sup>

This coast, then, is occupied by the Arabs called Thamoudeni. A good sized gulf occupies much of the next segment of the coast.<sup>2</sup> Scattered islands lie off it which are in appearance similar to the Echinades. The next part of the coast is dominated by dunes which are infinite in their length and breadth and black in colour.<sup>3</sup> After these dunes a peninsula and harbour named Charmuthas, the finest of those known to history, come into view.<sup>4</sup> For behind a superb breakwater, which inclines towards the west, there is a gulf which is not only remarkable in appearance but also far surpasses others in its advantages. A densely wooded mountain range extends along it and encircles it on all sides for a hundred stades.<sup>5</sup> Its entrance is two hundred feet wide, and it furnishes a sheltered harbour for two thousand ships. In addition to these advantages it has an extremely good supply of fresh water since a large river flows into it.<sup>6</sup> Also in the middle of the gulf there is an island which has a good supply of fresh water and is able to support gardens. In general it is very similar to the harbour at Carthage which is called

<sup>1</sup> Agatharchides' description is particularly applicable to the coast south of Ras Abu Madharib (27°08'N, 35°46'E) which is 'fronted by steep overhanging cliffs of coral and sandstone; a level ledge of rocks extends nearly 40 miles from the base of these cliffs' and against it 'the sea at times breaks with violence and produces a surf which renders landing between the various islets impracticable' (*Red Sea Pilot*, 156; cf. *Western Arabia*, p. 126).

<sup>2</sup> The indented portion of the coast between Ras Karkama (25°54'N, 36°39'E) and Ras Abu Madd (24°50'N, 37°08'E); cf. Woelk, p. 223.

<sup>3</sup> The black basalt Harrat shama half way between Jiddah and the lagoon of Al-Sharifa as pointed out by H. von Wissmann, 'Zaabram', *RE, Supp.*, XI [1968] col. 1310.

<sup>4</sup> Müller, p. 182, interpreted the name Charmuthas as Sherm Mudd=Char Muthas, and placed the harbour near Ras Abu Madd, but admitted that no harbour fitting Agatharchides' description exists in that area. More probable, therefore, is the suggestion by H. von Wissmann, 'Zaabram', cols. 1309-10, that the lagoon of Al-Sharifa northwest of Al-Lith (20°09'N, 40°16'E) is intended. The island is probably Qishran and the river the Wadi Lith.

<sup>5</sup> 12.5 miles.

<sup>6</sup> In fact, the only 'rivers' which enter the Red Sea on the Arabian coast are wadis which carry a seasonal flow of water.

dont  
une  
pêche

OK  
+500km!  
trop  
éloigné  
vers le  
Sud!  
Non!

"Lido" de 25 km  
qui délimite la  
lagune

sharm yanbu  
correspond bien mieux



Cothon.<sup>1</sup> . . . A multitude of fish from the sea congregate in it because of its calmness and the sweetness of the waters that flow into it.

After sailing past these places five mountains,<sup>2</sup> separate from one another, rise on high. Their peaks narrow to rocky knolls, producing an appearance similar to the pyramids in Egypt. Next is a circular gulf which is enclosed by large promontories.<sup>3</sup> A trapezoidal shaped hill lies midway along a diagonal line drawn through the gulf. On the hill three temples, remarkable for their height, have been built for gods which are unknown to the Greeks but highly honoured by the natives.

96a. After this segment of coast, not, however, immediately after it but some distance beyond, is an extremely well-watered stretch of coast and the mountain that is called Laemus.<sup>4</sup> Its perimeter is indescribably great in extent, and it is covered over with trees of all kinds.

97a.<sup>1</sup> The Debae inhabit the region that borders on the mountainous district.<sup>5</sup> Some are nomads and some are

96b. After these places is a damp stretch of coast that it is intersected by streams of sweet water that flow from springs. In this section of the coast there is a mountain called Chabinus which is overgrown with thickets of all kinds.

97b. The land bordering the mountainous area is inhabited by Arabs who are called Debae. They are camel raisers who

<sup>1</sup> Omitted is a promise by Diodorus to describe in detail the Carthaginian Cothon, that is, the circular artificial naval harbour which supposedly contained 220 docks, in a now lost book of his history.

<sup>2</sup> H. von Wissmann, 'Zaabram', col. 13109, identifies these with the mountains in the immediate hinterland of Ash Sharifa lagoon, the three western peaks probably being those referred to by Pliny, *HN* 6.150, as *mons Tricoryphos*, 'the Three-Headed Mountain'.

<sup>3</sup> Al-Mahasin Bay (19°44'N, 40°40'E). *pourquoi ??*

<sup>4</sup> It is not clear which name is correct. Probably intended are the mountains between Al-Lith and Wadi Hali (cf. H. von Wissmann, 'Zaabram', cols. 1310–11).

<sup>5</sup> Roughly the area from Al-Qunfudha (19°08'N, 41°04'E) to the Wadi Baysh with its centre in the area of Wadi Qanauna (*regio Canauna*; Pliny, *HN* 6.150). The importance of the area as a source of gold in antiquity is indicated by Pliny's reference (*ibid.*) to the presence of gold mines (*auri metalla*) there and its ancient name, *Mamali* (Theophrastus, *HP* 9.4.2); cf. Pliny's [*ibid. litus Mamaeum*], i.e., Arabic *Ma'mala*, 'Mining Area' (H. von Wissmann, *De Mari Erythraeo*, pp. 299–301; 'Ophir und Hawila', *RE, Supp.*, XII [1970] cols. 907–8; 'Geschichte', p. 391).

<sup>1</sup> 97c. Then, there is a rugged stretch of coast, and after it some gulfs and the territory of nomads, who base their way of life on camels. For they conduct war from these animals, travel on them and are nourished with their milk and eat their flesh. A river flows through their country that brings down particles of gold, but they do not know how to refine gold. They are called Debae, some of them are nomads and some farmers.

farmers. Through the middle of their country flows a river that is tripartite in nature. It carries down gold nuggets that are so obviously abundant that the mud that is deposited at its mouths gleams from afar. The inhabitants of this region are unskilled in working this sort of metal. They are extremely hospitable to strangers, not, however, to all men but to those who come to them from the Peloponnesus and Boeotia because of some mythical tale about Heracles.<sup>1</sup>

98a.<sup>1</sup> The Alilai<sup>2</sup> and

rely on this beast for all the most important necessities of life. They fight against their enemies from these animals, and they easily accomplish all their business by transporting their wares loaded on their backs. They live by drinking their milk, and they roam their whole country on racing camels. A river runs through the middle of their country which carries down so many nuggets of gold that the silt which is deposited at its mouths gleams. The natives are completely without experience in the working of gold, but they are hospitable to strangers, not to all visitors, however, but only to those from Boeotia and the Peloponnesus because of some ancient bond of kinship derived from Heracles with this people, which they say has been handed down in mythical form from their ancestors.

