

Book Reviews

From Ming to Ch'ing—Conquest, Region and Continuity in Seventeenth-century China. Jonathan D. Spence and John E. Wills, Jr., eds. New Haven: Yale University Press, 1979. xxiv + 413 pp.

Reviewed by D. W. Y. KWOK, University of Hawaii

The Manchu conquest of China in 1644 was a cataclysmic event, adding an alien dimension to traumas of dynastic transfer. It had become a complex historical phenomenon as well. The editors and essayists of this volume offer to test the continuities from dynasty to dynasty, and to probe long-range trends vis-à-vis conquest. Their time frame is the seventeenth century, lasting from the 1590s to the 1730s for the purposes of this volume. In the end, they find a Ch'ing much different from the Ming.

The subtitle contains the three themes around which the nine essays are organized. The first four handle the conquest itself; the next two study regions as venues of long-range trends; the last three consider certain elements of continuity. Gertraude Roth's lead article, using mainly Manchu sources, reexamines Manchu state-building, showing the conquest to be a deliberate, though no less difficult, affair. The Manchus meant to impose their rule at the same time as they sought Chinese acquiescence in according the conquerors the mandate to rule. Roth's study adds more dimension to the question of sinification, positive and/or passive.

Frederic Wakeman and Jerry Dennerline then

offer, respectively, the national and regional Chinese adaptation to conquest. The Shun regime of Li Tzu-ch'eng in Peking was a rampaging disaster in the eyes of Chinese officials who now preferred Ch'ing rule. Wakeman's study of this phenomenon also brings out the complex structure of the late-Ming metropolitan bureaucracy and how the assent of the officials to conquerors took place within such experiences of public and private sources of power. Dennerline's Chiang-nan literati found some loyalist elements more threatening than the invading troops. His main point is that the late-Ming local society and leadership were not well integrated into national levels. Concluding the section on conquests is Ian McMorran's study of Wang Fu-chih, which offers a personal rather than structural angle to the questions of protesting conquest, siding with loyalists and, ultimately, personal withdrawal to remain morally intact.

The two essays on region by Morris Rossabi and John Wills, Jr. deal with the impact of conquest on the northwest frontier and southeastern maritime regions, respectively. Both find positive changes by the eighteenth century. Manchu

deliberate administration added a religious and ethnic abrasive to this Muslim-dominated region, which in previous centuries had only had to accommodate itself to the political and economic vagaries between Central Asia and Ming China. Change also came to the Southeast, where Wills finds the purveyors of power and profit (merchants, mediators, and admirals) were no longer able to parlay their influence beyond the transition period into the active Ch'ing administration. The Manchu state-building machinery had changed the power structure.

The next three essays handle continuities in rural socioeconomic structure, urban communities and state relations, and in articulate culture. Hilary Beattie finds the T'ung-ch'eng elite not forthcoming with any loyalist opposition to speak of. Ch'ing imposition of law and order merely paralleled a reinstatement of clan and local (nonbureaucratic) law and order, thus providing the new state with local stability, but at a level almost impervious to direct Manchu power.

Tsing Yuan's essay presents the familiar scene of urban centers of commercial wealth and industrial enterprise during the Ming. Yet merchant threats and mob violence, which intimidated the Ming officials, did not so rile the Manchu officialdom. The Ch'ing practiced a much tougher political-economy in the urban areas.

Lynn Struve's final essay introduces the mid-stratum K'ang-hsi reign scholars, whom she calls the "ambivalent generation." Fascinated by the new dynastic mandate, but unimpressed by power and officeholding, they were the carriers of late-Ming tendencies toward practical learning, statecraft, reform, dissent, and the active

life. Their efforts produced a wide range of scholastic sciences as well as some fresh perspectives on the scholar as a person.

Together, these nine essays show the intricacy of themes and interrelationships of conquest and continuity, of discrete events and long trends. Yet, each is a study in itself. In the Preface the editors offer some of the outstanding themes, trends, and interrelated findings to guide the reader. They are: the growing commercial urbanism with attendant expansion of the administrative base and skills through an expanding examination system; a late-Ming reformist critique of corruption along with a developing nonconformism; a growing appreciation of law and order in the late-Ming that paralleled and, in instances, aided Manchu establishment of the same; the passage of moral extremism into more realistic positions, showing the complexity or ambivalence of choice; the effectiveness and exigencies of rule as not essentially linked to an alien core; and, nevertheless, a Manchu alien core that wrought changes in the Chinese body politic in addition to implementing effective rule—from language and custom to military organization and the realignment of geopolitical perspectives.

When published in 1979, this volume of essays by mostly young scholars was five years in the preparation from conference papers to book form. A decade later students of late-imperial China and of alien rule will still find the volume rewarding. Of course, the volume has in the meantime suggested and excited further research in this field, testifying to the direction and qualitative growth of Ming-Ch'ing scholarship.

