

THE TRADE ROUTES

Nile Marshes, Cyeneum (Sennar), Meroe, and the Nile Valley; cassia, cinnamon, and other south-east Asian spices, in particular those not shown as exported from the Somali ports.¹

(2) From the neighbourhood of Maji to the hinterland of Avalites, via southern Ethiopia and Bórana on the Somali border; cinnamon and other south-east Asian spices as shown below to have been exported to Egypt from the Somali ports.²

(3) Sarapion to the hinterland of Avalites, via the Shebehi and Gerrer rivers and south-eastern Ethiopia; as in (2).

(4) Adulis to Egypt, via Coloe, Axum, Meroe, and the Nile Valley; possibly bdellium, *costum*, sesame, and spikenard exported from northern India.³

Sea Route:

From the Somali ports to Egypt:

- (1) Avalites; myrrh.
- (2) Malao; myrrh, frankincense, cinnamon ('cassia'), *canca-mum* (benzoin), *macir* (?mace).
- (3) Mundus; as in (2).
- (4) Mosyllum; cinnamon ('cassia') in great quantity, fragrant gums and spices, frankincense, myrrh.
- (5) Elephant River; frankincense—the best far-side².
- (6) Market of Spices; cinnamon ('cassia') (five varieties), frankincense.
- (7) Opone (beyond the Cape); 'the greatest quantity of cinnamon' ('cassia').⁴

¹ Strab. *Geog.* xvi. 4. 14; Plin. *HN* xii. 98-9.

² Schoff, *Map*; *OA*, p. 79.

³ *Peripl.* 7 to 13.

⁴ *Peripl.* 4, 6, 14, 49.

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THE CINNAMON ROUTE

PREVIOUS chapters have mentioned, provisionally, the Cinnamon Route and its course from Indonesia to Madagascar and Rhapta. The natural habitat of that form of cinnamon, namely cinnamon-bark, which the Greeks called 'the pipe' and the French today *canelle*, has been established botanically to be northern Vietnam and Assam from which it was brought at an early date to be widely cultivated in the area which later became southern China. Classical writers, on the other hand, up to the time of Pliny, firmly held it to be in Africa, in a region of the southern Sudan and southern Ethiopia marked, according to Strabo, by the intersection of the meridian from Alexandria to the neighbourhood of Meroe and beyond with the parallel which ran through Ceylon, that is, from 5° to 10° N. by 30° E.

The existence of an early cultural connection between Indonesia and Madagascar has been known for some time, thanks largely to French scholarship, and Mr. J. Hornell, in his history of the early evolution of water transport, has described how the Indonesians crossed the Indian Ocean to Madagascar, and continued from there along the coast as far as Zanzibar, in their double outrigger canoes. Hornell's work has been supplemented and confirmed by the recent researches of Dr. A. H. J. Prins and others into the history of early sailing craft on the Tanzania and Kenya coasts. No attempt, however, appears to have been made to establish any link in classical times between Indonesia and the Mediterranean via Madagascar and the African coast. This is the gap which an examination of the Cinnamon Route, as suggested by Pliny's description of the 'raft-men', supplemented by the *Periplus* with regard to the trade from Rhapta and the Somali ports, may help to bridge.

A study of ancient commerce in the Indian Ocean reveals that transport by water was used, in preference to that by land—unless some important entrepôt was concerned—irrespective of

the greater distance involved. The China trade round the Arabian peninsula was a case in point. Before the advent of steam, traffic was guided by the monsoon. Time was of little consequence and the profits were high. A factor supporting the Indonesian-Madagascar cinnamon trade was the very ancient vogue of cinnamon. Its history suggests that the spice was appreciated in China in the period of the Shang or Yin culture,¹ and there seems reason to believe, on medical and philological evidence, also in Ancient Egypt, at the time of Hatshepsut (c. 1450 B.C.), and, some centuries later, in Judaea. Cinnamon was an essential element in embalming. The Egyptian *kdy/kdt*, one of the fragrant substances imported from Punt, which Breasted translates as 'cassia',² bears a striking resemblance philologically to the Hebrew *qiddah* and to the *kith* of Dioscorides, which was one of the cassias still being shipped to Egypt in Roman times from the Somali ports.³ This antiquity is a very relevant factor in confirming the existence, in Pliny's day, of a true Far Eastern trade by the east African route.

Cinnamon was the most distinguished of the spices. Its source lay at the furthest end of the world from the Mediterranean and it was, in consequence, the most expensive. It had also the oldest history. From at least Hebraic times, if not earlier, its two forms, the Chinese cassia and the Malayan cinnamon, appear together. In ancient Egypt there was the same duality: *ti'sps*, cinnamon wood, and *kdy/kdt*, cassia.⁴ The Mosaic ritual in Exodus xxx. 23-4 puts cinnamon (*qinnamon*) and cassia (*qiddah*) in the forefront of the Temple's requisites. The reason for the association of the two names is probably to be found in the fact that, as has been seen, cinnamon is best as a cultivated plant, that it was so exported, as *kwei-shi*, by people who inhabited what is now southern China while in Malaysia it was still wild, and that the Javanese to whom the Chinese cassia was sent found the tree on their island, cultivated it and exported it, together with the Chinese product, giving it the Malayan name of *kayu manis*, meaning literally 'sweet wood', or cinnamon. It was the only spice, thanks to its high value, whose origins, even in Roman times, were still surrounded with some degree of legend and mystery.

It may seem strange, in the account by the Hebrew chroniclers of the joint expeditions of Solomon and the Phoenicians to

¹ See p. 43, and Fitzgerald, p. 15.

³ See p. 47: *Desc. Med.* i. 13; LSJM, p. 954.

² See p. 144, n. 1.

⁴ See p. 144, n. 1.

Ophir and Tarshish, which are assumed to be the land of Chryse or the Malay Archipelago, including the Malay Peninsula, that when they returned with sandalwood, gold, and other products, no mention is made by them of cinnamon and cassia. The reason probably is that these commodities were already being imported into the Mediterranean area by another route, namely, from the east coast of Africa. It is more likely that the Phoenicians would learn of it, together with its Malayan name, on one of their expeditions down the east African coast.

