THE IMPORTANCE OF MARITIME TRAFFIC TO CULTURAL CONTACTS IN THE INDIAN OCEAN

The conclusions and recommendations resulting from a number of meetings held in Port Louis, Mauritius (1974); Colombo, Sri Lanka (December, 1978); and Perth, Australia (August, 1979) could serve as authority for the present work. Running through them was a continuity and logic that is stimulating for research, and from them emerged an appeal for the coordination of efforts. From all the evidence, the idea that inspired the meetings was that the countries of the Indian Ocean make up an entity. The consideration of this entity, moreover, had been the guideline for the work of a number of international conferences, among which were the colloquies held in 1962, 1966 and 1972 by the International Commission of Maritime History of the Indian Ocean. The first studied the commercial societies and companies in the Orient and in the Ocean; the second, the joint role of the Indian Ocean and the Mediterranean in maritime relations; and

Translated by Jeanne Ferguson

the third, the movement of populations in the Indian Ocean. A zone of encounters and contacts, crossed in all directions by the axes of circulation, center for all types of exchanges and sensitive to the most diverse and distant influences, the Indian Ocean, more than many of the other oceans and seas, is a privileged crossroads of culture, all the more so since, diachronically, it has played this role of intermediary from earliest antiquity. Indisputably, there is no other ocean in the world playing this role with such constancy or with such a wide radius. To grasp the import of this phenomenon and understand its aspects in order to synthesize it, we should not stand on any one of its coasts; we would inevitably run the risk of assigning priority of influence to the one on which we happened to be. On the other hand, a global and balanced perception of the elements of the question may be favorably applied if we take the ocean itself, the open sea, as an observation point.

The consideration of maritime relations thus assumes its true dimensions if, leaving the shore, we follow the ships on their course. In that way, each aspect of the question should be put into its true proportion. Cultural influences proceed with the maritime

We add to the above, among other works of a general order, the Actes des

colloques et congrès d'histoire maritime consacrés à l'océan Indien:
—— "Océan Indien et Méditerranée," Lourenço-Marquès, 1962, a special edition of Studia, XI, Lisbon-Paris, 1964, 552 pages

— Sociétés et compagnies de commerce en Orient et dans l'océan Indien (Beirut, 1966), Paris, 1970, 722 pages

- Mouvements de population dans l'océan Indien (St-Denis de la Réunion, 1972), Paris, 1979, 462 pages

— The Indian Ocean in Focus. International Conference on Indian Ocean

—— The Indian Ocean in Focus. International Conference on Indian Ocean Studies (Perth, Western Australia, 1979) 6 vols., (mimeographed) Also to be noted: Vol. V of the Bibliographie de l'Histoire des Grandes Routes Maritimes (1932-1974) (Océan Indien) by J.-C. Roda, publ. by the Commission internationale d'histoire maritime, St.-Denis de la Réunion, 1976, 90 pages, mimeographed; collection of Actes d'une Table Roude: Migrations, with the state of the base of the Indian VIV. minorités et échanges en océan Indien XIXe-XXe s., Univ. Aix-en-Provence, 1978, 272 pages; and a special edition "Commerces et navires dans les mers du Sud," in Archipel, 18, 1979.

We refer the reader to the outlines contained in our preceding contributions to the work of the International Council for Philosophy and Humanistic Studies. "Les relations de l'Afrique de l'Est avec l'Asie: essai de position Studies. "Les relations de l'Afrique de l'Est avec l'Asie: essai de position de quelques problèmes historiques," *Cahiers d'histoire mondiale*, XIII, 2, 1971, pp. 291-316 (with bibliography); "Les contacts historiques de l'Afrique et de Madagascar avec l'Asie du Sud et du Sud-Est: le rôle de l'océan Indien," in Final Report of the meeting of experts of the Committee of Unesco for the general history of Africa, Mauritius, 1974 (14 pages with bibliography);

traffic, during the long itineraries imposed by the alternation of the winds; with them, the influences go around the peninsulas, weather the capes, are swallowed up in the straits, jump over the isthmuses, fasten onto the island stopovers in the open sea, linger in the coastal archipelagos, ports of call and transit. From there, they penetrate into the neighboring continents by way of river or land routes. For all that intense activity the ocean was and is the moving and necessary support. The art of navigation, influenced by weather conditions, is the means; the instrument is the ship, whose forms vary with the functions assigned to them by the sea. The sea. And with it, men. The sea proposes, Man disposes. This is where the problems begin, with a complexity whose secret the Indian Ocean holds, the lands that it unites being so diverse. Things, men, their customs, ideas, beliefs, sentiments, all pass by the sea with their means of expression, from poetry to religion, from music and dance to the plastic arts. In what measure does the sea contribute to the diffusion and mixing of the various cultures, and to what degree does it form ways of life and stamp mentalities with analogous characteristics? Is it not the basis for the same ways of thinking and closely-related myths? As we go along, we must look to the peoples who use the sea lanes and live by them for the answers to the above questions. Thus the navigators must be interrogated, then the merchant groups installed in the ports that were often far from their countries of origin, and finally the people of different races transplanted, willingly or by force, by the sea lanes, into natural and human surroundings that were different from their native milieu, and who after generations of usage and progressive adaptation have fused their traditions with borrowings from their new homeland.