The Diffusion of Material Culture (28th International Congress of Orientalists, Proceedings of Seminar E, Canberra, January 1971). H. H. E. Loofs-Wissowa, ed. Asian and Pacific Archaeology Series, no. 9. Honolulu: Social Science Research Institute, University of Hawaii, 1980. xix + 393 pp., plates, figures, maps. \$10.00 (paper)

Reviewed by JOYCE C. WHITE, *University of Pennsylvania*

The use of "diffusion" as an explanatory concept for cultural relationships may have had considerable utility in the days of Heine-Geldern, to whom this book is dedicated. At

that time evidence of prehistory from much of southern and eastern Asia was derived from poorly controlled excavations and chance finds from surface collections isolated from cultural

context. Before the days of radiocarbon dating one can appreciate that morphological comparisons were the major basis of relating regions culturally and chronologically.

Over the years excavations yielded evidence showing regionally distinct cultures and chronologies not in accord with projections by diffusion theories. Ethnographic research showed that culture just doesn't spread like a jar of honey dropped on the floor. Like other "prime movers" such as climatic change, diffusion went out of vogue as an oversimplified, reductionist, explanatory concept. As the attention of many archaeologists turned to assessing the internal dynamics of prehistoric societies, the explanatory pendulum swung toward "independent invention" and resulted in a huge polemic in the field known as "diffusion vs. independent invention."

In the mid-1980s the theoretical pendulum seems to lie somewhere between these two extremes. Many prehistorians try to weave a subtle assessment of both interregional and local dynamics where the emphasis on one or the other is likely to be a matter of intellectual preference. All of this may seem self-evident to the reader. The question is, what does a compendium of opinion on diffusion from 1971 have to say to the prehistorians of the mid-1980s?

This volume is of interest to prehistorians of South, Southeast, and East Asia as historical background. This part of the Old World has been dominated until recently with diffusionist explanations of cultural development (e.g., the "Indianization of Southeast Asia"). These papers were written at an early stage in the reappraisal of this approach, and, interestingly, despite substantial factual changes, many of the participants at the seminar where these papers were presented are still publishing similar points of view. Anyone looking for a coherent and comprehensive statement on the role of diffusion in Asian cultural development will, however, be disappointed. Rather, the 19 articles by an international set of authors represent a hodgepodge of opinion and approaches to the issue which probably accurately represents the confusion in the early 1970s, given the haziness and contradiction of certain facts at that time. The diversity of opinion and emphasis that would be expected from papers published from a meeting can be informative, but wading through the out-of-

date material to find what is useful takes some work on the part of even the informed reader.

The articles are organized into two sections, the first entitled "The origin and spread of early pottery in Northeast, Southeast, and South Asia," with a supplement on stone adzes of Southeast Asia, and the second "The origin and spread of early metal in East, Central, Southeast and South Asia." More accurate headings would have omitted "origin and spread" since many articles did not approach early metal or pottery in these terms. Also some presented historic and ethnographic data. Extensive illustrations enhance the presentations. Appended is a transcript of discussions at the seminar.

Only a few papers deal explicitly with the editor's request to the authors to address the nature and principles of diffusion. Loofs-Wissowa attempts to explain why pottery might be accepted by early societies with an underlying "vegetal" container technology and gives some dubious examples from Thailand. Much more stimulating is Mourer's ethnographic study on change in copper working in Cambodia. He addresses a change in lathe technology from alternating rotation to continuous rotation in technological, social, and economic terms. He maintains that the differences in these conditions between the metal and pottery industries help explain why the wheel has not been adopted in pottery making.

A number of articles simply try to document examples of diffusion. Duff's article on stone adzes of Southeast Asia states the traditional approach of diffusion-based arguments (p. 151): "Despite the general absence of established time depth, assumptions as to age, origin, and direction of diffusion ... are deduced from the distributional pattern" of adze types. Yet once chronologies are based on well-excavated and dated materials, many postulated routes and relationships such as Solheim's connection of Hoabinhian, Yang Shao, and painted Ban Chiang pottery become meaningless. The frequent emphasis on the routes of transmission for single traits or artifact types isolated from their cultural contexts results in cultural associations of awkward practical and theoretical significance. Pearson's attribution of the Ban Kao tripod pottery to stimulous diffusion from the Lungshanoid expansion is nearly as difficult to accept as Sørensen's rapid migration up the Yangtse and

down the Salween rivers for the same reason: lack of intermediary evidence.

The delineation of regional chronologies is a fundamental aspect of modern archaeological research which ultimately derived from diffusionist concerns. Those articles addressing regional chronologies with limited comparisons with surrounding areas may be of interest to regional specialists. Some of these make only limited claims for regional influences: Esaka's on Jomon Pottery, Birmingham's on West Bengal ceramics, and Sinha's on the Neolithic in the Ganges Valley. Dani claims a not-unexpected origin from Iran for Northwest frontier burial rites, but he does not really address local conditions or responses to the "spread of influence." Lesnick's article on the so-called megalithic burials of South India argues that these represent a pastoral group moving into a region who retained their burial rites, but used local crafts. The richness of his discussion—which incorporates archaeological, historical, and ethnographic evidence to a geographically and temporally defined problem—stands in clear contrast to some of the more traditional arguments found in this volume.