The earliest classical writer to refer to the sources of cinnamon was Herodotus. He recorded the stories told by the Arabian merchants of the swamps in which cassia was to be found, guarded by bats, and the high cliffs on which great birds used cinnamon twigs to build their nests—in substance the Nile Marshes and the Ethiopian Highlands through which the trade routes ran. Where cinnamon grew and what land nourished it, he added, we did not know, except that, according to well-informed persons, it was in the country where Dionysus was brought up. Here he was probably referring to the East generally, rather than to any particular Indian shrine. It was from the Phoenicians, he said, that we had learnt its name.¹

Strabo, a native of Amaseia in Pontus, spent seven years in Egypt. He was well versed in the current scientific thought of Alexandria, which was based, so far as it concerned geography, on a combination of mathematics and commercial exploration. In this respect he had much to say of a region called 'the cinnamon-bearing country', the reason being that it was a point on the meridian which ran south from Alexandria and was used by the geographers as a means of measuring the circumference of the earth. This country, which 'must be put down as the limit and the beginning of the inhabited world to the south',² and according to Hipparchus lay 'very nearly midway between the equator and the summer tropic that passes through Syene',³ was in Strabo's opinion, and in that of the Alexandrian geographers who preceded him, a fixed region in eastern and central Africa which, from Strabo's measurements, was roughly the hinterland south of a line, about the 10th parallel, from the interior of the Somali ports to the reputed sources of the Nile in the north, and stretch-

¹ *Hdt.* iii. 111: ἀπὸ Φοινίκων κιννάμωμον καλεῖται.

² Strab. *Geog.* ii. 5. 7.

³ Strab. *Geog.* ii. 5. 34.

ing towards Rhapta in the south. This description helps in the elucidation of the heavy exports of cassia from the Somali ports, in particular those that lay to the east, and from Opone, south of the Cape, as recorded by the *Periplus*, and of the immediate sources of their importation.¹ No species of cinnamon, it is agreed on the highest botanical authority, is indigenous to Africa or was commercially cultivated there at any time.²

Pliny's contribution to the question of its sources marked an advance in knowledge over a field of ancient navigation which linked Indonesia with east Africa, and has been confirmed by modern research.³ In a passage of great beauty, precision, and power he described, for the first time, it would appear, in classical literature, the operations of the ocean-going outrigger canoes which carried Indonesian sailors as far west as Madagascar and the adjacent African coast. The stories of antiquity—of inaccessible cliffs and trees, of heavy baits and weighted arrows, of swamps guarded by fierce bats and winged serpents—he dismissed as 'all nonsense' and invented by merchants to increase prices.⁴ It was true that cinnamon—in which he included 'the cassias'—was to be found in Africa, in that part of Ethiopia where the Troglodytes had intermarried with the local inhabitants. But the Troglodytes were traffickers and had bought it from their neighbours. These had in turn obtained it from others, who 'bring it over vast seas on rafts which have no rudders to steer them or oars to push or pull them or sails or other aids to navigation; but instead only the spirit of man and human courage. What is more, they put out to sea in winter, around the time of the winter solstice, when the east winds are blowing their hardest. These winds drive them on a straight course, and from gulf to gulf. Now cinnamon is the chief object of their journey, and they say that these merchant-sailors take almost five years before they return, and that many perish. In exchange they carry back with them glassware and bronze ware, clothing, brooches, armlets, and necklaces. And that trade depends chiefly on women's fidelity to fashion.'⁵ The operative words are 'on rafts', *rathus*,

¹ See A. T. Curle, 'The Ruined Towns of Somalia', *Antiquity* 1937.

² *Kew Index*, Willis, Burkill, Ridley, Redgrave, Wat, etc. under *Cinnamomum cassia*.

³ J. Hornell, *Water Transport: Origins and Early Evolution*, pp. 253-7, and Plate xxxiii.

⁴ Plin. *HN* xii. 85: 'his commentis augentes rerum pretia'.
⁵ Plin. *HN* xii. 87-8: 'Ergo negotiatio illa feminarum maxime fide constat.'

and what Pliny or his informant had in mind was obviously the double outrigger Indonesian canoe.

The reference in the same passage to Cape Guardafui, Ocelis, and the Gabbanites indicates probably the completion of the voyage from Rhapta by the southern Arabian merchants who, from Muza, controlled the coastwise cinnamon trade: *ius eius a Gabbanianum rege solo proficiscitur*.¹ Indonesian influence would appear to be present along the coast, from the description in the *Periplus* (s. 15) of the local types of shipping and methods of fishing at the island called by the author 'Menthias'—perhaps Pemba, as marking the first island met by those sailing from the north and the end of the Indonesians' journey from the south. 'Boats here', the *Periplus* records, 'are both of the "sewn" type and those hewn from a single log, and are used for fishing and for hunting the sea-turtle. The latter are also caught in a manner peculiar to the islanders, namely by means of wicker creels or cages or perhaps screens which they let down, at high tide, instead of nets, along the foreshore.'²

The details thus supplied by Pliny of the north-east monsoon, its date and direction, of the rafts running before the wind and their queer rig so strange to Mediterranean experience, all of which are known to be true to fact, must have reached him in Rome from some first-hand informant. Pliny's own feelings are vividly apparent through his narrative: at the beginning his disbelief in the earlier stories, and the enthusiasm which informs his conclusion. When he wrote the words '*non vela, non ratio ullā adiuvat: omnium instar ibi sunt homo tantum et audacia*', he believed in their truth.³

There were two forms of outrigger canoe, the single and the double, in which floats or balancers were attached to one or both sides, respectively, of the parent craft. The term canoe was appropriate to the earlier, and possibly normal, stages of development. To it there might have been added a single mast and

¹ Plin. *HN* xii. 93; *Periplus*. 16.

² *Periplus*. 15. The 'sewn' boats were probably outriggers and were peculiar to the Indonesians. The author records them later (s. 60) on the east coast of India. The wicker fish-trap (*yuppyabēs*, in Malay *bélat* and *kelang*) is an Indonesian fishing device. It includes a form of screen, for both river-mouths and along the coast, the catch being left high and dry by the receding tide. The word is used by Aristotle of the web woven by a species of spider, and by Paulus of Aegina of a wicker cage for insane patients.

