ARCHAEOLOGY IN NEW ZEALAND

FROM PROTO-OCEANIC *RUMAQ TO PROTO-POLYNESIAN *FALE: A SIGNIFICANT REORGANIZATION IN AUSTRONESIAN HOUSING

Roger C. Green
Department of Anthropology
University of Auckland

Since the late 1970s, when the general concept of a house society as a widespread kind of social formation was initially advanced as a potentially productive comparative analytical unit for numerous times, places and cultures by Lévi-Strauss (1983:172-87), a growing interest has developed around what are largely ethnographic studies of Austronesian 'house-based societies' plus the associated buildings accompanying them. This was first displayed in Roxana Waterson's 1990 book *The Living House: An Anthropology of Architecture in South-East Asia*, and then in the edited volume, *Inside Austronesian Houses: Perspectives on Domestic Designs for Living* (Fox 1993a). Recently, additional focus on the concept's occurrence among Austronesian speaking societies has been found useful by Bloch (1995:1) for two cases in Madagascar, and further expanded upon in some seven of the ten essays within *About the House: Levi-Strauss and Beyond* (Carsten and Hugh-Jones 1995a). One may expect more such essays for various Austronesian speaking groups will continue to appear.

In nearly all cases, aspects of these works exhibit a concern with the linguistic correlates not only of the various social units and arrangements under examination as house societies but as well, although usually to a lesser extent, to those terms applied to the associated dwellings, buildings, and architecture which form a part of the discussion. Yet a deep concern with the actual physical characteristics of the buildings as such (in addition to the linguistic terminology which one applies), is probably only on occasion given the close attention that it in fact may warrant (Waterson 1993:221; Carsten and Hugh-Jones 1995b:20-21). However, as part of the overall exploration of the subject, this particular focus has seemingly been more fully examined within the Austronesian area than for many other regions, and consequently

it becomes possible to further pursue it here. In this case it will be explored for the ancient Oceanic part of the Austronesian speaking world during a Lapita horizon expansion from eastern Island Melanesia into the core western zone from which the various Polynesian societies emanated. The question will be, what implications does the changing historical linguistic picture possess for some degree of reorganization amongst the main buildings and other physical features which constituted those early settlements? Does this linguistic evidence, and the very different ethnographic endpoints found among these two regions, suggest that at an early stage in the movement to the Western Polynesian region there may have been certain fundamental transformations in social arrangements when these are conceived of as constituting rather different kinds of Austronesian house-based societies?

For Southeast Asia and ancestral Austronesian societies Fox (1993b:9-14) presents historical linguistic arguments for the antiquity of a set of building forms and their physical characteristics, along with reconstructed terms for them which continue to have much in common with certain social formations and their associated building structures that are known ethnographically. Unfortunately, good archaeological antecedents for these architectural features are not yet forthcoming. We can definitely demonstrate that most of the reconstructed linguistic forms involved are Proto Austronesian (PAn) or Proto Malayo Polynesian (PMP) in origin, and from the general archaeology of that region, as well as further out into the Pacific, we can argue for an antiquity of from 5000 to 3500 years ago as an appropriate estimate of the time involved (Bellwood 1996, 1997:116-23; Spriggs 1989,1996). However, we have few excavations actually documenting dwellings or the remains of other buildings associated with the known archaeological assemblages of the period from 5000 to 6000 years ago in Taiwan, much less of a more recent period from 3500 to 4500 years ago in Taiwan and Island Southeast Asia region (Bellwood 1997:211-32). The one decent set of early house plans is in fact for northern Luzon in the Philippines dating from 2500 to 1500 B.C. (Bellwood 1997: Fig.7.8). Thus the comparative ethnographic and linguistic argument for there having been ancient dwellings and associated features which might be claimed as ancestral to the splendid contemporary traditional buildings of Island Southeast Asia associated with its ethnographically now well documented 'house-based societies' still awaits strong direct supporting evidence and arguments from archaeology. This is particularly so with respect to numerous changes not only in physical form and architecture, but also in social arrangements which must have developed among these societies over the millennia leading to the ethnographic situation we see today.

The current situation in Oceania is rather different. Drawing on the work done by Blust (1987,1995:485-87), Waterson (1993:223-24), and Fox (1993b:9-14) on the subject of housing and architectural terminology in Southeast Asia, and its presumed antiquity, it is possible as Green and Pawley (in press) have done to attempt to (a) reconstruct the full linguistic terminology at the Proto Oceanic (POc) and an early eastern Oceanic dialect chain level of it for architectural forms and settlement patterns, and (b) to combine this information with the relevant ethnographic and archaeological evidence. The 3000 to 3500 year old Oceanic reconstructions have yielded some 30 proto-lexical forms and their inferred semantic meanings for the kinds of buildings involved, the dwelling-house and its architectural components, other structures associated with these buildings, and other structures associated with such settlements (Green and Pawley in press; see selected examples listed in Table 1). In addition, there are four reconstructions bearing on the settlement pattern domain. For the main dwelling itself, termed POc *Rumaq, as well as for other buildings, certain terms relating to its architectural components can be singled out (see selected examples in Table 2). Most of these forms in both tables constitute continuations from their PAn or PMP antecedents, as might well be anticipated. Thus the major building and architectural components of the Southeast Asian "house" societies seem to have been retained in the dwellings, building components, and settlement patterns in Oceania, although often expressed in a rather different but related set of physical forms.

Having pulled together the available linguistic evidence bearing on this domain, Green and Pawley then integrate it with the existing ethnographic and archaeological evidence. Employing Oliver's (1989:333-36 and Fig. 9.4) choice of Baegu society in the eastern Solomons as a typical case quite representative of Island Melanesia Oceanic speaking societies, they have used it as their ethnographic analog for general guidance (Fig. 1), both for arrangements within houses from this region, and for more general patterning within those settlements, as well as for help in the interpretation of a Lapita site from the outer eastern islands of the Solomons. Note in Figure 1 the *luma* (cognate of POc *Rumaq*) dwelling and its genderised internal structure. Note also the more general and highly genderised patterning for the entire settlement and community.