Some articles stress local development over diffusion for particular issues. With detailed attention to the crucible, Barnard insightfully points out the distinctiveness of the Chinese bronze technology relative to that of the West. He does not address Jettmar's argument for mobile tribes on the central Asian steppes as transmitters of basic metallurgical skills or other evidence from the Shang dynasty, such as the horse-drawn chariot, for interaction with West Asia. Although his chronology is outdated,

Bayard's article also stresses the distinctiveness of bronze technology in prehistoric Northeast Thailand, and many of his points are still valid. It is amazing that if "the idea" of smelting was somehow transmitted to many parts of Asia during the third and early second millennia B.C., little of the technological repertoire for producing objects was transmitted. Thus it has become increasingly clear that there is more than one area for independent development of metalworking technology, even if independent invention of smelting may never be proved or disproved. Diffusion thus assumes at best a weak explanatory role for the development of regional metallurgical technologies.

None of the authors denies that cultures interact and have impact on one another. The question is whether the concept of diffusion at this stage in prehistoric understanding usefully characterizes this interaction in any but the broadest, most general sense. Even Loofs-Wissowa decries the lack of consideration of the means and character of cultural interaction and the need for concrete data, including ethnographically-based models. I feel the term should be dropped from any analytical usage in archaeology. What Parker (p. 53) says with respect to Southeast Asia, I suspect is true for other areas: "In the present state of our still very sketchy knowledge of the prehistory of our area, cultural diffusion cannot be recognized or its varieties defined with sufficient rigour . . . by the time our knowledge has advanced to the point where it can be, we will have passed beyond the point where the concept could be useful as an organizing or interpretative device."

Khmer Ceramics 9th–14th Century. Dina Stock, ed. Singapore: Southeast Asian Ceramic Society, 1981. 140 pp., 106 plates, 1 map.

Reviewed by WILHELM G. SOLHEIM II, *University of Hawaii*

An exhibition of Khmer ceramics, presented by the Southeast Asian Ceramic Society of Singapore and the National Museum of Singapore in March 1981, used this book as its catalogue. It includes, in 97 color plates, the 120 ceramic pieces of the exhibit. In addition there

are four articles: Bernard P. Groslier with an "Introduction to the Ceramics Wares of Angkor" (pp. 9–39); Roxanna M. Brown, "Khmer Ceramics of the Korat Plateau: Unravelling the Mysteries" (pp. 41–49); Dawn Rooney, "Use of Khmer Ceramics" (pp. 51–55); and Malcolm

MacDonald, "The History of the Khmers" (pp. 59–66).

Groslier's article is the major presentation and gives a detailed sequence of Khmer high-fired pottery from its pre-Khmer origins to the end of the tradition. This sequence could only be developed from careful excavation of many sites. Such excavations have never been published. To my knowledge, Groslier, and possibly a few of his Cambodian associates (probably now most of them dead), were the only archaeologists to have made such excavations. It is unfortunate that these excavations have not been published, but future excavations will be able to test the sequence presented here.

Groslier demonstrates that ceramics was not a major art of the Khmer. With his four black-and-white plates he shows that several potentially important pottery functions were fulfilled by wooden, basketry, or metal containers. Imported Chinese ceramics seem to have had a higher status among the Khmer elite than their own. Copies were attempted of some of the Chinese forms and glazes, but the common forms—similar in some cases to Indian forms—were not a part of the Chinese repertoire. He points out that most of the Khmer pottery found in museums and private collections did not come from Cambodia but from Khmer kilns in northeastern Thailand, and also that in these collections there may well be a number of

fakes. It is not too difficult to distinguish between the ceramics of the central Khmer kilns and those from Thailand. Relatively few Chinese and central Khmer pieces are found in Thailand sites; no pieces from the Thailand kilns have been found in the central Khmer sites. Groslier's article deserves a full review in itself.

Brown's article focuses on the glazes used on the ceramics from the northeastern Thailand kilns. It includes five small color plates, four of them of sherds. The color plates of the exhibit pieces do not show the details of the decoration described by Groslier nearly as well as do these pictures of sherds.

Rooney makes conjectures on the uses of the Khmer pottery. Referring to the Khmer ceramic lime containers, she says that the Indian tradition of betel-chewing came to the Khmer from India. Lime containers have been found in archaeological sites in the Philippines dating to about 4000 B.C., and possible areca nut (for betel-chewing) was found in Spirit Cave, northwestern Thailand, dating earlier than 6000 B.C. This tradition probably originated in Southeast Asia.

MacDonald's contribution was extracted from his book *Angkor* and is rather out of date.

This is a worthy addition to the Southeast Asian Ceramic Society's series of books on porcelain and stoneware pottery found in Southeast Asia.

Aboriginal Sites, Rights and Resource Development. R. M. Berndt, ed. Perth: University of Western Australia Press for the Academy of the Social Sciences in Australia, Canberra, 1982. 253 pp., 5 maps, 1 table, references. Available from: International Scholarly Book Services, Inc., P.O. Box 1632, Beaverton, Oregon 97075.

Reviewed by EARL NELLER, *State Historic Preservation Office, Honolulu*

Fourteen papers presented at a symposium of the Academy of the Social Sciences in Australia held at Australian National University in 1981 make up this volume. An overview of land use problems in Australia, with a particular focus on the protection of Aboriginal sites of significance, is given; prehistoric Aboriginal land use patterns and cultural heritage values that special places can have for contemporary Aborigines are summarized.

