

## Pacific Space: The Pacific Conception of Building

Bill McKay and Antonia Walmsley, Interior Design, Unitec New Zealand, New Zealand

**Abstract:** *In the West, architecture, landscape and interior are seen as separate disciplines, with the latter two subordinate to architecture's concern with object, form and structure. This paper explores the extent to which buildings of the Pacific subvert this Western model using the examples of a Maori dwelling made from raupo reed, the Maori Meeting House (or whare nui) and the Pacific Island falé.*

*We review certain Pacific indigenous buildings, not in terms of architecture, but through looking at the garment and the body. It is doubtful if the people of the Pacific share the Western notion of architecture as something separate from craft, art, ornament, interior, landscape or other European notions, and we suggest that the disciplines of interior and landscape design can be useful in exploring the concepts on which building in the Pacific are based.*

*This paper proposes an understanding of architecture more appropriate to a South Pacific milieu, which in turn can open up the possibilities of new architectural form.*

**Keywords:** *Maori, design, architecture*

### Introduction

In the West, architecture, landscape and interior are seen as separate disciplines, with the latter two subordinate to architecture's concern with object, form and structure. This paper explores the extent to which buildings of the Pacific subvert this Western model using the examples of a Maori dwelling made from *raupo* reed, the Maori Meeting House (or *whare nui*) and the Pacific Island *falé*.

Since European contact, architectural critics have debated the extent to which some indigenous buildings can be considered architecture. Banister Fletcher's *History of Architecture*, for example, characterises them as not much more than shelters, and not worthy of inclusion in a survey of world architecture.

*The aborigines of Australia were neither settlers or builders. Their history [is one of] nomadic hunters, consequently not an architectural topic. Their shelters were always temporary and minimal, just personal shelters of bark or branches leaning against tree or stake ... (Maori) were more settled than Australians and more inclined to construction, but produced no more than villages with simple houses and community halls (Fletcher, 1987, p. 1181).*

This example from the 'revised and modernized' nineteenth edition of 1987 was published under the trusteeship of the Royal Institute of British Architects. In more recent years, architectural historians have given these buildings the attention they deserve, but what if those earlier writers were correct? What if these indigenous structures are not architecture and have more of an affinity with the crafts such as weaving, binding, carving and painting? What if these buildings are closer to clothing or furniture or even floral arrangement than they are to building? What if the buildings of Oceania are not so much a topic for architectural history as one for the disciplines of landscape and interior design? This paper explores the possibility of an indigenous Pacific intersection between the creation of a sheltered interior and the landscape that is not architecture as it is understood in the West. Instead it suggests a new understanding of architecture more appropriate to a South Pacific milieu.

Where the virtues of Western architecture can be broadly characterised as solidity, security, permanence, functionality, climate-resistance and durability, then the buildings of the Maori and wider South Pacific region could be said to underperform in these areas. Historically, Western appreciation of these buildings has acknowledged this perspective; they have often been described as architecturally crude and temporary, albeit sometimes finely decorated. However the buildings of the South Pacific could also be described as open, flexible, mutable, adaptive and responsive. And here they share something with interior design and landscape. The interior and the exterior worlds can be characterised as the domains of the temporal, changeable and mutable, places of experience and encounter between living things. These spaces are subject to change, in contrast with the permanence of the static architectural object (Attiwill, 2004).

We have previously explored time and mutability in Maori architecture (McKay & Walmsley, 2003) and this paper now explores the material differences between Maori and Western building. Mike Austin suggests:

*Pacific architecture can be argued to be another set of formal paradigms involving the architecture of openness ... the platform (marae) and the pavilion (the falé, whare, bure, etc) (Austin, 2004, p. viii).*

While he asks if this might be an architectural type, we would further argue the *raupo* hut for example is more akin to a garment or arrangement of flora, than a building. Indeed although Austin refers to the eighteenth century theorist Quatremere de Quincy's three primitive architectural types as cave, hut and tent, Austin has himself previously argued that the architecture of Oceania, settled by voyagers, may well derive from the form of the upturned boat or canoe (Austin, 2003).

### The *whare raupo*

From Vitruvius to Rykwert, the simple wooden or grass hut is seen as the origin of architectural evolution. In turn, Samoan *falé* or Maori *whare* were seen as primitive shelters by European arrivals. To Westerners such shelters were justifiable because the tropics were a region of benign climate, a paradise, where little was required in the way of protection for the human body or agriculture. Today we see these buildings as functionally well adapted to climate, but no longer appropriate to today's social, cultural and physical conditions. These however are not primitive structures. Just as the Polynesian canoe, on closer examination, is not a humble dug-out log but a complex, highly crafted machine for navigating long distances, so too the 'grass hut' is a highly crafted work.



Figure 1: Whare raupo at Whangaruru.