³ Plin. *HN* xii. 87.

square sail. The two-masted Javanese ship of the ninth century A.D., complete with imposing outriggers, an example of which is engraved on a gallery wall of the Hindu temple of Boro-Budur in central Java, belongs to a later period. The craft which Pliny spoke of were undoubtedly canoes. Their home was the island system of Indonesia—the Philippines, Celebes, Moluccas, west New Guinea or Irian, Java, Sumatra, and the southern half of Borneo. This excluded, it is interesting to note, the north-west coast of Borneo and the Malayan mainland which were served by other carriers, the K'un-lun people, with their ships the *k'un-lun-pho*, probably the *κωνδιόφωρα* of the *Periplus*, trafficking between China, India, and Ceylon.¹ The single-outrigger canoes were used not only for local voyages, in the Archipelago, round Ceylon, on the south-eastern coast of India, and on the protected north-western coast of Madagascar, but also, in their larger form, for voyages from Indonesia to India. The *Periplus*, in examining the foreign craft on the south-east coast of India, mentions the 'very large vessels made of single logs bound together, called *sangara*'.² It was in these that the Polynesians also sailed eastward as far afield as Hawaii (a corruption of 'Java'), Easter Island, and New Zealand, distances of over 4,000 miles. In the Pacific there were intermediate islands. In the Indian Ocean the voyage was over a stretch of virtually open sea, of some 4,500 miles. The course lay west-south-west.

On the east coast of Africa the range of the double outrigger craft extended for about 1,000 miles from 20° S., about the mouth of the Zambesi, to approximately the equator in the neighbourhood of Rhapta, opposite Zanzibar, where the Arab régime began. They thus covered the coasts of what are now Mozambique (north of the Zambesi) and Tanzania to Pemba and the Kenya border.

It is unlikely that any of the Indonesian exports of cinnamon came from Ceylon or that any of these voyages to Africa followed that route. Ceylon as an international entrepôt appears to have remained undeveloped, and the cinnamon wild, till the trade of the Axumites, southern Arabians, and Persians, as well as that of

¹ See A. Christie, 'An Obscure Passage from the *Periplus*, *ΚΟΛΑΝΑΙΟΦΩΝΤΑ ΤΑ ΜΕΤΙΣΤΑ*, *BSOAS* xix (1957), pp. 345–53; *Periplus*, 60; see pp. 186–7; *κωνδιόφωρα* thus (unaccented) in the Heidelberg MS, but accented, *κωνδιόφωρα*, in the BM. (Athos) MS. The former (c. 10th century) is regarded as the older of the two.

² *Periplus*, 60.

the Greeks, was developed in the fourth century A.D. Ptolemy's description of Ceylon shows how little was known of it by Alexandrian merchants in the second century, and among its products he did not mention cinnamon. Nor is it mentioned by Cosmas. The majority of Roman coin-finds in Ceylon belong to the fourth century and later. It is probable that only then did Ceylon cinnamon come on the market, as an adjunct of the trade—an indirect one—between China and the Persian Gulf, and modify the previous Indonesian monopoly. The early existence of the Madagascar route is supported by the general nature of Sanskrit terms in Malagasy as compared with their more specialized forms, due to the Hindu migrations, found in the Malay language of the Archipelago.¹

The information given by Pliny, the researches of Hornell into the early activities of outrigger canoes in the Indian Ocean, and those of M. Gabriel Ferrand into ancient inter-oceanic navigation in the southern seas² are pertinent to the over-all pattern of the spice trade in Roman imperial times. While Hornell believes that the movement of these canoes to Madagascar may be traced back to the ninth century A.D., and Ferrand attributes the Malayan colonization of Madagascar to the first century A.D., Pliny and the author of the *Periplus* both support the earlier date. The latter was well informed about trade—with the exception of its sources—on the east African coast, and it is relevant that the southern limit of Arabian influence there recorded tallied with the northern limit of the coastwise traffic of the double outrigger canoes.

While the *Natural History* was probably the earlier work, the two authorities are complementary. Pliny was a speculative writer, the author of the *Periplus* a practical man of affairs. Pliny in Rome had his reliable sources of information—some merchant from Alexandria, an emissary from Meroë, or one of the members of Nero's select expedition of A.D. 61 to the 'immense marshes' of the Nile.³ The other's interest was in maritime trade,

¹ Marre de Marin, *Grammaire malgache fondée sur les principes de la grammaire javanaise* (1876); Otto Dahl, *Malagache et Maanyan, une comparaison linguistique* (1951); G. Ferrand, 'Les origines malgaches: Essai de phonétique', *IE*, xviii, 1938.

² G. Ferrand, 'Le K'ouen-louen et les anciennes navigations interocéaniques dans les mers du Sud', *Jd* 1919, Mar.-Apr. pp. 239–333, May-June 431–92, July-Aug. 6–68, Sept.-Oct. 201–41.

³ Plin. *HN* vi. 181; Sen. *QNat.* vi. 8. 3; L. P. Kirwan, 'Rome beyond the Southern Egyptian Frontier', *JRGCS*, March 1957.

and on what happened south of Cape Guardafui he probably recorded what he was told by those who were interested in keeping the sources of cinnamon, beyond the 'cinnamon country', a secret. The *Periplus* was primarily an account of trade between Egypt and India. Conditions on the east African coast the author recognized as an Arab concern. Pliny was interested in what happened inland. The Arabians, as he said, tried to impose a monopoly at Rhapta, but the likelihood is that the trade from there, or some place nearby, would be handed over to Arabians for coastwise shipment to the Azanian ports and to others—perhaps émigré TrogodYTE Nabataeans as Pliny suggests—for carriage overland to Juba or Malakal for transmission to Egypt or to some market in southern Ethiopia such as Borāma, which was in touch with the Somali ports.¹ The second point of agreement is the reference by both authors to Ocelis as the port of first landing for those sailing into the Gulf, that is, the Red Sea.² The third was the nature of the Mediterranean products taken by the raft-men in return, in which there are resemblances and differences that make both accounts more reliable. While the glass, bronze-ware, and clothing mentioned by Pliny are also recorded in the *Periplus* among the exports of Egyptian manufactured goods to the 'far-side' ports, the other exports he listed, namely brooches, bracelets, and necklaces, are nowhere found there. Such goods would not be sent to India, which was sufficiently industrialized to make its own jewellery, but would be a natural form of export to Indonesia, which was not.³ The fourth aspect of agreement between the two authors is that the *Periplus* shows as exported to Egypt and Arabia from the Somali ports, particularly from Opone, a number of commodities of Far Eastern origin. These included 'the greatest quantity of cassia—and a great deal of tortoise-shell better than that found elsewhere', together with such articles as *cannamum* (? benzoin) and *macir* (? mace), which are not shown as imported, while Pliny includes *cannamum* and *larum*—which commentators agree is aloe-wood, another south-east Asian product—among imports from the confines of 'the cinnamon and cassia country',⁴ that is, from the same Far Eastern source.