Ronald M. Berndt's "Traditional Concepts of Aboriginal Land" discusses how in prehistoric times Aboriginal groups occupied territories and places according to a system of subsistence strategies, social relations with other groups, and religious affiliations with the traditions and deities of particular sites. Knowing the land included the ability to understand both the natural and spiritual resources, knowledge of the sites, songs, and rituals.

L. R. Hiatt discusses some of the implications of "Traditional Attitudes to Land Resources." He presents a number of interesting examples, including some from his own experience. In discussing the idealized pattern and by giving real life examples of variations to the pattern, he presents perhaps the most well-rounded and balanced description of the topic in the whole symposium.

In a short presentation entitled "Kunuyhyunki Ngarrikadjung Mungoyh; Balanda Birrimwam Ngarrinang Kunkerrnge" [We followed for a long time the olden ways; white people came, and we saw a new way], Priscilla Girrabil describes how Aborigines are afraid of the white man looking for minerals and fear for the future of their people and their land. Her comment is interesting as a document of current attitudes held by educated Aborigines, especially because of the supplementary commentaries provided by Sue Kesteven and Catherine H. Berndt, which provide a context for understanding the relevance of Mrs. Girrabil's commentary to the topic under discussion.

Catherine H. Berndt's paper "Aboriginal Women, Resources, and Family Life" complements and reinforces the major themes expressed in the previous papers concerning the links between the prehistoric culture of the Aborigines and the land. Berndt's paper emphasizes the vital role played by women in the past, and draws on her experiences with the Aborigines going back over 40 years. For women, as well as for men, being a member of society included learning cultural fundamentals about social customs, the natural environment, and spiritual traditions.

"Aboriginal Perspectives of the Land and Its Resources" by Wesley Lanhupuy is valuable as a chronicle of contemporary Aboriginal statements and attitudes although he denies that the division of contemporary and traditional ideas is a valid one. He warns that mining leads to loss of land which, because of the land-based cultural traditions of the Aborigines, means loss of traditional society and culture.

G. C. Bolton's paper on "Aborigines in Social History: An Overview" provides the reader with a brief analysis of the history of historical thought and study related to Aborigines during the last 200 years. He divides the evolution of European-Aboriginal relations into four

periods: conflict, segregation, assimilation, and acknowledgment of Aboriginal rights.

John Von Sturmer's paper, "Aborigines in the Uranium Industry: Toward Self-Management in the Alligator River Region?" provides a critical analysis of the effectiveness of the policy of self-management. This well-annotated paper deplores the rosy picture of Aboriginal life depicted in some government public relations efforts, and suggests that Australians have not found the answers to their ethnic and land use problems.

Basil Sansom, in his discussion of "The Aboriginal Commonality," suggests that Aborigines share common ways of doing business that on the one hand set them apart from white society and, on the other hand, set them apart from each other. He suggests that Aborigines have difficulty developing intimate relations with people whose place in the landscape is beyond the local territory.

Peter Baume provides "A Government Perspective" by discussing the laws related to Aboriginal rights to land and resources. In Australia, mining activities and Aboriginal rights are regulated more by state legislation than federal legislation. While the federal government has the authority to make laws for the protection of Aboriginal rights, current policy is to encourage an atmosphere of cooperation that will permit the development of mineral resources to proceed in a manner that protects Aboriginal rights.

In his paper "Economic Imperatives as Far as Aborigines Are Concerned," Charles Perkins advocates policies that will ensure Aborigines get a fair share of the wealth and resources of Australia. While arguing that Aborigines should be managing their own affairs and financial resources, he also believes that Aborigines have an important contribution to make to the Australian nation as a whole.

H. M. Morgan, as a representative of the mining industry, talks about "The Mining Industry and Aborigines" and advocates mutual understanding, cooperation, and the elimination of barriers to the development of mineral resources.

Colin Tatz provides an interesting discussion of political issues in his paper "The Recovery and Discovery of Rights: An Overview of Aborigines, Politics and Law." He points out how

political attitudes have kept political scientists from studying and writing about Aborigines and politics. He suggests that Aborigines, lacking in political power and influence, should turn to the legal system to prod political changes.

H. C. Coombs, in his paper "On the Question of Government," discusses legal questions regarding government responsibility and jurisdiction over Aboriginal land rights. There is a touch of irony in his belief that Aborigines should be managing their own affairs, and also that the federal government needs to step in and prod the state governments into relinquishing some of their authority.

R. M. Berndt provides some provocative remarks in his concluding chapter on "Mining Ventures: Alliances and Oppositions." He believes that anthropologists have a moral obligation to help Aborigines counteract perceived wrongs and plan for the future. He believes that Aborigines are losing the mining game and that they are the only players in the game who cannot walk away from the playing field when the game is over and start up where they left off.

This collection of papers provides an informative and comprehensive overview of the issues confronting Australians as they attempt to develop their country's natural resources while,

at the same time, recognizing the rights and needs of the Aborigines. The book's frank, concise discussion of the issues makes it a good introductory text for university courses in the fields of anthropology, geography, history, and political science. American archaeologists working for state and federal governments in areas where Native Americans live should benefit from reading this volume's thought-provoking discussions of the issues in Australia.