Green and Pawley next employ a series of previous articles by themselves (Pawley and Green 1973,1984; Green 1997) and others (Pawley and Ross 1993,1995; Kirch 1997:86-100; Spriggs 1997:96-98) to argue that evidence
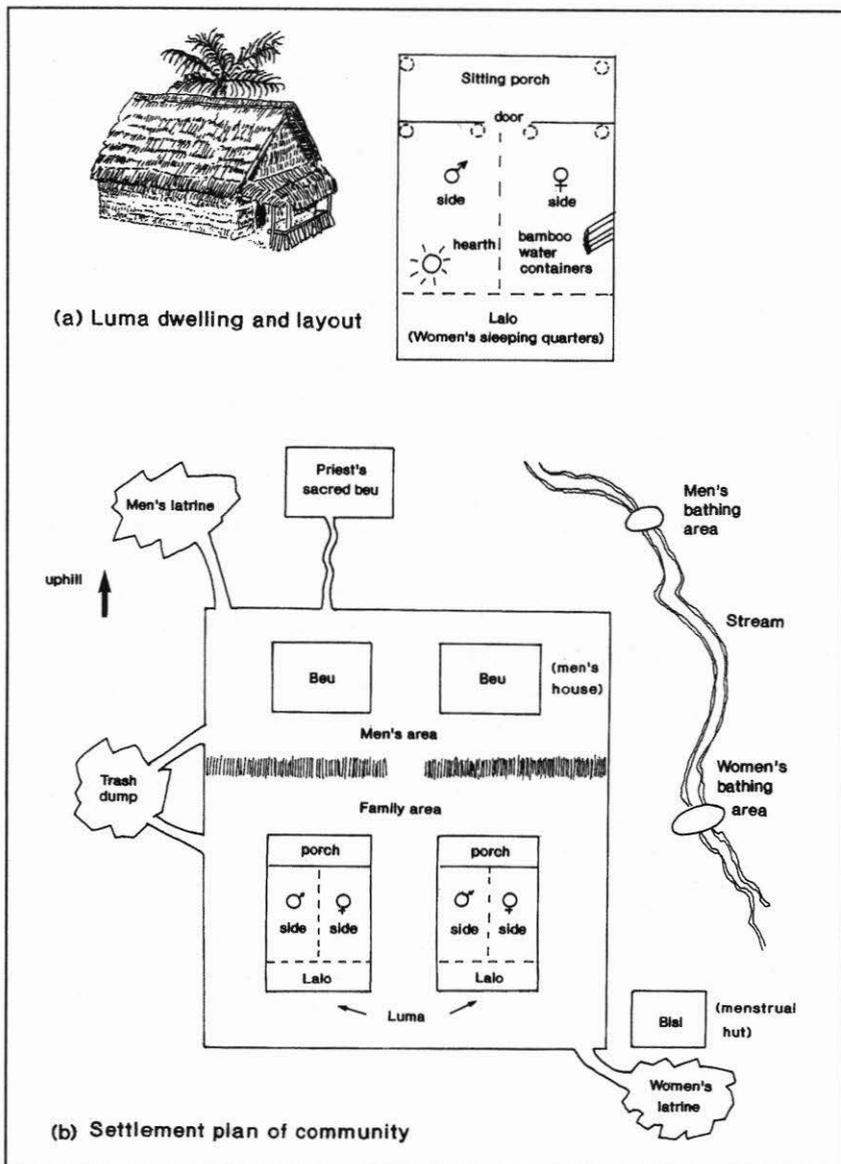
(a) Luma dwelling and layout

Sitting porch

door

♂ side   ♀ side

hearth| bamboo water containers

Lalo
(Women's sleeping quarters)

Men's latrine

Priest's sacred beu

Men's bathing area

uphill ↑

Stream

Beu   Beu   (men's house)

Men's area

Trash dump

Women's bathing area

Family area

porch   porch

♂ side | ♀ side   ♂ side | ♀ side

Lalo   Lalo

← Luma →

Bisi   (menstrual hut)

Women's latrine

(b) Settlement plan of community

Figure 1. Typical Baegu (Malaita, Solomon Islands) (a) dwelling house, and (b) settlement plan of community (after Oliver 1989: Fig. 9.4).

from the Lapita cultural complex, and especially that from Remote Oceania, exhibits a strong correlation with the Proto Oceanic subgroup, and in particular with a late stage of it which formed a founding eastern Oceanic dialect chain or a linkage of emerging proto-languages in the region (Fig. 2). They then use settlement pattern and housing evidence from a whole range of Lapita sites, but focus in on the SE-RF-2 Lapita site of Nenumbo in the Reef Islands of the easternmost area of what is now part of the Solomons Islands nation (Fig. 3). In size, the Nenumbo site lies at the 'hamlet' end of the surface pottery distributions which delineate most Lapita settlements (Sheppard and Green 1991:100 and Fig. 18; see Fig. 4).

The living arrangements, activity patterns, buildings and structural features of this site had already been fully published by Sheppard and Green (1991). Theirs was a strictly archaeological interpretation, employing minimal ethnographic analogy and a very conservative functional interpretation of the ecofact and portable artifact distributions plus the structures and other features encountered. In the Green and Pawley paper, a more wide-ranging interpretation, also employing the Baegu ethnographic example and the set of Proto Oceanic linguistic reconstructions, has been attempted. Thus the actual surface sherd distributions employed by Sheppard and Green (1991: Fig. 1) are first considered and then reinterpreted in a grey scale analysis (Fig. 5). Next, evidence from the 154 square metres portion of the site (14%) that has been excavated is discussed in more detail. These details of structural features (in relation to ecofacts and portable artifacts) are then identified functionally according to their linguistic equivalents in Proto Oceanic (Fig. 6). In general, a satisfactory outcome is obtained, supported by both the linguistic and archaeological evidence together with consideration of some ethnographic analogies of the kind more usually applied in archaeology. The archaeological evidence is well-dated to 1100 B.C. (Green 1991).