Such a project appears as immense as the Indian Ocean itself. Can one man grasp all the aspects of it? Is a synthesis possible, and is the enormous perspective only a Utopian dream? A comparative and balanced synthesis would certainly, in theory, assume information that was of the same nature, density and value for all the coastal regions and cultures of the Ocean. At present this is not the case. Here there are archaeological findings; there oral traditions; and elsewhere ethnographical data. As for written and dated sources, by far the most valuable, they are not measur-

able: they correspond to dissimilar cultural areas, are expressed in very different languages and often must be gathered in places as distant as Europe and America. In addition, their provenance stamps them with a heterogeneous nuance with respect to the specificity of the Indian Ocean. Critical requirements are added to the obstacle of the disparity of information. Should we then renounce all attempts at comparison and synthesis if the objective is illusory or distant? This would be to overlook a trump card: the mediating role of the sea that links and combines men and objects but does not unite them. This is why it does not seem audacious to us to suggest the distinguishing of the fundamental lines of the centuries-old cultural role of the Indian Ocean and to use some of them as examples. Even a brief statement of the question could perhaps bring out certain results of the work being done, indicate some directions for research and reflection and thus suggest some partial answers to the recommendations mentioned above.

* * *

The natural line of the maritime routes of the Indian Ocean was in correlation with the development and precocious spread of the great cultural areas of antiquity, but to explain it by simplistic geographical determinism would be erroneous. The merit attributed to the Greek navigator Hippalos, two centuries before the Christian era, is less due to the idea of using the monsoon than it is to the discovery of a centuries-old practice of the inhabitants of the coasts of the Indian Ocean. We must detach ourselves from a "Western-Central" point of view and consider matters on their own, but even so, we must not forget that traces found in Asia of Hellenic influence at the time of Alexander the Great (and the Hellenistic one that followed) in most cases arrived by the Indian Ocean, and it would be to minimize the importance of the Red Sea in pre-Hellenic antiquity not to see in it, at a very early date, the antechamber of Southern Asia. What Pliny the Elder later wrote on the subject of navigation in the Indian Ocean is a testimony to maritime relations whose beginnings are lost in the mists of time. In short, the real significance of the so-called "invention" of Hippalos is an example of the historic mission of the Indian Ocean as a link between different areas of civilization. Without neglecting either the Phoenicians or the "circumnavigation" of Necho, or traditions relative to Pontus, whose vestiges archaeology is searching, we must recall the evidence of *The Periplus of the Erythraean Sea*, even though the date must be advanced to the 3rd century A.D., and Cosmas, the "voyager to India" remains, like Hippalos, a symbol. He is not the only one, since excavations carried out on the site of the ancient kingdom of Aksum attest to the then continuous relations between Ethiopia and India, and coins made in southern Vietnam go back to the

reign of Antoninus Pius (138-161 A.D.).²

In addition, our observation on the part of the Greco-Roman West is also true of the Islamic West. It is no mystery that the navigations called "Arab" accumulated a millenary heritage, and that among the heirs the Iranians played a considerable role from the Persian Gulf to India. Independently of the exploitation proper of oceanic navigation, they seem to have contributed to the initiation of a number of their fellow believers into the secrets of the utilization of the monsoon. Part of the Arab nautical vocabulary finds its etymology in Iranian, and the art of navigation in the western Indian Ocean, in the 9th and 10th centuries, finds some of its oldest texts there. Thanks to the seasonal alternation of winds from NE to SW, from November to March and from SW to NE from April to October, the encounter of obliging mediaries at the Indian crossroads compensated, up until the time of the great discoveries, for the mutual ignorance of the West and the Far East. The northern part of the Indian Ocean, furthermore, profits from the disposition of its shores, whose indentations open out into extensions of the sea, the Persian Gulf and the Red Sea. In the same way, beyond the peninsular and insular chain running from Malaysia to Australia, the radiating expanse of the ocean vies with that of the Pacific as an animator of densely-populated lands. Toward the West the monsoon, relieved by the trade-winds, maintained the progress of the sailing ships as far as the Tropic of Capricorn. Sofala and its commerce

² J. Beaujeu, *Hist. Univ. des Explorations*, I, 2, l'Antiquité, Paris, 1957; J. Filliozat, "Les Echanges de l'Inde et de l'Empire romain aux premiers siècles de l'ère chrétienne," *Rev. Historique*, CCI, 1949, pp. 1-29.

in gold seem to have been for centuries the terminus of Arab voyages.