98b. The next region is

<sup>1</sup> The supposed kinship with these peoples is probably to be explained as another example of the Greek tendency to exaggerate the significance of superficial similarities of sound between Greek and non-Greek names, in this case, between Debae and Thebaei, i.e., Thebes, a suggestion that is strengthened by Ptolemy's reference (*Geography* 6.7.5) to a Θῆβαι πόλις (=Dhahaban?; cf. H. von Wissmann, 'De Mari Erythraeo', p. 299 n. 40). Cf. the similar claim that the Minaeans, i.e., the kingdom of Ma'in, were descendants of King Minos of Crete in Pliny, *HN* 6.157.

<sup>2</sup> Identification uncertain. The name may survive in the place name Hali el Halja, thirty-nine miles south-south-east of Al-Qunfudha (18°32'N, 41°03'E; cf. Woelk, p. 231). H. von Wissmann, 'Ophir', cols. 910–11, interpreted the name as Bani Hilal and suggested a possible identification with the Apitami (Abid Amm, i.e., Servants of the Moon god Amm) of Pliny, *HN* 6.150 on the ground that Hilal also means 'New Moon' and was the name of a god attested among the Thamud, but certainty is not possible.

<sup>1</sup> 98c. Next is a people, who are more civilized people than the Debae and inhabit a

=wadi  
kanawna  
qui passe à  
al-Qunfudha



Casandreis<sup>1</sup> are neighbours of these people, and they possess a country that is not at all similar to those just described. For the air is neither cool nor dry nor fiery hot but is characterized by soft and thick clouds from which come even in summer rain storms and gentle showers.<sup>2</sup> Most of the land is very fertile, but not all of it is cultivated since the people are comparatively inexperienced. They do, however, mine gold in the land's underground strata and discover a great amount, not the sort that must be smelted from ore with knowledge and skill but the kind that occurs naturally and is called 'unfired' by Greeks because of this fact. The smallest nugget of this kind of gold is the size of an olive pit, the mid-sized nugget that of the stone of a medlar and the largest is comparable to a

inhabited by the Alilaei and Gasandi Arabs. It is not fiery hot like the nearby countries but is often covered with soft and dense clouds. From these come rains and gentle showers that make the summer season temperate. The land is extremely fertile and of exceptional quality, but it is not cultivated to its potential because of the inexperience of the people. But they do find gold in natural galleries under the earth and collect a great amount of it, not the sort which is fused together from melted gold dust but native gold, and because of this circumstance it is called 'unfired'. As for the size of the nuggets, the smallest is found to approximate a fruit pit and the largest is not much smaller than a walnut. On their wrists and around their necks they wear this sort of gold, having

<sup>1</sup> Probably identical with the Gasani of Pliny, *HN* 6.150, and the Cassanitae of Ptolemy, *Geography* 6.7.6; and the inhabitants of the Wadi Ghazan which leads to the gold mining region of the Khaulan in Yemen (H. von Wissmann, 'De Mari Erythraeo', pp. 289–90; 'Ophir', col. 922).

<sup>2</sup> Agatharchides correctly notes the moister climate characteristic of the coastal regions of Yemen (cf. *Western Arabia*, pp. 153–4, 178–82).

country with a more temperate climate since it is both well-supplied with water and receives adequate rainfall. Gold is mined in their country, not particles, but gold nuggets requiring little refining, the smallest of which is the size of a fruit pit, the middle sized ones that of a medlar and the largest that of a walnut. They perforate them and make collars by stringing them on thread in alternation with transparent stones, and wear these around their necks and wrists. They also sell their gold to their neighbours cheaply, exchanging it at a rate of three to one for copper and two to one for silver both because of their inexperience in the working of gold and the scarcity of the metals for which it is exchanged, the need for which in their life is more pressing.

walnut. They wear around their wrists and necks bands consisting of perforated gold nuggets alternating with transparent stones. They bring these to their neighbours and sell them cheaply, for they exchange bronze for three times its weight in gold and iron for twice its weight in gold. Silver is worth ten parts of gold since value is determined by abundance and scarcity.<sup>1</sup> In such matters all life considers not nature but need.

99a.<sup>k</sup> The Carbae<sup>2</sup> occupy the region immediately after these people. Then follows a deep water harbour into which empty several springs.<sup>3</sup> Immediately adjacent is the tribe of the Sabaeans, the greatest of the peoples in Arabia and the possessors of every sort of good

having bored a hole through it and strung it in alternation with transparent stones. As this kind of gold is abundant in their country and bronze and iron are rare, they exchange these goods with merchants on an equal basis.

99b. After these peoples are those called Carbae and after them the Sabaeans who are the most populous of the Arab peoples. They inhabit the region called Eudaemon Arabia<sup>4</sup> which bears most of the products considered valuable by us. It also supports herds of

<sup>1</sup> Yemen is, in fact, poor in iron deposits (*Western Arabia*, p. 526). The reference to these metals being traded on an equal basis in Fragment 98b is an arbitrary modification of Agatharchides' text by Diodorus.

<sup>2</sup> Probably identical with the Carphati of Pliny, *HN* 6.150 (cf. H. von Wissmann, *De Mari Erythraeo*, p. 300).

<sup>3</sup> The Khur al-Wahla (16°44'N, 42°40'E); probably the same as the *fons Coralis* of Pliny, *HN* 6.150 and the Coralia of *HN* 6.154, i.e., C.h.oralis=Hor (W)a(h)la (cf. H. von Wissmann, 'Ophir', cols. 924–5; *Western Arabia*, pp. 134, 585).

<sup>4</sup> I.e. 'Fortunate Arabia (*Arabia Felix*)', the classical name for south-west Arabia, which is attested as early as the late fifth century B.C. (Aristophanes, *Birds*, line 144; Euripides, *Bacchae*, lines 16–8; cf. H. von Wissmann, *De Mari Erythraeo*, pp. 304, 321; *Geschichte*, p. 358).

