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THE PREHISTORY OF THE PACIFIC ISLANDS

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This paper is the slightly revised text of a lecture given in the 1968 Winter Lecture series, University of Auckland.

Prehistory is often defined as the period in the human occupation of an area for which there are no contemporary written documents. In some areas of the world prehistory ended thousands of years ago; in others it lasted almost to the present day (Clark 1960: 22). Throughout the Pacific, history began only recently, the remotest parts of New Guinea, for instance, remaining uncontacted by Europeans until well into this century.

A knowledge of the prehistory of an area results from the efforts of a number of different disciplines, each of which may make a different sort of contribution. Archaeology is only one of several ways of studying prehistory, and archaeologists in the Pacific have derived helpful information from other fields such as linguistics, ethnobotany, and physical anthropology.

The study of linguistics, in particular, has in recent years given a lead to prehistorians. The Austronesian or Malayo-Polynesian language family, to which the Polynesian and Micronesian languages as well as many of the languages of Melanesia belong, has been divided into a number of subgroups at different levels which reflect the historical relationships between various languages (Dyen 1965, Grace 1964). Attention has also been given to the relationships of the Polynesian languages themselves and the order of their separation from a proto-Polynesian stock (Elbert 1953, Green 1966, Pawley 1966).

The dispersal of important food plants throughout the Pacific is also of great potential interest to prehistorians (Barrau 1963, 1965), although the point in time at which various plants were introduced to certain islands is not easily determined. Finds of identifiable botanical remains in archaeological contexts are rare, and archaeologists must often try to

infer the presence of domestic plants either from the presence of agricultural tools, or from the excavation of structures such as ditches or pits representative of food cultivation or storage (Golson et al. 1968).

The study of human biology and physical anthropology has become extremely complicated recently. Old generalizations about races in the Pacific no longer seem very meaningful, and new studies in detail on small populations are just beginning to appear (Ward 1967, Murrill 1968, Pietrusewsky 1969) on which future comparative studies may be based.

Archaeologists endeavour to define cultures as they existed at a given point in the past, and to show how they changed through time and spread through space. Thus, an archaeologist working in a small Pacific island would wish to establish a chronological sequence for that island, with as full as possible a definition of the material culture and economy at each point, and to show if possible where the initial settlers came from, what subsequent outside influences were felt, and to what extent the culture or cultures of that island spread out and influenced others. Initially, of course, he can do only the former; it is only as comparative material becomes available from neighbouring islands that incoming and outgoing influences can be identified.

Questions have been asked about the origins and migrations of the Pacific peoples since European explorers first ventured into the Pacific, and by the middle of last century all the major possibilities, including the South American origin of the Polynesians, had been suggested (for a summary of the history of theories of Polynesian origins see Howard 1967). Even those suggestions which still appear possible or reasonable in the light of present knowledge, however, were supported by what now appear most inadequate arguments. We have benefited greatly from the findings of archaeologists and linguistics in recent years; we have also benefited from the establishment of sounder chronological frameworks, based usually on radiocarbon dating, and although the complexities of this method, often not appreciated initially by archaeologists, caused much soul searching at times in the interpretation of dates, there is no doubt that a knowledge of the approximate time scale involved is a great help in understanding the movement of people and ideas in an area. For instance, it is now known that man was established in Fiji at least 3,000 years ago (Birks and Birks 1967), and that the first settlements of Polynesian islands may have taken place well back in the first millenium B.C. (Poulsen 1964, Davidson et al. 1967, Green and Davidson 1965). With such a time scale to work in, it is no longer necessary to postulate large scale movements of people across the Pacific in fairly recent times to account for present populations.