To the influence of the winds is added that of surface marine currents to broaden and define man's conquering of the ocean expanse and its coasts; because navigation is not an end in itself but a means for going from one place to another. The western Indian Ocean offers further examples, on different horizons. Thus, while the Kebra Nagas mentions that one element of the "glory of the Ethiopian kings" was the exchange of their subjects with India, and Indian princes imported Ethiopian soldiers for their armies, a high Chinese functionary, Chau Ju Kua, was also not unaware of the opportunities for commerce with the ports of "Popali," Africa, whose location was known to him. Likewise, the seven Chinese expeditions sent to East Africa in the first half of the 15th century were proof of an indisputable scientific curiosity, economic as well as political. Nothing came of the expeditions, and the Chinese, like the Arabs, did not go very far down the east coast of Africa. Winds and currents there were an obstacle to the movement of sailing vessels.

On the other hand, the same winds and currents supported the Portuguese ships of Bartholomeu Dias and Vasco da Gama. We know how the conjunction of the two oceans, Indian and Atlantic, was made at Malindi, with the assistance of the pilot, Ibn Majid.³ It was another episode whose symbolic significance is equal to that of Hippalos but with a singularly greater import. Why was this "opening up" of the ocean not made by the Chinese fifty years earlier? "A squall would have been sufficient," writes Fernand Braudel, figuratively. "The stakes were large: a meeting of cultures dependent on technical developments."

We must consider from the same point of view the "double" of this course in the 18th century by a more southerly route follow-

³ G. H. Hourani, Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times, Princeton, 1951.

For the following passage, cf. the article of the C.H.M., XIII, 1971, cited in note 1. The inquiry on the linguistic contacts and influences in maritime language brings interesting results. Thus in Indonesia a list of 2,750 Arab words and 320 Persian words has been compiled, of which 70 percent were also borrowed by Swahili; cf. R. Jones and J. Knappert, "The Arabic and Persian Loan Words in Indonesian and Swahili," in *The Indian Ocean in Focus* (cited above in note 1).

ing the 40th parallel south. The "strong breezes from the West," the "Roaring Forties," push the great sailing vessels straight toward Indonesia, Australia and points beyond. East of Madagascar a median itinerary branches off this route, there also, in both directions, dependent on the monsoon and the trade winds. For the earlier period, however, circulation in the central Indian Ocean remains obscure and will remain so until the hypotheses on the possibilities of long-distance navigation in fragile vessels are satisfactorily resolved. In spite of their importance, the great sea lanes are in reality only a brilliant decor having the advantage of abundant documentation. The people-to-people relationships, more frequent, more constant and more humble, in the real daily experience of fishing and coastal trade over short or moderate distances, made up the real tissue of maritime life from one shore to another of the Ocean; these aspects gradually become more clear as research progresses into an area that is overshadowed by the powerful and the exceptional. Even today, boutres to the west and junks to the east have maintained their seasonal peregrinations, at times covering long distances in spite of the dominance of European commercial companies and the competition of big ships.

Every type of vessel, each in its own way, has played a role in cultural contacts. Without neglecting them entirely, let us leave aside the large modern vessels of foreign origin, since they are less specific to the Indian Ocean, even though it was often the case—for example, the British "tramps" of the last few centuries—that they never left the Indian Ocean by the Cape or through the China Sea. There is no doubt that such ships, from the Portuguese vessels of the 16th century to contemporary "tankers," contributed to putting the coastal inhabitants of the ocean in touch with each other. Some transported and diffused plants and animals, others carried slaves and immigrants with their nostalgias, hopes and determination to preserve their ways of life and thought. The role of the traditional vessels deserves particular study. The work of Professor Tatsuro Yamamoto mentioned in our notes to this paper gives some interesting examples that particularly illustrate the efforts of archaeology in China in recent years. We may mention the discovery of the