<sup>k</sup> 99c. Immediately adjacent is the very fertile country of the Sabaeans, a very large tribe, in whose territory are found myrrh, frankincense and cinnamon. On the coast there is also found balsam and a certain other very fragrant herb, the odour of which, however, quickly fades.



fortune.<sup>1</sup> For their country produces all the necessities for life as lived among us, and the bodies of the inhabitants are very attractive. They have herds of cattle in untold numbers. Fragrance pervades the whole coast, providing a pleasure to visitors that is greater than what can be seen or described.<sup>2</sup> For by the sea itself balsam<sup>3</sup> grows in abundance and cassia<sup>4</sup> and another sort of plant which, when fresh, is very sweet and

animals of all kinds in untold abundance. A natural sweet smell pervades the whole country because almost all plants which are pre-eminent for their fragrance grow unceasingly. Along the coast grows the plant called balsam and cassia and another kind of herb which has a peculiar character. When fresh it gives great pleasure to the eyes, but when it has aged, it quickly fades. In the interior there are dense forests in which there are large frankincense

<sup>1</sup> H. von Wissmann, *De Mari Erythraeo*, p. 305; *Geschichte*, 358 n. 100, argued that Agatharchides' description implies that all Southern Arabia was unified under the rule of Saba and must, therefore, refer to fifth century B.C. conditions since from some time in the fourth century B.C. the area of Bab al-Mandab was controlled by the kingdom of Qataban (Theophrastus, *HP* 9.42; Strabo 16.4.2, C768; Pliny, *HN* 12.88), but this is unconvincing for three reasons: (1) There is no evidence for detailed Greek knowledge of political conditions in southern Arabia prior to the voyage of Anaxicrates; (2) Fragment 97b indicates that Agatharchides was concerned with the populousness rather than the power of Saba; and (3) Agatharchides' silence concerning Qataban does not prove that Saba controlled that kingdom since his detailed account of the coast of Arabia does not, in fact, extend as far as the Straits of the Bab al-Mandab.

<sup>2</sup> The earliest reference to southern Arabia being pervaded by a sweet fragrance from the incense trees is found in Herodotus 3.113. The statement in Pliny, *HN* 12.86 that the ships of Alexander encountered the odour of the trees while still at sea suggests that Agatharchides may have derived his version of the story in an account of Anaxicrates' voyage. Similar but less intense experiences have been reported by modern travellers visiting the incense growing areas of Dhufar and Socotra (cf. Woelk, pp. 234–6; Groom, *Frankincense and Myrrh*, p. 72). The literature on the incense trade is enormous. Among the important recent treatments are: A. Lucas, 'Notes on Myrrh and Stacte', *JEA*, XXIII (1937), pp. 27–33; Van Beek, *Frankincense and Myrrh*, pp. 141–51; J. Innes Miller, *The Spice Trade of the Roman Empire: 29 B.C. to A.D. 641* (Oxford, 1969); Raschke, pp. 603–1361; Groom, *Frankincense and Myrrh*; Lionel Casson, 'Cinnamon and Cassia in the Ancient World', *Ancient Trade and Society* (Detroit, 1984), pp. 225–46.

<sup>3</sup> Gum obtained from a shrub of the genus *Commiphora*, namely, *Commiphora gileadensis* (Miller, pp. 101–2; Groom, *Frankincense and Myrrh*, pp. 126–31).

<sup>4</sup> Cf. below Fragment 99a. Like cinnamon, cassia in modern terminology refers to the bark of a tree of the laurel family, namely, *Cinnamomum cassia* Blume, which is native to India, Southeast Asia and China. The ancients also distinguished the two products but on the basis of quality rather than their being products of different trees (Miller, pp. 42–7; Casson, *Cinnamon and Cassia*, pp. 225–30).

pleasant to the eye but which quickly fades so that the quality of the plant is dulled before it can reach us with its full strength.<sup>1</sup>

In the interior there are dense and large forests. For there grow tall trees – myrrh<sup>2</sup> and frankincense,<sup>3</sup> cinnamon,<sup>4</sup>

and myrrh trees and in addition palm trees, calamus, and cinnamon trees and others which have a fragrance similar to these.

It is not possible to enumerate the peculiarities and characteristics of each because of the amount and overwhelming

<sup>1</sup> Exact identity unknown although presumably an oleo-resin of some kind. Woelk, p. 238, suggested Jasmin, either *Jasminum Sambac* or *Jasminum officinale*, the former of which is cultivated commercially in Yemen (*Western Arabia*, pp. 597–8).

<sup>2</sup> Myrrh is a gum resin collected from any one of number of trees of the genus *Commiphora myrrha* Engl. found in southern and western Arabia, modern Ethiopia and especially Somalia which was the principal ancient source for myrrh (cf. Van Beek, *Frankincense and Myrrh*, pp. 143–4; Miller, pp. 104–5; Groom, *Frankincense and Myrrh*, pp. 115–20).

<sup>3</sup> Frankincense is a gum resin collected from various trees of the genus *Boswellia* of which only *Boswellia Carteri* is native to the Arabian peninsula. *Carteri* and another species, *Boswellia Frereana*, however, also occur in Somalia and four species are peculiar to the island of Socotra. Contrary to the opinion of Agatharchides and his predecessors, however, the centre of frankincense production in antiquity as well as in recent times was not Yemen but Dhufar in southeastern Arabia in the territory of the kingdom of Hadramaut (Van Beek, *Frankincense and Myrrh*, p. 142; Miller, pp. 102–4; Nigel Groom, 'The Frankincense Region', *PSAS*, VII [1977], pp. 79–89; *Frankincense and Myrrh*, pp. 96–107; Crone, p. 20). By the first century A.D. this was known and clearly indicated by Pliny, *HN* 12.52, and the unknown author of the *Periplus of the Erythraean Sea*, 27.

<sup>4</sup> Like cassia, cinnamon in medieval and modern times designates the bark of a tree of the laurel family, namely, *Cinnamomum zeylanicum* Nees, a tree native to Ceylon and south India and not, as was the view of all classical authors prior to the first century A.D., East Africa and Arabia (cf. Miller, pp. 74–7; Casson, *Cinnamon and Cassia*, pp. 225–6). The explanation of this contradiction accepted by most modern scholars is that argued most fully by Casson, *Cinnamon and Cassia*, pp. 233–9, namely, that the Greeks designated by the names cinnamon and cassia the same plants as was the case in more recent periods and obtained them from the same Southeast Asian sources but only through the intermediary of the Arabians who were able to deceive them about their true origin until the truth was revealed following the establishment of the large scale sea trade with India in the first century A.D. The alternative is either that these plants were once found in East Africa and Arabia but are now extinct or, more plausibly, since no tree of the laurel group appears to be native to these areas, that in antiquity these terms referred to different and hitherto unidentified plants as has recently been argued by Groom, *Frankincense and Myrrh*, pp. 84–5, and most fully by Crone, pp. 253–63. At present, however, evidence sufficient to definitively resolve this controversy is lacking, but the similarities between ancient and modern descriptions of these plant products as noted by Casson and the very fact that the western origin of cinnamon could be and was denied (cf. Pliny, *HN* 12.82) once direct contact with India was established on a regular basis seriously weakens the hypothesis that ancient cinnamon and cassia were still unknown Arabian and African plants.



