NEAR AND REMOTE OCEANIA – DISESTABLISHING “MELANESIA” IN CULTURE HISTORY

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Although relationships of people to people and people to their symbolic worlds fascinated Ralph Bulmer, his most stimulating interactions with culture historians such as myself frequently involved people’s relationships with their natural worlds. Biogeography and its importance in understanding the settlement of the Pacific was a subject we often discussed. It was a topic I explored at some length in an unpublished 1973 inaugural lecture. Some basic ideas from that lecture have appeared from time to time in a number of contexts (Green 1975, 1977, 1978, 1985a), and one, the distinction between Near Oceania and Remote Oceania (Pawley and Green 1973:4), has proved useful enough in various deliberations on the settlement of the Pacific to be adopted by others (cf. Terrell 1986:14-15; Wickler and Spriggs 1988:706; Spriggs 1989). It is the basis of that distinction and its implications which are further examined here.

While Polynesia, in the 19th century three-fold division of Oceania, has remained a productive category for historical analysis of events after 200 B.C., the other two concepts of Melanesia and Micronesia have proven, particularly for archaeologists, to be fatally flawed (Terrell 1986:15-41; Thomas 1989; Green 1989). New entities are required to replace them, at least for those among us interested in defining more productive, if sometimes shifting cultural boundaries which derive from the time and space of prehistory.

Certain conventions established by Brookfield with Hart (1971:xxxii) have proved helpful in referring to geographic regions within Melanesia – Western Melanesia, Eastern Melanesia, New Guinea, New Guinea mainland, Bismarck Archipelago and Island Melanesia – though none of these have turned out to have a particularly significant reality in prehistory. This is not surprising as these entities are not solely geographic, but often involve other considerations. Thus the division between Western and Eastern Melanesia, which
Figure 1. The Pacific basin and some biogeographic divisions in relation to Near and Remote Oceania.
comes very close to corresponding to that of the boundary between Near Oceania and Remote Oceania, relies also on incorporating into its eastern end what was the British Solomon Islands Protectorate and is now the Solomon Islands nation. It therefore includes the region usually called the Eastern Outer Islands of the Solomons or Temotu Province, which could more properly and logically have been assigned to Eastern Melanesia. And while the division between New Guinea and Island Melanesia makes a geographically plausible separation (in that the New Guinea mainland, when it was settled by people, was part of Sahul), this division from any biogeographic standpoint proves not to be a boundary critical to humans or the many plants and animals that preceded or came with them.

In the same way, today’s designation of Island Southeast Asia obscures a historically and biogeographically more fundamental division drawn along Huxley’s Line or Wallace’s Line (after Huxley), in which the implied separation of Wallacea from Oceania may be viewed as somewhat misleading, and certainly a division coloured by more recent political history. Thus, for culture historians, neither analytically useful boundaries nor significant regionally-based contrast sets are likely to be found in the timeless concerns of present day ethnography or in 19th and 20th century categories inherited from historical, political and geographic factors of uncertain application to the past. Rather, the new concepts required will be an outcome of advances in modern historical linguistics, archaeology and biological anthropology which have time, space and content as their principal dimensions underpinned by relevant biogeographic observations. Categories like Oceania, Melanesia, and Micronesia will have to be abandoned for new and more appropriate analytical units, and others, while retained, will have to be refined or restricted in their use.

**BIOGEOGRAPHIC CONSIDERATIONS**

In 1973 three identifiable biogeographic boundaries were viewed as having a significant role in human settlement of the Pacific: Wallace’s Line (after Huxley), that between Near Oceania and Remote Oceania, and the Andesite Line (Figure 1). The importance of the first and last were well known to numerous researchers in several fields; the other was not as widely appreciated. Settlement of the island world of the Pacific was viewed as beginning with the Huxley-Wallace Line between Bali, Borneo and Palawan on the west, and Lombok, the Celebes, and the rest of the Philippines on the east. Working from a number of sources but especially the volume edited by Gressitt (1963), and the works of Good (1964), van Balgooy (1971) and Thorne (1963, 1969), the following sketch of the regions beyond the Huxley-Wallace line was put together.

**Wallacea:** As the modern underwater studies of sea depths and reconstructions of sea level for the latter part of the Pleistocene (Chappell 1982, 1983) have effectively shown, no entry to this Pacific island world to the east of the Huxley-Wallace Line was possible except by crossing open stretches of sea. This was as true for many plants and animals as it was for people. Some were successful and crossed water boundaries; others were not. Wallace formulated the line on the basis of bird and mammal distributions, but reptiles, insects and molluscs were also taken into consideration. It was a barrier to the placental mammals of the Sino-Malaysian fauna, which included many hunted by humans such as deer, rhinoceros, and tapir. It separated one of the richest vertebrate faunas in the world from some of the poorest (Golson 1971:124). The lesser Sundas, Sulawesi (the Celebes) and other islands between Wallace’s and Weber’s Lines, have an impoverished Oriental biota with a few Australo-Papuan elements; the Moluccas an impoverished Papuan fauna with many Oriental elements; the Philippines a rich flora and unbalanced fauna with many Australian-New Guinea elements in the predominantly Oriental biota. However, many intermigrations within this area also occurred. Most groups of primary fresh-water fish did not make it, but a few did; some species of frogs did not accomplish the journey but other amphibians did; the same is true for land and fresh-water birds, and fresh-water molluscs. In general, the plants of Southeast Asia were far more successful in island-hopping than were the animals.

