

SOUS LA DIRECTION DE
Chantal Radimilahy et Narivelo Rajaonarimanana

Civilisations des mondes insulaires

**(Madagascar, îles du canal de Mozambique,
Mascareignes, Polynésie, Guyanes)**

Mélanges en l'honneur du Professeur Claude Allibert

Éditions KARTHALA
22-24, bd Arago
75013 Paris

The Maldives connection: pre-modern Malay World shipping across the Indian Ocean

Pierre-Yves MANGUIN
*Directeur d'études
École française d'Extrême-Orient*

The people of Insular Southeast Asia, being the inhabitants of the largest archipelago in the world, have for long been routinely described as skilled mariners.¹ It is generally accepted that Austronesians, after leaving their homeland in Taiwan approximately 5 000 years ago, sailed south into Insular Southeast Asia, where they soon overshadowed pre-existing populations. From there, they went on sailing east into the Pacific, all the way to Easter Island, leaving few islands unpopulated, and west across the Indian Ocean, partly turning Madagascar, culturally and linguistically, into an offshoot of

1. Throughout this essay, rather than write about "Austronesian speaking peoples" only, I will often more generally refer to the "peoples of Southeast Asia" or of "Insular Southeast Asia". Though the share of Austronesian speaking populations of Southeast Asia and the Pacific appear to have been overwhelming in the development of sea going techniques, Melanesians, Mon and pre-Han populations of Southern China may well also have had their say in the process too.

Southeast Asia.² However, for long, once lip service was paid to such obvious maritime adaptations and sailing talents, little else was usually said about the matter. Excellent studies of the surviving small sailing vessels of Oceania or Southeast Asia were often carried out. Only a few scholars, however, remarked that Austronesians of the Western half of Insular Southeast Asia could also have built larger vessels for high seas navigation and large scale trade. Cultural diffusionists were thus content to discuss the origins and distribution of single or double outrigger canoes, of lug sails and other features, with no relationship to the historical context of Southeast Asia.³

The unsuspecting reader was therefore largely left with the romantic, but unsubstantiated idea that fearless Austronesians had paddled around half the planet on flimsy boats. Another prevailing theory contended that the peopling of the Pacific Ocean by Austronesians was the result of accidental island-hopping. In such a context, it was difficult to try to understand how — in which practical circumstances — those same Austronesians that had peopled Southeast Asia had also leaped west across the Indian Ocean, reached East Africa and peopled Madagascar.

The very few scholars that blew an early whistle were experienced sailors and knew something was amiss, but little attention was then paid to their work.⁴ The first solid blows to such a negligent approach came from the Pacific fringes of the Austronesian world: scholars experimentally re-enacted, with the help of the last generation of skilled indigenous high-seas navigators, a variety of far reaching Oceanic crossings.⁵ In the process, they brought to light the sophisticated non instrumental navigational techniques which allowed the Austronesians to progressively occupy the Pacific Islands, to reach and keep contact with remote and often tiny islands thousands of miles away, in a process that lasted well into the first millennium CE.

-
2. The books by Bellwood (1997) and Bellwood & Glover (2004) provide the most up-to-date synthesis of the available evidence on early peopling of Southeast Asia.
 3. A typical example of such a diffusionist approach will be found in Hornell's compilation of his major works [1970 (1946), specifically pp. 253-271].
 4. Gabriel Ferrand (1910, 1918, 1919), a former Navy officer, looms prominently among those scholars who tried to draw attention to the past high-seas maritime skills of Southeast Asians. As early as 1910, drawing on Portuguese and Arabic sources, he remarked in his paper "Les voyages des Javanais à Madagascar" that Malay World sailing traditions had a lot more to show for than just what was then visible. The sociologist Bertram Schriek also tried to follow such common sense tracks in a short essay (1919). Later Christiaan Nooteboom, whose own dissertation was on Indonesian dug-outs (*largo sensu*), followed up on Ferrand and Schriek in another short essay (1950).
 5. See, among many others, Gladwin (1970), Dodd (1972), Lewis (1975, 1980), Feinberg (1988).

Through reassessing of the 18th century descriptions by Western explorers, it was also proven that the vessels that carried these people into the Pacific had often been complex and large plank-built canoes, not mere dug-outs.

Linguistic and anthropological approaches helped in the construction of a renewed paradigm for the role of Austronesians in shaping their seascapes. The fact that sea, ships and maritime trade played such an important role in societies speaking Austronesian languages is also made obvious by the recurring references to these in their rituals, mythology, iconography and literatures. Similarly, terms revealing early adaptations to a maritime environment and mastering of sailing techniques were reconstructed by linguists for proto-Austronesian languages (Scott 1982; Manguin 1986, 1991; Adelaar 1995, 1996, 1997; Blust 1976, 1984-85; Pawley & Pawley 1998; Waruno Mahdi 1999).

Meanwhile, those Austronesian speaking people that had remained in Insular Southeast Asia developed large states during the first millennium CE, leaving behind a number of written sources and monuments as a testimony to their early grandeur. Until recently, the emphasis on the apparent imposition of foreign cultural traits known as “Indianisation” or “Hinduisation”, from the 4th-5th century CE onwards, followed by “Islamisation” after the 13th century, largely concealed the internal dynamics of these Southeast Asian polities. As a reaction to this approach, historians first started to draw attention to the vital role played by some of these early polities in shaping local, then regional, and soon Asia-wide long-distance exchange and trade networks.⁶ Regional networks of South East Asia, some of them involving long distance exchange patterns, were clearly forged long before Indian or Chinese religious or political influences were felt around the beginning of the Christian era. In the last few centuries BCE, the diffusion into the whole region, as far as New Guinea, of artefacts such as bronze drums and axes from northern Vietnam are proof of the existence of such long distance networks. Archaeologists are now in the process of bringing to light what may well be incipient harbour polities on the west coast of the Malay Peninsula, the east coast of Sumatra and the north coasts of Java and Bali. As early as the turn of the first millennium CE, these appear to have traded as far east as Southern China and west across the Bay of Bengal.

6. Historians Van Leur (1955) and Wolters (1967), in their trend setting books on Southeast Asian trade were instrumental in shifting the attention of scholars to Malay shippers and traders. Studies by Wisseman Christie (1986, 1990) on the relationship between maritime trade and state formation in early first millennium AD Southeast Asia provide clear examples of what has been achieved in this field. See also Manguin (2004).

