



community lived, plus the fact that, despite his book's title, Wu has almost no post-1973 data, means that the book's contribution to an analysis of the Chinese community's role in an independent PNG is very weak.

The absence of post-1973 data unfortunately coincides with the fact that Wu's work is almost exclusively focused on Rabaul. Rabaul in recent decades could not be described as a dynamic centre by anyone other than a vulcanologist. Port Moresby has been the growth point in PNG for 20 years and more, and the Chinese contribution to its growth has been fundamental. In concentrating on Rabaul, Wu has inadvertently allowed that place's atrophy to infect his assessment of the role of his subjects in national development.

My next concern is that throughout this account, the Chinese community appear to be characterised by complete political naivety, a trait which cannot solely be explained by their desire to keep a low profile. On the whole, I am persuaded that Wu's subjects are far from being as naive as he depicts them — that innocence and ignorance seem to me to derive more from the author than from the community studied by him.

I also found Wu's sociological analyses to have a muddying effect in places and would have preferred to see rather less evidence of this book having first seen light of day as a doctoral thesis pandering to abstruse examiners.

Perhaps the worst part of the book is its preface by Professor Hsu of the University of San Francisco. Hsu's colorful exaggerations, racial stereotyping, general irrelevance and inaccuracies may be meant to be complimentary to the author, but they are not very complementary to his work.

All in all, therefore, Wu has certainly not told the whole story of the Chinese in Papua New Guinea, but what he has covered he has done, for the most part, well. Certainly this is a book which should be read by all interested in Papua New Guinea — preferably on loan from a library. — *Richard Jackson.*

# Discovering the three ages of mysterious Tikopia

**Tikopia: The Prehistory and Ecology of a Polynesian Outlier.** *Bernice P. Bishop Museum Bulletin 238. Published by Bernice P. Bishop Museum Press, Honolulu, Hawaii, 96819. ISBN 0 91 0240 30 2. No price provided.*

This weighty and profusely illustrated tome by Pat Kirch and Doug Yen discusses archeological research carried out in 1977 and 1978 on Tikopia, a tiny Polynesian "outlier" in the Southeast Solomons. It forms a perfect companion volume to the many publications of Sir Raymond Firth on the ethnography and oral history of the island, based on his field work there in 1928-29, 1952 and again in 1966.

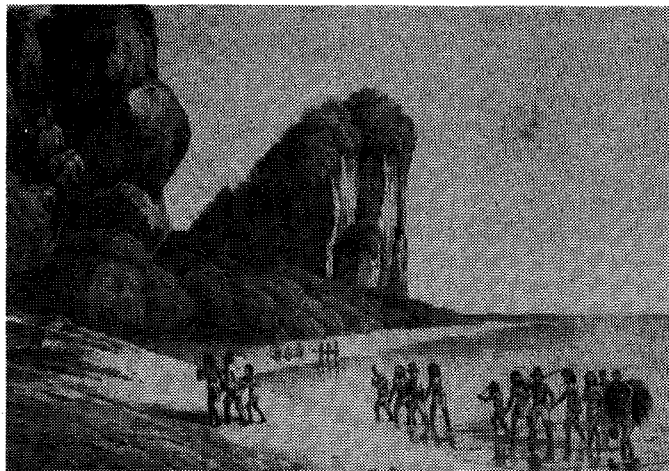
Here we find archeological confirmation of the substance of oral history collected by Firth, and previously considered by many other anthropologists to be purely mythical accounts. In addition, the extended time-depth provided by archeology carries us back much further in the island's history, beyond folk memory. Never has the value of integrating both archaeological and ethnographic approaches in

studying the cultures of the Pacific been so admirably demonstrated as in this book. The integration of both approaches gives us a much fuller picture, which cannot be independently gained from either. While archeologists have accepted this for decades, few of our anthropological colleagues have been convinced: a reading of this volume might change a few previously sceptical minds.