In his book on Lapita peoples, Kirch (1997:162-91) incorporates the case for Lapita architectural forms and settlements made by Green and Pawley into a chapter in which he also discusses Lapita's dwellings, settlements, and probable societal arrangements. With particular reference to Fox (but also drawing on Waterson), he advances the proposition that here we have reasonable circumstances for inferring ancestral house-based societies in the interpretation of the archaeological evidence. Thus, we have a case where there is an apparently long-standing tradition of Austronesian "house societies" in Southeast Asia, which through Lapita as an ancestral complex could easily have given rise to numbers of rather similar societies in Oceania.
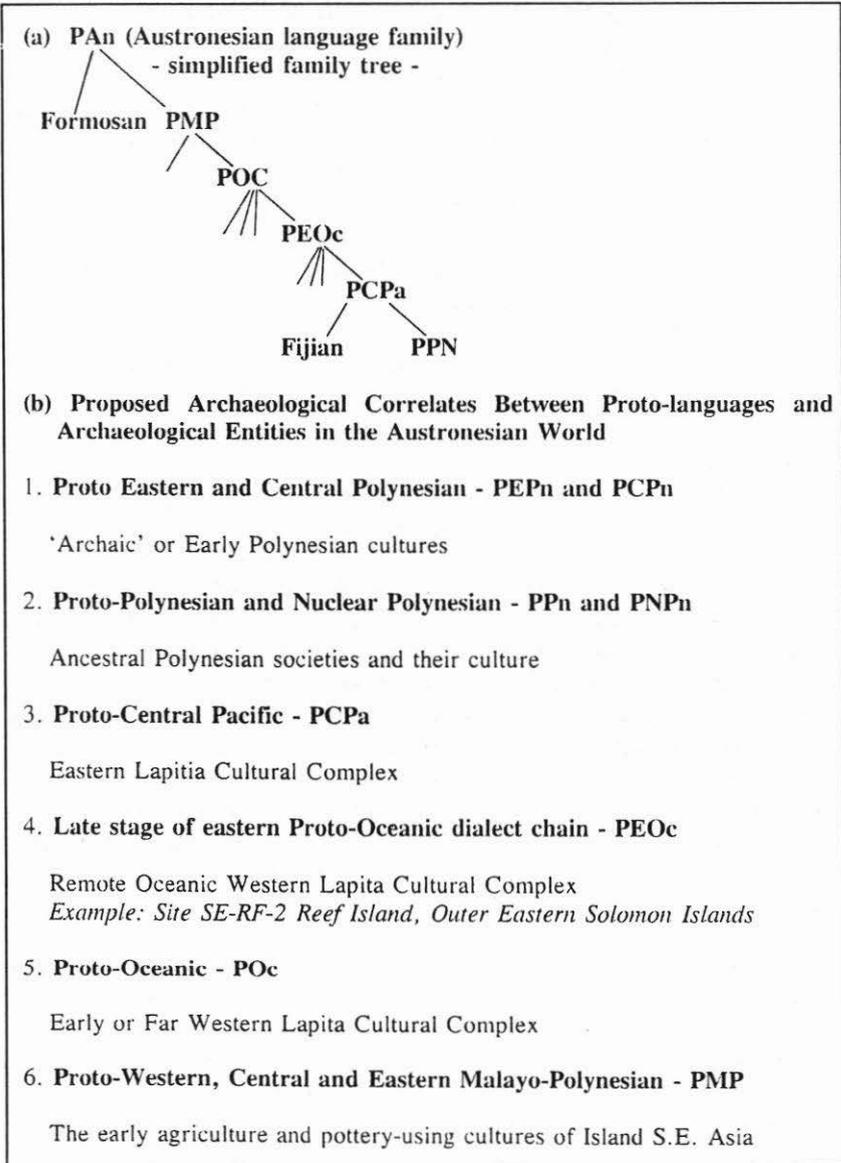
(a) PAn (Austronesian language family)
        - simplified family tree -

Formosan PMP
              POC
                 PEOc
                     PCPa
                 Fijian   PPN

(b) **Proposed Archaeological Correlates Between Proto-languages and Archaeological Entities in the Austronesian World**

1. **Proto Eastern and Central Polynesian - PEPn and PCPn**

   'Archaic' or Early Polynesian cultures

2. **Proto-Polynesian and Nuclear Polynesian - PPn and PNPn**

   Ancestral Polynesian societies and their culture

3. **Proto-Central Pacific - PCPa**

   Eastern Lapitia Cultural Complex

4. **Late stage of eastern Proto-Oceanic dialect chain - PEOc**

   Remote Oceanic Western Lapita Cultural Complex
   Example: Site SE-RF-2 Reef Island, Outer Eastern Solomon Islands