Other sites on coastal Continental Southeast Asia similarly show evidence of having been in touch with remote parts of Asia.⁷

Maritime powers of Insular Southeast Asia not only controlled much of the trade carried along the trans-Asiatic maritime route but were also among the major shippers along these networks. The incipient trade-oriented polities of the early first millennium CE, followed by more complex Indianised states such as Srivijaya (7th-13th c.), Java-based Majapahit (12th-14th c.), and finally the multiple Islamic harbour-cities of 13th-17th centuries (such as Acch, Melaka, Banten, Demak, etc.) are all known to have operated locally built trading vessels of more than respectable size (500 tons is a figure one often comes across in written sources). The “lashed-lug and stitched plank” technique (described below) was used for vessels of all sizes during the first millennium CE and the first few centuries of the second millennium. Progressively, during the first half of the latter millennium, it gave way in the larger Southeast Asian trading vessels to structures where frames and planks were assembled with wooden dowels only (and with iron nails in the hybrid South China Sea tradition).⁸

The building and operation of large sailing vessels by the people and polities of Insular Southeast Asia, at least as early as the first few centuries CE, now being generally accepted as a fact, the question nevertheless remains as to which routes were plied by these large ships (and, accessorially, to what purpose). All Southeast Asian ship remains found so far in archaeological sites were excavated within the region itself. We therefore have to rely mainly on written sources and regular archaeological work to reconstruct Southeast Asian networks in the Indian Ocean during the first fifteen centuries of this era (the scant archaeological data available rarely tells us which were the shippers of the artefacts found in recovered assemblages).

7. See, among others, Ardika & Bellwood (1991, 1993), Christie (1990, 1995), Glover (1989), Bellina & Glover (2004), Manguin (2004).

8. On Southeast Asian shipbuilding techniques and trading ships in historical and archaeological contexts, see Green (1984, 1990, 1998), Flecker (2001, 2002, 2007), Horridge (1982), Manguin (1980, 1985a, 1989, 1993a, 1993b, 1996, 2000).

Shipping along the northern routes of the Indian Ocean

The northern hemisphere part of the Indian Ocean bordered on the most developed Asian regions. In late prehistoric, proto-historic and historic times, such sea routes were thus part and parcel of the essential trans-Asiatic maritime route leading from East Asia to the Mediterranean, via the straits of Southeast Asia, the coasts of South Asia and the Middle Eastern isthmuses. The key economic areas of Insular Southeast Asia, mainly the Malay Peninsula, Sumatra and Java sat astride the Equator but had direct control, in the straits zone, over the northern network. Most economic powers of the Old World, from China to Europe, at one time or another during the past two millennia, had their traders and trading ships operating on these crowded sea lanes. Most of them left us precious written records on what went on in the Indian Ocean. Such sources have been extensively studied during the past century. During the last few decades, after the role of Southeast Asian powers on this trade route started being recognized, it has become an established fact that the large ships they built and operated plied most commercial routes to the north of the Equator, from China to the Middle East.

Chinese sources refer to such Southeast Asian ships being observed in Chinese harbours as early as the 3rd century CE, and we know from the same set of sources that the Buddhist monks that sailed on them in the 7th century CE towards Srivijaya harbours of Sumatra and the Malay Peninsula boarded the same vessels on their way to and from harbours in the Bay of Bengal (Manguin 1980, 1996). Chinese sources also tell us that, during the three centuries preceding the rise of Srivijaya in the 7th century, Southeast Asian powers had their ships plying Indian Ocean lanes to collect Middle Eastern products at Ceylon and sell them back in China (Wolters 1967, esp. chap. 10: 139-172). Portuguese sources of the 16th century then allow us to partially reconstruct some of the earlier trade routes on which Malays and Javanese operated during the world wide economic boom of the 15th-16th century, carrying cargoes that belonged to rulers and merchants based in Melaka and in various harbour-cities of the straits area and the Java Sea (Pires 1944: II, 367, 496 ff; Thomaz 1988).⁹ By then, a few decades only before the people of the Malay World withdrew from high-seas shipping in

9. Two recent books describe with much detail the 15th-17th century Malay World trade networks during this Islamic moment of their history, in what is now often referred to as an "Age of Commerce": Reid (1988-93), Lombard (1990, esp. vol. 2).

the second half of the 16th century, they chiefly sailed to Southern China, Philippines, the Moluccas and Coromandel. But these sources also carry clear indications of late 15th or early 16th century Indian Ocean trips leading them as far west as the Maldives, Calicut, Oman, Aden and the Red Sea.¹⁰

The Southern Indian Ocean and the Madagascar connection

Insular Southeast Asian polities were in a unique position in the Indian Ocean. During more than two thousand years, as we have just seen, they actively participated in and, at times (under Srivijaya or Melaka), they appear to have largely controlled whole stretches of trans-Asiatic trade networks. However, due to their geographic position astride the Equator, they also had easy access to routes leading into the Indian Ocean south of the line. The latter could lead, via the southernmost islands of the Maldives, towards East Africa and, chiefly, to the “Great Island”, Madagascar. Shippers from Insular Southeast Asia were probably the only ones to sail along these routes, as will be seen further down.

As early as 1910, Gabriel Ferrand had noticed that 16th century Portuguese authors, when they described the Malay World shippers they came across in the Indian Ocean, transcribed still vivid memories of earlier voyages to Madagascar and were the first Europeans to note that languages spoken on both sides of the Indian Ocean were akin. Ferrand actually started his article on “Les voyages des Javanais à Madagascar” with a typical quote from Diogo do Couto’s *Décadas da Ásia* (Ferrand 1910: 281)¹¹:

“[The Javanese...] are all very proficient in the art of navigation, to the extent that they claim to be the most ancient navigators [...]. There is no doubt that they have sailed all the way to the Cape of Good Hope and that they had been in touch with the outer [i.e. Eastern] coast of the Island of São Lourenço [Madagascar] where one finds many coloured and Javanised indigenous people whom they say are their descendants.”

My purpose here is not to deal once more with the undisputed fact of Austronesian participation in the peopling of Madagascar. The timing and the modalities of this cultural, linguistic and genetic input remain very much

10. For the available textual evidence, see Manguin (1993: 199).

11. The quote is from Diogo do Couto, *Da Ásia*, década IV/iii/i (Barros & Couto 1777-1778: vol. 10, 169).

a matter of discussion among scholars and depend on variable interpretations of still shaky data gathered from the fields of anthropology, linguistics, archaeology and history.¹² My aim is only to examine the problem from the angle of shipping and sailing routes.

