

PAPUAN POTTERY -- AN ARCHAEOLOGICAL CONSIDERATION

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Pottery is a widespread and ancient art in Papua New Guinea, the eastern half of the island of New Guinea (Fig. 1). The subject of this paper is one of the most widespread styles, referred to in this paper as Northern Papuan pottery. This is a style that is historically interesting but archaeologically poorly known.

Pottery is the commonest form of artefact on many coastal and lowland sites and pottery sites are easily located; as a result prehistoric pottery in a number of regions of Papua New Guinea has received a great deal of archaeological attention. However, pottery sites on the northern coast and river valleys are only beginning to be studied archaeologically.

Archaeological evidence for Northern Papuan pottery has been excavated at the Wañlek site in the Kaironk valley in Madang Province (Fig. 1). This indicates that Northern Papuan pottery and one other local style are likely to date to at least the 3rd millennium B.C. This is the earliest evidence for pottery so far in the Papua New Guinea region, and it is argued in this paper that there are grounds for believing that Northern Papuan pottery is likely to have begun even earlier and to have originated outside Papua New Guinea. On present evidence the only comparable pottery is found in sites of the late Pleistocene and early Holocene Jomon culture of Japan.

MODERN POTTERY -- THE FINAL STAGE OF PREHISTORY

The antiquity and history of development of the many regional styles of Papua New Guinea pottery are topics of considerable archaeological as well as cultural interest. Pottery is still made in hundreds of communities and used in thousands of others, and variations in vessel form and decoration and the geographical distribution of pottery makers make it possible to recognise 18 or more regional styles (Bulmer 1971). This situation provides an ethnographic model that is useful in interpreting the prehistoric industries of the country. Each style region has a core group of pottery-making communities ("industries") making pottery in a common style, with a much wider area into which pottery is traded ("provinces"). Some provinces are geographically discrete from their neighbours, but others overlap where contrasting styles of pottery from different industries are traded to the same localities. This modern pattern of pottery manufacture and trade has important implications for the interpretation of archaeological collections. Some style regions are sufficiently similar in their styles of pottery to suggest an even wider relationship; this introduces the

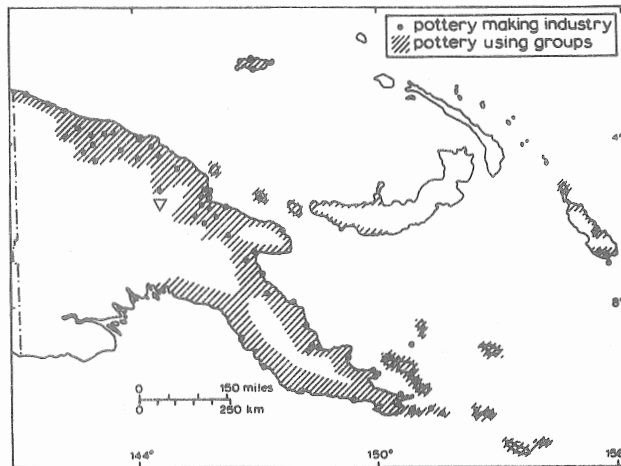


Figure 1. Distribution of pottery in New Guinea. The site of Wanlek is marked by an inverted triangle.

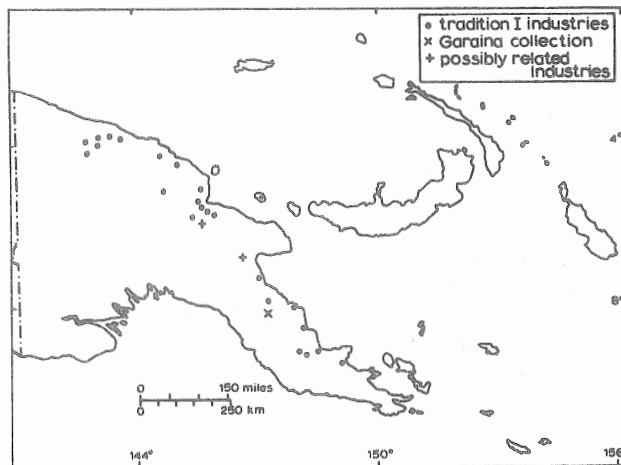


Figure 2. Distribution of Northern Papuan pottery (tradition I).

concept of "tradition".