One version of the Pacific grass hut is the *whare raupo*, a small dwelling made out of *raupo*, a marsh reed. Rau Hoskins and Carin Wilson from the School of Architecture at Unitec New Zealand run the Centre for Maori Architecture and Appropriate Technologies, and constructed a *whare raupo* at Whangaruru in 2002/03 with student labour and the advice of *kaumatua* (elders) on traditional techniques (Figure 1). This project introduces another approach to the study of indigenous forms; the experiential, through learning by doing rather than objective analysis. This approach develops a more holistic understanding as it contextualises architectural form into the environment (the source of materials used) and the cultural protocols (*tikanga*) of construction and building techniques. It also demonstrates how the process of construction is enormously important, both socially and physically, to the understanding of Pacific buildings. While this aspect has been addressed in previous papers (McKay & Walmsley, 2004), it is worth reiterating how the mutability or impermanence

of these structures can be related as much to the nature of tribal society as it can to the nature of climate or availability of materials. Maori were familiar with a constant process of seasonal building and rebuilding, a process which also provided the ongoing opportunity to practice and pass on construction skills to the next generation. The timber and other organic materials, from which Maori buildings were traditionally constructed, compelled a constant process of reconstruction to avoid decay. This constant renovation and rebuilding had the effect of galvanising support from local communities and cementing relationships as Maori worked together on building projects.

The experience of actually constructing the *whare raupo* revealed more than can be shown in photographs; for example, how the dwelling was woven and knitted together from a variety of reeds and bark, draped over a timber ridge. Architecture students commented how the construction more closely resembled the craft of basket weaving than it did building, due to the primacy of the woven skin and the lack of a pronounced structural skeleton. The finished structure is organic in form and the enclosure is nest-like and curvaceous, the walls responsive to human movement like a sleeping bag (Figure 2). The entire form appears draped and enveloping like a garment, rather than the rigid uprightness and solidity that we associate with Western building. The interior of the *whare* seemed strangely connected and responsive to the outside through the organic nature of the cladding.

*The feeling inside a traditional whare built entirely of natural materials is quite unlike the experience of being within any form of modern shelter...the senses are alerted to a strong sense of connection with the surroundings...wind announces itself by rustling the outer layers of the walls and roof while the air remains still inside. The soft bounce of the floor and gently filtered light of the whariki at the door contrive with the faint smells of the materials to heighten sensory awareness. This is indeed a protective cocoon that gently reveals multiple layers of subtle character as one adjusts to its ambience* (Hoskins and Wilson, 2004, np).

The *whare raupo* was built 'by feel' (Hoskins and Wilson, 2004) without the use of plans or drawings and an as-built cross section (the tool of architectural dissection) doesn't in any way encompass the reality of the beautiful woven raupo structure. The cut of the section means the bag falls apart and the organic, haptic experience evaporates. These dwellings also lack Western elements such as separate walls and roof or windows and here the door is a flap of weaving. Historically commentators have remarked on the rich diversity of Maori crafts and decorative arts and the comparative paucity of architectural achievement. Perhaps the *whare raupo* is more elaborate rain cape or communal garment than it is primitive architecture.

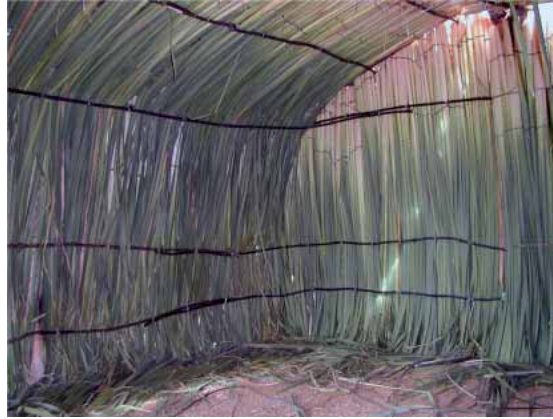


Figure 2: Interior of whare raupo at Whangaruru.

The New Zealand bush and forest is referred to as *The Cloak of Tane* (the forest god) that drapes the bare earth. Again the *whare raupo*, in the way it employs materials from its immediate environment, like a bivouac, and deploys the broad-leafed *raupo* to shed water is more akin to the natural forms of the native bush than to building. The Maori concept of the *paepae* is relevant in this regard as it could be seen as blurring the distinction between interior and landscape. *Paepae* can mean threshold and in the *whare nui* (meeting house) this piece of timber could be seen to accentuate the distinction between in and out. But then *pae* can mean step, the cross-bar of a canoe (on which one sits), any transverse beam, any perch or resting place, and even the horizontal ridge of a hill or the horizon. This seems to indicate that the *paepae* concept is not so much threshold in the sense of division, rather the *paepae* is a step or resting place for the body or eye, and is present in a number of locations across the landscape. This is a notion that sees the whole landscape as a place of habitation, rather than the architectural object as dwelling, a retreat from the landscape.

Hoskins and Wilson claim the *whare raupo* was in use up to the 1950s in some places, providing warm, weatherproof, culturally appropriate, affordable and sustainable shelter for Maori. It is now outlawed by the stringent New Zealand Building Code. Certainly its return as a viable, inhabitable structure would be more easily achieved politically if it were construed as a casual garment or bivouac, a skin between interior and landscape, rather than a building. The disciplines of interior design and landscape architecture are well placed to contribute to the study and resurgence of indigenous dwellings as they deal with the temporal, the transient, the impermanent and the mutable. And this is appropriate in Auckland, since this city is often said to be the largest Polynesian city in the world due to its large population of Pacific Islanders (not that this fact is architecturally reflected).