The nearly 400 pages are by no means light reading, and it is a work clearly written for the Pacific specialist rather than a more general audience. While the concluding chapters, which provide a synthesis of the culture history of Tikopia, are comparatively easy reading, much of the rest of the volume is taken up with detailed discussions of geomorphology, shell adze classification, meat weights, fish species identifications, and archeological test pit stratigraphic columns. I think it would be useful for PIM readers to have a summary of some of the main findings of the author's research, and some discussion of the relevance of this small island to the prehistory of the Western Pacific.

The most immediate questions raised by the Polynesian language and culture of Tikopia, like other "outliers" found along the fringe of Melanesia, are: where did the people come from, and when did they arrive? One old theory was that the outliers represented Polynesians left behind on the journey eastwards from a supposed homeland in South-east Asia. A competing view was that they represented a more recent "backwash" of settlements westwards from Polynesia, drift voyagers from Western Polynesia who arrived in Melanesia only a few hundred years ago. Recent archeological research, of which Kirch's and Yen's book is probably the most thorough example, has confirmed the latter theory, but also shown that the history of human occupation of these islands extends back considerably longer than the few hundred years of Polynesian occupation. Melanesian cultures previously inhabited them, to be assimilated or perhaps even exterminated by the Polynesian migrants. Thus Tikopia's history goes back three millennia, while the Polynesian elements of its culture appear only within the last 700 or so years.

People have often tended to think of "traditional" societies in the Pacific as essentially static, unchanging for perhaps thousands of years, and existing in perfect harmony with their environment before the fatal impact of European colonisation. The picture presented here, however, is one of continuous and sometimes abrupt change — changes in culture, economy, and almost certainly population replacement as well. Kirch and Yen distinguish three main phases in the history of Tikopia, exclusive of the period of European contact: the initial settlement or Kiki phase from 900-100



**The Ravenga shore of Tikopia, with Fonganaku and Fongatekoro pinnacles, as seen by Dumont d'Urville in 1828.**

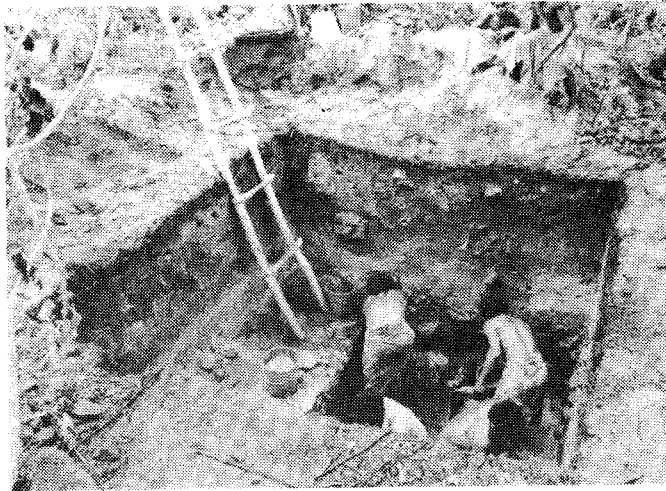


BC, the Sinapupu phase 100 BC to 1200 AD, and the Polynesian, or Tuakamali, phase from 1200 to about 1800 AD. The oral history of the Tikopia collected by Firth relates only to this more recent phase.

Who were the initial inhabitants? They were clearly associated with the great colonising wave, the so-called Lapita expansion, out of the Bismarck Archipelago, which took place 3000-4000 years ago. The Lapita colonisation, named after the distinctive pottery style associated with it, led to the initial occupation of Fiji and Western Polynesia, and almost certainly the initial settlement of New Caledonia, Vanuatu and Solomon Islands. Whether these colonisers were more Melanesian or Polynesian in appearance cannot be established until more skeletons from the period are excavated and analysed. What is certain is that the languages (or language) they spoke were ancestral to those spoken today both in Polynesia and much of Island Melanesia. While the main thrust of colonisation was clearly southwards and eastwards, there is evidence of backwash westwards even in this early period — a forerunner of later Polynesian drift voyages.