As noted above, a lot has been written about the diffusion from Southeast Asia into the Indian Ocean of canoe-building techniques (particularly that of single and double outriggers). There is little doubt that such techniques were introduced there by Austronesian-speaking people. This, however, does not necessarily carry the corollary that they actually sailed in these small vessels across the Indian Ocean or along its shores, all the way to and from Madagascar. We have now seen that Insular Southeast Asia people did master the techniques necessary to build large trading vessels from at least the first few centuries CE, when the first contacts with Madagascar are thought to have taken place. I therefore believe it is more reasonable to picture them sailing the latter rather than frail outrigger canoes. Large plank built boats were still to be observed on the east coast of Madagascar in the 19th century; due to the lack of relevant sources on the structures of such vessels, it has been unfeasible so far to ascertain if the latter were descendants of Southeast Asian vessels (Macé-Descartes 1846: 299-301; Hornell 1944). The smaller canoes (or the associated technical know how) would however have been brought along with them.¹³ An assortment of more or less explicit 10th to 13th century Arabic texts tell us about people — thought to be Southeast Asians — sailing in ships and large fleets to Madagascar and surrounding areas of East Africa and the Middle East, but this is about as much as we can gather from historical sources on the matter.¹⁴

Another point of interest is to try and find out which routes could or would have been used by navigators from Insular Southeast Asia to sail

12. On various approaches to the study of the Austronesian component of Malagasy culture and on trade contacts between Southeast Asia and Madagascar, see, among others, Allibert (1999, 2007), Beaujard (2003, 2005), V \acute{e} rin (1972, 1975, 1986), V \acute{e} rin & Wright (1999), Dewar (1996), Dewar & Wright (1993), Kottack & V \acute{e} rin (eds., 1986), Marschall (1995), Chittick & Rotberg (eds., 1975), Adelaar (1995, 1996, 1997), Dahl (1991, 1995).

13. Though, of course, a crossing on an outrigger canoe is technically possible: such a canoe, 20 metres long and built following the stitched-plank and lashed-lug technique, successfully crossed over from Indonesia to Madagascar under the command of skipper Robert Hobman in 1985, and has overwhelmingly proven the seaworthiness of such vessels (Hobman 1987). A replica of the outrigger vessel represented on the 8th Borobudur reliefs was also sailed across the Indian Ocean in 2005.

14. These are summarized in V \acute{e} rin (1986: 41-45).

towards the “Grande Île”. One first remark about the 16th century Portuguese reminiscences is that they are surprisingly specific: one would not expect to be offered such vivid recollections of earlier contacts with Madagascar if these events — or rather the last of these contacts — had been removed more than three or four generations in time. Taking the Portuguese arrival in the Indian Ocean as the earliest possible source for this information, this would bring us back, at the earliest, towards the second half of the 14th century. This is later than the commonly acknowledged terminal dates for such interactions between the two sides of the Indian Ocean, which is usually given as the 12th or the early 13th century.

A confirmation of these late contacts may be sought in the information the Portuguese got when they first sailed east around Madagascar under the command of Tristão da Cunha, early in the 16th century: clove was said to be available there. Clove, as is well known, then only grew in the Moluccas and could only have been made available in Madagascar if brought by Southeast Asian shippers. It would of course have been available on most ports of the northern Indian Ocean, but it is difficult to imagine why it would have been brought down south to Madagascar as a trade commodity from a northern route; it makes more sense to envisage merchants from Insular Southeast Asia with an easier access to the island, who would have taken it to the east coast of Madagascar, for sale there or further north, to East African or Middle Eastern merchants.

Later on, after this first Portuguese expedition failed to find any clove, the instructions (*Regimento*) given to Diogo Lopes de Sequeira, who was due to establish the first contacts with Melaka in 1509, ordered him to investigate this enticing information and, interestingly enough given the circumstances, to sail non-stop from the outer side of Madagascar to the northern tip of Sumatra. This inquiry only managed to bring back news that a Javanese junk had been wrecked on the eastern coast of São Lourenço, spilling a cargo of cloves.¹⁵ This could of course be true; however, given the abundance of trade related myths and legends in the Malay World which involve the wreck of a richly laden ship, this single testimony cannot be taken at face value.¹⁶ The story, however, points towards earlier contacts of

15. Gaspar Correa, *Lendas da Índia* (1858-63: vol. II, 131-132); João de Barros, década II/iv/3 (Barros & Couto 1777-1778: vol. 3, 394); Castanheda, *História do descobrimento e conquista da Índia pelos Portugueses*, II, xxxi: 279 ff; II, cvi, 447 ff. See also the 1508 Regimento de Diogo Lopes de Sequeira (*Alguns documentos...*, 1892: 184-197).

16. On trade related myths of Southeast Asian coastal polities, see Manguin (1991).

the sort referred to by Diogo do Couto, whichever the foundation of this piece of information. Such memories were referred to in a Portuguese letter of 1540, where it is stated that the junks of the Java Sea did in earlier times sailed from the straits of Bali and Lombok into the Indian Ocean, towards São Lourenço/Madagascar.¹⁷

Another way to investigate Malay and Javanese shippers' presence in the Indian Ocean is to try to clarify the recurrent mentions of their relationship with the Maldives. The archipelago lays roughly 3/5 of the way from Indonesia to Madagascar. The question of the Maldives archipelago and of its exact location, before the Portuguese had a chance to "discover" it, has considerable bearing on the subject under consideration here, as it no doubt reveals a body of knowledge gathered among Asian navigators. In November of 1505, the Portuguese Viso-Rey ordered a ship to sail to "*the Maldive islands, situated sixty leagues away from the coast of India, to seize some of the many vessels and junks that were, for sure, sailing through there, from Melaka as well as from Sumatra, Bengal and other kingdoms south of the Equator*".¹⁸

The generally accepted description of the Maldives was then, as reported by Duarte Barbosa early in the 16th century and then by João de Barros, as late as 1563, that the archipelago extended from Mount Deli or the Baixos de Padua, on the west coast of India, all the way down to the "coast of Sunda" (*i.e.* the western part of the island of Java) (Barros, in: Barros & Couto 1777-78, vol. 5: 306; Barbosa 1918: II: 103-4; Pyrard de Laval 1893: II, 479 ff).¹⁹ The northernmost part of the archipelago, in such descriptions, certainly included the Laccadives. Indeed, grouping of the two contiguous but culturally separate archipelagos is nothing new: an 1195-96 CE charter establishes that *lakshadipa* was a term used for Maldives (hence also for the whole archipelago, including the Laccadives) (Forbes 1983). The southern reach of the archipelago in the above descriptions is not clear: Sunda is situated quite far to the east of the Maldives. However, it is in Tomé Pires' *Suma Oriental* that we find the most precise — if not totally accurate — indication on the actual latitude of the Maldives and on the people who sailed there, as perceived in early 16th century. We are told, as in the above

17. Letter of Brás Baião to the King, published in Thomaz (2002: 580 and n.703).

18. Castanheda, *História...*, vol. II, xxi: 256.

19. Barros adds that this is according to the navigational charts of the "Mouros", and that the Maldivian island furthest south is "Adu" (*i.e.* Adu Atoll), which is already closer to modern interpretations but contradicts what he has just written about the latitude of Sunda. The chronicler appears to have amalgamated data gathered from two different sources.