5. **Proto-Oceanic - POc**

   Early or Far Western Lapita Cultural Complex

6. **Proto-Western, Central and Eastern Malayo-Polynesian - PMP**

   The early agriculture and pottery-using cultures of Island S.E. Asia

Figure 2. Austronesian language world: (a) simplified family tree and (b) proposed archaeological correlates between these proto-languages and archaeological entities.
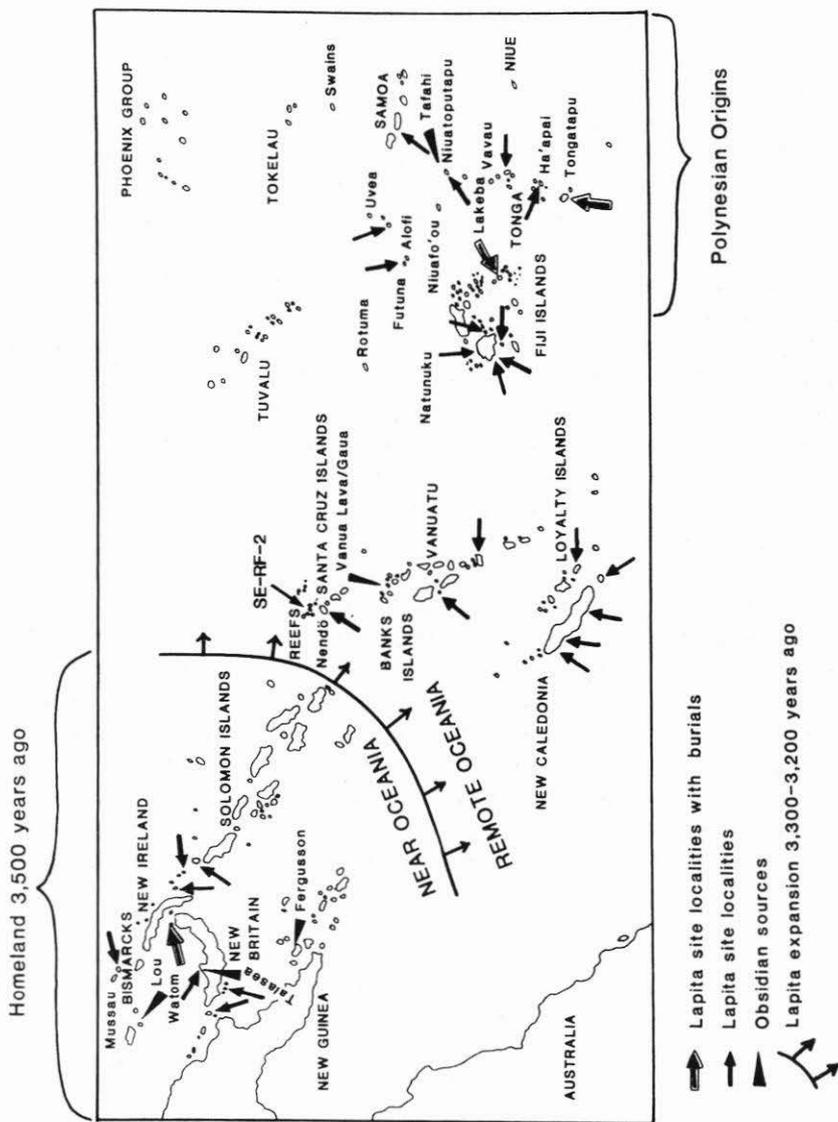
Figure 3. Distribution of Lapita sites in Near and Remote Oceania with position of SE-RF-2 site in Main Reef Islands highlighted.

Next, among Austronesian speakers there are strong linguistic continuities exhibited from Southeast Asia into Oceania within the ethnographic records of the region, so that, for example, housing components are designated by and incorporate cognates of the same linguistic terms in a range of different localities where groups of people otherwise have diverse living and social arrangements. Also, the claim that we are talking about ethnographically described "house-based societies" among these groups is well supported by various essays in the Fox (1993a) edited volume. Finally, there are the Far Western Lapita sites where contemporary investigations reveal evidence of tidal flat, stilt-house settlements (and provide some excavated house remains), which could plausibly be interpreted as *Rumaq style houses similar to some of those in Southeast Asia (Kirch 1997:172-73, 183-84). This is consistent with the retention in Western Oceanic languages of a term for the space underneath a house, whereas the more easterly *Rumaq dwellings are today built directly on the ground as seen in the Baegu example, and is attested archaeologically by the SE-RF-2 Nenumbo Lapita site. Finally within such a settlement there are less substantial, open-sided POc *pale style buildings (Fig. 6) used for various utilitarian and general purpose tasks in the vicinity of the principal dwelling.

One of the outcomes of the last few decades of research in linguistics, biological anthropology, and archaeology has been to demonstrate that the Oceanic-speaking societies of Island Melanesia and those of Polynesia are more intimately related than some would have supposed and share a common ancestry in Lapita. It therefore seems reasonable that there would be at least remnants of supporting evidence for a common origin in housing, building arrangements, and settlement patterns amongst these societies. Yet, initially that does not seem very obvious from the ethnographic records (Oliver 1989:347-54) or from archaeological research reports, mainly from Polynesia, relating to the last 1000 years.

Rather, most ethnographically known buildings, including dwellings, are termed Proto Polynesian (PPn) *fale, often with modifiers to designate special types such as cookhouse (fale tutu) or god house (fale atua). In addition, many are open-sided, or potentially open-sided, except during inclement weather, and some are round-ended rather than rectangular. Nevertheless, despite such differences in physical forms and linguistic designations, there are some readily apparent continuities in the details of their architectural components and the terms for these (Green and Pawley in press). Furthermore, in the Tikopia (Kirch 1996) and Maori (Van Meijl
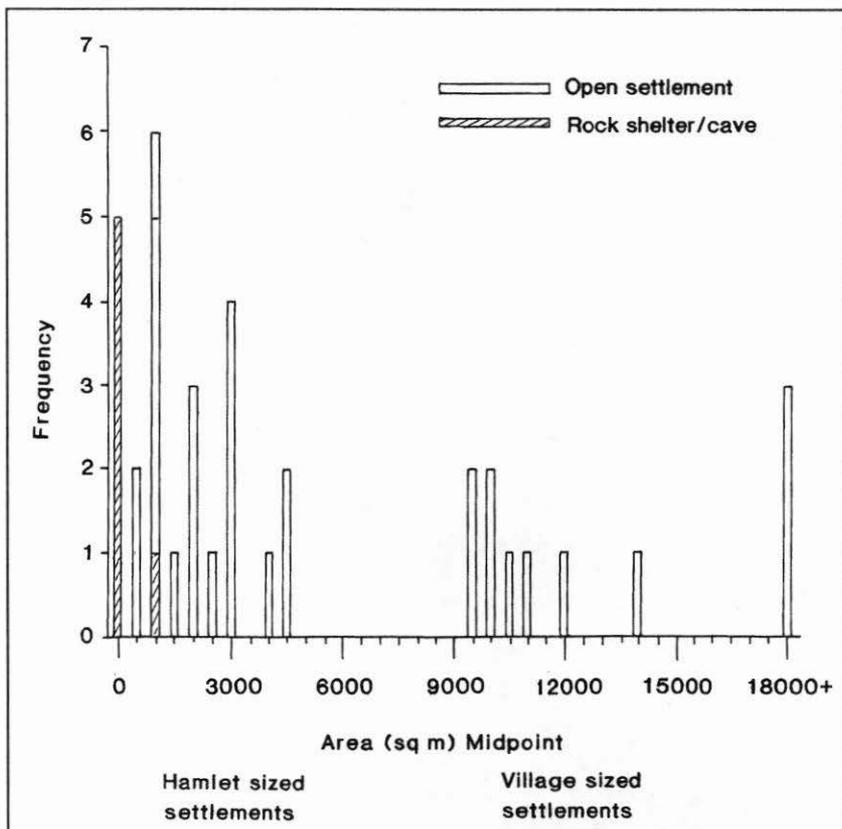
Fig.4   Sizes of Lapita settlements based on surface pottery distributions showing two modes for hamlet and village-sized occupation areas.