As archaeological finds from various islands increase, it behoves archaeologists to keep ever in mind various alternative possibilities in

interpreting their finds. A group of people who succeed in establishing a continuing population on a previously uninhabited island will arrive with a basic material culture typical of the island from which they came, and this they will initially attempt to repeat in the new island, with greater or lesser success depending on the raw materials available. As time passes, however, this material culture will change of its own accord, in response to new needs, or merely as fashions change. But individual items of this material culture can be replaced by outside influences. A single voyager, coming ashore, may introduce a new style of adze or fish-hook which catches on, although the man himself may contribute nothing to the language and, if the resident population is a large one, little or nothing to the gene pool. The sudden appearance of a new type of artefact need not mean a large influx of new people. Alternatively, people may arrive fairly frequently, whether accidentally or deliberately, and be prepared to accept the styles prevailing in their new society. Continuity of material culture, without abrupt changes, does not always mean that no new arrivals joined the population. Only where there is a sudden appearance of a complex of new traits, from an identifiable outside source, can a major new influence be confidently identified, and even then it may be borne by very few people.

At the same time, archaeologists must remember that people can invent the same thing in two areas quite independently, and, when they are people from a similar sort of culture facing a similar problem, it is not too surprizing if they arrive at a similar answer, whether it is a new development in 20th Century science or a neolithic fish-hook. In interpreting widespread similarities correctly, a sound chronology is important. Two similar items separated by two thousand years of prehistory as well as by thousands of miles of ocean, with apparently no related forms between, are far less likely to be directly related than two items from a similar time period which could fairly easily have dispersed from one location to the other.

Much of the first archaeological work in the Pacific has been concerned with sequences and origins. Polynesia has received a very disproportionate amount of attention, partly because the Polynesians, furthest flung, and to many Europeans most attractive of the Pacific peoples, have provided a popular mystery and a romantic attraction that was lacking in other island populations. It is also partly because many Polynesian scholars were born in New Zealand or Hawaii, or lived and worked in Polynesia, and were naturally attracted to the study of the origins of the Maori and Hawaiian people. Other areas of the Pacific, until very recently, were treated as possible routes for migrating Polynesians, rather than areas of study in their own right. This position is only now being remedied. At the present time, Polynesia is the only area in which sufficient work has been done to warrant tentative syntheses of results, or an outline of the prehistory. Yet it is obvious that Polynesia has a shorter and simpler prehistory than other areas.

The geographic divisions of the Pacific into Polynesia, Melanesia, Micronesia, and Indonesia have ceased to have much validity as cultural areas, although they were originally partly defined on a cultural basis. Only in Polynesia, where closely related languages are spoken, and there are obvious similarities in material culture, economy and social organization from island to island, is it still possible to regard the area as a cultural as well as a geographical one. The other areas contain such diversity of language, culture and physical type within their boundaries that they can be considered discrete areas only in a geographical sense. Even in the case of Polynesia it is impossible to find a sharp and clear division between Polynesia and Melanesia in the area of Fiji, and between Polynesia and Micronesia in the area of the Gilbert and Ellice Islands. It has been one of the findings of recent years that an apparently strong boundary in the present may not have existed at all 1,000, 2,000, or 3,000 years ago (Green 1968: 106-107). Nonetheless, some culture areas are useful concepts, and both the area of Polynesia and its two major divisions defined thirty years ago by Burrows (1938) remain useful today.

Most of the rest of this paper will be concerned with Polynesia, the area we know most about, and the area which most directly concerns New Zealand. We should remember, however, that Polynesia comprises only a part of the Pacific island world, and Polynesian prehistory covers only a small part of the time scale involved in Pacific prehistory, and a very small part of the total ranged involved in Pacific cultures. Indonesia, or Island South-East Asia, shares with the Asian mainland a prehistory that reaches back to Palaeolithic cultures and at least Middle Pleistocene times, and includes in more recent times cultures that felt the effects of civilization in China and the spread of rice, bronze and iron. The earliest people to move on into New Guinea and Australia lacked the type of neolithic culture that characterized the Pacific islands at the time of European contact and, although later arrivals introduced new traits and ideas to New Guinea, most of these did not reach Australia. Still later developments in Asia, such as rice and metal, however, were not effectively introduced to the majority of the Pacific islands, where a Stone Age technology and an economy based on the cultivation of plants such as taro, yams, sweet potato, breadfruit, pandanus, and coconut continued until European times. Figs, dogs, and chickens were fairly widely dispersed. People had polished stone or shell tools, and those on smaller islands, and on the coasts of larger ones, were often heavily dependent on sea foods. Some groups made pottery while others did not. Many Pacific island cultures had elaborate social and religious systems, and many less durable items such as masks and wooden carvings find places of prominence in museums of primitive art. Unfortunately, little of the art survives for the archaeologist, and little from which the social and religious systems can be inferred. Very often the archaeologist must work only with broken and discarded pieces of utilitarian objects such as pots,

stone adzes or fish-hooks. It is this incompleteness of the archaeological record which makes it very difficult to reconstruct a full picture of the older cultures or invest the carefully uncovered bits and pieces with the spirit of the human cultures within which they were made and used.