sources, that, in the south, "*the Islands of Diva [Maldives] face Sunda [literally: 'reach as far (south) as in front of Sunda']; and they go along the whole of Sumatra on its western side, all the way up to Gamispolla [i.e. Pulo Weh, at the northern tip of Sumatra] and [from there] until Cananor*" (Pires 1944: 162, 169, 409-410, 414).²⁰

It is therefore clear that what are meant by these indications on Sunda in the south and Cananor (or the Baixos de Padua) in the north are latitudes, not precise topographical positions. However, such southern latitudes for the Maldives can only be understood if these are made to include the Chagos archipelago (including Diego Garcia), a group of islands further south than the main atolls (ca. 6 degrees S). The Chagos happen to be situated exactly on the latitude of the Sunda Strait, the only access to the Java Sea between Sumatra and Java/Sunda. The island of Diego Garcia itself offered favourable conditions as a stop over: according to an East India Company report of 1789-90, it "*contains an excellent and capacious harbour [and] is covered with wood, and good water may be had by digging wells*".²¹ The role played by the Chagos on a Southeast Asian sailing route seems to be confirmed by a Maldivian tradition collected by Pyrard de Laval, who spent some years there during the 17th century. It tells the story of a sovereign from Male who tried with no success to conquer a remote island in the south bearing the name of *Folovahi* or *Pullobay*.²² This appears not to be a place name understood in Divehi and is reminiscent of a Malay toponym (Pulo Wai?). The only group of islands south of the main archipelago and of its southernmost atoll is that of Chagos and Diego Garcia. These were not part of the body of knowledge of Indian Ocean navigators during the 15th century: only the southern atolls of the Maldives are described in Ibn Majid's nautical texts, but there are some hints at islands situated further south (Grosset-Grange 1970: 236).²³

A variety of authors noted the ease of communication between the Maldives and Sumatra. Pyrard de Laval mentions wrecks of large ships from

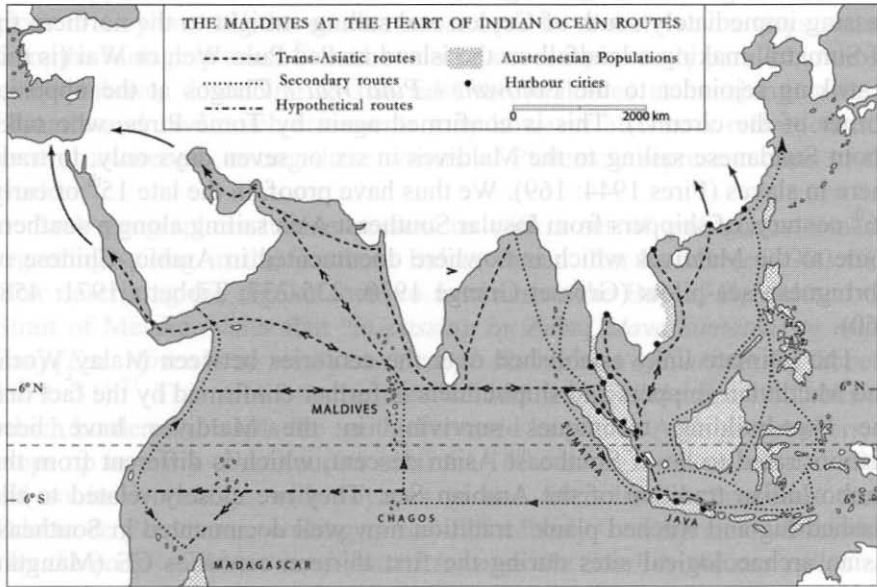
20. The two passages are to be found quite far apart in Pires' text, respectively in the chapters dealing with Gujrati trade in Sumatra and with Sunda. It is only by reading them together that sense can be made of them.

21. *Observations on the East India Company's Settlements made during a voyage in the years 1789 & 1790*, India Office Library, Mss Eur B 288, pp.13-17.

22. Maloney (1980: 113), where other, less reliable tales about links between Folovahi and Sumatra are recorded.

23. This assertion about the Maldives "reaching" Sunda may also explain why 16th century Portuguese cartographers often represented the Maldives as an archipelago which almost rejoined Sumatra (Grosset Grange, *ibid.*).

Sunda and he indicates that these islands were only half as far from Sumatra as their distance to Arabia: a curious mistake, since he seldom makes errors in his observations and later went to Indonesia himself. This reminds us that Ma Huan, who took part in the Zheng He expeditions in the early 15th century, wrote that the Maldives could be reached from Sumatra in ten days only (Maloney 1980: 109-113; Pyrard de Laval 1893: 256-58, 280, 284, 296; Ma Huan 1970: 146-147). It may also be relevant here to remark that the only place name in the Indian Ocean jotted down by the 18th century Bugis navigators on their maps (copied from Dutch originals) is precisely that of the Maldives (Le Roux & Cense 1935: 707).



The repeated remark in 16th century Portuguese sources concerning the latitude of the southernmost Maldives atolls and it being the same as that of the Strait of Sunda appears therefore to clearly indicate a sailing route. Ships from Sunda would thus have sailed straight westward across the Indian Ocean, running down a latitude (along the 6 degree South parallel), starting from the Strait of Sunda and making a landfall on the Chagos (the *Pulo Wai/Folovahi* of the Maldivian legend?). This kind of sailing, on a course lying along a parallel of latitude, is known to Pacific navigators and, of course, to other Asian navigators of the Indian Ocean. Rather than the more

sophisticated techniques found in the elaborate manuals of Ibn Majid or Sulaiman al-Mahri, it is this kind of course that must have been current practice across the Bay of Bengal: Arab sea pilots and nautical charts drawn from them for use in the area during the 15th century make it a point to list harbours and landfalls situated on both sides of the Bay on the same parallel of latitude (Albuquerque & Tavares 1967). Winds, furthermore, are known to be steadier at the latitude of Java (whereas they are unstable all year long along the west coast of Sumatra) (Forrest 1783:41-51).

Having reached the Chagos, shippers from Java or Sumatra could have sailed north to reach the central Maldives atolls and Male for trading purposes. A regular return route would then have been again to run down a latitude (6 degrees North), along the main branch of the trans-Asiatic route, passing immediately south of Ceylon and sailing straight to the northern tip of Sumatra, making a landfall on the island named Pulo Weh or Wai (is this a striking rejoinder to the *Folovahi / Pulo Wai / Chagos* at the opposite corner of the circuit?). This is confirmed again by Tomé Pires, who talks about Sundanese sailing to the Maldives in six or seven days only, to trade there in slaves (Pires 1944: 169). We thus have proof, in the late 15th or early 16th century, of shippers from Insular Southeast Asia sailing along a southern route to the Maldives which is nowhere documented in Arabic, Chinese or Portuguese sea-pilots (Grosset-Grange 1970: 235-237; Tibbetts 1971: 458-460).