wreckage of a ship of the thirteenth century.4 It was found on the site of the ancient "Zaytun" of the Arabian travelers in the Middle Ages (called "Caiton" by Marco Polo) near the present port of Quanzhu, on the southern coast of Fukien. The structure is characteristic of a vessel of the high seas, suitable for longdistance operations: thirty-four meters long, about eight meters wide, an axial rudder, three masts, the tallest of which would seem to have been twenty-one meters, a cargo capacity of around 200 tons, rationally proportioned between thirteen water-tight compartments separated by twelve partitions. What cargo has been found reflects the geographical extension of operations (precious woods, spices, aromatic products, fruit, seashells from the South Seas, all in labeled lots with wood or bamboo registers bearing the name of the owners with an indication of their places of abode). More than 500 Chinese coins permit the dating of the wreckage at around 1271, which corresponds to the time of the description left by Marco Polo. The vessel, of medium tonnage, since it seems that some ships attained the weight of 1000 tons, was of the type that assured Indian ports of a liaison with Arabian commerce of the western Indian Ocean. The coasts of the Deccan thus played a centuries-old role of relay and commercial transit, of contact of civilizations, which the Livre des Merveilles de l'Inde reports and which at the end of the 13th century was attested to by Marco Polo, along with the first Roman Catholic missionaries stopping over in India on their way to China. Ibn Battutah has left a precise description of the great Chinese ships at their Indian terminus: cargo and passenger vessels whose four decks had cabins, rooms and saloons for the merchants.5 At that time, according to the Latin and Arab travelers, the huge Chinese Junks could transport up to a thousand people.6 The Chinese were not

⁴ C. Salmon and D. Lombard, "Un Vaisseau du XIIIe s. retrouvé avec sa cargaison dans la rade de 'Zaitun'," *Archipel*, 18, 1979, pp. 57-67.

⁵ Ibn Battutah, *Voyages...*, ed. and trans. by C. Defrémery and B.R. Sanguinetti, Paris, 1853-1859, IV, pp. 91-93, 247-248; cf. also M. Mollat, "Ibn Batoutah et la mer," in *Travaux et Jours*, XVIII, Beirut, 1966, pp. 53-70, reprinted in *Etudes d'Histoire Maritime*, Turin, 1977, pp. 319-336.

⁶ J. Dars, *La marine chinoise du Xe siècle au XIVe siècle*, doctoral dissertation in Letters, (Univ. Paris VII, 373 pages (typewritten); cf. also "Les jonques chinoises de haute mer sous les Song et les Yuan," *Archipel*, 78, 1979, pp. 41-56

alone: there were at the same time Malaysian and Indonesian fleets on which more light is being progressively thrown. Archaeology brings possibilities of verification and control to the texts; its progress has been spreading like an oil slick, especially in the past several years. This is true not only for China but for all Southeast Asia; more recently, and for a less remote period, that is, beginning with the 17th century, it is also true for Australia, at Perth.8 On the technical level, Western chronology has a limited value in the oriental world, since the arrival of the Europeans did not destroy local traffic. Western international commerce was superimposed, especially by the Portuguese and the Dutch, in such a way that the traditional currents have survived, just as the vehicles of circulation have survived. The outrigger itself has not disappeared from the southern Indian Ocean, for example, around Madagascar. Furthermore, the case of the Indonesian "prau" presented at the Perth conference in 1979 proved that philology supports archaeology.9

Analogous survivals have been verified in the western Indian Ocean. We are more and more informed on the millenary relations established from the beginnings of the Zenj slave trade (9th century) between Southern Arabia and East Africa, for example, at Pemba, Gedi, Mombasa, Kilwa and Zanzibar. This is due to the combination of textual documentation, archaeological discoveries, contributions of oral tradition and the study of technology. 10 Although of inferior tonnage to that of the great junks of the Far East, the boutres (we use this term generically) played from India to Africa a role that was not inferior to them.

⁸ A center of undersea archaeology has been founded by the Univ. of Western Australia at Perth.

⁷ Also to be noted is the information brought to this area by Professor Lallanji Gopal concerning naval technology in the Bay of Bengal since the 11th century and its role in establishing contacts with Indonesia on the one hand and Arabia and East Africa on the other. In addition, thanks to Professor Subhadradis Diskul, we know that in Thailand recent discoveries of thousands of ceramic pieces, especially from the 14th to the 16th century, attest to the importance of relations with Vietnam and China.

^{9.} C.C. MacKnight, "The Study of *Praus* in the Indonesian Archipelago," and V.Y. Manguin, "The Southeast Asian Trading Ship. An Historical Approach," *The Indian Ocean in Focus*, III.

10 H.N. Chittick, "The Shirazi Colonisation in East Africa," *Journal of African History*, VI, 1965; P. Vérin, *Les Echelles anciennes du commerce sur les côtes nord de Madagascar*, 2 vol., Lille, 1975.

