



NEW ZEALAND  
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**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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BOOK REVIEWS

Peter White and James O'Connell, A Prehistory of Australia, New Guinea and Sahul. Academic Press, Sydney, 1982. 286 pp., figures, appendices and bibliography. (Australian) \$17-95 (paperback), \$32 (hard cover).

This is an important book about the prehistory of the unique continent of Sahul, or Greater Australia, which split into Australia and the islands of New Guinea and Tasmania as the ice-caps shrank and the sea-levels rose at the end of the Pleistocene. Settled at least 50,000 years ago, this region ultimately witnessed the origins of the maritime cultures involved in the rapid colonisation of the remote islands of Oceania after about 2,000 B.C. This is the background to the prehistory of Polynesia and is of interest to us.

The book begins by stating its theoretical position giving deferential nods, in passing, to people like Binford and then, sensibly drops all that and gets on with the job of discussing the prehistory of this archaeologically-exciting region which remained Terra Australis Incognita until only this generation.

Sahul, isolated for millions of years from the Southeast Asian mainland, witnessed the independent evolution of a diverse range of marsupials. The book considers the founding human population. Was it a bedraggled pair washed ashore clinging to a log? Computer studies now suggest a larger group was required which implies that fairly sophisticated water-craft were in use in this part of the world at an early date.

The remote mountain valleys of the New Guinea highlands, with their dense populations of people and pigs, emerged from the stone age only this century, yet people were hunting and collecting there over 20,000 years ago. It now transpires that the region became one of the world's earliest centres of domestication as the ice age ended. More than that, the process may have been independently based on indigenous plants prior to the arrival of Southeast Asian crops. The remarkable site of Kuk, under study by Jack Golson, presents a 10,000 year history of episodes of intensifying swamp agriculture. It is still to be established if the swamps were marginal places where people gardened under stress of influences such as population growth or humanly-induced environmental change, or whether there were more optimal places to intensify production which may, in turn, have supported the emergence of the renowned system of highlands "Big-men". It is also unclear when that latecomer, the sweet potato, arrived to enable

the expansion of settlement, increase of pig herds and the social elaboration that went with it. The time and method of arrival of the domestic pig is uncertain too. Conventional opinion is that they were brought by people between 6,000 and 10,000 years ago. However, they just may have done it alone. Last century the naturalist Wallace saw them swimming the Straits of Molucca "with great ease and swiftness".

The visible prehistory of coastal Melanesia began mysteriously late. The book traces the beginnings of settlement and interregional trade, the spread and stylistic transformation of pottery and the role of the Austronesian language family. Cultural developments reflect a complex interweaving of independent changes and diffusion. The theoretical relevance of much of this to New Zealand prehistory is high.

Australian prehistory emerges as equally fascinating. There, as in New Zealand, was an episode of extinction of large land animals. Moreover, Australia is shown not to have been the cultural backwater portrayed by earlier generations of Eurocentric texts. To the basic Pleistocene tool kit were added the early invention of hafted ground-stone hatchets and grindstones for seed preparation. Some 4-5,000 years ago a range of small tools was added too. There is some discussion as to whether these reflect technological or simply stylistic changes. They may also reflect increasing exchanges between tribal groups.

One theme of Aboriginal culture is its relative lack of material things. However, this is misleading. There was an enormous elaboration of social and ceremonial life while the recent archaeological record is now revealing a great diversity of subsistence and settlement practices. As to old accusations such as -why did the Aborigines not develop agriculture - it is shown that, indeed, there was sophisticated management of resources. Aborigines were simply too well off to become farmers.

Tasmania, as always, remains problematical. One important interpretation of its prehistory is devolutionary. The argument is that, cut off from the mainland for 12 millennia, it began to run down mentally and materially. Tasmania has long been a model for philosophical views of humanity as a whole which adds heat to the topic. Among the archaeological counter-attacks is the idea that, when items dropped from the cultural repertoire, the change was functional. The argument rages on. The most recent development, even as this book went to press, is the discovery of rich cave deposits on the Franklin River, now declared a World Heritage area. These date to the last glacial maximum and may rival contemporary Upper Palaeolithic sites on the Dordogne.

This is a much-needed book and, all things considered, a very good one. It is well illustrated although some of the map projections are unusual. It is easy to read. It is also up to date and comprehensive. It emphasises major themes in the prehistory of the region but manages to discuss data from individual sites in sufficient detail for the reader to evaluate the arguments and interpretations. It will be a useful book for students and, in fact, for anyone with an interest in the subject.

This book reviews the work and ideas of many of White and O'Connell's colleagues and, naturally, it is unlikely that all of them will be satisfied with the treatment they receive. Other reviews have shown already that the book will not always please the specialist, and that it is harder still to satisfy the pedant.

All reviewers are entitled to a personal complaint and mine is that I think the book sometimes errs on the side of correctness. For example, one of the most intriguing disputes is the extent to which the colonising population of Sahul included both modern and "archaic" biological elements. Given the uncertain sampling situation, White and O'Connell cautiously bring down the verdict that no case is proven. We are unlikely to have heard the last word on this.

Geoffrey Irwin

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Bruce McFadgen and Raewyn Sheppard, Ruahihi Pa. National Museum of New Zealand Bulletin, 22 (and New Zealand Historic Places Trust Publication, 19), 1984. 65 pp., appendices, bibliography. \$6.00.

