EDITOR'S FORUM

CONTINUITY AND CHANGE IN ECONOMIC RELATIONS ALONG THE AITAPE COAST OF PAPUA NEW GUINEA, 1909-1990

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In this article we report some preliminary results of a recent reconnaissance survey of the Aitape coast undertaken as part of our current research on the A. B. Lewis Collection of Melanesian material culture and its associated archival documentation and photographs.[1] Our initial objective during this brief field survey was to assess how much change has occured in traditional craft production and intergroup exchange relations among villages on the coast, offshore islands, and neighboring hinterland since our predecessor, Curator Albert B. Lewis of Field Museum of Natural History, visited this area in 1909 at the beginning of the Joseph N. Field South Pacific Expedition (1909–1913).

The A. B. Lewis Collection is the largest and best documented ethnographic collection ever assembled by a single field researcher in Melanesia. It also has considerably better archival and photographic documentation than most museum collections made before the First World War and is thus a unique historical resource for understanding conditions during the early colonial period in Melanesia.

The Lewis Collection was assembled at a time when little was known about New Guinea and the extreme ethnolinguistic diversity found there. It grew out of Lewis's efforts to document and define ethnological groupings in this vast region. The collection was assembled at a time when similarities and differences in material culture were commonly

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used to define cultural relations between contemporary ethnic groups and were also seen as a key for understanding the culture history of nonliterate societies. Consequently, Lewis paid particular attention both to where different kinds and styles of objects occurred and also to where the objects he collected had been manufactured. In doing so, he recorded a wealth of detailed information about the production and exchange of local commodities in the Aitape area: nearly twice as much information, in fact, as can be found in all known published sources combined (Welsch 1989a, 1989b; cf. Tiesler 1969–1970). Taken together with other early accounts (e.g., Erdweg 1902; Friederici 1912; Neuhauss 1911; Parkinson 1900; Schlaginhaufen 1910), the Lewis Collection establishes a valuable historical baseline for the Aitape area and the economic relationships among its diverse communities observed in the early twentieth century.

As a result of studying objects in the Lewis Collection from the Aitape area, we visited the Aitape coast in April–May 1990 to (1) find out how economic networks and local technologies have changed since Lewis's time, (2) determine whether—and in what ways—the manufacture and trade of material culture have shaped and helped maintain the local diversity observed by Lewis and other early researchers along this coast, and (3) assess research strategies we might use in subsequent efforts to study these two problems in the field.

A. B. Lewis on the Aitape Coast in 1909

For about five months in 1909, A. B. Lewis (1867–1940) conducted an ethnological survey of the Aitape coast (then known as the Berlinhafen region of German New Guinea) in his capacity as assistant curator of Melanesian ethnology at Field Museum. His aim was to document the lives of the New Guinea peoples he encountered by collecting objects for the museum, by taking photographs of village life, and by recording what he could of native customs, practices, and beliefs. The Aitape area was his first major research destination during a field expedition that lasted nearly four years and took him to all the colonial territories of Melanesia, from then Dutch New Guinea to the Fiji Islands. During this time, he collected over fourteen thousand objects, made almost two thousand photographs depicting village life, and wrote more than one thousand pages of field notes in the form of field diaries, specimen lists, word lists, maps, sketches, and expedition correspondence. Most of these research materials are preserved in the collections and archives of the Department of Anthropology at Field Museum.

Trained by Franz Boas at Columbia University, Lewis was the first American anthropologist to conduct long-term field research in Melanesia. While in New Guinea, he wanted to document the cultural differences he found from place to place to "get a connected view of the whole coast" (Lewis 1910). Initially, Lewis seems to have planned a systematic comparison of the artifacts and decorative styles found in the materials he was collecting at different villages in order to define and describe the culture areas and ethnological associations of peoples living in Melanesia, much as was being done in North America at the time.