The types varied from region to region, but the overall technology shows many traits in common that up until fairly recent times have evolved only slowly, in the Persian Gulf as well as in the region of Aden or on the African coasts as far as the Comoro Islands and Madagascar: 11 the pinched form of the hull at the stem, a square stern, planking joined not with nails but with coconut fider (preferably bought in the Maldives), masts leaning forward to facilitate the maneuvering of the yard-arm that carries the typical triangular sail, quite large for the mainmast. So constructed and rigged, the ship is easily maneuverable, capable of speeds varying from five to ten knots and prepared for the most diverse missions.

Equipped with different but complementary means of transportation, the cultural exchanges in the Indian Ocean took place over relatively reduced distances of a regional nature as well as over more lengthy ones. For the one as for the other the infrastructure of maritime relations permits the distinguishing of a certain variety and an attempt at a typology of the coastal points.¹² Along with the ports of departure and arrival (terminus a quo and ad quem) the intermediate ports, the capes, isthmuses, straits and especially islands are points of cultural impact and sources of influence. The cartography of their location and dispersal would be very instructive. For lack of time, we must limit ourselves to some examples and to an attempt at classification. The usual observation that narrow passages are sensitive spots for contacts as for conflicts is valid for the Indian Ocean, especially in our times. What the Bosphorus, the Dardanelles, the straits of Sicily and Gibraltar are for the Mediterranean, and the Pas-de-Calais and Sund are for northern Europe, Bab el Mandeb, Ormuz, the straits of Mozambique, Malacca and Lombok are for the Indian Ocean. The same may be said for the Suez and Kra isthmuses. Along with the straits in which navigation becomes concentrated,

¹¹ To the now classic works of P. Paris, J. Poujade and A. Villiers, we will add some more recent studies, such as those of M.P. Nougarède, "Qualités nautiques des navires arabes," (especially those of Aden) in *Océan Indien et Méditerranée*, cited above in note 1, pp. 95-122; Zaabi al Zaabi, *Les boutres du Golfe Arabique Koweitiens*, 3rd cycle thesis, Univ. Paris I, 1980 (typewritten). ¹² Concerning ports of call, see the works of the 10th *Colloque international d'histoire maritime*, Brussels, 1968; *Les Grandes Escales*, 3 vol., Rec. Soc. Jean Bodin, Vols XXXII, XXXIII, XXXIV, Brussels, 1972-1974, especially Vol. I, pp. 179, 207, 225; Vol. II, pp. 29, 91, 171, 197, 209, 299; Vol. III, pp. 213, 695.

points and capes exert a sort of attraction; they generally control a passage. Today the Horn of Africa holds more of the attention of researchers, and the points of the Indian land mass, the Malaysian peninsula and the importance to navigation of the Cape of Good Hope and the southern Australia capes also merit study.

As for the islands, we have long given special consideration to their strategic role as nearby bases for protection and surveillance of continents or of control of the maritime routes. Their usefulness as nautical guideposts and as places for taking on fresh water is essential. Interesting, as well, is their function as meeting places between men and stages in the diffusion of cultures. We would have liked to be able to develop the results already achieved with regard to the large islands: Java, Sri Lanka and Madagascar, the coastal archipelagos of Africa (Comores, Lamu and Pemba) or situated in mid-ocean (Seychelles, Maldives, Laccadives and Andaman) brought promising results on the historical level to recent conferences. The same may be said for the isolated islands, especially Maurititus and La Réunion, but Socotora also merits attention. Here the same may be said for the solution of the same merits attention.

Contributions converge toward the continental ports and from them diverge the influences of which the sea is the carrier. Their diffusion reflects the volume and quality of both. These are the points of observation that are the most significant for the role of the ocean as the vector of cultural exchanges. Their locations generally correspond to this function. The straits have made critical points of Aden, Siraf, Ormuz, Satingpra, Malacca and Banten. The ease of access to the interior by rivers or trade routes maintained the fortune of Calcutta, Cochin, Goa, Madras, Bombay, Karachi, Muscat, Massaua, Mogadishu, Majunga and Tamatave. Insularity, near the shore, secured the prosperity of the commercial

¹³ To the references in note 10 add several works presented at the Perth Conference in 1979 (cf. note 1) with respect to Sri Lanka, the Comores and especially the Maldives (A.D.W. Forbes, *Archives and Resources for Maldivian History*)

14 Guillaume Adam, a Dominican missionary, was in Socotora for the first thirty years of the 14th century and provided interesting information on the island (De modo Sarracenes extirpandi, ed. Ch. Kohler). Rec. Histor. Croisade Doc. Arméniens, II, pp. 549-555). Cf. M. Mollat, Grands voyages et connaissance du Monde du milieu du XIIIe siècle à la fin du XVe, part 2: L'océan Indien et l'Afrique de l'Est, Paris (C.D.U.), 1969, p. 27 et seq. on the observations of missionaries in the Indian Ocean (cf. especially pp. 31-34).

settlements at Singapore, Ormuz, Pemba, Mombasa, Kilwa and Zanzibar, peopled by merchants of all nationalities.