The intimate links established over the centuries between Malay World and Maldivian shippers and shipbuilders is further confirmed by the fact that the boat-building techniques surviving in the Maldives have been demonstrated to be of Southeast Asian descent, which is different from the Arabo-Indian tradition of the Arabian Sea. They are closely related to the "lashed-lug and stitched plank" tradition now well documented in Southeast Asian archaeological sites during the first thirteen centuries CE (Manguin 2000).

At this point, we may try to push this reasoning further down the line (both metaphorically and literally), and into the realm of informed speculation — as I am well aware —. If these Southeast Asian shippers had reached the Chagos running down a parallel of latitude from the Sunda Strait, then they no doubt mastered the required navigational techniques to keep sailing further west to Madagascar, possibly via the Seychelles. This east-west route is perfectly feasible during the months of May to October (it is, however, at all times impossible to cross the Indian Ocean at these latitudes from west to east, due to contrary winds; the return route to

Southeast Asia would have necessarily been made along the northern routes) (*Atlas of Pilot Charts* 1966).²⁴

This southern route from Insular Southeast Asia to Madagascar, however, remains undocumented in the available technical literature, both Asian or early European.²⁵ The only hint at it so far is the above mentioned episode of the clove reported to be available on the east coast of Madagascar: this would only be explained if the “Javanese” did sail straight along the Southern Maldives route to Madagascar, bringing with them spices to be sold to Arabic merchants at harbours in Northern Madagascar, East Africa or the Middle East. Arab geographers, chief among them Edrisi in his 12th century work, supply various statements, all rather difficult to interpret, which appear to indicate that the northernmost islands of the Maldives are close to Ceylon, and the southernmost near to or only seven days sailing from the Malagasy coast.²⁶ Such remarks are conspicuously parallel to those, quoted above, describing in the East the Maldives as reaching towards Sumatra and Java; such statements may however also be a reflection of a general awareness among these writers of Ptolemaic representations of the world.

Arab geographers further present us with a set of ambiguous remarks regarding sailing in the Southern Indian Ocean. Ibn Rusteh (*ca.* 900 CE), after describing the regular route to Java across the Bay of Bengal and the Strait of Melaka, states that “*in passing by Zabaj [Java/Sumatra] to reach Zanj [East Africa] one must pass through the regions of Darkness*” (Tibbetts 1979: 31).²⁷ This motif — the dreaded and inaccessible Sea of Darkness which bordered towards the south the world known to Arab geographers — crops up in many other sources until the 16th century. In later texts, it often did so in connection with voyages to and from Insular Southeast Asia. Odoric de Pordenone, writing in the 13th century, is very clear about this: “*By the coast of this country [Java] towards the South is the sea called the*

24. Both expeditions (1985 and 2005) which sailed on replicas of Austronesian ships to Madagascar took the southern route described in this article, further demonstrating such a crossing is feasible (see note 13 above).

25. Shepherd (1982: 131, 133, 137), basing himself on source material on East Africa and Madagascar, has also gathered convincing evidence pointing towards the existence, during the first millennium CE, of two different trade networks: the one in the south, he also concludes, would have been the domain of Austronesians. But Shepherd differs from my own hypothesis in that he describes this “southern” route to Madagascar as starting from India, then taking a southern course to the Chagos along the Maldives before turning west to Africa.

26. See such quotations by Shepherd (1982: 137) and Vérin (1972: 56) (and translations of a variety of such texts in Ferrand 1913-14).

27. On this theme among Arab geographers, see the many references in Miquel (1967-1975).

Dead Sea, the water whereof runneth ever towards the south, and if any one falleth into that water he is never found more" (Yule & Cordier 1913-1916: II, 159-160).

Still in the 15th century, Ibn Majid, inspired by earlier Arab geographers and possibly by the Alexander Romances, similarly describes the region south of Madagascar and the islands furthest south from the Maldives as belonging to the Sea of Darkness and as some sort of "land's end" that should be avoided at all cost (Grosset-Grange 1970: 236; Tibbetts 1971: 219; Tibbetts 1979: 31, 67 68, 78, 185). A few decades later, João de Barros gives a more rational explanation to such statements when he writes about seas not discovered south of Java, with strong currents leading south that prevent anybody from returning (in: Barros & Couto 1777-78: vol. 7, 77).

Similar tales describing routes down south in the Indian Ocean were also known in Southeast Asia. Some of them may have penetrated Malay Islamic literary genres via Arab or Persian literatures (particularly via the Alexander Romance) (Lombard 1990: II, 201-203 & n.1005). But the theme of the inaccessible Southern Ocean is also found in the pre-Islamic La Galigo epic as told by the Bugis of South Celebes (an ethnic group known for its nautical skills): when it deals with the Western seas, it tells us of the waters of the ocean that flow [south] into a region with giant whirlpools, sea monsters and down into the Netherworld. In the far west of it, though, lies the island of the "mango tree of the Jengki (*i.e.* the Zanj, or East Africa)" (Pelras 1996: 75).²⁸

*

There appears therefore to be evidence enough to put up a strong case for a southern route westward to Madagascar, via the Chagos, that would have pertained to Southeast Asian navigational practice alone, a route along the 6 degrees South passage, caught between regular sea lanes of the northern hemisphere and, further south, a mythical, dangerous world unknown to man. In this domain, the art of navigation would have been essentially an empirical one, comparable to that evolved by their Southeast Asian forbears when they sailed east and peopled the Pacific. Research on surviving high-seas navigation practices of the Indonesian shippers of South-Celebes and Madura certainly points into this direction. Their use of stars and star

28. On other references to Zanj in Southeast, Central and Eastern Asia, see, among others, Ferrand (1919), Pelliot (1959-73: I, 598-600).

patterns to set and maintain course, their acute awareness of sun, winds, wave shapes and patterns, currents, tides and the behaviour of birds and fishes are all reminiscent of the Polynesian's better documented living body of indigenous knowledge (Lewis *et al.* 1980, Ammarell 1990).²⁹ The considerable heuristic gap between the empirical practices of Malays, Javanese or other Austronesians and those of the pre-scientific mainstream Arabo-Indian pilots would explain the difficulties in communication between the two traditions, rather than some sort of secrecy strategy among Southeast Asian shippers, comparable to the "sigilo" policy of the 16th Portuguese crown. This communication gap would compare better with the disdainful ignorance by Westerners, until recently, of Oceanic navigational traditions. At a time when pre-scientific navigational techniques were being implemented in the northern part of the Indian Ocean, those practiced in the south would have been perceived as underdeveloped and not worth considering. This gap would have been bridged, possibly after the 13th-15th centuries, only by those Malay or Javanese Muslim pilots of learning, literate in Arabic, capable of reading and understanding Arabic sea pilots such as those of Ibn Majid or Suleiman Al-Mahri (or, possibly, by those capable of understanding or reading their Chinese equivalent). The famous "Javanese Map" taken by Afonso de Albuquerque and lost in the Flor de la Mar disaster would possibly have brought answers to many of the questions raised in this paper (Ferrand 1918, Manguin 1979, Gelpke 1995). It has been proved by now that part of it benefited from both Arabic and Chinese inputs, but it may well also have mentioned routes known to the Malay World navigators alone.