In addition to its popular appeal, Polynesia has certain peculiar advantages to attract the prehistorian. It has been regarded for some time as a sort of natural laboratory for social scientists (Goodenough 1957, Sahlins 1957). Here is apparently one group of people, with a single ancestral language, and presumably culture, spreading out over a wide area which exhibits some regional variation but, with the exception of New Zealand, all within a tropical maritime environment. Here, if anywhere, we should be able to identify all the variations and adaptations of a single culture not subjected to strong outside influences, but established on high and low islands, large and small islands, isolated islands, and groups of islands. The possibilities of this approach were first exploited by social anthropologists rather than by prehistorians, but it has been found that archaeologists can make a valuable contribution by assisting to define the various Polynesian cultures as they were at the time of first European contact (Green 1967a: 126). For this period, historical records of varying quality exist, and there is also very often a full archaeological record with house sites, religious structures, perhaps burial places, and sometimes whole settlements laid out as they were deserted by people moving to a more advantageous position in relation to visiting Europeans or mission stations. As we work back in time, the archaeological record becomes increasingly restricted, and it becomes impossible to draw reliable inferences about religion or social organization. Nonetheless, the developments of individual variations of an ancestral culture are as intriguing to some prehistorians as the quest for the earliest origins of the culture.

Of all the Pacific island groups, New Zealand has seen the most archaeological work, and it is still the scene of the most intensive and sustained investigations. Work in the South Island from the 1920s onwards, first by Skinner (1923, 1924, 1938, 1942) and then by Lockerbie (1940) and Duff (1942), demonstrated quite clearly that the source of New Zealand's earliest settlement was in tropical Eastern Polynesia. In more recent times, the nature of this early settlement, which has been variously called the Moahunter (Duff 1942), Archaic (Golson 1959) or New Zealand Eastern Polynesian (Green 1963), has been more thoroughly defined. Until cultural sequences from all the major island groups in Eastern Polynesia are better known, it is not possible to pinpoint the exact islands from which New Zealand's earliest settlers came; that they came from Eastern Polynesia appears certain. At present there is some evidence to support a view that there was more than one early effective colonization, by groups from different but related island groups in Eastern Polynesia (Green 1967b, Sinoto 1968a: 116, 1968b). Whether there

was only one effective settlement, or several, however, by the Twelfth and Thirteenth Centuries A.D. coastal New Zealand was fairly well populated, and people had penetrated inland to Taupo (Hosking pers. comm.) up the Waitaki River (Ambrose 1968: 591) and into Central Otago (Leach pers. comm.).

The question that has increasingly occupied the attention of New Zealand archaeologists is, of course, how this strongly Eastern Polynesian culture changed and developed to become the New Zealand Maori Culture of the 18th Century (Golson 1959: 32-36; Green 1963: 19-27). The details are not going to be fully known for some time yet, but the results of excavations throughout the rest of Polynesia are making it increasingly difficult to derive any of the well-known Classic Maori traits from outside New Zealand. Instead, they would appear to be, for the most part, local developments, as a tropical Polynesian culture adjusted to the very different circumstances of New Zealand. While there may have been numerous additional arrivals from both Eastern and Western Polynesia, they left little indication of their presence in the form of artefacts. And, alternatively, research in the rest of Polynesia has not yet produced evidence of the return of anyone from New Zealand able to make a lasting impact.

