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Introduction

by EDWIN A. COOK
GUEST EDITOR

More than a year ago Father Jean Trudeau suggested the preparation of a Special Issue surveying anthropological research in Oceania. Father Trudeau proposed the editorship of this to Professor Leonard Mason of the University of Hawaii but due to Professor Mason's heavy research committments he felt that he might not be able to give it the attention it deserved. He suggested that I assume this responsibility; and as a neophyte in the "editing and surveying" business, I agreed. Out of the eight who originally agreed to contribute, only one was unable to meet the (what appeared to be perpetually receding) deadline.

The issue leads off with surveys of Oceanic archaeology (Pearson) and Polynesian social anthropology (Howard) followed by the archaeology of Southeast Asia (Solheim), social anthropology of Borneo (Appell), Philippines (Davis and Hollnsteiner), Micronesia (Mason), and Melanesia (Cook). The status of the controversy raging in Austronesian linguistic research is summarized by Kleiber. Of the eight contributors, six (Pearson, Howard, Solheim, Davis, Mason, and Cook) have been or are members of the Department of Anthropology at the University of Hawaii. Each of the contributors was permitted the utmost freedom to structure his article as he thought best since the wealth of Oceanic literature obviously precludes total coverage.

Oceanic anthropology continues to draw workers interested in all facets of anthropological research. The Pacific paradise of North American travel agencies is rapidly disappearing as complex urban centers and independant nations emerge in Oceania.

University of California at Davis

Notes on Culture History and Archaeological Strategy in the Pacific Basin

by RICHARD PEARSON

RÉSUMÉ

Après avoir fait ressortir les points saillants de l'histoire culturelle du bassin du Pacifique, l'auteur trace quelques pistes de recherches qui ont cours dans le monde de l'archéologie du Pacifique. Il traite aussi des méthodes de l'archéologie sous les aspects suivants: collecte des données, chronologie et reconstruction ethnographique.

Archaeology in the Pacific Basin has grown from embryonic beginnings in the thirties to a complex and diverse area of specialization with numerous field workers pursuing a wide range of goals. Centers for training and research have developed in Hawaii, Australia, and New Zealand; and at least three journals, *Asian Perspectives, Archaeology and Physical Anthropology in Oceania,* and the *New Zealand Archaeological Association Newsletter* devote themselves in large measure to closing the information gap. Regional meetings, which have done so much to stimulate and direct research in areas such as the American Northeast and Southwest, are still rare, but occur at least every five years with the Pacific Science Congress. A summary of the major field work is published periodically in the *Council for Old World Archaeology Surveys and Bibliographies,* (Area 21).

The archaeology of Polynesia, Micronesia, and Melanesia, with the exception of New Guinea, is entirely Neolithic; that is, the prehistoric communities produced their food in gardens and lived in villages or scattered homesteads of some permanence. For this reason the complex macro-developmental pictures from pri-

mitive bands to rich cities which we find in other areas will not be part of the Pacific scene. Unfortunately, Pacific archaeology, in world surveys, is often contained in a paragraph appended to the archaeology of Asia as the end of the line, trailing off from the centers of Old World development.

In this cursory overview, my purpose is to outline the highlights of the culture history of the area as it stands today, and to enumerate some of the broader approaches which the Pacific archaeologist uses in portraying the events of the past. I cannot hope to give more than an overview; for those who are interested in the latest details, two recent publications edited by Yawata and Sinoto (1968) and Highland *et al.* (1967) represent peaks of recent achievement.

CULTURE HISTORY OF THE PACIFIC BASIN

The peoples of Micronesia, Melanesia, and Polynesia are of predominantly Asian origin, although contacts with America, in the case of Polynesia at least, may have occurred (Heyerdahl 1963, Simmons 1966), probably between 800 and 1300 A.D. (Green 1967:227). As the homeland of Malayo-Polynesian speakers, South China has been hypothesized (Solheim 1964, Chang 1964, Grace 1964). Two major horizons in mainland China and Taiwan are possible candidates — the Cord-Marked and the Lungshanoid (Chang and Stuiver 1966); very recently, a strong case has been made for the former as the more promising candidate (Green, personal communication). The populations which produced the Cord-Marked pottery are thought to have created secondary vegetation (through slash and burn agriculture) which is reflected in the pollen sequence of Sun Moon Lake, Taiwan, beginning at 9,000 to 10,000 B.C. (Chang and Stuiver 1966). The end of the Cord-Marked pottery horizon has been indirectly dated at about 2,500 B.C. Root crop agriculture seems to have been the major means of subsistence, although actual plant remains have not been found in the sites. The subsequent Lungshanoid culture, with rice agriculture, a means of subsistence unknown in Oceania outside the Marianas (Yawata 1963), appears to be too late and too speci-

alized to be closely related to later Malayo-Polynesian manifestations.

Little is known of the full cultural assemblage of the makers of Cord-Marked pottery, since the remains were found in thin, interrupted layers of the bottom layers of the Feng Pi T'ou and Ta P'eng K'eng sites; further excavations in Taiwan and Southeast Asia are imperative.

There are few clues to the relationship between the early Neolithic, based on rootcrops, which will gradually be substantiated with continuing research, and the beginnings of food production in New Guinea which are believed to have occurred before 4000 B.C. A decade ago, this early date would have come as a shock to most people; however, now there are indications that polished lenticular adzes, associated with as yet unknown subsistence activities, may have existed in New Guinea and Autralia far earlier than this date (Donald Mulvaney, personal communication). The existence of hunting and gathering groups as early as 10,000 B.P. is now strongly suggested (Bulmer and Bulmer 1964:48) but their relation to subsequent and modern groups is not clear. The key variables in dating these early cultures in New Guinea are post-Pleistocene sea levels which were low enough to allow migration on foot from Australia only as late as about 10,000 years ago. While the mountain areas of New Guinea, which are populated by Papuan speakers, are the areas which have received the most attention, they may be the least relevant for the total picture of migration. Future excavation of coastal areas, where field conditions are most difficult, will be the most rewarding in these terms.

Archaeological excavation has been undertaken in the islands to the east of Melanesia in New Britain, the New Hebrides (Shutler 1967), New Caledonia, and Fiji. Here, the earliest pottery horizon has been termed Lapita, after the type site in New Caledonia. It is dated between 1300 B.C. and 500 B.C. in Fiji (Green 1968, Palmer 1966), while present dates from New Caledonia for Lapita extend roughly from 900 B.C. to 400 B.C. The eastern limit of this horizon is Tonga, where it is known as early as 400 B.C. (Green 1967:222). At this eastern fringe it formed a local tradition which continued to develop until contact times. Close similarities in design and execution exist throughout

the area from Watom Island on the west to Tonga on the east, straddling the contemporary Polynesia-Melanesia boundary line which traditional ethnographers have always placed at Fiji. Although expositions of all the distinguishing characteristics and the local cultural variants involved at this time level have yet to be presented, the general consensus is that the pottery is diagnostic of populations whose culture and language later evolved into the Polynesian cultures of the ethnographic present. Within Polynesia, there subsequently evolved Eastern and Western variants of Polynesian culture. As mentioned above, Polynesian groups may ultimately be traced back to the Cord-Marked horizon in South China and Formosa; how exactly the Cord-Marked relates to the Lapita horizon cannot be determined without much more excavation in the intervening areas.

Two additional pottery horizons are found in Melanesia. The first, marked by Paddle-Impressed Ware, was initially dated at 100 B.C. by Gifford from his excavations in Fiji (Gifford and Shutler 1956:89). Although it is rather poorly represented in the rest of Melanesia, there are hints that it might ultimately be related to stamped pottery from Southeast Asia and South China (Chang 1964, Roger Green, personal communication), which is also dated in the first few centuries B.C. Another pottery complex, of incised ware from the Shepherd group of the central New Hebrides, is also dated at about 500 B.C. (Garanger 1966) but its relations are not yet clear. Details and comparisons of the associated artifacts of these pottery horizons or complexes are not yet definitive.

The colonization of Western Polynesia is now believed to have taken place about the beginning of the first millennium B.C. (Green 1967:222). From Tonga to Samoa, and then to the Marquesas, seems to have been the sequence of contact. The Marquesas were the center of dispersal for the islands of Eastern Polynesia. In the past five years, opinions that the Society Islands were the origin of movements have changed with new excavations and interpretations, primarily by Emory and Sinoto (1964:158; Sinoto 1966). From excavations of the site of Hane on the southern coast of Uahuka Island, Marquesas, and his re-evaluation of Suggs' excavation of Ha'atuatua on Nuku Hiva, Sinoto has concluded that the initial settlement of the Marquesas took place

about 400 A.D., more than 500 years later than had initially been proposed. Suggs had concluded that the Marquesas were colonized from Western Polynesia by people who possessed a variety of Melanesian traits; pottery, certain adzes, *Tonna* shell scrapers, and shell discs for head ornaments (Suggs 1961:177-179). These artifacts appear to be constituents of the assemblages found in Lapita sites.

Similarities in artifacts between the Marquesas and Hawaii at early time levels indicate that Hawaii was populated first from the Marquesas and later, possibly about 1200-1400 A.D., from Tahiti. As one might expect, Marquesan connections are not as obvious as those with Tahiti; this from the study of folklore. Problems in radiocarbon dating exist both for Easter Island and Hawaii, where individual dates are too early to fit Sinoto's revised sequence (Sinoto 1966). However, the problematical early Easter Island date of 386±100 A.D. is suspect on stratigraphic and artifactual evidence (Green 1967:224), and the date from South Point, Hawaii, is currently undergoing re-evaluation by the Bishop Museum.

The earliest published dates for the Society Islands are in the 11th or 12th centuries A.D. (Kroll 1967). An important burial site on Maupiti, the most westerly of the inhabited islands of the Society Group, dated by stylistic means at about 900 A.D., has its closest affinities with New Zealand and the Marquesas (Emory and Sinoto 1964). The importance of the Maupiti burials is great because they display early artifact forms rarely found in the surface collections from Tahiti. These early artifacts are almost identical with burials from New Zealand, at the early Moa Hunter site of Wairau Bar. The affiliations of the later phase of culture in New Zealand, Classic Maori, are not as direct.

Eastern Polynesian culture achieved its distinctiveness and variety through isolation, while western Polynesian cultures maintained more constant inter-island contact. The historical derivation of the eastern Polynesian fishing complex, which looms large in the archaeological record in the absence of pottery, is not clear, since fishhooks of all varieties are notably rare in Western Polynesia. An episode in the evolution of the new hook forms can be seen at Hane, Marquesas, where the Western Polynesian trolling hook

gradually gives way to an Eastern Polynesian type in a single stratified site (Sinoto 1966:299). The variety of hooks and their increased numbers may have arisen locally as an adaptation to the reefless islands where nets and traps were of less value.

While Melanesia and Polynesia can be shown to have interrelated culture histories, Micronesia remains an enigma. Although "the case against a Polynesian movement through Micronesia has become even more sharply drawn today than it was a decade ago" (Green 1967:218), diffusion back and forth across the boundary between the two areas — the northern edge of Melanesia and the Gilberts — appears to have been frequent and relatively intense. Davidson's work on Nukuoro (1968), a Polynesian outlier south of Ponape, has demonstrated that atoll sites as small as 3/5 sq. mi. can yield abundant information. It is hoped that data will soon be forthcoming from untouched areas such as the Gilberts and the Marshalls now that atoll excavation has been shown to be feasible. Although there are few comparative data, it seems that the artifacts from Nukuoro resemble those from adjacent islands in Micronesia and even Melanesia (Green 1967:221) despite the fact that, physically and linguistically, the present population of Nukuoro is Polynesian.

Osborne's recent publication concerning Palau provides comprehensive survey data from which one could proceed to excavation immediately (1966). Preliminary survey by University of Hawaii graduate students doing summer ethnological field work in the Marshalls indicates that abundant surface remains do exist, and a recent detailed survey of Guam by Reinman (1966) lays the foundation for a comprehensive archaeological program on that island.

The Micronesians probably originated from the Philippines, which lie only 700 miles to the west of the Caroline Islands. This second route into the Pacific, postulated by both Spoehr (1954) and Osborne (1966) remains difficult to substantiate, since comprehensive sequences for Guam, Palau, and all of the Philippines with the exception of Palawan (farthest from Micronesia) are not even tentative. Similarities in some stone remains, including large rock-cut coffins, between Palau and the east coast of Formosa are probably the result of a common Philippine source.

With huge archaeological gaps still existing in the western Pacific there is much to be done for the Pacific culture historian. Comprehensive programs such as those launched by the Bishop Museum for Polynesian culture history have been very effective in showing how migrations and evolution in isolation produced the major cultures within Polynesia. However, earlier derivations can barely be suggested at this point.

THE STRATEGY OF PACIFIC ARCHAEOLOGY — SOME CONSIDERATIONS

Some thoughts concerning three aspects of Pacific archaeology, data collection, construction of time sequences, and ethnographic reconstruction are mentioned here for their interest to archaeologists from other areas, and to those in other aspects of anthropology in the Pacific who use the products of local archaeological research.

Data Collection

For many reasons, excavation and survey yield fewer results per unit of expended energy in the Pacific than in other areas. Not only are sites relatively rare and often scattered along shorelines; they may be partly submerged or covered with present habitations, especially on islands where land is scarce. Warm, humid climates in all areas except southern New Zealand and highland New Guinea mitigate against satisfactory preservation. The most abundant and useful artifact, pottery, is not found in several areas of the Pacific, and fishhooks, which have replaced pottery for seriation, do not occur in comparable numbers. This makes statistical analyses difficult to interpret.

In some areas, great emphasis has been placed on rock shelters and caves because of greater preservation and fewer chances of disturbances than are usually found on open sites. Yet it is obvious that a total picture of the islanders' lifeways cannot be formulated on the basis of one kind of site.

There are areas in the Pacific, as in other parts of the world, where the importance of individual artifacts overshadows the stra-

tigraphic and contextual data, where screening is used as a substitute for careful digging, and routine formulae to excavation problems obscure the nature of settlement and particular artifact associations. "Table-top" archaeology (Jennings 1944), in which students dig artificially constructed sites where locations and associations are known by the instructor, have been initiated by the Kamehameha Schools in Honolulu, and may be the most suitable substitute to chaotic student excavations.

Slowness in publication and the circulation of manuscripts in restricted "kula" arrangements are also deterrents to rapid digestion and synthesis of information.

Chronology

Contrary to statements by Dening (1967:29) that Pacific anthropologists have neglected the topic of change in the study of the island populations, one finds that the archaeology of the area has been devoted largely to the construction of local sequences, a pre-requisite in any area of new archaeological research (Spoehr 1952).

Pottery seriation is now in process in Fiji, Samoa, and parts of Melanesia. For Eastern Polynesia, as mentioned above, seriation has been based on fishhooks (Emory, Sinoto, and Bonk 1959, Sinoto 1962, 1967). These, unlike the decoration on pottery, appear to have much less range for variation, since many innovations would render them dysfunctional. Sinoto (1967:345) states:

> Changes in the typological (functional category?) and structural features of fishhooks are readily observable within an island group but the ratio between point and shank heights, the materials used, the types of manufacturing tools, and the manufacturing methods are the distinctive elements observable between the island groups.

Thus, types in the local literature are ecosocial or functional, rather than historical or stylistic (Chang 1967:113), reflecting changes in fishing practices which can be fitted into a sequence. For this reason, a reworking of the typologies in use with greater emphasis on the assumptions involved is unavoidable, while at the same time the reasons for the patterns of change, other than the simple passing of time, should be sought out.

Attempts are now being made to achieve relative dating by means other than radiocarbon and seriation. These include the use of trace element frequencies which may relate eventually to datable trends in climatic changes (Sabels 1967) and obsidian hydration determination which has been used to cross-check radiocarbon dates on Easter Island (Evans 1965) and in archaeological analysis in New Zealand.

Ethnographic reconstruction

While in the Western Pacific we are still unable to equate language groups with archaeological assemblages without numerous reservations (Ferrell 1966) the eastern areas such as Polynesia, appear to be much less complex. Ignoring, for the moment, the question of the existence of an early non-Polynesian language in Easter Island (Heyerdahl 1963) one might conclude that the pattern of prehistoric cultural differences between island groups is closely reflected in current linguistic reconstructions (Green 1966). A phase of culture, extending from New Caledonia to Samoa, appears to fit exactly the area from which those populations immediately ancestral to Polynesians are derived. Davidson, however, has found that for the outlier of Nukuoro, presently inhabited by Polynesian speakers, the excavated materials do not closely resemble Polynesian material culture and has warned us again that race, language, and culture do not always fit neatly together (1968), particularly in the western portions of the Pacific where the situation is not one of simple fission of single communities and a finite number of later contacts.

The direct historical approach, used in Tahiti by Roger Green and his colleagues, may be the most useful technique both for establishing chronologies and for ethnological reconstruction when the excavated remains are so scant. In his detailed historical study of the valley of Opunohu on Mo'orea, Society Islands, Green (Green *et al.* 1967) established from an examination of written sources what kinds of settlements were occupied when the valley was visited in the early part of the 19th century, and then proceeded to the problems of ramification and stratification in Tahitian society in the 18th century in inland and coastal zones.

The same strategy of working from contact sites back into the prehistoric was utilized on Samoa (Green, Davidson, and Peters 1967:27).

While the work in Samoa and Tahiti has not produced the most complete chronologies, it has been the most oriented toward settlement studies and broad ecological problems which have been virtually untouched in Hawaii. This approach is now being initiated by both the Bishop Museum and the University of Hawaii on the islands of Maui and Hawaii. Extremely valuable and detailed manuscript accounts of the dwelling complexes and religious structures, compiled in connection with several State Parks surveys on the island of Hawaii, should be followed up by excavation, since survey itself is not effective without sub-surface exploration.

By nature, the archaeology of the Pacific Basin, with diverse cultures built on a generalized root-crop Neolithic subsistence base in all but a few areas, lends itself to the exploration of hypotheses of drift and adaptation rather than universal evolutionary schemes. Although the interest which evolutionist or neo-functionalist ethnologists have in ecology has been shared by the archaeologists, specific projects designed to assess these processes have been rarely mentioned (Davidson 1967:373; Green 1968) since their significance was initially suggested by Vayda and Rappaport (1963). First, however, we must establish the patterns of contact and colonization before we can assess the effects of drift between "founding" populations and their derivatives. As basic data accrue in the next few years and the historical framework becomes more secure, it is to be hoped that projects of this nature will be undertaken.

The future of Pacific archaeology leads through increased knowledge of the culture history to the generation of local theories and hypotheses concerning culture in general as well as to the testing of those that have been created in other areas. We may also expect the interaction of scholars from the surrounding countries and of America and Asia with institutions within the area itself to result in a blending of Old and New World strategies and concepts into new forms more operable and heuristic than those of either region alone.

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Recent Trends in Polynesian Social Anthropology

by ALAN HOWARD

RÉSUMÉ

Dans les études d'anthropologie sociale de la Polynésie, on voit se dessiner, depuis quelques années, une nouvelle tendance. Alors que l'accent avait toujours été placé sur les interprétations historiques de la culture polynésienne, on s'intéresse maintenant à l'analyse des modèles de comportements, surtout en ce qui a trait aux processus de décision. L'auteur discute ensuite de l'influence de cette tendance sur les études synchroniques et diachroniques.

Ever since the Polynesian islands were discovered by Europeans they have been a source of keen scholarly interest. Until quite recently, however, the focus of concern has been almost entirely the prehistory of the area. The key questions were: "Where did the Polynesians come from?" "How did they get to the islands?" "How long ago?" "By what routes?" Most of the previous generation of anthropologists engaged in the area, like their non-professional predecessors, collected data that would throw light on these questions. The ethnographies, most of which were done in the period between the two world wars, were essentially catalogues of material culture, legends and social customs, all of which were treated as "culture traits". The object was to compare and contrast the culture traits of different islands in order to determine historical relationships. Information was elicited mainly from elderly informants who knew most about original customs, and the influences of Western society were either ignored or passed over lightly. Even after historicalism gave way to functionalism in the profession as a whole, Polynesianists remained historically oriented. For those interested in social anthropology Polynesia appeared to have been too spoiled by agents of Western society to be of much interest. Except for Raymond Firth's monumental study of Tikopia, there was little theoretical

interest shown in the comparative sociology of the region. Since World War II the picture has changed considerably. Interest in historical problems has not flagged (Highland 1967), but a sufficient number of social anthropologists have recently entered the area to lay the foundations for a genuine comparative sociology.