References

ADELAAR K.A.

- 1995 "Asian roots of Malagasy: a linguistic perspective", *Bijdragen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde*, 151 (3), pp. 325-356.

29. Lewis, in his study on maritime skills in the Indian Ocean in the 14th-15th century (1973: 252, n.3), was the first to suggest a nautical tradition shared between Southeast Asians and Polynesians.

- 1996 "Malagasy culture-history: some linguistic evidence", in: J. Reade (ed.), *The Indian Ocean in Antiquity*, London / New York, Kegan Paul International / British Museum, pp. 487-500.
- 1997 "An exploration of directional systems in West Indonesia and Madagascar", in: Gunter Senft (ed.) *Referring to Space: Studies in Austronesian and Papuan Languages*, Oxford, Clarendon, pp. 54-81.
- ALBUQUERQUE L. de & TAVARES J.L.
1967 *Algumas observações sobre o planisfério "Cantino" (1502)*, Coimbra, Agrupamento de Estudos de Cartografia Antiga (separata 21).
- Alguns documentos do Archivo Nacional da Torre do Tombo acérca das navegações e conquistas portuguesas*, Lisboa, 1892.
- ALLIBERT C.
1999 "The archaeology of knowledge: Asutronesian influences in the western Indian Ocean", in: R. Blench & M. Spriggs (eds.), *Archaeology and Language III: Artefacts, Languages and Texts*, London / New York, Routledge, pp. 269-276.
- 2007 "Austronesian migration and the establishment of the Malagasy civilization", *Diogenes*, 218, pp. 6-17.
- AMMARELL G.
1999 *Bugis Navigation*, New Haven, Yale University Press (Yale Southeast Asia Studies, Monograph 48).
- ARDIKA I.W. & BELLWOOD P.
1991 "Sembiran: the beginnings of Indian contact with Bali", *Antiquity*, 65, pp. 221-232.
- ARDIKA I. W. *et al.*
1993 "Sembiran and the first Indian contacts with Bali: an update", *Antiquity*, 71, pp. 193-195.
- Atlas of Pilot Charts, South Pacific and Indian Ocean*. Washington, US Naval Oceanographic Office, 1966.
- BARBOSA D.
1918 *The Book of Duarte Barbosa: An Account of the Countries Bordering on the Indian Ocean and their Inhabitants* (translated from the Portuguese text by Mansel Longworth Dames), London, Hakluyt Society.
- BARROS J. de & COUTO D. do
1777-88 *Da Ásia de João de Barros e de Diogo do Couto : dos feitos que os portugueses fizeram no descobrimento dos mares e*

terras do Oriente, 24 vol., Lisboa, Na Régia Officina Typografica.

BEAUJARD P.

2003 "Les arrivées austronésiennes à Madagascar : vagues ou continuum (partie I) ?", *Études Océan Indien* (CEROI-INALCO), 35-36, pp. 59-147.

2005 "The Indian Ocean in Eurasian and African world-systems before the sixteenth century", *Journal of World History*, 16 (4), pp. 411-465.

BELLINA B. & GLOVER I.C.

2004 "The archaeology of early contact with India and the Mediterranean world, from the fourth century BC to the fourth century AD", in: P. Bellwood & I.C. Glover (eds.), *Southeast Asia: from Prehistory to History*, London, Routledge Curzon, pp. 68-88.

BELLWOOD P.

1997 *Prehistory of the Indo-Malaysian Archipelago*, Honolulu, University of Hawai'i Press.

BELLWOOD P. & GLOVER I.C. (eds.)

2004 *Southeast Asia: from Prehistory to History*, London, Routledge Curzon.

BLUST R.

1976 "Austronesian culture history: some linguistic inferences and their relations to the archaeological record", *World Archaeology*, 8 (1), pp. 19-43.

1984-85 "The Austronesian homeland: a linguistic perspective", *Asian Perspectives*, 26 (1), pp. 45-67.

CASTANHEDA F.L. de

1924-33 *História do descobrimento e conquista da Índia pelos Portugueses*, 4 vol., Coimbra, Imprensa da Universidade (Scriptores Rerum Lusitanarum, série A).

CHITTICK H.N. & ROTBERG R.I. (eds.)

1975 *East Africa and the Orient: Cultural Synthesis in Pre-Colonial Times*, London / New York, Africana Publication C^o.

CHRISTIE J.W.

1990 "Trade and state formation in the Malay Peninsula and Sumatra, 300 B.C. - A.D. 700", in: J. Kathiri-thamby-Wells & J. Villiers (eds.), *The Southeast Asian Port and Polity: Rise and Demise*, Singapore, Singapore University Press, pp. 39-60.

- 1995 "State formation in early maritime Southeast Asia: a consideration of the theories and the data", *Bijdragen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde*, 151 (2), pp. 235-288.
- CORREIA G.
1858-63 *Lendas da India*, 6 vol., ed. Rodrigo José de Lima Felner, Lisboa, Typographia da Academia Real das Sciencias.
- DAHL O.C.
1991 *Migration from Kalimantan to Madagascar*, Oslo, Norwegian University Press, Institute for Comparative Research in Human Culture.
1995 "L'importance de la langue malgache dans la linguistique austronésienne et dans la linguistique générale", in: *Cultures of Madagascar: Ebb and Flow of Influences*, Leiden, IAS (Working Papers series 2), pp. 39-46.
- DEWAR R.E.
1996 "The archaeology of the early settlement of Madagascar", in: J. Reade (ed.), *The Indian Ocean in Antiquity*, London / New York, Kegan Paul International / British Museum, pp. 471-486.
- DEWAR R.E. & WRIGHT H.T.
1993 "The culture history of Madagascar", *Journal of World Prehistory*, 7, pp. 417-466.
- DODD E.
1972 *Polynesian Seafaring*, New York, Dodd, Mead & Company.
- FEINBERG R.
1988 *Polynesian Seafaring and Navigation: Ocean Travel in Anutan Culture and Society*, Kent (Ohio), Kent State University Press.
- FERRAND G.
1910 "Les voyages des Javanais à Madagascar", *Journal Asiatique*, pp. 281-330.
1913-14 *Relations de voyages et textes géographiques arabes, persans et turcs relatifs à l'Extrême-Orient, du VIII^e au XVIII^e siècle*, 2 vol., Paris.
1918 "A propos d'une carte javanaise du XV^e siècle", *Journal Asiatique*, 12, pp. 158-170.
1919 "Le K'ouen-louen et les anciennes navigations interocéaniques dans les mers du Sud", *Journal Asiatique*, 13, pp. 239-333, 431-492 ; 14, pp. 5-68, 201-241.