Soon after his arrival in the Berlinhafen area, however, Lewis was impressed by the amount of trade in foodstuffs (notably, sago and fish), raw materials, and handicrafts that was taking place among coastal, island, and interior communities speaking a variety of different Melanesian and Papuan languages. His collection, his photographs, and his field notes document the remarkable volume of such exchanges and the wide variety of foodstuffs and local handicrafts that moved between villages situated along more than two hundred kilometers of coast.

Two seemingly contradictory features of the Aitape coast struck Lewis and other early observers as both remarkable and unexpected: (1) they encountered many linguistic and cultural distinctions that, on the one hand, seemed to differentiate communities along the Berlinhafen coast into a number of small, village-level societies, periodically at war with one another; and (2) on the other hand, they found a great volume of trade in both basic necessities and exotic luxury goods among these same communities, which provided them all with a similar, if not actually identical, material culture.

Prior to Lewis's expedition, Richard Parkinson (1900, 1979), building on preliminary observations made by Otto Finsch, had already defined the "Berlinhafen Section" of the coast as an area where different communities all shared a fundamentally similar material culture as well as many similar customs, ritual practices, and the like. Lewis agreed with Parkinson, and he interpreted this commonality—this community of culture—as largely the result of the intricate trade networks he observed and had reported to him in 1909.

In Lewis's field notes, for example, he observed that of the objects he was collecting:

> Nos. 498–571 were obtained in Tumleo, but a majority of these things came from elsewhere. The same is true of the other islands of Berlinhafen, as all the islanders are great traders, having large canoes with sails. Their expeditions go as far as Sis-

> sano on the west, and Dallmannhafen on the east. Hence on the islands one finds specimens from a coast region of over 100 miles, and often further, as well as from the interior, often several days journey. They themselves manufacture only a few things, which are made in large quantities, and used in trade. (1909: Specimen Lists, Book 2)

At the same time, however, he also observed many differences in the local products and economic behavior as well as in the range of material culture found in the communities he visited.

> All the coastal region from Sissano to the neighborhood of Dallmannhafen [the modern Wewak] must be regarded as of one general material culture, with many minor variations from district to district, and even from village to village. In fact, the differences frequently seem to be greater than the resemblances. The islanders are the chief traders and travelers, so the islands show the most generalized culture. Many of the coast villages are very "local." Certain objects from the interior, however, are found in all, especially bows, arrows, and netted bags, which are the specialties of the "bush" villages, and which they trade to the coast natives for such things as salt, shell ornaments, etc. (Lewis 1909: Specimen Lists, Book 2)

In other words, the volume and variety of local commodities traded did not correspond in any obvious way to the linguistic associations that were beginning to be recognized about this time (see, e.g., Klaffl and Vormann 1905; Lewis 1909). Exchanges created a kind of common regional culture though the area was made up of many small communities, each possessing local cultural, economic, and stylistic differences.

The Aitape coast was the focus of considerable research during German times, but since the First World War there has been relatively little anthropological research in this area, particularly in comparison with other parts of Papua New Guinea. No detailed ethnographic studies have yet been written about any community or society around Aitape. Most recent studies about the area are either quite general in scope or focused on particular local crafts and hence add little to historical accounts of intervillage exchange (e.g., Deklin 1979; Dennett and Dennett 1975; May and Tuckson 1982; Swadling 1979; Tiesler 1970, 1975; Tuckson 1977; Tuckson and May 1975; Wronska-Friend n.d.). Only Woichom's (1979a, 1979b) preliminary research on Ali Islanders' trade

relations adds materially to what is known about Aitape's regional networks.

As such, modern anthropological research has not examined in any comprehensive way how Aitape's regional economy has changed since the early twentieth century. Nor have anthropologists addressed the problem of how these economic networks have shaped the area's ethnolinguistic diversity. Therefore we set off "in the footsteps of A. B. Lewis" along the Aitape coast, in an effort to combine archival and museum-based research with field research in Papua New Guinea to study these problems of general interest to anthropologists, historians, and economists.