The concept of "style" in this model is also ethnographically based; each industry and province has a repertoire of vessel forms and decoration recognised by the people themselves and by their neighbours. Lauer (1974) has described such style recognition among some Milne Bay Province communities, where style recognition down to the village level is common knowledge. Although such a study of style has not been done for Northern Papuan pottery, such recognition of style differences on an industry and province basis is widespread among contemporary people. The concept of "tradition" is not a concept that would necessarily have been used by the traditional potters, however, but is instead an archaeological concept to apply to wider regional similarities.

This ethnographic model has so far only been presented in an unpublished paper (Bulmer 1971), having been put "on ice" pending the publication of May and Tuckson's (1984) review of Papua New Guinea pottery. It has to be demonstrated archaeologically how far and whether this model can be applied to much earlier times, but it provides an empirical basis for the interpretation of archaeological evidence. Thus, an interpretation of archaeological deposits which contain more than one pottery style can make reference to what such a phenomenon could signify in modern pottery.

The model thus recognises a complex pattern of co-existing styles which are geographically separate, but which overlap in some cases in their trade areas. The geographical occurrence of pottery trade is different from and generally much wider than that of pottery-making. Differences in vessel form and decoration have a clear utility in distinguishing the products of one industry from another. In contemporary Papua New Guinea individual potters and different pottery villages have distinct styles that are acknowledged by themselves and by the people they trade with.

Another basic element of contemporary pottery distribution in Papua New Guinea is that there are large areas that do not make or use pottery. In some areas adjacent to pottery-making provinces a very few pots are acquired for special use, but not in quantity, for everyday cooking and other functions. This kind of small scale trade seems to have taken place at the Wanlek site, and was characteristic of a number of parts of the Highlands in recent centuries.

THE NORTHERN PAPUAN POTTERY TRADITION (Figs 2,3).

This pottery has long been remarked on by culture historians (e.g. Schurig 1930), but has nevertheless received little archaeological attention. It is made in an area stretching over 1000 km of the northern coast and river valleys by communities all of whom speak Papuan languages. This is an area of manufacture much larger than other pottery provinces, including those of the Sepik river, the only other nearby pottery province of Papuan linguistic affiliation. Most other pottery-making communities in Papua New Guinea speak Austronesian languages, and their pottery is made in a variety of regional styles in relatively small regions, although some are traded widely, particularly by sea. This contrasts with the Northern Papuan pottery which is traded in much smaller quantities over land, and generally over much more restricted areas.

The Northern Papuan pottery tradition falls into four distinct provinces; the coastal hills of the Sepik, the Ramu valley, the Eastern Highlands, and four industries on the coast of the Morobe Province (Fig. 2). An unstratified surface collection of sherds from Garaina in the Northern Province (Fig. 4) is markedly similar to the modern pottery of the Northern Papuan tradition, and indicates that the latter was either traded some distance inland, or possibly formerly more widely manufactured.