1993) cases they have already been described as examples of "house-based societies", and as Kirch shows for Tikopia, the actual dwelling house, its layout and its associated structures constitutes a highly structured and symbolic set of characteristics which support this interpretation.

Among the Oceanic-speaking populations of Island Melanesia, the focus appears to have been on a dwelling called POc *Rumaq, a men's house termed POc *kamaliR (or another more recently innovated form), and an open-sided building designated POc *pale. It would appear that in moving into Polynesia, one linguistically and ethnographically indicated but little
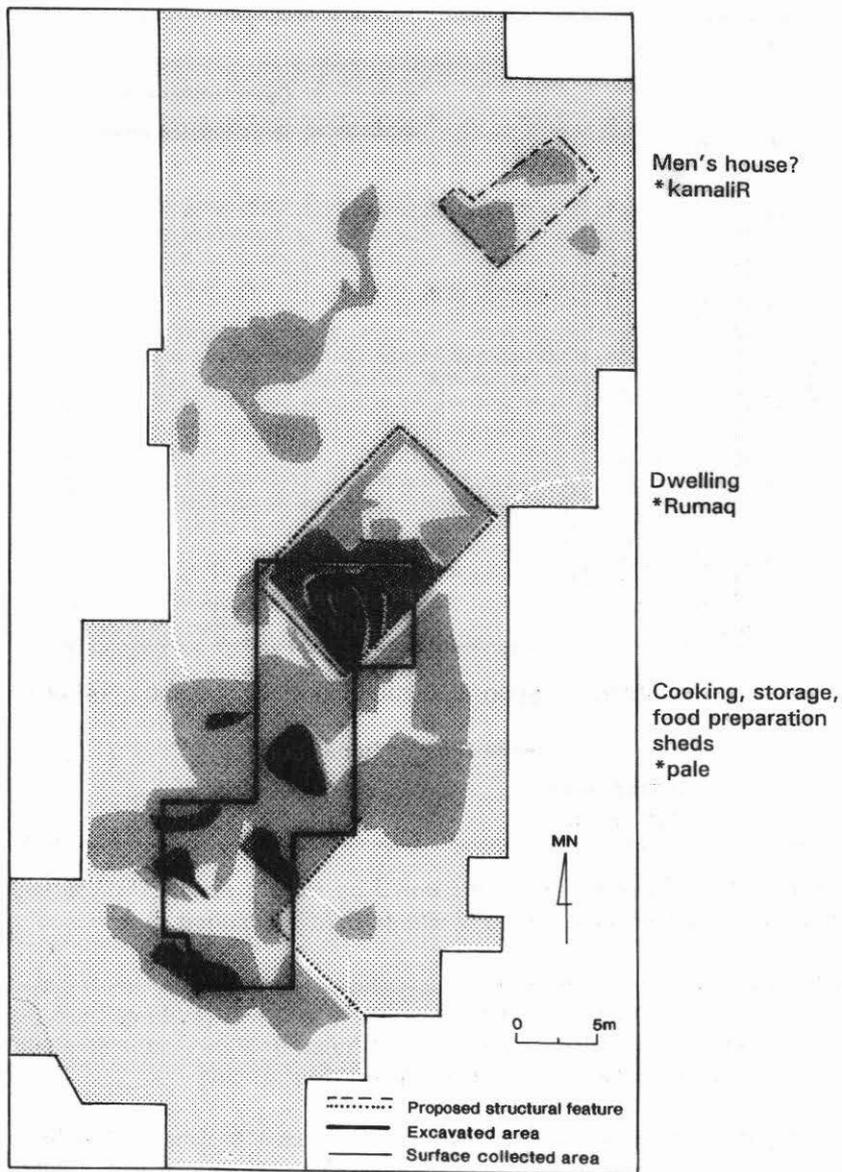
Figure 5. Computer generated grey scale analysis of a detailed surface pottery distribution for the Main Reef Island site, SE-RF-2, in relation to the excavated area and building features and their interpretation linguistically.
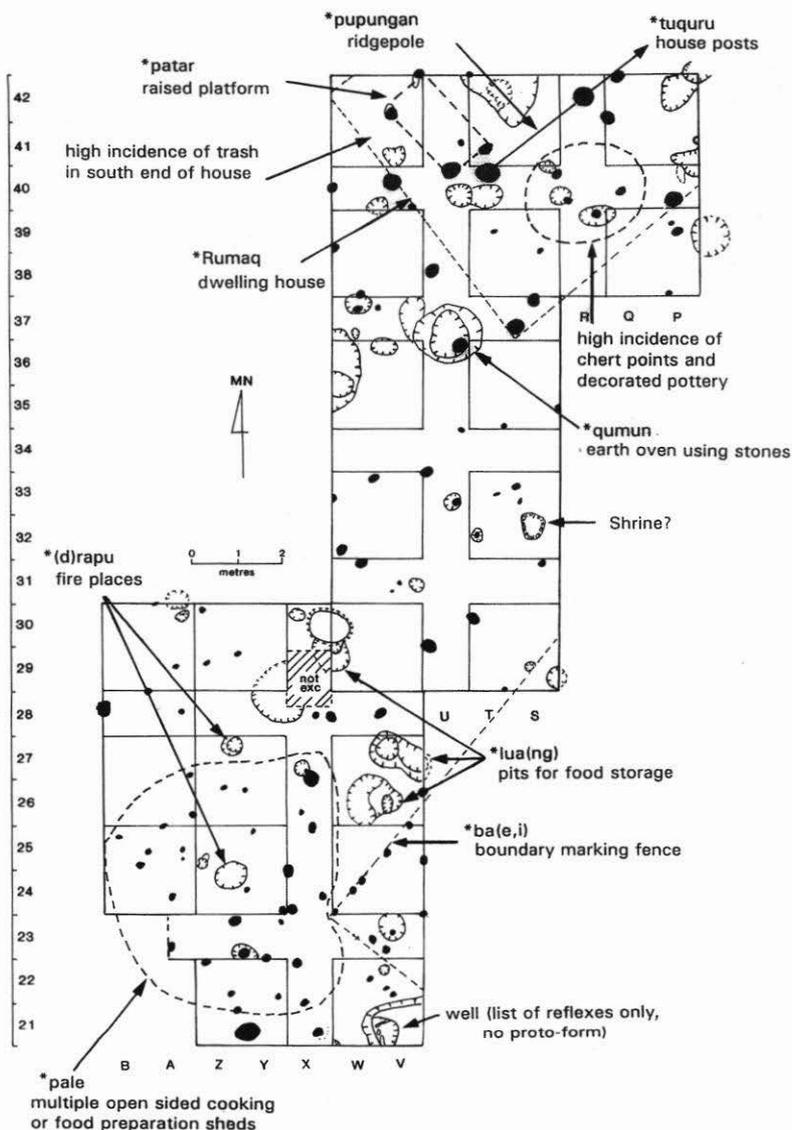
Figure 6. Interpretation of archaeological structural features in excavated area of site SE-RF-2 in relation to proposed Oceanic linguistic correlates from Tables 1 & 2 for these features.
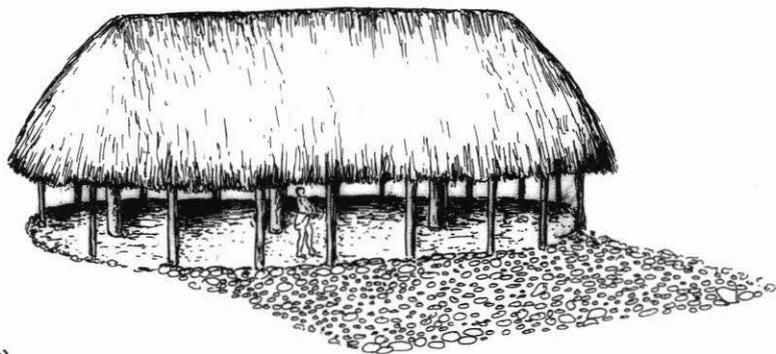
explored historical outcome is the loss of both a *Rumaq* type dwelling and a men's house. In linguistic terms, they are probably absent by the Proto Polynesian stage circa 2500 years ago, but the loss may well go back to Proto Central Pacific (East Fijian *vale* for dwelling). In the Polynesian region, PPn *fale* now becomes a cover term for the more open-sided dwellings of two basic shapes (round-ended and rectangular), as well as a whole range of other buildings (Fig. 7). Correlated linguistic changes in other architectural terminologies are also evident. One suggested example is POc *bou*, which probably meant 'main bearer or cross beam' in a *Rumaq* style house: the Fijian reflexes gloss the term as 'the tall or central posts of a house', while in PPn that term became a principal generic name for 'post', sometimes the main one (POLLEX). POc *turu (s)*, seemingly referring to the main post (or posts), was generalised to Proto Central Pacific (PCPa) and to PPn *tulu*, meaning any post or a staff. Consider also the POc word for 'entrance, doorway' (*katama*) which was replaced in PPn by *faqitoka*.