There is no single emphasis underlying recent social anthropological research in Polynesia. Orientations have ranged from a concern for specific problems to broad-scale ethnographic research. Students have likewise brought a diversity of theoretical and methodological approaches into the field. Nevertheless, some definite trends are in evidence. Possibly the most noticeable trend is for recent students to focus upon social dynamics, rather than upon ideology. The latter can be more readily catalogued and hence treated as a culture trait, which is why it had a good deal of appeal to the historicalists. Although it is also possible to abstract general principles from social behavior, and to catalogue the generalizations, modern field workers in Polynesia are becoming increasingly intrigued with the dynamics of what Firth (1951) has termed "social organization" and have become somewhat less concerned with what he called "social structure". This trend is clearly related to the whole problem of descent in Polynesia. Unlike most African societies, Polynesian social systems are characterized by ambiguous descent structures which have been variously conceptualized as "ambilineal," "bilateral", and "non-unilinear." The issue was brought to the forefront of social anthropological theory in papers published in the *American Anthropologist* by Ward Goodenough (1955) and William Davenport (1959). Both of these articles represented attempts to clarify the concept of descent, and to apply it as a principle to the formation of kinship groups in Oceanic societies, among others. They stirred considerable debate, and in some instances the discussion degenerated into a sterile nominalism, but for the field workers who followed in its wake, the problem served to highlight the inadequacy of existing models for characterizing Polynesian societies. The issue reached a head in a sequence of publications by Murdock (1960), Goodenough (1961), Sahlins (1963), and Howard (1963). The critical question is whether social systems of the Polynesian type are best considered as statistical models based upon actual

choices, mechanical models based upon ideology, or some other alternative. Murdock, perhaps the chief proponent of the statistical approach to social structure, asserted (1960:9) that such an approach has "the enormous advantage of making possible the utilization of psychological principles and of scientific knowledge concerning the dynamics of cultural change in the interpretation of social systems". Sahlins accused Murdock of looking at social structure from "the inside out," and asserted that a more fruitful approach would be to examine it from "the outside in" (i.e., the relationship between units in a political system). From this point of view, according to Sahlins (1963:45), "political groupings of descent order seem to form a continuum: dogma ranges between an extreme emphasis upon patriliny to a mere emphasis upon common descent (nonunilinear) groups." It was Goodenough, however, who laid the theoretical foundations for the most recent research. In responding to Murdock's 1960 article he (1961:1343) asserted:

> It is in high time ... that we develop a typology that is completely free of statistical and functional considerations, using only structural and formal ones, based on the criteria and principles by which people make membership decisions (as distinct from the kinds of alignments which tend to result from the making of these decisions under a particular set of stable conditions).

Howard (1963), in analysing land tenure in Rotuma, criticizes the idea that societies can be adequately treated as uni-structural models. Following Goodenough he (1963:409) rejects the question "What are the principles of social structure?" as inappropriate and asks instead "What are the principles that structure behavior under given circumstances?" Howard (1963:410) suggests that:

> Instead of conceiving of a society as having a social structure, ... we conceive of social behavior as being structured by participation in given activities within which behavioral choices ... are regular and predictable. Our "systems" would then best be regarded as *activity systems,* the relevant units being the principles ... that are predicative of choice among behavioral alternatives.

In analyzing Rotuman land tenure in this manner he focuses upon the dynamics of usufruct, succession, transactions, and disputes, and documents the extent to which the principles involved are reflected in the ideological model held by the Rotumans. Other recent work on land tenure in Polynesian societies has followed

similar strategies (Hanson n.d., Ottino n.d.). The general picture of Polynesian land tenure and social groupings that is emerging is one in which kinship principles interact with other considerations, such as the amount of land available, residential and social proximity, political allegiances, etc., to constitute relatively consistent decision-making models (Howard 1963). They result in nonunilinear kinship groupings in the sense that they are generally comprised of kinsmen who are not unilineally related, but such a classification misses the point. Any classification scheme that resorts only to kinship principles is necessarily distortive in Polynesia for the simple reason that they only reflect a portion of the regular and consistent decision-making principles that enter into land transactions and group membership. It might be added that where land is limited, as it is in most of Polynesia, its allocation on the basis of a limited set of kinship principles is too likely to result in grossly inequitable distribution to be feasible.

Interestingly enough, the shift in emphasis from historicalism has not diminished an interest on the part of social anthropologists in the character of traditional Polynesian societies. As a matter of fact they have "discovered" a wide range of neglected primary sources describing various aspects of historical periods in Polynesia and are using them to generate fresh descriptions of the early contact "ethnographic present". Ironically many of these documents, which include detailed observations by explorers, missionaries, traders, beachcombers, etc., were of little interest to the historicalists, particularly if they concentrated on day-to-day behavior rather than upon exotic customs or beliefs. However social anthropologists, especially those with an interest in such mundane matters as the rules governing interpersonal relations, land tenure and use, and the nature of social groupings, have found such records to be an extremely rich source of data. By comparing several different descriptions, taking into account known biases, and drawing careful inferences, quite reliable ethnographies are being written. H.E. Maude's review of the literature covering beachcombers and castaways (1964) constitutes an example of the high quality results that can be obtained by careful archival work. Crocombe's study of land tenure in the Cook Islands (1964), which depends almost entirely on documentary sources, is another example. Perhaps the most ambitious

work undertaken along these lines has been by Douglas Oliver, who has analyzed an enormous quantity of historical material on the Society Islands. His book on ancient Tahitian society is eagerly awaited by all Polynesianists.

The study of culture change has also recently gained impetus in Polynesia. The work in this area can be divided into essentially three categories: (1) change from traditional to modern Polynesian cultures; (2) urbanization; and (3) relocated communities.

Unquestionably the most thorough study of change from a traditional baseline is Firth's restudy of Tikopia (1959). Returning to the island after nearly twenty-five years, Firth describes the changes which have taken place in the interim, as well as the impact of a crisis created by a hurricane which struck Tikopia only a few weeks before the field work began. Although the social structure had remained essentially intact, significant changes were noted in the areas of economics and religion. An increase in population had also had a noticeable impact.

Torben Monberg has also provided us with a well-documented account of culture change. The islands on which he did field work, Rennell and Bellona, two Polynesian outliers in the Solomon Islands, were among the last to accept Christianity. The conversion took place in 1938, so it was possible for Monberg and his linguist co-worker, Samuel Elbert, to obtain detailed accounts of the traditional religion and the processes of conversion from a wide range of informants. The results of this research are described in several publications (Monberg 1962, 1966, in press; Elbert and Monberg 1965).

Ernest Beaglehole (1957) relied mainly upon missionary and government records in tracing the processes of social change on Rarotonga and Aitutaki, two islands in the Cook group. He explains what was accepted, modified and rejected from Western culture in terms of reward and punishment on the one hand, and the underlying character structure of the people on the other. He concludes that the changes which took place are changes in content rather than in a cultural framework that is basically Polynesian.

Howard also makes extensive use of documentary sources in tracing the processes of change in land tenure and chieftainship

in Rotuma. He illustrates how the growth of the commercial economy, the initial decline in population following contact and missionization, led to an individualization of land holdings (1964), and traces the process by which Rotuman chiefs have lost *de facto* authority as a result of British colonial administration (1966).

Several studies have focused upon the changing character of chieftainship in the modern world. Felix and Marie Keesing's study of *Elite communication in Samoa* (1956) is an outstanding example. Another is provided by a man who is himself caught up in the conflict between traditional and emergent leadership, Dr. Rusiata Nayacakalou, a Fijian. His study of *Leadership change in an emergent community* (1963) provides an insider's view of political change in Fiji. It seems clear from these and other studies that the emergence of an educated elite in Polynesian societies is creating strains within a system of leadership that traditionally depended upon such factors as genealogical priority and advanced age. The way in which such strains are resolved in different communities will no doubt affect the kind of accomodation they make with the modern world.

The past decade has seen the development of a entirely new approach to culture change in Polynesia — the study of island communities as hinterland regions in relation to port towns. In one of the first papers specifically drawing attention to this area of research, Spoehr (1960) specified three ways in which hinterland islands depend on a connection with port towns. These are economic dependence, in which the port towns distribute manufactured goods in exchange for agricultural products; leadership, in the form of entrepreneurs, school teachers, ministers, medical officers, and administrative officials who are trained in urban areas; and the implementation of lines of transportation and communication by which the islands are linked to the world at large. Howard (1961) describes the relationship between Rotuma and the capital city of Suva in Fiji in terms of the flow of population, the flow of goods, and the flow of information and ideas. He concludes that thus far the flow has been slow enough, and sufficiently limited, to permit the island community to exercise a firm conservatism and thereby maintain a high level of internal cohesion, but raises the question of what is likely to happen when

the flow is intensified, as it is sure to be when faster modes of transportation are made available and more efficient communication is possible.

The processes of urbanization in the Society Islands have been subjected to intense investigation by a team of researchers under the direction of Douglas Oliver. Communities were selected at varying distances from the capital city and port town of Pape'ete, in which research was also done, in order to determine sequences of change that correspond to intensity of contact with an urban area. The assumption is made that the communities most removed from Pape'ete are closer to the traditional Tahitian culture. Working within this framework, Finney (1965) demonstrates that a change from a primarily subsistence economy to one based on cash crops and ultimately to one based on wage labor correlates with the progressive dissolution of extended family ties and the emergance of the independent nuclear family. Kay (1963a, 1963b), one of Finney's co-workers on the project, describes Tahitian households within a Pape'ete neighborhood as "disorganized" and "woman-centered." They tend to be disorganized because of the high mobility rate and the high proportion of households without a complete nuclear family. They are judged woman-centered because: (1) there are significantly more women than men in the neighborhood; (2) in many households the only adults are women; and (3) household histories reveal a greater continuity over time of adult female residence than of adult male residence. It is questionable whether this pattern will be found to hold true for other urbanizing Polynesian peoples. Hooper (1961) did not find disintegration of kinship ties to be characteristic of Cook Islanders living in Auckland. He found that the community preserved many of the features of a "folk society," even though it is located in the heart of a modern city. Likewise, Metge (1964) and Ritchie (1964) did not find social breakdown to be characteristic of New Zealand Maoris who have migrated to urban areas. Metge found that among Maori migrants to Auckland obligations toward kinsmen did not disappear, although they were narrowed in range so that the claims of active rather than nominal kin were recognized. She concludes that one of the explanations for this continuity is the determination of the Maoris to retain their cultural identity. Mrs. Ritchie found a lesser degree of active

kinship among migrants to Wellington, but nevertheless found family structure to remain stable. Working with the aid of psychological tests she suggests that the Wellington families have made a generally satisfactory adjustment to the city, although they showed more signs of psychic stress than a comparable rural sample. She, too, stressed the adaptive function of maintaining Maori identity.

Perhaps being an ethnic enclave in an urban setting has something to do with the preservation of prior socio-cultural patterns, but more research will be necessary before the issue can be resolved. The papers which appear in Spoehr's Pacific Science Congress symposium on *Pacific port towns and cities* (1963) provide a good empirical first step toward a comparative sociology of urbanization in Oceanic societies.

The third approach to culture change, that of relocated communities, has been fostered by Homer Barnett. He has directed the research of a number of students who have studied Oceanic communities which have, for one reason or another, been removed from their traditional ecological niche and relocated. The study has involved two Polynesian cultures; Tongans who have resettled in Fiji, and Kapingamarangi (a Polynesian outlier population) who have settled in Ponape in Micronesia. The results of these studies are not yet available but they should yield some interesting generalizations about the relationship between culture and ecology in the insular Pacific.

Another major development is taking place in the area of psychological anthropology. This is not an entirely new field of research in Polynesia. Even during the heyday of historicalism two of the foremost pioneers in culture and personality studies, Margaret Mead and Ernest Beaglehole, were using Polynesia as a psychological laboratory. The most striking aspect of recent research, however, is the entry of individuals trained in psychology and psychiatry into the field situation. The first fruits of this marriage of anthropology and psychology have been an impressive series of studies by James Ritchie and his associates on the New Zealand Maori (James Ritchie 1956, 1963; Jane Ritchie 1957, 1964; Mulligan 1957; Earle 1958). This group has examined personality development among Maoris in considerable depth.

They have used projective and other psychological measures as a means of testing hypotheses derived from first-hand field information. In Hawaii, Ronald Gallimore is currently engaged in an intensive study of personality development among Hawaiians of Polynesian ancestry. Working in conjunction with A. Howard of the Bishop Museum, Gallimore has made extensive use of psychological tests and standardized interview schedules to test hypotheses derived from ethnographic field work. In addition he has directed a sequence of social psychological experiments which have greatly helped to refine and clarify the relationships between personality variables and observed behavior (Gallimore, Howard and Jordan, in press). A somewhat different approach is provided by Robert Levy (1967, in press), a psychiatrist turned anthropologist, who spent nearly three years doing field work in the Society Islands. Levy did a great deal of intensive interviewing to supplement his observations, and is interested in the way in which individuals organize culturally endowed motives, perceptions and interpersonal strategies. His forthcoming book dealing with the private worlds of Tahitians promises to provide profound insights into Polynesian character. Interestingly enough, despite long exposure to different superordinate Western cultures (New Zealand, American, French), the Maoris, Hawaiians and Tahitians appear to be astonishingly alike in modes of child-rearing and resultant personality structure. The key to the developmental sequence seems to be an early period of indulgence and encouragement of dependency, followed by a period, when the child is two or three years old, of punishment for dependency overtures. Parents do not, on the other hand, reward independence. Their overriding concern is for obedience, a factor which is consistent with the stratified nature of the traditional societies. The chief characteristic of the resultant personality type might be called "involvement anxiety," which is manifest in a strong tendency to avoid the vulnerabilities of emotional commitment to either people or possessions. In this frame of reference, much of the happy-go-lucky aura associated with these Polynesian peoples can be seen as a mechanism for avoiding vulnerability.

Social anthropology in the insular Pacific appears to be on the verge of developing into a genuinely comparative science. The

recent formation of the "Association for Social Anthropology in Eastern Oceania," which brings together a group of young anthropologists who have recently done field work in the region (including Polynesia, Micronesia, and parts of Melanesia), is a significant first step in this direction. The first tangible product of the Association, tentatively scheduled for publication in 1968, is a symposium on adoption being edited by Vern Carroll. It is anticipated that this will be only the first of an extended series of comparative studies.

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New Directions in Southeast Asian Prehistory

by WILHELM G. SOLHEIM, II

RÉSUMÉ

Après avoir mentionné le manque d'intérêt pour l'archéologie du sud ouest asiatique, l'auteur décrit le travail qui y a été accompli à date et il trace certaines pistes de recherches pour chacun des pays qui restent à étudier.

"New directions" for any subject of research require that the subject has been in existence for a time and that there is an apparent change in some major aspect of that research. There are few workers in the field of Southeast Asian prehistory and the field is little known outside the circle of these few workers. It will, therefore, be necessary to establish that there has been such a field of study as Southeast Asian prehistory and then to show the general path along which the research has been moving before I can suggest that a different direction for this research is being established.

"Southeast Asia" I use to mean mainland Southeast Asia from the 30th parallel (roughly the Yangtze) south to the southern end of Singapore and from the Irrawaddy east to the coast on the China Sea, and Island Southeast Asia which includes all the islands offshore from Formosa to Sumatra (as defined at the 11th Pacific Science Congress in Tokyo in 1966 by the Section of Anthropology). I have little information from what is commonly known as South China.

THE BEGINNINGS

Mention of prehistoric artifacts found in Southeast Asia goes back to the second half of the 17th century when G.E. Rumphius included two chapters on stone and bronze tools in a book which

he wrote on a portion of Indonesia (Heine-Geldern 1945:129). The first recorded archaeological expedition took place in 1873 when A. H. Everett made cave explorations in Sarawak looking for the "missing link," which he did not find (Harrisson 1958:551-560). This was followed by Alfred Marche's work in the Philippines in 1881 (Beyer 1949:205, Solheim 1953:154), results of which have never been published in other than romantic form. The true beginnings of prehistoric archaeology in Southeast Asia began early in the 20th century.

Archaeological activities, including exploration and excavation, cannot be considered true archaeological research until a publication has been made including detailed presentation of artifacts recovered and description of the site, or sites, from which they were recovered. Previous to the beginning of the 20th century, numerous findings had been reported in the literature and a certain amount of summary and conjecture on these findings had appeared. It was not until 1902, however, that a site report appeared, on Somron-seng in Cambodia, marking the beginning of professional archaeological research on the prehistory of Southeast Asia (Mansuy 1902). This was followed in 1905 by a report on field work done in 1902 in the Toala caves in the Southwest Celebes by Paul and Fritz Sarasin (Heine-Geldern 1945:129).

Not until the 1920's did an organized program of archaeological research really get under way when it developed, seemingly independently, in the Federation of Malaya, Indonesia (Dutch East Indies), French Indochina, and the Philippines. Publications were coming out fairly regularly from 1925 on, except for the Philippines where H. Otley Beyer, though active, published only a few, primarily summary, reports. These country programs developed independently for the most part until the meeting of the Fourth Pacific Science Congress in Hanoi in 1932 (Beyer 1956: 26-27). From 1929 on, there was communication among some of the researchers active in the field, though this had little affect on the field programs of the different areas. Personnel and funds for research continued in short supply. Ample illustration of the small amount of international interest is a statement by van Stein Callenfels in a letter to Beyer in 1933 where, in discussing type names for stone adzes, he said: "We three being the only men in the world

writing about these things can fix the names" (Beyer 1951:77). The third person referred to here was Robert Heine-Geldern.

Another approach to prehistoric research is to make reconstructions of prehistoric cultures using distributions of artifacts from surface collections, material culture of recent and present-day peoples, linguistics, statistical analysis of a portion of a culture or cultures, or combinations of these. Many such studies have been and are still being done on Southeast Asia by scholars in Europe and the United States. The foremost exemplar of this type of scholarship for Southeast Asia is Heine-Geldern. His first reconstruction appeared in 1923 while the major work on the subject, "Urheimat und fruheste Wanderungen der Austronesier" appeared in 1932. The only changes that have been made to this presentation were made by Heine-Geldern (1958) in answer to a translation made by H.D. Skinner (1957) of Heine-Geldern's main conclusions. All other reconstructions of the prehistory of Southeast Asia are based on this work.

Artifact and site orientation characterized Southeast Asian archaeological research. The purpose of this research was to work out the origins of the present-day peoples in the area and to build up a chronology. Each country worked separately and programs were not coordinated[1].

OLD DIRECTIONS REEMPHASIZED

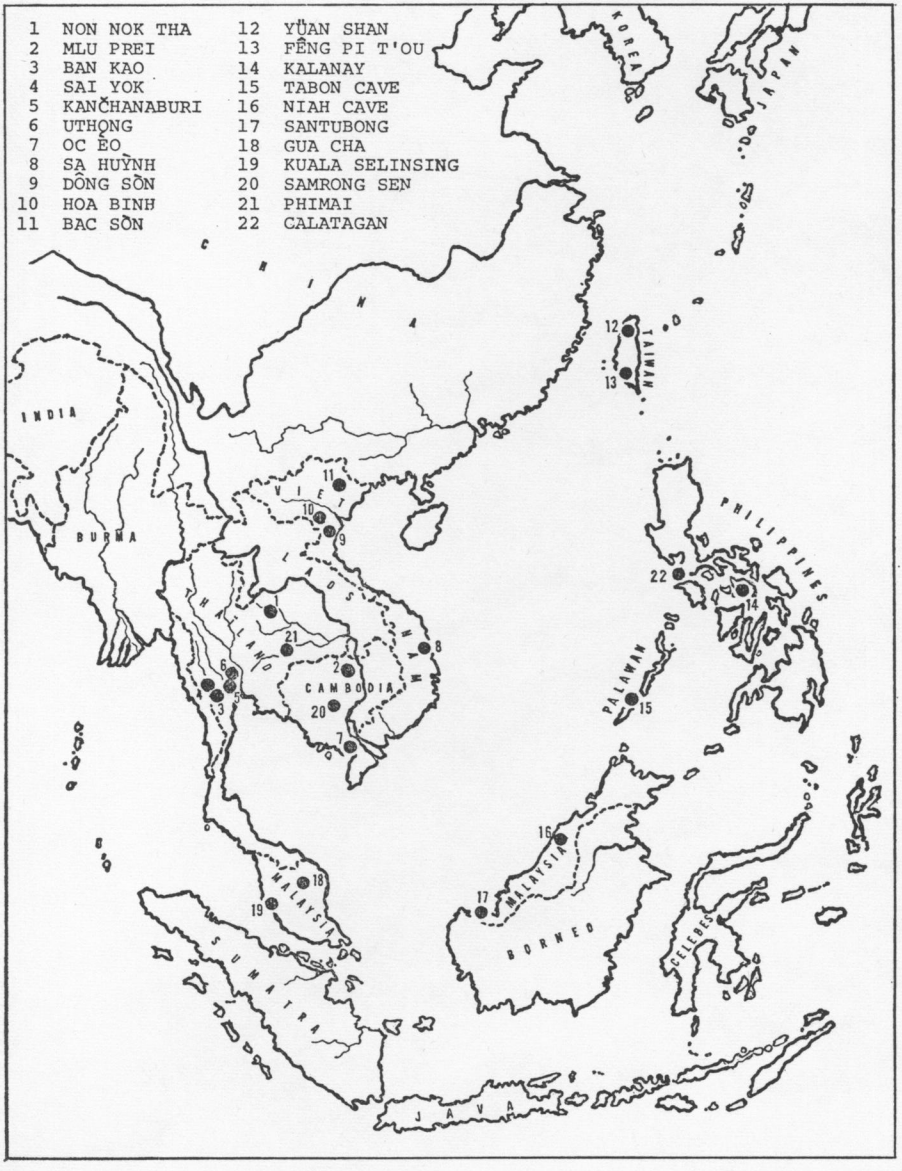
Archaeological field work virtually came to a dead stop during World War II and, for the most part, did not begin again until about 1950. The areas of major activity in the 1950's were Sarawak, the Philippines, and Malaya, with less continuous field research in Formosa, Hong Kong, Vietnam, Cambodia, Thailand, and Indonesia. This work reinstated the old pattern of excavation, usually on a small scale, in sites accidentally found. The emphasis continued to be on comparative materials and did not include any organized program of a long-term nature.