The A. B. Lewis Project

Using Lewis's collection and his unpublished field notes and other documents, and with the assistance of students and museum volunteers, we are currently analyzing the complicated exchange networks he recorded not only in the Aitape area but along the North Coast of New Guinea Island from Dutch New Guinea to Madang. Our A. B. Lewis Project, jointly sponsored by Field Museum of Natural History and Northwestern University, seeks to better understand the character and details of these networks (described more recently by Frank Tiesler [1969–1970]). In particular, we want to determine what role such networks have played in shaping patterns of cultural diversity along this coast since the early colonial period.

We visited communities in the Aitape area in April and May 1990 to discover what possibilities still exist for long-term field research on exchange networks in this area. We were especially eager to find out the extent to which the intervillage exchanges reported by Lewis and others have disappeared as a result of two world wars, missionization, the introduction of money and a modern cash economy; and also as a result of the development of modern roads, local stores, and markets. Have traditional craft specializations and the precontact exchange economy disappeared altogether in the eighty years since Lewis? Or are at least some crafts still alive? Has the old exchange economy been totally replaced by a very different set of economic relations dependent on cash crops and money? Or do at least some vestiges of former customs and economic practices still survive?

Some years before Lewis's survey of the Aitape area, Parkinson related, with considerable pessimism, that traditional crafts had already been rapidly disappearing in the 1890s (1900:18; 1979:36). Simi-

lar pessimism about the persistence of older customs and practices in this area was raised more recently by some of our anthropological colleagues, who salute the concept of Field Museum's returning to Aitape for what they term "salvage ethnography," but who doubt that enough traditional material culture and knowledge of precontact exchange relations still remain to justify systematic field research.

After our visit in 1990 to seven communities around Aitape that Lewis had visited in 1909, we were amazed to find that traditional exchange relationships have not disappeared despite regular and busy modern marketplaces at Aitape and Sissano Lagoon. In some key ways, of course, exchange relationships have changed since Lewis's time. Shell rings, ornaments, string bags, and soft Murik baskets, for example, no longer play a prominent part in exchanges between individuals in different communities. However, the direct exchange of sago, smoked fish, tobacco, betel nuts, clay pots, and other items is still an important component of the area's economic networks that continues to mediate relations among this melange of villages speaking different languages.

Similarly, modern roads, PMVs (public motor vehicles), outboard motors, and marketplaces have altered and, in some ways, restructured earlier patterns of communication and exchange. But while earlier relationships have been transformed along somewhat different paths, they have not been disrupted altogether. Moreover, traditional exchange relations are still a vivid part of local knowledge in every village and hamlet we visited.

Exchange Relations in the Early Contact Period

During our reconnaissance survey, we visited Tumleo and Ali islands, as well as the lagoon communities of Sissano, Warapu, and Malol, and the mainland road communities of Yakoi, Lampu, and Pultalul, which lie to the west of the Aitape town. Time did not permit visits to villages east of Aitape or in the interior, although we were able to interview a few individuals from Yakamul, Paup, Lemieng, Pes, Koiniri, Sumo, and Serra. In every hamlet we visited, we found that traditional exchange relations with other communities are important to the people's sense of their own local identities and to their understandings of their past.

Older people are readily able to detail the general patterns of transactions in the colonial period and the kinds of objects exchanged. Even younger people have considerable knowledge of the major kinds of customary transactions that used to take place, although their knowledge is generally less detailed and reliable than that of their elders. We also

found that information related in one community can be independently confirmed in the communities with which the first was traditionally linked by regular exchanges. Although intensive analysis of early exchange networks was not possible in the short time available to us, we have established that further systematic research will enable us to uncover a great deal of specific, reliable information about exchange relations in the early contact period.

Although each community today has its own identity, language, craft specializations, and resource exploitation strategies, the impression we got is that people in these diverse communities see themselves as part of an interdependent regional system of economic relations both now and in the past. People in different communities appear to define the limits of the regional network in which they participated somewhat differently. Such differences in perception may reflect their positions within the regional economy, both geographic and environmental, as well as their relative dependence upon other communities.

