

## Review Essay



### RESOLVING THE ENIGMAS OF NEW CALEDONIAN AND MELANESIAN PREHISTORY: A REVIEW

PATRICK V. KIRCH

*“Le Temps d’Avant”*: *La Préhistoire de la Nouvelle-Calédonie. Contribution à l’Étude des Modalités d’Adaptation et d’Évolution des Sociétés Océaniques dans un Archipel du Sud de la Mélanésie*. Christophe Sand. Paris: L’Harmattan, 1995. 356 pp., 214 figures, 2 tables, bibliography, softcover.

*Archaeology in New Caledonia: A Panorama of the Situation at the Beginning of the 1990s*. Christophe Sand. Nouméa: L’Agence de Développement de la Culture Kanak, 1995. 66 pp., 49 figures, bibliography, softcover.

*Les Cahiers de l’Archéologie en Nouvelle-Calédonie*. Vol. 5, *Contribution à la Réconstitution de la Préhistoire des Îles Loyauté. Premiers Résultats des Fouilles Archéologiques de 1994–1995, Lifou, Maré, Ouvéa*. Christophe Sand with Jacques Bole and André Ouetcho. Nouméa: Service Territorial des Musées et du Patrimoine, 1995. 97 pp., 113 figures, bibliography, softcover.

IN THE HISTORY OF OCEANIC archaeological research, New Caledonia and the Loyalty Islands have proved a most intractable archipelago, confounding efforts by several generations of scholars to clarify and elucidate their prehistory. Bellwood, in his classic synthesis, had to admit that “the New Caledonian sequence is very poorly understood at present” (1979:262). Likewise, Green and Mitchell (1983) confessed their difficulty in presenting a “coherent summary” of the island’s sequence to university students. In part, these difficulties reflect the remarkable biological, linguistic, and cultural heterogeneity of the islands’ indigenous peoples (known collectively today as Kanaks), a diversity which implies and foreshadows a rich and complex past. No less than 37 languages and dialects are found among a mere 60,000 speakers, although all of these fall within the Oceanic subgroup of the Austronesian language family. Biologically, phenotypic diversity among the islands’ populations has been observed and remarked on many times. Early twentieth-century anthropologists, such as Fritz Sarasin and J. Avias,

Patrick V. Kirch is The Class of 1954 Professor in the Department of Anthropology at the University of California, Berkeley.

*Asian Perspectives*, Vol. 36, No. 2, © 1997 by University of Hawai‘i Press.

believed that successive colonizations of New Caledonia had produced such biological heterogeneity. Ethnographer Maurice Leenhardt, whose studies of social, economic, and political life demonstrated underlying patterns of cultural similarity throughout La Grande Terre, reinforced the notion that the Kanak peoples were a “paleo-mélanésien” group, even retaining traits “plus primitifs que ceux de l’Australien . . . et que ceux de l’homme de Néanderthal” (1937:12–13)! Such views may strike one as outdated and racist, but they have continued to influence scholars until recent times, especially in light of persistent claims for a pre-Austro-nesian settlement of New Caledonia. Such claims have made New Caledonia appear as an enigma in the emerging picture of Melanesian prehistory. Only with the recent publication of Christophe Sand’s masterful synthesis, “*Le Temps d’Avant*,” and of several subsidiary reports, have such old views been put to rest and the prehistory of New Caledonia and the Loyalty Islands finally brought into line with contemporary perspectives in Oceanic archaeology. In order to place the significance of Sand’s contributions in proper perspective, it is necessary to briefly review the history of New Caledonian archaeology.

La Grande Terre (the main island of New Caledonia proper) has a surprisingly long history of archaeological investigation. Gustave Glaumont recorded ancient habitation mounds and even put down some unsystematic excavations in the 1880s. Maurice Piroutet (1917) discovered the “type site” of Lapita on the Foué Peninsula, near Koné, with its dentate-stamped pottery, but publication of his find in a large tome on the geological stratigraphy of New Caledonia assured that this discovery would be ignored by anthropologists. J. Avias, in three papers published in the prominent *Journal de la Société des Océanistes* between 1949 and 1953, reported on prehistoric ceramics and on the “tumuli” that would later become such a contentious issue. But it was an American, Edward W. Gifford of the University of California at Berkeley, who must be credited with the first systematic archaeological exploration of La Grande Terre, in 1952.

Gifford, assisted by Dick Shutler Jr. spent seven months on New Caledonia, recording 53 sites and excavating at 11. Their joint monograph (Gifford and Shutler 1956) reflects Gifford’s penchant for systematic, “comparative” data and presents detailed ceramic and artifact analyses that laid the groundwork for subsequent studies. Gifford and Shutler rejected the old notion of a “Palaeolithic stage of culture” in New Caledonia, observing that “we found no pre-pottery cultural level” (1956:94). Moreover, they took advantage of Willard Libby’s newly invented radiocarbon method to obtain nine dates, the oldest of which from Piroutet’s Lapita site (their site 13) suggested an occupation in the early first millennium B.C. (Despite his method of excavation in arbitrary 6-inch levels, Gifford’s extensive and well-documented collections continue to provide valuable data with which to address new problems in New Caledonian prehistory [Kirch et al. 1997].)

Gifford’s expedition inspired a succession of new investigations. Jack Golson excavated on the Île de Pins in 1959–1960, and sent his student Colin Smart to work at Naïa Bay in 1966–1967. Yet Golson never published the details of his work, and Smart abandoned his Ph.D. thesis after his notes were destroyed in a fire. Golson’s work had an important impact nonetheless, because his preliminary report (Golson 1963), along with an article by Chevalier (1963), raised anew the possibility of an aceramic cultural horizon associated with the enigmatic “tumuli”

found on the Île de Pins and elsewhere on La Grande Terre. Radiocarbon dates on extinct *Placostylus* landsnails found in these otherwise culturally sterile earthen mounds ranged between  $12,900 \pm 450$  and  $3070 \pm 80$  years B.P., substantially older than Lapita or any other known ceramic horizons. Despite Gifford and Shutler's claims to the contrary, the persistent specter of a "Paleolithic" stratum in New Caledonia was again raised (Green and Mitchell 1983:22–31).

New Caledonian archaeology finally came of age with the work of several young French archaeologists, all under the direction of José Garanger of the University of Paris. Beginning with Daniel Frimigacci in 1969, continuing with Jean-Christophe Galipaud and most recently with Christophe Sand, these fieldworkers have amassed a remarkable array of excavation and survey data, backed up by careful laboratory studies. In their respective doctoral dissertations—which unfortunately have had limited distribution among anglophone archaeologists (Frimigacci 1975; Galipaud 1988; Sand 1994)—these French scholars have produced a credible synthesis of the archipelago's pre-Contact past. Whereas Frimigacci and Galipaud focused primarily on the complex ceramic sequences of New Caledonia—admittedly the foundation for any well-constructed archaeological sequence—Sand has taken considerations of the archipelago's prehistory to a theoretically broader level. Building upon the work of his colleagues, Sand offers in *“Le Temps d'Avant”* nothing less than the first economic and social history of the Kanak peoples over the sweep of three millennia.

Christophe Sand, born and raised in New Caledonia near Mont Mou, has strong attachments to the Kanak peoples and their land. In an emotional preamble, Sand speaks of his quest—while walking at sunset with his young daughter along the shore of the Baie des Citrons—for the “green flash” (*rayon vert*), a metaphor for his own intellectual quest. His dual French and Calédonien roots are intertwined, as seen in references to “le Petit Prince” and its local equivalent “les contes de Poendi.” Sand recounts the moments and the emotions that have marked his fieldwork throughout La Grande Terre and the Loyalty Islands. He writes of the glances of the old men—and of the hesitant questions of the young—in search of their own Kanak history, which have colored his years of work among them. These personal ties have influenced Sand to seek more in the archaeological traces of La Grande Terre than ceramic typologies and chronology.

More than any of his French colleagues, Christophe Sand has also consciously engaged with anglophone archaeological method and theory, and this too has influenced his approach. (Indeed, Sand's research is becoming increasingly known to anglophone scholars thanks to his frequent publications in English language journals, e.g., Sand [1996].) Specifically, Sand advocates what he calls a “determinist and evolutionist” approach (p. 19). This is not, however, a “determinism” in the sense often understood by North American anthropologists; rather, it attempts to combine an ecologically informed understanding of the role of humans in modifying the landscape, with a perspective on social processes as informed by ethnographic sources.