Wherever the immediate homeland of the colonisers of Tikopia was, they found an island which looked quite different from what it does today. The land area was only 72 per cent of its present size, while the area of the reef flat was correspondingly larger. At that time the brackish crater lake in the middle of the island was an open bay with rich fish and shellfish resources. The Ropera swamp where *Cyrtosperma taro* is now grown was then an area of open reef flat. The island was covered in forest and, with the exception of the coconut, would have had very few edible plants naturally growing on it. Birds and marine life were especially abundant in this pristine environment.

From the first day ashore the human settlers would have had a tremendous impact on the environment. By predation and habitat destruction the fauna and flora were quickly decimated.



Unravelling the mysteries of Tikopia's past: excavation in progress at Site TK-35, Zone B2 level.

The megapode bird, and probably one species of rail, were hunted to extinction, the shellfish beds were heavily exploited, and the forest was burned to clear gardens where a range of introduced crops were grown. Ground mammals were introduced for the first time: pig, dog and the Polynesian rat, as well as chickens.

The culture of these initial settlers associates them clearly with the Lapita expansion. The early pottery recovered on the island, though locally made, is within the Lapita tradition. Links with areas both to north and south are shown by the presence of exotic materials — stone adzes and chert from the main Solomon Islands, obsidian from the Bismarck Archipelago of Papua New Guinea, and volcanic glass from the Banks Islands in Vanuatu.

The transition between the Kiki phase and the succeeding Sinapupu phase is the most abrupt in the Tikopia sequence. Local manufacture of pottery ceases and a new style of pottery called Mangaasi is imported from Vanuatu, probably from the island of Santo. New ornament types come in, and a tabu on eating turtles, sharks and rays seems to have come into effect — they disappear from the menu in this phase.

Are we seeing the replacement of one people by another, an intrusive population coming in from the south and dominating or wiping out the initial colonisers?

Kirch and Yen are understandably cautious, hedging their bets until the comparative picture from the nearby islands becomes clearer. At present all we have are intriguing hints of sudden cultural changes in a wide area of the Pacific about 2000 years ago. These are suggested by cessation of pottery manufacture altogether in some areas, and replacement of Lapita-like pottery by radically different styles in others. Thus pottery disappears in Santa Cruz and the Reef Islands, Tonga, Samoa, Futuna and probably Uvea (Wallis). In Fiji Lapita is replaced by Paddle Impressed pottery, Mangaasi pottery becomes dominant in central and north Vanuatu and displaces Lapita pottery in New Caledonia, where it is clearly an intrusive tradition (as it is on Tikopia and near by Vanikoro). Big changes were obviously occurring in the Western Pacific at this time, the first major cultural reshuffle since initial settlement 1000 or so years previously. Only more archaeological research in the region will allow us to explain this important, but at present poorly understood, period of Melanesian and Polynesian prehistory.

The Sinapupu phase lasts for just over 1000 years. During this period forest clearance for agriculture and subsequent erosion began to alter the appearance of the island, while the build-up of sand dunes added to its land area. Although marine resources continued to be exploited, we find an increasing reliance on domestic

pigs in the diet. New settlements were begun in this phase, presumably representing a rapidly growing population. Contacts with other islands continued with volcanic glass and pottery imported from Vanuatu, chert probably from Ulawa in Solomon Islands and a single piece of Paddle Impressed pottery from Fiji. This last may well be witness to the arrival of a canoe-load of drift voyagers from Fiji.

The transition at about 1200 AD to the Tuakamali phase is not as abrupt as that between the Kiki and Sinapupu phases. Despite some cultural continuity, however, there are some major changes and it is in this phase that the distinctive Tikopian culture of today developed. Without doubt this phase represents new colonists from Western Polynesia who mixed with, and came to dominate culturally, the earlier Melanesian population. Pottery imports from Vanuatu disappear at the time when Mangaasi pottery ceases to be manufactured in central Vanuatu. New artefact types occur on Tikopia, and the stone architecture of this period also has many close parallels with Western Polynesia. In addition, stone adzes were imported from that area. Volcanic glass was still being imported from Vanuatu and arrows and the occasional pig were brought in from the nearer Solomon Islands. The links with Western Polynesia shown archeologically are of course explicit in Tikopian oral tradition, with particular lineages tracing their origins to Uvea (Wallis), Samoa, and Tonga.