At this point in our research, therefore, we tentatively conclude that the regional economy of the Aitape district was formerly more extensive than the area covered by the exchange networks of any of the localities we visited. The traditional dimensions and parameters of this economic system varied depending upon where people were located in the extensive regional network.

As both Lewis and Tiesler (1969–1970) have suggested, we found that the Berlinhafen islands (Tumleo, Ali, Seleo, and Angel) used to be dependent upon mainland villages for many basic needs. They had to import all of their sago (still their chief food), as well as virtually all of their building materials and canoe timbers, from their mainland exchange partners.

The descriptions of early exchange patterns that we heard on Tumleo and Ali uniformly emphasized the importance of individual exchange partnerships, which were characterized by an exuberant spirit of generosity. Here, as in many other parts of Papua New Guinea, generosity with individual exchange partners (or exchange friends) helped insure reciprocal generosity during subsequent visits to the mainland.

Repeatedly, we also heard accounts from the islanders describing how exchange partnerships existed among the four islands of Tumleo, Ali, Seleo, and Angel. Through these relationships, the inhabitants of each of these islands obtained the products of the others (pots from Tumleo, fish from Ali, and shell ornaments from Seleo and Angel), both for local use as well as for subsequent exchanges with mainland communities.

Our sense from talking with both islanders and mainlanders is that

there used to be more or less standard equivalences that pegged the relative value of pots, fish, shell rings, sago, tobacco, and other goods. But no one we spoke to discussed early exchanges as the direct barter of equal for equal. People in every village surveyed stressed that other goods were customarily added "on top of" the main items exchange or (even more metaphorically) "went inside" the main goods sought by their exchange partners.

The "extra" gifts added by the islanders tended to be either additional pots or fish, or a variety of handicrafts (such as Murik baskets) that they had received from previous exchanges elsewhere on the mainland. In communities west of Aitape these extra gifts included bows, arrows, string bags, and ornaments. Few of these traditional goods appear to have been the primary goal of particular exchange transactions but, nonetheless, they contributed substantially to the volume of specialized handicrafts that Lewis and his contemporaries, for example, recorded as moving within this region.

Our interviews in the villages verified the exchange of many kinds of handicrafts obtained by Lewis in 1909 that he recorded as having been collected in one place but made in another. We were also able to document instances of the transfer of goods—and their sources—not reported in Lewis's notes or the published literature (as summarized in Tiesler 1969–1970).

Because of their dependence on mainland products, the islanders do appear to have had more geographically extensive networks than those of the communities west of Aitape that we surveyed. The islanders see themselves as having been central to the earlier exchange economy and do, in fact, appear to have played an important middleman role within the region.

On the other hand, the communities we visited west of Aitape also see themselves as having been at the center of relations that linked them to hinterland villages, other coastal communities, and the islands. From their perspective, people on the islands lived in relatively marginal communities situated at the periphery of mainland exchange networks.

Tiesler suggests that the islanders—because of their dependence on the coast for sago and other vital commodities, and also because of their position as middlemen—were the prime movers in the regional economic system (1969–1970): a role analogous to the one that Harding (1967) says the Siassi Islanders have played in the Vitiaz Strait system. However, further research in the Aitape area is clearly needed to assess how far the extensive regional economy was, in fact, driven and motivated by the Berlinhafen islanders' need for sago and other necessities.

In this regard, we were impressed by the range of microenvironmental differences that seem to exist among many of the island, mainland, and lagoon communities surveyed. A refined analysis of these diverse local environments is plainly necessary before we can confidently conclude—following Tiesler—that the islanders' acute shortages fostered the development of such a complex network of relations as was formerly present in the Aitape area.