*“Le Temps d'Avant”*—with only minor alterations the text of his doctoral thesis presented at the Sorbonne (Sand 1994)—comprises 11 chapters organized in two parts, followed by an appendix dealing with the demographic effects of European contact in various Pacific islands. The first part, chapters 1–3, provides essential background on the natural environment of the archipelago, information on the

linguistic and traditional social organization of the Kanak peoples, and a history of archaeological research. In preparing these chapters, Sand has had the advantage of drawing on a great deal of recent geographic, ecological, and ethnographic research, much of it conducted under the auspices of the ORSTOM center at Nouméa. Chapter 3 on the history of research is thorough, although to my mind Sand unjustly elevates the work of Golson over that of Gifford and Shutler (p. 41). Chapter 3 also documents the numerous survey and salvage excavation projects that have taken place in New Caledonia since 1985, when a Département d'Archéologie was founded, first under the Office Culturel, Scientifique et Technique Canaque and later under the Service des Musées et du Patrimoine. As director of this department since 1991, Sand himself has undertaken some 25 projects throughout the archipelago, some in conjunction with Kanak archaeologists André Ouetcho and François Wadra.

The bulk of Sand's volume is the second part (comprising chapters 4–10 plus the unnumbered conclusion), entitled "the stages of oceanic settlement of New Caledonia." The title unmaskes the essential chronological framework that Sand uses to organize his synthesis, while the chapter headings indicate the breadth of topical and theoretical coverage. These range from considerations of ceramic typology and material culture (Chapters 5–7), to agricultural intensification and the cultural organization of landscape (Chapter 8), to the evolution of late prehistoric sociopolitical systems (Chapter 9), to demographic questions surrounding the effects of European contact (Chapter 10). I will discuss these issues in turn, paying attention not only to Sand's own conclusions about New Caledonia, but to some of the larger implications that these raise for Pacific prehistory in general.

Sand naturally begins with the primary questions that have energized scholars for more than a century: when did the first human settlement of New Caledonia occur, and who were the colonists? He contextualizes these questions with an informed review of regional Melanesian prehistory, drawing upon such recent results as the discovery of Pleistocene sites in the Bismarck Archipelago by the Lapita Homeland Project, Geoff Irwin's important discussions of early voyaging strategies, and the role of Holocene sea-level fluctuations. Sand is cautious regarding any pre-Lapita settlement of southern Melanesia, admitting "the absence of archaeological markers demonstrating in a certain fashion the existence of human occupation in New Caledonia before the appearance of the earliest ceramic sites" (61) (i.e., Lapita), but nonetheless hedges his bets that such a preceramic horizon might yet be revealed, perhaps in unexcavated interior rockshelters.

The only supposed evidence for such a preceramic horizon, of course, remains that of the "mysterious tumuli." It is curious that Sand gives only passing reference to Green's (1988) argument that the tumuli are, in fact, the fossilized incubation mounds of an extinct species of giant megapode (*Sylviornis neocaledoniae*), the bones of which have been recovered from Lapita sites and from natural depositional contexts. Weighing in at 30 kg or more, *Sylviornis* would certainly have been capable of scraping up substantial earth and leaf-litter mounds (thereby incorporating the ground-dwelling *Placostylus* landsnails found by Golson and Chevalier) in which to incubate its eggs, just as its smaller living relatives do in some Pacific islands today. (In 1987 I saw megapode incubation mounds on Enu Island in the Aru group of eastern Indonesia, measuring roughly 1 m high and

several meters in diameter.) In my opinion, Green's hypothesis of an avian origin accounts for the available data, and the burden of proof must now shift to those who support a human agency to produce more than negative evidence. Unlike Sand, I am willing to place my bet on the extreme unlikelihood that a pre-ceramic occupation ever existed in New Caledonia. Indeed, as a part of Remote Oceania, New Caledonia now takes its place along with Vanuatu, the far eastern Solomon Islands, and Fiji-Tonga-Samoa as the region of initial Lapita expansion into *terra nullis* at the close of the second millennium B.C. (Kirch 1997).

In Chapter 5, Sand turns his attention to the early ceramic period, or what has been termed the Koné period (named after the Koné area, which includes the site of Lapita, which is Gifford and Shutler's site 13). This incorporates sites with both classic dentate-stamped Lapita ceramics and the paddle-impressed ceramics termed Podtanéan by Green and Mitchell (1983), as well as, in the later part of the Koné period, certain incised ceramics (e.g., Puen ware). The relationships between Lapita *sensu stricto* and the paddle-impressed and incised wares have been a central issue of study and debate in New Caledonian prehistory. One of Sand's major contributions is thus to bring the ceramic variability of this important period into clear focus. With regard to chronology, a large number of radiocarbon dates (p. 74, Fig. 41) from both "Lapita" and "Podtanéan" sites now suggest that, in spite of three anomalous early dates, the earliest Koné period sites fall in a tight span from 1100–1000 B.C., when calibrated (p. 76). This puts the settlement of New Caledonia and the Loyalties squarely in line with what we know of Remote Oceania in general, with an extremely rapid Lapita expansion from the southeast Solomons both south to Vanuatu and New Caledonia and east to Fiji-Tonga-Samoa (Kirch 1997:57–63). Equally important, Sand demonstrates that "Lapita" and "Podtanéan" ceramics are coeval in time, and indeed are at times found in the same deposits, as at the Nessadiou site. Sand thus rejects—correctly, in my view—the hypothesis that these ceramic wares represent separate cultural traditions, as originally argued by Green and Mitchell (1983). Rather, he sees them as having a "common origin and complementary utilization" (p. 83), the dentate-stamped wares having a special use function, probably ceremonial, and the paddle-impressed wares being for everyday culinary use. Again, this puts the originally confusing picture of two contemporary ceramic traditions in New Caledonia back in line with the broader picture of Lapita ceramic assemblages as including both decorated and plain components (Kirch 1997:146–150).

While "Podtanéan" paddle-impressed ceramics persisted throughout the archipelago for the full duration of the Koné period (i.e., until the beginning of the first millennium A.D.), the dentate-stamped "Lapita" ceramics seem not to have persisted beyond the first few centuries after colonization. (In this, too, the New Caledonian data are coming into line with emerging sequences from other southwest Pacific archipelagoes.) Instead, several varieties of incised ceramics, largely on globular-formed vessels, take the place of the dentate-stamped ware. In the southern part of La Grande Terre, Sand has labeled such incised ware "Puen." Two points are important here: the Puen vessel forms are essentially those of Podtanéan; and the application of incised designs on such vessels parallels ceramic developments elsewhere in Melanesia at approximately the same time (e.g., early Mangaasi in Vanuatu, the incised ceramics of the terminal Lapita phases at

Watom, Mussau, and elsewhere). This suggests both a continuous sequence of local ceramic change and a degree of external contact and continuing interaction with other Melanesian communities.

Sand is well aware that Lapita is more than pots, and in Chapter 6 he reviews the evidence for nonceramic material culture, settlement patterns, and economy during the Koné period. The catalog of portable artifacts is quite extensive, including polished adzes (generally untanged with elliptical sections), hammerstones, polishing stones and disks, possible nut-cracking hammerstones, a variety of shell rings and bracelets, and a flaked stone industry that made abundant use of the locally occurring phtanite. Sand observes that despite the discovery of several new sites, Frimigacci's 1980 conclusions regarding Lapita settlement patterns remain largely valid. Sites are typically coastal, with preferential access to the ocean by means of passes through the reef; they are also located near both productive reef and arable land, reinforcing the idea of a dual maritime/horticultural subsistence economy. Direct archaeological evidence for maritime subsistence includes abundant shellfish remains, fish, and turtle bones, although only four shell fishhooks have ever been excavated (these from a site in the Loyalty Islands in 1995). A major lacuna in New Caledonian archaeology is the lack of detailed faunal analyses, especially of fishbones, as Sand confesses (p. 107); in this regard the detailed "compositional studies" of Gifford and Shutler (1956) remain the best source of information.

Research in other parts of Melanesia and Western Polynesia has increasingly demonstrated that Lapita peoples were horticulturalists who rapidly transformed the landscapes surrounding their settlements, through forest clearance and the use of fire (Kirch 1997:203–226). The same pattern is beginning to emerge for La Grande Terre. Of particular interest is the rapid disappearance—at the beginning of the first millennium B.C.—of several large endemic terrestrial animals, including not just the giant *Sylviornis* megapode, but a terrestrial crocodile (*Mekosuchus inexpectatus*), a tortoise (*Meilania mackayi*), a monitor lizard (*Varanus* sp.), and a number of other species (see Flannery 1994:45–49). The extinction of these and other species seems to be linked to human colonization of the island, probably through a combination of direct (hunting) and indirect (habitat modification and destruction) impacts. Sand also mentions stratigraphic evidence for erosion and alluvial deposition in valley floors during the Koné period, signals of human expansion into interior landscapes that have been backed up by the palynological work recently undertaken by Stevenson and Dodson (1995).