[1] A more detailed history of Southeast Asian archaeology will appear in *Asian Perspectives,* Volume XI, to appear in 1969.

Communication among the scholars working on Southeast Asian prehistory was restored with the fourth meeting of the Far-Eastern Prehistory Association held jointly with the 8th Pacific Science Congress, in Manila in 1953. The second meeting of this organization had been held in Manila in 1934 and the third in Singapore in 1938, while the fourth was to have been in Hong Kong in 1941 (Solheim 1957a:7-10). The two proceedings volumes from the Hanoi and the Singapore meetings are the major publications on Far-Eastern prehistory (Anon. 1932, Chasen and Tweedie 1940). Only a portion of the proceedings of the fourth meeting, edited by Beyer (1956) has appeared though the major remaining papers make up Asian and Pacific Archaeology Series No. 2. *Asian Perspectives,* the Journal of the Far-Eastern Prehistory Association, is a continuation of the first two proceedings volumes. It began publication in 1957 and is now published by the Social Science Research Institute of the University of Hawaii. Detailed and summary reports and bibliography on the archaeological research in Southeast Asia since about 1954 are to be found in the journal.

The only difference between the work done in the 1950's and that done before the war was an improvement in techniques of excavation. Excavations done before the war denied that any stratigraphy was present and so lumped all artifacts in the report. In the 1950's some excavators began to use artificial levels. One of these workers was Tom Harrisson who opened a new area to research, Sarawak. He also, during this period, started the first systematic and long-range programs in limited areas with his work in the Santubong River delta area and the Niah Cave area. Many of the reports on this work are to be found in the *Sarawak Museum Journal* and *Asian Perspectives.* In the Philippines, Robert Fox began an extended program of excavation in Calatogan Batangas on Luzon (Fox 1959), the most ambitious program in the Philippines up until this time.

Archeologists resumed field work in the 1950's, continuing from the point where they had stopped in 1941. With new workers in the field, some changes from the old style program of single site excavation were being started by the end of the decade.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16 NIAH CAVE
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TAIWAN
INDIA
BURMA
VIET NAM
THAILAND
CAMBODIA
PHILIPPINES
PALAWAN
MALAYSIA
BORNEO
CELEBES
SUMATRA
JAVA

NEW DIRECTIONS DEVELOPING

The methods of study of prehistory have been evolving rapidly during the last 15 to 20 years. Archaeology is the major method used to study prehistory and it has probably been the most rapidly evolving method of those being used. Many new scientific techniques for dating and reconstructing palaeoclimate and palaeobiology of former periods have been and are being developed. These new techniques are making it possible for the archaeologist to be much more precise in his use of time and allow him to go much further than before into the study of prehistoric culture and cultures. Grahame Clark (1960:17) has said: "Archaeology may be simply defined as the systematic study of antiquities as a means of reconstructing the past." This definition fits the "professional" archaeological research in Southeast Asia before the war, as it does that in North America. The "new directions" of the archaeology in Southeast Asia do not mean that there is a "New Archaeology" but only that new methods and techniques are coming into use in Southeast Asia as in North America and the rest of the world. Clark's definition still fits; it is only that so much more must be included now before we can consider our study to be systematic. Archaeology is evolving or growing; it is not new.

The new and improved techniques, so important today to the study of prehistoric archaeology, have not come into use equally all over Southeast Asia and, to be sure, there is a time lag between the refinement of a new technique in America or Europe and its coming into use in Southeast Asia. The most important change in Southeast Asian archaeological research is the shift of the focus of research from the artifact to the site as a part of a local region. Each country where there has been recent research is somewhat different and I treat them here separately. These countries are: Sarawak, Thailand, Philippines, Formosa, North Vietnam, and Indonesia.

Sarawak

The first country in Southeast Asia to have an organized, long-range program for prehistoric archaeology was Sarawak.

Two areas in Sarawak have had intensive exploration and excavation.

Work in the Santubong Delta near Kuching began in 1946 and has continued intermittently through 1966. Relatively little has been published except for two reports covering the ceramics of one small burial site (Harrison, Tom and Barbara 1957, Solheim 1966a). These sites indicate that this area was a major iron smelting center between about the 6th and 11th centuries A.D. with contacts with both China and India (Harrisson n.d.).

The Niah Cave complex of sites in Northern Sarawak, near the coast, is one of the two major cave complexes of known prehistoric importance in Southeast Asia. These caves were thought by Wallace, Darwin, and Huxley to have been a likely home of the "missing link" and through their efforts were briefly explored in 1873, happily with negative results (Harrisson 1958:550-561). Excavation was started by Harrison on a small scale in 1954 and yearly excavation on a large scale started in 1957, continuing into 1967. Hundreds of caves, large (over 26 acres in the Great Cave) and small, have been mapped and explored. Almost all the caves have evidence of human use. The caves were in use from late Pleistocene times up until about 1,000 A.D. A *Homo sapiens* skull was found at a bit over 100 inches in depth and is dated by C-14 at about 40,000 B.C. (Brothwell 1961). Besides extensive archaeological activity in these caves, there has been much research done on the biological contents of the cave and the nearby area for both prehistoric times and the present. Death and burial customs of the present day peoples using the caves have been studied for comparison with the prehistoric practices found. Bibliographies of the published materials on these and other sites in Sarawak, and Island Southeast Asia are to be found in the *Sarawak Museum Journal, Asian Perspectives,* and the *Council for Old World Archaeology, Surveys and Bibliography, Indonesia* Area 20 (Conklin 1957, Solheim 1961a and 1964a).

Thailand

Very little research was done on the prehistory of Thailand before 1960 when the Fine Arts Department of the Thai Ministry of Education was joined by a group of Danes in the first Thai-

Danish Prehistoric Expedition. In two field seasons from 1960 to 1962 the Expedition explored for sites along the Kwae Noi up to Three Pagodas Pass, on the Burma border, and on the Kwae Yai in Kanchanaburi Province. Test excavations made the first year were followed by excavation of two or three major sites the second year. A neolithic assemblage was discovered in this work similar to that known in Northern Malaya (Sieveking 1955, Sørensen 1964). Carbon-14 dating indicates that this culture was present in Thailand early in the second millennium B.C. (Sørensen 1965:307). A second expedition, led by Per Sørensen returned to work in this area in 1965-66.

In 1963 the Fine Arts department, University of Hawaii archaeological expedition in Northeastern Thailand, directed by Wilhelm G. Solheim, II, began a three-year salvage archaeology program in four reservoir areas in the northeast. Several sites were found in a valley west of Khonkaen and one of these, Non Nok Tha, was partially excavated. In this site an intermittent sequence was found from about 3,000 B.C. to less than 200 years ago. A "Bronze Age" without iron is present in this site beginning about 2,500 B.C. by C-14 dating (Solheim, 1968).

A Thai-British expedition, under the direction of William Watson, started work in Thailand in January 1966. After initial exploration in several areas during the first year, they started excavations at a site about one kilometer from Non Nok Tha in the northeast, and at a site near Chaibadan at the eastern edge of the central plains. The material from the latter site is closely related to the early material from Non Nok Tha and the future British and University of Hawaii excavation in conjunction with the Thai Department of Fine Arts will be closely coordinated. Bibliographies of the published materials for Thailand and other Mainland Southeast Asia countries are to be found in *Asian Perspectives* and *COWA, Surveys and Bibliography, Southeast Asia* Area 19 (Horr 1959, 1963, Solheim 1966b).

Philippines

In 1962 a number of caves were discovered in a limestone formation near Quezon on the west coast of Palawan. Since the

discovery, by Robert Fox of the Philippine National Museum, intensive excavation has been under way in this area for several months each year. The caves, both large and small, are rich with materials going back over 30,000 years. Other limestone areas to the north have been briefly explored and many more caves with similar materials have been found. From stratified deposits, well dated from charcoal samples, Fox now has a solid sequence from the Late Pleistocene to about 1,500 years ago and from Upper Palaeolithic to Porcelain Age (the period in Philippine prehistory from the time mainland Asian porcelain trade wares started coming in at around early Sung Dynasty times). The first Early Neolithic burials and the first shell adzes found in the Philippines were discovered in one of the Quezon caves (Evangelista 1964:54- 56, Pl. I). No more than very preliminary reports have appeared on these sites in print as of July 1967 but two major reports by Fox should be appearing shortly, one in the memorial volume for H. Otley Beyer, the pioneer of Philippine archaeology, and the other as a monograph in the Philippine National Institute of Science and Technology series.

Formosa

A joint archaeological expedition of the National Taiwan University and Yale University under the direction of Kwang-Chih Chang of Yale and Sung Wenhsun of National Taiwan University has produced the first dated sequence for Formosa (Chang and Stuiver 1966, Chang 1968, n.d.). The sequence has an early Corded Ware culture followed by two cultures which show little relation to the earlier culture; these are the Yuan-shan culture, the most important in the northern part of the island, and a Lunshanoid culture in the south. These two cultures date back to the first half of the third millennium B.C. and are definitely agricultural. There are no C-14 dates for the Corded Ware culture but it was of long duration and came to an end at the sites where it has been found well before the following cultures began. From a C-14 dated pollen core taken from the bottom of Sun-Moon Lake it seems likely that the Corded Ware culture used slash and burn agriculture and entered Formosa as early as 9,000 B.C. (Chang 1968, n.d., Tsukada 1966). All three of these prehistoric cultures

probably have their closest relationships with prehistoric cultures of northern Southeast Asia (South China). The east coast of Formosa is little known but appears to be rather different from the west coast.

North Vietnam

Vietnamese archaeologists first began work in North Vietnam in 1959 and have been active until recently. I have received no word on their research during 1966 and 1967. In 1960-61, at the request of these archaeologists, P. I. Boriskovsky, a well-known Russian archaeologist, worked with them as an instructor and consultant.

The major finds that have been published in English are from a lower Palaeolithic workshop site about 170 km south of Hanoi. Here, along with large numbers of flakes, a few typical Clactonian, Chellian, and Levalloisian tools were found (Solheim 1963:24-26, Boriskovsky 1968). Numerous other sites have been found and excavated including Hoabinhian, early and late Neolithic sites, and sites with bronze and apparent Dongson relationships. Detailed reports on these sites have not yet appeared to my knowledge. Boriskovsky has published a book on Vietnamese prehistoric archaeology in Russian (*Pervobytnoie proshloie Vietnama*, Moscow, 1966) that contains information on this work. I am trying to have this book translated into English and parts or all of it published but do not yet know whether this effort will materialize.

Indonesia

Archaeological fieldwork has been very difficult in Indonesia since the Second World War because of unsettled conditions and shortage of funds for this work by the Indonesian government. In spite of this, R. P. Soejono of the Indonesian Archaeological Service, made extensive surveys on Bali with several test excavations. Unfortunately, very little of this work has been published (Soejono 1963).

General

Previous to the Second World War, stone tools, particularly adzes, were the primary artifacts used in comparative studies. Heine-Geldern's subdivisions of the Southeast Asian Neolithic are based on adze and axe types (1932). In 1948 Solheim began a study on earthenware pottery in Southeast Asia and Oceania to make potsherds an available artifact as well for comparative purposes. Starting with a study of recent pottery manufacture of the total area (Solheim 1952a-b) he moved to Philippine prehistoric pottery (1957b, 1961b-c, 1964b), then to Borneo (1960, 1961d, 1966a), and then to all Southeast Asia (1961e, 1964c, 1965a-b, 1966c-d, 1967a, 1967b, n.d.). When first a general picture of prehistoric pottery could be made out, two primary pottery traditions were hypothesized for all of Southeast Asia (Solheim 1960, 1967a). As is usual for first hypotheses, when more data become available, revision is required. Such a revision is not profitable at the present time but some of the difficulties of the first hypothesis are becoming apparent (Solheim n.d.).

THE NEW DIRECTIONS

There are several new directions in which the archaeological study of Southeast Asian prehistory is moving. Most apparent during the last 10 to 15 years is the greater concentration on a limited area to work out a meaningful sequence that is reliably dated. Through this is not yet widely apparent in publication, these different programs are including more of a study of the prehistoric ecology as well. Some of the archaeologists are working towards reconstructions of specific cultural practices for which there is evidence in the sites (Solheim 1966a:56-61).

The major new interest in Southeast Asian prehistoric archaeology, it appears to me, is the early beginning of the Neolithic — *possibly the first Neolithic in the world.* Both Chang (1967) and I (Solheim, 1967c) have suggested that for the first time there is archaeological evidence to support Carl Sauer's belief that the first domestication of plants in Southeast Asia is the earliest in the world (Sauer 1952).

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Social Anthropological Research in Borneo

by G.N. APPELL

RÉSUMÉ

Il y a un besoin urgent d'études d'anthropologie sociale à Bornéo. Les travaux en cours démontrent de plus en plus la nécessité de reviser certaines notions de lignée et de parenté.

Not enough hard data yet exist to attempt a synthesis of the anthropology of Borneo[1]. Consequently, I shall take as my task here a brief review of those investigations that have been undertaken in the modern period (since 1945), drawing attention to how these have contributed to anthropological theory. As far as we now know, all societies in Borneo are essentially cognatic, and in our development of understanding of how such societies function, it is perhaps on Borneo that we should focus our attention since the variability of cognatic types there is unique.

In addition, I shall attempt to point out other problems that may be profitably tested there, organizing my discussion in terms of the political divisions of the island: the Malaysian states of Sabah and Sarawak, the British Protected State of Brunei, and finally Kalimantan (Indonesian Borneo). But before doing this, I shall briefly outline the ethnic structure of Borneo and indicate its complexity.

Synopsis of the Structural Complexity

The social types range from hunting and gathering societies in the interior and nomadic fishing groups along the coast to the

[1] I am deeply indebted for critical comments and helpful suggestions to: W. Geddes, R. Harrison, T. Harrisson, Alfred and Judith Hudson, M. A. Jaspan, R. M. Koentjaraningrat, H. S. Morris, R. Needham, R. Peranio, D. J. Tugby, C. Sather. However, I alone am responsible for the contents of this article.

remains of the state-like sultanates that were fragmented and restructured by the arrival of the colonial powers. Intermediate in complexity are the well developed irrigation societies that are found on certain of the coastal plains as well as those of the interior uplands. Elsewhere, the economy of the indigenous peoples depends on the swidden cultivation of rice, maize, and manioc. Chinese influence began early in the Christian era and has continued on up to the present so that a number of Chinese communities are also found. The coast has always been ethnically a particularly fluid area, and today a number of coastal Muslim groups from the neighboring islands surrounding Borneo have settled there. Islam spread among the coastal peoples about the middle of the second millennium, making converts among the unstable, expanding and contracting sultanates that were based around various river mouths and estuaries in order to control the trade of products from the interior for those from overseas. Spreading from these centers, Islam has continued to find converts among the indigenous peoples, both those along the strand and others further inland. The latter, on taking up Islam, frequently move towards the coast and assume a marine-based cultural ecology.

The Classification of Bornean Peoples

The ethnic classification of Bornean peoples and the delineation of the major cultural watersheds have yet to be done. Attempts at classification have been made in the past, and these have been critically reviewed by Leach (1950) with reference to Sarawak,[2] by Hudson (1967) for Kalimantan, and by Appell (1968) for Sabah. In every case these past classifications have proved to be grossly inadequate when put to the test of new techniques, such as the use of lexicostatistics by Sather in evaluating the "Tidong," or when reevaluated in the light of modern anthropological concepts and field work as in Leach's survey of Sarawak, Harrisson's investigation among the "Murut" and other groups, Hudson's among the "Ot Danum" and "Ngadju," Appell's among the "Dusun," and Needham's among the "Punan."

[2] Leach proposes a new classification based on factors of social organization.

One of the major faults of these past classifications is that they are uncritically based on the local folk categories of peoples foreign to the populations being classified and do not recognize the indigenous distinctions (Appell 1968). Harrisson (1950) has also frequently pointed out the difficulties with classifications when the local frames of reference are not considered or when ongoing processes are ignored, inasmuch as Borneo is not an ethnically stable area.

Thus, one of the problems in understanding the ethnic structure of Borneo has been the failure of anthropological models, particularly the tribal model of ethnic identification which assumes a relatively static social situation and the homogeneity of culture within any unit. As it has been used, this model also fails to consider ethnic identification in relational terms; that is, how it structures interethnic relations, with the result that the social conditions which give rise to the "tribe" are ignored and not analyzed. Murphy (1964), for example, has suggested that tribal identification only becomes operative under certain conditions of intersocietal transactions, and my research in Sabah tends to bear this out (but cf. "Sarawak" below).

At the present stage, in my opinion, the most useful and productive approach to the classification of the indigenous peoples is through the use of linguistic evidence (cf. Hudson 1967). This will require extensive field work. Cense and Uhlenbeck, after exhaustively reviewing the linguistic literature, conclude that there are not yet enough data to attempt any adequate linguistic classification.

The Social Anthropology of Sabah

I have recently reviewed the social and medical anthropology of Sabah, and, consequently, I will be brief here. A number of Dusun-speaking groups have been investigated: the Ranau by R. Harrison; the Rungus by myself; the Penampang Dusun by Glyn-Jones, a geographer; and certain interior Dusun-speaking groups by Williams.[3]

[3] Williams' conclusions have not been accepted generally by his colleagues. The issues are reviewed by Appell (1968) and in a forthcoming issue of the *Sarawak Museum Journal*.

Both the Ranau and the Rungus have cognatic social systems based upon the social entities of village and nuclear domestic family, with the latter being the most important. Neither the kindred nor any descent groups are found. The Ranau have an economy based on wet rice with individual ownership of fields, while the Rungus form a long-house dwelling, swidden-based society in which use rights to land are contingent on membership in a village.[4]

In comparison, the Chinese, the coastal Muslim, and the Murut group of peoples in the interior have been neglected. Fortier has studied a Hakka Chinese community. Sather has investigated a Sama Laut (Sea Bajau) fishing community and has found that the major functioning social units are the nuclear family, the extended family, and the village. The Murut populations have only been briefly surveyed by Landgraf. Without doubt the culturally diverse Murut peoples of the interior are in most urgent need of research, as they are undergoing rapid culture change, and yet we have knowledge of not one of their social systems much less an inventory of the various self-conscious Murut tribes or groups and the general outlines of the cultural contours between such groups.

Sather has also pointed out the need for investigations into the indigenous political systems of the coastal Muslim before these data are lost (Sather 1967). The Banggi Islanders should also be mentioned as in urgent need of research (Appell 1968).

The Social Anthropology of Brunei

Social anthropological research in Brunei is nonexistent. Harrisson has provided us with some of the major cultural outlines (1958), and he has drawn attention to the needs for anthropological work especially among the Kedayans (1959b).

The Social Anthropology of Sarawak

Sarawak is fortunate in the number of investigations that have been carried out there, but it is exceedingly complex ethnically, and

[4] As a result of investigations of the Rungus, I have reevaluated the concepts of residence, kindred, and corporate social groupings.

many interesting and crucial problems remain to be solved. T. Harrisson, Government Ethnologist and Curator of the Sarawak Museum (1947-1966), has built an extraordinarily fine museum, and it is now a repository for much important ethnological material. He has, in addition, carried on research among various groups, the Kelabit (cf. 1959a) and the Sarawak Malay in particular. A full statement of the latter is in preparation, and he plans (now that he is no longer burdened with administrative duties) to prepare a full description of the Kelabit as well.

Leach in 1947 made a brief but most penetrating anthropological survey and prepared an extremely useful summary statement of the ethnic situation (with map). His recommendations resulted in studies of the Iban, Land Dayak, Melanau, as well as a study of the Chinese by T'ien.[5]

As a result of his research among the Iban, Freeman has produced one of the best studies of swidden agriculture to date. Similar studies for other groups need to be done. His research has also resulted in a reexamination of the concept of the kindred and an analysis of the Iban family, which presents a system as yet unique to the study of cognatic societies. The Iban domestic family forms a corporate entity owning rights over land and other goods and exists in perpetuity by recruiting to it one child and his spouse in each generation, with the other children either marrying out or, after marriage, splitting off from the natal group to form a new domestic family.[6]

Geddes has not only presented his analysis of Land Dayak society in monographic form, he has also produced an exceedingly fine and sensitive ethnographic film of them and has translated the legend that describes and validates their ritual treatment of heads. Land Dayak economy is based on mixed swidden and irrigation agriculture, and rights to use land are devolved bilaterally on all descendants of the individual who originally cleared the land, establishing a descent collectivity (Appell 1967, n.d.).