For government archaeologists, professional knowledge about current research, techniques, methodologies, and theory is often academic and of little use in the conduct of day-to-day business. In the management of archaeological resources and environmental planning, the discussion is often dominated by issues other than the research potential of archaeological sites, issues such as contemporary ethnic significance, religious significance, and the rights of indigenous peoples. Government archaeologists are pioneers in the field of public archaeology. Working in a vacuum devoid of tradition or consensus, they establish policy and precedent as they go. By becoming familiar with the situation in Australia, one will become a better archaeologist in the United States.

Language Atlas of the Pacific Area, Stephen A. Wurm and Shiro Hattori, eds. Parts I and II, *Pacific Linguistics*, Series C, no. 66. Canberra: Australian National University, 1981 and 1983.

Reviewed by GEORGE W. GRACE, *University of Hawaii*

This Atlas consists of 47 colored maps, 500 × 360 mm (approximately 20 2/3" × 14 1/6"), not bound as a book, but contained in a 23 3/4" × 17" × 1 3/8" carrying case. Each map is marked by a numbered tab. Part I, consisting of 24 maps, covers the New Guinea area, Oceania, and Australia; Part II, consisting of 23 maps, covers the Japan area, the Philippines, Taiwan, and Mainland and Insular Southeast Asia. The breakdown of the maps is as follows:

Part I begins with a key to the map plates, a single small-scale map on which the areas

covered by the numbered maps are marked. The individual maps are grouped as follows:

1-14 are described as "Maps of the New Guinea mainland and Adjacent Islands."

1 is entitled "Papuan language stocks: Western New Guinea area."

2-4 are larger scale maps collectively covering the same area.

5 is entitled "Papuan language stocks: Eastern New Guinea area."

6-14 are larger scale maps collectively covering the same area.

15-19 are "Maps of Island Melanesia, Micronesia and Polynesia."

15-17, respectively, cover the Solomon Islands (including Bougainville), Vanuatu, and New Caledonia.

18 is of Micronesia.

19 is of Polynesia.

20-23 are "Maps of Australia and Tasmania," divided into four areas.

24, the final map of Part I, shows Pidgin Languages, Trade Languages, and Lingue Franche in Oceania and Australia.

Part II begins with the "General Map."

25 is "Language Groups in the Greater Pacific area."

26-29 are "Maps of the Japan Area."

26 shows Ainu dialects of Hokkaido and Sakhalin.

27 shows Japanese dialects of the main islands of Japan.

28 shows dialects of the Ryukyus.

29 shows hamlets of the "Okinawan islands." It is the largest scale map in the collection.

30-34 are "Maps of Taiwan and the Philippines."

30 shows the Austronesian languages of Taiwan.

31 shows the distributions throughout the Philippines of the "numerically most important" Philippine languages.

32-34 collectively cover the whole of the Philippines, this time including the "minor" languages.

35-37 are "Maps of Mainland South-East Asia," divided into three areas.

38-45 are "Maps of Insular South-East Asia," divided into eight areas.

Two additional maps show, respectively:

46 Pidgin Languages, Trade Languages, and Lingue Franche in the Philippines and Mainland and Insular South-East Asia, and

47 Distribution of Varieties of Chinese in the Greater Pacific Area.

The maps are drawn to a large number of different scales. At one extreme, the scale of the map of Polynesia appears to be about 1 : 25,000,000, while at the other (aside from Map 29 mentioned above), there are 13 maps (among them the set of nine which provide the detailed mapping of Papua New Guinea) whose scales appear to be about 1 : 1,000,000. The scales of

most of the others fall somewhere in between. However, the sets that are grouped together as collectively covering a single area are usually drawn to the same scale. Thus, they can be laid out together to provide an overview of the larger area.

There are indexes of language names following each group of maps. Information about genetic classifications, demography, bibliography, etc. is provided on the backs of the maps.

The genetic classifications of the Papuan and Australian languages have been worked out in large part by scholars at Wurm's institution and are not the subject of great controversy. It is true that distinguishing all of the genetic groupings requires such a great number of different colors and patterns on some of the maps (I counted 76 on one) that they are sometimes hard to distinguish. However, the classifications themselves may be presumed to represent the best information currently available.

More serious problems exist for other linguistic groups. Briefly, the authors recognize Thai-Kadai, Austro-Asiatic, and Miao-Yao "phyla," and Sino-Tibetan and Austronesian are each referred to at least once as "phyla."

The internal subgrouping of Austronesian that appears on the maps distinguishes only relatively low level groups, of which a large number are recognized. The taxonomic terminology used does not appear to be entirely consistent from one area (and author) to another. "Family" is used for some areas and not for others. Terms such as "group," "subgroup," "supergroup," and "group-level isolate" appear frequently. However, the solution adopted by the authors is probably about as good as could be achieved. The best information available has generally been sought and obtained, and the approach seems to strike a good balance between the goals of informativeness and prudence. Most of the groupings proposed certainly do represent clusters of more closely related languages.

It is perhaps petty to complain that the size and design of the Atlas make it inconvenient to use. A fair-sized area of table top is required just to open it out (since the carrying case opened is about four feet in length).