**New Guinea:** Despite vast differences of climate between New Guinea and Australia, the vertebrate and fresh-water mussel faunas of New Guinea are basically Australian. However, New Guinea’s flora, land-snail, insect, and fresh-water and land-bird faunas are largely of Malaysian origin. Moreover, it has long been considered to have the richest and most varied Pacific biota, and to have served as a heartland for flora and fauna to the rest of the Pacific, except Australia. New Guinea has 1,350 genera and 9000 species of flowering plant, and, for its area, hosts the most complex of the eastern Oriental tropical floras. It has a small Australian floral element, but in terms of genera the Indo-Malaysian element is eight times that of the Australian, while for species the comparable multiplier is 50.

The former land connection to Australia, however, means many of the animal forms are related. New Guinea has two species of spiny ant-eaters (monotremes) and five species of wallabies or pouched marsupials. It is the homeland of the tree kangaroos (another marsupial) and has rat bandicoots and phalangers; it had two carnivorous marsupial mammals (a native cat and the now extinct Tasmanian wolf). In addition, there are many forms of frogs, snakes, turtles, and crocodiles. Among the placental animals that crossed Wallace’s Line are bats, rats, mice, and the sea-cow or dugong.
The land connection of New Guinea to Queensland may have been broken as recently as 8,000 years ago (White and O'Connell 1982:171). Before 6000 to 8000 years ago it was certainly intact as it was some 45 to 60,000 years ago when people first entered the area (White and O’Connell 1982:15). The result is that the moist, palaeo-tropical, coastal margin of north-eastern Queensland can be included in the Papuan sub-division of the Oriental Region, though the Australian element here is much stronger. Thus, tree kangaroos, found elsewhere only in New Guinea, are in Queensland, and the fresh-water mussels and fishes of southern New Guinea and northern Australia are related. The same holds for the flowering plants.

Australia: The distinctive Australian flora comprises three components of very different size. A very large one, typically Australian, represented by 1,500 genera and 12,000 species of flowering plants; a comparatively small one generally referred to as Antarctic and seen in Tasmania and southeast Australia, with relatives in New Zealand; and a Malaysian-Melanesian one, intermediate in size and restricted to Queensland. The typical Australian fauna is simply the New Guinea one writ large, literally and figuratively. Not only are there many more genera or species of monotremes, marsupials, mussels, and insects but at least some of the now extinct giant marsupials were seemingly present at the time of man's arrival in Australia. People entering what is now Australia from the Arafura-New Guinea end initially needed to make only minor adaptations to a few changes in flora and fauna. Thereafter, to people that continent required further cultural innovations, in the form of an adaptive series which permitted exploitation of increasingly colder or warmer (and often drier) climatic zones with new and often sparser and less varied biotic resources. Currently, the issue is whether Australia was (a) first colonised around its coasts by groups well adapted to the exploitation of that environment, thence up its major river and inland lakes systems, and finally into non-aquatic desert and montane zones, or (b) whether expansions from the north also followed along more wooded and watered inland routes (Bowdler 1977:205; Horton 1981; Beaton 1985:18; Jones 1987a; Lampert and Hughes 1987; White and O’Connell 1982:50-53).

Islands Beyond New Guinea: From New Guinea out into the Pacific, the tremendously rich and varied marine and terrestrial biotas of the Oriental Region are (in numbers of families, genera and species) markedly impoverished eastwards with increased distance and diminished island size. A favourite example is that for the number of species of birds – New Guinea 520, Solomons 127, Fiji 54, Samoa 33, Tonga 20, Society Islands 17, Marquesas 11, Henderson 4. Moreover, this holds for seed plants, corals, echinoderms, land-snails, mosquitos, other insects, reptiles, and various vertebrate groups. Raw figures, as for the birds above, are somewhat misleading. As van Balgooy (1971:141) observes:

It hardly need [sic] to be said that such a presentation of data is false, as a progressive decrease in taxa will always be found in progressively smaller areas, even on continents. There is, however, no doubt that the west-east decrease is real, though less spectacular when comparing islands of the same size class.

This is illustrated in a number of phanerograms for seed-plant genera and fall-off diagrams for other fauna (e.g. van Balgooy 1971, Figures 38-44).

For people, however, the raw figures for biota were the real picture, whether due to the smaller areas involved or the marked attenuation in the varieties of plants and animals through problems of dispersal. The smaller islands to the east offered plants, animals, and their human inhabitants a smaller number of ecological niches. The more isolated the island the less chance there was of any loss being replaced, the smaller its area and elevation, the smaller and less diversified genetically its populations and the more vulnerable to disruption is its flora and fauna as a whole. From New Guinea eastwards, the flora and fauna reflect an orderly immigrant pattern, implying that plants and animals, like people much later, frequently had to cross long stretches of open sea to reach these islands.