Morris' study of the Islamized Melanau provides us with a description of another type of cognatic system which is based on

[5] Also see Leigh (1964) for a discussion of the Sarawak Chinese.
[6] Jaspan has recently reinvestigated Iban residence choice.

sago production with individual ownership of land and a highly formalized, preferentially endogamous, system of ranking based on birth and validated by graded bride prices. As both the Land Dayak and Melanau groups are culturally quite heterogeneous, further research among these groups could be profitably undertaken.

In addition to these studies, Peranio has investigated the Bisaya who have a "ranked ambilineal social system", and this research has resulted in reevaluation of descent concepts in the light of the developing knowledge of cognatic societies. Needham has worked with the nomadic Penan, a non-Punan group of hunters and gatherers, and has provided a description of them in a number of articles, including a comparison of their organization with the Siriono and a study of teknonymy and mourning terms. He plans to finish a monographic treatment of these peoples in the near future. He has also recommended (1960) that if the nomadic Punan, found in Kalimantan as well, are to be studied at all, field work should be initiated immediately.

Sarawak is indeed intriguing in terms of its ethnic complexity and variations in social organizations, and a number of groups need study at once before their indigenous social systems are disrupted irretrievably. For example, the Kenyah-Kayan-Kajang group of peoples all share a rather rigid class system involving aristocrats, commoners, and descendants of slaves. These classes are endogamous, and because of the small number of aristocrats in most groups, an aristocrat is more likely to find a marriagable spouse, according to Leach, in other ethnic groups than his own. Such marriages thus form the base of political alliances and integrate a number of diverse ethnic groups in one region. How this functions on a base of swidden agriculture certainly demands investigation, all the more so because most of these groups have a highly developed system of art and set of funerary practices as well. Such an investigation would in addition contribute to a much needed revision of anthropological concepts dealing with ethnic identification.

The Kajang section of these peoples is a very heterogeneous category consisting of remnant groups that were fragmented by

the expansion of the Iban and Kenyah-Kayan peoples.[7] Harrisson (1964a) refers to them as inland Melanau, and the 1960 census also includes in this category those remnant groups from the Baleh region that were dispersed by the Iban and which Leach refers to under his Bukitan class. All these groups are small and are being assimilated by the Kenyah-Kayan groups as well as the Iban. Their cultures and social systems cry out for recording, as not only would they contribute to our knowledge of cognatic systems, but they would also add immeasurably to the ethno-history of the country. They demand study for a further reason. By studying the assimilation of one indigenous group by another, perhaps some of the conceptual problems that exist in the study of acculturation (which has usually focused on the impact of Western culture on indigenous peoples) can be resolved, and studies of culture change be rejuvenated. Of these groups Needham (1960) has drawn particular attention to the Punan Ba as urgently needing research.

The Social Anthropology of Kalimantan

Relatively little work has been undertaken in Indonesian Borneo. Ave, of the University of Indonesia, has worked among the "Ot Danum" and other groups along the interior borders of West and Central Kalimantan. Nikulina, of the Institute of Ethnography (Leningrad) spent 17 months doing linguistic research along the southeast coast from Bandjarmasin to Balikpapan. Van Nasseran, of the University of Sydney, is reported to have worked in the Kapuas River region (West Kalimantan). Miles has studied the Kahayan, Katingan, and Dohoi of the Upper Mentaya region of Central Kalimantan. He has produced a number of interesting articles including one (1965a) reexamining Hertz's explanation for a secondary burial, and he concludes that Hertz unfortunately ignored its socioeconomic aspects. He has also provided a description of a type of long-house structure found sporadically now in the south of Borneo which diverges markedly from those found in the center and in the north.

[7] B. de Martinoir has studied one of these groups in the Belaga region but as yet has not published on his research.

Some of the most interesting work that has been done is that by Hudson and his wife in Central Kalimantan. Hudson has produced (1967) a very thorough linguistic classification of the languages spoken in this region as a result of the data he collected, and he has broken new and useful ground in this. Hudson also studied the Padju Epat ethnic subunit of the Ma'anjan peoples. He has produced a very interesting ethnographic description of these people and a detailed description of their secondary burial rites. In his analysis of Padju Epat social structure he describes three types of cognatic (contrary to Murdock) descent groups that control access to land, to richly carved ash repositories, and to residence in large, multiple family dwellings. I am rather hesitant to call groupings such as the latter two "descent groups" since actual membership in them is dependent on choice of residence and includes affines as well. One might better term these types of social units "cognatic-structured kin groups" in which potential rights are converted to actual rights by choice of residence, and rights for those holding none through birth may be established by marriage with a potential right holder. The crucial area, it seems to me, in the study of these cognatic-structured kin groupings is that of the rights of the affines: just how and on what basis is one's spouse included or excluded, and, furthermore, on what basis are her cognates in her generation or above excluded or included?

One of the more interesting aspects of the Ma'anjan cognatic descent groupings controlling rights to land is the structure it takes in response to changes in the availability of land. Families from crowded Ma'anjan villages frequently emigrate to form new villages in pioneer regions, and there is some indication that in these regions when land becomes scarce the nature of the kin groupings shifts to a more unilateral bias; but when there is ample land (i.e. people are scarce), bilateral affiliation is more prominent. Research on this aspect of the Ma'anjan kin groupings is crucial, for it would cast much light on our understanding of the nature of cognatic kin groups and the processes which lead to their formation.

Finally, mention should be made of Harrison's interesting account of the Maloh which is based on material from three

informants who visited Kuching. The Maloh are a group of people who stem from villages in the Kapuas River region of West Kalimantan and who travel widely as itinerant silversmiths and metal workers. Harrisson also includes a most useful inventory of peoples living in the region of the Kapuas River and its tributaries.

CONCLUSION

The inescapable conclusion from any review of the social anthropology of Borneo is the urgent need for more field work. This is particularly true for the interior groups such as the Murut peoples who will change rapidly in the next 5 to 10 years as well as those remnant groups in Sarawak. Among many of the indigenous groups there exists a rich, beautiful, oral literature in the form of chants and hymns which is rapidly disappearing and needs immediate collecting. Other opportunities exist for research in the field of religion as in revitalization movements such as the Bungan cult (cf. Prattis). There is also urgent need for ethnohistorical research of the kind done by Pringle among the Iban, particularly for the coastal sultanates, as we need to know much more of how they operated before a coherent picture of Bornean anthropology can be drawn. Since 1945 a good beginning has been made towards this goal, but unless more students go into the field in the near future, we will be left with only a motley assortment of unrelated bits and fragments.[8]

[8] I am currently compiling a list of problems, ethnic groups, and languages in Borneo that need immediate investigation before the opportunity is permanently lost. I would welcome any recommendations, and forms for such recommendations will be forwarded on request.

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Because of the necessity for brevity, I have been unable to include all references. A full bibliography will appear in my forthcoming article "The Social Anthropology of Borneo: Problems and Prospects." Also see Cotter (1965) and Appell (1968).

The following abbreviations are used here: BICUAER — Bulletin of the International Committee on Urgent Anthropological and Ethnological Research; HMSO — Her Majesty's Stationery Office; JRAI — Journal of the Royal Anthropological Institute; JMBRAS — Journal of the Malay (Malaysian) Branch, Royal Asiatic Society; Oc — Oceania; SMJ — Sarawak Museum Journal; SWJA — Southwestern Journal of Anthropology.

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Some Recent Trends in Philippine Social Anthropology

by WILLIAM G. DAVIS and MARY R. HOLLNSTEINER

RÉSUMÉ

Cette étude fait l'historique des recherches d'anthropologie sociale accomplies aux Philippines durant les quinze dernières années. On porte une attention spéciale aux concepts et aux méthodes utilisés.

While we propose to deal here with several broad trends in recent anthropological research in the Philippines, it must be noted at the outset that limitations of space and the quantity of pertinent data now available make it quite impossible for us to attempt a synthesis of all the sub-disciplines of anthropology[1]. We are, therefore, specifically excepting from consideration archaeology, physical anthropology, and linguistics. In part we are justified for this exclusion, since at least partial reviews of these other sub-disciplines are now available. Professor Solheim, for example, offers a summary of recent developments in Philippine archaeology elsewhere in these pages. There has been little activity in Philippine physical anthropology in recent years, though it is likely that, with the recent discovery of apparent *Homo sapiens* remains on Palawan at a level dated at 22,000 B.P. (Fox 1967, Jocano 1967), and even earlier remains on near-by Borneo (Brothwell 1961, Harrisson 1964), interest will increase sharply. Readers may consult Bailen (1967) for a review of what has been accomplished to date in Philippine physical

[1] We wish to thank James Anderson, Harold Conklin, Fred Eggan, Charles Frake, William Geoghegan, Charles Kaut, Henry Lewis, Richard Lieban, Ben Wallace, and Aram Yengoyan for furnishing us information and advice concerning this paper. The interpretation of both information and advice, however, is our own responsibility.

anthropology. We ignore linguistics with far less conscience, for current reviews of this work are less extensive; but a resume of the work done by the Summer Institute of Linguistics, at least, is available in Roe (1967).

Professional anthropological research has a respectable antiquity in the Philippines, and was originally stimulated by a new American colonial administration which was anxious to learn something of the nature of the populations it had undertaken to govern. By 1900 Scheerer had published a paper on the Benguet Igorots, and this was closely followed by the work of Barrows (1903), Reed (1904), Saleeby (1905), Jenks (1905), Gardner (1906), Cole (1908), and Christie (1909). From the beginning of this century research activity has continued to gain momentum, and for the most part has been directed at current issues; i.e., theoretical and methodological developments in the Philippines have tended to keep pace with those in anthropology in general. In terms of specific interests Philippine anthropology has been most influenced by developments in the United States, and this trend will probably continue for some time; although one should immediately note that the better trained Filipino anthropologists are showing considerable independence.

Tribal Minorities:

The first four decades of Philippine anthropology are characterized by a nearly exclusive concern for two primary interests, culture history and non-Christian peoples, especially the so-called "tribal" peoples. A glance at any bibliography of anthropological titles for this period makes these points quite clearly. The bibliography which accompanies the Lynch and Hollnsteiner review article of 1961 is a case in point: among the 142 titles appearing for dates prior to 1950, 130 (92 percent) deal exclusively with the customs and origins of tribal minorities.

It is not surprising that these should be the dominant interests of Philippine anthropologists for the first quarter of this century, since these were also the prime concerns of American anthropology in general. However, it is worth noting that "resident" scholarship in the Philippines remained quite conservative, and

during the 1930's and 1940's retained a pervasive concern for "history" and distributions which did not parallel wider developments in anthropology. Modern sociologically oriented studies, therefore, did not really get under way until Fred Eggan's (1941) pioneering attempt to synthesize data on social process in Mountain Province, and the appearance of Keesing's (1949) Bontoc study.

Cultural historical studies continue, of course, though they are now characterized by a greater concern for hard data, and depend less on conjecture. In recent years Keesing (1962) has sought to show that the Cordillera Central was populated in comparatively recent times, in opposition to Beyer's (1953) earlier view. Eggan, Hester, and Lietz are currently working on Alzina's 17th century history of the Visayan Islands (Hester 1962, Lietz 1962), and Lynch has recently worked with 19th century Spanish manuscripts dealing with the Bukidnon. Scott (1958, 1966) has marshalled evidence which suggests that terracing is a comparatively recent innovation among the Kalinga, Apayao, and Benguet Igorot; and Yengoyan (1960, 1967) has proposed a model to account for the initial populating of the Philippines by hunters and gatherers.

Among recent studies of minority peoples, there has been a continuing emphasis on the groups located in northern Luzon. Other areas, while not entirely neglected, are much less well reported. Recent work among non-Luzon based tribal peoples includes studies of the Magahat of Negros Oriental by Oracion (1956, 1964), of the Sulod of Panay by Jocano (1958, 1963), on the Tawi-Tawi Badjaw by Nimmo (1965), and on the Mandaya of Davao by Yengoyan (1965, 1966a, 1966b).

In the Mountain Province and adjacent areas, Dozier (1966, 1967) has recently published some of the results of his work in Kalinga, where he notes the occurrence of inter-regional peace pacts as an apparent response to an opportunity to expand trade. Scott (1966) has published a collection of papers which deal principally with Sagada, but which also deal with aspects of culture among several other Mountain Province groups. Conklin has continued to work with the Ifugao, and some of the results of this work have now begun to appear in print (e.g., Conklin

1967). However, in spite of the research emphasis which has been placed on Mountain Province groups, there is still no thorough description of an Ibaloi community. Recent accounts of Ibaloi are limited to a discussion of leadership by Encarnacion (1957) and a brief description of some aspects of Ibaloi economy by Barnett (1967).

On the synthetic side, Eggan (1963) has amplified his earlier article (1941) dealing with culture change in northern Luzon, and has incorporated data on the Kalinga which were not available for the earlier work. He is again concerned with an explanation for the increasing social and cultural complexity which is encountered as one goes from the Cordillera to the low-lands, and suggests that this is essentially a process of adaptation to wet rice cultivation. Eggan has also recently produced a comparative study of cognatic descent groups among the central Mountain Province groups (Eggan 1967), in which he notes the presence of descent groups among the Kalinga, Sagadans, and Ifugao, but not among the Bontoc.

In the same spirit of synthesis, Jules DeRaedt (1964) has attempted to isolate and compare general themes in religious practices among Mountain Province groups, and arrives at conclusions which parallel those in Eggan's 1963 paper in striking ways. DeRaedt (1964:331) remarks that:

> As we go from areas of dry cultivation through those of recent introduction of wet rice, to those with a long terracing tradition, we find two important shifts in the pantheon. The first consists of a shift from "hostile" relations with ancestors to a "friendly" one... The second change is the increasing involvement of the culture hero... in other ritual foci, especially in the agricultural cycle.

Bello's (1967) recent discussion of religious change among the Bakun-Kankanay, who have obtained terrace rice quite recently, tend to support DeRaedt's general conclusions. There is, in brief, strong evidence that variations in the complex social and ideological structures which are typical of Mountain Province groups are intimately associated with the enduring cultivation of wet rice.

Following an earlier lead by Conklin (1954, 1957) and Frake (1955, 1962), ecological studies of tribal peoples have also con-

tinued to receive emphasis. Aram Yengoyan (1965, 1966a, 1966b) and Ben Wallace (1967), working with the Mandaya and Gaddang respectively, have both demonstrated a close relationship between social structure on the one hand and the principal mode of subsistence on the other. Each worked with peoples whose subsistence activities revolve around swidden cultivation, and each has shown that similar kinds of social changes have resulted from a shift to permanent field cultivation. In these two cases the evidence suggests that the change to permanent field cultivation was induced by two kinds of factors: first, hill cultivators were more or less forced by increased population pressure and consequent progressive decay of their ecosystems to seek other alternatives; and secondly, they were found to be favorably inclined toward growing cash crops in permanent fields by a strong desire for manufactures. It was also noted in both cases that among those groups which have become sedentary there was both an increase in the scale of interpersonal relationships and an increased interest in Christianity. It might be noted that these reports show similar developments to those found by one of the present authors (Davis) among some of the Ibaloi of Alno, Benguet. In this latter case a trend toward permanent field regimes and crops was strongly encouraged by the necessity, due to land shortage, for cultivating swidden fields for longer periods of time than they could be fallowed. Among these Ibaloi the traditional eco-system could be maintained only by the collection of organic material from the countryside, which was then piled on the "swidden" plot and burned. Collectively, these findings suggest that in the near future hillside, dry-field cultivators will become "peasantized" in increasing numbers as their populations expand beyond the capacity of their traditional techno-environmental adaptations to support them. It is unlikely that this will prove to be an easy process for either the tribal peoples involved or for the nation.

Of potential importance here is the recent (1967) creation of a research agency for the Commission on National Integration, the newly organized Tribal Research Centre, which may perhaps function to focus domestic interest on tribal minorities. Hopefully, the establishment of a hill tribe research center indicates an awareness on the part of national leaders that if tribal peoples

are to become integral parts of the nation-state, they will probably require special guidance — guidance which will involve the expenditure of both sincere effort and funds.

Lowland Community Studies

The most dramatic change in Philippine anthropological research strategy in recent years has been the trend toward studies of lowland rural — and lower-class urban — communities. We have already pointed to the statistical dominance of tribal studies over studies of other kinds of social units prior to 1950. By returning to the Lynch-Hollnsteiner bibliography it is possible to document how sharp the shift to lowland community-studies has been; prior to 1950 more than 90 percent of the titles listed dealt with tribal societies, while between 1950 and 1960, 50 percent (90 of 181 titles) have concerned lowland peoples.

Partly, this shift in emphasis reflects the increased interest in studies of "peasant" communities which has taken place in anthropology generally; but it has also been due to an increasing awareness that information about the numerically dominant lowland populations is essential to a government interested in national development. However, the most immediate and efficient cause of the priority now given lowland research was the establishment, in 1952, of the Philippine Studies Program at the University of Chicago, under the direction of Fred Eggan. Indeed, prior to the appearance of Chicago-trained field workers, studies of lowland communities had been limited to a little work by Emerson Christie (e.g., Christie 1914); and during the middle 1950's the only non-Chicago lowland studies completed were those by Donn Hart (1955) and Agaton Pal (1956). Since the early 1950's a number of students, both Filipino and American, whose training was largely taken at Chicago have contributed substantially to our knowledge of Philippine lowland populations, and many have now trained students of their own. The period also witnessed the emergence of departments of anthropology and sociology in a number of Philippine universities located in Manila and two provincial cities, namely, the Ateneo de Manila, Silliman University, and the University of San Carlos. The student and faculty efforts of these new departments, of the long-established depart-

ment at the University of the Philippines, of the National Museum, and of research institutes like the Ateneo's Institute of Philippine Culture have resulted in proper lowland social research.

The recent stress on lowland studies actually produces a much more reasonable balance of effort, for the great majority of Filipinos are, of course, lowland peoples. Roughly 90 percent of the Philippine population is both lowland (or of lowland ethnic origin) and Christian. Approximately another four percent is lowland and Muslim, the latter being chiefly concentrated in southern Palawan, southern and western Mindanao, and the Sulu Archipelago. Perhaps as much as 70 percent of the total population, including both Christians and Muslims, is composed of rural smallholder-farmers who fit more or less well into the modern "peasant" social typology, though that term is not commonly used in the Philippine literature.

It has now become a near-tradition in anthropological studies of developing nations to draw a distinction between urban and rural peoples, and to speak of this distinction in terms of a "folk-urban" continuum. Interestingly enough, data on small communities in the lowland Philippines are beginning to suggest that in terms of behavior this rural-urban dichotomy may be a distinction without a difference, at least in this setting. Put another way, the *rural*-urban continuum in the Philippines does not appear to be isomorphic with a "*folk*-urban" continuum, for there are "folk" at both extremes. For example, a very provocative short paper by Lynch and his associates (Lynch *et al.*, 1966), which was based on an elaborate interview schedule given to more than 2,000 respondents throughout the Philippines, strongly suggests that there is as much behavioral variation within the *poblacion* (town) and *barrio* (village) populations as there is between them; i.e., aside from a small resident educated elite, townsmen appear to resemble strongly their rural counterparts. If this view proves to be proper, not only is the "folk-urban" continuum a concept of little utility, but studies of rural areas take on a double significance, since their results should be generally applicable to large sectors of the population, taken as wholes.

One important research problem which has received considerable specific attention in lowland communities is the nature

of interpersonal relationships; i.e., how these relationships are defined and what their normative content is. In the kinds of social units in which anthropologists have most typically worked, kinship is commonly the prime social mechanism employed for the allocation of social roles. In fact, such an argument is sometimes applied to the Philippines as a whole (Golay 1961:16, *passim*). The problem is that in the lowland Philippines kinship is not a universal role determinant, for kin categories are bilaterally defined, which means that every individual has an enormous potential number of kin-defined roles — many more, in fact, than he will be able to honor by appropriate behavior. The structure, therefore, dictates that some option must be exercised in establishing and maintaining socially important relations, and the research issue then becomes one of determining the factors which condition the directions those options take.

In this regard there appears to be general agreement that one's *primary* kin are always important, though feuds within the limits of the nuclear family, especially disputes between siblings over property, are certainly not unknown. But beyond this range, kinship is considerably less important as a determinant of rights and duties, and one chooses among both consanguines and affines on the basis of other criteria. After these choices are made, relations of an important kind are then structured and explicitly validated by reciprocal exchanges of goods and services. A similar process of selection, and being selected, is reported for Mexico by Foster (1961, 1963), who proposes for that area a "dyadic contract" model which appears also to fit many Philippine data remarkably well.