The role of rendezvous deserves to be thoroughly studied as far as its nature and consequences are concerned. Archaeological excavations and the correct interpretation of oral tradition, when it is datable, supplement the lack of written documentation. Thus we are better informed on Indian presence in Ethiopia at a very early period and that of the "Habshis" in India. We can follow the peregrinations of the Karimi from Aden, as well as those of the merchants from Shiraz and the Hadhramut and those of the Banyans. 15 But who were the Wadbulis? The description that in the 14th century Ibn Battutah left of his fellow-believers installed in East Africa, especially at Mogadishu and Kilwa, is located at the half-way point of a thousand years of thalassocracy founded on the Muscat-Zanzibar axis. Different but analogous were the centers of reception and diffusion of the seaports of Kerala and Malabar, of Sri Lanka and the Malay and Indonesian straits. Testimony of travelers from the West is even earlier than that of Ibn Battutah and is abundant from the end of the 13th century, at the time when the sea route from the Persian Gulf, directed toward China, was preferred to the overland silk route, long, difficult, more dangerous, across the steppes, deserts and high mountain ranges of Central Asia. At about the time that Marco Polo, on his return from China, stopped off in India, a Franciscan missionary, Giovanni di Montecorvino, on his way to Peking, stayed there for several months and wrote a letter that is very curious both for its ethnographical and scientific observations and for others on the peoples of India and conditions of navigation.¹⁶ Thirty years later the Voyages of Odorico da Pordenone, among other reports by missionaries, gave precise observations on the ethnic diversity of India and the intensity of sea travel between that country and China. 17 The Indian ports were a sort of cultural

¹¹⁶ Sinica franciscana, ed. by A. Van den Wyngaert, Quarachi, 1929, I, pp. 440-345.

¹⁷ Odorico da Pordenone, Voyages in Asia.

¹⁵ S. Labib, "Les marchands Karimis en Orient et sur l'océan Indien," in "Sociétés et Compagnies de Commerce..." (cited above in note 1), pp. 209-214; R. Pankhurst, "The 'Banyan' or Indian presence at Massaua, the Dahlak Islands and the Horn of Africa," in Mouvements de population... (cited above in note 1), pp. 107-128.

melting pot where side by side were found Tamils, Bengalis, Malaysians, Indonesians, Chinese, Gujarati, Persians, Turks, Arabs and Ethiopians, and the arrival of the Portuguese in the 16th century as the advance guard of the Europeans, whose presence, numerically very small when compared to the Asiatic masses, merely superimposed ethnic and cultural elements without altering the previous substrate.

Did diversity exclude unity? In the end, the question would be to know if the sea fashioned something more than the façade of a community of the Indian Ocean and if it was a matter of a group of cultural families that were in fact related. It is not enough that the Indonesian migrations exported their kin to Madagascar in the first century A.D. by routes that are still not known for certain; that the slave trade, Arab from the 9th century and European in the 18th century, transferred African and Malagasy slaves to the islands, to Arabia and the gulf countries; nor that Mauritius and La Réunion, as well as Kenya, drew an Indian labor force in the 19th and 20th centuries. 18 Climatic similarities also do not suffice, any more than the transplantation of certain species of plants, such as rice, the eucalyptus tree, bananas, sugar cane and cotton, nor the identical marine biological conditions of the coralline zones from one end to the other of the ocean. Technological transmissions seem to be decisive here, and among them those having to do with navigation were important; it is useless to dwell upon the origin of the triangular sail and perhaps also on the spread of the use of the magnetic needle. The Indian Ocean has received much, especially from China, and transmitted much: did it not also invent? Certain sectors could be brought up. One of them merits further study: cartography. What was the influence of Chinese science in this field? What was the influence of Arab, and later European, first Portuguese then Dutch cartography, without overlooking Turkish, influenced by the Portuguese? The archives of Istanbul have

¹⁸ The Indian Ocean in Focus and Mouvements de population..., op. cit.