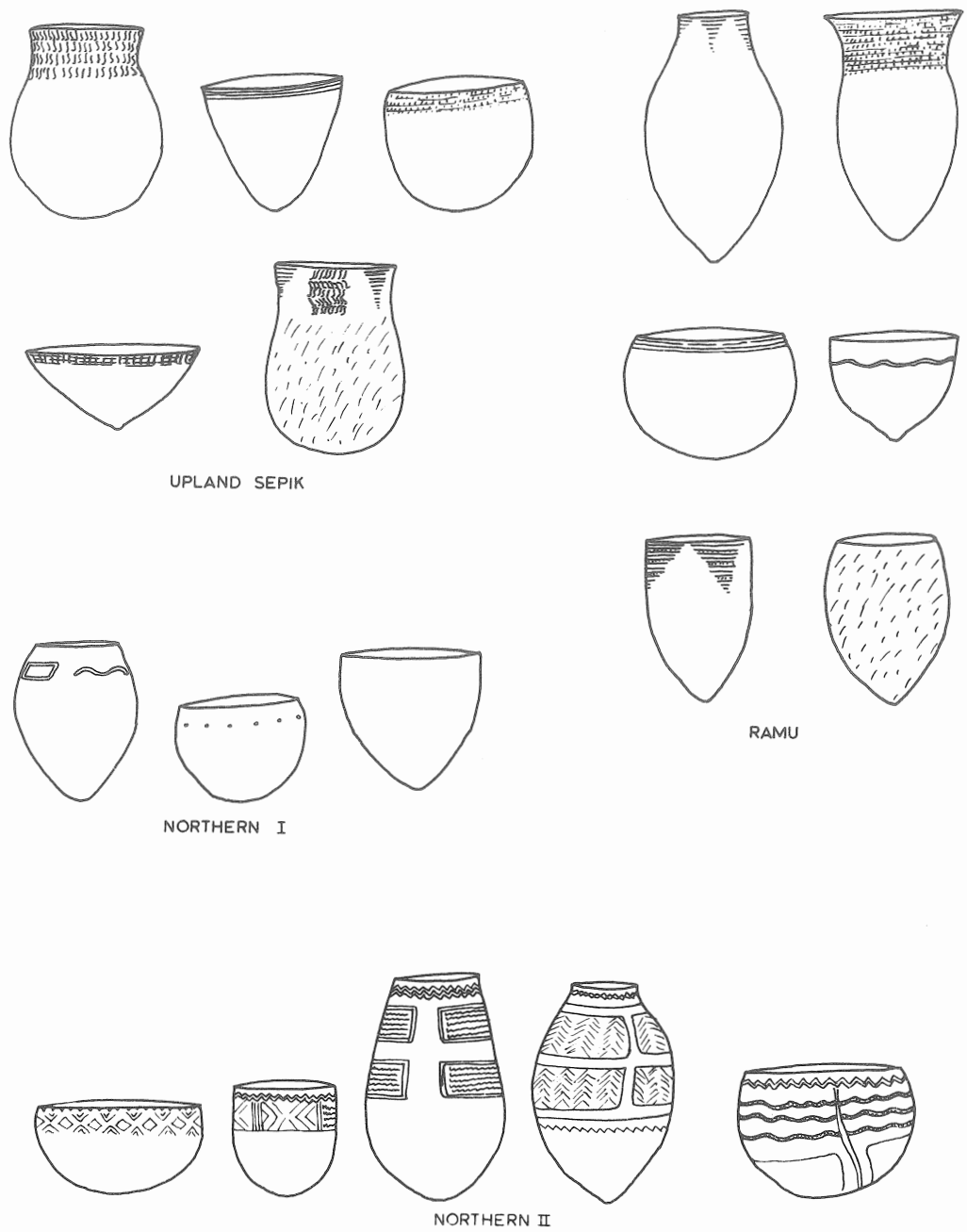


Figure 3. Vessels of the Northern Papuan pottery tradition.

Northern Papuan pottery is made by coil building, with the coils joined by finger-pressing. All Northern Papuan industries include vessels with pointed bases, although round-based pots and bowls are made as well (Fig. 3). The pots are decorated by leaving remnant coils unsmoothed and then applying stick and fingernail impressions along the coils or on smoothed design fields on the necks and rims, and by the application of small separate coil strips. The Northern Papuan pottery makers have neighbouring Austronesian-speaking communities who make pots of contrasting form and decoration (May and Tuckson 1984 : 166-75, 302-7), and on stylistic grounds it seems unlikely that Northern Papuan pottery began out of imitation of neighbouring pottery.

Archaeological Evidence from Wañlek

The only stratified evidence for potsherds of this tradition comes from the Wañlek site (Fig. 1), in the Kaironk valley in the Bismarck-Schrader range. This site is a long day's walk from the Ramu valley, and further from the central Highlands valleys. Wañlek produced a small group of sherds, including not only Northern Papuan sherds but also a few sherds of two other styles, all interpreted as fragments of trade goods from the coast (Bulmer 1977). The site also contained evidence for the manufacture of a distinctive group of stone artefacts made of three kinds of local rock, and associated postholes of houses and ovenpits, all dated to about 3-4,000 years ago (Bulmer 1977:65). Evidence for much earlier occupation at the same site consisted of a small number of postholes and fireplaces, features that it is hoped can be investigated further in the future.

Twenty potsherds were found at Wañlek in stratified positions. These can be attributed on the bases of clay, temper, vessel forms and/or decoration to three different and extant industries in the lowlands. The three styles are:

1. pottery of Northern Papuan type made of coarse, naturally tempered river clay, similar to Usur pottery from the Ramu valley (Hughes 1977:115-32);
2. thin sand-tempered ware similar to pottery made in Kalep village near the mouth of the Sepik river (May and Tuckson 1984:302-7);
3. one sherd with a red-slipped surface and a slight body angle, attributable to the pottery industry of Bilbil and Yabob villages near Madang (May and Tuckson 1984:302-7), where the only red-slipped pottery anywhere in Papua New Guinea is still made.