The Koné period, with a duration of perhaps 1200 years, saw the gradual expansion of human settlement throughout the New Caledonia–Loyalty archipelago, with settlement at first concentrated along the coasts and in the more horticulturally suited humid sectors, but toward the end into the interior valleys and more marginal terrains. Sand applies a demographic model (pp. 112–113) to suggest that by the close of the Koné period, the island's aggregate population had reached 50,000 persons. Stratigraphic evidence from the Bopope region indicates that even interior valleys were being permanently occupied and their landscapes transformed by the first few centuries of the Christian era. More importantly, by the close of the Koné period the ceramic evidence indicates significant local differentiation. The marked linguistic and cultural heterogeneity characteristic of

New Caledonian ethnography can thus be traced back at least two millennia, to differentiation that commenced during the Koné period.

Continued regional differentiation of Kanak societies during the period from ca. A.D. 200 until European contact is well reflected in the New Caledonian ceramic sequence. Building upon the work of Galipaud (1988), Sand divides the later part of the island's sequence into two "periods" and four ceramic "traditions." Actually, the periods are geographically defined, with the Oundjo period in the northern part of La Grande Terre paralleling in time the Naïa period in the south (both span the interval ca. A.D. 200–1800). Within the Oundjo period there are two distinct ceramic traditions: Balabio and Oundjo proper. Balabio ceramics, with a black paste and spherical vessel form, developed out of the Podtanéan tradition, according to Sand. Toward the end of the first millennium A.D., the Balabio tradition was replaced by the Oundjo tradition, characterized by incised, stamped, and relief decorations on the upper parts of the globular pots, below the rim. (The tradition takes its name from Gifford and Shutler's site 26, Oundjo village, the ceramic assemblages of which have recently been reanalyzed; see Kirch et al. [1997].) In the southern part of La Grande Terre, the Naïa period is defined by a temporal succession of the Plum and Nera ceramic traditions. The earlier Plum ceramics, whose incised decorations developed out of the older Puen tradition (of the Koné period), are characterized by distinctive handles. Noting the design similarities between certain Plum ceramics and a style of petroglyphs, Sand makes the intriguing suggestion that the latter might be interpreted as boundary markers, again a reflection of growing ethnolinguistic differentiation within the island (p. 144). The later Nera tradition is marked by spherical vessels lacking everted rims, with simple decorations consisting of rows of nubbins and some incising. Sand reviews these ceramic traditions in Chapters 7 and 8, along with stratigraphic and radiocarbon evidence providing a firm chronological grounding. These details are of much interest to the regional specialist, but it is to other aspects of Sand's treatment that I will now turn, because his discussion of settlement patterns, agricultural intensification, sociopolitical evolution, and post-Contact demographic collapse are of more far-reaching interest to Oceanic anthropologists.

The earliest evidence within the archipelago for material signals of social transformation—specifically, indications of hierarchy, competition, and warfare—is found not on La Grande Terre, but on the central plain of Maré Island in the Loyalties (p. 131). Two monumental stone structures, built of coral blocks weighing up to five tons, were clearly designed as defensive sites; the rectangular enclosure of Hnakudotit (site LMA016) incorporates 23,000 cubic meters of stone. Three radiocarbon dates with consistent age ranges indicate that this remarkable construction dates to the first two or three centuries A.D. Sand stresses that these monuments must indicate the prior existence of a "political system . . . very different from that known ethnographically in New Caledonia" (p. 133), but he stops short of attempting to define the specific conditions under which such a system might have developed some 2000 years ago. In my view, the ecological setting of these structures is highly telling: the upraised, karst limestone plateau of Maré Island, a "dry" and somewhat marginal environment for an agriculturally based economy. According to a model of contrastive "wet and dry" agro-ecological regimes that I developed on the basis of Futuna-Alofi in Western Polynesia

(Kirch 1994), it is in such environments—where the choice of agricultural strategies is highly constrained toward labor-intensive short fallow swidden—that competition for land and aggressive territorial warfare are most likely to arise. Thus I am not surprised to find these earliest material indications of competition and territorial marking on Maré, rather than on La Grande Terre, with its much greater potential for other forms of intensification, such as terracing. Additional, intensive archaeological studies on the central plateau of Maré might help to test or further elaborate this hypothesis.

It is, nonetheless, on La Grande Terre itself that ethnobotanists have long noticed several kinds of *landesque capital* intensification (i.e., resulting in permanent landscape transformations). Barrau's classic monograph (1956) described the ethnographic endpoints of *Colocasia* taro irrigation systems—the most extensive in all of Oceania—and of *Dioscorea* yam mound complexes, but he lacked any archaeological evidence that might hint of the age or history of development of these remarkable agricultural adaptations. Although a great deal more work will need to be carried out on prehistoric agricultural sites in New Caledonia before a thorough agricultural prehistory can be written, Sand has provided some landmarks in the sequence. In an important study first reported by Sand and Ouetcho (1994) and summarized in "*Le Temps d'Avant*" (pp. 138–140, 171–181), excavations were made in several taro terraces in the Païta region, near Nouméa. A site (WPT069) near the famous Col de la Pirogue irrigation complex yielded a radiocarbon age of A.D. 670–990 (calibrated), the oldest date for a Melanesian irrigation site. Other terraces gave more recent ages, within the last two or three centuries. Sand refers to Kirch and Lepofsky's (1993) hypothesis that such taro irrigation technologies were not the result of "diffusion" from southeast Asia, but rather were developed *de novo* several times in different Oceanic archipelagoes, based on common ethnobotanical knowledge of the abilities of *Colocasia esculenta* to respond to hydraulic cultivation. Sand's Païta data—if confirmed by future research and additional dates—provides evidence that on La Grande Terre as in Hawai'i, Futuna, and elsewhere intensive, canal-fed irrigation was typically a development of the mid to later phases of island sequences, linked both to demographic pressures and to sociopolitical transformations (Kirch 1994). Of equal note are the vast areas of ancient dryland terracing and mounding that mark formerly intensive systems of "dry" cultivation, focused primarily on the *Dioscorea* spp. yams. The New Caledonian dryland systems rival in scale and complexity those of the New Guinea Highlands, and Sand provides excellent documentation of these systems in aerial photos and maps (pp. 181–189). At Tiwaka, a single dryland system includes more than 150 large mounds, totaling at least 35 hectares. Mounds may be 1–3 m high, 10 m wide, and up to several hundred meters long. Unfortunately, such dryland systems have not yet been subjected to excavation or dated, and the history of their development remains a problem awaiting further research.

Sand also describes new forms of inland habitation sites that arose during the Oundjo-Naïa periods, typically in close spatial association with the intensive agricultural systems. While the coastal regions continued to be occupied and are marked by extensive shell middens, the interior valleys and coastal plains are characterized by the presence of distinctive, elevated house mounds. These are frequently organized in linear arrangements of 15 or more house mounds around



a central alleyway. The plan of Tipalet (site ETO018) in the Bopope region (p. 166, Fig. 129) shows such mounds on either side of an elongate plaza, with a substantially larger mound at each end. Other habitation mound complexes reflect a hierarchy of mound sizes and heights, possible evidence for social stratification or at least ranking of households. Few such complexes have yet been excavated, but a charcoal sample from the base of a mound at Pwapwadouhi yielded a calibrated radiocarbon age of A.D. 1290–1470 (p. 168). Clearly, there is much scope for the implementation of a program of “household archaeology” in La Grande Terre.