FLECKER M.

- 2001 "A ninth-century Arab or Indian shipwreck in Indonesian waters", *World Archaeology*, 32 (3), pp. 335-354.
- 2002 *The Archaeological Excavation of the 10th Century Intan Shipwreck, Java Sea, Indonesia*, Oxford, Archaeopress (British Archaeological Reports, International Series 1047).
- 2007 "The South-China-Sea tradition: the hybrid hulls of Southeast Asia", *International Journal of Nautical Archaeology*, 36 (1), pp. 75-90.

FORBES A.

- 1983 "The Haddunmati Dabidu Royal Grant (592 H., 1195-96 A.D.): a newly translated source for early Maldivian history", *Indian Ocean Newsletter*, 4 (2), pp. 15-16.

FORREST T.

- 1783 *A Treatise on the Monsoons in East-India*, 2nd ed., London, J. Robson.

GELPKE J.H.F.S.

- 1995 "Affonso de Albuquerque's pre-Portuguese 'Javancsc' map, partially reconstructed from Francisco Rodrigues' Book", *Bijdragen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde*, 151 (1), pp. 76-99.

GLADWIN T.

- 1970 *East is a Big Bird: Navigation and Logic on Puluwat Atoll*, Cambridge, Harvard University Press.

GLOVER I.

- 1989 *Early Trade Between India and Southeast Asia: A Link in the Development of a World Trade System*, Hull, University of Hull, Centre for Southeast Asian Studies (Occasional Paper, 16).

GREEN J.

- 1984 "The archaeology of shipwrecks in Asia and Southeast Asia: an overview", in: *Final Report. SPAFA Consultative Workshop on Research on Maritime Shipping and Trade Networks in Southeast Asia*, Bangkok, SPAFA, pp. 245-248.
- 1990 "Maritime archaeology in Southeast and East Asia", *Antiquity*, 64 (243), pp. 347-363.
- 1998 "The archaeological contribute to the knowledge of the extra-European shipbuilding at the time of the Medieval and Modern

Iberian-Atlantic tradition", in: F. Alves (ed.), *Proceedings. International Symposium on Archaeology of Medieval and Modern Ships of Iberian-Atlantic Tradition. Hull Remains, Manuscripts and Ethnographic Sources: A Comparative Approach*, Lisboa, Centro Nacional de Arqueologia Náutica e Subaquática, Academia de Marinha, pp. 63-102.

GREEN J. & HARPER R.

1987 *The Maritime Archaeology of Shipwrecks and Ceramics in Southeast Asia*, Albert Park, The Australian Institute for Maritime Archaeology (Special Publication 4), pp. 1-37.

GROSSET-GRANGE H.

1970 "Les procédés arabes de navigation en océan Indien au moment des grandes découvertes", in: M. Mollat (ed), *Sociétés et compagnies de commerce en Orient et dans l'océan Indien*, Paris, SEVPEN, pp. 227-246.

HOBMAN R.

1987 "By outrigger from Bali to Madagascar: Sarimanok proves a point", *The Explorer's Journal*, 65 (1), pp. 22-25.

HORNELL J.

1944 "The outrigger canoes of Madagascar, East Africa and the Comoro Islands", *Mariner's Mirror*, 30, pp. 170-185.

1970 *Water Transport: Origins & Early Evolution*, London (1st ed.: 1946), David & Charles.

HORRIDGE G.A.

1982 *The Lashed-Lug Boat of the Eastern Archipelagoes*, London, Maritime Museum Monographs and Reports, 54.

KOTTAK C.P. et al. (eds.)

1986 *Madagascar: Society and History*, Durham, Carolina Academic Press.

LE ROUX C.C.F.M. & CENSE A.A.

1935 "Boegineesche zeekaarten van den Indischen Archipel", *Tijdschrift van het Aardigkundig Genootschap*, 2 (52), pp. 687-714.

LEWIS A.

1973 "Maritime skills in the Indian Ocean, 1368-1500", *Journal of the Economic and Social History of the Orient*, 16 (2-3), pp. 238-264.

- LEWIS D.
 1975 *We, the Navigators: The Ancient Art of Landfinding in the Pacific*, Canberra, Australian National University Press.
 1980 *The Voyaging Stars*, Sydney, Australian National University Press.
- LEWIS D., LIECHTI Y. & KEECH N.
 1980 *Navigational Techniques of the Prahú Captains of Indonesia: 1980 Report to LIPI and Proposals for Concluding Study*, Dangar Island, unpublished report.
- LOMBARD D.
 1990 *Le carrefour javanais : essai d'histoire globale*, 3 vol., Paris, Eds. de l'EHESS (Civilisations et sociétés, 79).
- MA HUAN
 1970 *Ma Huan. Ying-Yai Sheng-Lan: "The Overall Survey of the Ocean's Shores" (1433)*, J.V.G. Mills (ed.), Cambridge, Hakluyt Society (extra series).
- MACE DESCARTES M.
 1846 *Histoire et géographie de Madagascar depuis la découverte de l'île en 1506 jusqu'au récit des derniers événements de Tamatave, ouvrage écrit d'après les publications officielles les plus récentes et accompagné d'une carte nouvelle de Madagascar et de ses dépendances*, Paris, P. Bertrand.
- MALONEY C.
 1980 *People of the Maldivé Islands*, Madras, Orient Longmans.
- MANGUIN P.-Y.
 1979 "Note sur l'origine nautique du mot 'jam'", *Archipel*, 18, pp. 95-103.
 1980 "The Southeast Asian ship: an historical approach", *Journal of Southeast Asian Studies*, 11, pp. 253-269.
 1985a "Late medieval Asian shipbuilding in the Indian Ocean: a reappraisal", *Moyen Orient & Océan Indien*, 2 (2), pp. 1-30.
 1986 "Shipshape societies: boat symbolism and political systems in insular South-East Asia", in: D. Marr & A. Milner (eds.), *Southeast Asia in the 9th to 14th Centuries*, Singapore/Canberra, ANU/ISEAS, pp. 187-213.
 1989 "The trading ships of Insular Southeast Asia: new evidence from Indonesian archaeological sites", in: *Proceedings*.