palm<sup>1</sup> and calamus<sup>2</sup> and other such trees – so that the reality experienced by those who have tested it with their senses cannot be expressed by speech at all. It is not the sort of pleasure that is derived from spices that have been stored and become stale nor that produced by a plant separated from the stem which bore and nourished it, but that of one blooming at its divine peak and giving off from its own natural sources a wondrous scent so that many come to forget human blessings and think that they have tasted ambrosia, seeking a name for the experience that matches its extraordinary character.

impact of the combined fragrance from all the trees. For the fragrance appears as something divine and greater than the power of speech to describe as it strikes and stimulates the senses of everyone. As for persons sailing along the coast, although they are far from land, that does not prevent them from sharing this kind of pleasure for in summer, when there is an offshore breeze, it happens that the fragrance which is given off by the myrrh and other such trees reaches the nearby parts of the sea. The case is not as in our countries where the aromatics, having been stored, have a stale quality but, as its power is fresh and in full bloom, it penetrates to the most delicate parts of the senses. For when the breeze carries away the exhalations of the most fragrant trees, a mixture of the noblest perfumes falls on persons sailing towards the coast which is pleasant and powerful as well as healthful and unique since the fruit has not been cut into pieces and lost its peculiar

<sup>1</sup> Probably the date palm (*Phoenix dactylifera*; cf. *Western Arabia*, pp. 486–7) which Theophrastus, *HP* 9.4.4, also seems to associate with areas in which frankincense and myrrh trees grew.

<sup>2</sup> Literally 'reed'. Usually identified with Sweet Flag (*Acorus calamus* L., *Araceae*; Miller, pp. 92–4), but Crone, pp. 264–6, noting that Sweet Flag is not found in either Arabia or East Africa, suggests that it more likely was one of the scented reeds of the genus *Cymbopogon* which do occur in the area and were known to the Greeks and Romans (cf. Miller, pp. 94–6).

perfection nor has it been stored in vessels of another substance; but it is at its peak of freshness and its divine nature maintains its shoot unblemished so that individuals, who partake of its special quality, think that they have enjoyed the mythical ambrosia because they are unable to discover another appellation that is appropriate to the extraordinary character of its fragrance.

100b. Fortune, however, has not granted to these men happiness that is complete and free of envy, but to such great gifts she has also joined something harmful to warn those who might become accustomed to despise the gods because of an unbroken string of good fortune. For in the midst of the most fragrant forests there are numerous snakes, which are purple in colour, a span in length and whose bite is completely incurable. They leap as they bite, and as they spring up high, they bloody their victim's skin.

100a.<sup>1</sup> In the forests of incense trees, however, there is found an extraordinarily peculiar species of snake.<sup>1</sup> It is as though Fortune is envious of great good luck and mixes evil with good so that no one might become outrageously arrogant and, by forming an opinion on the basis of accidental goods, come to despise the divine but instead be instructed by the experience and memory of opposites. The species of snake is purple in colour and about a span in length. Its bite is incurable if it draws blood above the thigh. They leap into the air as they strike.

<sup>1</sup> Probably the horned viper (*Cerastes cornutus* Forsk.; cf. Bruce, V, 200; Woelk, p. 241), although this species is sandy rather than purple in colour and can reach 60 cm in length. The association of deadly snakes with the Arabian incense forests is found already in Herodotus (3.107), albeit in more fantastic form.

<sup>1</sup> 100c. There are also fragrant palm trees and calamus and snakes, a span in length and purple in colour, that leap as far as the ribs and have a bite that is incurable.



101a.<sup>m</sup> The fragrance of the incense is strongest in the country of the Sabaeans, but the pleasure derived from it is imperfect since continuous exposure from infancy affects the senses less and dulls them as there is no variation in their experiences. In addition, they cannot impose stability on their life since their bodies are suffused by a strong and piercing stimulus which increases its normal congestive state to such an extreme point that it causes extreme faintness. At such times, by fumigating briefly with resin and the beard of a goat they remove the stimulus of the excessively sweet odour, and by the admixture of something that seems to cause discomfort they counteract the harmful aspect of their pleasure.<sup>1</sup> Thus, any natural advantage managed with moderation and order promotes life, but if deprived of due

<sup>1</sup> Pliny, *HN* 12.81, gives an account of fumigation in ancient South Arabia ultimately based on Agatharchides but supplemented with additional material. For the uses of fumigation in modern Arabia see Groom, *Frankincense and Myrrh*, p. 16. The theory that illness is caused by pores in the body becoming blocked by a kind of basic particle is most closely associated with the late second century B.C. doctor Asclepiades of Bithynia but is based on ideas attested already in the fragments of the fourth century B.C. Peripatetic philosopher Heraclides Ponticus; cf. H. B. Gottschalk, *Heraclides of Pontus* (Oxford, 1980), pp. 37–56.

<sup>m</sup> 101c. Because of the abundance of fruits, the people are sluggish and relaxed in their way of life. Many of the common people sleep on the roots of trees which they have cut down. The peoples who live very near each other receive in continuous succession the cargoes of goods, passing them on one after another as far as Syria and Mesopotamia. When these people are made torpid by the aromatic plants, they cure their sluggishness by means of a fumigation of resin and goats beard.

101b. A peculiar thing happens to those natives whose bodies have been weakened by long illness. For when the body has been flooded by a substance of a pure and piercing nature, and particles crowd together and clog the pores, a feebleness ensues that is difficult to cure. For this reason they burn resin and the beard of a goat for such people, seeking to overcome the excessive strength of the fragrance with substances of the opposite nature. For the good, when measured in the proper quantity and order aids men and brings them pleasure, but when it is totally lacking in proportion and order, its gift is useless.

measure and proportion, it becomes a burdensome possession.

102a.<sup>n</sup> The city of the Sabaeans bears the name of the whole nation and is situated on a small mountain. This city, which is called Sabas, is far the most beautiful of those in Arabia.<sup>1</sup> The ruler of the whole nation enjoys a precedence granted by the people which is both high in honour and most unfortunate. It is high in honour because he commands many people and does whatever he wishes without being subject to judicial scrutiny of his actions. It is unfortunate because after taking up the office, he may not again leave

102b. The capital of this tribe, which is called Sabae, is built upon a mountain. Their kings succeed by right of descent. The people assign them honours in which advantages are mingled with liabilities. For they seem to lead a blessed life in that while they give orders to all, they are subject to no review of their actions. They are considered unfortunate, however, because they are not allowed ever to leave their palace, and if they do not remain within, they are stoned by the populace in accordance with some ancient oracle.