The Bismarcks have only one bandicoot, one wallaby, and two species of phalanger, one cassowary, and four genera of rats. The 265 species of birds found on the New Guinea coast opposite falls to 80 on New Britain. The Solomons have one phalanger, three genera of rats, several snakes, 9 genera of frogs, and only 125 of the 525 species of land and fresh-water birds in New Guinea. Some of these distributions for fauna are now undergoing or will undergo significant revision through the recovery of faunal assemblages from archaeological contexts dated to both the late Pleistocene and early Holocene periods (Allen and White 1989:137-8; Flannery et al. 1988). The next major biogeographic break, however, occurs at the end of the Solomon Islands chain.

NEAR OCEANIA – REMOTE OCEANIA: A NEGLECTED BOUNDARY

Distances between islands increase markedly beyond the Solomon Islands chain proper and this, of course, has significantly affected the distribution of plants and animals. It is also likely to have had an important role in the early settlement of the Pacific by humans given that entry was dependent on the voyaging capability of water craft as well as the facility with which one could direct a vessel to a given destination. It is here that the
concept of intervisibility, as applied to humans, intersects with the previous dispersal mechanisms and colonising abilities of Pacific plants and animals to provide a second boundary that may for a time have served as an important barrier to the movement of humans eastward.

For humans, in the region between the Huxley-Wallace Line and the end of the Solomons, each island was usually visible from the last. New land is able to be seen because of the relatively narrow water gaps involved, plus use of higher elevations on one or both of the respective islands, or through putting to sea and sighting new land before the island left behind is lost to view. At various lower sea levels Birdsell (1977:121-30) estimated that the greatest distances of open water to be crossed from Sunda to Sahul involved at least 65 and perhaps up to 103 km. Wickler and Spriggs (1988:705) estimate that from New Ireland in the Bismarck Archipelago to Buka-Bougainville today involves open distances of 50-60 km via the Feni Group and Green Islands. If the raised atolls of the Green Islands, though likely of Pleistocene age, were not emergent at the time of initial human settlement then a crossing of 130 km via Feni or 180 km direct from New Ireland would have been required. In contrast, Remote Oceania comprises all the islands separated at present from those of Near Oceania by water gaps greater than 350 km. Between the most easterly of the Solomon Islands chain and the Santa Cruz group is the first of these, a 352 km stretch of sea, across which people could not see new land.

All terrestrial mammals other than rats and mice or those which accompanied people reach their eastward limit of distribution in the Solomons. This applies to all fresh-water mussels, and most of the Palaeo-Oriental land-snail fauna. Thirty Papuan and Malayan genera of birds find their eastern limits here, as do 162 genera of seed-plants, about 24% of the total. Thus this Near/Remote Oceania boundary not only had a significant effect on human settlement of the Pacific in the distant past, but continued to structure the situation within more recent periods (Green 1976:15; Spriggs 1989). In Remote Oceania the islands often become smaller, the flora and fauna are more attenuated, and the distances required to reach them are generally greater. New Caledonia, because of its size and ancient geologic origin, presents a slightly different picture. It is, however, as one might expect, a very impoverished environment from the viewpoint of human settlers proceeding from large islands in Near Oceania.

THE ANDESITE LINE

The next major break is that associated with the Andesite Line, a kind of lava associated with continents which takes its name from the Andes. The Andesite Line is one enclosing most of the Pacific Basin, and within it no andesite or continental rocks occur. It is the truly oceanic area of the geologists, with high volcanic islands, raised coral islands and various kinds of atolls as the only land forms. These Pacific Basin islands are populated largely by an extremely attenuated Indo-Malaysian biota, dispersed mostly from New Guinea and the large islands to the west.

Eastwards beyond Fiji there is very little that can be called lowland rainforest, and many or most plants that characterise this habitat are missing. There is an abrupt decrease in taxa of marine molluscs in this direction, especially among pelecypods. Marked declines also occur in fresh-water sponges, some crustaceans, earthworms, amphibians and land snakes (one of the last apparently being carried by humans to Samoa). As van Balgooy’s diagrams indicate, many of the flowering plant families terminate in Fiji and other islands near the Andesite Line, especially plants with large fleshy or heavy fruits and seeds unlikely to survive long trips over water. East of the Andesite Line annual herbs are striking in their paucity or absence, as are vertebrate predators until the arrival of people accompanied by the rat, dog and pig.

The whole 'Micronesian' region is part of Remote Oceania with Eastern Micronesia lying beyond the Andesite Line. An exception to the Oceanic island pattern of Polynesia and Eastern Micronesia is New Zealand, continental islands with a rich and varied fauna and flora of diverse origin. It has the fresh-water molluscs, fishes, birds, amphibians and crustacea so lacking in the rest of Polynesia. It has, too, a temperate version of an attenuated Indo-Malaysian flora, plus another inherited like that of Tasmania and south-eastern Australia from Antarctica. So, also in common with Australia, it has numbers of the flightless or ratite birds and a rich marine fauna which includes mammals like seals and sea-lions.