- Pertemuan Ilmiah Arkeologi V, Yogyakarta 1989*, [Jakarta], Ikatan Ahli Arkeologi Indonesia, vol. I, pp. 200-220.
- 1991 "The merchant and the king: political myths of Southeast Asian coastal polities", *Indonesia*, 52, pp. 41-54.
- 1993a "The vanishing *jong*: Insular Southeast Asian fleets in war and trade (15th-17th centuries) ", in: A. Reid (ed.), *Southeast Asia in the Early Modern Era: Transitions in Maritime Commerce, Power and Belief Systems*, Ithaca, Cornell University Press, pp. 197-213.
- 1993b "Trading ships of the South China Sea: shipbuilding techniques and their role in the history of the development of Asian trade networks", *Journal of the Economic and Social History of the Orient*, 36, pp. 253-280.
- 1996 "Southeast Asian shipping in the Indian Ocean during the 1st millennium AD", in: P.R. Himanshu and J.-F. Salles (eds.), *Tradition and Archaeology. Early Maritime Contacts in the Indian Ocean*, Lyon / New Delhi, Manohar / Maison de l'Orient méditerranéen / NISTADS, pp. 181-198.
- 2000 "Les techniques de construction navale aux Maldives originaires d'Asie du Sud-Est", *Techniques & Culture*, 35-36, pp. 21-47.
- 2004 "The archaeology of the early maritime polities of Southeast Asia", in: P. Bellwood & I.C. Glover (eds.), *Southeast Asia: from Prehistory to History*, London, Routledge Curzon, pp. 282-313.
- MARSCHALL W.
- 1995 "A survey of theories on the early settlement of Madagascar", in: *Cultures of Madagascar: Ebb and Flow of Influences*, Leiden, IIAS, Working Papers series 2, pp. 29-34.
- MIQUEL A.
- 1967-75 *La géographie humaine du monde musulman jusqu'au milieu du 11^e siècle*, vol. I et II, Paris, Eds. de l'EHESS (Civilisations et sociétés, 7, 37).
- NOOTEBOOM C.
- 1950 "Sumatra en de Zeevaart op de Indische Oceaan", *Indonesië*, 2, pp. 119-127.
- PAWLEY A. & PAWLEY M.
- 1998 "Canoes and seafaring", in: M. Ross, A. Pawley & M. Osmond (eds.), *The Lexicon of Proto Oceanic. Vol. 1: Material Culture*,

Canberra, Research School of Pacific Studies, Australian National University, Pacific Linguistics C-152, pp. 173-209.

PELLIOT P.

1959-73 *Notes on Marco Polo*, 3 vol., Paris, Impr. Nationale.

PELRAS C.

1996 *The Bugis*, Oxford, Blackwell.

PIRES T.

1944 *The Suma Oriental of Tomé Pires: An Account of the East, from the Red Sea to Japan, Written in Malacca and India in 1512-1515. The Book of Francisco Rodrigues: Rutter of a Voyage in the Red Sea, Nautical Rules Almanack and Maps, Written and Drawn in the East before 1515*, 2 vol., ed. and transl. A. Cortesão, London, Hakluyt Society.

PYRARD DE LAVAL F.

1893 *The Voyage of François Pyrard de Laval to the East Indies, the Maldives, the Moluccas, Brazil*, ed. A. Gray, 2 vol., London, Hakluyt Society.

REID A.

1988-93 *Southeast Asia in the Age of Commerce, 1450-1680*, 2 vol. (I: *The Lands below the Winds* / II: *Expansion and Crisis*), New Haven / London, Yale University Press.

SCHRIEKE B.J.O.

1919 "Javanen als zee- en handelsvolk", *Tijdschrift voor Indische taal-, land- en volkenkunde uitgegeven door het Bataviaasch Genootschap van Kunsten en Wetenschappen*, 58, pp. 424-428.

SCOTT W.H.

1982 "Boatbuilding and seamanship in classic Philippine society", *Philippine Studies*, 30, pp. 335-376.

SHEPHERD G.

1982 "The making of the Swahili: a view from the southern end of the East African coast", *Paideuma*, 28, pp. 129-147.

THOMAZ L.F.F.R.

1988 "Mailaka et ses communautés marchandes au tournant du 16^e siècle", in: D. Lombard & J. Aubin (eds.), *Marchands et hommes d'affaires asiatiques*, Paris, Eds. de l'EHESS, pp. 31-48.

2002 "O malogrado estabelecimento oficial dos portugueses em Sunda e a islamisação da Java", in: *Aquê e Além da Taprobana. Estudos Luso-Orientais à Memória de Jean Aubin e*

Denys Lombard, Lisboa, Centro de História do Alê-m-mar, Universidade Nova de Lisboa, pp. 381-607.

TIBBETTS G.R.

1971 *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese*, London, Royal Asiatic Society.

1979 *A Study of the Arabic Texts Containing Material on Southeast Asia*, London, Leiden, Royal Asiatic Society.

VAN LEUR J.C.

1955 *Indonesian Trade and Society: Essays in Asian Social and Economic History*, The Hague, W. van Have (2nd ed. 1967).

VERIN P.

1972 "Histoire ancienne du Nord-Ouest de Madagascar", *Taloha*, n° 5 (numéro spécial), pp. 1-174.

1975 "Austronesian contributions to the culture of Madagascar: some archaeological problems", in: H.N. Chittick & R.I. Rotberg, *East Africa and the Orient: Cultural synthesis in Pre-Colonial Times*, London, pp. 164-191.

1986 *The History of Civilisation in North Madagascar*. Rotterdam/Boston, Balkema, 431 p.

VÉRIN P. & WRIGHT H. T.

1999 "Madagascar and Indonesia: new evidence from archaeology and linguistics", *Bulletin of the Indo-Pacific Prehistory Association*, 18 (Indo-Pacific Prehistory: The Melaka Papers, vol. 2), pp. 35-42.

WARUNO MAHDI

1999 "The dispersal of Austronesian boat forms in the Indian Ocean", in: R. Blench & M. Spriggs (eds.), *Archaeology and Language. III. Artefacts, Languages and Texts*. London / New-York, Routledge, pp. 144-179.

WOLTERS O.W.

1967 *Early Indonesian Commerce: A Study of the Origins of Sri Vijaya*, Ithaca, Cornell University Press, 404 p.

YULE H. & CORDIER H. (eds.)

1913-16 *Cathay and the Way Thither*, 4 vol., London, Hakluyt Society.