<sup>1</sup> Actually Sabae, Photius having mistaken the accusative plural Σάβαϛ for an indeclinable nominative. Agatharchides' assertion that the Sabae capital was located on a small mountain and called Sabae is, however, puzzling for two reasons: (1) its name was Marib (*MRYB*) and it is always so called in classical sources (cf. H. von Wissmann, 'Geschichte', 398), and (2) its ruins are located in a plain near the modern city of the same name (15°26'N, 45°16'E). Artemidorus recognized the problem, but his attempt to correct Agatharchides' error by substituting the name Mariaba for Sabae was unsatisfactory since it ignored Agatharchides' geographical error. Equally unsuccessful is the recent attempt by Jacqueline Pirenne, *Le Royaume Sud-Arabe de Qatabân et sa Datation: d'après l'Archéologie et les Sources Classiques jusqu'au Périple de la Mer Erythrée* (Louvain, 1961), p. 110, to show that Marib was also called Saba since it was based on a misunderstanding of Medieval Arabic sources (cf. Jacques Ryckmans, Rev. of Pirenne, *Le Royaume, Bibliotheca Orientalis*, XXI [1964], p. 377). More probable is the suggestion that Agatharchides confused Marib with Shabwa (Sabata in Strabo 16.4.2, C768), the capital of the kingdom of Hadramaut (Ryckmans, *ibid.*; H. von Wissmann, *Geschichte*, p. 358, n. 100), a suggestion that is strengthened by the fact that the caravan route from Hadramaut to the Mediterranean ran through the kingdom of Ma'in and not Saba.

<sup>n</sup> 102c. The city of the Sabaeans, Mariaba, is located on a densely wooded mountain and is the residence of the king who is sovereign in judgements and other matters. It is not, however, permitted for the king to leave the palace or the populace immediately will stone him in accordance with some oracle.



the palace. If he does not remain within, he becomes liable to stoning by everyone in accordance with an ancient oracle so that his pre-eminence is a source of trouble to him.<sup>1</sup>

103a.<sup>o</sup> Those of the men who devote their lives to domestic affairs lead a life little more valorous than that of women since they are rendered effeminate by constant idleness.<sup>2</sup> All the other men train

<sup>1</sup> Agatharchides' reference to the Sabaeen kings succeeding to the throne by right of descent is probably a tacit correction of the rule of succession by adoption from within specified social groups as described in Strabo 16.4.3, C768 on the authority of Eratosthenes, since recent studies have shown that kingship at Saba was transmitted normally from father to son (cf. A. G. Loundine, 'Les Principes de la Succession au Trône dans l'Arabie du Sud-Ancienne', *Raydan*, IV [1981], pp. 1–5). According to Strabo, 16.4.25, p. 783, the rule of succession was *κατὰ πρεσβυγένει* οἱ ἐκ τοῦ γένους, 'by primogeniture from the [sc. royal] lineage'. Unfortunately, in the present state of our knowledge concerning ancient South Arabia no resolution is possible of the contradiction between Agatharchides' account of a secluded Sabaeen king and the picture derived from inscriptions of kings who participated in a wide variety of public functions, both religious and non-religious (cf. Jacques Ryckmans, *L'Institution Monarchique en Arabie Méridionale avant l'Islam (Ma'in et Saba)* [Louvain, 1951] *passim*). The theory of H. von Wissman, *Geschichte*, p. 358, that Agatharchides was describing the pre-Hellenistic Sabaeen priest kings, the Mukaribs, is invalid in view of the recent demonstration by A. F. L. Beeston, 'Kingship in Ancient South Arabia', *Journal of the Social and Economic History of the Orient*, XV (1972), pp. 264–5, that the titles Mukarib and King (*Malik*) could be borne by the same individual, the former designating not an individual's sacral status but his position as head of the Sabaeen federation of tribes and the latter his being the ruler of the dominant tribe in the federation.

<sup>2</sup> Fragment 103b makes it clear that the reference is to the king and his court. Agatharchides described the remainder of Sabaeen society as divided into three occupational groups, namely, warriors, farmers and persons engaged in the incense trade, but apparently did not explain the basis of this division. Scholars have proposed two diametrically opposed interpretations. Thus, Adolph Grohmann, *Arabien* (Munich, 1963), pp. 122–5, argued that the reference was to class or caste divisions within a unitary Sabaeen tribal state; while Pirenne, pp. 126–38, suggested on the basis of Strabo's description, 16.4.25, C782, of Saba as composed of five kingdoms (*βασιλείας*), whose subjects followed on a hereditary basis a particular occupation, that each of the several tribes that made up the Sabaeen federation specialized in the performance of a particular social or economic role. The evidence presently available is, unfortunately, inadequate to resolve this conflict, but some support to Pirenne's reconstruction is provided by the statement of Pliny, *HN* 12.54, 63, that the export of frankincense was monopolized by three thousand families of the Gebbanitae who are attested as one of the constituent tribes of the kingdom of Ma'in (cf. Groom, *Frankincense and Myrrh*, p. 179).

<sup>o</sup> 103b. He and his entourage live in effeminate luxury. As for the people, some farm and some trade in aromatic substances, both those native to their country and

for war, work all the land, and voyage from home using large rafts.<sup>1</sup> They transport cargoes of various sorts including especially an aromatic plant which grows in the interior and is called in the language of the Arabs 'larimnum'.<sup>2</sup> It has the strongest fragrance of all the incenses. This kind is said to cure most bodily ailments.

Since this country bears no other kind of fuel, the people are compelled to burn cinnamon and cassia for their every day needs and for the other necessities of life.<sup>3</sup> Fortune has, thus, distributed her gifts unequally, giving to some a dearth of necessities and to others a surfeit. Not a few of the Sabaeans also employ boats made of skins. The tides themselves have instructed them in their use, although they live in luxury.

104a.<sup>p</sup> No nation seems to be more prosperous than the Sabaeans and Gerrhaeans since they are the ones who distribute everything from Asia and Europe that is considered valuable.<sup>4</sup> They have made the

104b. This tribe surpasses in wealth and all the various forms of extravagance not only the nearby Arabs but also the rest of mankind. For in the exchange and sale of their wares, they, of all people who

<sup>1</sup> The reference is to rafts supported by floats made from animal skins whose use in southern Arabia is attested by Pliny, *HN* 6.176 and *Periplus* 27. Cf. Pliny, *HN* 12.87–8, for the use of rafts in the trade between Somalia and southern Arabia.