At the northern extreme of the Polynesian triangle, Hawaiian archaeologists have been able to reconstruct a sequence of occupation in the Hawaiian group based primarily on fish-hooks but supported to some extent on other artefact forms (Emory *et al.* 1959). This sequence shows some regional variation, and in it both a Tahitian and a Marquesan influence can be identified (Sinoto 1968a: 117). In other words, there is some evidence that Hawaii was effectively settled by more than one Eastern Polynesian group, and that artefact forms introduced by both groups developed to form the material culture of the later period in Hawaii. Very little is yet known, however, about other aspects of Hawaiian prehistory, although recently research has been directed towards architectural remains and settlement pattern studies (Green pers. comm.; Newman 1968).

Easter Island, the third point of the Polynesian triangle, has attracted more popular attention than any other island and, consequently, it has been the scene of far more intensive research than its size alone would warrant. The team of archaeologists led by Heyerdahl in 1955 has provided two comprehensive volumes of reports (Heyerdahl and Ferdon 1961, 1965). For Easter Island they have provided not primarily a sequence of artefact types, but an important three-stage architectural sequence for the development of ahu or ceremonial sites. To this three-stage sequence, other sites and the majority of artefacts found are but uneasily tied, most appearing to be Middle or Late. In pointing to South American parallels,

Heyerdahl overlooked the Polynesian affinities of some artefacts which appear in archaeological assemblages in Eastern Polynesia, though not necessarily in museum collections. Moreover, established dates for South American cultures indicate that many of the traits concerned could not have reached Easter Island by the Early Period, as Meggers has pointed out (Meggers 1963). It has been suggested that the language of Easter Island may have been the first of the Eastern Polynesian languages to separate from the ancestral proto-East-Polynesian after that language parted company with the Western group (Green 1966: 18, 25). In terms of the linguistic evidence, then, the isolated Fourth Century radiocarbon date from Easter Island is quite acceptable (Smith 1961: 393). Thus, although the archaeological evidence presented by Heyerdahl for the Early Period is not exactly impressive, when the evidence of language is considered and the absence from Easter Island of certain later Eastern Polynesian artefact types taken into account, it becomes quite possible that Easter Island was settled by an early and relatively undifferentiated Eastern Polynesian group, and that it then developed in isolation from the rest of Polynesia and was unaffected by later developments which spread through most of the rest of tropical Eastern Polynesia. Later developments in Easter Island may be the result of outside contact, or merely the product of this particular isolated branch of Polynesian culture. The question is kept open by the botanical evidence (Heyerdahl 1968: 134).

Because of the relationships of the languages and because of obvious affinities of the material cultures, the immediate source of the cultures of New Zealand and Hawaii was believed to be in the more central island groups, and more particularly in the Society Islands (Duff 1956a, Emory 1959). The Society Islands then were selected by Bishop Museum archaeologists as their first area of investigation in the quest for Hawaiian origins (Emory 1962). At the same time, during the late 1950s, American Museum of Natural History investigations in the Marquesas produced surprising results (Suggs 1961) and, as work in the Society Islands failed to produce the expected early sites, some of the Bishop Museum attention has more recently been directed to the Marquesas (Emory and Sinoto, 1965: 2).

There is now a fairly well defined sequence for the Marquesas, established initially by Suggs (1961) and refined by Sinoto (1967). This sequence covers a wider range of artifacts and a greater time depth than data for most other Eastern Polynesian groups at present permit and, at least in Suggs' version, there has been an attempt to include architectural remains and to construct a sequence that reflects the development of an entire culture, rather than the permutations of a few artefact types only. It would be untrue to pretend that there is universal agreement among archaeologists about the details and precise dates of the Marquesan sequence. It does appear, however, that the

Marquesas were settled early in the history of Eastern Polynesia and that they provided a source for the settlement of several of the most easterly areas. Mention has already been made of the Marquesan influence in Hawaii. Unpublished work by Green (ms) on Mangareva indicates that this small group was probably settled from the Marquesas, thereafter developing its own variant of an initial Marquesan culture. There is a strong possibility that the little known early culture of Easter Island also derived from the Marquesas, while several people have recently advanced evidence to support a view that one of the successful initial settlements of New Zealand was also derived from this group (Green 1967b, Sinoto 1968a, 1968b).