Although his data on agricultural sites and associated habitations are limited—given the vast extent of such systems on La Grande Terre—Sand is not afraid to venture his own contribution to the continuing debate and discussion on agricultural intensification in Oceania. To Sand, “it is the intensification of horticulture which appears the most characteristic” of the Oundjo–Naïa periods (p. 200). He accepts a primarily causal role for demographic pressure, but cautions that population by itself is too limiting an explanatory factor. Indeed, the very existence of these intensive systems—which are found throughout the interior valleys and plains of New Caledonia—provides Sand with the basis for questioning certain long-held ethnographic notions regarding traditional Kanak societies (e.g., Guiart 1963). Rather than regarding the sociopolitical systems associated with these intensive systems of agricultural production as rather “weak chiefdoms” and the sites themselves as only intermittently occupied by a peripatetic population, Sand is inclined to ask whether the archaeological evidence might not better support an interpretation of “strong chiefdoms” supported by substantial surplus extraction, driven in part by prestige rivalry (p. 201). Citing the texts of the earliest European explorers, in which he “finds the echo of strong chiefdoms,” Sand suggests that the classic ethnographic descriptions in fact reflect “profound sociocultural transformations” of the eighteenth and nineteenth centuries. The implications of Sand’s arguments are themselves profound, for they raise fundamental questions regarding the validity of much Melanesian ethnography as a guide to the interpretation of the past.

The most provocative and contentious aspect of Sand’s monograph, however, is to be found in Chapter 10, for me a brilliantly argued and theoretically far-reaching discussion that bears on the demographic consequences of European contact throughout the Pacific region. The Chapter 10 heading is posed as a question: “What was the demographic importance of the population present in New Caledonia at the arrival of James Cook?” It is a question that has recently been raised for Hawai‘i as well, by Stannard (1989), and Sand is well aware that in questioning the academic demography establishment (as represented by such authorities as MacArthur [1968]) he is apt to raise some hackles. Not the least of these will come from the ethnographers, such as Guiart (1963), whom Sand plays off to good effect in presenting his argument that demographers and ethnographers alike have significantly underestimated the real population of New Caledonia and Loyalty Islands at the advent of European contact.

The crux of the argument is as follows. Based on a narrow reading of the available textual sources—and in particular favoring census-type data that did not become available until after missionization in the mid-nineteenth century (more than 60 years after initial European contact)—the academic establishment has

maintained that the pre-Contact population of La Grande Terre never exceeded about 50,000 persons. This is the position taken, for example, by the leading French demographer Rallu (1990:280), who asserts that New Caledonia represents a case of relatively insignificant population decline following Western contact. It is also the position of ethnologist J. Guiart (1963), who for example suggests that a figure of 15,000 warriors sought for an assault on the French garrison at Nouméa was a figment of the local chief's imagination! Sand has come to a different conclusion as a result of his familiarity with another kind of "text," that of the archaeological landscape.

Sand fully recognizes, and is at pains to point out several times, that the data with which to calculate an accurate population estimate for the whole of New Caledonia is not yet at hand, and indeed will require many years of intensive archaeological research to acquire (and it is archaeology that he feels will produce the answer, not demography or ethnohistory). Rather than attempt to play such games of wild estimation (as does Stannard [1989] for Hawai'i), Sand takes the more cautious approach of deconstructing the received view of historical demography and ethnology, pointing out in exquisite detail the possibilities for an alternative reading of the early European textual evidence. In a case study of the Païta region near Nouméa, he goes further and shows that while Guiart would estimate the maximum population at perhaps 1200 persons, the archaeological vestiges of intensive terracing, habitation sites, and so forth lead one to a conservative estimate of 8000 persons, with a strong likelihood of double that number!

How to account for the disparity in estimates? Sand is thorough in his reanalysis of the early historic accounts, demonstrating that not only the effects of diseases for which the Kanaks had no resistance, but also the political and military strategies of several decades of whalers, sandalwooders, and outright colonists could have had far greater impacts than hitherto recognized. The French colonials pursued a strategy of outright destruction of agricultural infrastructure that led to famine and social collapse. His dissection of the arguments of Norma MacArthur (1968) for low population densities throughout Melanesia (pp. 232–235) deserves to be read by all anthropologists and historians working in this region. One cannot help but be moved by Sand's remark that "to appreciate the extent of the demographic collapse is to revisit the autopsy of the destruction of a society" (p. 248). I for one am convinced that Sand is correct in his assertion that a figure of 50–60,000 persons for New Caledonia in 1774 is much too low, possibly by an order of magnitude. Sand presents us with a challenge, not just for La Grande Terre, but also for many other islands and archipelagoes of the Pacific, where the archaeological evidence of densely populated interior regions is in direct contradiction to accepted historical demographic estimates (Sand reviews some of this evidence in his appendix). This is one of the most significant tasks that lies ahead for Pacific archaeology, not just for its intrinsic intellectual interest, but because the "truth" is a matter of vital concern to the indigenous peoples of the Pacific.

In the conclusion of *"Le Temps d'Avant"* Sand reviews the big problems of Melanesian prehistory from a New Caledonian perspective. His discussion is well informed by the latest theoretical work throughout the Pacific, and he ranges over such topics as the perennial matter of origins, the persistence and extent of interisland exchange networks, the impact of humans on island ecosystems and the intensification of agriculture, variations in ancient social systems, and inter-

archipelago population movements. Sand ends his book, as he begins it, with reference to the contemporary Kanak peoples and their intense desire to learn of their past. It is a challenge for archaeologists in the years to come, he says, to find the words and the explanations to address that great richness of New Caledonian prehistory: its diversity.

In addition to Sand's monographic synthesis, "*Le Temps d'Avant*," two other of his recent contributions to the literature of New Caledonian prehistory are worth noting. *Archaeology in New Caledonia* is a short summary of some of the highlights of the larger work, written for English readers. It is nicely illustrated with many of the same drawings and photos as "*Le Temps d'Avant*" and has an extensive bibliography that will be of considerable use to students. Unfortunately, in its scope *Archaeology in New Caledonia* stresses ceramic typologies and sequences, with scant mention of Sand's more significant and provocative theories and hypotheses concerning the evolution of Kanak society, agricultural intensification, or the central question of demographic collapse following European contact. Nonetheless, it is a welcome addition to the English language literature on New Caledonia, and it will be of some use in undergraduate courses on Oceanic prehistory.

*Les Cahiers de l'Archéologie en Nouvelle-Calédonie* series was initiated in 1992 to publish results of archaeological surveys and excavations conducted by the Département Archéologie of the Service Territorial des Musées et du Patrimoine. All of the volumes to date have been elegantly produced, with excellent graphics and illustrations. Volume 5 is devoted to a set of preliminary reports on a series of excavations carried out by Sand, Bole, and Ouetcho on the Loyalty Islands of Lifou, Maré, and Ouvéa in 1994–1995. Unlike La Grande Terre, the Loyalty group has been quite neglected archaeologically, and the eight investigated sites (six rockshelters and two open, coastal sites) provide the basic data from which a sequence for these three islands may now be constructed. Of particular note is the discovery of classic Lapita pottery at the bases of the Hnajoisisi and Keny sites on Lifou, thus filling a gap in the known distribution of the Lapita complex between Vanuatu and La Grande Terre. Podtanéan paddle-impressed ceramics are well represented in the Loyalty Island sites, and in fact they dominate the excavated assemblages. Contacts between the Loyalty group and La Grande Terre are suggested by the presence of potsherds, adze fragments, lithic flakes, and manuports of New Caledonian origin. Whether these are indicative of regular long-distance exchange systems between these islands will require further analysis.

It can now truly be said, thanks to the work of Christophe Sand and of his French and Kanak colleagues, that New Caledonian archaeology has finally come of age. For so long the enigmatic stepchild of Oceanic prehistory, New Caledonia mystified and thwarted efforts at synthesis. All this has changed. The island's 3000-year sequence of human occupation has been brought into concordance with the adjacent regions of Melanesia and Western Polynesia. At the same time, the incredible richness and diversity of its prehistory—which indeed prefigure its famous ethnographic and linguistic heterogeneity—have begun to be attested in material terms. Moreover, as the work of archaeologists in La Grande Terre and the Loyalties now turns less to fundamental matters of typology and chronology and more to problems of ancient land use, demography, ethnolinguistic differentiation, and sociopolitical transformation, it is certain that New Caledonia will have a great deal to contribute to the most fundamental problems of Oceanic prehistory.

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# Review Essay



## THE DYNAMIC REALM OF THE INDIAN OCEAN: A REVIEW

MONICA L. SMITH

*Tradition and Archaeology: Early Maritime Contacts in the Indian Ocean.* Himanshu Prabha Ray and Jean-François Salles, eds. New Delhi: Manohar. 1996. Pp. 338; illus.

*Athens, Aden, Arikamedu: Essays on the Interrelations between India, Arabia and the Eastern Mediterranean.* Marie-Françoise Boussac and Jean-François Salles, eds. New Delhi: Manohar. 1995. Pp. 272; illus.