<sup>2</sup> Identity uncertain. Woelk, p. 247, suggested that it is the same plant referred to by Herodotus, 3.107 and Pliny, *HN* 12.73, under the name ladanon (Sabaeen *Idn*) and now thought to be a plant of the genus *Cistus* (cf. Miller, p. 114; Groom, *Frankincense and Myrrh*, pp. 82–3, 244 n. 9). According to Dioscorides, *De Materia Medica* 1.128, it was medically useful because of its astringent properties.

<sup>3</sup> Cf. Pliny, *HN* 12.81. According to Groom, *Frankincense and Myrrh*, p. 163, the use of frankincense trees for fuel in wood-poor Arabia has resulted in extensive destruction of forests of these trees in modern times.

<sup>4</sup> In fact, as Groom, *Frankincense and Myrrh*, p. 10, notes, the south Arabian economy was based on irrigation agriculture. The belief in the great wealth of the area which, according to Strabo 16.4.23, C780, was a contributing factor to the Roman emperor Augustus' decision to attempt to conquer Saba in the early 20s B.C., was based on the high price of incense. This, however, reflected not so much the wealth of the south Arabian kingdoms as the great expenses incurred in bringing these products to the coasts of the Mediterranean (cf. Pliny, *HN* 12.63–5).

those from Aithiopia for which they sail across the straits in boats made of skins. These plants are so abundant that instead of firewood and kindling they use cinnamon, cassia and other such substances. Larimnum, a most fragrant incense, is also found in the land of the Sabaeans.

<sup>p</sup> 104c. From this commerce they and the Gerrhaeans have become the wealthiest of all peoples. They possess abundant furnishings of gold and silver objects: couches, tripods, mixing bowls with drinking cups and luxurious homes. For their doors, walls and ceilings are adorned with ivory, gold and silver inlaid with precious stones.



Ptolemaic portion of Syria rich in gold. They have also created a profitable commerce for the industry of the Phoenicians and a myriad of other things. Their riches can be seen not only in wondrous embossed objects and manifold kinds of drinking vessels but also in the size of their couches and tripods and in the abundance they possess of the other items found in our own homes since many of them, as it seems, have a regal style of furnishing. The author also says they have made for their buildings gilded and silver columns and that, in addition, their ceilings and doors are adorned with numerous ornaments inlaid with gems and that likewise also the intercolumniations have a fine appearance. In general, there is a great difference between their wealth and that of others. These are the facts concerning their way of life that have been reported until our time. If, however, they did not occupy a home that is situated far from those people who direct their armies everywhere, those who are masters of the fruits of their own wars would become the stewards of other people's property since slackness is unable to preserve freedom for a long time.

engage in trade for the sake of the exchange of silver, receive the highest price for goods of the smallest bulk. Consequently, since they have remained unplundered from time immemorial because of their remote location, gold and silver exists in overwhelming abundance in their country; and especially in Sabae, where the royal palace is located. They possess embossed silver and gold drinking vessels of all sorts, couches and tripods with silver feet, and other furnishings of unbelievable richness such as peristyle courts with large columns, some gilded and some with silver figures on their capitals. Their ceilings and doors are panelled, and they have gold coffers placed close together and encrusted with gemstones, and make the structure of their dwellings in every way wondrous for its richness. For some parts they construct from silver and gold, others from ivory and precious stones and from still other materials highly valued by men. They have maintained this prosperity undisturbed for a great period of time, however, because they live completely apart from those people who, because of their own greed, consider the wealth of other people their own godsend.

105a. The sea near this country is white in appearance and similar to a river, so that the cause of the phenomenon is a source of perplexity.<sup>1</sup> Located near the country are the Fortunate Islands<sup>2</sup> on which all the cattle are white and none of the females grow horns. In these islands one can see riding at anchor merchant vessels from neighbouring countries. Most of those encountered there are from the port Alexander built by the Indus River.<sup>3</sup> Not a few, however, come from Persia and Carmania and the whole nearby region.

105b. In these regions the sea appears white in colour so that at once a person is amazed at the paradox and seeks the cause of the phenomenon. There are also prosperous islands nearby which contain unwallled cities. On these islands all the cattle are white in colour and horns do not grow at all on their cows. Merchants sail to these islands from everywhere, but especially from Potana, which Alexander founded beside the Indus River because he wished to have a port on the shore of the ocean. With regard to the country and its inhabitants, therefore, we will be satisfied with what has been said.

<sup>1</sup> Salt, pp. 196–7, suggested that minute luminous molluscs were responsible for the phenomenon, noting that off the coast of Arabia that 'the sea looked at night as white as milk'. The phenomenon may also have been noted by ancient Indian sailors if the 'bright white sea' mentioned in the Buddhist Jataka stories refers to Arabia as suggested by Richard Delbrueck, 'Sudasiatische Seefahrt im Altertum', *Bonner Jahrbucher*, CLV (1955), p. 42.

<sup>2</sup> Probably Socotra (12°32'N, 53°18'E) rather than Aden and Little Aden as suggested by H. von Wissmann, 'De Mari Erythraeo', pp. 304–5, since there is no evidence that the latter were islands in antiquity. Reflecting Socotra's role as a transit point for the sea-borne trade with India, Agatharchides' 'Fortunate Islands' and the island's other attested ancient name, Dioscorida (*Periplus* 30; Ptolemy, *Geography* 6.7.45), are both of Indian origin, being probably derived from Sanskrit *Sukhatara-dvipa*, 'The Most Pleasant Island' (A. L. Bashan, *The Wonder that was India*, 3rd ed. [New York, 1968], p. 230). Greek settlers were introduced to the island, probably by one of the late second or first century B.C. Ptolemies as a result of the opening of the direct sea-route to India by Eudoxus of Cyzicus between 120 and 110 B.C. (Cosmas Indicopleustes, *The Christian Topography* 3.65; cf. Hermann Bengtson, 'Kosmas Indikopleustes und die Ptolemaer', *Historia*, IV [1955], pp. 155–6; Thiel, 7–20). Hitherto, however, no pre-Islamic remains have been discovered on the island (cf. P. L. Shinnie, 'Socotra', *Antiquity*, XXXIV [1960], pp. 100–10).

<sup>3</sup> I.e., Patala, the port near modern Hyderabad at the head of the Indus River delta where in 325 B.C. Alexander repaired the ships of his fleet prior to its voyage to Babylonia (Arrian, *Anabasis Alexandri* 5.18; cf. P. H. L. Eggermont, *Alexander's Campaigns in Sind and Baluchistan and the Siege of Brahmin Town of Harmatelia* [Leuven, 1975], pp. 189–90).