There are several forms which these reciprocal relationships may take, and these have been placed into a tentative typology by Hollnsteiner (1961). Probably the most frequently occurring form is the *utang na loob,* or "debt of gratitude" relationship, which is heavily charged with moral obligation, and which demands that any service rendered be repaid to the best of the recipient's ability. This particular kind of relationship has been discussed in some detail in an important paper by Charles Kaut (1961). When social relations of non-kin kind prove to be especially important

to the welfare of either or both parties, they are likely to be given more formal recognition by converting them into relations of *compadrazgo,* or ritual co-parenthood (Fox and Lynch 1956).

The category of persons defined by the exercise of reciprocities (consisting of Ego and those with whom he has recognized frequently validated relations) is in several ways structurally similar to the bilateral kindred; but since it includes some non-kin, and at the same time excludes some consanguines and affines, the term "kindred" would be an improper one by which to refer to such a category. Therefore, the term "personal alliance system" has been suggested (Lynch 1959, Hollnsteiner 1963), and has been widely used in recent literature. However, like the kindred which it resembles, the membership of a personal alliance system is not discrete, and overlaps with similar alliances centering on other individuals. In consequence, the "alliance" which centers on any particular person cannot be an entirely solidary group, and members are typically caught between conflicting loyalties. Interpersonal relations in the lowland Philippines, therefore, involve a more or less continuous process of choosing among persons.

Decision-making must inevitably involve a value schedule of some kind, and it is on this point — the nature of the lowland value hierarchy — that substantial disagreement among Philippine scholars is now quite apparent. At a general level of discourse Lynch (1964) has distinguished a series of norms, or "themes" which he feels are widely valued in lowland Philippine society. These have been classified as (1) aims and goals; (2) beliefs and convictions, and; (3) structural and operational principles. Held to be especially important among the three goal-themes is the matter of social acceptance, or the desire to be accepted by one's fellows for what he is, or thinks himself to be. This value is said to be closely associated with the concept of *hiya,* or "shame," and with it goes a corresponding emphasis upon the prevention and rapid resolution of conflict. The latter aspect of this theme is often referred to in a shorthand form as the desire for "smooth interpersonal relations." Second in Lynch's treatment is the value placed on economic security, or the ability to meet everyday needs without having to borrow; and third, is the desire

for upward mobility, both between ranked segments or "classes", and within them.

While no one seems inclined to question the claim that lowland Filipinos in general place great value upon economic security and social mobility, Lynch's views of the nature and priority of "social acceptance," and the related hiya and "smooth interpersonal relations" concepts have been sharply criticized. Barnett (1966) refering to Lynch's work in a somewhat oblique manner, has in effect suggested that some of Lynch's views appear to be more intuitive than founded upon empirical data. Nonetheless, he stresses the importance of pioneering exploratory hypotheses like Lynch's for stimulating research in relatively untouched domains. Jocano (1966), in a much more direct way, suggests that Lynch's comments are not only far too generally drawn, but also that he has found numerous empirical examples in which other values appear to receive more stress than do "smooth interpersonal relations." Lynch might counter that this is precisely the point: it is important that social scientists should delineate the contexts in which various groups of Filipinos reveal through patterned choices a preference for one combination of values over another (Hollnsteiner 1966). In any event, there is little doubt that the 1962 "social acceptance" article has indeed had the effect of generating discussion and further research. All things considered, debates of this kind in a literature which, for its size, is remarkably free of theoretical or methodological disagreement, may be viewed as a sign that a healthy maturation process is at work in Philippine anthropology.

Because of its self-evident practical and theoretical implications, the political process in lowland communities has also been a focus of research. Such a discussion is particularly relevant here because, as a number of writers have suggested (Lynch 1959, Encarnacion 1961, Hollnsteiner 1963, Lande 1964, and Agpalo 1965), there is a close relationship between the structure of interpersonal social relations and the political process. Indeed, the concept of the "personal alliance" which seems the *sine qua non* to discussions of interpersonal relations, appears also to provide a model by which to comprehend the social mechanisms by which power is allocated.

Briefly put, there is in the Philippines a relatively small political elite which is comprised both of elements of a traditional elite which has existed since the Spanish period and members of a "new elite" who owe their positions largely to a mobility made possible by modern demands for an educated leadership. However, while elites tend to have wealth and prestige, in a nation in which officials are elected, political power is partly dependent upon popular support. This support is only rarely obtained by appeal to political principles or by the presentation of effective programs, and for the most part it accrues to political elites through the same kinds of highly personal, reciprocal relationships on which personal alliances are founded. The structure of the *de facto* power system, then, consists of an interlocking series of personal alliances which focus on some politician or some member of the elite, or a candidate the latter is supporting. These power alliances are initiated and maintained by essentially the same kinds of mechanisms which maintain interpersonal relations in general — favors, *utang na loob* obligations, compadrazgo, and so on.

That such inter-class relations are truly reciprocal and not solely a patron-client form of exploitation has been stressed by Lynch (1959). Lynch has pointed out that elites perform services for lower-class persons which are especially important during times of hardship or life-crisis events; and, moreover, that these services would not be available at all if not offered by elites. In a subsequent discussion of the qualities of local leadership Castillo and associates (Castillo, *et al.* 1963) have supported this view by showing that not only are local political leaders called on to render material aid, but they are also the persons most frequently approached for advice on a broad range of personal matters.

In some areas, especially urban ones, relations between elites and lower-class persons are not so multi-dimensional as they are in most rural communities, and status differences can render inter-class contacts quite difficult. In the Philippines such situations typically call for the role of an intermediary, or "go-between", and political situations are no exception. But in the political sphere one is especially likely to find the intermediation role being performed by a professional or near-professional, the *lider* or

"ward-heeler" (Hollnsteiner 1963). It is the lider's task to relate the needs of actual or potential lower-class allies to the power-elite's requirement for votes, a task for which the lider, being non-elite, is readily suitable. The diagnostic structural difference between the "personal alliance" and a politician's "power alliance", therefore, appears to be that the latter is greater in size and may only be maintained through the services of intervening individuals.

However, this particular power alliance model does not apply equally well to all areas of the lowland Philippines. For example, Warriner (1964) suggests that traditional power arrangements among the Muslim Maranao are based on rights over categories of persons defined by a principle of cognatic descent from a common ancestor. Such a system not only involves a number of organizational features which differ from those of the alliance model, but also happens not to articulate well with the administrative structure of the *de jure* local government. In the modern Philippine state, power is based on a principle of authority over a territorially defined administrative unit, while in traditional Maranao organization power arrangements stress rights over persons, irrespective of territorial considerations. Warriner points out that the resultant confusion of jurisdictional authority is an important factor in the failure of local community development and technical aid programs to be sustained, even when they are popular with local people.

Also of importance here are the results of several important studies dealing with the nature of the family and socialization processes in lowland communities. As we have previously indicated, literature on the lowland Filipino family stresses the importance of the primary kin group in ordering social relations, and the family unit is often treated as if it were invariable and homogeneous in all lowland communities. Two recent studies, however, provide considerable evidence to show that such simplistic treatment of socializing units ought, in principle, to be avoided. Ethel Nurge (1965), working a Leyte village community, discovered so much variation in households that she found it necessary to construct an eight-fold classification scheme in order to handle the data. There is, in retrospect, some question concerning the degree to which the variation she reports represents

differences in household "types", and the degree to which it might rather be held to represent different phases in a household developmental cycle, but the fact of variation is undeniable in Nurge's data. In urban Malate, Eslao (1966) has gone a step farther and considered the nature of household constitution over time. In doing so she has been able to show that the households in her sample all tended to go through very similar sequences of extension and fragmentation as a natural consequence of the developmental cycle in the lives of their constituent members.

Family and socialization studies in lowland communities also often point to the strong emphasis upon conforming to local norms which such populations exhibit. Thus in a village community in Ilocos Norte (Nydegger and Nydegger 1966) it has been shown that roles are very rigorously structured along lines which remain more or less consistent for persons in all age categories. Further-more, the evaluation of any individual's performance is not made "rationally" in terms of how effectively he accomplishes goals he sets for himself, but in terms of how well he lives up to community expectations, notwithstanding however much he may grumble in the process. In a similar fashion Lieban (1962) notes that in his village of Negros, ideas concerning illness were utilized to maintain community norms; i.e., the threat of illness prevented barrio people from seeking goals they could not realistically hope to attain. However, the Nydeggers also note that the power of the community to maintain a high degree of role conformity tends to be sharply diminished by an increasing frequency of extra-village relations which new economic alternatives are likely to encourage. As the amount of neighborhood interdependence is decreased, they indicate, so is community solidarity.

Several recent studies have suggested that much of the ordering or social relations in lowland communities revolves around rights in, and use of, productive property, especially land. Anderson (1962), for example, suggests that in his rural community in Pangasinan rights to land virtually define one's other social statuses. More recently (1964) he has argued that real property is the basic consideration in determining residence choice, a prime sorting factor in the process of choosing among kinsmen,

and a factor which strongly influences selection of spouses. In fact, the preference for second-cousin marriage in this community seems directly attributable to the desire to avoid fragmentation of property by reducing the potential number of kin who might place claims upon it. Anderson points to the non-self perpetuating nature of kin groupings in this bilateral kin system, and agrees with Frake (1960) that what seems to be continous in bilateral systems is not so much the nature of objective social groupings as the process by which these groupings are formed. Yet Anderson shows that even here some kin groups are perpetuated across generations. These latter he refers to as "family lines," and stresses that they revolve around large estates which are maintained through time, largely by the recombination of heirs which results from preferential second-cousin marriage. In short, it appears that where stable kinship groups are found in this bilateral kin system they are formed by combining a principle of cognatic descent with rights in a specified estate. Roughly similar kinds of descent groupings have been noted for some mountain peoples (Eggan 1960, 1967) and among some Muslim populations (Warriner 1964; Mednik 1965).

If rights in property are important foci for the organization of social relations, then it should follow that as these rights vary so should behavior in related sub-systems. This particular hypothesis was the subject of a study by Lewis (1967), in which a barrio in the Ilocano homeland of Ilocos Norte was compared to an Ilocano "pioneer" barrio in Isabela Province. The principal differences in property relations between the two areas were first, the greater availability of land in Isabela; and second, a corresponding increase in the size of fields actually held and worked in the same area. It was found that many social relations varied in correspondence to these man-land relationships. For example, on the Ilocos coast, where land is in short supply and land holdings small, social relations were found to be "attenuated", reciprocal exchanges of goods and services were much less stressed, disputes among kinsmen over land much more marked, and barrio boundaries less functional in delimiting a social unit of any perceived importance. Lewis' findings also verify a point made earlier by Scheans (1965), who showed that the older generations' ability to confer or withhold rights to land is a powerful sanction used

to maintain the superordinate-subordinate relationship between generations. In short, many of the features, such as hard work and frugality, which are held to be characteristic of Ilocanos in general were shown by Lewis to be the outcome of a particular set of economic and ecological circumstances which exist in the Ilocos area of the Philippines.

The paramount position occupied by property-rights as a determinant of social choice is so frequently reported for lowland populations in general that one is forced to the rather obvious conclusion that effective land reform and agricultural development programs will have a profound effect on the nature of barrio social life and political processes.

New Perspectives

In recent years a few Philippine anthropologists have been involved in the evolution of a new methodology which has drawn more general attention to Philippine anthropology. The principal persons involved are Harold Conklin and Charles Frake (though diffusion is taking place rapidly), and the methodology to which we refer is the formal semantic analysis of ethnographic data, or "ethnoscience." While ethnoscience is claimed to be no more than a new method for the gathering and assessment of data, it is obvious that its impact on theoretical developments is potentially profound.

Ethnoscience is, above all, a call for more sound ethnographic description; but it also takes the theoretical position that culture is best understood by the use of techniques which render it intelligible to the observer in the same way that such matters are intelligible to informants themselves. Its adherents therefore argue that ethnography properly consists of the attempt to understand the ways in which actors perceive, interpret, evaluate, and act upon experience; or to put it another way, ethnoscientific approaches stress the determination of ideological criteria by which persons make decisions, as opposed to an emphasis upon the objective, behavioral results of those decisions (Goodenough 1961:1343). While other kinds of theoretical-methodological choice-making models, such as those in economics, also deal with decision-making

procedures, these other approaches are concerned, first, with objective behavior from which choice-making procedures and valuations are inferred. Ethnoscience, on the other hand, aims at replicating as nearly as possible the evaluation of alternatives as they are "actually" evaluated by the persons being studied.

The chief admissable criticism in current critiques of ethnoscientific methodology seems to us to be the extent to which formal analysis of an ideational order can be employed to account for objective behavior. Goodenough argues forcefully that cognitive frameworks can be anticipated to account for behavior, setting forth the view that the "phenomenal order is an artifact of the ideational", and holding that the relationship between the ideational and the phenomenal is analogous to the relationship between genes and their phenotypic expressions in inbreeding populations (Goodenough 1964:12). Conklin, (1964:47; emphasis added) however, does not dismiss behavior so lightly:

> While complete isomorphism between semantic and pragmatic structural relations cannot be anticipated, and we do not hope to discover mechanical laws of causality in comparing such structures, we may hope to achieve a productive correlational analysis such that we will first be able to isolate major discontinuities ... and then be in a position to demonstrate effectively *how* they are interrelated.

Conklin's statement which proposes that we also relate semantics to behavior in a systematic way, is clearly the more acceptable.

Because of their central position in anthropological study, and because they constitute more or less discrete universes of data, kinship systems have been popular objects of analysis for ethnoscientists in general. For Philippine data, Conklin (1964) has worked through a Hanunoo genealogy in order to demonstrate the rigorous procedures which the ethnoscientist follows in working from data collection to the derivation of abstract rules and assessment of behavioral correlates. Lynch and Himes (1967) are, among other things, working on "cognitive maps" of Tagalog kinship systems; and Geoghegan has recently worked on the principles employed by members of a Samal population in producing an address terminology.

However, Philippine ethnoscience studies are more noteworthy for their demonstration that this methodology is a gene-

rally applicable conceptual tool, useful for analysis of the broad range of cultural categories, and is not limited in application to systems of kin terminology. Conklin, for example, actually published his paper on Hanunoo color categories (1955) prior to the appearance of Goodenough's now-celebrated paper on Trukese residence rules (Goodenough 1956), and has produced a recent analysis of some aspects of Ifugao ethnobotany (Conklin 1967). Frake has worked on Subanun disease concepts (1961), and has employed Subanun religious behavior as a device for demonstrating a suitable test for the adequacy of ethnographic description (Frake 1964). Most recently, Geoghegan (1967) has shown that what appears objectively to be a matrilocal residence among the Samal of Tagtabon Island can, by formal analysis, be shown to be perceived very differently by the Samal themselves. There is, in fact, no "rule" for residence, but a large number of variables among which individual Samals choose; and the "matrilocal result is but the outcome of many individual choices, each of which has involved weighting several factors. It is theoretically possible, therefore, that a change in the value of one of the factors (e.g., the mean number of children) could alter objective residence behavior without any corresponding change in the Samals' process of evaluation. For this reason Geoghegan suggests that this kind of analysis offers much greater control over the variables which must be considered in treatments of culture change; i.e., one now has the methodological techniques necessary to distinguish change in the ideological order from that in the phenomenal.

It seems apparent, therefore, that at the least, ethnoscience methodology lends rigor to the analysis of some areas of culture concerning which we have long had either impressionistic data, or none at all. Consequently, it is likely that research utilizing this methodology will become more popular, and that ethnoscientific analysis will be applied to an increasing variety of data universes. This would seem especially important in a society in which choice-making is such a common process in daily life as it is in the Philippines.

APPENDIX

Anthropological Research in Progress in the Philippines

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Anthropological Research in Micronesia

by LEONARD MASON

RÉSUMÉ

Bien que la Micronésie a été l'objet de recherches depuis de nombreuses années, ce n'est que dernièrement qu'on peut dire que cette région est bien documentée. L'auteur fait un relevé de plusieurs publications qui méritent d'être mieux connues et il décrit les nouvelles tendances dans les études courantes d'anthropologie micronésienne.

In the present decade Micronesia finally has come of age in its significance to the anthropological profession. Essentially unknown as a world region by American anthropologists before World War II, its literature existed mainly in German and Japanese, the languages of the successive administrations that held responsibility for most of the islands after 1898. When Japan in 1945 relinquished its authority in the once mandated area, American anthropologists were quick to move in as participants in two comprehensive research programs aimed at learning more about the peoples and cultures of Micronesia.

The U.S. naval military government and the U.S. Commercial Company in 1946 cooperated in the Economic Survey of Micronesia under Douglas Oliver's direction. Anthropologists Bascom (Ponape) Hall (Truk), Mason (Marshalls), and Useem (Palau and Yap) took part in that survey. Their monographic reports are available on microfilm in the Library of Congress. In the following year, the Pacific Science Board (National Academy of Science-National Research Council), with funds from the Office of Naval Research, launched the Coordinated Investigation of Micronesia (CIMA) under the overall supervision of George P. Murdock. Nearly 40 anthropologists from 20 universities and museums undertook fieldwork in the Marshalls, Carolines, and

Marianas from 4 to 6 months each. Their research reports have appeared independently as monographs and journal articles since that time (Pacific Science Information Center 1963). In 1949 the Board extended that activity to other scientific fields in a program called Scientific Investigations in Micronesia (SIM). Some anthropologists, as part of SIM, worked with other scientists in the Coral Atoll Research projects at Arno (Mason), Onotoa (Goodenough), and Ifaluk (Burrows). (For a bibliography of SIM research, see Pacific Science Information Center 1964.)

In 1953 Mason and Lessa, the latter in German, published short surveys of anthropological work in American Micronesia. Both reviewed the several programs noted above and appended bibliographies. In the same year the Tri-Institutional Pacific Program (TRIPP) was inaugurated by the Bernice P. Bishop Museum, the University of Hawaii, and Yale University with funds from the Carnegie Corporation of New York. Program development was guided by a tri-institutional committee chaired by Alexander Spoehr. Although its scope extended to all of Oceania and the social sciences generally, TRIPP did finance projects of an anthropological nature relating to Micronesia, namely, those of Dyen, R. and M. Force, Grace, Lambert, Mason, Osborne, and Sturtevant. As with CIMA, the TRIPP researchers reported their findings independently (Pacific Science Information Center 1966). The journal *Asian Perspectives* from 1957 to 1961 carried reports of publication and work in progress on Micronesian prehistory compiled by Allan Smith (1957, 1958, 1960, 1961).

From 1961 no systematic review of anthropological research in Micronesia has appeared, although the *Information Bulletin* of the Pacific Science Association, issued from that office in the Bishop Museum, includes occasional notes about published or ongoing research in these islands. Consequently, the profession is generally uninformed about the University of Oregon's 5-year program to study cultural change in displaced Pacific communities, directed since 1962 by Homer Barnett, under a grant from the National Science Foundation. This has included, among others, field studies of Gilbertese in the Solomons by Knudson (1964), southern Gilbertese by Lundsgaarde (1966), Marshallese at Kili and Ujelang by Kiste and Mason, the Lib people at Kwajalein by

Perlin, and Kapingamarangians at Ponape by Lieber. Another comprehensive institutional program is the study of 10 languages (Marshallese, Kusaien, Ponapean, Trukese (Lagoon), Trukese (Western), Woleaian, Ulithian, Yapese, Palauan, and Chamorro) in the American trust area, initiated recently at the Pacific and Asian Linguistics Institute (PALAI), University of Hawaii, with a grant from the Peace Corps for production of dictionaries, grammars, and teaching materials (Topping 1967).

The Anthropology Department at the University of Hawaii in late 1966 issued the first number of a bulletin intended to serve as a clearinghouse of information on new publications, research in progress, and plans for anthropological work in Micronesia, as well as developments within the area which might interest Micronesian specialists. Two issues of this Micronesian Program Bulletin have been distributed to date, but a bimonthly schedule is now planned in order to keep the profession abreast of the heightened activity in Micronesia.

Scope of the present survey

A word is needed about what is and is not included in the present survey. Space limitations preclude any elaboration on anthropological issues, theoretical or methodological. The discussion will be essentially referential, to point the way in a scattered literature for readers who may wish to explore certain topics for themselves. Of the more than 200 titles listed here, 90 percent are either portions of books on larger subjects or journal articles, some of which were discovered in the most unlikely places as seen by a Micronesian specialist.