It must be remembered that at this point we know far more about relatively early periods in the Marquesas than in other central Eastern Polynesian groups. And it is tempting to emphasize known and visible similarities, rather than to allow the possibility of derivation from a nearer but as yet largely unknown area such as the Cook Islands. There is also some linguistic support for the concept of the Marquesas as a source area within Eastern Polynesia, though not by any means the only source area (Green 1966).

In the Society Islands, the sequence is as yet neither as long nor as well documented as that for the Marquesas. Intensive investigations have failed to produce much material sufficiently early to be of use in tracing early movements within Eastern Polynesia. The Society Islands' evidence is marked by a wide range of structural as well as artefactual evidence for the most recent portion of the sequence (Green et al. 1967, Garanger 1964), and the spectacular but isolated find of an early, but probably not sufficiently early, burial site on the marginal island of Maupiti (Emory and Sinoto 1964). The Maupiti site presents striking parallels to the Wairau Bar site in New Zealand (Duff 1965), and points a close similarity between New Zealand and the Society Islands. The Maupiti site alone, however, does not account for all elements in New Zealand and Eastern Polynesian or Moahunter culture, and it is for the other elements that parallels can be drawn with the Marquesas. The Maupiti site is so far the only excavated site in the Society Islands that can confidently be dated to a time earlier than the 14th Century A.D. A site at Afareaitu, Moorea, has also yielded an early date but has little associated material (Emory and Sinoto 1965: 517). Other sites, if they exist, may well hold surprises comparable to those brought to light in the Marquesas (Garanger 1967).

On the other hand, the later stages of Society Islands' prehistory are fairly well known, and it is probably true to say that there is a better archaeological definition of Tahitian society at the point of first European contact than exists for any other Polynesian society (Green et al.

1967, Green and Green 1968). This has resulted largely from a careful and profitable use of historical records in interpreting the extensive remains of dwelling and religious structures that are found in the interiors of certain valleys as they were abandoned by their inhabitants in the early European period.

Remaining islands in Eastern Polynesia have either not been investigated or have produced so far only late material. In particular, further work is urgently required in the Cook Islands, potentially important in the settlement of New Zealand. Investigations in Rarotonga have produced evidence from the later period, in which close relationships with the Society Islands are evident. There are indications, however, of a substantially different pattern of settlement at an earlier period, evidenced by the nature and distribution of sites in the interior of certain valleys, which do not conform with those of known late sites (Parker ms.). Otherwise, the early periods are barely hinted at by small numbers of significant artefact finds (Duff 1968). Minimal surveys have been conducted on Aitutaki and Mangaia (R. H. Parker pers. comm.), both of which could be important, and no work at all has been done on the remaining Cook Islands. At the time of writing, however, a party from the University of Auckland is carrying out further work on Rarotonga.

Similarly, reconnaissance surveys in the Austral Islands (Verin 1964, Heyerdahl and Ferdon 1965), and on some atolls in the Tuamotus (Garanger 1965, Sinoto and Kellum 1965, Lavondes and Garanger 1966) have produced descriptions of late sites, but as yet apparently no earlier material. Sites on Pitcairn Island were found to be badly disturbed and, although a preliminary report is available (Gathercole 1964), final conclusions have not yet been advanced concerning the pre-Bounty occupation that was responsible for the many thousands of skilfully made stone adzes in New Zealand museums.

There are obviously a great many gaps to be filled in yet. Nevertheless, as one might expect, the further back in time one goes in each Eastern Polynesian group, including New Zealand and Easter Island, the more similar the cultures of the different islands become to each other, and the more similar to early material from Western Polynesia and particularly Samoa, which will be mentioned below. It seems fairly clear that an initial group or groups from Western Polynesia reached Eastern Polynesia some 1,500 years ago or more and, cut off from continuous contact with the relatives in the west, developed their own branches of the language and variants of material culture as the population built up and spread from island to island. There does seem to have been a continuing exchange of ideas between some of the central

groups - the Society and Cook Islands in particular - but relatively few effective or decisive introductions of new ideas to the marginal islands once the initial population was established, although the case for two effective settlements of Hawaii is strong.