¹ *Periplus*, 16.

² *Periplus*, 8–13; Plin. *HN* xii. 88.

³ *Periplus*, 8, 10, 12, 13; Plin. *HN* xii. 98.

⁴ *Periplus*, 25; Plin. *HN* xii. 88.

The explanation given seems reasonable, that the cinnamon was brought by the Indonesians via Madagascar to the islands off Rhapta and from there found its way, under southern Arabian control, to the Somali ports. From these, according to the *Periplus*, a wide variety of grades—*gizir*, *asphla*, *arebo*, *mabo*, and *mosyllum*, to which Dioscorides added *kitho* and *darka*—was exported, showing a highly specialized entrepôt trade. When the *Periplus* speaks of imports and exports in relation to the east African and Arabian ports, the author generally means from or to Egypt. When goods were imported from India, as at Adulis, such as iron and steel and cotton cloth, the origin was specifically stated, and the part of India from which they came. No imports from southern India were recorded at the Somali ports.

To the work of Hornell there has recently been added the result of local research into the history of early sailing craft on the Tanzania and Kenya coasts. Dr. Prins has set out the facts.¹ Two types of boat are involved, the histories of which stretch far into the past: the *ngalawa*, to be found round the islands to the south, and the *mtépe* along the coast to the north. The reason for the inquiry was that, while the *mtépe* had disappeared and the *ngalawa* was fast doing so, both craft remained 'unwritten documents' without any definite history as to their origin. The result is of value in a wider field.

The *ngalawa* is a double outrigger canoe [writes Dr. Prins, summarized]—a hollowed-out tree trunk—a very special type of boat in which the lack of stability is overcome by a balancing device. This type of vessel is limited rather strictly to Indonesia, Western New Guinea, East Africa, and Madagascar. In Madagascar, the double outrigger canoe has been giving way to the single one, a type characteristic of the Pacific Ocean, the coasts of India and Ceylon, and the coast of Java.—The main distribution centre in East Africa is Zanzibar Island. On the Kenya coast it is not very common. The name presumably derives from *gan-gua*, or *gala-gala*, to roll (of a ship). The crucial features of its design are in its balancing gear.—In contrast to Indonesian canoes, the *ngalawa* has a rudder fitted to the stern.—The outrigger does not occur in the Arab world.

Dr. Prins's conclusions are that its date of arrival on the African coast must have been after A.D. 1550 and that it was introduced

¹ A. H. J. Prins, 'Uncertainties in Coastal Cultural History', *TMR*, No. 53 of 1959.

there from the Comoro Islands. Two comments suggest themselves. The first is that the name '*gaa-gaa*' or '*gala-gala*' is of Malay derivation, and the duplication of the word a Malay idiom. The genius of the language is its power to express in similar words, based on a common root, different aspects of a common idea: *galek* جَلِك, for example, to roll as a boat, *goyang* يَرْجُف to rock, and so on, duplication connoting a repetitive motion. The second is that in alluding to the omission of rudders from Indonesian canoes, Dr. Prins repeats what Pliny said about the rafts: *quas neque gubernacula regant*. The reason for the difference is that while a rudder is necessary for coastal and island work, and can be of service on long journeys in the Pacific Ocean, where there are many islands and the motive power may be currents as well as winds, in crossing the Indian Ocean, on the other hand, before a strong and steady monsoon wind, it would be unnecessary, if not an embarrassment in the event of an unexpected squall. Pliny may not have understood all the reasons, but his description is correct.

Regarding the *mtēpe*, Dr. Prins again sets out what facts are known, and here too there is support from classical writings. There are many fables about it, he states, because of its antiquity, and some confusion has arisen between 'sewn boats', a general category, and the *mtēpe*, a very special east African form. Until recently two types of east African 'sewn boats' were plying along the coast: the *mtēpe*, a large vessel of up to thirty or forty tons, and the other the very much smaller *dau la mtēpe*: both now extinct. Burton rightly in the present analogy called the *mtēpe* the lineal descendant of the 'sewn boats' of the *Periplus*.¹ The word 'Rhapta', in Dr. Glaser's view, derives from the Arabic *rabṭa*, from the root *rbṭ*, ارب, 'to bind' in the sense of binding together with fibre the planks of a boat to strengthen them, rather than from the Greek *rhaptēin*, 'to sew together', the similarity of sound and meaning being pure coincidence. It was the class of ships, the distinctive *rhapta phloiaria*, which frequented it, states the *Periplus*, that gave the place Rhapta its name.²

The use of the *dau la mtēpe*, or smaller form of *mtēpe*, in the first century A.D., in the Arab hegemony, over the coastal areas of what are now southern Somalia, Kenya, and Tanzania, is clearly indicated in the *Periplus*. 'At a distance of two days' run

¹ *Periplus*, 15.

² *Periplus*, 16; Glaser, *Skizze*, pp. 207 and 190.

from the island [of Pemba] is almost the last emporium on the continent of Azania. It is called Rhapta. Now Azania, according to some ancient right that falls to the leading Kingdom of Arabia, is governed by the chief of Ma'afri, and on the king's behalf the people of Muza now hold it as tributary and send into it small boats, *ēphōkra*, which have been towed there by bigger ships, manning them with Arab steersmen and crews who through habitual association and connections by marriage are experienced in the different localities, and understand the native speech.¹ Whether Rhapta was situated in the estuary of the Pangani, or, as others think, in that of the Rufiji,² it was an entrepôt area, with many estuaries, where small boats, like the *dau la mtēpe*, would be essential for the coastwise and riverine trade.³

Hornell points out that, in the Indian Ocean, until the coming of the Portuguese, the usual method of building up the hulls of boats was by 'sewing' the planks with palm-fibre, and that the Portuguese introduced nails for pegs and twine-twisting. In the case of the *mtēpe*, he observes that, when the sewing was complete, compound cross-frames, designed to give strength and rigidity, were bound into position by lashings passed through holes in the planking.⁴ This 'binding' would meet the Arabian derivation of the Greek text, as Glaser suggests.