The period covered in this survey goes back to 1954 since the intent is to update the surveys written in 1953. Any publication that contained material on a Micronsian people or culture was sought out. Less care was taken in looking for titles in physical anthropology and linguistics, compared with social/cultural anthropology and archaeology, because studies in the first fields frequently appear in journals not ordinarily consulted by most anthropologists and may remain lost to the Micronesian researcher even when he attempts to keep informed. For language

reasons I could not consult the literature in Japanese, and some German publications demanded more effort in translation than I could afford at this time. A few works, known to me by title, could not be obtained for review in the libraries at hand. Some of these are listed here when the title clearly indicates the content. Unpublished doctoral dissertations and master's theses present a special problem in systematic search, and I decided to postpone that probably large task for another time.

Information about the existence of additional references will be appreciated. Such titles, as information is received, will be publicized in future issues of the University of Hawaii's Micronesian Program Bulletin.

Trends

After the first flush of publication from the CIMA program, a lull developed in the mid-1950's and it seemed as if Micronesia might revert to its earlier anthropological obscurity. However, in 1957, John deYoung, staff anthropologist in the American trust area, began editing a series of *Anthropological Working Papers,* written on topics of practical interest by district anthropologists and their Micronesian assistants. This series ended in 1961 with the waning of administrative emphasis on anthropology. A resurgence of publication elsewhere occurred in 1964-66, with some 23 titles appearing in 1966, 5 of which were abstracts of papers read at the 11th Pacific Science Congress in Tokyo. The number of anthropologists now or recently in the field promises a continuation of this upward trend.

Topically, few significant trends can be noted. Archaeology, ethnohistory, and physical anthropology are getting more attention as new workers enter the field and as a consequence of Micronesia's growing importance in the clarification of Oceanic culture history in both prehistoric and early contact times. Structural linguistics is better represented as research has moved from an exclusive concern with problems of classification to include also those of morphology, syntax, and style.

One interesting trend is reflected in the changing personnel of Micronesian anthropology. The year 1960 seems to be the

dividing line between the "old-timers" and the "new-comers." Earlier, one reads the names of Barnett, Burrows, Garvin, Gladwin, Goodenough, Lessa, Riesenberg, Schneider, and Spiro, all of whom took part in CIMA and continued for several years to bring out studies that utilized those field data. Others, like deYoung, J. Fischer, Mahony, McKnight, Smith, and Tobin (Gladwin and Barnett are in this group also) were part of the Trust Territory anthropological staff and drew on that experience for much of their writing. Still others, such as Gifford, Mason, and Spoehr, worked in Micronesia out of their respective institutions. Of the older generation only a few have continued to be active in the Micronesian field, namely, J. Fischer, Gladwin, Goodenough, Lessa, Mason, and Riesenberg. Mahony and McKnight have both returned to academic life and promise to maintain their identification with Micronesian research. R. and M. Force and Osborne (all TRIPP participants) and Swartz (on an independent grant) provide a bridge between the earlier and later periods, but Swartz has since transferred his interest elsewhere.

Since 1960 many young people have appeared on the scene, about half of whom are students of earlier workers. Names like Alkire, Carroll, Chapman, Davidson, Hainline, Knudson, Lambert, Lundsgaarde, Reinman, and Silverman are rapidly being established in the literature. Maude from Australia, de Beauclair from Taiwan, and Koch from Germany are other names that distinguish this more recent group. An outstanding characteristic of this later period is that field financing has been mainly institutional or obtained individually in grants, e.g. from the National Science Foundation or the National Institutes of Mental Health.

GEOGRAPHIC COVERAGE

The term Micronesia, as commonly interpreted by Oceanists, refers to four island archipelagos and two single islands. The Marianas, northernmost and in the west, include Guam, Rota, Tinian, Saipan, and smaller high islands to the north. The Carolines, closer to the equator, consist of Palau, Yap, Truk, Ponape,

and Kusaie as high islands, west to east, and numerous smaller coral islands and atolls. Eastward lie the Marshalls and Gilberts, low coral groups with a northwest-southeast orientation, the Gilberts being more southerly and straddling the equator. Banaba (Ocean) and Nauru are two isolated, raised coral islands located west of the Gilberts and just south of the equator. Over this arrangement is superimposed a political pattern which segregates the Gilberts and Banaba as British, Guam as American, Nauru as an independent territory, and the rest of Micronesia as a United Nations trusteeship administered by the United States.

In the following, only those references are cited that aid in estimating the extent of anthropological activity in each region during the survey period. Other references may be found in the appended bibliography.

Marianas.

Comparatively little work has been done among these islanders who are the most acculturated of all Micronesians. Spoehr's study of Saipan (1954) is the only detailed analysis of the contemporary culture. More interest is evident in prehistory, e.g. Spoehr's archaeological survey and excavations on Saipan, Tinian, and Rota (1957), Reinman's informative preliminary report (1966) of his recent site survey on Guam, and two brief statements by Yawata on burial customs (1961) and rice cultivation (1963) among the ancients. For the first time an analysis of Guamanian blood groups is available (Myrianthopoulas and Pieper 1959).

Palau.

Palauan society is analyzed by Barnett in his view of how a Palauan might see it (1960), by R. Force in a study of changing patterns of leadership (1960), and by McKnight in an unpublished dissertation on competition (1960b). Turning to language, R. and M. Force (1961) discuss figures of speech, and McKnight (1961) examines mnemonic devices as aids to communication. McKnight additionally has drawn on his broad experience to describe rock paintings (1964), a master-apprentice

system stimulated by a Japanese model (1959), and the cultivation of breadfruit (1960a), yams (with Obak 1959), and taro (with Obak 1960). Both R. Force (1959) and Ritzenthaler (1954) comment on Palauan bead money, Force being more concerned with its provenience. Osborne's monographic treatment of Palauan archaeology (1966) raises many historical questions that should attract still other archaeologists to this area.

Yap.

The Giffords' archaeological excavations (1959) reveal affinities with the Marianas. The historical tie with Palau is considered by de Beauclair in reviews on pottery (1966a), stone money (1963b), and glass beads (1961, 1962, 1963a). The relationships between descent, kinship, political organization, and supernatural sanctions are explored by Schneider (1957a, 1957b, 1962). De Beauclair slants her contributions on religion and magic in a more historical vein (1963c, 1966b). Yap's depopulation is investigated in its biological, demographic, and cultural aspects by Hunt, Kidder, and Schneider (1954), while Schneider alone views it in the context of abortion practices and Yapese values (1955). New to the area is Hainline who has recently worked in Yap on the influence of population attributes on serological variation as a field check of her earlier interpretation of published Micronesian data (1966). One of Yap's young men, Francis Defngin, an assistant district anthropologist without formal training, has contributed papers on naming customs (1958) and the cultivation of yams (1959) and taro (with Kim 1960).

Coral islands west of Truk.

That Lessa dominates this literature, in his focus on Ulithi and comparisons with other peoples between Palau and Truk, is evidenced by his studies of Ulithian personality (with Spiegelman 1954), social effects of a typhoon (1964), population dynamics (1955; with Myers 1962), divination (1959), mythology (1956a, 1956b, 1961b, 1962a, 1966a), and a Ulithian ethnography (1966b). Ifaluk is well represented due to Burrows' work on

music (1958) and the verbal arts (1963), and Spiro's analysis of religious beliefs and psychological forces (1959). Alkire (1965) adopts an ecological approach to describe the socioeconomic life of the interrelated Lamotrek-Elato-Satawal peoples. A curious writing system known today among islanders from Eauripik to Lamotrek is interpreted by Riesenberg and Kaneshiro (1960) as probably due to stimulus diffusion. The Southwest Islands (Sonsorol, Pulo Anna, Merir, and Tobi) are represented only by references in McKnight's accounts of taro, yam, and breadfruit cultivation cited above for Palau.

Truk.

Truk's place in the Micronesian literature is truly unique. The number of references and authors is almost double that of any other region, and yet nearly every study is based on field data from Romonom Island in the Truk Lagoon, site of the Yale CIMA project in 1947. Dyen, linguist in that group, gives us a sketch of Trukese grammar (1965b). LeBar concentrates his effort on material culture (1963, 1964a, 1964b). Goodenough reworked some of his material in more rigorous analyses of social relationships (1956a, 1963b, 1965a, 1965b). Gladwin, last of the CIMA project to be cited here, continues his interest in Trukese personality by evaluating individual case histories (with Sarason 1959; 1960b) and investigating sociocultural influences in learning and thinking (1958, 1960a, 1964). A. Fischer, at Romonom two years after CIMA, reports on reproduction practices and beliefs (1963). J. Fischer, who was district anthropologist at Truk and Ponape respectively, exchanges views on a definition of residence (1958a) with Goodenough (1956c), both of them using Romonom data. Much later, Swartz selects Romonom as a field site for his social analyses (1958, 1959, 1960, 1962). Schneider has reworked and published data on Trukese kinship for a comparative study of 6 matrilineal societies (1961).

Mahony, who succeeded J. Fischer on Truk, writes in the Trust Territory series about naming customs (1958), taro cultivation (1960c), and the innovation of a savings system on Moen Island (1957, 1960a). Goodenough, most recently, proposes a simple orthography for Trukese place-names (1966a) and ac-

companies his discussion of their meanings with a fold-in map of Truk Atoll.

J. Fischer is unusual among Micronesian anthropologists in that he generally employs the method of microethnology, or small-scale comparison of historically related societies. Thus, he draws upon his extensive data from both Truk and Ponape to produce comparative treatments of totemism (1957) and oral literature (1956, 1959a, 1960, 1965; with Swartz 1960), seeking a socio-psychological meaning for the differences. He analyzes his method in a chapter (1968) of an introductory textbook by Clifton, who earlier employed the same tactic in an ethnohistorical comparison (1964) of external political controls on Truk and Ponape. J. and A. Fischer, in a nontechnical handbook (1957), describe the peoples and cultures of the Truk and Ponape administrative districts.

Ponape.

In addition to his comparative treatment of Ponapean and Trukese culture, J. Fischer uses ethnohistorical documentation to determine the time and cause of abandonment of ancient Nan Matol (1964), examines Ponapean interrogatives (1966a) and respect language (1966c), analyzes an Oedipus tale (1966b) and proverbs (with Riesenberg 1955), and cites his Ponapean kinship data in a general discussion of primary kin terminology (1959b). Pensile Lawrence, a Ponapean who is assistant anthropologist and curator of Nan Matol, gives accounts of naming practices (with deYoung 1958) and yam cultivation (with Mahony 1959). Mahony, while district anthropologist, also wrote on taro cultivation (1960b), although his present identification with medical anthropology is anticipated in an article on totemism and allergy (with J. and A. Fischer 1959). A correction of the historical record is offered by Riesenberg (1959) regarding an early description of Ponape. Garvin draws upon field data he collected on Ponape during CIMA to illustrate several methodological proposals in structural linguistics (1954a, 1959, 1962a, 1962b).

Nothing is available in the period of this survey for Kusaie or the intervening atolls of Mokil and Pingelap.

Polynesian outliers.

The Bishop Museum's investigations on Kapingamarangi would appear to be complete with Emory's publication (1965) on the social and religious life of this Polynesian community in the eastern Carolines. Meanwhile, for Nukuoro, we have preliminary reports of recent field studies by Carroll in linguistics (1965) and Davidson in archaeology (1966, 1967). J. Fischer, comparing cognate folktales from both Polynesian outliers (1958b), seeks to explain their different character by differences in their social structures.

Marshalls.

The earlier work by Spoehr and Mason has been little supplemented in the period under consideration. Mason has two articles (1957, 1958) which are only preliminary to his long-term research on the Bikini resettlement. Four student reports in a recent University of Hawaii field training program describe the changing community at Majuro (Mason 1967a). The Trust Territory anthropological series includes papers on naming customs (Bikajle and deYoung 1958) and taro (Bikajle 1960) and breadfruit (Mackenzie 1960) in which Marshallese Tion Bikajle, former assistant anthropologist, shares credit with agriculturest Mackenzie. The traditional system of wave navigation and stick charts is reviewed by Davenport (1960, 1964) and Hops (1956). Sussman *et al.* (1959), in a serological study of the Rongelap population, reminds us of the continuing government program of medical surveillance at this atoll which was exposed to radioactive fallout in 1954.

Gilberts.

Once poorly known anthropologically, the Gilbertese in this decade are being investigated most actively. Their material culture has been detailed by Koch (1965); in another study (1966), he reports no cultural merging of these people with the Polynesian Ellice islanders to the south, as formerly assumed by migration theorists. Luomala continues to utilize her Tabiteuean field data in studies of folklore (1965, 1966). Following a brief study of Onotoa, Goodenough draws upon his observations of land-related

kin groups to support a modified version of early Malayo-Polynesian society (1955). He also uses Onotoan examples of cultural change (along with others from his Trukese experience) in his interpretation of "cooperation in change" (1963a). Lambert fills the void concerning northern Gilbertese society by his analyses of fosterage (1964), ambilineal descent groups (1966a), and the economic functions of chieftainship (1966b). Ethnohistorian Maude has produced a major work on the evolution of the Gilbertese *boti* (1963), and with Leeson depicts the history of an early trade activity (1965). First reports from the University of Oregon's research program on displaced populations are Lundsgaarde's reconstruction of southern Gilbertese life in the 1930s (1966), and Knudson's contemporary study of Gilbertese resettlement in the Solomons (1964). Working independently, Silverman in a progress report (1962) describes his research with the relocated Banaban community in Fiji.

No Nauruan studies are known for this period in which these people considered alternative locations for settlement and achieved political independence.

Micronesia (general).

A number of writers have attempted to view all or most of Micronesia on selected topics. In physical anthropology, Hainline (1965, 1966) and Hunt (1966) examine biological variation with reference to possible ecologic, demographic, and sociocultural determinants. Izui (1965), using data collected before World War II, considers the diversity and unity of Micronesian languages. Barrau treats the ethnobotany of Micronesia and Polynesia together (1961), judging both to be like enough to warrant a single publication. Land tenure patterns in the six Trust Territory districts are summarized by the district anthropologists (deYoung 1958c); the *Anthropological Working Papers,* a series already discussed, deal in similar manner with other topics. Mason examines the relationship between ecology, economic process, and suprafamilial authority in seven atolls (1959), describes the principal art media and their distribution in pre-contact Micronesia (1964b), and attempts a summary of traditional Micronesian ethnology (in press).

For ethnohistorians, Lessa contributes a comprehensive evaluation of early descriptions of Carolinian cultures (1962b). Worthy of mention here is a project initiated by McKnight (1967) which aims at content analysis and selective translation of Japanese studies in cultural anthropology of mandated Micronesia between 1925 and 1940. Chapman (1966) reports briefly on some 60 items in Japanese which relate to archaeology and material culture in the same area.

On the contemporary scene, R. and M. Force (1965) review political changes which have occurred in American Micronesia. For Trust Territory administrators, A. Smith (1956) offers a set of basic principles to guide the interaction of Americans and Micronesians. The relationship between administrators and anthropologists, primarily in the trust area, is examined extensively by Barnett (1956) and Gladwin (1956). In restricted distribution is a paper prepared by Mason (1967c) for the American Anthropological Association's committee on research problems and ethics, which surveys the situation in Micronesia and finds the present climate favorable for anthropological research.

TOPICAL COVERAGE

The following discussion will distinguish (1) prehistory, (2) contact history, and (3) contemporary anthropology. Some new sources will be introduced here when they are more relevant to topical than geographic interests.

Prehistory.

No comprehensive theory of Micronesian culture history has yet been attempted. Speculations about origins and population movements are generally made within the limits of biological, archaeological, linguistic, or ethnographic evidence.

In biological anthropology, the evidence is serological. Simmons (1956, 1962), the only one working with samples from all over the Pacific, finds Micronesians not only variable but quite distinct from the Polynesians.

In archaeology, speculation is confined to relationships between westernmost Micronesia and the Philippines, Malaysia, and possibly New Guinea. This is evident from the works of Spoehr (1957) and Yawata (1961, 1963) for the Marianas, Osborne (1958, 1961, 1966) for Palau, and the Giffords (1959) for Yap. Solheim (1964) makes some wider judgments on the basis of an areal distribution of pottery elements throughout the western Pacific.

The linguistic evidence is derived mainly from language classifications based on lexical comparisons within the larger context of Oceanic relationships. Grace (1955, 1961, 1964), Sturtevant (1955), Milke (1958), Capell (1962), Dyen (1962, 1965a), and Dyen's work summarized by Murdock (1964), all take generally similar positions on the classifications of Micronesian languages (admittedly on rather sparse data): Nauruan and Yapese for the present are seen as aberrant, Palauan and Chamorro as related to Indonesian, Nukuoran and Kapingamarangian as Polynesian, and the remainder as a major subgroup derived from southeast Melanesia and collaterally related to Polynesian.

Ethnographically, Ritzenthaler (1954), R. Force (1959), and de Beauclair (1961, 1962, 1963a) see possible Indonesian and Asian affinities suggested by Palauan and Yapese bead money. Lessa (1956b) compares Oedipus-type tales from Micronesia with those from other parts of Oceania and Asia. Goodenough (1957), citing Sharp's theory of drift voyages, proposes a westward migration to account for Micronesian settlement east of Yap and Palau. Koch (1966) separates the Gilberts from the Ellice Islands as the cultural boundary between Micronesia and Polynesia. Green (1967) and Howard (1967), examining earlier theories of Polynesian migrations through Micronesia, find such to be untenable in the light of present knowledge.

Contact history.

Relatively few studies fall into this category. Some throw light on traditional practices long forgotten, others permit fuller understanding of early contact situations. Both types involve the primary use of documents.

Lessa reviews documentary sources that pertain to early Carolinian cultures (1962b). Riesenberg uncovers a plagiarism perpetuated in the Ponapean literature (1959). The decline of Ponapean rulers at Nan Matol is clarified by J. Fischer (1964). Solenberger (1960) documents the movements of atoll Carolinians to the Marianas in the 18th and 19th centuries. Maude (1963) traces the origin and development of the Gilbertese *boti*.

Maude and Leeson (1965) describe a little known trade activity in the Gilberts. Maude (1964) studies the influence of beachcombers and castaways on Pacific societies, and cites specific instances in Micronesia. Clifton (1964) explains the different reactions of Ponapeans and Trukese to German colonial administration. Riesenberg and Kaneshiro (1960) follow the introduction and spread of a syllabic script in the "Woleai" area. The Micronesian Seminar at Woodstock College (1965-67) is translating a series of Spanish and German documents which describe Catholic mission activities.

Contemporary Anthropology.

The studies cited below range throughout the entire anthropological discipline, but none are directed primarily toward historical problems.

The interrelationship of biological, ecologic, demographic, and sociocultural phenomena is approached in various ways by Hainline (1965, 1966), Hunt (1966; with Kidder and Schneider 1954), Lessa (1955; with Myers 1962), and Schneider (1955). Anthropologists here will find Wiens' work on atoll ecology (1962) a useful reference.

Archaeological work is described by Reinman (1966) and Davidson (1966, 1967), and Chapman (1966) has compiled a list of Japanese publications in archaeology and material culture. LeBar (1964b) and Koch (1965) have monographs on material culture. Other works in this area are selected topics (house and canoe construction, stick charts, cult objects, pottery, stone money and images, and rock paintings), e.g. LeBar (1963, 1964a), Gladwin (1958), Hops (1956), Davenport (1960, 1964), Damm (1955), de Beauclair (1963b, 1966a), Hijikata (1956), Osborne

(1958), and McKnight (1964). Subsistence activities, mainly the cultivation of breadfruit, taro, and yams, are explored in Barrau (1961), deYoung (1957a, 1959a, 1960a, 1960b, 1960c), and Yawata (1963).

Traditional economic practices and land tenure systems are treated in deYoung (1958c), Lambert (1966b), Luomala (1965), and Mason (1959). Changing economic patterns and innovations are discussed by Mahony (1957, 1960a), McKnight (1959), and Mason (1957, 1967a). Best represented of all are studies of kinship, residence, descent groups, and status and role, for example, Alkire (1960, 1965), Emory (1965), J. Fischer (1955, 1956, 1958a, 1959b), Goodenough (1955, 1956a, 1956b, 1956c, 1963b, 1965a, 1965b), Lambert (1964, 1966a), Luomala (1966), Maude (1963), McKnight (1960b), Murdock (1955), Schneider (1961, 1966a), Spoehr (1954), Stillfried (1956b), and Swartz (1958, 1960, 1962). More directed toward political organization are works by R. Force (1960), Mason (1959, 1967a), Schneider (1957a), and Swartz (1959).

Statements about religious culture come from de Beauclair (1963c, 1966b), Emory (1965), J. Fischer (1957; with A. Fischer and Mahony 1959), Lessa (1959), Schneider (1957a, 1957b), Spiro (1961), and Yawata (1961). Myth and folklore have taken the attention of Burrows (1963), J. Fischer (1958b, 1959a, 1960, 1966b; with Riesenberg 1955; with Swartz 1960), Lessa (1956a, 1956b, 1961b, 1962a, 1966a), and Luomala (1965, 1966). Burrows' study of music (1958) and Mason's survey of visual arts (1964b) are the only major works in this area. Linguistic studies of phonology, morphology, syntax, style, mnemonics, and writing (either very little or not at all concerned with historical questions) have been produced by Carroll (1965), Dyen (1965b), J. Fischer (1965, 1966a, 1966c), R. and M. Force (1961), Garvin (1954a, 1954b, 1959, 1962a, 1962b), Goodenough (1966a), McKnight (1961), and Riesenberg and Kaneshiro (1960).