There are a number of traits in the material culture of Eastern Polynesia that do not appear in Western Polynesia, in particular the shaping of stone adzes to facilitate lashing in hafts and the profusion of one-piece fish-hooks. Excavated adzes have now shown the development of the lashing grip to be a local development (Emory 1968); the local evolution of fish-hook forms in response to suitable fishing conditions appears to be also a possibility.

What do we now know about Western Polynesia, presumed homeland of the settlers of Eastern Polynesia and much of their culture? Continuing investigations in both Samoa and Tonga, the largest island groups of Western Polynesia, have also produced some very interesting discoveries in recent years. The results of several years' work by various people in Western Samoa on one hand and Tongatapu in the south of the Tonga group on the other are now being assembled and some final reports should be available very shortly (Green and Davidson 1969, Davidson 1969). In Eastern Polynesia, archaeologists have relied heavily on two types of artefacts in establishing sequences and pointing to similarities. These were stone adzes and fish-hooks. In Western Polynesia, stone adzes continue to be very important, and at present provide the major evidence of relationship between Samoa and Eastern Polynesia some 1,500 to 2,000 years ago (Emory 1968, Green 1968: 103). In Western Polynesia, however, fish-hooks do not occur in sufficient numbers and are replaced by a more common archaeological tool - pottery.

At one end of the sequence in Western Polynesia, we have considerable data about the nature and distribution of settlements and the archaeological definition of societies at the point of effective European contact. At the other, the outline of a sequence of over 2,000 years of prehistory is being established (Green 1968). It is becoming impossible to consider the prehistory of either Samoa or Tonga without reference to neighbouring Fiji where related pottery and adzes are also found.

Samoa, Tonga, and Fiji are known to have been in contact with each other in immediately pre-European times, and apparently Polynesian traits in a "Melanesian" Fiji are often explained as being due to the influence of marauding Tongans in early historic times or immediately before. These contacts have not, however, obscured the difference between the languages and material cultures of the three groups. Samoa and Tonga are more like each other in many respects than either is to any Eastern Polynesian group, and it is on this basis that the division into Eastern

and Western Polynesia was possible; nonetheless, it is seldom that items from one group would be mistaken for those of the other. By contrast with Eastern Polynesia and contrary to expectation, perhaps, the archaeological sequences as they are at present known from Samoa and Tonga do not become markedly more similar as one goes back in time. Early sites in Tonga are characterized by a distinctive decorated pottery, now known as Lapita pottery from a site in New Caledonia (Poulsen 1964, 1968). This distinctive decorated pottery has not been found in Samoa, although there also pottery is abundant at early levels, usually plain, but occasionally decorated with impressions from a carved wooden paddle (Green and Davidson 1969). Poulsen (1968: 89) believes that Lapita pottery continued to be made in Tonga throughout the prehistoric period, although Groube (pers. comm.) has more recently suggested that the distinctive Lapita decoration may have been replaced by plain pottery fairly early in the Tongan sequence. Whatever the case, Lapita pottery was used and evidently made in Tonga at a time when only plain pottery was in use in Samoa. In Samoa 2,000 years ago, a wide range of stone adzes was associated with this plain pottery - a range of adzes from which all known adze forms of Eastern Polynesia could easily derive (Green 1968: 103-104). So far, adze forms are more restricted in Tonga, although all types present in Tonga are also present in Samoa. On the other hand, ornament forms such as shell beads and bracelets, numerous in Tonga, are so far absent from Samoa. The Tongan forms, moreover, appear to have little resemblance to other Polynesian ornaments, while they are very similar to ornament forms from Eastern Melanesia (Green 1968: 103-104).

The earliest sites so far located in Fiji, some of which date back more than 3,000 years (Birks and Birks 1967, Palmer pers. comm.), also contain Lapita pottery and adzes similar to those from Tonga (Birks and Birks 1968, Palmer 1968). Subsequently, the Lapita pottery was replaced by other wares which do not appear in Polynesia. Thus, the strong early similarities between Fiji and Tonga become increasingly obscured in more recent times, but it would certainly appear that Polynesian elements in Fiji need not be entirely due to "recent" Tongan influence.