*Mariners, Merchants and Oceans: Studies in Maritime History.* K. S. Mathew, ed. New Delhi: Manohar. 1995. Pp. 488; illus.

THE LANDS THAT BORDER the Indian Ocean—the varied territories of East Africa, Arabia, India, and Southeast Asia—exhibit a considerable cultural, economic, and political diversity. These three volumes address the complexities of this region in the past 2000 years through a combination of historical, archaeological, and ethnographic materials, principally looking at the role of exchange activities as the link between peoples. Illustrating the changeability of the Indian Ocean trade networks, the 59 essays in these volumes provide examples of the ways in which political circumstances, economic opportunities, and social constructs in the littorals and hinterlands resulted in a variety of different interactions between local and foreign groups. This new stance could only have resulted from an emerging critique of large-scale prime movers as a valid explanatory mechanism, combined with the thorough investigation of local documentary sources and new archaeological evidence about local and regional groups before and throughout the period of long-distance trade.

The addition of the local perspective allows for a considerably greater scope of inquiry than older interpretations that viewed the Indian Ocean as a singular entity, a passive region subjected sequentially to Roman, Islamic, and western European domination and influence. That interpretation was based in a perception that states and empires were the dominant force in the development of exchange relations, a perspective which has been revised for the precolonial

Monica L. Smith is a lecturer in the Department of Anthropology, University of Arizona.

*Asian Perspectives*, Vol. 36, No. 2, © 1997 by University of Hawai'i Press.

period by scholars who have emphasized the importance of Asian trade groups (e.g., Bouchon and Lombard 1987; Chaudhuri 1985; Dale 1994; Pearson 1987). The study of these later periods, for which the documentary record is more thorough, superbly reveals the complexity of the relationships between merchants, suppliers, and their political allies. The era of renewed "exploration" and eventual colonial undertakings by Europeans found them confronting large-scale polities throughout the Indian Ocean: in the Swahili states of East Africa, in the lands bordering the Mughal domain of the Indian subcontinent, and in the states of the Indo-Malayan archipelago. Each of these areas sustained a thriving economic tradition of its own, both on land and sea.

Adding to the complexity of trade relations in this period is the fact that there was not a single European presence but a variety of European entities represented by merchants and navies whose activities in the Indian Ocean were affected by events in Europe. Private European traders thwarted their own governments' early attempts at monopoly; mercenaries and pirates also undermined the designs of control over trade activities in the Indian Ocean. Mercantile activities were carried out by a variety of corporate groups, including groups united by kinship or religion that had trade specialties linking them with particular foreign locales. As a contribution to this genre of study, the volume edited by K. S. Mathew contains papers that document particular case studies and detailed local analyses illustrating the inadequacy of monolithic explanations of trade activity.

The period of "Indo-Roman" trade in the early centuries A.D. is now being investigated with the same view toward documenting the multiplicities of economic interaction. Until the early 1980s the interpretation of this exchange was largely based on the use of Latin and Greek texts (e.g., Charlesworth 1926[1974]; Raschke 1978; Warmington 1928). The routes and items of trade were known from the *Periplus*, a Greek merchant's document of the first century A.D.; the cost and impact of that trade was assessed from Pliny's famous lament that Rome's treasury was being drained to purchase baubles from the East (*Natural History* VI.101). Similarly, archaeological finds were interpreted from a Mediterranean focus, with one of the earliest investigators characterizing the site of Arikamedu on India's eastern coast as an "Indo-Roman trading station" on the basis of his recovery of Mediterranean goods such as Arretine ware (Wheeler 1946). The reassessment of the same evidence has prompted a more recent investigator to propose that Arikamedu is a unique site because it shows Western contact over time, whereas genuine Roman items are scarce in other sites of the same time period in India (Begley 1983, Begley et al. 1996).

The accumulation of documentary and archaeological data on the littoral and hinterlands of the Indian Ocean has enabled scholars in India and elsewhere to observe that "foreign" trade had little effect on the development of local social and political structures in the early centuries A.D. Felix Chami (1994) observes that because initial research was focused on the colonization of the coast, African archaeology has suffered from the myth that all elements of civilization came from the Middle East or Far East. He advocates instead what he terms "Africanization" (the study of indigenous cultural traditions and links between settlements of the coastal littoral and the peoples of the hinterlands) and presents the results of a survey project that recorded sites of the early centuries A.D. in Tanzania. For the Arabian peninsula, archaeological information has been painstakingly compiled

by D. T. Potts (1990); his work represents a particularly valuable resource because many of the regions on which he reported are now undergoing tremendous growth and development that have resulted in a high rate of loss of archaeological sites (Potts 1984).

Himanshu Ray (1986) has examined the social and political constructs of the western Indian subcontinent in the early centuries A.D., citing the presence of merchant guilds and Buddhist monasteries that contributed to thriving regional exchange. For the same period, Xinru Liu (1988) has considered the economic effect of the increasing popularity of Buddhism in central Asia and northern India, observing that the items utilized to decorate Buddhist stupas were the same exotic trade goods desired as status symbols by the wealthy: silk, coral, pearls, lapis, and glass. Trade in the subcontinent also took place at the household level, where a variety of productive strategies were utilized to maintain a surplus dedicated to exchange, and where the acquisition of non-local goods illustrated the maintenance of long-distance social ties (Smith 1997b). For Southeast Asia, authors such as Higham (1989) and Bellwood (1985) have demonstrated that the development of well-organized social and political entities preceded an involvement with long-distance exchange.

Nonetheless, the presence and impact of long-distance trade is not to be minimized. Foreign goods often constitute one of the prestige items used by elites to demonstrate their status (e.g., Earle 1990; Helms 1979; Wright 1984). The active pursuit of trade by the expanding Roman state is a prominent part of the literary record; the place of foreign trade in the economies of Egypt, Arabia, and India is likewise indicated by documentary and archaeological sources. Accordingly, the articles in the volumes edited by Salles, Boussac, and Ray do not minimize the importance of exotic exchange goods. Instead, they challenge the old concepts of seamless interactions by showing that economic activities in the Indian Ocean were conditioned by a variety of factors such as the development of sailing technology, the distance of merchants to their sources of political support, shifts in demand, local struggles for authority, the difficulties of managing ports and suppliers, natural calamities, and conflicts between expanding groups that incorporated external agents, sometimes half a world away.

The volume *Tradition and Archaeology* (hereafter, *Tradition*) is a publication resulting from the conference "Techno-Archaeological Perspectives of Seafaring in the Indian Ocean" held in New Delhi in early 1994. Suitable for both the uninitiated and the specialist, the papers generally do not presuppose familiarity with the region discussed, but at the same time are thorough in their discussions and bibliography, including citations to sources that are not widely known. The volume is of a generous, large-format size, permitting the contributors to include detailed maps and other illustrations critical to the evaluation of their arguments. Himanshu Ray's opening essay indicates the book's scope, in stating that the study of ports needs to encompass the examination of expanding routes and networks, where ports are not merely a landing place but an "economic concept." The subsequent papers in this volume discuss ports but also their hinterlands, as well as the maritime technology which is required to move from one port to another.

Alexander Sedov's lengthy and detailed report summarizes the 1985–1991 excavations at the port site of Qana in Yemen, occupied from the early first to



seventh centuries A.D. Qana owed its expansion to the incense trade, as judged by the archaeological recovery of several large rooms found with quantities of burnt incense. The early period (dating from the first to second centuries A.D.) also showed evidence of widespread exchange in the form of pottery from Egypt, Palmyra, Campania, and Mesopotamia; in the subsequent two periods, the site's ceramic assemblage also incorporated wares from North Africa, southern Gaul, Mauretania, and India. The tremendous quantity and variety of non-local goods at the site, where in all three occupation periods imported pottery comprised 80 percent of the ceramic assemblage, substantiates Ray's observation that ports were a particular kind of locus and likely to have quite a different economic, social, and political composition than the towns and cities of the hinterland.

Sedov's report is exemplary in three respects: first, the presence of one or another type of pottery does not lead him to immediately claim special connections between political units—in fact he almost leaves out political connections altogether, since the general lack of documentary evidence renders such identifications tenuous. Second, he describes the three periods of occupation in plain terms (early, middle, late) tied to absolute dates rather than to ruling entities that may have had little impact upon the port's function. Finally, he divides the article into separate sections, first describing the material remains for each of the three periods and then using the finds from each period to interpret the site's role in long-distance as well as local exchange. The rigorous separation of data and interpretation allows readers to use data for comparisons against their own materials even if a different interpretation is proposed.