Our recent survey also leads us to think, as we have noted, that each mainland community sees itself as having long been strategically placed at the center of important exchange relations. Such relations may have been less extensive along the coast than the networks of the Berlinhafen islanders, but mainland networks, unlike those of the islanders, appear to have been quite wide, ranging into the hinterland. We conclude, therefore, that more research should be undertaken to establish the precise character and relative frequency of early exchanges at different locations on the coast, in the interior, and on the islands to assess the relative importance of, and the motivations for, hinterland-coast and coast-island transactions.

Production of Traditional Handicrafts in 1990

Traditional handicraft production is an active and obviously major part of modern life in every hamlet we surveyed. To study both techniques of manufacture and the products created—canoes, canoe paddles, earthenware pots, fish traps, fish nets, baskets, leaf buckets, taro mashers, sago pounders, sago paddles, drums, bows and arrows, and other kinds of handicrafts—in these communities is not a matter of "salvage ethnography." Such research study can be conducted using standard anthropological methods of participant observation. Just as Barlow, Bolton, and Lipset (1986) have observed along the East Sepik coast, people in West Sepik Province continue to make and use many kinds of traditional items of material culture that serve vital functions in their basic subsistence strategies. People along the Aitape coast have not lost these skills and handicrafts despite the substantial disruptions of World War II.

In most places we visited, people were busy making traditional handicrafts in nearly every household. Much as Lewis reported, local crafts still vary considerably from one community to another, reflecting both village specializations and what we have tentatively identified as differences in local microenvironments.

We were impressed not only by the importance of traditional craft

production but also by the obvious pride that people take in their local crafts. Moreover, nowhere in the area surveyed was production aimed at the tourist market, though at least one village (Warapu) aspires to have a tourist market available to it.

Traditional crafts, however, have changed in a number of ways since Lewis's time. Production of shell rings, discs, and other ornaments has largely ceased, being replaced by colorful beadwork and bead necklaces, plastic rings, and imitation dog's teeth. Similarly, few string bags and nets today are still made from *tulip (Gnetum gnemon)* and pandanus string; most women prefer to use the more colorful strings and yarns available in stores throughout the region. Women also frequently add plastic and nylon to their fish traps and baskets (still made out of plant materials), apparently in an effort to give added color to their work.

Traditional *haus tambaran* and the carvings formerly associated with these elaborate ceremonial structures have disappeared. None of the people we met regularly wears the traditional bark loincloth and bark belt, as everyone now has modern clothing for day-to-day wear. We did, however, see *garamut* (slit gongs), hand drums, and bark belts in some villages. These items are still used for *singsing* (local dances). And to prove to us that such things are not gone, a man in one village emerged from his house dressed for a *singsing* in loincloth and bark belt, and with ornaments of feather and shell.

Surprisingly, aluminum pots and pans have not eliminated the local demand for clay pots, although modern cookware does seem to have reduced demand for locally made pots and has rendered certain kinds less necessary for cooking vegetables and fried sago. Earthen pots used for storing and turning sago (into pudding) are still in high demand and such pots can be found in every hamlet.

The modern availability of enamel paints and steel tools appears to have given people new creative avenues for decorating their canoes and canoe paddles. Nearly every canoe and paddle in Sissano and Warapu, for example, is carved or painted or both with decorative motifs, usually clan emblems resembling designs on some items that Lewis collected in 1909. In fact, these lagoon communities appear to have experienced not a decline but rather an efflorescence in carving in recent decades. This observation parallels that of Maria Wronska-Friend (pers. com., May 1990), who has documented many new designs and elaborations on older motifs in the carvings now being done on Warapu and Sissano canoes and paddles, which she has been studying for several years.

On Ali Island, formerly noted for the production of large sailing

canoes, traditional canoe-making has been transformed into a modern boat-building industry that exists side by side with the continued production of small, single-outrigger fishing canoes, a local industry that also continues on the other islands and along the mainland coast.