However, this Atlas will certainly be a basic reference tool. It is surely the most ambitious undertaking of its kind ever attempted for this part of the world. The maps are beautifully pro-

duced. The number of specialists listed as members of the steering committees, as coordinating editors, consulting editors, or editorial advisors is too great to count easily. It undoubtedly provides the most accurate linguistic maps available

for most of the area covered—the Philippines may be an exception, but the Philippine maps are themselves excellent.

The editors and all of those who contributed are to be congratulated.

An Archaeological Reconnaissance in the Palau Archipelago, Western Caroline Islands, Micronesia. George J. Gumerman, David Snyder, and W. Bruce Masse. Research Paper no. 23. Carbondale: Center for Archaeological Investigations, Southern Illinois University, 1981. xx + 141 pp., 42 figs., 22 tables (paperbound).

Reviewed by WILLIAM S. AYRES, *University of Oregon*

This volume presents the results of a field project on Babeldoab Island within the Palau (now Belau) archipelago of western Micronesia. Given that the field time was only one month, the results are substantial. The research, sponsored by the Trust Territory of the Pacific Islands Historic Preservation Program, was designed as the first step in a proposed long-term survey and excavation program. The project aimed to (1) look for deep midden sites; (2) carry out field reconnaissance; (3) interrelate ethnographic and ethnohistoric data and archaeology; and (4) do a two-tiered "settlement system" analysis.

While some archaeological work had been done in Belau by Japanese scholars in the 1930s–1950s—mainly material culture studies rather than excavations—the first systematic excavations were carried out by Osborne in the 1950s and 1960s and by Takayama in the 1970s. The work by Gumerman and his colleagues enlarges basic site distribution data consistent with other historic preservation projects undertaken in Micronesia within the last decade.

At the outset the investigators found two existing difficulties. One was the confusing welter of previously used site designation systems; they instituted their own. Let us hope that this system will become the standard. The other problem centers on site definitions and boundaries. Site definition in Belau poses problems as in other western Micronesian islands where sherd scatters are the primary indicators. Boundaries were defined on the basis of portable artifact distributions, permanent stone architecture, and "non-discrete, nonportable areas," such as the early terraces so common in interior Babeldoab.

The field survey was undertaken as a reconnaissance. With dense vegetation, the approximately 25 m intervals between field surveyors seem like a particularly wide separation between transects for a comprehensive survey (p. 19), and particularly so for data to be used for "settlement system" definition (p. 16).

Over half of the volume is devoted to site descriptions; these include 33 prehistoric and four historic ones. Features within sites include stone platforms of houses and ritual architecture, shell middens, terracing, stone pathways, stone boat docks, agricultural "rockpiles," World War II military remains, sherd concentrations and other surface refuse, including coral, as well as historic metal and ceramic artifacts. Only sites with clearly identifiable foreign historic materials, here entirely Japanese and military related—as is common in Micronesia—were designated historic in age and association. Thus other "prehistoric" sites exhibiting traditional architecture and even pottery concentrations may very well fall into the historic time frame as well, that is, from the late A.D. 1700s on.

The specific region for intensive survey was in Irrai Municipality on southern Babeldoab. The main reason for this selection seems to have been the existence of roads in this area (p. 19), and that survey was focused along the road that serves as a transect of the Municipality. Approximately 140 ha (.3% of Babeldoab) were covered in a short period of time. Little discussion of site-distribution differences within ecological zones transected by the road is offered.

Artifacts included only 15 shell tools and 16 worked stone pieces, but over 4400 sherds were

collected, of which nearly 2600 came from one site, B:IR:1. No coral tools were collected. A systematic surface collection of a sherd concentration in B:IR:1 was accomplished but the results remain inconclusive in terms of distributional patterns because of slope erosion (p. 39). In general, the discussion of artifacts makes this report a very preliminary one; artifact classes are recorded in tables and discussions are offered only in the most general terms (for example, shell artifact, ceramics, bone, glass). No site maps or stratigraphic illustrations of tests are included.

The most detailed analysis covers ceramics, which are seen by the investigators, as by previous researchers, as holding the key to Belauan archaeology. In contrast to continental areas where ceramic classifications offer feasible chronological markers, many Pacific island pottery traditions show insufficient variation, particularly in stylistic features, to provide readily usable attributes for classification into temporally or functionally distinct classes. Thus, detailed examinations of nonplastic inclusions (naturally occurring) and added tempering materials have been undertaken by a number of researchers. Belauan pottery is unusual in Micronesia in that it has heavy crushed sherd tempering, for example, as documented ethnographically by Osborne in 1954 and as seen in archaeological specimens. The only other occurrence of crushed sherd temper in Micronesian prehistoric pottery is from Pohnpei in the eastern Carolines during the first millennium A.D.