At present we are confronted with something of a puzzle in this area. It is easy to trace a relationship between Samoa and Eastern Polynesia on one hand, and between Tonga and Fiji on the other. The hiatus lies between Samoa and Tonga/Fiji. This may very well be due to the fact that sufficient work has not yet been done in this area. One answer would be a movement of people from Tonga to Samoa some 2,000 years ago, losing Lapita decoration and adding a few adze types on the way. Another alternative is that the earliest sites have not yet been found in Samoa and that, when they are found, they may help to close the gap by bringing the earliest Samoan materials closer to those of Tonga and Fiji. It is also necessary to remember that there are many other islands in

Western Polynesia - Futuna, Uvea, Niue, and the other Tongan islands - and that the Fiji group is large and diversified. It is not impossible that the ancestors of the people who were to colonize Samoa and Tonga had already diverged somewhere in the Fiji group before any settlement of Polynesia proper. Lapita sites once found are easily identified because of the distinctive nature of the pottery decoration. In Fiji, with so much pottery of various ages lying around, it is unlikely that a site with plain or paddle impressed pottery allied to the Samoan wares would be easily recognized. Such a site might be only recognized by its adzes; moreover, adzes are not easily found in Fiji. The problem will only be solved by further work both in the larger island groups already investigated and on smaller islands, such as Futuna, whose position in the settlement of Western Polynesia have yet to be established.

Only a very broad outline has so far been established but, from this outline, it is apparent that 3,000 years ago Fiji was already inhabited by people whose material culture was closely related to that of people who were about to start moving into Polynesia. This view is pronouncedly different from the old one which saw Polynesians sweeping out through Micronesia to avoid the islands of Melanesia, already over-populated by "Melanesians".

As far as Polynesia is concerned, there is little doubt that the effective settlements proceeded from west to east, from Eastern Melanesia to Western Polynesia, from Western Polynesia to Eastern Polynesia and on to the marginal groups. As far as we can judge at present, most of the large islands received the basis of their material culture, as well as their language, from the first effective colonists, and that generally, later arrivals had little effect on material culture except perhaps in the central parts of Eastern Polynesia. There were probably many people drifting and sailing about the Pacific over the years and, undoubtedly, many of them travelled from east to west. Occasional adzes of Eastern Polynesian type have been found from time to time in Samoa and Tonga (Palmer 1963, Davidson 1969), and these were probably brought by arrivals from further east. Western Polynesians, however, declined to adopt these styles. The archaeological record provides evidence only of those ideas that caught on. Many thousands of voyagers could have reached Samoa from various parts of Polynesia. If they failed to introduce new ideas, however, they failed to make an impression on the archaeological record.

It has been suggested by anthropologists that very small islands are far more receptive to outside influences (Vayda 1959: 820-821). Atolls such as the Tokelaus and the Northern Cooks which appeared to be intermediate between Western and Eastern Polynesia were thus thought to have adopted these ideas from sailors in both directions (Burrows 1938).

Such small islands provide a caution against blind acceptance of the view that language, physical type and material culture are inseparable. There is a third area of Polynesian settlement that illustrates this very well. Strung out through Melanesia and up to Micronesia is a chain of small communities whose inhabitants look like Polynesians and speak Polynesian languages. In many cases, however, the material culture of these people was largely indistinguishable from that of their non-Polynesian neighbours. These Polynesian outliers, as they are called, have sometimes been regarded as remnants of great Polynesian migrations. Present linguistic evidence, however, suggests that they are backwashes from Western Polynesia (Pawley 1967).

As stated above, Polynesia is only a small part of Oceania. The prehistory of Polynesia will occupy at most a chapter in future works on the prehistory of the Pacific Islands. At present, however, the chapter on Polynesia is the only one which can even be drafted, and so the bulk of this paper has been devoted to it. It is necessary to conclude, however, by taking a hasty look at other parts of Oceania.