Linguistically, the changes I am describing occur in the eastern region of the Central Pacific dialect about 3000 to 3200 years ago, before Polynesian had become one language sub-group and Fijian another circa 2300 years ago. It was a period when no culturally well-marked boundary could be drawn between Polynesia and Melanesia. This is also the period at which the Eastern Lapita cultural complex, (represented by sites located on islands from Fiji through Tonga to Samoa, Futuna and 'Uvea), was constituted by the founding societies which inhabited the region, before they became more characteristically Polynesian on the one hand and Fijian on the other. I see it as a period in which archaeologists should search for early evidence of an extensive reorganization and re-assignment of housing styles and settlement pattern components. This would correlate with other changes one finds in the social domain (Green 1994; Green and Kirch n.d.).

My current and still evolving scenario goes something like this. Most ritual was centred in the principal POc *rumaq* style dwelling, as Fox (1993b:20-23) and Kirch (1997:190-91) describe. One of the four ritual attractors within the house was its main post POc *turu*. The POc *malaqai* served as an open space in a settlement, possessing no architectural features of prominent religious significance. In Fiji-West Polynesia, a separate god-house (Fijian 'temple') and ancestral stone uprights initially became associated with this open space, and by the PPn stage it had acquired additional religious connotations (Green 1986:54).

(a)

(b)

*Figure 7. Traditional Polynesian style domestic dwellings - PPn *fale* (a) Samoa (after Oliver 1989: Fig. 9.6c) and (b) Tahiti (after Orliac 1982: Fig. 29).*

Later, in East Polynesia, *ahu*, *tahua*, and *marae* emerged as an actual set of structures (sometimes of monumental size) forming a socio-political and religious complex (Green 1993:10). The POc *Rumaq* dwelling, with all its ritual accoutrements was thus replaced in Polynesia, and the associated domestic role was taken over by PPn *fale* style dwellings. While in most Fijian communities, there were one or more 'club houses' *(bure)* where men congregated, and a sleeping house for bachelors (Oliver 1989:341), provision of such Melanesian style men's houses was not apparent in Polynesia. Rather, 'canoe houses' (present in Island Melanesia) became the locale of some male activities, while in a more general sense, gendered gatherings and locales ascribed on this basis, were transformed along the lines of the marked differences in this sphere between Fiji and Tonga/Samoa (James 1995; Schoeffel 1995).