In short, even a brief visit to the Aitape area confirms the fundamental continuity of utilitarian craft production since Lewis's time. Modern crafts are characteristically more colorful than before, but manufacturing techniques have otherwise changed only in minor ways. People in the lagoon villages of Sissano and Warapu still value the clan emblems of their past. At both of these villages, for example, we saw such emblems preserved on carved plaques used as wall decorations and as pattern boards from which canoe designs can be studied and copied by those having the right to use them. We see no reason for pessimism regarding the continued survival of local handicraft production.

Exchange Relations and the Market Economy in 1990

Despite the pessimism of some of our colleagues, the persistence of handicraft production and local knowledge of customary exchange relations was not altogether unexpected. We were, however, surprised to find considerable evidence that customary exchange relations still exist side by side with active marketplaces where cash transactions for foodstuffs are clearly occurring.

It was obvious that everyone we encountered on the Aitape coast has a need for cash—for transportation, clothing, manufactured foods, tinned goods, rice, other foods, and the like. But, contrary to our expectations, the growth of the cash economy has not eliminated the need for exchange partnerships with people in other communities. Rather than the replacement of the traditional exchange economy by a money economy (see, e.g., Woichom 1979a), we found evidence of a transformation and restructuring of local economic relationships into a dual economy in which direct transfer of customary exchange items occurs alongside cash transactions.

A decade ago, John Woichom (1979a) reported detailed evidence that by the late 1970s traditional exchanges were giving way to cash transactions. Whether there has been a resurgence of traditional exchange transactions since then, or, alternatively, customary exchanges were even then somewhat more important than Woichom assumed they were, cannot be established from our survey results. What does seem clear is that traditional exchanges still occur in every locality we visited. And such exchanges also occur in the nontraditional setting of the mod-

ern marketplace as well as in the more conventional setting of traditional visits to exchange partners.

Certain aspects of traditional exchange have altered since A. B. Lewis's day. First, except for Tumleo pots—which are still actively traded for sago, fish, and tobacco—handicrafts such as shell ornaments, bows, arrows, and Murik bags no longer play the significant role they formerly did in exchange. The vast majority of items exchanged today appear to be foodstuffs, betel nuts, and tobacco. Exactly why this shift has occurred is not completely clear from our data, though this change is not an unexpected outcome given the importance now placed on colorful bead ornaments, the declining need for bows, and the relatively easier access to Murik bags in Wewak now that a road links Aitape and Wewak.

Moreover, because our data on modern exchange come from interviews rather than participant observation, we cannot at this point provide details about precisely what items are being exchanged and under which specific circumstances. It would appear, however, that pots, fish, sago, and tobacco are most frequently exchanged at the market in Aitape, and betel nuts and fish are exchanged in Sissano.

Second, new modes of transport have influenced the timing of exchange transactions and the frequency with which exchange partners are likely to meet. The islanders have largely abandoned sailing canoes in favor of boats and large double-outrigger canoes, both using outboard motors. Thus, economic transactions are no longer so dependent on the good sailing weather of the dry season brought by the southeast winds *(rai)*. Relatively safe transport is now possible even during the northwest monsoon *(taleo)*.

Similarly, good roads now connect the villages between Aitape and Wewak, those along the coast west of Aitape as far as Malol, and many of the interior villages. Regular PMV service has made access to both markets and exchange partners far easier than in 1909. These changes in the transport infrastructure have possibly "peripheralized" the mainland communities that are not directly linked to the modern road system—communities such as Sissano, Warapu, Ramo, and Sumo—as well as those on the islands that no longer dominate transport as they did at European contact (see Tiesler 1969–1970; cf. Woichom 1979a).