Dr. Prins mentions a taboo which applied to the *mtēpe* as distinct from the *ngalawa*, that no coconut or any of its derived products could be shipped by it. This is of interest as a possible echo of the probability that it was the 'raft-men' or Indonesians who brought the coconut to east Africa;⁵ the southern Arabians would be anxious to avoid the presence of any evidence in their boats—presumably the *mtēpe*—which might point to the true route by which cinnamon had come to Africa. Dr. Prins mentions also among the distinctive features of the *mtēpe* the two pairs of 'eyes'.

¹ *Periplus*, 16; for *ēphōkra*, see LSJM, p. 746, *small boat towed after a ship*.

² This is the view of the Revd. G. Mathew who has visited the alternative sites; see also, in the general context, his 'Recent Discoveries in East African Archaeology', *Antiquity*, 1953.

³ W. S. Lindsay, *History of Merchant Shipping and Ancient Commerce*, 4 vols. (London, 1874-6).

⁴ Hornell, pp. 188, 192, 193, 234, 235, and 236, and frontispiece showing a modern *musalla*, 'sewn boat', of Madras.

⁵ *Periplus*, 17; Schoff, p. 99; Cosmas xi. 336; reading *νερύλαος* with Müller in Proll, *cvi* for the text *νερύλαος* a ship perhaps for *νερύλαος*; the Sanskrit is *nari-kela*, Prakrit *nargil*, Malay *nijor*, Cosmas has *ἀνρύλαος*.

Hornell, under the heading of 'The Cult of the Oculus' in his *Water Transport*, writes 'The craft of Zanzibar and the Comoro Islands often has eyes repeated in the bow and stern. This survival is possibly due to traditional usage dating from the period when Indonesian influence was strong in the region... It is important to note that the only other people apart from the Zanzibaris and Comorians who have oculi on both ends of their boats were the Javanese, for we see boats with these eyes fixed both fore and aft among the sculptured scenes at Boro Budur in Java.'

The conclusion would appear to be that the *ngalawa* and the *mithe* were the lineal descendants of the 'rafts' of Pliny and the *rhaphia plaiaria* of the *Periplus*, and together, like them, fulfilled a complementary function pointing to a continuation of some measure of the ancient trade into medieval and early modern times.

The coming of the Indonesians to east Africa, as indicated by the researches of Hornell and Dr. Prins, certainly took place much earlier than these authors contemplated. The Malagasy settlement of Madagascar is undoubtedly ancient, and was likely to bring a seafaring people into contact with the trade in gold, ivory, and spices which flowed from the neighbourhood of the modern Tanzania to the sea and down the Nile Valley to the Mediterranean. When the Pharaohs went to Punt, they were tapping a forward entrepôt area which contained a high grade of ivory¹ and indigenous spices. But also to be found there were other *aromata* not native to Africa, and gold in addition to that mined in the eastern Desert, which had come from further south.² The possession of gold gave purchasing power to the holder, and attracted traders—'les hommes venus d'ailleurs' in Mme Thierry's phrase³—from across the world. It was not only the avidity for gold of ancient Egypt that reduced the resources of the eastern Desert and Nubia: Mycenaean sherds found near Meroe point to a trade in wine and oil, which were

¹ *Peripl.* 17.

² Breasted, p. 196; see also Cosmas (ii. 85n) and p. 166 for expeditions in search of gold into central and southern Africa, and I. M. Lewis, *A Pastoral Economy: a study of Pastoralism and Politics among the Northern Somalis of the Horn of Africa* (Oxford, 1961) with reports of ancient mine workings at Masaka and other places near I. Albert and L. George, p. 217, shown in Map 6.

³ Mme S. Thierry, *Madagascar* (Petite Plannete, 1961).

paid for in gold.¹ When Necho's Phoenicians about the year 600 B.C. set off south on a voyage which, according to Herodotus, resulted in the circumnavigation of Africa,² they were almost certainly in search of gold, and the language suggests that the voyage down the east coast had been made before and might be made again.

Rhapta is described in the *Periplus* as 'the very last market-town of the continent of Azania',³ which, being interpreted, meant that it marked at the time the southern headquarters of Arab influence on the east African coast. The author placed it 'two days sail south of an island of the group called the Menuthias, *Mewthas*', which might appear to be collectively Pemba, Zanzibar, and Mafia. Ptolemy put it in the estuary of a river of the same name. Among these alternatives, Rhapta could be in either the Pangani or the Rufiji estuary, opposite Mafia, 120 miles to the south. Modern authority in Tanzania, aided by a study of the merchant Diogenes, who travelled in the area and left a report, considered a likely site to be somewhere in the Pangani estuary (5° 25' S.), opposite Pemba where Roman coins have been found. Mr. H. C. Baxter, in a contribution to *Tanganyika Notes and Records* entitled 'Pangani: the Trade Centre of Ancient History', mentions Diogenes, who, travelling via Menuthias and Rhapta in the latter half of the first century A.D., made a journey inland of twenty-five days, part of it up the Rhapta river, until he came to two snow-capped peaks—Kilimanjaro and Meru—which he called the Mountains of the Moon, τὸ τῆς Σελήνης ὄρος, 'from which the lakes of the Nile receive snow-water'. Diogenes' report was adopted by Marinus of Tyre, and through him by Ptolemy, who showed a river Rhapta extending for more than 200 miles inland. Mr. Baxter thinks that Diogenes may also have been an informant of the author of the *Periplus* on this region.⁴ Mr. J. W. T. Allen, another authority on the early history of Tanzania, describes, at Manyuzi, situated on the Pangani estuary and about thirty miles from the town of Pangani at its mouth, a water-hole and a stone monument called by the local people (in Swahili) *Juze la Mungu*, or 'Stone of God', and inscribed with what

¹ Authority: Revd. G. Mathew.

² Hdt. vi. 42.

³ *Peripl.* 16.