106a. In their country the heavenly bodies also behave remarkably. One example is what happens concerning the Bear. For from Maemacterion in the calendar used by the Athenians, no star of the seven appears until the first watch, in Poseideon until the second watch and in the succeeding months things proceed according to the same scheme.<sup>1</sup> As for the other heavenly bodies, the planets are invisible, some stars are greater in size and others do not set or rise at their regular times.

107a. As for the appearance of the sun, people say that it is peculiar and different in the regions beyond Ptolemais.<sup>2</sup> First, there is not, as in our part of the world, that twilight we see for a considerable period just before dawn and then sunrise. Instead, while the darkness of the night still

106b. We must not omit, however, the unusual heavenly phenomena in these regions. Most remarkable is what has been recorded about the Bear and which causes great perplexity to sailors. For people say that from the month which the Athenians call Maemacterion not one of the seven stars in the Bear is visible until the first watch, and in Poseideon until the second and as the months succeed in order after this one, they gradually become invisible to sailors. As for the other heavenly bodies, those called planets are in some cases larger than they are in our countries, and in other cases they do not have the same risings and settings.

107b. In addition, the sun does not, as in our regions, begin to send forth its light a little before sunrise proper, but while the night is still dark it suddenly appears brightly shining. For this reason also day never begins in these regions before the sun is seen, and people say that when the

<sup>1</sup> Maemacterion, the fifth month of the Athenian calendar, equals approximately November. In the second century B.C. at the latitude of Ptolemais of the Hunts the first star of the Great Bear did rise on the first day of Maemacterion at 8:45 P.M., that is, during the first of the four watches into which the Greeks divided the night, but Agatharchides' further claim that it appeared an hour later each successive month is incorrect, its rising actually occurring earlier in the evening; cf. C. H. Oldfather, *Diodorus of Sicily* (London, 1935) II, 233 n. 4.

<sup>2</sup> The various phenomena described in this passage are typical results of atmospheric refraction of the sun's rays in low latitudes.

persists, the sun suddenly shines forth. Day does not begin there before one sees the sun. Second, the sun appears to rise from the middle of the sea. Third, when it does rise, it is like a blazing coal, scattering great sparks, some into the disc of light and some beyond. Fourth, people also say that the shape of the sun is not like a disc but most closely resembles a thick column which appears fatter at the end as if it had a head.<sup>1</sup> Fifth, neither ray nor beam shines on the earth or the sea until the first hour, but the sun is a lightless fire in the dark. At the beginning of the second hour, however, the whole star rises with the shape of a shield, and it casts a shadow of this shape together with its light onto the land and sea that is so strange and fiery that both appear enormous. Sixth, people say that an opposite phenomenon concerning the sun is observed at dusk, for people report that after the sun has sunk below the horizon, its light is seen for not less than three hours after sunset, a period which the inhabitants of the area consider the pleasantest part of the day.

sun is seen to rise from the midst of the sea, it resembles a fiery piece of charcoal and shoots out great sparks. In shape it does not appear to be cone-shaped, as we consider it, but to have a form like that of a column which seems to be a little thicker at the top. Moreover, it casts neither light nor rays before the first hour but appears as a dull ball of fire in the dark. At the beginning of the second hour, however, it takes on the shape of a round shield and gives off an exceptionally bright and fiery light. When the sun sets, an opposite set of phenomena occur with regard to it. For it appears to observers to light up the universe with strange rays for not less than two hours but, as Agatharchides the Cnidian writes, for three. This time seems most delightful to the natives since the heat is reduced by the setting of the sun.

<sup>1</sup> Apropos of the accuracy of this passage Salt, p. 93, reports that at sunset near Pemba Island the sun, 'emerging from a dark cloud, when its disc touched the horizon, . . . seemed to expand beyond its natural dimensions, became of a palish red hue, and assumed a form greatly resembling a portion of a column'.



108. Of the winds the north and west and also the northwest and the east blow just as in other countries, but in Aithiopia the south wind neither blows nor is known at all. In Trogydytice and Arabia, however, they are so extremely hot that they set forests on fire, and the bodies of those who take refuge in the shade of their huts become enfeebled. The north wind, on the other hand, may justly be thought the best since it reaches every part of the inhabited world and remains cool.

109. In discussing the tides the author adduces various explanations and rejects all of them as in no way true. 'That all of these are empty verbiage that ought to be shamed into silence as they have no connection with any fact capable of shedding light on the subject under discussion,' he<sup>1</sup> says, 'is easy to discern.' Then, after adding other remarks of the same character, he continues again, 'wherefore, with regard to proposing explanations of why the tide, earthquakes, winds, thunderbolts and all such phenomena occur, we leave that to those more prone to facile talk than we. But as for the circumstances which have resulted in conspicuous disasters, we have given an account based on information obtained from knowledgeable informants. Our ambition is to discover more convincing explanations of unusual subjects, but as for giving a true account, that we wouldn't dare.'

110. In the strait just mentioned, he says, a strange thing occurs with regard to olive trees. When the tide comes in they are all submerged, but they bloom during the whole period of the ebb tide in the sea.<sup>2</sup> There is a kind of plant that grows underwater there in the tidal zone. It resembles black rush, and the natives call it 'Isis' tresses' in an attempt to add a naive credibility to a mythical tale. When this plant is struck by a wave, it bends every-which-way since its whole stalk is soft and like that of other plants. But if a person cuts off a piece and exposes it to the air, the separated piece immediately becomes harder than iron.<sup>3</sup>

<sup>1</sup> I.e. Agatharchides. The connection of the tides with the phases of the moon was first convincingly established by the first century B.C. historian Posidonius on the basis of observations made by him at Cadiz (cf. J. Oliver Thomson, *History of Ancient Geography* [Cambridge, 1948], p. 211).

<sup>2</sup> Again the Shora (cf. *Western Arabia*, p. 193).

<sup>3</sup> Cf. Pliny, *HN* 13.142 who compares it to coral. Although certain identification is not possible, a strong possibility is one of the so-called Sea Fans (Phylum *Coelenterata*, Class *Anthozoa*, Subclass *Alycyonaria*, Order *Gorgonasia* which occur in the Red Sea in either tree-like or fan shaped colonies and whose protein core quickly stiffens if the animal is removed from the water (cf. Stephen M. Head, 'Minor Invertebrate Groups', *Red Sea*, p. 240).