LATE PLEISTOCENE LANDMASES

The previous sections have sketched the biogeographic world into which people began moving in the late Pleistocene and identified three of the boundaries which seemingly structured its settlement. However, the Pacific island world as it is known today reflects a situation largely established by their present position some 5000 to 6000 years ago. With the lower and continually varying sea level of the last 60,000 years, it was a somewhat different and changing world. This too affected human settlement.

In the late Pleistocene the largest landmass beyond the Huxley-Wallace Line was Sahul, referred to at times by some as Greater Australia (White and O’Connell 1982:6; Birdsell 1977). At that time Tasmania, a coastaly expanded Australia, much of the Arafura Sea and New Guinea formed a single entity. During this period most
of the Philippines had also coalesced into one or several large islands, though Palawan became a peninsula of the Sunda mainland. While some islands of Wallacea expanded slightly during lower sea levels, few new islands appeared and sailing distances between islands do not seem to have been markedly reduced. Similarly, except for a larger Manus, the Bismarck Archipelago appears little affected. Beyond that, however, it is thought that during late Pleistocene periods of low sea level many of the islands from Buka-Bougainville down through the western and central Solomons to Guadalcanal were joined into one large landmass. Diamond and Mayr (1976, Table 1) called this Greater Bukida Island. They also named separate smaller island groupings of Greater Gatumbangara, Greater Vellonga, and Greater Rendipari. Malaita, San Cristobal, and the adjacent islands have no recent connections. Once out into the Bismarck Archipelago and across to Buka during this period, the first really significant water gap occurred beyond Santa Ana and Santa Catalina islets at the southern tip of San Cristobal. This gap, of course, forms an important part of the Near/Remote Oceania boundary.

HUMAN SETTLEMENT OF ANCIENT NEAR OCEANIA

The usual modern divisions of the Pacific Island world – Island Southeast Asia, Oceania, and Melanesia – offer little help in understanding the first phase of human settlement of a region designated here as Ancient Near Oceania, i.e. the region between the Huxley-Wallace Line and that which comprises Remote Oceania. Included in this region are the several enlarged islands of the Philippines, the islands of Wallacea, the continent of Sahul, the Bismarck Archipelago and Greater Bukida, and other associated and sometimes enlarged islands of the Solomons. The region of Ancient Near Oceania is that part of the Pacific settled from the Sundaland part of Mainland Southeast Asia some 45,000 or more years ago by populations of Homo sapiens.

Pleistocene Sundaland: No ocean crossings were required for the settlement of the Sundaland part of Mainland Southeast Asia. Unfortunately, the fossil and cultural remains of early to middle Pleistocene age in Sundaland are so poorly dated and understood that very little can be said with assurance about them. Homo erectus ancestors of modern populations certainly reached Java by 500,000 and perhaps up to a million years ago. Human remains of a modern type in the region are not much more than 40,000 or so years old (Bellwood 1985:38-52; Hutterer 1985). The association of the older fossils with the presumed chopper-chopping tool industries, or with Pleistocene pebble and flake tool ones, has never been convincingly demonstrated, and even the “dating” of these “industries” to ages greater than 40,000 years frequently owes more to typology than to their geological context (Bellwood 1985:60-8). In particular a greater than 40,000 year age for supposedly Middle Pleistocene assemblages from Southwestern Sulawesi, Flores, Timor and Luzon seems at present extremely unlikely and is definitely unproven.

Rather it is in the 20,000 to 40,000 year time span of the late Pleistocene, often in association with human remains of a modern type, that radiocarbon dated sites are known from throughout Ancient Near Oceania, as well as Sundaland. In his survey Bellwood (1985:173-85) covers the important sites of the Sundaland region. In northeastern Sumatra they are assigned to the Hoabinhian, and elsewhere in Indonesia, Kalimantan (Borneo) and Palawan to the later stages of the basic core, flake and pebble industries. Dated sequences of the latter, extending back to the 30,000 to 40,000 B.P. time range, can be assigned to Palawan, Niah and Eastern Sabah, and are comparable to similar industries that occur at the same time or later in Wallacea (Bellwood 1985:186-91). They are seen as also having parallels with the core tool and scraper tradition of Australia and New Guinea (Bellwood 1985:192).