⁴ H. C. Baxter, 'Pangani: the Trade Centre of Ancient History', *TNR* June, 1944, 15-26; *Pol.* i. 17 and iv. 7; *Enc. Brit.* xix. 697b, s.v. 'Nile'.

appears to be Semitic lettering, ascribed by local tradition to 'wa Yahub',¹ who might be Necho's Phoenicians. Mr. Allen adds that he has calculated the length of the journey from Pangani to the slopes of Kilimanjaro and found it to take, as Diogenes had said, twenty-five days, and points out that the distances of thirty miles from 'Menthias' (say Zanzibar) to Pangani, and again from Pangani to Mnyuzi (if this is equated with Rhapta), as estimated by Diogenes, were also correct. What is especially relevant to the identification of Mnyuzi with Rhapta is that the latter part of the name, namely, the syllables *uzi*, means, in Swahili, a 'string, thread, fibre, or ligature';² thereby linking it etymologically with its Greek or Arabian prototype. There is, too, as has been mentioned, the alternative site of the Rufiji estuary (8° S.), but here too no corroborative archaeological evidence has been found. Ptolemy's informants knew the east African coast, directly or indirectly, as far as Cape Prasum at 15° S., which lay opposite the Comoro Islands. He himself had much to say about Rhapta which he called a metropolis, and there is no doubt that it was an entrepôt of increasing importance in his time.

Finally, in the sixth century A.D., there was Cosmas Indicopleustes, a merchant from Alexandria who made a voyage to Ceylon, including the west coast of India, later becoming a monk to enable him to record, together with a scriptural exegesis, his experiences, as a contribution to descriptive geography. He was also acquainted with Ethiopia. He included in his *Christian Topography* not only an account of the foreign shipping which frequented the harbours of Ceylon, but also, from his fellow passengers who accompanied him there from Adulis, a statement of the inland trade from Ethiopia towards the south. This account is important because it shows that, in spite of the opening of Ceylon under the Sassanids, spices from the Far East continued to come by the Madagascar route, and that the gold received in exchange for the cattle, salt, and iron-ware, was already refined and in a form suggesting an ancient Egyptian and a Roman background. It also describes in detail the silent trade

¹ J. W. T. Allen, 'Rhapta', *TNR* June, 1949.

² A. C. Madan, *Standard Swahili Dictionary*, revised by F. Johnson. See *O.A.*, p. 76 E4, which shows 'Mthcaza' in the same place, c. 30 m. from Pangani, on the Tanga-Korogwe section of the northern railway line which runs along the old Pangani estuary, 'Nyusisi' on old German map.

by which the exchange was made, and it indicates the continued role of Ethiopia as a link between the Mediterranean and the gold-producing region of the south, by whatever name—Emu, Agizymba, or Sasu—this was called.

Azania [wrote Cosmas], is situated beyond the country called Barbaria which produces frankincense. . . . The region which produces frankincense is situated at the projecting part of Ethiopia, and lies inland and is washed by the ocean on the other side. From here the inhabitants of Barbaria, being near at hand, go up into the interior, and, engaging in traffic with the natives, bring back from them many kinds of spices, frankincense, cassia, calamus, and many other articles of merchandise, which they afterwards send by sea to Adule, to the country of the Homerites, to Further India and to Persia. . . . And beyond Barbaria near the Ocean and in the remotest part of Ethiopia, is the land of Sasu, in which there are many gold-mines. From Axum to Sasu there are fifty stages (*μωαδ*) more or less.¹ The King of the Axumites, accordingly, every other year, through the governor of Agau,² sends there special agents to bargain for the gold, accompanied by many other traders, upwards, say, of five hundred, bound on the same errand as themselves. They take along with them to the mining district oxen,³ lumps of salt, and iron-ware, and when they reach its neighbourhood they make a halt at a certain spot and form an encampment, which they fence round with a great hedge of thorns. Within this they live, and having slaughtered the oxen, cut them in pieces, and lay the pieces on the top of the thorns, along with the lumps of salt and the iron-ware. Then come the natives bringing gold in nuggets like lupin seeds (*βέριμα*)⁴ called *tancharas*,⁵ and lay one or two of

¹ See Ptolemy's *Geography*, Bk. i, chaps. 6–10 (Stevenson, pp. 29–32), and Bk. iv, chaps. 7, 'Ethiopia below Egypt', and 8, 'Interior Ethiopia', and the Fourth Map of Libya (Stevenson, pp. 107–9).

² Note by McCrindle, 'The Agau people is the native race spread over the Abyssinian plateau both east and west of Lake Tana.' (This is relevant to the itinerary of Julius Maternus from Leptis Magna via Ethiopia to Agizymba.) Authority: Bernard de Montfaucon (1695–1741) in his *Topographia christiana*, included in his *Collectio nova palmarum et scripiorum graecorum*, and the *Patrologia Graeca* (Migne, Paris, 1864), from which McCrindle's translation was made.

³ Ethiopia is still a noted exporter of cattle for beef: authority BBC Home Service, 'On your farm', 5 Nov. 1966.

⁴ *βέριμα*, lupin seeds, dim. of *βέριος*, lupin, in this case probably *Lupinus termis* (see *Enc. Brit.* xvii. 127d) which was cultivated by the ancient Egyptians, and may have found its way down the east African coast in the hands of the Phoenicians. The lupin of the Greeks and Romans was probably *L. albus*, but with the same copper-coloured seeds: cf. Hor. *Ep.* i. 7. 23, 'Nec tamen ignora quid distent acra lupinis.'

⁵ *Tancharas* τανχαρας, a foreign word for gold: *OGI* 199, *AP*, 15. 25. 7; *LSJM*, p. 1752. The scholiast writes 'τανχαρος γὰρ ὁ χρυσός, ὃ λέγεται Ἰερακική; Winstedt on text at p. 71, ll. 8–9 quotes similar words in Aethiopian, Arabic, and

these upon what pleases them—the pieces of flesh, or the parcels of salt, or the implements of iron, and then they retire to some distance off. Then the owner of the meat approaches, and if he is satisfied he takes the gold away, and upon seeing this its owner comes and takes the flesh or the salt or the iron. If, however, he is not satisfied, he leaves the gold, when the native seeing that he has not taken it, comes and either puts down more gold, or takes up what he has laid down, and goes away. Such is the mode in which business is transacted with the people of that country, because their language is different and interpreters are hardly to be found. The time they stay in the country is five days more or less, according as the natives more or less readily coming forward buy up all their wares. On the journey homeward they all agree to travel well-armed, since some of the tribes through whose country they must pass might threaten to attack them from a desire to rob them of their gold. The space of six months is taken up with this trading operation, including both the going and the returning. In going they march very slowly, chiefly because of the cattle, but in returning they quicken their pace lest on the way they should be overtaken by winter and its rains. For the sources of the Nile lie somewhere in these parts, and in winter, on account of the heavy rains, the numerous rivers which they generate obstruct the path of the traveller. The people there have their winter at the time we have our summer. It begins in the month Epiphi of the Egyptians (July) and continues till Thoth (September), and during the three months the rain falls in torrents and makes a multitude of rivers all of which flow into the Nile.