¹⁹ We are reminded of the 16-meter-long map regarding the expedition of Cheng Ho in the 15th century, which Professor Yamamoto mentions in the following article. See also G.R. Tibbetts, "Comparisons Between Arab and Chinese Navigational Techniques," Bull. of the School of Oriental and African Studies, XXXVI, 1973, pp. 97-108.

revealed an example of their wealth that is still little known, with the maps of Piris Reis. In other areas, also, the sea directly contributed to interactions of a technical order. That was the case with ship building, in which the use of hard woods, especially teak, for the hull, the solid bonding of laminations with the use of vegetable fiber, combine with the very different rigging of the large canvas and lath sails. Later came the art of navigation, subjected to the same meteorological and astronomical conditions of the equatorial and sub-tropical zones (monsoons, a generally cloudless sky). Language, as always, but particularly among maritime peoples, shows relationships and borrowings. Word exchanges prospered between the Arab and Persian worlds, with Tamil, Malay and Chinese. Let us mention as examples nokouda to designate the ship's captain; the words sampan, sambous and dhow; from the Arab zam probably came the Malay jam, then the Portuguese jão to designate the unit of time to be used for calculating delays in navigation and determining the position of the ship.²⁰

Among the ways of life and thought carried and mixed on the Ocean routes, the language of the sea peoples, although a very significant example, is not the only one. Along with styles of dress, culinary habits, kinds of living quarters, agrarian and industrial procedures, the programs worked out at Mauritius, Colombo and Perth were correct in calling the attention of the researchers to other aspects of ways of life that the sea exported, imported, mixed or opposed. In addition to spoken languages, other ways of cultural expression traversed the sea, among them art in all its diversity; customs and social relationships relative to such or such an ethic. Man does not always submit to natural determinisms, and his choices have their consequences. A curious but significant example is the constant but erratic importation of forces from Persia to the Deccan that went on for centuries. The climate of the latter country is not suitable for horses, but the

²⁰ On the art of navigation in the Indian Ocean cf. A. Teixeira da Mota, "Méthodes de navigation et cartographie nautique dans l'océan Indien avant le XVIe siècle," in *Océan Indien et Méditerranée*, cited above in note 1, pp. 49-91; various articles by H. Grosset-Grange in *Arabica*, XXII, 1975, pp. 51-60; XXIV, 1977, pp. 42-57; XXVI, pp. 90-99; in *Azania*, XIII, 1978, pp. 1-35; cf. also P.Y. Manguin, "Note sur l'origine nautique du mot *Jam*," *Archipel*, 18, 1979, pp. 95-105. Cf. also note 3.

death rate of the animals, far from putting an end to the commercial venture, kept it going. For the Indian princes a fine and well-stocked stable was, perhaps, an atavistic tradition come down from the steppes of inner Asia.21 Certainly it was a sign of prestige and opulence as much as the possession of a herd of elephants. Should we not also see here the indication of a certain concept of political power? For this commerce as for others the lack of consecutive quantitative sources deprives us of statistics. However, there are other indices of the influence of maritime economy on the societies of the Indian Ocean. To give only an idea, we will mention the power of the Moslem merchants of India, often immigrants but accepted because of their enterprising spirit, wealth and relationships. Ties of all kinds, ethnic, religious and economic, united the mercantile communities of southern Arabia and the Gulf, and those of Kerala and Malacca. Complicity also, tacit or implicit, because there is much to say on the subject of piracy as a complementary or supplementary form of maritime commerce. On their arrival in the Indian Ocean, the Portuguese found a merchant milieu so structured that they fought it only when it went against their interests. Such was the famous case of Mamale de Cananor, in a position to control an entire section of the Malabar coast.²² In fact, these merchants held in their hands, along with the merchandise, the means themselves of exchange, the monetary units or what was used for them. Now we know more about the importance of cowries as a means of transaction and the enormous circulation of precious metals, based on the value of copper, gold and silver, between southern Asia and the Mediterranean countries, and through the intermediary of the latter, to the New World after the 16th century. The role of the Indian Ocean is inscribed in a practically universal framework concerning which there is much to say.23

²¹ Ibn Battutah refers to this traffic in horses and describes in general the

in Mare Luso Indicum, II, 1973 pp. 77-179.

23 V. Magalhaes Godinho, L'Économie de l'Empire portugais aux XVe et XVIe siècles, Paris, 1969, especially pp. 337-419. See also J. Heimann, "Small

usages of maritime commerce in the Indian Ocean.