While it would seem that Polynesian communities certainly qualify for inclusion in the category of Austronesian "house societies" by historical origin, structural arrangements, and social organization, they present examples in which some of the initial and more basic components have been lost, others reassigned, and yet others significantly transformed. In my perspective, the implications are that these kinds of changes need to be identified, assessed, and further interpreted by fully exploring and expanding the presently rather meagre archaeological records of earlier periods with respect to architectural forms (especially those for housing), and for settlement patterns within the Fiji-West Polynesia region. As well, there is a need to encourage further integrative work on the problem within a form of long-term historical anthropology. This particular topic seems to me of direct relevance to the overall issue in question: what was the past form of Austronesian dwellings at different stages and places in their development when these are contextulized within the various kinds of social concepts used in talking about "house-based societies" in the Pacific region. The issue would seem to be one worthy of careful attention by linguists, ethnographers, and archaeologists. Moreover, social anthropologists like Fox and Waterson, not to mention Lévi-Strauss, have already been keen players in the dialogue; now they are joined by linguists and archaeologists. Perhaps it is an enterprise to which anthropologists in all specialties can contribute.

Acknowledgements

the social category of house-based societies. Peter Sheppard must also be thanked for helping me to keep the archaeological information for SE-RF-2 coherent and its initial interpretation in a form that "pure" archaeologists usually find acceptable, whatever I have done with it subsequently and more holistically.

References

Bellwood, P.S., 1996. Early agriculture and the dispersal of the Southern Mongoloids, pp. 287-302. In T. Akazawa and E.J.E. Szathmáry (eds), *Prehistoric Mongoloid Dispersals*. Tokyo: Oxford University Press.

Bellwood, P.S., 1997. *Prehistory of the Indo-Malaysian Archipelago*. Honolulu: University of Hawaii Press. (Revised edition).

Bloch, Maurice, 1995. The symbolism of tombs and houses in Austronesian societies with special reference to two Malagasy cases. In P.J. Li, C. Tsang, Y. Huang, D. Ho and C. Tseng (eds), *Austronesian Studies Relating to Taiwan*. Taipei: Symposium Series of the Institute of History and Philology Academia Sinica No.3:1-26.

Blust, R., 1987. Lexical reconstruction and semantic reconstruction: The case of Austronesian "house" words. *Diachronica* 4(1-2):79-106.

Blust, R., 1995. The prehistory of the Austronesian-speaking peoples: A view from language. *Journal of World Prehistory* 9(4):453-510.

Carsten, Janet and S. Hugh-Jones (eds), 1995a. *About the House: Lévi-Strauss and Beyond*. Cambridge: Cambridge University Press.

Carsten, Janet and S. Hugh-Jones, 1995b. Introduction: About the house - Lévi-Strauss and beyond, pp.1-46. In Janet Carsten and S. Hugh-Jones (eds), *About the House: Lévi-Strauss and Beyond*. Cambridge: Cambridge University Press.

Fox, J.J. (ed.), 1993a.*Inside Austronesian Houses: Perspectives on Domestic Designs for Living*. Canberra: Department of Anthropology, Research School of Pacific Studies, Australian National University.

Fox, J.J., 1993b. Comparative perspectives on Austronesian houses: An introductory essay, pp.1-28. In J.J. Fox (ed.), *Inside Austronesian Houses: Perspectives on Domestic Designs for Living*. Canberra: Department of Anthropology, Research School of Pacific Studies, Australian National University.

Green, R.C., 1991. A reappraisal of the dating for some Lapita sites in the Reef/Santa Cruz Group of the Southeast Solomons. *Journal of the Polynesian Society* 100:197-207.

Green, R.C., 1994. Archaeological problems with the use of linguistic evidence in the reconstruction of rank, status and social organisation in Ancestral Polynesian Society. In A.K. Pawley and M.D. Ross (eds), *Austronesian Terminologies: Continuity and Change, 1.* Pacific Linguistics C-127:171-84. Canberra, Australian National University.

Green, R.C., 1997. Linguistic, biological and cultural origins of the initial inhabitants of Remote Oceania. *New Zealand Journal of Archaeology* 17 [1995]:5-27.

Green, R.C. and P.V. Kirch, n.d. *Hawaiki. Ancestral Polynesian culture and societies: An essay in historical anthropology.* (Tentative title for manuscript in preparation.

Green, R.C. and A.K. Pawley, in press.Early Oceanic architectural forms and settlement patterns: Linguistic, archaeological and ethnological perspectives. In R. Blench and M. Spriggs (eds), *Archaeology and Language III: Artefacts, Languages and Texts: Building Connections.* London, Routledge. [1999]

James, Kerry, 1995. "Rank overrules everything": Hierarchy, social stratification and gender in Tonga, pp.59-81. In J. Huntsman (ed.), *Tonga and Samoa: Images of Gender and Polity.* Christchurch: Macmillan Brown Centre for Pacific Studies.

Kirch, P.V., 1996. Tikopia social space revisited, pp.257-74. In Janet Davidson, Geoffrey Irwin, Foss Leach, Andrew Pawley and Dorothy Brown (eds), *Oceanic Culture History: Essays in Honour of Roger Green.* [Dunedin]: New Zealand Journal of Archaeology Special Publication.

Kirch, P.V., 1997. *The Lapita People: Ancestors of the Oceanic World.* Oxford: Blackwell.

Lévi-Strauss, Claude, 1983. *The Way of the Masks.* (Translation from French by S. Modelski). London: Jonathan Cape.

Oliver, D., 1989. *Oceania: The Native Cultures of Australia and the Pacific Islands.* Vol.I. Honolulu: University of Hawaii Press.

Orliac. C., 1982. Materiaux Pour L'Etude des Habitations Protohistoriques a Tahiti (Polynésie Francaise). These Pour le Doctorate de Troisieme Cycle Art et Archeologie. Université de Paris 1 Panthéon - Sorbonne.