Roads do not seem to have reduced the degree of interdependence between former exchange communities. If anything, they have perhaps encouraged more frequent contacts between mainland villages situated at some distance from one another. For example, we met two groups of people from Sumo, a village in Sissano's hinterland, who had first

walked to Warapu, where they had kin, before proceeding on to Aitape by road from Malol. In another case, a woman from Kombio, in the Torricelli Mountains several days' walk from Yakamul, had taken a PMV through Dreikikir, Maprik, and Wewak to Yakamul, where she stayed with friends before continuing on to Aitape to sell her tobacco at the market. Traditional ties between Kombio and Yakamul were noted by Lewis (1909) and Schlaginhaufen (1910) in 1909 (see also Tiesler 1975). Thus, it would seem, this woman was able to maintain ties with traditional partners in Yakamul by catching PMVs over a long, circuitous route. Clearly, roads and new forms of water transport have restructured the geography of customary economic relations without eliminating the need for them.

Finally, before the introduction of money into the local economy, exchange partners in the past were the sole source of desired nonlocal products. Traditional exchanges were the only way of turning local products into other goods. The presence of marketplaces—as well as the sale of fish and sago directly to local entrepreneurs and the high school —now means that individuals have a variety of alternative uses for their consumable products not available in the past. While at this point in our research we cannot tell precisely how these two economies are connected, it is clear that the cash economy and the traditional exchange economy are linked and satisfy different local needs.

The Berlinhafen islanders, for example, still get a substantial part of their sago as well as most of their building materials and canoe timbers from their mainland exchange partners. Successful management of these important exchange relationships often requires them to call on their partners on the other islands to provide sufficient pots and fish for mainland exchanges. Therefore, while various other options now exist for disposing of fish and pots, these newer options must compete with the demands created by these traditional exchanges that continue to link many communities along the Aitape coast.

Conclusion

The local economy in the Aitape area is an extremely complex set of economic relationships that possess many continuities with traditional exchange patterns as well as a variety of recent changes and modern innovations. A superficial look at Aitape's busy main market would suggest that older exchange relations have given way to the cash economy. This does not, however, seem to be the case.

Moreover, although money changes hands in the local marketplaces,

it is not clear how much cash profit these market transactions generate for individual vendors, or to what extent these markets have merely become new redistribution points where vendors can sell or exchange their own products for the products of other local communities.

In sum, our survey has raised many more questions than it has answered about the character of the intercommunity economy in the Aitape area today and about how this economy has grown out of the exchange economy of the early colonial period. With further systematic field research, we feel that detailed reconstruction of the historical transformation of this regional economy is possible. When that has been accomplished, we will be in a better position to describe how and why the Aitape economy has both changed and persisted in the particular ways it has since it was observed by A. B. Lewis and his contemporaries in 1909.

NOTE

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REFERENCES CITED

Barlow, K., L. Bolton, and D. Lipset
1986 "Trade and Society in Transition along the Sepik Coast. Report on Anthropological Research in the East Sepik and Sandaun Province, P.N.G. July-August 1986, Sepik Documentation Project." Australian Museum, Sydney.

Deklin, F.
1979 "A Review of Richard Parkinson's Paper on the Aitape Coast—From a Wanimo Viewpoint." In *People of the West Sepik Coast*, edited by P. Swadling, 30–34. National Museum and Art Gallery Record No. 7. Port Moresby.

Dennett, H., and P. Dennett
1975 *Mak Bilong Sepik: A Selection of Designs from the Sepik River.* Wewak: Wirui Press.

Erdweg, M. J.
1902 "Die Bewohner der Insel Tumleo, Berlinhafen, Deutsch-Neuguinea." *Anthropologische Gesellschaft in Wien, Mitteilungen* 32 (3 Folge 2 Band): 274–310, 317–399.

Friederici, G.
1912 "Wissenschaftliche Ergebnisse einer amtlichen Forschungs-reis nach dem Bismarck-Archipel im Jahre 1908. II. Beiträge zur Völker- und Sprachenkunde von Deutsch-Neuguinea." *Mitteilungen aus den Deutschen Schutzgebieten, Erganzungheft*, no. 5.

Harding, T.
1967 *Voyagers of the Vitiaz Straits.* Seattle: University of Washington Press.