In contrast to the small amount of Indian items found at Qana, Monique Kervan notes that Indian pottery is prominently represented among the goods of exchange in southern Iran and eastern Arabia starting in the Harappan period. Largely in the absence of materials analysis and quantification, however, it is difficult to assess the extent to which Indian ceramics formed an important part of exchange. Osmund Bopearchchi discusses the changing role of Sri Lanka in trade, noting that while the evidence for long-distance trade from the first few centuries A.D. is minimal, Sri Lanka experienced an upsurge in the fourth and fifth centuries, as measured by the impressive quantity of Late Imperial Roman coins found on the island. He credits these imports to the trade with Axumite, Himyarite, and Persian middlemen, an observation which illustrates how the initiators of long-distance trade activities came from politically stable entities where the presence of elites fueled the demand for exotic goods.

In a brief essay on southern India in the early centuries A.D., K. Rajan observes that in addition to the main dynasties of the Colas, Ceras, and Pandyas, there were a number of other chieftains. These chieftains, however, were unable to break the economic and political power of the main dynasties that controlled access to maritime trade. Regarding the easternmost areas of the subcontinent, Gautam Sengupta notes that while there are a number of large sites in the area of Bengal, the region is understudied and even basic data such as the size and configuration of many sites is largely unknown. Even in this early stage of knowledge, however, Sengupta is able to note that the large site of Chandraketugarh exhibits some variations within a single cultural phase. The presence of variability within a site indicates that multiple social, economic, and political forces may have been at work simultaneously; the evidence from the greater subcontinent reveals that

trading activities involved a number of interactions at the local and regional level, in addition to contacts sustained across the seas.

Moving eastward, documented contacts in the early centuries A.D. become more tenuous. Ian Glover summarizes the archaeological evidence of contact between India and Southeast Asia, where he claims that the adoption of "Indianized" modes of political and religious thought were becoming established in the late first millennium B.C. Glover's logic undermines his argument when he proposes that the scale of "Indianization" in the first millennium A.D. was so vast that it must have been preceded by an extended period of regular contacts. Recently, the extent of early Indian activity in Southeast Asia has been questioned, with the observation that prior to the fifth century A.D., the political organization of the subcontinent did not foster religious or mercantile expansion to the east (Smith 1997a).

Additional skepticism of early contacts is found in the *Tradition* volume in the two papers by Pierre-Yves Manguin and Jean Deloche. Manguin critiques "Indianization" and "Islamization" as explanations that "largely concealed the internal dynamics of these Southeast Asian polities" (p. 182). In contrast to Glover, he places the impetus for trade and contact with the peoples of Southeast Asia, observing that no indigenous Asian ships have been recovered west of Malacca. He documents the archaeological recovery of boats and boat fragments (which are still very few in number) from the Malay Peninsula and Sumatra, providing data that supplement other observations of early maritime travel in the Indonesian archipelago and beyond (see also Bellwood 1985). Manguin's argument is less convincing when he applies the same faith to textual data as to archaeological finds, as when he notes that the Chinese reports of very large boats (50 m long and capable of carrying 500 passengers) in the sixth century A.D. are to be believed because the texts are authored by "trustworthy Chinese Buddhist pilgrims." Leaving aside the question of whether figures reported in such texts reflect a cultural standard rather than actual measurements, pilgrims were more likely to be trustworthy in matters of religion than in matters of seafaring.

Deloche provides in his article another way to examine early shipbuilding: through iconographic representations. For the period from the second century B.C. to the seventh century A.D., he assembles Indian images of watercraft, including depictions on Andhra coins, the sculptures at Sanchi, Amaravati, and Bharhut, and the cave paintings from Ajanta. He concludes that most of these representations are of river craft rather than of sea-going vessels. His conclusions are sure to add to the lively controversy regarding the extent to which Indian sailor-merchants actively participated in the oceanic voyages of the early centuries A.D. (see Ray 1994, 1996). Deloche notes that the subsequent development of seafaring technology is difficult to assess, as there is a gap from the seventh to eleventh centuries in the knowledge of Indian shipping. He proposes that there may have been contacts between seafaring peoples evidenced in changes such as the appearance of the stern-post rudder (permitting the development of larger ships) in the twelfth century, at the same time that it appears in the Mediterranean. He strongly urges the use of ethnographic fieldwork to document boat-building technology, a sentiment also expressed in the following paper by Sean McGrail. Like Deloche's paper, McGrail's discussion of stitched-plank boats is lavishly illustrated and also includes a list of questions to be asked of boatbuilders.

In a well-written companion piece, Eric Kentley provides a report on a four-month study of sewn boats on the eastern Indian coast. Studies such as this will be a useful guide to ship construction utilizing traditional technology when ancient boat remains are found. Other practical aspects of open-water sailing in the Indian Ocean are approached by authors examining navigation as represented in traditional tales (by B. Arunachalam) and as evidenced by the use of measuring devices such as the *kalam*, an early sextant whose use is described in written texts as early as the ninth century A.D. (S. Q. Fatimi). Evidence of the use of multiple seafaring technologies is provided by Zarine Cooper in a summary article on the archaeology of the Andaman Islands. This short paper leaves the reader asking for more; Cooper's extensive work in the Andamans deserves more extensive exposure.

Axelle Rougeulle's meticulous and well-documented contribution examines the area of the greater Arab-Persian Gulf from the ninth to fourteenth centuries. During that period, sites of the Iranian coast such as Siraf had a large quantity of Chinese pottery, while the sites on the Arabian side of the gulf did not. Rougeulle cites the situation of the hinterlands as a decisive factor: the Arabs lacked trade goods because of the imposition of high taxes at their port of Uqair, the presence of pirates, and a low population density consequently unable to afford large quantities of luxury goods. A combination of circumstances caused a shift in trade to the Red Sea by the year 1000: in Egypt, the emergent Fatimid dynasty developed their capital at Fustat in Egypt as a major center; on the Iranian coast of the Arab-Persian Gulf, Siraf suffered political troubles and then an earthquake in 971. Trade returned to the Arab-Persian Gulf by the thirteenth century, with the establishment of trading entities on Bahrain. Rougeulle's article shows that even phenomena that might be described by a blanket term such as "Islamic trade" will have different manifestations as the result of natural circumstances and political shifts.

One of the most intriguing papers of the volume is presented by Y. Subbarayalu, who reports on the survey of a portion of the southern Indian coast in coordination with the Underwater Archaeology Center of Tamil University. Although the article is only a preliminary report, the presence of Chinese ceramics indicates the role of Indian ports in long-distance trade with the East. At the site of Periyapattinam, trial excavations and additional survey (conducted with the Idemitsu Museum of Arts in Tokyo) recovered a single-period occupation of the late thirteenth through fourteenth centuries A.D. that had a large quantity of Chinese ceramics from the Longquan and Fujian kilns. Other coastal sites are also reported in this paper, some of which can be identified with ports known from the historical record. In contrasting the archaeological evidence with the documentary record, Subbarayalu notes that the Cola period port of Nagapattinam lacked Chinese sherds of the Song period, a fact which he finds puzzling given that the "Cola court had active diplomatic relations with the Song court" (p. 112). Subbarayalu's paper illustrates that even for periods with a reasonable documentary record, the attestation of diplomatic relations—which may have been exaggerated by the recording entities—did not necessarily result in demonstrable economic relations.

In the thoughtful summary essay that closes the volume, Jean-François Salles cautions that we should not see the developments which took place in the

ancient world as sudden “discoveries,” but as a process of exploration, contacts, and the accumulation of knowledge. The hinterlands’ effect on ports is discussed through his reference to Failaka, which was probably initially settled during the reign of Seleucos I (311–281 B.C.) as a center that was more military than commercial (see also Calvet and Gachet 1990; Calvet and Salles 1986; Salles 1984). This Hellenistic settlement was abandoned in the mid second century B.C., coincident with the fall of Seleucid power in Babylonia. Reading this paper, some issues come to mind about the role of trade and commerce and about the illustration of a common archaeological dilemma: how much physical evidence is required to claim that distant locales were in contact? And how much higher is the threshold to make a claim that regions exercised “influence” or even “dominance”?

The authors of this volume are clear about what types of data will be useful for future research. Archaeological data must be sought out, both through new collaborative field projects and through the reinvestigation of old reports and collections that can be used anew to address questions of trade and contact. The use of materials analysis, such as chemical analysis, has previously been underutilized on the materials of this region, partially due to the reluctance of countries to send archaeological materials abroad for testing. The continuing development of laboratory facilities in host countries will eventually facilitate these studies. Two important cautions must be made, however: only if identical analyses using comparable standards are undertaken can results be compared from country to country. And the framing of research questions must be rigorous, so that the results of materials analysis are utilized to evaluate specific proposals of contact or origin rather than merely as a collection of “more data.”