The facts which I have just recorded fell partly under my own observation and partly were told me by traders who have been to those parts. And I now wish to give an account to your Piety¹ of a matter quite pertinent to our subject. On the coast of Ethiopia, two miles from the shore, is a town called Adulē, which forms the port of the Axumites and is much frequented by traders who come from Alexandria and the Gulf of Aelana (Aqaba).²

Afghan but omits the Persian *اُكْس* (*unkh*) meaning 'a leaf or sheet of metal, of gold or silver; gold, money; a certain coin' (Steinglass, London, 1892, p. 329), a word now replaced for 'gold' by *j* (*zar*), see Halm, Teheran, 1962. *Persian, Arabic and English dictionary*, London, 1853, p. 389). This corroborates the scholiast and confirms the universal search for gold in ancient times.

¹ Parnophilus, to whom the book was dedicated (McCrindle, iii).

² On Adulis, the modern Zula, Pliney (*HN* vi. 173) stated that it was an important emporium of the *Trogodytae* and also of the Ethiopians, there being brought into it a large quantity of ivory, rhinoceros horn, hippopotamus hides, tortoise-shell, apes, and slaves; and the *Periplus*, (s. 4), that a road led to Coloe (Kohaito), an important ivory market, a three days' journey, and on to Axum, another five days, and that to Axum there came through Cyenum (Sennar) all the ivory from beyond the Nile.

Dr. Freeman-Grenville, who also quotes this passage (but not in full)—strangely reminiscent in parts of Herodotus' description of the Phoenicians after crossing the equator—asks why the author makes no reference to the ivory trade and the tortoise-shell trade of Rhapta mentioned in the *Periplus*. Did the 'men of experience' on board say nothing about them? For the same reason, perhaps, that no mention was made in the *Periplus* of the sources of cassia and calamus. Another reason is that this may have connoted regular expeditions to central Africa, including parts south of the equator, as is clear from Marinus and Ptolemy, perhaps to Masaka, or even to Zimbabwe, for gold, perhaps, the 'green gold of Emu' associated with Punt. What is the significance of 'Sasu, near the Ocean'? Could this be Sofala? The Phoenicians must have passed this way on their voyage south, when they brought to the West the name of cinnamon.¹ Dr. Freeman-Grenville refers to the two Roman coins, probably found on Pemba Island, now in the Zanzibar Museum, the one of Justin I (518-27) and the other of Justinian I (527-65), together with the other coin-finds at Pemba, and to those found in Kenya in the neighbourhood of Port Durnford,² as evidence that there was a continuous connection between the Roman world and the east African coast as far south as Rhapta, if not beyond it, up to Islamic times.³

The presence of Indonesian influences in Madagascar, which are many and varied, was first noticed by Dutch officials returning from the East. They are cultural, technical, and linguistic. Malagasy—the language of a population of four million in a country some four and a half times the size of England—is to a high degree Indonesian. The recent comparative study in the book of Otto Dahl, *Malgache et Mauryan*,⁴ establishes a close

¹ Breasted, p. 276; see also I. M. Lewis, *A Pastoral Democracy*, p. 217, for the remains of 'some sort of mine-working at Masaka' and other forms of earthworks and ancient sites, and an 'elaborate system of elliptical banks within the circuit, and occasional straight ditches', and pottery 'very like the Zimbabwe ware Class A', in the area east of L. George, in the western rift-valley, on the Uganda-Congo border; *OA* 76.

² H. Martingly, 'Coins from a Site-Find in British East Africa', *NC* (1932), p. 175.

³ G. S. P. Freeman-Grenville, 'Cosmas Indicopleustes: a Problem in East African History', *JNR* (1959), pp. 57-60; Cosmas, ii. 85D (139): McCrindle's translation, pp. 50-2.

⁴ See p. 159, n. 1.

connection between it and the language of the Maanjaan, a Malayan people occupying the middle-upper reaches of the Barito river in south Borneo, at the mouth of which is Banjar-massin. Arab traders in the twelfth century, as in Malaya, taught the people of Madagascar Arabic writing. There is no trace of an earlier literature. But, as writing is done on palm leaves and bamboos, manuscripts would have perished. The Malagasy word for 'writing', for example, '*soratra*' in one dialect and '*soratra*' in another, is the Malay word *surat* which also means 'writing'. Numbers, too, and terms for numerical coefficients, are similar in both languages.

Technical influences include musical instruments such as the xylophone, and the form of Indian lyre, *en demi culbasse*, called in Sanskrit *vina*, known both in Java and in Madagascar.¹ A. M. Jones, in his book *Africa and Indonesia: the evidence of the xylophone and other musical and cultural factors* (Leiden, 1964), has shown and illustrated how powerfully this form of Indonesian culture—the xylophone—has spread across Africa in a north-westerly direction, from the mainland opposite Madagascar to the Guinea Coast and Senegal. Other distinctive Malayan or Indonesian features found in Madagascar include the blow-pipe, different types of boat, rice-cultivation, both 'wet rice' by irrigation and terracing and 'dry rice' (Malay *ladang*, Malagasy *lany*) after burning the undergrowth, the domestication of cattle for ploughing rice-fields, houses on stilts, etc.

Cultural influences include the worship of ancestors, the practice of double burial, holy places (Malay *kéramat*), megaliths, rites associated with rice planting and harvesting, and the use of Sanskrit terms by both peoples for common objects affecting everyday life.²

¹ P. R. Kirby, 'A Musicologist looks at Africa' (SMAA, Dec. 1961); C. M. Dubois, *Les Instruments de l'Inde ancienne* (1941) 215; Monier-Williams, p. 1005.