Pleistocene Sahulland, Bismarcks and Solomons: Sites in the 20,000 to 40,000 year time range in Sahulland are now known from numerous regions. In the Australian part of that continent these range from Tasmania, through southwest Australia, into the Darling River drainage area, the desert upland of the Lake Eyre Basin, and the Alligator Rivers region in what is now northern Australia (White and O’Connell 1982:33-42; Cosgrove 1989; Jones 1987b; Pearce and Barbetti 1981; Smith 1987; Jones and Negerевич 1985:5-9; Jones 1985:295). In the New Guinea part of Sahulland they include both the Highlands and raised marine terraces on the Huon Peninsula coast (White et al. 1970; Gillieson and Mountain 1983; Groube et al. 1986). The oldest of these, one from Tasmania, two from southwestern Australia, and one from the Huon Peninsula, are in the 30 – 40,000 years interval, and are the current basis for the usual estimates of 45,000 years or more for the occupation of that continent. In the Bismarck Archipelago a date of circa 33,000 years B.P. for Matenkupkum Cave on New Ireland (Allen et al.1988; Allen and White 1989) and four other caves (one in New Britain) with deposits of terminal Pleistocene age, plus a cave site on Buka (part of Greater Bukida) in the Solomons of circa 28,000 B.P. (Wickler and Spriggs 1988), indicate that the initial use of seagoing water craft able to get the first human inhabitants to Sahulland was not then dispensed with but retained, at least by coastal populations. Colonising populations could then easily carry on to the end of the Solomon Islands chain, although not farther out into Remote Oceania.

The important conclusion from this overview of the early settlement of Ancient Near Oceania is that it probably took place in the time span of 40,000 to 45,000 or more years ago, appears to have proceeded both
SEA-CRAFT AND WATER-CROSSINGS

When water craft were first invented and what form they initially took is not known. Johnstone (1980:3-44), who considered these questions, tends to favour the Upper Palaeolithic and Late Pleistocene when sustained exploitation of marine resources first puts in an appearance. He also cites the settlement of the Americas and Sahul land in support of this view. White and O'Connell (1982:216) add Japan.

Like most authorities on the topic, Johnstone (1980:8-9) accepts the great antiquity of the raft, and notes that "the tapered shape and an odd number of logs seem to be significant factors in traditional raft making almost everywhere". Doran (1981:73-85), who surveys the distribution of various vessel types in the Pacific, considers the bark boats and wood or bamboo rafts as the two simplest types of water craft in the Pacific and the oldest craft of the region. For him, while rafts are technologically simpler and therefore most likely the oldest, the distribution evidence goes against this and suggests that bark boats are older. Bark boats in the Pacific region occur along the north and eastern Australian coast and in pockets in Sundaland, but not elsewhere in Near Oceania. Rather it is the wood or bamboo raft, which is distributed from mainland Asia out to Indonesia, throughout Near Oceania and out into Remote Oceania, that is the favoured vessel for open sea crossings of the type required. Birdsell (1977:134-44) too discusses this problem at length, and comes down on the side of the bamboo raft as most likely. He is supported by Lewis (1977:4-7), who notes that widespread and ancient as the bark (or sewn-skin) canoe is, there is a simpler even more universal type of seaworthy craft, which is easier to build - the raft. He finds rafts versatile, and "sea-kindly" when the waters are reasonably warm, and says "anyone familiar with bamboo or ambatch-wood rafts knows they blow downwind with almost the same disconcerting velocity as rubber boats" (1977:6-7). The tapered shape of the front end, the odd number of logs, and pegging rather than lashing the logs together in some rafts used north of King Sound in northwestern Australia, is commented on as representative of a widespread vessel type outside Australia. Horridge (1987:154-5) goes one step further and adds a mat sail to the proposed rig, a view not entertained by the others.

Lewis (1977:5,7) considers it likely that settlement of Sahul resulted from accidental drift during the monsoon,6 probably more than once in the course of a few thousand years, though he considers that the sight of land beyond the water could also have resulted in deliberate crossing. White and O'Connell (1982:46) are even more emphatic; to them the long sea voyages required by a passage to Sahul (around 90 km) "implies that settlement was both accidental and unlikely to have been much supplemented by later voyages". In all these discussions, the lowering of sea levels exposing more land and at times linking islands, thus expanding targets and reducing distances to be travelled are important elements. It is often suggested that travel between close islands in rafts eventually led to accidental voyages to islands further afield.7

Thiel (1987) disagrees with the accidental settlement argument. Lower sea levels to her mean larger land areas, and increased food resources, and little motivation to colonise new lands, since lengthy ocean voyages would not have been taken without good reason (1987:238). Rather, it was higher sea levels reducing land areas, and increasing population densities, that put pressure on existing food supplies, leading inhabitants to search for new land. Some would also have had to sail away, if faced with the disappearance of their island.

What both viewpoints tend to ignore as the triggering mechanism in settlement of all of Ancient Near Oceania was the innovation of new technology, the sea-going raft. The invention of simple rafts during the late Pleistocene and their spread into Sundaland more than 50,000 years ago now seems very likely. Given their possession, further development into the shaped raft plus the acquisition of skills in making voyages on them between islands in the Sundaland part of Southeast Asia might well be an expected outcome for that area, affected as it was by periods of rising and falling sea levels. With this new technology in the hands of human populations of a modern type, a fairly predictable result soon after would be the settlement of Ancient Near Oceania from Sundaland. This occurred neither solely by accident nor was it enforced. People found they could now transport themselves to those lands they could see on the horizon, and they began to do so. Moreover, they continued to do so until all of Ancient Near Oceania was settled.