The volume entitled *Athens, Aden, Arikamedu: Essays on the Interrelations between India, Arabia and the Eastern Mediterranean* (hereafter *Essays*) is a reprint of volume 3(2) of *Topoi*, a journal published from the Maison de l’Orient Méditerranéen in Lyon. This particular volume is principally devoted to Hellenistic-period encounters between the Mediterranean and India, and this Indian-published reprint appears to be intended primarily for an audience that does not have access to the journal. As such, it does not aim for a coherent, thematic presentation of the issues raised, and the feeling of reading this volume is the same as reading a journal from cover to cover. The benefit of a journal is that it offers new and potentially challenging information and analyses in a concise format; the principal disadvantage is that frequently an article begins with the assumption that the reader is already familiar with the subject. For a sense of perspective, readers would be advised to first consult other works that discuss the larger picture of the Indian Ocean in the early centuries A.D. (e.g., Begley 1991).

The papers in *Essays* address a variety of subjects from the Mediterranean point of view, principally utilizing Greek and Latin texts to examine the effects of exchange in the Mediterranean region at the close of the first millennium B.C. Michel Casevitz discusses the way in which foreign words (such as those for cinnamon, cumin, and other spices) accompanied foreign products into the Greek realm, often through the actions of Persian intermediaries. A. Brian Bosworth considers the contributions of ideology to Macedonian *realpolitik* when he examines Aristotle’s contributions to the education of Alexander the Great and the possibility that Alexander’s eastward expansion was in part invested with a desire

to learn whether the summer monsoons of India were linked with the annual flooding of the Nile.

In an article on Hellenistic numismatics, Osmund Boppe examines the evidence for early Indo-Greek religious syncretism in eastern Hellenistic coins. In some cases, such as those coins of Hermaios that have been described as portrayals of Zeus outfitted with the elephant's trunk of Ganeśa, he rejects the identification based on the close inspection of the coins (explaining that the resulting figure was due to imperfect castings that exaggerated the human deity's nose, beard, and drapery). By contrast, he notes that the ruler Agathocles did consciously choose bilingual inscriptions and local deities for coinage circulated in the northwest subcontinent, reflecting the "political, religious and cultural policy adopted by the Greeks when they conquered the Indian territories" (p. 57). Boppe's paper is a good example of the caution that must be exercised in the assessment of iconography, where similarities of form or design may be unconsciously exaggerated by a desire to illustrate sociopolitical "influence." The history of the Hellenized kingdoms is particularly difficult to reconstruct due to the lack of documentary source material, which leaves coinage as the principal means of writing history, often leading to quite different interpretations from the same body of data (see also Guillaume 1986; Narain 1957).

Himanshu Ray has contributed two papers to this volume, one of which is a reprint of an earlier article (Ray 1988). It discusses the impact of Roman exchange with the Indian subcontinent through an examination of the role played by foreigners as discerned through textual studies and the differential distribution of Roman coinage in India (a subject thoroughly discussed by MacDowell [1990, 1991]). The brief postscript that is appended in this version of the article notes that she now accepts that many of the "Roman" items found in the subcontinent are not actual imports. Ray's other article also evaluates Roman contacts with the East, making the difficult claim that maritime trade during the early centuries A.D. in the western Indian Ocean was a trade not only in luxury goods, but in subsistence goods and agricultural products.<sup>1</sup> The strength of this paper lies in her emphasis of two points: that Indian maritime traditions were not passive, and that the relative importance of various exchange routes depended upon the political and economic configurations of the hinterland.

Other authors examine the limitations of literary evidence for the study of exchange. An article by Salles attempts to answer the question of why the Arab-Persian Gulf was unmentioned by the author of the first-century *Periplus*, suggesting that trade did persist in this area but that Persian control of the region prevented the involvement of Greek merchant-sailors. He concludes that merchants based in Arabia, rather than in the eastern Mediterranean or in India, were responsible for the trade there. As Kervran suggests in *Tradition*, Salles believes that Indian trade with the Arab-Persian Gulf was significant, although archaeological evidence is at present too insubstantial to quantify the amount of exchange. One factor that may help explain the lack of Arab-Persian Gulf exchange in this period is the presence of the monsoon winds, which permitted mariners to sail over open water from the southeastern tip of Arabia directly to the west coast of India (Casson 1989, 1991). This natural shipping lane, combined with the political instabilities of the hinterland, may have deterred traders involved in the long-distance voyages and relegated the Arab-Persian trade to local merchants and sailors.

Some of the essays are bibliographic in tone, such as Klaus Karttunen's extensive list of works that have compiled the Greek and Latin references to India, including Polish and Argentinian dissertations. Unfortunately, the utility of articles such as these is marred by the lack of a key to the abbreviations of the specialist journals in which many of the cited articles are published. Without an intimate knowledge of the subject area, readers are likely to be frustrated by references to articles from a panoply of specialist European and Indian journals referred to only by their acronyms, such as BCH, JAOS, and ABORI. (Another editorial oversight is that some papers contain references in notes and a bibliography, while others contain only references in the notes.)

The only paper in this volume to provide new data is the paper by Vitalij Naumkin and Alexander Sedov, who present a summary of their survey work on the island of Socotra. This small island, 300 km east of Cape Gwardafuy, has not been examined for archaeological materials since the Oxford Expedition of 1956 found no datable remains earlier than the Middle Ages (Shinnie 1960). The current paper details the results of the Russian (former Soviet)–Yemeni expedition's survey on the eastern portion of the island, an area largely neglected by the Oxford team. This well-illustrated report indicates the presence of lithic workshops that are possibly Neolithic in date and describes the various groups of burials excavated by the expedition (some of which were severely disturbed prior to their investigation). Most significant was the recovery of a large settlement (100×130 m) that had limited quantities of items similar to those recovered from the occupation of the early centuries A.D. at Qana in nearby Yemen: the handle of a Roman amphora and pottery that appears to be of Mediterranean, Arab, and Indian origin.

The articles from this volume raise a number of important issues about the impact of different political and economic entities upon each other, especially when examined in the context of the uneven quantity of information available for the varying regions. What was the role of land-based intermediaries in the areas corresponding to modern Pakistan and Afghanistan? Is it appropriate to characterize them as "Greek," with the assumption that one may learn of their behavior and ideology through the study of texts written in Athens and Ionia? Was trade in the Hellenistic and subsequent Roman periods of sufficient volume and impact to affect the development of cities and towns in areas far to the east, such as the Indian subcontinent?

The third volume, which also addresses questions of long-distance impact and interaction, is *Mariners, Merchants and Oceans: Studies in Maritime History* (hereafter, *Mariners*). The title is an unfortunate choice because it conveys little about the time period or even the geographic focus of the contributions, which constitute a collection of 27 papers from the Second International Symposium on Maritime History held at Pondicherry University in 1991. The papers are principally case studies from the ninth to nineteenth centuries, a time when the Indian Ocean was the crossing point of merchants and navies from well-organized states all around the eastern and western regions of the ocean. The vague title is, however, only the first sign of general editorial shortcomings: even the best papers in this volume appear unnecessarily compressed, so that some of the logic of their arguments is omitted; the volume is also almost completely devoid of maps, although nearly all of these specialized papers would benefit from illustration.

Despite these reservations, several papers clearly demonstrate the quantity of material that remains to be examined for the minutiae of early colonial trade. Ranabir Chakravarti's article on exchange in India in the twelfth to fourteenth centuries discusses inland dynasties such as the Colas, who used their port of Visakhapattanam to maintain their links with Sri Lanka and with China (possibly through Pagan in Burma, as suggested by the Chinese writer Chau-Ju-Kua). Although the author suggests that the utility of Visakhapattanam to the Colas was due to its "closeness" to the Bay of Bengal, such interpretations based upon the logic of geography are limited, as he also points out that the successors to the Cola state, the Telegu-Codas, did not use that port in their trade across the Bay of Bengal.