Belauan sherds show up here as quite thick (a range of 6.6-9.8 mm average thickness for various site collections), quite diverse in vessel shapes, and large compared to known collections from Truk and, particularly, Pohnpei in eastern Micronesia, but similar in these attributes to other western Micronesian collections. The investigators successfully used X-ray images of a sherd sample ($n = 257$) to determine the variability of nonplastic inclusions. However, one wonders about the factor of differing sherd thickness in using X-ray images to count inclusion density. Variability in inclusions was the primary attribute used in testing four general hypotheses set up to consider societal and organizational differences. With reference to Hypothesis 1, that "different centers of authority (chiefdoms) controlled different parts of the

islands," the authors found that spatial variation in pottery inclusions exists but that differences in clay sources may account for this variation. Thus, questions about the nature of sociopolitical boundaries are not resolved in this way. It also seems necessary to emphasize that natural inclusions in clay cannot be treated the same way as purposely added temper for these kinds of comparisons. The authors find, with reference to Hypothesis 2, "each chiefdom's settlements specialized in different functions, such as providing warriors or acting as political capitals," that ceramic manufacture and use—we are not told how these attributes were determined—suggest village specialization in function; however, several countering factors are referenced here. Hypothesis 3, "individual villages within chiefdoms integrated different activities across a wide range of environmental zones," is rejected and no village specialization per microenvironment is defined. It should be noted here that the transect parallels the coast, and the true inland areas were not sampled. Hypothesis 4, that "village boundaries were unstable due to intense competition and changed rapidly through time," is also rejected on the basis of test excavations showing lack of ceramic change through time. However, persistence of ceramic style does not necessarily mean a short span of occupation (no radiocarbon dates are reported that might aid in this assessment). Also, depth of sherd concentrations may reflect continued occupation, but not boundary features. Horizontal shift of village concentration within a large, complex site (B:IR:1 is more than 9 ha) seems likely through time; testing Hypothesis 4 would require a true boundary measure. In this regard, it would have been useful to have sherd density figures per site, for example, to contrast sites B:IR:7 and 22, where sherd density in the former is five times that of the latter.

Food remains were limited. Shellfish were identified as to genus and species, particularly those sampled from two shell middens. The preferred kinds are quite similar to those reported elsewhere in Micronesia. Broken cowrie shells (*Cypraea*), while not common, pose some problems of identification. While ethnographically these are not commonly reported as food items, their use as food in prehistoric times seems supportable. Archaeological specimens show that they were often selected as raw material for

tools such as scrapers as well as parts of fishing lures. That they were also food seems likely given the quantities in many sites and the breakage patterns, but distinguishing food remains from manufacturing waste is complicated. Perforated *Anadara* spp. valves are common in western Pacific sites, but it is unclear whether the hinge-area perforations represent a breakage pattern resulting from the method of opening the shell (p. 117) or purposeful punching of a hole through the shell from the inside—as the breakage pattern suggests—to provide a net sinker or a cord attachment for a scraping tool (both ethno-

graphically reported). Although the breakage pattern suggests punching from the inside, thus after opening, my replication studies indicate that the fracture pattern also can be produced by percussion from the exterior.

The short conclusion indicates the report's preliminary nature, but the volume provides a good review of pertinent data recovered during fieldwork and documents the initial stages of what has become a multi-year project. Pacific archaeologists can look forward to a complete monograph on the research.

Tikopia: The Prehistory and Ecology of a Polynesian Outlier. Patrick Vinton Kirch and D. E. Yen. Bernice P. Bishop Museum Bulletin 238. Honolulu: Bishop Museum Press, 1982. xviii + 396 pp. \$28.00 (paper).

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The name Tikopia needs no special explanation in anthropology due largely to the successful writing of one social anthropologist, Raymond Firth. Even so, the island's prehistoric settlement and cultural development remained uninvestigated archaeologically prior to the 1977–1978 fieldwork discussed here. The authors appropriately acknowledge their considerable debt to Firth for providing an understanding of the historic culture and society, especially the Tikopian economy, which was a special topic of investigation.

This volume represents some of the best of recent archaeological work done in the Pacific. It very successfully integrates an ecological study of the island setting as an interactive element in culture change with evidence from remote prehistoric periods accessible only through archaeology, and it interrelates the copious ethnographic documentation for Tikopia with archaeological data from recent periods.

After setting forth the general research plan and reviewing the historical, ethnographic, and physical settings, the authors examine agricultural methods. Additional sections of the book describe the actual archaeological fieldwork and analysis performed, and the volume then concludes with a synthesis of ecology, culture history, production systems, and demography

interpreted in light of long-term Tikopian cultural change.

The Polynesian "outliers," of which Tikopia is a classic example, have long been of anthropological interest, and recent archaeological work—starting with Davidson's pioneering work on Nukuoro—is beginning to provide answers to a number of questions about their origins and cultural relationships. Tikopia provides a significant contrast in Polynesian adaptation when compared to nearby Anuta, which Kirch and Yen studied prior to Tikopia. This contrast, however, seems to reflect the late Polynesian adaptation to the distinctive island habitats and not necessarily separate origins or early divergence. The significance of Tikopia and Anuta is heightened by their representing "rare Polynesian examples of contemporary production systems that are essentially 'closed' or self sustaining"; that is, there are no cash crops or major imported foods. Kirch and Yen characterize these as "endpoint" systems, but with each representing alternative courses of development (p. 26). The systematic description of the salient features of the food production system is a valuable complement to Firth's classic 1939 study. The present system is seen by Kirch and Yen to represent one disintensified from that described in the early 1900s.