22 See also G. Bouchon, "Les Musulmans du Kerala à l'époque de la découverte portugaise," in Mare Luso Indicum, II, 1973, pp. 3-59; by the same author, Mamale da Cananor. Un adversaire de l'Inde portugaise (1507-1528), Paris, 1975. Cf. also J. Aubin, "Le royaume d'Ormuz au début du XVIe siècle,

However, let us remain within the limited but large reference of the Indian Ocean. In a more intimate and how much more human way, social relationships offer interesting affinities from one region to another. We may penetrate this area even as far as daily life by considering what the ethnologues term "gestural." Recently the attention of the researchers was called, and rightly, to the place that music holds in the lands of the Indian Ocean, as well as to the reciprocal influences of various musical traditions.24 Themes, melodies and instruments were transmitted by the sea; music plays an important and indeed functional part with the navigators, for instance, with the pearl fishers of the Persian Gulf. We should also consider the sacred liturgies whose role is to express beliefs and sentiments in a corporal way. On this last level, because of their strong influence on various cultures, we especially keep in mind the encounters along the maritime routes of the Indian Ocean of all the forms of religion and philosophy that humanity confesses and practices. This aspect would be another area to designate geographically: sanctuaries, routes and places of diffusion. The sea contributed to the spread of Islam and the Hindu religions. Christian missionaries came by swarms, believers of the various faiths went on pilgrimage to Jerusalem, Mecca, Sri Lanka and many other sanctuaries, by sea; and finally immigrants and exiles brought their beliefs, cults and hopes, always by sea. Thus from one shore to the other of the Indian Ocean we observe the different attitudes of man faced with his destiny, that is, his existence, his death, his survival in a paradise for the saved or in the cycle of transmigration. The sea facilitated all that, but there is more. A redoubtable and dreaded power, the sea has, as it has elsewhere, but here with a particular vigor, aroused the same uneasiness, provoked similar reactions of fear and supplication, of gratitude toward the supernatural forces that preside over its fury or its discouraging calms. The ex-voto is a

Changes and Ballast: Cowry Trade and Usage as an Example of Indian Ocean Economic History," in *The Indian Ocean in Focus*, cited above in note 1. For interesting comments on Battutah, cf. M. Mollat, "Ibn Batoutah et la mer...,"

pp. 64-65.

24 We refer to two round tables organized in Australia as part of a Festival

Council of Music.

universal and timeless practice. It is seen in the medieval sanctuary of Burabudur and found again in Singapore in the 19th century. Ibn Battutah recounts a curious usage: in case of contrary winds or the menace of pirates, the passengers on a vessel undertook by writing to make a donation to a Moslem hermitage on the coast of Shiraz. At the arrival of the ship the officiating ministers of the hermitage boarded it, were presented with the list of vows, then took the sum by means of an order of payment prepared in advance, with initials and seal, on the back of which they wrote a receipt in the name of the money-lender. Buddha protected navigation; Allah succored the sailors who prayed to him; Christianity, in its turn, introduced its own intercessors of divine mercy and, to cite only one example, we note the presence of Portuguese *ex-votos* at the beginning of the 17th century at the church of São Paulo in Macao.

As in other places, the sea engendered myths, sometimes related to each other and often very close to the types known from other seas and other times. A legend of the Maldives, anterior to Islam and reported by Ibn Battutah, gives the cue to the Western belief in the Beast of the Apocalypse. Every month an evil genie would come out of the ocean to violate and murder a young girl who had been chosen by lot and abandoned by her family on the shore.²⁶ At Java rites were necessary to propitiate Rata Kidul, who ruled over the southern coast of the island. A communication on the theme of the sea in literature and the mentalities in the Indian Ocean islands presented at the recent conference in Perth could serve as a model for the precision and finesse of its analysis, as well as for the import of its conclusions.²⁷ But we may go even beyond folklore. Thus, man, in an unexpected Malaysian version of the Roman d'Alexandre, uses a sort of bathyscope to explore the anti-world at the botton of the sea, and in A Poem of the Ship (14th century) he is shown os embarked on a rough sea, having

²⁵ Ibn Battutah, *op. cit.*, IV, pp. 90-91. Elsewhere Battutah describes the panic on a foundering ship. He says that he himself noted the donations promised by the passengers (*ibid.*, p. 305). In another passage he transcribes the text of the prayer usually addressed to Allah by sailors in danger (cf. Mollat, "Ibn Batoutah et la mer...," p. 60).

Mollat, "Ibn Batoutah et la mer...," p. 60).

²⁶ Ibn Battutah, *op cit.*, IV, pp. 126-128.

²⁷ D. Lombard, "Le thème de la Mer dans les littératures et les mentalités de l'archipel insulindien," in *The Indian Ocean in Focus*, 19 pages.

for defence his ingenuity and strength and God as his final recourse. A methodical inquiry of which some elements are already in place would lead to useful comparative reflections.

Like all the seas in the world, the Indian Ocean has brought men together even as far as their most intimate attitudes in face of a common destiny. Is that not the last, but most decisive, encounter of cultures?

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