Although few in number, the stratigraphic positions of these sherds are well-established; the structural features of the site make it apparent that artefacts have not been redeposited but are related to relatively undisturbed house sites and activity floors. The red-slipped sherd was in a garden soil layer stratigraphically

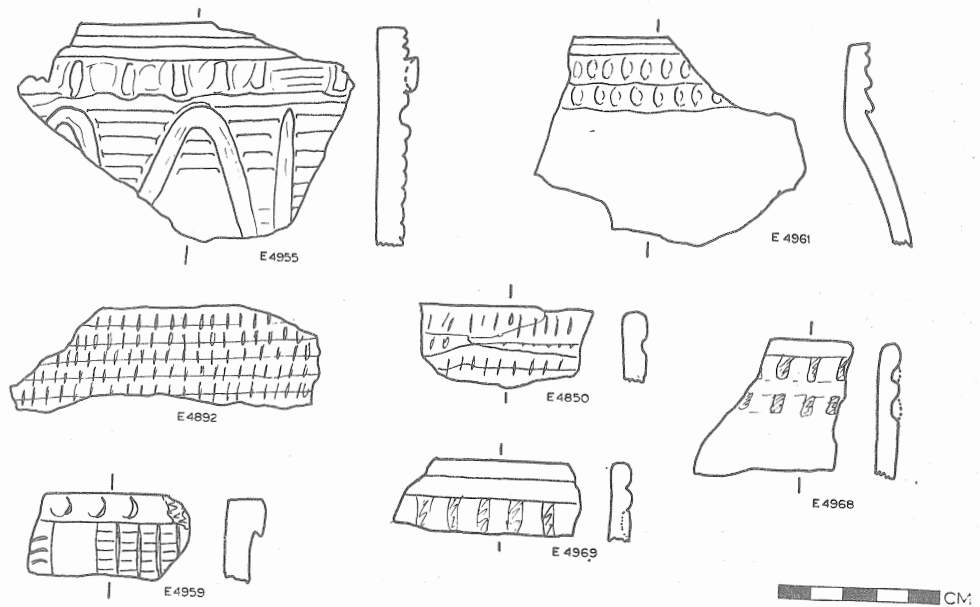


Figure 4. Sherds from the Garaina collection.

more recent than the main occupation, which was dated to 3-4000 years ago. The sherds associated with the houses and ovens of the main occupation include examples of the other two styles. In addition, a single Ramu valley style sherd was found in a stratigraphically earlier layer. This layer has three radiocarbon dates, none directly associated with the sherd; these are 5500, 12,000 and 14,000 years ago. Obviously, one sherd does not make a pottery tradition, but this find is tantalising. Even if only the more recent of the dates relates to the sherd, this is the earliest evidence of pottery so far in Papua New Guinea.

DISCUSSION.

Unfortunately, there have been no other sites excavated in Papua New Guinea which contain pottery of comparable age or style to that from Wanlek. Archaeological evidence from the Eastern Highlands shows that pottery of the Northern Papuan style is relatively modern there; none has been found so far in contexts earlier than about 2000 years ago (Watson and Cole 1977). The only other relatively early pottery style in the New Guinea region is the Lapita pottery of the 2nd and 1st millennia B.C. (Bulmer 1982:181).

Aside from the dated and stratified archaeological evidence, it is possible to turn to other kinds of evidence to give an

indication of the relative antiquity of the Northern Papuan pottery tradition. The geographical distribution of the Northern Papuan industries along some 1000 km of the northern coastal hills and valleys and across a large number of language groups suggests that this pottery may have been in existence for a long time. Another sign that may indicate a relatively early date is that this tradition occurs inland from the pottery industries of Austronesian speaking peoples, perhaps indicating that the Papuan potters or their pottery making tradition arrived in the country first. Another interesting pattern that may be of historical significance is the location of the Northern Papuan pottery communities along the foothills, not along the rivers themselves or across the relatively level river plains. The Ramu and Sepik valleys have been prograding during the Holocene (Swadling 1984), and would once have consisted of large saltwater bays prior to the sedimentation of the river basins. It is possible then that the Northern Papuan pottery distribution reflects settlement on a former coastal configuration which has since become land-locked.

It is obviously necessary to attempt to reconstruct the processes that have resulted in this pattern of distribution of pottery manufacture and style. There are a number of possible explanations; migration of sea-borne settlers to various positions along a stretch of coast; gradual expansion of settlers along the coast after establishment in a more limited area; or the acquisition of the practice of pottery making from neighbours or traders. The choice between these alternatives and others must depend on further archaeological study, but all are possible in terms of present knowledge. The only other widespread early pottery style in Melanesia that is archaeologically well-known is Lapita. This pottery has been interpreted as evidence for the migration of its makers from the western Pacific into the Fiji-Tonga-Samoa region.