Ruahihi is at the tidal limit of a river flowing into the Tauranga Harbour in the Bay of Plenty. Here the volcanic plateau ends at a high bluff over the river. The locality attracted hydro power planners as offering the best available head for power generation, drawing water from the plateau. Three hundred years ago the same topography attracted Maori, who built a pa on the bluff.

The hydro scheme became the site of an infamous engineering failure when an embankment on the headrace canal to the hydro works collapsed. Before the construction took place Bruce McFadgen and the New Zealand Historic Places Trust undertook a rescue excavation on part of the pa which was to be destroyed by the construction work. Did the editor of the Newsletter have his tongue in cheek when he asked an

engineer to review the resulting publication? Anyway I am happy to report the archaeology is far from a disaster.

A promontory forms an inner defended area of the site. Outside this a larger area was defended by a transverse and lateral ditch and bank. The site had been modified by earthmoving machinery by its European farmers. Both machinery and hand methods were used by the archaeologists to strip 6000 m<sup>2</sup> of the site, inside and outside the defences in an excavation period of six weeks. Judging by the report, recording standards did not fall before this rapid generation of data.

The report is noticeable for the attention given to the fills encountered in the structures and postholes and sets new standards for the collection and analysing of botanical materials from these deposits. The authors argue for a sequence of infilling which extends across the site and allows many of the structures to be stratigraphically linked, so that despite the farming disturbance the usual problem in reoccupied sites of relating features in time is to some extent overcome and a coherent history of the site can be given with only minor recourse to radiocarbon dating to relate separate features.

A brief sequence is as follows. About 300 years B.P. the outer fortification was formed, probably a little later than the inner fortification. The outer area was the scene of repeated gardening from first occupation onwards. The outer ditch infilled during the latter part of the use of the site. Pit storage was predominantly early in the sequence. Throughout the latter part of the sequence some areas were used for houses and domestic activity. The vegetation near the site shifted from scrub/forest to bracken fern during the occupation.

I find two aspects of this sequence unconvincing. Firstly, the pits are inferred to have been built over a period of time, and as is now commonly established filled in rapidly and deliberately. However they occur in a group, with a degree of orientation of their long axes, and without any intercutting. Parsimony would have them as a single contemporary group, relatively early in the occupation. Secondly, the authors argue the variable degree of mixing in the cultivated soil, evidenced by the frequency of unreduced lumps of subsoil in the soil, and the degree of mixing of the soil/subsoil interface, reflects the degree of recultivation of the soil, and that this recultivation extended over much of the time depth of the site. They use this

mixing to place some features in time through the occupation.

Against the case for time depth is the lack of any early structures truncated by the cultivation soil. Moreover the claimed separation in time of adjacent structures as judged by this mixing requires cultivation to conveniently cease at the site of a structure after it is abandoned (e.g. why was house 7 not destroyed by subsequent gardening). One only period of gardening seems more likely perhaps contemporary with the promontory fortification. The multiple layers of burning in the ditches under this alternative are periodic reduction of the fern and scrub perhaps for security against accidental fire, or surprise attack, not for gardening clearing. The storage pits for later re-occupations could have been sited with the gardens at more distant clearings.

The site sequence in part could then become:

1. a promontory fortification with a contemporary garden adjacent,
2. the defended area enlarged over the former garden to include a pit group created for nearby gardens,
3. the defences altered, followed by,
4. a large, forest fire,
5. the storage function abandoned. Perhaps gardens and storage were now more distantly located.

I do not think such a sequence substantially modifies any of the authors' conclusions, other than their belief that bracken fern root and kumara cropping are compatible and carried out over a long period at this site.

Two of the common features at the site yielded new evidence. McFadgen and Sheppard argue that the fill contents of the numerous small rua encountered at the site show each was used for a period for the preparation of forest fruits for storage. Such a function could help considerably in explaining similar features on sites elsewhere. For instance small undercut pits have been found in the Archaic sites of Wairau Bar and Heaphy River.

The second feature was the nine houses found. The floor plans are a valuable addition to the now rapidly expanding corpus of these. A claim is made for the houses having earthen roofs, laid over fern, laid in turn over a conventional pole frame. Very few artefacts were found on the floors of the houses, suggesting they had short periods of use. Such a roof would surely suffer rotting of the fern in a short period of time, apart from creating a damp interior with no means of release of fireplace smoke. As

well any rain would erode friable volcanic soil from the roof.

The authors argue for a spring and summer occupation of the site. Perhaps this form of roof was an expedient for houses of short summer use when more conventional roofing was not to hand?

Betty McFadgen - Richardson reviews the few artefacts from the site including unusual remains of a net. I must quibble at the perspective drawings given for the two sinkers found at the site. In my view perspectives are an adjunct to projection drawings, not a substitute for them. Personally I did not find the plans and sections easy to work with either. There are three overall plans of the site all at different scales, and a series of six part plans showing different areas of features. Many of these could have been covered by one fold out map in the end papers. The section locations are not precisely shown so that it has to be inferred from posthole locations which side of a trench has been drawn. The National Museum and the Trust are no strangers to archaeological publication. I think we could expect better.

These aside, "Ruahihi" deserves a place on the bookshelf of anyone concerned with enlarging our perspective of Maori history through archaeological excavation.

Garry Law

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