THE DEVELOPMENT OF MODERN NEAR OCEANIA

Island Southeast Asia: With the relative stabilisation of sea levels at their present position about 6000 years ago, a different world emerged in both Sundaland and Ancient Near Oceania. For this later period the term Island Southeast Asia now makes more geographic and cultural sense as Sundaland forms into islands no longer physically joined to mainland Southeast Asia. Rather these islands fit better with the islands of Wallacea and the Philippines. Also in parts of the Philippines, Sulawesi and Java after 6000 B.C. a number of assemblages occur exhibiting what Bellwood (1985:193-201) calls the accretion of a flake and blade technocomplex onto the continuing tradition of unprepared flake and core production. Nearly everywhere both
kinds of assemblages are followed in the interval between 3000 and 1500 B.C. by those reflecting pottery making and stone (and shell) adze using communities with a quite different economy based on agriculture (Bellwood 1985:222-31). It is Bellwood’s view (1985:89-101, 119-25) that at this time, whatever languages existed in the area before, it now became a largely Austronesian-speaking world dominated by people of a Southern Mongoloid type. This transformation, however it took place, sets Island Southeast Asia off from regions to the east and finally annuls the utility of the Huxley-Wallace Line as an important consideration in the region’s prehistory, although as Blust (1982) has shown, the distribution of cognate words for placental mammals requires a homeland for the Austronesian language family west of that line.

Australia: Just prior to this same interval Australia finally became physically separated from New Guinea, and it is within the last 6000 years that various cultural assemblages reveal the acquisition by its inhabitants of new and often widely spread stone tool technologies. These include points, now dated back to 5700 years or more in northern Australia (Jones 1985:296) and flaked adzes/chisels and hatchets, points and backed blades which invariably occur in assemblages elsewhere during the next millennium or so throughout Australia except Tasmania (White and O’Connell 1985:105-33). While not viewed as being some kind of tight new technological “package” (White and O’Connell 1985:117; Jones 1985:296), they do constitute technological innovations that, along with an absence of agricultural endeavours and domestic animals, now culturally set Australia off from New Guinea. The possibility that some of the new technologies in stone tools from Australia are related to those of Island Southeast Asia is usually canvassed, but neither White and O’Connell (1982:121) nor Bellwood (1985:202) find much evidence supporting a case for diffusion in either direction, and certainly nothing that would constitute a migration of people from one area to the other.

Modern Near Oceania: Distinguishing Island Southeast Asia and Australia after 6000 B.P. as useful units for cultural historical analysis reduces Ancient Near Oceania to the islands from New Guinea out through the Bismarck Archipelago, and down through the Solomon Islands chain. That area I would designate Modern Near Oceania. However, relevant assemblages in this area going back 6000 (or more) years are currently restricted to the highlands of New Guinea, the Sepik-Ramu basin, the Bismarck Archipelago, and Buka in the Solomon Islands group. Later assemblages, often with pottery in the 3000 to 4000 year time range are more widely known. In the highlands, limited evidence at Kuk presenting an interpretatively difficult argument for agriculture at 9000 B.P. is followed by evidence of a more clearly defined agricultural system dated to circa 6000-5500 B.P. both there and at Mugumamp. A series of later agricultural stages follows thereafter (White and O’Connell 1982:177-84; Golson 1985). Taro is currently the favoured food plant thought to have been grown in these systems during the earlier stages, and the system is seen as just one indicator of a developing cultivation complex based on a range of food plants indigenous to New Guinea (Yen 1982). Locally made ground stone axe/adzes of lenticular to oval sections in highland sites also date back to circa 6000 years ago (White and O’Connell 1982:190; Burton 1984:6,246), but pottery in the highlands only appears some millennia later in the sequence as does trade in typologically more formal adzes from quarries. Trade in shell valuables, however, goes back at least 10,000 years (White and O’Connell 1982:189). Pottery in the Sepik-Ramu basin lowlands may possibly be as much as 5,500 years old, as is a tridacna clamshell adze (Swadling et al. 1988:19), but both could also be somewhat younger.

In the Bismarck Archipelago a number of cave sites, whose sequences go back into the terminal Pleistocene, indicate in their uppermost layers that trade in obsidian (which involved water craft to move it around New Britain or from New Britain to New Ireland) generally extends back some 7000 to 8000 years ago, and in two cases up to 11,000 to 12,000 years ago (Allen and White 1989:137). Clearly, descendants of those sea-going water craft, which had allowed people to enter Ancient Near Oceania long ago, were still an important element in this part of that region 30,000 years later. The appearance in this archipelago of a distinctive set of new assemblages with highly decorated pottery marks the advent of the Lapita Cultural Complex, dating to the last 1500 years B.C. (Kirch 1988; Allen and White 1989). Some like Kirch (1988) see these assemblages as indicating an intrusive cultural complex in the area; others like Allen and White (1989:142) see it largely as a highly visible ceramic addition to an already well established set of cultural practices. Whatever the form of merger model ultimately chosen, it was the further developments that took place in this period exemplified by this complex that at last allowed people to move from Modern Near Oceania into Remote Oceania. In my view, chief among these are the indirectly inferred but necessary improvements associated with the ocean-going outrigger canoe, the double canoe, new developments in 2-boom triangular sail technology (Horridge 1987:153-63), as well as an ability to navigate these vessels over distances independent of having land in sight. Furthermore, they also involved additions to the indigenous New Guinea food plant roster of root and tree crops sourced to Southeast Asia, plus new items of technology and ornamentation, and not simply pottery.
ENTRY INTO REMOTE OCEANIA