Klaffl, J., and F. Vormann
1905 "Die Sprachen des Berlinhafen-Bezirks." *Mitteilungen des Seminars für Orientalische Sprachen* 8:1–138.

Lewis, A. B.
1909 Unpublished field notes (20 vols.) and diaries (7 vols.) from the Joseph N. Field South Pacific Expedition, 1909–1913. Held in the Archives of the Department of Anthropology, Field Museum of Natural History, Chicago.
1910 Lewis to George A. Dorsey, 1 May 1910. Held in the Archives of the Department of Anthropology, Field Museum of Natural History, Chicago.

May, P., and M. Tuckson
1982 *The Traditional Pottery of Papua New Guinea.* Sydney: Bay Books.

Neuhauss, R.
1911 *Deutsch-Neu-Guinea.* 3 vols. Berlin: Dietrich Reimer.

Parkinson, R.
1900 "Die Berlinhafen-Section: Ein Beiträg zur Ethnographie der Neu-Guinea-Küste. *Internationales Archiv für Ethnographie* 13:18–54.
1979 "The Aitape Coast" (translated from German by Father John J. Tschauder and Pamela Swadling). In *People of the West Sepik Coast*, edited by P. Swadling, 35–107. National Museum and Art Gallery Record No. 7. Port Moresby.

Schlaginhaufen, O.
1910 "Reisen in Kaiser-Wilhelmsland (Neuguinea)." *Abhandlungen und Berichte des Königl. Zoologischen und Anthropologisch-Ethnographischen Museums zu Dresden* 13 (1): 3–19.

Swadling, P.
1979 "Introduction." In *People of the West Sepik Coast*, edited by P. Swadling, 3–12. National Museum and Art Gallery Record No. 7. Port Moresby.

Tiesler, F.
1969–1970 "Die intertribalen Beziehungen an der Nordküste Neuguineas im Gebiet der Kleinen Schouten-Inseln." *Abhandlungen und Berichte des Staatlichen Museums für Völkerkunde Dresden* 30:1–122; 31:111–195.
1970 "Tragbandschilde aus dem Hatzfeldhafen-Gebiet, dem Hinterland der Berlinhafen-Küste und dem Lumi-Gebiet, Nord-Neuguinea." *Jahrbuch des Museums für Völkerkunde zu Leipzig* 27:185–217, plates 33–52.
1975 "Töpfereierzeugnisse aus dem Torricelli-Gebirge, Sepik-Distrikt (Nord-Neuguinea)." *Abhandlungen und Berichte des Staatlichen Museums für Völkerkunde Dresden* 34:605–628.

Tuckson, M.
1977 "Tumleo Island." In *Pottery of Papua New Guinea: The National Collection*, edited by B. Egloff, 76–77. Port Moresby: Papua New Guinea National Museum and Art Gallery.

Tuckson, M., and P. May
1975 "Pots and Potters in Papua New Guinea." *Australian Natural History* 18: 168–173.

Welsch, R. L.
1989a "A. B. Lewis's Contribution to Understanding Trade Networks along the North Coast of New Guinea." Paper presented to the American Anthropological Association, Washington, D.C.
1989b "Context and Meaning of the A. B. Lewis Collection: An Example from the North Coast of New Guinea." Paper presented at a conference held at the Baltimore Museum of Art, "Object Informs, Objects in Form: The Ethnography of Oceanic Art."

Woichom, J. W.
1979a "Canoes to Boats: Ali Exchange Tradition in Transition on the Siau Coast of the Northwest Papua New Guinea since 1896." Paper presented to the 49th ANZAAS (Australia and New Zealand Association for the Advancement of Science) Congress.
1979b "A Review of Richard Parkinson's Paper on the Aitape Coast—The Viewpoint of an Ali Islander." In *People of the West Sepik Coast*, edited by P. Swadling, 13–29. National Museum and Art Gallery Record No. 7. Port Moresby.

Wronska-Friend, M.
n.d. Unpublished project report on research with materials in German museums from the West Sepik. Copy in author's possession.