Chakravarti also discusses another political group, the Kakatiya, and their eastern port at Mottupalli, where the rulers sponsored explicit edicts about the protection of traders, including multilingual inscriptions in Telugu, Sanskrit, and Tamil. Despite this bureaucratic attention to the port's activities, the Kakatiya focus during the fourteenth century turned inland, principally because of increasing conflicts with other inland groups such as the Yadava of the western and central subcontinent. In closing, Chakravarti contrasts the ways in which ports achieved their status in long-distance networks. Some, like Visakhapattanam and Mottupalli, developed through their association with inland groups, with the attendant risk of declining when inland political power waned. Others, such as Cambay, Cochin, and Calicut, were more steady in their success due to their dependence on passing traffic along major maritime routes.

The role played by geography is explored for the Bengal region by Aniruddha Ray, in a paper which focuses on the period between 1575 and 1608. The beginning of this period is marked by the abandonment of major inland population centers such as Gaur and Saptagram, which the author conceded may have been partially due to the silting up of nearby rivers. However, political shifts were also responsible, since the hinterlands of these sites were fought over by the Afghans, Mughals, and the Orissa kings. Intending to use the Portuguese against the Afghans, the Mughal ruler Akbar gave the Portuguese the right to trade at Hughli (near modern Calcutta); meanwhile, the Arakan king Man Felung took the opportunity to seize nearly all of coastal Bengal. Ray's article thus provides a good example of the complex interconnections between local and foreign powers in the consolidation of territory, and the subsequent connections between political activities and exchange.

Vast quantities of original documents permit the examination of the role of different merchant entities and political groups during the long period of competition between the English, Dutch, and Portuguese in the Indian Ocean. Rose Marie Gräfin Fugger's paper illustrates the complexities of families (such as the Fugger merchant house) that expanded their fiscal domains in Europe through loans to royal houses such as the Hapsburgs and abroad through the establishment of factories for the acquisition of exotic foreign commodities. Doug Kaisong's paper on Macao details the way in which various European groups struggled over perceived strategic sites, using military force as well as subterfuge. In 1535 the Portuguese obtained landing rights in Macao to take advantage of the galleon trade going to Nagasaki and Goa; they also used the outpost as a landing place for the opium that they brought from the Indian ports of Daman and Diu. Com-

petition for landing rights by the Spanish, who were already occupying the Philippines, was neutralized when the Portuguese informed the Ming that the Spanish were gangsters and spies; a potential Dutch challenge was put down through military force in a battle at Macao in 1601. The first entry of the British in 1635 came at the invitation of the Portuguese governor of Goa, but their involvement was limited (in part, notes Kaisong, due to the English Revolution of 1642–1648).

The interactions between local and European agents is explored by S. Arasaratnam, who briefly discusses the slave trade of the Bengal region in the seventeenth century. Again, the collusion of various entities is apparent: when Aceh needed labor for the production of pepper, rice, and tin, the Arakanese combined with the Portuguese and Maghs to conduct raids into the delta of Bengal to obtain slaves. The author's contention that the slave trade did not form an intrinsic part of the overall trading system in the Indian Ocean is, however, placed into question by the discussions of slavery by other authors in this volume (e.g., Antunes, Raben, Scammell), who describe the labor trade as forming an integral part of the economic landscape in regions as widely separated as Mozambique and the Dutch East Indies. The paper by Luis Antunes also identifies the role of private trade groups during the time of European expansion, by looking at the Baniyan Gujarati merchant group that effectively controlled the trade of Mozambique starting in the late seventeenth century. While the Baniyans were initially invited to Mozambique by the Portuguese, their successful presence was often the target of rivalry on the part of the local Portuguese in East Africa. Dutch attempts to control trade were similarly contested by local groups. Mark Vink discusses the unsuccessful attempts by the Dutch to control overland smuggling of pepper in southern India in the eighteenth century. Bhaswati Bhattacharya examines the challenge to VOC domination of the Bay of Bengal by the Chulia merchants of the Coromandel coast in the latter part the eighteenth century.

Remco Raben's paper on the social organization of space in Dutch colonial cities examines the imposition of authority at Batavia and Colombo. Batavia, which was regulated to enforce the separation of different Asian groups, served as the planned-city prototype for other Dutch colonial enclaves such as Malacca, Cochin, and Makassar. By contrast, Colombo was taken over from the Portuguese; the presence of a population in which many had embraced Christianity and the relative unimportance of the area as a transit port meant that the Dutch imposed few additional regulations apart from regularizing the town pattern. The social organization of another kind of space is discussed in a well-written short paper by Karel Degryse about life aboard the vessels of the Ostend company, where nationalist tensions between European powers often were the subject of on-board friction as well. This paper, in which maritime claustrophobia and the class factions between privileged officers and their crews are convincingly demonstrated, is an English-language condensation of a much longer paper originally published elsewhere (Degryse 1976–1977). The end of the era of merchant sailing ships is chronicled by Lewis Fischer and Gerald Panting, who use an extensive series of shipping records now housed at Memorial University of Newfoundland. Their perusal of these records shows that with the advent of steam, sailing ships had to visit greater numbers of ports to obtain full holds on their journeys until they were no longer economically viable as a means of transport.

Aside from these specific case studies, the volume is most useful to those wish-



ing to have a greater insight on the issues favored by Indian scholars. A perspective on modern geopolitics is evident in observations such as the one made by Madhais Yasin that "The strategic position of the Indian subcontinent in the Orient is obvious" (p. 247). Chakravarti's essay on the medieval Colas carries a political foreword: "The emergence of new nations in the 'Third World,' following decolonisation, has immensely encouraged scholars to appreciate the role of non-Europeans in their historical development" (p. 57). The identification and use of history has a significant role in the creation of national identity, an observation which is true of both the developing and industrial world (e.g., Dietler 1994; Graves-Brown et al. 1996; Schmidt and Patterson 1995). But the diversity that is exhibited in contemporary scholarship about the Indian Ocean is only partially explained by its being taken up by scholars from former colonial domains, the majority of whom have come of age intellectually in independent nations.

Rather, the explanation for the new views of diversity in explaining and explicating historical trajectories is based in the general, and global, fragmentation of knowledge. As the quantity of information increases, it appears less and less likely that singular prime movers can suffice as explanatory mechanisms; likewise, singular entities, even "empires," are seen as composed of a number of distinct (and often unequal) parts that balance against one another. The experience of post-modernism and the fragmentation of knowledge greatly increases the scope of inquiry, as exhibited by the authors in these edited volumes. Thus we have a Russian (Sedov) discussing the contributions of Qana in Yemen (in *Tradition*); French scholars discussing the differential activities of the Persian Gulf and the Indus regions (Kervran and Salles in *Tradition*); and a Sri Lankan examining the role of Hellenistic coinage (Bopearachi in *Essays*). These authors do not claim their ability to study this past through any birthright, but through a spirit of inquiry which permits them to examine a single question ("What is the nature and impact of exchange?") through many different avenues.

One may regard the new studies that explore the complexities of long-distance and local interactions as an expression of national identity by scholars from new nations or as the resigned acknowledgment of the haphazard construction of empire by scholars from old nations. Ultimately, it is not the genealogy of this new tradition of inquiry, but its effects which are of interest. The authors of these volumes show that archaeological evidence and historical documents can be utilized to investigate the intricacies of exchange systems. Observations of the modern world also have their place in the investigation of the past. In particular, the exhortation for ethnographic research by several authors in these volumes is a timely one, since the use of modern materials and the demise of household-level manufacturing means that the potential for studying labor-intensive technology will be dramatically decreased in the coming years. However, it is important to bear in mind that the documentation of contemporary technologies (such as boat-building) is a source of ideas, but not a direct link to the past (a point noted by Deloche in *Tradition*). Researchers must resist the temptation to place the three-dimensional qualities of ritual and social structure into their reconstructions of the past.

The demonstration that exchange is the result of the actions of multiple agents promotes new and stimulating ways of thinking about political economy in the

premodern world. The attendant risk is that we will likely be denied a set of tidy prime movers and be faced with ever-more complex descriptions of social and political developments. The presence of multivariate historical particulars does not preclude the search for universals, but instead of simplistic expressions of "power" or "dominance," such universals may be found in the nature of human interaction, the construction of social identity, or the structure of human activities through hierarchical organization. The challenge is to collect data having specific research questions in mind and to provide accurate descriptions and statistics for our colleagues to compare with their own observations.

## NOTE

1. The idea that trade in the western Indian Ocean included large quantities of staple goods is difficult to substantiate even in the later periods for which there is greater evidence (see Subrahmanyam 1990). The lower tonnage of ships in the early centuries A.D. makes it somewhat unlikely that trading cities relied on long-distance exchange for basic survival needs, and they probably relied on their hinterlands instead.

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