The simplest current hypothesis accommodating the majority of the evidence on the foundation populations of Remote Oceania from the Santa Cruz group to Western Polynesia is that they all belonged to or developed out of the Lapita Cultural Complex (Spriggs 1984:223). This proposition has never been in dispute for the Fiji-West Polynesia region, and now seems increasingly likely for the region from Santa Cruz to New Caledonia. Certainly, suggested evidence of an earlier people represented by many (although not all) tumuli in New Caledonia can now be accounted for by natural explanations (Green 1988), while some assemblages in part contemporary with Lapita (Green 1985b) may in fact be simply different expressions of that complex without the distinctive decorated pottery. Thus along the lines set out in 1976, I regard Lapita as an adaptive step which "permitted some populations to exploit a more specialised niche within the broader previous adaptation, and thus to expand initially within an already occupied area" (Green 1978:2).

Moreover, as indicated in 1976, these adaptive developments allowed Lapita communities not only to settle some coastal localities throughout the already long occupied islands of Near Oceania, but also to sustain settlements on many of its less well endowed and smaller offshore islands. These developments, and an enhancement of their abilities in long-distance two-way voyaging, soon enable Lapita communities to quickly establish successful colonies in a series of ever more remote, smaller, less biotically rich and previously unoccupied islands in Remote Oceania. Elsewhere I went on to elaborate the theme that on crossing the Andesite Line further adjustments were worked out, transforming Eastern Lapita into a culture known as Polynesian. This next step in the story, which occupied the period between 1300 B.C. and the first few centuries A.D., has been explored in detail elsewhere (Kirch 1984; Kirch and Green 1987).

‘MELANESIA’ – A USEFUL CONCEPT IN CULTURAL HISTORY?

An important point to be recognised is that nowhere in this scenario is there ever need for the concept ‘Melanesia’. In fact, up to a time well after the settlement of Remote Oceania, the concepts of Melanesia, Micronesia and Polynesia are completely untenable, and thereafter they possess little analytical utility. The exception is Polynesia in the period after 200 B.C. (Green 1987).

In Remote Oceania all we have initially is the settlement by people with a single Lapita cultural complex extending from the more westerly parts of Remote Oceania out to that area later to be known as West Polynesia. By 1000 B.C. the settled parts of this area of Remote Oceania can be further subdivided into Western and Eastern Lapita provinces, and the boundary between them (i.e. between Fiji and New Caledonia/Vanuatu) then persists as a linguistic and cultural phenomenon into the ethnohistoric period. After 200 B.C. a further and continuing boundary between Fiji and Polynesia can again be identified in language and culture that did not exist previously. It is associated with but does not exactly coincide with the Andesite Line. The boundary between Near and Remote Oceania also maintains its salience right up into the present (Green 1976:15). But none of this requires the identification of anything called Melanesia, or even Eastern Island Melanesia.

At about 3000 years ago we also have the settlement, from islands to the west (the Philippines?), of at least the Marianas region (Craib 1988, Bonhomme and Craib 1987), and perhaps of other islands in that region lying west of the Andesite Line. This is similar in its timing to the Lapita phenomena and entry into this area probably relates to some of the same reasons advanced above for the Lapita expansion elsewhere in Remote Oceania.

Moving to Modern Near Oceania, no easy and obvious cultural historical distinctions with a significant time depth are yet apparent; although the highlands of New Guinea may eventually prove to be one such entity. Certainly Near Oceania is the area, in contrast to Remote Oceania, where numerous non-Austronesian language families occur together with one branch, Eastern Malayo-Polynesian, of the Austronesian language family. It is also an area of extraordinary cultural and biological diversity. Yet it is not ethnographically, linguistically, or biologically tied together by any overwhelming or obviously unifying factors. Nor is there any reason, except for the presence in its more easterly parts between 1500 B.C. and 100 A.D. of the Lapita cultural complex and in the same zone of the Oceanic languages, to tie it to parts of Remote Oceania (i.e. what some would call Eastern Melanesia and West Polynesia). So it is difficult to see, in cultural historical terms, to just what kind of entity Melanesia might usefully apply, or how it might be used analytically to advance our understanding of this region of the Pacific.

CONCLUSION

Using some ideas from biogeography (in particular the Huxley-Wallace Line, a division of much of the Pacific island world into Near and Remote Oceania, and the Andesite Line), coupled with the effects of sea-level change on Pacific landmasses, a different regional framework from that of Island Southeast Asia, Australia and Oceania (the last sub-divided into Melanesia, Polynesia and Micronesia) was adopted to outline human settlement of the Pacific. In this scenario, the categories of Near Oceania and Remote Oceania are seen...
to have more utility than had previously been assigned to them and the boundary between them to have played a role of some significance.