Pawley, A.K. and R.C. Green, 1973. Dating the dispersal of the Oceanic languages. *Oceanic Linguistics* 12:1-67.

Pawley, A.K. and R.C. Green, 1984. The Proto-Oceanic language community. *Journal of Pacific History,* 19:123-46.

Pawley, A.K. and M.D. Ross, 1993. Austronesian historical linguistics and culture history. *Annual Review of Anthropology* 22:425-59.

Pawley, A.K. and M.D. Ross, 1995. The prehistory of the Oceanic languages: A current view, pp.39-74. In P.S. Bellwood, J.J. Fox and D. Tryon (eds), *The Austronesians: Historical and Comparative Perspectives*. Canberra: Department of Anthropology, Research School of Pacific and Asian Studies, Australian National University.

POLLEX, 1996. The Comparative Polynesian Lexicon Project. Compiled by B. Biggs and R. Clark. Version: February 12th 1996. Computer file, University of Auckland.

Schoeffel, Penelope, 1995. The Samoan concept of Feagaiga and its transformation, pp.85-106. In J. Huntsman (ed.), *Tonga and Samoa: Images of Gender and Polity*. Christchurch: Macmillan Brown Centre for Pacific Studies.

Sheppard, P.J. and R.C. Green, 1991. Spatial analysis of the Nenumbo (SE-RF-2) Lapita site, Solomon Islands. *Archaeology in Oceania* 26:89-101.

Spriggs, M.J.T., 1989. The dating of the Island Southeast Asian Neolithic: An attempt at chronometric hygenie and linguistic correlation. *Antiquity* 63:587-613.

Spriggs, M.J.T., 1996. Chronology and colonisation in Island Southeast Asia and the Pacific: New data and an evaluation, pp.33-50. In Janet Davidson, Geoffrey Irwin, Foss Leach, Andrew Pawley and Dorothy Brown (eds), *Oceanic Culture History: Essays in Honour of Roger Green*. [Dunedin]: New Zealand Journal of Archaeology Special Publication.

Spriggs, M.J.T., 1997. *The Island Melanesians*. Oxford: Blackwell.

Van Meijl, T., 1993. Maori meeting-houses in and over time, pp.195-218. In J.J. Fox (ed.), *Inside Austronesian Houses: Perspectives on Domestic Designs for Living*. Canberra: Department of Anthropology, Research School of Pacific Studies, Australian National University.

Waterson, Roxana, 1990. *The Living House: An Anthropology of Architecture in South-East Asia*. Singapore: Oxford University Press.

Waterson, Roxana, 1993. Houses and the built environment in Island South-East Asia: Tracing some shared themes in the uses of space, pp.221-35. In J.J. Fox (ed.), *Inside Austronesian Houses: Perspectives on Domestic Designs for Living*. Canberra: Department of Anthropology, Research School of Pacific Studies, Australian National University.

Table 1

AUSTRONESIAN AND OCEANIC SETTLEMENT TERMS

Kinds of buildings

PAn *Rumaq* 'dwelling house'
POc *Rumaq* house

PMP *balay* 'open-sided building'
POc *pale* 'open-sided building'

PMP *kamaliR*   'men's house'; 'granary shed'
POc   *kamali(R)* 'men's meeting house'

Associated structural features

POc *gabwari-* 'the area underneath a raised house'
PEOc (or late POc) *apu( )* 'mound for house site, platform of earth on which a house is built'

Poc *qumun* 'oven made with hot stones; cook in an earth oven'

PMP *liang* 'cave; pit or hole'
POc *luang* 'hole or pit; cave'

PMP *ba (l,r,R)a* 'pen, enclosure for domestic animals'
POc *ba (l,R)a* 'fence, wall, enclosure'

PEOc (or late POc) *ba (e,i)* 'fence, boundary marker'

PEOc *kaRi* 'garden fence or partition'

Settlement patterns

PMP *banua* 'inhabited territory, where a community's gardens, houses and other possessions are situated'
POc *panua* (1) inhabited area or territory, (2) community together with its land and things on it, (3) land, not sea (with ref. to weather), the visible world, land and sky'

POc *pera '? settlement, open space associated with a house or settlement'

POc *malaqai '?open space in a settlement'
PPn *malaqe 'open, cleared space used as meeting- or ceremonial place'

POc *mwalala 'cleared land, land free of encumbrances i.e. cleared of vegetation but not built on or planted'

PAn *quCan 'fallow land, now reverted to wilderness' or 'scrubland, bush'
POc *qutan 'bushland, hinterland, away from village, and gardens close to village'

Table 2

AUSTRONESIAN AND OCEANIC ARCHITECTURAL FEATURES OF BUILDINGS

POc *kataman 'entrance to house, doorway'
PPn *faqitoka 'entrance to house'

PMP *bubung or *buSungbuSung 'ridgepole, ridge of roof'
POc *pupung-an 'ridge pole'

PMP *qatep 'thatch of sago palm leaves' or 'roof, thatch'
POc *qatop 'thatch, roof'

POc *raun 'leaf; thatch'

PMP *kapit 'fashion thatch with battens or slats'
POc *kapit 'secure thatch with battens'

PMP *kasaw 'rafter'
POc *kaso 'rafter'

PMP *turus 'housepost'
POc *turu(s) 'post, most often a main weight bearing post supporting top plate or ridgepole'

POc *bou 'main bearers supporting raised floor or roof structure, except in

Central Pacific and Polynesian where it usually refers instead to house posts, often the main ones'

PMP *se(N)kang* 'cross beam'
POc *soka(ng)* 'bracing timber, cross beam'

PMP *pa(n)tar* 'shelf, bed-frame of wooden or bamboo laths'
POc *patar* 'platform or bed frame of planks'

PMP *pa(l,R)a* 'shelf, rack'
POc *pa(r,R)a* 'rack or shelf above hearth for storing or smoking food'

PMP *pak(o,u)* 'wooden nail'
POc *pako* 'wooden peg or pin'

PMP *dapuR* 'hearth, fireplace'
POc *rapu(R)* 'hearth, fireplace; ashes'