² For the Malagasy, as for the Malays, rice is the staple diet, and the spiced fish, meat, vegetables, or eggs cooked with it is called in Malagasy *lanka* and in Malay *lauk*: J. Faublé, *L'Ethnographie de Madagascar* (1946), p. 25. See also: H. Deschamps, *Histoire de Madagascar* (1960); J. Faublé, *Les Égyptes de la vie à Madagascar* (1954); Le Sicut Étienne de Flacourt, *Dictionnaire de la langue de Madagascar* (1658); G. Ferrand, 'Les origines malgaches: essai de phonétique', *IE* xviii (1938); A. Grandidier, (1) (ed.), *Ethnographie de Madagascar* (1908); A. Grandidier, (2) (ed.), *Collection des ouvrages anciens concernant Madagascar*, 8 vols. (1903-20); G. Grandidier, *Bibliographie de Madagascar* (1905-35); K. Sachs, 'Les instruments de musique de Madagascar', *IE* xviii (1938); Mme S. Thierry, *Madagascar* (1961).

A study of the Sanskrit element in Malagasy as compared with that in Malay is important as an indicator of the time at which Indonesian influence first came there. In the Malay language there are two types of Sanskrit (or Prakrit) derivatives. The first consists of a large proportion of specialist words, used to express particular ideas dealing, for example, with royalty, rank, the Hindu religion, philosophy, and so on. These would come in with the migrations dating from about the beginning of the Christian era, which brought about a superficial hinduization of the area, and would be dominant in and around the Courts. The second type consists of everyday words, household articles, terms of measurement and association. These are found incorporated in the various dialects and languages of the Archipelago, and were probably brought in by Kalinga traders long before hinduization by settlement began. Sanskrit words in Malagasy are mostly of the earlier type.

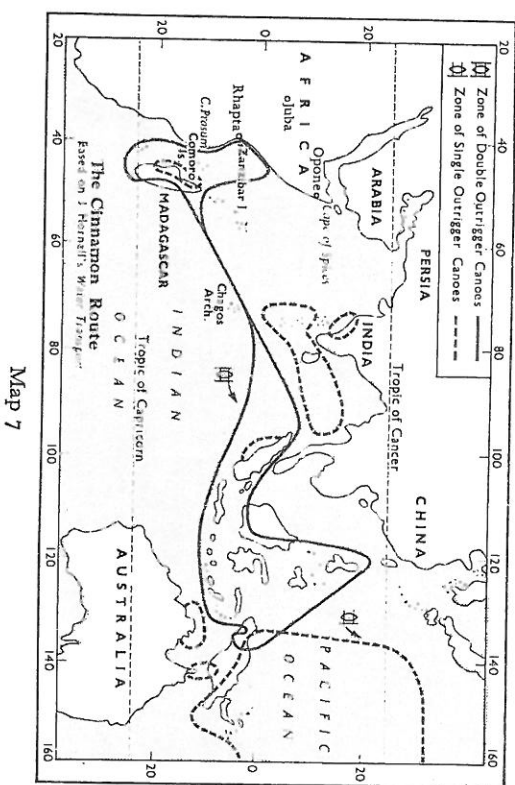
Kalinga was one of the historic kingdoms of India.¹ It dominated the east coast, extending at one time from the Ganges Valley to the Pulicat Lake north of Madras, and was famous for its maritime trade, especially with south-east Asia, where, in the Malay language, the name Kéling is still an ancient synonym for immigrants from the Coromandel coast.² It was conquered by Asoka in 255 B.C. Sanskrit had been in use in India since about 1500 B.C., and the vigorous and homely Prakrit derivatives dealing with trade, agriculture, and domestic life, which are common to the Malay and Malagasy languages, could only have come when Kalinga was a strong and active power. The beginnings of the Indonesian or Malagasy settlement of Madagascar may therefore go back to the second millennium B.C., to the time of the Shang or Yin dynasty in China and that of Hatshepsut in Ancient Egypt, and it was along the route which ran direct from Java³ to Madagascar, and thence via Rhapta to the Nile Valley and the Somali ports, that the cassia and cinnamon of China and

¹ Mme. S. Thierry, 'A propos des emprunts sanskrits en malgache', *Jd* (1959), vol. 3; see also J. Gonda, *Sanskrit in Indonesia* (Nagpur, 1952), pp. 67-9; Sir W. M. Jones, 'Sanskrit loan-words in Malay', *AR* 1795.

² Davies, *Maps* 2 and 5; Plin. *HN* vi. 64 and 72; *Enc. Brit.* xv. 642, s.v. 'Kalinga'; Wilkinson, p. 326; Winsted, p. 149.

³ Perhaps the 'Zabaj, 𐤆𐤁𐤀' of Idrisi (A.D. 1154), from which, he said, direct voyages had earlier been made to Madagascar; Hall, pp. 45, 51, 54, 55, and 91.

south-east Asia came to the Mediterranean in Roman imperial times. This was the Cinnamon Route.



Map 7

THE ENTREPÔTS

AN entrepôt is defined as 'a commercial centre, a place to which goods are brought for distribution'.¹ It is thus more than a market or market-town. The Greeks had a descriptive word for a wholesale merchant: the *emporos* (as distinct from the *kabēlos* or retail dealer) was someone who went on board a ship as a passenger in order to make a voyage and import goods for himself. Where he found them was the *emporium*. The Romans more prosaically called him a *mercator* (as distinct from a *caupo* or petty trader) because he dealt in *merces* or commodities on a big and varied scale. The *emporos* and the *mercator* would both betake themselves to a type of market where the greatest variety of goods would be available, where his own goods or his credit would be accepted, and where there would be foreign banking firms to negotiate the exchange. In such a market, trade would be international. The more foreign merchants and bankers there were, and the greater the number of ships or caravans from far and near, the better for trade. Such a market should be as accessible as possible. There should also be a good harbour, if it is on a sea route, and provision for the supplying and, if necessary, the careening of ships. To the Greeks in the Mediterranean, such an entrepôt was provided in the island of Rhodes, in the centre of the Aegean, and another in the island of Delos, situated at a strategic corner of the Asian mainland and equidistant from Cyprus and Crete, where the main routes between Egypt and Byzantium crossed those between Antioch and the West. Rhodes in addition possessed a strong fleet and conducted a carrying trade.

Delos and Rhodes are mentioned because their attributes represented some of the essential qualities of the true entrepôt. In the Mediterranean, the Phoenicians had Carthage, while the Romans, when they turned to international trade, relied on Alexandria.

¹ *SOED*, p. 618.