There have been some three archaeological investigations in New Caledonia, only one of which has been fully published (Gifford and Shutler 1956), and a similar number of more restricted investigations in the new Hebrides (Garanger 1966, Shutler and Shutler 1965). There has been no major archaeological research in the British Solomon Islands, and two graduate students have worked recently and at the present time in the Northern Solomons. Brief surveys have been carried out in New Britain, and there have been several investigations in Australian New Guineas, mostly in the Highlands. Considerable amounts of work are in progress or planned for various parts of Melanesia, and its long period of neglect would appear to be over, but the size of the islands, complexity of culture, diversity of languages, and the time depth to be expected make it obvious that Melanesia will provide a fruitful field of investigation for many years to come.

Interest in Micronesia developed by Americans since World War II appears to have waned with the realization that "stepping stones" to the Pacific and particularly Polynesia were not going to be easily discovered. There has been one major investigation in Palau (Osborne 1966), one in Yap (Gifford and Gifford 1959) and two in the Marianas (Spoehr 1957, Reinman 1968), but of these only the last has actually been carried out in the last decade. No systematic excavation at all has been done in Eastern Micronesia.

In South-east Melanesia, Lapita pottery provides a comforting common factor for archaeologists, occurring at a few sites in New Caledonia and the New Hebrides, as well as Fiji, and even as far as New Britain. There are other wares as well, and at present our knowledge of the prehistory of

South-east Melanesia is limited to a confused picture of ceramic change, with several major traditions, in an area where the languages, although still belonging to the Austronesian family, of which the Polynesian languages are also a branch, show a very much greater diversity and presumably reflect a longer history of occupation.

In New Guinea and neighbouring islands, we are confronted with additional languages that do not belong to the Austronesian family, and with a greater time depth again. Mrs Bulmer's pioneering excavations in the New Guinea Highlands produced radiocarbon dates reaching back to 8,000 B.C.; Australian archaeologists now accept dates of 20,000 years ago and more for the first arrival of man in Australia (Golson 1969), and it is apparent that the earlier phases of New Guinea prehistory, and perhaps also of the other large islands nearby relate to a non-agricultural people, with later arrivals, including speakers of Austronesian languages, introducing domesticated plants and animals, and new artefact forms at a later date (Golson 1968, Bulmer and Bulmer 1964).

It will be many years, however, before a prehistory of this area even on the limited scale we are now achieving for Polynesia, can be said to have been written.

Investigations in the major Western groups of Micronesia, Yap, Palau, and the Marianas, all produced pottery, and the beginning of ceramic sequences were worked out. All the archaeologists concerned pointed to affinities with the Philippines, suggesting a movement of people, or at least of pots, up into Micronesia from that area. For Yap there was a date of 177 A.D. (Gifford and Gifford 1959) and for the Marianas a date of 1527 B.C. which at the time it was announced was the oldest radiocarbon date for Oceania (Spoehr 1957: 169).

It had tended to be assumed that peoples in Eastern Micronesia were degenerate relatives of Western Micronesians, who no longer made pottery. The linguistic evidence, however, draws a fairly sharp boundary between eastern and western Micronesian languages, relating the latter with island South-east Asia, and the former with some East Melanesian languages, and much closer to Polynesian. There is nothing in the material culture or archaeology of the Eastern Micronesian area, as it is now known, that would disprove a suggestion that these islands, like the Polynesian area, could have been settled by people moving up from eastern Melanesia rather than out from the west. In this area, however, the position is more complicated than in Polynesia for with many small islands, receptive to outside influences, individual items of material culture seem to have diffused to and fro across the area, and across the linguistic boundary. Only fairly detailed excavations in a number of islands will disentangle this problem.

What of the ultimate origins of the Pacific peoples? Recent work in South-east Asia, in Formosa, and in Japan suggests that the chronologies for these areas must be revised, and the time span for the introduction of pottery and perhaps for the development of the agricultural and technological complex that lies behind the neolithic culture of the Oceanic peoples must be greatly extended. Results from the work now being done indicate that, as is only to be expected, the prehistories of both island South-east Asia and mainland South-east Asia are likely to be complicated in the extreme. The day of sweeping syntheses, based on scattered surface artefactual finds, would appear to be passing for ever in the Pacific, and must be replaced by the careful reconstruction of sequences for single groups, and more limited comparisons with adjacent areas.

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