General ethnographies appear under the names of Barnett (1960), J. and A. Fischer (1957), Lessa (1966b), and Lundsgaarde (1966). A kind of tabulated ethnographic source that should be mentioned is Murdock's ethnographic atlas (1957, 1967) in which Micronesia is represented by Palau, Yap, Cha-

morros, Carolinians of Saipan, Ulithi, Ifaluk, Truk, Ponape, Kusaie, Bikini, Majuro, Makin, Onotoa, Nauru, and Kapingamarangi.

In psychological anthropology, the relatively few authors who are active are J. Fischer (1960, 1965, 1966b), Gladwin (1958, 1960a, 1960b, 1961, 1964; with Sarason 1958, 1959), Lessa (with Spiegelman 1954), Spiro (1959), and Swartz (1958). A. Fischer has dealt with reproduction and associated matters in Truk (1963). A series of papers consider names and naming customs (deYoung 1958a, Goodenough 1965a).

Goodenough's integrated approach to culture change (1963a) includes examples from a number of Micronesian cultures. Other studies which deal in some way with culture change, and have not previously been mentioned in this section, are R. and M. Force (1965), Lessa (1964), and Mason (1955). Publications concerned with resettlement and change are Knudson (1964), Mason (1958), and Silverman (1962). Finally, in applied anthropology, we have Barnett's book (1956) and articles by Gladwin (1956) and Smith (1956).

WORK IN PROGRESS

Space limitations make it impossible to do more than list anthropologists who either have just returned from the field or are there now, and from whom new materials may be expected in a few years. Those who come readily to mind are Tobin (Ujelang), Perlin (Ebeye and Lib), Pollock (Namu), Kiste and Mason (Kili and Ujelang), Wilson (Kusaie), Hughes (Ponape), Lieber (Ponape and Kapinga), Lord (Mokil), Evans, Meggers, and Riesenberg (Nan Matol), Carroll and Davidson (Nukuoro), Goodenough and Mahony (Truk), Elbert, Gladwin, and Riesenberg (Puluwat), Alkire (Woleai), Hainline (Yap); and, to mention others with earlier fieldwork yet to be published, Luomala, Lundsgaarde, and Lambert (Gilberts), Silverman (Banabans), Mason (Bikini and Arno), and Force and McKnight (Palau).

Other projects to watch for new publications are the University of Hawaii's work on Micronesian languages, McKnight's

translation of Japanese sources, and the Micronesian Seminar (Woodstock College) translation of Spanish and German sources. Also, Chapman is compiling a bibliography of all publications relating to Micronesian prehistory.

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Some Recent Anthropological Research Trends in Melanesia

by EDWIN A. COOK

RÉSUMÉ

La Mélanésie connaît actuellement une grande poularité dans le domaine des recherches anthropologiques. C'est ce que l'auteur conclut de son étude des tendances qu'on trouve maintenant dans les travaux d'archéologie, de linguistique ainsi que d'anthropologie physique, sociale, psychologique et médicale.

Melanesia has more land mass and population than any other sub-area of Oceania. New Guinea itself is the second largest island in the world. The "anthropology explosion" in Melanesian research since World War II has reached frightening proportions, if for no other reason than a single individual's inability to control in any adequate manner the rapidly increasing volume of literature. For these reasons I shall first segregate Melanesia into two sub-areas; New Guinea and Island Melanesia. The former area is comprised of New Guinea proper and some offshore islands such as Mailu, Karkar, Manam, Fredrik Hendrik, and the Schouten Islands. Because of their significance in terms of sustained long-term research I also include the Admiralty Islands. Island Melanesia is comprised of the Solomon Islands, the New Hebrides, the Bismarck Archipelago, New Caledonia and the Loyalty Islands, the D'Entrecasteaux and other islands of the Massim area, the Santa Cruz Islands, and the Fijian Islands. When the Association for Social Anthropology in Eastern Oceania was formed in 1967 they excluded New Guinea but included Island Melanesia. The Association periodically publishes a newsletter listing on-going research in Eastern Oceania. The Bernice P. Bishop Museum in Honolulu also publishes *Man in the Pacific* a newsletter of anthropological activities in Polynesia, Micronesia, Melanesia, and New Guinea. I have, therefore, elected to exclude Island Mela-

nesia from consideration here. Further, I shall concentrate on the more recent literature since it provides an entrance to the older works in terms of references cited.

BIBLIOGRAPHIES, JOURNALS, AND SURVEYS

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The principal journals for the area, excluding those of a non-regional nature, have been *Journal of the Polynesian Society, Oceania, Mankind, Journal de la Societe des Oceanistes, Etudes Melanesiennes, Nieuw Guinea Studien, Nova Guinea,* publications of the South Pacific Commission (Noumea, New Caledonia), and occasional publications in *Anthropos, Anthropological Linguistics, Bijdragen tot de Taal-, Land- en Volkenkunde.* As written testimony to the "anthropology explosion", a number of new regional publications have appeared since 1960 (excluding *Ethnology* and *Current Anthropology*); for example, *Anthropological Forum, Australian Territories, Bulletins of the New Guinea Research Unit, Oceanic Linguistics, Physical Anthropology and Archaeology in Oceania, The Journal of Pacific History, Linguistic Circle of Canberra Publications* (Papers, Monographs, Books), *The Journal of the Society of Papua and New Guinea,* and a new one on current affairs titled *New Guinea and Australia, The Pacific and South-East Asia.* A few of these have sections reporting on current research activities. Also, since 1963, the Royal Anthropological Institute of Great Britian and Ireland has been publishing an invaluable quarterly *Index to Current Periodicals.* Each issue of this has a section on "Oceania".

In 1950 Elkin (1953) conducted a survey and reviewed all research prior to that time. His work is divided into three sections:

types of research (e.g. explorer, missionary, administrative, and anthropological) up to 1950; a survey of the state of anthropological knowledge in the six subdivisions of Melanesia (Netherlands New Guinea, Papua, New Guinea, British Solomon Islands, New Hebrides, and New Caledonia and the Loyalties) along with suggested research projects; and a proposal of a plan for future anthropological research in Melanesia related to native welfare and development (1953:vii). Elkin distinguished four major periods of research: 1890-1925 which covers the period of the Cambridge Expedition to the Torres Straits and the early work of Malinowski, Thurnwald, Rivers, Hocart, Layard, Speiser and others; 1925-1940 covering the period from the founding of the Department of Anthropology at the University of Sydney to World War II, during which fourteen research expeditions were sent into the Melanesian area (Elkin 1953:17-18); 1940-1950 marking the re-emergence of interest in the area after the research hiatus caused by World War II as now seen in the works of K. E. Read, H. I. Hogbin, P. Lawrence, C. S. Belshaw and others; and fourth, post 1950. More research has been undertaken in this last period than in all previous periods. Between 1950 and 1960 a few short surveys were published (Keesing 1952, Goodenough 1952, 1953, Read 1954).

At the Tenth Pacific Science Congress in 1961 an International committee was formed for the purpose of promoting research in New Guinea. For the next five years they distributed a mimeographed annual summary by district of on-going research throughout the island. In addition, they also listed publications pertinent to the area. This series is no longer being issued.

At the same time as the International committee on Urgent Anthropological Research in New Guinea was founded, the entire issue of the *Bulletin of the International Committee on Urgent Anthropological and Ethnological Research* (1961) was devoted to New Guinea. J. van Baal (1961: 15-16) recommended eight-year field study programs for 40 to 50 fieldworkers at a cost of some 2.5 to 3.0 million dollars. This never happened. Elkin reviewed the interval between his original survey (1953) and 1960 (1961). A. A. van der Leeden *et al.* effected a similar task for Western (then "Netherlands", now "Irian Barat") New Guinea

(1961a, 1961b) bringing up to date a prior survey done by the Bureau for Native Affairs (1958), principally by J. Pouwer who issued another survey later (1961). Subsequent issues of the above mentioned bulletin, published by the International Union of Anthropological and Ethnological Sciences, have also contained articles on Melanesia; Haberland on the Sepik (1965), Schultze-Westrum on the Western District of Papua (1965), Laade on the Torres Straits (1966), and Laufer on linguistic problems in the Admiralties (1966a) and New Britain (1966b). When the Bulletin series of the International committee was discontinued in 1966, the New Guinea Research Unit took over the task on an annual basis (Richardson 1967). Each yearly compilation includes bibliographies of recent work in Papua, New Guinea and West Irian by district and a section on continuing research opportunities in New Guinea.

In 1965 (August 18-25) a conference, sponsored by the Division of Behavioral Sciences of the National Research Council, was held in Honolulu to consider the state of behavioral science research in New Guinea (National Research Council 1967). Several of the conferees submitted working papers: J. B. Watson on local variation (1967a), P. Lawrence on economic, educational, and political development (1967), J. Pouwer on the analysis of social structure (1967), H. C. Brookfield on geography (1967), R. F. Salisbury on economic research (1967), D. B. Bettison on emerging forms of social groupings (1967a), D. M. Fenbury (1967) and D. B. Bettison (1967b) on politics, R. G. Crocombe on the research interests of the New Guineans enrolled at the New Guinea Administrative College (1967a), and A. Toua on problems of implementing health programs (1967). In a summary statement, the fourteen conferees (in addition to those submitting working papers others attending were: A.P. Vayda, M.C. Groves, W.D. McElwain, J. Street, and E. A. Cook) recommended that a central data depository be established and that more conferences and seminars be conducted in order to develop "an overview of the separate studies undertaken and envisaged" (National Research Council 1967:48). It was specifically recommended that more research be accomplished in cognition and other aspects of personality, organization, politics, economics, basic ethnography, me-

dicine, genetics, and education (National Research Council 1967: 7-46).

There are some more general reference works now available (e.g. South Pacific Commission 1961, Tudor 1963, 1964), one popular text (Oliver 1961) and two books of readings (Hogbin and Hiatt 1966, Vayda 1968), and a survey of the Central Highlands (Watson 1964a).

TRAVELORS, EXPLORERS, AND ART

Since Tregance's ridiculous account (1888) many individuals have seen fit to publish their New Guineana memorabilia. Some of the more worthy of the recently published are Attenborough (1960), Matthiessen (1962), Paillard (1962), Harrer (1964), Mc Carthy (1964), Ruhen (1964), Williams (1964), and Sinclair (1966). The best history now available for the entire island of New Guinea is Souter's *New Guinea: the last unknown* (1964).

Melanesian art has long been valued for its overall unique character (Firth 1936, Linton and Wingert 1946, the Museum of Primitive Art 1960a, 1962a, Bodrogi 1959, Schmitz 1962, and Guiart 1963). Work on local art styles has been published by Berndt (1950) for Central-Western New Guinea, Kooijman for Lake Sentani (The Museum of Primitive Art 1959), Bodrogi for Northeastern New Guinea (1961), Newton for the Papuan Gulf (1961), Mead for the Arapesh (1963), Forge for the Abelam (1967), Schmitz for the Wantoat of Northeast New Guinea (1963), The Museum of Primitive Art on the Asmat (1962b), and general works on ceremonial masks (Kaeppler 1963) and a recent overview of Melanesian art in general by Davenport (Regents, University of California 1967). The Museum of Primitive Art has recently commenced publishing art bibliographies with the first issue on the Torres Straits (Fraser 1963).

ARCHAEOLOGY

Archaeologically, the origins of the Melanesians (Shutler, M. E. and R. 1967) are still shrouded in mystery. Bronze (Tichel-

man 1963), pottery (V. Watson 1955), and stone (S. Bulmer 1964a) objects abound in various places, though in terms of excavation everything remains to be done (White 1965a, 1965b but cf. Heider 1967 for a note of caution). Ground stone figures and implements from the highlands have never been fully explained (Chappell 1964, Bulmer R. and S. 1962, Berndt, R.M. 1954).

On the basis of plant distributions (Robbins 1963) the entry of the sweet potato and an hypothesized subsequent population explosion, J. B. Watson, in a lengthening series of articles (1964b, 1965a, 1965b, 1967b, 1968) proposes a three-stage progression for the evolution of highland New Guinea society. The last stage is seen as "revolutionary" in terms of the impact of the sweet potato. The opposing argument, as one might expect, is for slow changes (Brookfield and White 1968) and as additional archaeological evidence comes to light this position will probably be validated (Bulmer, S. 1964b, R. and S. Bulmer 1964, Giles 1966, Golson *et al.* 1967).

LINGUISTICS

The impact of Dyen's Austronesian classification (1965) is covered in Kleiber's article in this issue, so I shall concern myself with summaries of other work and non-Austronesian research. Elkin encouraged research into languages of Melanesian populations noting that "meaning is culturally determined; and... a people's sociology and psychology cannot be studied without a deepening knowledge of the language as an aspect of culture and as a medium of thought. The time has come when field workers must be well-trained and efficient linguists" (1955:139).

Recent general surveys, some regionally specific, have appeared by Capell (1962a, 1962b), Hooley (1964a, 1964b) for the Morobe District, Wurm on tonal languages (1954) and general surveys (1962), and Pence's survey of the efforts of the Summer Institute of Linguistics (1962).

A great deal of attention has been paid to comparisions of variation in New Guinea languages (Wurm 1964a, 1964b, 1964c,

1965, Milke 1965, Laycock 1965a, McElhanon 1967, Bunn and Scott 1962, Cowan 1955, Drabbe 1963, Bromley 1967, E. V. Pike 1964, Scott 1963, Bee 1965, and McKaughan 1964).

Studies of specific languages continue to grow though the published literature remains limited. Chimbu, Wahgi, Enga and Siane have been touched upon (Luzbetak 1956, Hamp 1958, Burgmann 1953, Crotty 1951, Salisbury 1956, Aufenanger 1956). Wurm has studied the Kiwai languages (1951), Laycock the Ndu (1965b), Z'graggen the SakEr (1965), Bromley the Dani (1961), Biggs the Karam (1963), Alan (1964a) and Phyllis Healey the Telefol (1965a, 1965b, 1965c) and Karl (1965a) and Joice Franklin (1962) the Kewa. Additional work has been done on Tairora, Gadsup, Kamano, Usurufa, and Fore (Members of the Summer Institute of Linguistics 1962). McKaughan, in his work with Tairora, has added a methodological tool for the description and analysis of grammatical structures which he describes as "Item and Matrix" (1966). This is an expansion of earlier techniques described by Hockett (1954). The model has a ready applicability in kinship studies though it has not yet been used for Melanesian systems. The method also has a potential applicability in the development of more rigorous ethnemic eliciting frames.

Some have been concerned with the perpetual (and trivial?) problem of language and dialect (Wurm and Laycock 1961, Cook 1966a). Others have directed their inquiries to problems of bilingualism (Salisbury 1962a), translation problems (C. H. Berndt 1954), semantics (Cook 1967), informants (A. Healey 1964b) and ethnolinguistic problems (K. Franklin 1963).

PHYSICAL ANTHROPOLOGY

Though the spectre is still occasionally raised that there are physiological affinities between black Africans and Papua-Melanesians, the idea should probably be abandoned as "there is almost certainly no connection between the peoples of New Guinea and Africa" (Giles 1966:20). In fact, firm genetic evidence is now available from which it is demonstrable that New Guineans are related to South-East Asians and, further, that non-Aus-

tronesian speakers and Austronesian speakers (apart from the linguistic evidence) were separate populations at one time (Giles, Ogan and Steinberg 1965:1158-1160).

Few traditional physical anthropological studies have been made with the recent exceptions of Gusinde (1958) on the Aiome pygmies, Freedman and MacIntosh on stature variation in the Western Highlands (1964) and some work around Goroka (Kariks *et al.* 1960, Ivinskis *et al.* 1956).

A great number of blood group studies have been made by Simmons and his colleagues including several West Irian groups (1967) and Mt. Hagen lepers (1968). Work on the kuru pattern ("laughing death") continues (Glasse 1961, Gajdusek 1961, Bennett 1962, McArthur 1964).

SOCIAL ANTHROPOLOGY

Throughout Elkin's 1953 summary he displayed a true concern for administrative and mission problems. He repeatedly emphasized that anthropological efforts should be relevant to the problems facing peoples rapidly moving into the contemporary economic and political sphere of the world. The twenty-three Bulletins of the New Guinea Research Unit published between 1963 and 1968 are a giant step in this direction (Crocombe and G. R. Hogbin 1963a, 1963b, White 1964, Crocombe 1964, G.R. Hogbin 1964, Howlett 1965, Crocombe 1965, Jackson 1965, Hipsley 1966, van Rijswijck 1966, Rimoldi 1966, van der Veur and Richardson 1966, Crocombe 1966, Hichcock 1967, A. Healey 1967, Crocombe 1967b, Morawetz 1967, Oram 1967, Singh 1967, Crocombe 1967c, Richardson and van der Veur 1968, Meller 1968, Burton-Bradley 1968). The New Guinea Research Unit has fostered research by educationists, economists, geographers, anthropologists, political scientists and others, all of whom know they are sittting on a potential powderkeg and that they have little time to spend pondering the latest mental peregrinations of some of their chair-bound colleagues (e.g. Jarvie 1964). Other studies of land tenure are also available (e.g. H. I. Hogbin and Lawrence 1967, Reay 1959a, Salisbury 1964a). What is highly evident from several of

these studies is that, prior to this, little consideration was given to local land tenure laws and forms of social organization with reference to proposed development programs. It is shown that when these and other related factors have not been taken into account, economic development efforts have been pre-doomed. The direction of this welcomes series of publications should result in improved results in economic development programs provided, of course, that these results are assimilated by the proper administrative bodies.

The general urgency of the foregoing type of work has been noted in earlier surveys (Mai 1948, Reed 1943, Belshaw 1954, 1957, H. I. Hogbin 1958) as well as more recent work (Australian Institute of Political Science 1958, Essai 1961, Bettison, Fisk, *et al.* 1962, Rowley 1966) and was pointedly remarked upon in the "Foote Report" (United Nations n.d.). In that report it was recommended that an elected Legislative Council involving extensive indigenous representation be formed. This has now been effected and is well documented in the literature (Reay 1964, Groves 1964, Bettison, Hughes *et al.* 1965, White 1965, Grosard 1966, Beckett 1967). The International Bank for Reconstruction and Development has completed an economic development survey (1965) and the University of Papua and New Guinea has been successfully established (Robert and Wilson 1967).

In many instances, the impact of economic change has visibly altered the life-ways of Papuans and New Guineans. Anthropologists have not been remiss in documenting these events (Brookfield 1961, Maher 1961, 1967, Salisbury 1962b, Mead 1956, Harding 1967a, 1967b, Oram 1968, Finney 1968). Cargo-type reactions to culture change, for which Melanesia is well known, have been the subject of several recent intensive studies (Worsley 1957, Read 1958, Burridge 1960, Mead and Schwartz 1960, Schwartz 1962, Lawrence 1964, Harding 1967c; but cf. Salisbury 1958 and Oosterwal 1963).

In rapidly changing societies it is usually thought to be useful to have cogent descriptions and analyses of the indigenous socio-political structure. Several accounts are available (Ryan 1959, Reay 1959b, K. E. Read 1959, Brown 1960, 1962, 1964, Langness 1963, Sahlins 1963, Salisbury 1964b, Franklin 1965b, Brookfield

and Brown 1963, Meggitt 1965, Newman 1965, Read 1965, Wagner 1967). We are also fortunate in having several of the revised papers, plus new additions, of a symposium on political structure conducted in 1955 available in the most recent issues of *Anthropological Forum*. To date, eight papers have been published; Kaberry on the Northern Abelam (1966), Lawrence on the Garia (1966), Burridge on the Tangu (1966), Chowing and Goodenough on the Lakalai (1966), Meggitt on the Mae-Enga (1967), Brown on the Chimbu (1967), Watson on the Tairora (1967c), and Reay on the Kuma (1967). Throughout these papers there is a concern for accurately delimiting the locus of political authority and its correlates in land tenure, residential patterns, kinship and descent units. However, almost without exception, the articles are devoid of explicit theoretical considerations though several point the way, e.g. Meggitt's comment that "Experts in systems analysis will... [perceive that] ...I am dealing with a larger or basic feedback system" (1967:35).

There is comparable work for Irian Barat on indigenous social organization (Held 1957, Oosterwall 1961, van Eechoud 1962, Reynders 1962, Kooijman 1962, Pospisil 1958, 1963a, 1963b, Dubbeldam 1964, Serpenti 1965, Elmberg 1965, Ploeg 1966, van Baal 1966) and culture change (van Baal 1953, 1960, Kouwenhoven n.d., Zegwaard 1959, van der Leeden 1961, Bureau of Native Affairs 1962, O'Brien and Ploeg 1964, Lijphart 1966, and Bromley n.d.)