111. Many other kinds of fish, he says, also are born in the previously mentioned places which are unusual in character. There is, however, one kind of fish that is extremely black in colour, about the size of a man, and is called 'Aithiopian' because its face is snubbed in shape. At first, those who catch it think it is not right to either sell or eat it because of this resemblance, but with the passage of time they do both without compunction.<sup>1</sup>

112. We have carefully recorded in five books the situation concerning the tribes located in the south as they were in our time. But we have entirely given up the idea of writing an account of the islands in the sea which were discovered later,<sup>2</sup> the peoples beyond these and the aromatic substances which grow in Trogydytice<sup>3</sup> since our age is unable to similarly bear the toil, particularly after we had written large works about Europe and Asia<sup>4</sup> and because we have been unable to accurately examine the *hypomnemata* as a result of the disturbances in Egypt. He, however, will not hold back who has familiarized himself with the subject in detail, provided himself with a style worthy of history, and decided to seek fame through toil.

<sup>1</sup> Cf. Woelk, pp. 252-3, who suggests either a member of the family *Lutianidae* or of the genus *Cheilinus*.

<sup>2</sup> Agatharchides' reference is unclear since Greek knowledge of the two principal island groups in the Indian Ocean north of the equator, the Maldives and Laccadives, is not attested before Roman imperial times (cf. Cary and Warmington, pp. 99 and 103).

<sup>3</sup> For incense from Trogydytica, i.e., the African coastal region of the southern Red Sea, and its commercial importance see Strabo 16.4.14, C773; Pliny, *HN* 6.174, 12.66, 69; and Crone, pp. 21-2.

<sup>4</sup> Photius' paraphrase of this passage in Codex 213 indicates that in his original text Agatharchides gave the actual number of books in each of these works.



## APPENDIX

### UNPLACED FRAGMENTS

#### I. Certain Fragment

1. People near the Erythraean Sea who become sick, as Agatharchides says, not only suffer other symptoms but also ones that are novel and unrecorded. Small worms eat through the skin and come out from their arms and legs. If touched, however, they retreat back into the skin and, curling up in the muscles, cause unbearable inflammation.<sup>1</sup>

#### II. Probable Fragments

1. They (sc. elephants) are also captured in India in this way.<sup>2</sup> A mahout riding a tame elephant beats with an iron goad an animal found alone or separated from the herd. When it has become exhausted, he crosses over to it and guides it just as he did his previous mount.<sup>3</sup> Africa<sup>4</sup> captures elephants by means of pits. Immediately upon one wandering into such a pit, others gather branches, roll down masses of stones, construct ramps and try with all their strength to draw the animal out. In earlier times the kings<sup>5</sup> in order to tame them forced them with horsemen into an enclosure that had been constructed by hand and was deceptive because of its

<sup>1</sup> As in Fragment 59 the reference is to Guinea Worm infestation; cf. R. Hoeppli, *Parasites and Parasitic Infections in Early Medicine and Science* [Singapore, 1959], pp. 8, 213, 242. The clinically precise description of the worm responsible for the symptoms proves that Agatharchides' source for this passage was not the same as that used in Fragment 59.

<sup>2</sup> The probable Agatharchidean origin of this passage was recognized by Woelk, p. 100, who connected it with Fragment 9 of the first book.

<sup>3</sup> This account is probably ultimately derived from Ctesias' *Indica* in view of the similar description in Aristotle, *History of Animals* 9.1, 610a 15; cf. Scullard, p. 48. A fuller description of the method of hunting elephants in India is provided by Megasthenes (*FGH*, 715 F 20=Arrian, *Indica* 13 and Strabo 15.1.42-3, C704-6) who served as ambassador for Seleucus I to the court of the Maurya king Chandragupta (322-299 B.C.).

<sup>4</sup> I.e. North Africa.

<sup>5</sup> I.e. the Ptolemies.

great extent. The animals which were confined by its banks and ditches they broke by hunger. The proof was when one gently accepted a branch offered by a man.<sup>1</sup>

2. Those<sup>2</sup> who depart from the City of Heroes<sup>3</sup> to sail along the coast of Trogodytice encounter the city of Philotera,<sup>4</sup> which was named after the sister of the second Ptolemy, a foundation of Satyrus<sup>5</sup> who was sent to gather information about the hunting of elephants and Trogodytice.

3. Then follow the Tauri, two mountains which from a distance have a shape that has a certain similarity to these animals. Then there is another mountain with a temple of Isis, a foundation of Sesostris. Then an island planted with olive trees but subject to flooding. After this island is Ptolemais which was founded for the hunting of elephants. It is a foundation of Eumedes who was despatched for purpose of hunting by Philadelphus.<sup>6</sup> First, he secretly fortified the peninsula with a ditch and stockade; then he conciliated the people who were seeking to obstruct him and made them friends instead of enemies.

<sup>1</sup> Cf. the account of the taming of the great snake in Fragment 80.

<sup>2</sup> Fragments 2 and 3 clearly derive from the *parapulus* of the African coast of the Red Sea referred to by Agatharchides in Fragment 84 as was pointed out by Leopoldi, pp. 15-17. Like Fragment 1 these two passages probably belong to Agatharchides' account of the beginnings of Ptolemaic elephant hunting and exploration of the Red Sea in Book 1.

<sup>3</sup> Ancient Pithom, modern Tell al-Maskhuta (30°33'N, 32°06'E) near the eastern end of the Wadi Tumilat. The ancient history and archaeology of the site is surveyed by John S. Holladay, Jr., *Tell el-Maskhuta* (Malibu, 1982).

<sup>4</sup> Usually located at the entrance to the Wadi Jasus (26°40'N, 34°00'E). This was doubted by Müller, *GGM*, I, 168, because in this section Strabo mentions Myus Hormus after Philotera instead of before as does Pliny, *HN* 6.168 and Ptolemy, *Geography* 4.5.14. The discrepancy is, however, illusory since the mention by Strabo of Arsinoe at the head of the Gulf of Suez immediately after Philotera makes it clear that it resulted from the fact that his source, Artemidorus, mechanically inserted this fragment as a block into his account of the African coast of the Red Sea at the appropriate point for a reference to the City of Heroes.

<sup>5</sup> Satyrus made a dedication to the deified Arsinoe II at the temple of Pan Euodos at al-Kanais on the road from Berenice to Coptus, probably on his return from another voyage to Trogodytice sometime after 270 B.C. (A. Bernand, *Paneion* 9 with Bernand's commentary).

<sup>6</sup> A carpenter named Dorion, probably employed on the construction of Ptolemais, made a dedication to Pan Euodos at the temple of Pan at al-Kanais (A. Bernand, *Paneion* 9bis).