Archaeological studies consisted of surface survey (correlated with a "geomorphological model," p. 86), testing, and areal excavation. A total of 23 localities were excavated; these included architectural sites, open middens, and agricultural features. Four major occupation phases—Kiki (900–100 B.C.), Sinapupu (100 B.C.–A.D. 1200), Tuakamali (A.D. 1200–1800), and Historic (1800–)—were defined. The Tuakamali Phase marks the beginning of the first Polynesian and "modern" Tikopian traits (p. 331).

Pottery forms a major component of the archaeological evidence and its earliest expression is clearly a locally made Lapitoid one—as indicated by the recovery of over 3500 sherds—and the later appearance of an imported ceramic, Sinapupu, a Mangaasi-related type represented by only 152 sherds. Kirch and Yen provide a new shell adze classification that is based on a 23–attribute set with 12 factors distinguished in a varimax rotation. This classification is stated to be Tikopia specific, but comparisons with adze assemblages from other western Pacific Islands should be enlightening. Of interest is the association of several shell adze types (Nos. 6–8) with the Lapitoid occupation. Also, the shift in stone adze characteristics from Lapitoid to later assemblages is marked.

Pat McCoy's analysis of the Tikopian lithic technology is a valuable addition to the discussion of stone artifacts. Of interest is his conclusion that some obsidian—characteristic of the Lapitoid or Kiki Phase—was brought to the island as decorticated cobbles or flakes.

An impressive collection of faunal material (35,000 bones and more than a ton of shell) was analyzed. The main conclusion, now familiar from a number of island habitats, stresses the impact of initial human predation on biotic communities exploited for food. In the Tikopian data this predation shows up in the turtle and probably avifauna, but is most clear in molluscan remains. The fish remains show this impact less clearly, which suggests to the authors that a diversified fishing strategy existed throughout the entire sequence. They conclude that there is a marked shift from wild to domesticated forms and a reduction in the total intake of animal protein over time (Table 48). The latter conclusion is not as well supported as the former by the analysis. The increasing reliance on plant,

particularly starch, foods in the diet is evident from other Pacific island contexts as well, but the significance of increased domesticated animal production is difficult to calculate, despite the efforts to estimate meat food values (p. 303).

Evidence offered for significant environmental change accompanying human activity on the island comes from a variety of sources, including nonmarine mollusc studies—published elsewhere in 1981 (p. 308)—soil analysis, and faunal and floral remains (some of the latter showed exceptionally good preservation). A conclusion based on the well-integrated geomorphological and archaeological evidence is that the Ravenga tombolo and Te Roto freshwater lake are late formations; the present lake was a saltwater bay until c. 400 years ago. Shoreline reconstructions also show that the very limited inhabitable land on Tikopia, c. 2.5 sq. km in recent times, was only about .4 sq. km during the earliest settlement phase.

Kirch and Yen believe that most of the island's stone architecture is late (and associated with the Polynesian occupation, for example, *marae*, house foundations). It is unfortunate that more detail is not available about the distribution of the later settlement. This is understandable as much of the field effort went into excavation of the Kiki and Sinapupu Phase sites; also, excavations and, it seems, intensive survey were not possible in the Uta lakeshore settlement area, one of the major traditional settlements. However, for comparisons with other later Melanesian and Polynesian island settlements, such information about the archaeologically most visible occupation, that of the Tuakamali-early historic period, would be useful to provide a more direct link between the oral history of traditional Tikopian culture and archaeological remains. For example, general settlement areas are noted for the Tuakamali Phase, but little site distribution information is provided that would help explain some of the shifts in subsistence and religious practices ascribed to the historic Polynesian population.

At the beginning of the cultural sequence, the authors note (p. 329) that the question of cultural replacement of Kiki by Sinapupu people remains unanswered for Tikopia as it does for other Southwest Melanesian islands where similar changes are reported. While the cultural change from Kiki to Sinapupu seems to be most

dramatic, the Sinapupu–Tuakamali change is also marked, for example, in fishing gear, ornaments, architecture, and agricultural practices dated to after A.D. 1200 (pp. 333, 350). Thus the question of when and how Tikopia came to be a Polynesian settlement, an “outlier,” is not entirely clear from the archaeological evidence.

The authors make the point that the Polynesian settlements in Melanesia, like Tikopia, were not peripheral to mainstream Polynesia; in contrast, they see these islands as representing a fusion of elements reflecting several major eras of Southwest Pacific prehistory. The true “outliers” of Polynesian culture are New Zealand, Easter Island, and Hawaii. However, I think much of what is discernible as Polynesian in the Tikopian case may very well be derived from

a West Polynesian “homeland,” for example, Tongan people (see p. 343), and may not be the result of an interactive system that places the tiny Tikopian population in the center rather than the periphery of cultural changes leading to an identifiable prehistoric Polynesian culture. The question posed is the continuing problem of archaeologically defining the first “Polynesian” culture.

In sum, the authors of this volume offer an insightful synthesis of a considerable body of evidence that helps place the Polynesian outlier “problem” in proper temporal perspective. This monograph is a major addition to the literature on Polynesian archaeology and will serve as a model for archaeological reporting for years to come.