The indications so far, however, are that the Northern Papuan pottery is likely to be relatively old. The Wañlek evidence shows that it is at least as early as a neighbouring industry which is now the product of Austronesian communities, and older than another. When are the Austronesian-speaking potters thought to have entered the Papua New Guinea region? This may have been before 5-7000 years ago (Bellwood 1978:121-2),* as linguists argue that pottery was a part of the Proto-Oceanic material culture repertoire. The distributional evidence of being inland from Austronesian-speaking pottery makers means that the Papuan potters came, or the Northern Papuan potters started making pottery, before Austronesians arrived. The Northern Papuan pottery style survived side-by-side with at least two other contrasting styles, apparently unaffected by them, for a long time; the evidence from Wañlek suggests that this kind of coexistence has been going on for more than 3000 years.

* I would now prefer to see Proto-Oceanic equated with Lapita - Ed.

The Possible Jomon Connection

Unless one wishes to argue that pottery was invented independently in Papua New Guinea, or adopted from neighbouring Austronesian-speaking pottery communities, both arguments which have been discarded above, it seems most likely that Northern Papuan pottery had its origins elsewhere, outside Papua New Guinea. A search of the literature for adjacent regions has shown that the only pottery at all similar in decoration and form in the western Pacific-eastern Asia area is found in the earlier phases of the Jomon pottery of Japan, the earliest of which dates to the late Pleistocene (Oba and Chand 1962). An example of the similarity I am referring to is seen in the sherds illustrated by Yawata (1961:Pl. I and II), which are astonishingly like Northern Papuan pottery. Solheim (1968) has already made a case for the Japanese origins of Melanesian coiled pottery on technological grounds.

The perils of drawing long-distance parallels are well known to me, and in some ways I wish someone would come up with information that would make such exercises unnecessary. However, any unlikelihood of a Jomon connection seems somewhat tempered by the presence of a string of reefs and islands between New Guinea and Japan; points of land which might have helped to lead colonists or visitors across the thousands of kilometres that separate the two islands. It is also worth pointing out that Japan is just as close geographically to New Guinea as is mainland Southeast Asia. Rudimentary boats or rafts must have been in use in the western Pacific by at least 40,000 years ago, as Sahulland, the continent of which the present island of New Guinea was formerly a part, could only be reached from Asia by sea. Furthermore, there is archaeological evidence for inter-island obsidian transport in late Pleistocene and early Holocene Japan (Aitkens and Higuchi 1982:93), and comparable evidence for obsidian transport has been found in the islands east of New Guinea by at least 6000 years ago (White and Ambrose 1978). Perhaps a Jomon connection is not so far-fetched in a practical sense after all. However, it may be that comparable pottery was made closer to New Guinea, perhaps somewhere else in the islands to the north and west, but my search so far for such evidence has not been successful.

It should also be noted that there are other comparisons to be drawn between the archaeological records of prehistoric Japan and Papua New Guinea. Distinctive forms of stone clubheads, mortars and figurines are present in both areas (Bulmer 1975:68). Solheim (1969:134) has referred to the relationship between the distribution of coiled pottery and certain distinct artefacts, particularly lenticular-sectioned adzes. This point was raised again by Swadling (1984) in connection with Sepik prehistory, where a variety of cultural items seem to have their closest parallels in Japan. Such apparent parallels can and should be archaeologically tested, not discarded as unsubstantiated (as by White and O'Connell 1982:191). Evidence for the antiquity of the ornate stone clubheads has been

found in the Eastern Highlands (Watson and Cole 1977:193), where a clubhead has been dated to between 3000 and 3500 years ago. The available stratified evidence can also be judged on grounds of its plausibility in terms of general knowledge of the prehistory of the area. Maritime contacts within the Papua New Guinea area and between this region and the islands of Southeast Asia are historically well-known, and are apparent in prehistory through specific trade items of considerable antiquity, such as the bronze artefacts found in Irian Jaya.

We do not yet have all the answers to the problems raised in this paper, but the weight of evidence supports a relatively early origin for Northern Papuan pottery and requires a further search for evidence of its place of origin. Agriculture was in Papua New Guinea more than 9000 years ago, and the pig more than 10,000 years ago. Why not equally early pottery?

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