For both areas, works on warfare (R. M. Berndt 1964) and religion (Luzbetak 1954, Newman 1964a) are relatively scarce but the recently published set of essays edited by Lawrence and Meggitt (1965) has helped to close this gap. Extensive comparative studies of any type are still rare (but cf. Allen 1967).

The general problem of cultural boundaries has largely been ignored though a possible resolution has been proposed by Schwartz who offers the concept of "areal integration" (1963) by which he intends a way of looking at the modalities along which separately identifiable population units may be seen as a self-contained socio-economic unit. Schwartz suggests four types of areal integration (1963:89) and proposes that they "should be

considered as evolutionary alternatives on a single evolutionary level" (1963:92).

Two special projects deserve mention; Vayda's project in Human Ecology of the Tropical Rain Forest (Vayda 1961, n.d., Clarke 1966, 1967, Rappaport 1967, 1968, Jablonko 1968), and Watson's Microevolution project (Watson 1963, Littlewood 1966). Both are team projects involving geographers, linguists, physical and social anthropologists; both are "evolutionary" projects in the sense of "adaptation" though their levels of analysis are different. In addition, both projects share a common interest in variant responses of population units in variant eco-social environments. The same sort of problem is at the root of the "flexibility" or "loose social structure" problem which has plagued a great number of researchers in New Guinea. This work has been partially surveyed by Cook (1966). Some of the major conceptual problems have been set out by Barnes (1962), Langness (1964), Sahlins (1964), and Pouwer (1967). In my opinion, there will be no clear resolution until we have more fine-grained data on kinship systems (e.g. Meggitt 1964, Pospisil 1960, A. Healey 1962, Glick 1967a, R. M. Berndt 1954-5, Bromley 1965, Cook n.d.a); marriage systems (e.g. the Meggitt and Glasse edited volume, *Pigs pearlshells and women: marriage arrangements in the highlands of New Guinea,* to appear in 1969, Prentice-Hall), and social control (e.g. Pospisil 1965a, 1965b, Bromley 1960, and R.M. Berndt 1962).

PSYCHOLOGICAL AND MEDICAL ANTHROPOLOGY

Studies in the medical health of Papuans and New Guineans have been largely directed toward assessing the adequacy of their diet (Venkatachalm 1962, Hipsley and Kirk 1965). Medicine as ethnic category has been reported on by Glick (1964, 1967b).

Psychiatric surveys have been done by Sinclair (1957) and Burton-Bradley (1965a, 1965b). Particular attention and theoretical debate has occurred over hysterical reactions to stress, the so-called "Wild man" behavior (Newman 1964b, Langness 1965,

1967, n.d., Langness and Rabkin 1964, Salisbury 1966a, 1966b, 1967, Cook n.d.b, Reay 1965, Rodrigue 1963.)

CONCLUSION

The reader will have noted that the majority of references are post-1960, the date of Elkin's most recent survey. As a concluding dismaying thought, the bibliography of works cited here probably accounts for no more than one-fifth of the published anthropological literature on New Guinea since 1960. Much work in allied disciplines (Geology, Zoology, Botany and others) has been ignored.

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The Controversy About the Austronesian Homeland

by NANCY KLEIBER

RÉSUMÉ

Les travaux de linguistique comparative ont donné corps à plusieurs hypothèses sur l'origine et la distribution des populations de l'Océanie. Les études récentes de Dyen exercent une grande influence sur les recherches actuelles en ce domaine.

During the past several years many articles have appeared investigating the languages of the Pacific, the relations among these languages, and the relations among the cultures of the area. Much of the research has been done in the hope that the linguistic data would clear up the matter of the homeland of the Austronesian speaking peoples of Oceania and give conclusive answers about the routes of migration along which these people traveled to their present homes. The time sequence involved in the peopling of the Pacific has also been of interest.

Data from the Austronesian languages have been used in two types of research. First, the methods of comparative and historical linguistics were employed in studies of the relations among the languages. Second, the languages have also been used to determine relations among the cultures whose participants speak particular languages. Into the latter fall the theories of migration routes and cultural relations that have been suggested on the basis of different types of linguistic studies. Most studies have not separated the comparisons of linguistic material and the conclusions about linguistic relations from comparisons of linguistic material that lead to conclusions about the relations among cultures. The relations between a language and the culture of the people who speak it have not been precisely determined. Many of those working on the problem of the Austronesian homeland

assume that there is a one to one correspondence between language and culture; that is, if languages are related to a particular degree, then the cultures are related to the same degree. When working with linguistic material from an area such as the Pacific, where the historical relations are not well known, it is necessary to separate the data of linguistics from the assumptions about cultures.

In "Oceanic linguistics today" Capell reviews the history of the study of Pacific languages and comments on the present state of the research (1962c). The Austronesian languages have been divided into four major groups by early scholars. Later studies have broken each of these four groups into several subgroups of more closely related languages. The Indonesian languages have been divided into three subgroups. Capell states that the Melanesian languages are the most diverse of the four major groups, having eight separate subgroups. Micronesian and Polynesian each have fewer subgroups. The difficulty with the breakdown of the four groups is that for Melanesian and Micronesian languages there are much less data available than for the other two groups and so the classification is much less certain.

Since the earliest comparative studies, it has been assumed that the inhabitants of the islands of the Pacific who speak Austronesian languages originally lived somewhere on the mainland of southern Asia. From this point all the Austronesian speaking peoples moved out into the ocean areas and into Indo-China.

There has been some discussion as to whether the four major groups of Austronesian languages (Indonesian, Melanesian, Micronesian and Polynesian) separated at a single point in time, each group going its separate way, or whether some of the groups were off-shoots of others, showing successive development and differentiation. For example, are Melanesian and Indonesian coordinate relatives of Micronesian and Polynesian, or did Melanesian separate from Indonesian after the Indonesian speakers had moved into the islands, and are Polynesian and Micronesian languages branches of an earlier Melanesian stock? Various sequences have been suggested to explain the present confused state of the linguistic relations. It has been generally accepted that the Indonesian languages are the "oldest" of the Austronesian languages in the island area, and that the Polynesian languages

are the most recent. This is attributed to the geographical placement of these languages with regard to their south Asia homeland, and is also suggested by the internal relations among the languages of the different groups.

Paul Benedict (1942), researching the languages of Indo-China, proposed that the Austronesian languages were coordinate with the Thai and Kadai languages of that area. He suggested that these languages derive from the same proto-language, Austric, and had undergone great changes in the time since they separated. This supports the theory of the Asian homeland, and even makes the point of origin more definite. Haudricourt places the homeland of the Austronesian speaking peoples on the coast of south China, between Hainan and Taiwan, on the basis of his studies of languages in the area (1954).

Most scholars who have considered the whole Austronesian language family have assumed that the people speaking these languages originally made their homes on the mainland of South East Asia. For various reasons they moved from the mainland into Oceania, leaving linguistic footprints of their travels. With this notion begins the controversy about the possible point or points of origin and the route of migration of the Austronesian speakers to their present places of residence.

C. E. Fox (1947) disagreed with the theory that the homeland of the Austronesian speakers was in Asia. He suggested instead, that the Melanesian languages were more basic in form, and that the Indonesian and Polynesian languages were branches of Melanesian. Capell had previously questioned this possibility, because the Melanesian languages do not have the word final consonants that appear in Indonesian languages, but Fox dismissed this problem as trivial. Capell (1962a) took the matter up again and pointed out that due to special cases of stem consonants, the Indonesian languages are probably not a branch of the Melanesian languages though the reverse might be true.

Several variations of the theory about the South East Asian homeland are offered in Capell's (1962c) article: (1) Different migrations account for the main language differences within Austronesian. (2) The Polynesian languages come from some part of Melanesia. (3) Melanesian is the most conservative branch

of the Austronesian family. Capell also gives a chart, showing the relations between the Austronesian languages and a possible migration route. In the comments following this article, Dyen (1962a:405) states:

> Is it, however, a necessary inference from the facts that the Malayo-polynesians stem from the mainland? Although man in the Pacific perhaps necessarily stems from the mainland, there is no reason at this time to conclude that the spread of Malayo-polynesian speakers in the islands was identical with the coming of man to the islands, even though this might be true for particular islands, as in Polynesia. In view of current evidence, it is not at all inconceivable that the Malayo-polynesians were in Melanesia before they reached Sumatra, i.e. if they originated in the Melanesian area.
>
> A Melanesian origin of the Malayo-polynesians explains immediately the great diversity of languages in Melanesia, it agrees with the fact — well known — that the languages of Western Indonesia and most, if not all, of the languages in the Philippines constitute a single group.

In the same article Capell mentions the possibility of language mixing to account for the diversity among the Melanesian languages. The influence of non-Austronesian languages in Melanesia on the Melanesian stock may have been important in the past, for even now the speakers of Melanesian languages are in close association with speakers of Papuan languages in some parts of Melanesia.

Following this article, Grace (1962) comments on the physical differences among speakers of Austronesian languages in Melanesia, and suggests that some mixing, linguistic as well as physical, probably did take place. But Grace also points out that the so-called non-Austronesian elements in Melanesian languages are not related. If a Melanesian language were "crossed" with a non-Austronesian, the result would be different for every combination of two languages. However, even in the "non-Austronesian" elements in Melanesian languages, according to Grace, there is agreement among the various languages.

Grace subsequently published a paper on the linguistic evidence of the movements of the Malayo-Polynesians (1964). This paper is primarily an investigation of the lexicostatistical and glottochronological studies that have been done using Austronesian material. The specific problems of subgroupings and origins are also discussed. Grace (1964:365) states:

> While Dyen's [1962b] study indicates that Melanesia is the area of greatest linguistic diversity within Austronesian, and therefore includes the most probable homeland of Proto-Austronesian, Milke and I believe that all of the Austronesian languages of Melanesia, Polynesia and Micronesia — with the exception of Palauan and Chamorro — probably belong to a single subgroup of Austronesian.

Of Dyen's conclusions about the diversity of Melanesian languages on the basis of the lexicostatistical study, Grace (1964: 366) states:

> I suspect that these languages are characterized by either very low rates of retention (in the lexicostatistical sense), by complicated sound changes, or by both, and that lexicostatistical studies — at least under existing conditions — will of necessity tend to exaggerate their actual historical divergence from other language families.

Dyen's reply to Grace deals mainly with Grace's distrust of lexicostatistics as a method for comparative studies. Grace answers, commenting on Dyen's more complete classification (1963a and 1965) that had appeared since Grace's 1964 article had been written. Grace points out that genetic classifications should show genetic continuity rather than similarity between languages. He again states that the theory of mixed languages in Melanesia does not solve the problem of their diversity.

With Dyen's publication of *A lexicostatistical classification of the Austronesian languages,* the arguments about the homeland of the Austronesian speaking peoples became more heated. Dyen found, using lexicostatistics, that the Melanesian languages in his study were the least closely related to one another of all the languages used. He assumed, therefore, that Melanesia was the homeland of the Austronesian speaking peoples. This conclusion is an outgrowth of his theory of migrations (1956a). This states that of two or more possible routes of migration taken by a people, the route involving the least moves is the most likely to be the correct one.

Grace (1964:404) points out in his reply to Dyen's comment on the 1964 article that there are different types of linguistic diversity.

> If 'diversity' is understood as genetic diversity, I do follow Sapir in assuming that, of the territory occupied by a language family, that part in which the greatest diversity if found is most likely to be the original homeland (other things being equal). Roughly, the area of

> greatest diversity can be characterized as that area in which the largest number of main (i.e., earliest separated) branches are represented. This does not necessarily imply that it will be the area of greatest diversity from other points of view.

Applying this to the problem of diversity in Melanesia, it would follow that Grace does not consider the Melanesian languages to be an example of genetic diversity, and Dyen does. Grace does not agree with Dyen that the lexicostatistical percentages for the Melanesian languages show genetic diversity. This is a disagreement as to what constitutes a relevant basis on which genetic relations may be founded and what actually indicates these genetic relations. Grace rejects Dyen's answer, and yet he does not propose an alternate solution.

It is difficult to disprove Dyen's conclusions, if this is necessary, for he is most tentative about his classification and its implications. Murdock is not so prudent, and takes a step that Dyen chose to avoid to some extent (1964). Murdock apparently assumes that linguistic data, such as that used by lexicostatistics, is enough to ground a theory in fact. It must be made clear that linguistic evidence only speaks of languages until such time as assumptions concerning the relations of language to culture are concretely demonstrated. Murdock accepts the one to one relationship and considers Dyen's findings conclusive, despite the lack of data for Melanesian languages.

The lexicostatistical method used by Dyen, which he and Murdock both consider to be scientific and unbiased, is not accepted as such by all researches. Some believe that lists of two hundred words are very biased, and not at all scientific. Grace considers the "traditional" methods more sure. There is a general lack of enthusiasm for quantitave treatment on the part of many linguists. This may be due to their distrust of lexicostatistics and glottochronology.

In 1965 Anceaux published a paper in which he reviewed the various linguistic theories about the Austronesian homeland. He discusses many of the theories and outlines the linguistic evidence and methods that were brought forth in support of the theories. Anceaux mentions Dyen's classification, and also refers to Murdock's article on the implications of Dyen's proposal for Austronesian prehistory. He (1965:426) comments, "In his

[Dyen's] reasoning the most likely solution is the most simple". Anceaux points out that this is not necessarily true. Although a simple solution may seem more likely, there is also a certain probability, albeit smaller, that history or prehistory did not take the simplest path.

The diversity of the Melanesian languages is also discussed by Anceaux. He (1965:427) shows that the greatest diversity occurs where non-Austronesian languages are present and suggests that,

> It may well be that this great number of languages and their diversity are both due to special geographical, social, economical, or cultural circumstances. On the other hand it is quite possible that the existance of great linguistic homogeneity elsewhere must be ascribed to unifactory tendencies, to be accounted for by political and cultural backgrounds. In such cases apparency of dialect-borrowing may be a good index. All this makes it clear that comparative Austronesian linguistics can not be content with counting cognates in vocabularies.

Anceaux, along with Grace, is skeptical about Dyen's method and conclusions.

The latest exchange in the controversy is a review of Dyen's classification by Grace in Oceanic Linguistics (1967). Dyen and Dell Hymes have made comments which are appended to the review. First, Grace questions lexicostatistics as a valid method for comparative studies. Dyen has defended this so often, and others have attacked it so often, that there is little left to be said on the issue. Dyen points out, however, in his comment, that although Grace considers lexicostatistics unsound, he (Grace) prefers the mathematical manipulations of percentages suggested by Milke (1965) to those used by Dyen. Milke was specifically interested in applying his matrix reduction technique to the percentages Dyen found for relations among his Austronesian word lists. When and if this is done, it will be very interesting to see how the results of the two studies compare. Unfortunately, the mathematics in Milke's article and the reasoning behind the symbols are not as transparent as they might be, and it seems likely that the method will need further explication and testing before it will be useful in large scale studies.

Grace points out, again, the problems with the great diversity Dyen finds in Melanesian languages, and with the conclusions

Dyen draws from this diversity. He finds it difficult to believe that the Austronesian speaking peoples began speaking Austronesian languages in Melanesia and moved out to the west and east from there. One of the first questions about Dyen's theory is where did these people come from originally. Dyen has suggested (1964) that they came from the mainland before they were speaking Austronesian languages, but how, when, from where they came, and why they stopped in Melanesia he does not discuss. There is also the question of how and why these people spread from Melanesia to other areas. Murdock suggests that trade was the factor motivating the people to travel out from their Melanesian homeland. This is unlikely, as part of the area into which they moved, Polynesia, was not previously populated, and this would make trading difficult. Population pressure has also been suggested as an explanation for the emigration. This, too, seems unlikely, for it is doubtful that any island would support a population large enough to show significant differentiation in language before migration. It still remains unclear from what areas of Melanesia and to what areas of Indonesia, Micronesia and Polynesia these emigrants might have traveled.

Sapir, in his statement on linguistic diversity, apparently assumes that these populations (undergoing linguistic diversification) were not involved in great shifts and migrations. Then, if language 'A' separated into two languages, the peoples speaking these languages would live adjacent to one another. Further separations would take place through time, until the present diversity was reached. However, if this had taken place in Melanesia, and then, after the initial differentiation, the speakers of a descendent of language 'A' had migrated to Indonesia, then the Indonesian languages all would be most closely related to language 'A' of Melanesia. It is not clear from Dyen's classification whether or not this is the case.

Grace and Hymes bring up another problem that relates to Dyen's theory about the Austronesian homeland. The percentage that Dyen obtained in his lexicostatistical classification can be explained by more than the single 'family tree' diagram he presents. When there are several possible interpretations of data, Hymes suggests, one must check these interpretations and their

implications against other, in this case, non-linguistic data. Hymes also states that when there is more than lexical evidence available, the lexical evidence is not privileged, nor should any other particular type of linguistic data be privileged. All evidence should be used to develop a unified theory.

Dyen, in his comments following Grace's 1967 review, extols the scientific qualities of lexicostatistics, as compared with the non-quantitative approach of more traditional comparative and historical linguistic methods. This is a dispute about which much, perhaps too much, has already been written. Lexicostatistics is "scientific" in handling the data, using percentages, cut off points and chi-square to show relationships. However, the data themselves were not necessarily collected or chosen in a scientific manner, i.e., without bias. As the whole method is in large part dependent on the quality and quantity of the data, and as these are almost impossible to control in a study as large as Dyen's, some question remains about the scientific nature of this particular quantitative method.

Whether or not Dyen's method is unbiased, as he claims, does not change the fact that his percentages show lexical diversity in Melanesia, especially in the New Hebrides. Most of the controversy is about the validity of the method, and the probability of the conclusions that Dyen draws from the results. No one seems to doubt that the Melanesian languages in Dyen's study show diversity in percentages of shared cognates but explanations for this diversity vary greatly.

Dyen believes that the diversity is due to the fact that the Austronesian languages originated in Melanesia and branched out to the other areas, Indonesia, Micronesia and Polynesia. The diversity in Melanesia is then genetic, and should be borne out by other linguistic and cultural data. Dyen is not making any statement about the time involved, but he is using linguistic evidence in the form of lists of basic vocabulary as a basis for tentatively suggesting a point of origin and several paths of migration for the Austronesian speaking peoples.

Grace, while uncertain about lexicostatistics, accepts Dyen's statement that the Melanesian languages considered were diverse. Grace does not agree that this is a genetic diversity caused by

the fact that Melanesia was indeed the center from which the Austronesian speakers moved out. The diversity of Melanesian languages may be due to the fact that Dyen's sample did not include enough Melanesian languages. For example, in the *Linguistic survey of the Southwestern Pacific* (1962b), Capell lists over forty languages in the New Hebrides. Only six of these languages appear in Dyen's classification.

The diversity among the Melanesian languages may also be due to cultural factors, as Anceaux suggests. The Austronesian speakers, if they came from elsewhere, arrived in Melanesia to find a population of non-Austronesian speaking peoples already residing there. In several parts of Melanesia, the Austronesian speaking peoples of a single island are separated into enclaves by their non-Austronesian neighbors. The diversity may also be due, at least in part, to some mixing of languages. Not enough is yet known about the Papuan languages (Non-Austronesian) to rule this out completely. Melanesian speakers may have had less contact among their different groups during the development of their languages than did the peoples speaking different Polynesian languages. Grace suggests that the diversity in Indonesian languages may have been underestimated. If this were so, a case for the South Asian origin, or a Western Pacific origin, at least, could be put forth on the basis of possible lexicostatistical evidence. Dyen's study did not include the Thai and Kadai languages, and these groups may show even more diversity than the Melanesian languages, when tested. In his 1965 article, Dyen proposes that Formosa along with Melanesia is a likely candidate for the Austronesian homeland on the basis of lexico-statistical divergence within the group of languages in those areas.

A comparison of the diversity of Melanesian basic vocabulary with the homogeneity of Polynesian vocabulary indicates that the Polynesian languages separated from one another more recently than did those of Melanesia, and also that there was probably a great deal more contact among the Polynesian cultures from the time of separation than there was among the Melanesian cultures. Either this or the Melanesian area was subject to several migrations of Austronesian speakers, while Polynesia had only one migration. The Polynesian languages found in Melanesia are

evidence of a migration that took place from east to west, after the Polynesian languages had developed. Evidence on more than one migration from the west into Melanesia is sparse.

The linguistic data, Dyen's or traditional, do not give specific, unambiguous answers to questions about the Austronesian homeland and migration routes. Assumptions must be made about what linguistic materials and comparisons imply, and how these implications relate to prehistory and history in Oceania. Whether or not Melanesia is the homeland of the Austronesian speaking peoples will perhaps be determined by more research, especially on the the languages of Indo-China and Melanesia. The quality of the research and the meaning of the conclusions must be given careful attention before answers to the questions of homeland and migration routes are offered.

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