During this phase there was considerable expansion of settlements, and, presumably, continuous growth in population. At the same time major changes occurred in the landscape. By a complex mixture of natural and human forces, the land area of the island increased, the Ropera swamp formed, and finally the salt water bay was cut off from the sea and transformed into a brackish lake. The closure of the bay and subsequent loss of fish and shellfish resources would have been disastrous for those living on its inner shore. This event provides a partial explanation for the major wars of that



period recorded in Tikopian tradition. In these wars one clan was exterminated except for one infant boy, while another group chose exile rather than annihilation.

In the earlier part of the Tuakamali phase pig husbandry continued, providing a major source of protein second only to fish. The destruction of the pig herds near the end of the phase appears to have taken place because their damage to gardens had become too much of a burden. Another event late in the sequence is the disappearance of spiny puffer fish and moray eels from the diet, both known to have been tabu according to the ethnographic accounts. The turtles, sharks and rays which were tabued in the Sinapupu phase appear again in the Tuakamali as once more acceptable fare. There were major changes in agriculture during this period, with the previously dominant slash-and-burn agriculture giving way to the intensive "agro-forestry" system of today.

The boundary between the Tuakamalia and the historic phase on Tikopia is a hazy one, and in many ways current Tikopian culture shows clear continuity with the Tuakamali. Partisans of early Spanish influence in the Pacific will be disappointed to hear that the authors consider that the first contact of the Tikopians with Europeans, the Spaniards of Quiros' 1606 expedition, had no appreciable impact on their culture. By the early 1800s European influence was becoming more marked: shell tools were replaced by metal, and tobacco and infectious diseases were introduced. It seems unlikely, however, that Joe the Lascar or Martin Buchert, who were left on Tikopia by the *Hunter* in 1812, did much to

In conclusion, the picture of Tikopian prehistory which Kirch and Yen paint for us is not one of three static millennia, but of continuous and sometimes abrupt cultural change. The people who inhabited the island were not "children of nature" but active creators of their environment who took their part in the complex events which shaped the history of the Pacific up to and beyond its "discovery" by Europeans. As we find out more about this period of history we come to see that it was just as exciting as the history being made today. Some things never change. *Matthew Spriggs.*

\* Dr Spriggs is an assistant professor of anthropology at the University of Hawaii at Manoa.

### Books received

**Schooner from Windward: Two Centuries of Hawaiian Inter-island Shipping.** By Mifflin Thomas. Published 1983 by University of Hawaii Press, 2840 Kolowalu Street, Honolulu, Hawaii 96822. ISBN 0-8248-0799-5. Price US\$21.95.

**Pacific Basket Makers: A Living Tradition.** Edited by Suzi Jones. Published for Consortium for Pacific Arts and Cultures, Honolulu, Hawaii, by the University of Alaska Museum, Fairbanks, Alaska, 1983. No price or ISBN given.

**Population of Papua New Guinea.** Country Monograph Series No. 7.2. Published 1982 by ESCAP and the South Pacific Commission, Noumea, New Caledonia. No price or ISBN given.

**Land, People & Government: Public Lands Policy in the South Pacific.** Published 1981 by The Institute of Pacific Studies in association with The Lincoln Institute of Land Policy, USP, Suva, Fiji. No ISBN or price given.

**Oceanic Linguistics. Vol. XX, No. 1.** By Albert J. Schutz and Tsunoda Tasaku. Published bi-annually by University of Hawaii Press, 2840 Kolowalu Street, Honolulu, Hawaii 96822. Subscription price US\$10 for two issues per annum. No ISBN.

**Vaka i Taukei: The Fijian Way of Life.** By Asesela Ravuvu. Published by the Institute of Pacific Studies of the University of the South Pacific, Suva, Fiji, 1983. No price or ISBN given.

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