Populations of modern human type, leaving for Ancient Near Oceania at least some 45,000 years ago from the biotically rich and varied Sundaland part of mainland Southeast Asia, entered this oceanic world shortly after they developed their technology to a point where they could cross stretches of open sea between intervisible islands. They were now able to reach land which had beckoned on the horizon and deliberately did so. Initially no other major adaptation was required by these Pacific hunter-gatherers, because most of the plants they were familiar with, much of the marine life, many of the birds, and at least a few of the animals (but not their new marsupial equivalents in food value) had preceded them. Really different adaptations were not worked out until they moved from the biotically complex tropical northern end of Sahulland into the very different environments that now make up the diverse regions of Australia and Tasmania. There, only some of these immigrants maintained or developed further their coastal adaptations. Many more went off in new directions.

Those who moved out into the Bismarcks and the Solomons, not only had to maintain their existing adaptation to the exploitation of maritime resources and an ability to cross stretches of open ocean, but also to enhance their terrestrial one, as familiar resources for these hunters and gatherers diminished slowly when they moved out through the Bismark Archipelago and down the Solomon Islands chain. Beyond this point the resources available to sustain such populations fell off sharply. It was also at this juncture that they met a series of water gaps not easily crossed by their available water craft technology and navigation skills. Again, as at the Huxley-Wallace Line, a long pause to further expansion ensued, until after 1500 B.C. and the appearance of the Lapita Cultural Complex. It was that development in Near Oceania which laid the basis for the settlement of much of Remote Oceania.9

NOTES

1. In the file for my inaugural lecture as professor in prehistory at the University of Auckland is a memo from Ralph, who asked me to send a copy of it, if available, to a social anthropology colleague of ours in Australia, and another slip noting that Tyto capensis, the grass owl which often feeds on Rattus exulans, was once in New Caledonia even if archaeologists had not yet found bones of this rat there. This was typical of Ralph’s interest in the matters raised (see also Green 1988). My thanks also go to Janet M. Davidson for helpful discussion regarding that inaugural lecture and to Valerie S. Green for commentary on this paper. Matthew Spriggs and David Roe provided a necessary reference and Geoffrey Irwin and Dorothy Brown some points of clarification.

2. Thomas provides some basic references in all branches of anthropology; Green gives additional ones for archaeology.

3. Bellwood (1985:15-16) too reviews the biogeographic situation for this zone and his (1985:5) definition of Wallacea is used here versus that of Dickerson which extended only to Weber’s Line in eastern Indonesia, a line believed to mark a 50-50 balance between Oriental and Australian faunas.

4. A recent and more detailed analysis by my colleague Geoffrey Irwin shows, for the most part, that intervisibility throughout the region is sustained by the ability to sight new land from sea level. The one gap where this is not so is between New Ireland and Buka. Here two issues arise. One is what was the nature of the active volcanic islands of the Feni group and raised islands of the Green Island (Nissan) group in the late Pleistocene, and were they habitable or usable for steering. The other is that without them one has to use the second kind of intervisibility in which the land left behind while at sea remains in sight when land on the horizon suddenly becomes visible, though it is not at the start of the voyage. It could be that it took some time before this longest water gap in Near Oceania was crossed, should the Feni and Green Islands not figure in the equation. (For further discussion see Irwin 1989 and Irwin n.d.).

5. A characterisation of the contrast between the islands of the Southeast Solomons proper and the Santa Cruz Group is further explored by Green (1976:15) where its significance for later cultures in terms of language relationships, trade and exchange, technology and resources is set out in some detail with maps.

6. Horridge (1987:154) mentions the monsoons which blow rafts towards Australia in November-April or towards Asia in May-October. Irwin (1989 and n.d.) explores the whole issue of suitable winds in this voyaging nursery for sailing craft.

7. One can not help but be reminded of similar arguments by Sharp (1956) in respect to the more remote parts of the Pacific, or much needed corrections to them in which more deliberate strategies were seen to have been employed. In this section I am also indebted to reading and commenting on a then unpublished manuscript entitled “Early settlement in the Indo-Pacific” by Jeffrey T. Clark, although I have not set out here the details of his new model, one which seems to have considerable merit.

8. The Lapita literature, until recently largely bearing on sites in Remote Oceania, is large. Its main aspects are critically reviewed in Kirch and Hunt (1988).

9. In the inaugural lecture (see Green 1978:1-3) and numerous lectures subsequently (cf. Green 1985a), the set or series of adaptive steps taken in one area permitting occupation of areas still uninhabited, which is what is involved in the settlement of the Pacific, was spelled out from Sundaland through to Near and Remote Oceania.
to New Zealand and at times even to Antarctica and space! What will be obvious is that only indirectly are we here talking of migrations – rather the focus is on the increasingly specialised series of cultural innovations and adaptations required to make such migration possible and successful. How many major migrations were involved over the last 45,000 years is not addressed in this paper though in my opinion the number is neither one or two, at least in respect to languages, human biology, and cultural assemblages. This is therefore a position quite different to that adopted by Terrell (1986), who sees the whole simply as a process of internal diversification.

REFERENCES