## The *falé*

Jeremy Treadwell, another member of the School of Architecture at Unitec New Zealand, attempted to have a Samoan *falé* built by Samoans using traditional materials in the grounds of Unitec (Figure 3).

The *falé* is a form of building common to many South Pacific islands. Usually located in the centre of villages it is larger than other dwellings and serves as a space for communal activity or to host visitors. In 1924, New Zealand's colonial administrator of Samoa wrote in a descriptive handbook:

*Of the useful arts, house-building is probably the most important survival. Though of skilled workmanship, Samoan houses are, generally speaking, mere sun-shelters, the roof is of thatch and they have no walls. Such structures whatever their defects, have the supreme merit of being conformable to the climate and the needs of the inhabitants* (Richardson, 1925, np).



Figure 3: *Falé at Unitec New Zealand, Auckland.*

Again, these indigenous structures are assessed as something less than architecture. And the interior of a *falé tele* in the centre of a village is a shaded, ornamented, highly-crafted interior poised in open space. This structure uses traditional binding and weaving methods to secure timbers. What is initially startling is the smell of this building. It is like being in a



woven basket, and provides a more haptic experience involving all the senses. The sense of vision dominates Western architecture and this structure reawakens the senses to the whole-body experience of the architectural interior. The effect of thousands of meticulously worked bindings gives the building an aura of highly crafted beauty that is not often encountered today (Figure 4).



Figure 4: Interior of fale at Unitec New Zealand, Auckland.

At the centre is a forked timber post, cut from a specially selected tree, which supports the tower of tie beams. The curved ends, or *tala*, are constructed from laminated, circular purlins that were prefabricated but on erection have failed to achieve the correct degree of curvature. Here we see how difficult it is to realise this kind of construction using organic and unprocessed materials in modern New Zealand. The Building Code again could be seen as a political document that marginalises other cultures by discouraging the pursuit of indigenous architectural authenticity. This *falé* was permitted as a form of experimental building but still had to run a gauntlet of heritage concerns about its site adjacent to a Category 1 Historic Building, Ministry of Agriculture concerns about the imported thatch and two attempts to set it on fire by a zealous arsonist.

Treadwell describes his attempt to have a Samoan *falé* built by Samoans, using traditional materials, 'as a continuing negotiation between the authority of tradition and modern

pragmatism' (Treadwell, 2004). It was largely built by *tufuga fai falé* (master builder) Kaitano Smith. Treadwell has characterised his *falé* as somewhat of a compromise, which it is, but this can be seen as its success. It is neither an isolated specimen of tradition nor a traditional form subsumed by the Building Code. It is the kind of hybrid that marks our path into a future Pacific architecture, rather than the purely Western forms and techniques we currently employ here. Treadwell and Smith were happy to depart from tradition; for example, the thousands of canes to which the thatch roof are bound are in fact a few kilometres of dowel. Many would have a problem with this inauthenticity, but this isn't necessarily the triumph of Kiwi pragmatism. Rather the *falé* project is infiltrating our building methodology, opening up new possibilities and teaching us wonderful things we can do with dowel and string. Here, the interior of the domed, thatched roof seems to dissolve into a delicate and finely wrought screen rather than the flat sheet of ceiling we are used to. And it still keeps out water better than some Auckland houses.

Our discussion of the Samoan *falé* has centred on architectural form but whereas the *whare raupo* dwelling could be characterised as rain cape, the *falé* is a more complex structure than a simple sunshade and its form is not driven purely by a logic of construction or materials. The several layers of ties that tower up into the interior of the dimly lit roof space have a symbolic importance and the building has a metaphysical role in Maori culture. Albert Refiti describes the *vā* as a concept of Polynesian space that allows an ambivalence or duality at the heart of the *falé* that governs the relationship of the individual to the group, the community and cultural beliefs (Refiti, 2004). The *falé* of Samoa is often seen by Westerners as a simple pavilion form, but Refiti has written about it in terms of a body-oriented duality, inside and outside, interior and landscape. The permeability and openness of the *falé* suggests the building is not so much functional architectural object but a mediation, a screen or skin between the two worlds of interior and landscape.

### **The Meeting House**

The Maori *whare nui*, or meeting house, which is much more enclosed and cave-like than the *falé* (and thus of a different type if we believe Western taxonomy) displays the same duality. With its four walls it is obviously much more 'a building' than 'a pavilion' but the meeting house is not intended to be seen as an object in the round, as has been discussed in other papers (McKay and Walmsley, 2003). One does not walk around it; one approaches it, on invitation, then enters. The Meeting House has a facade, a face, and is often metaphorically a body, the personification of an ancestor, with the ridge beam and rafters perceived as spine and ribs. The house is often directly acknowledged by Maori in the same way one would





Figure 5: Wahio, the whare nui at Whakarewarewa, Rotorua.

address a person: it is not simply a building, a container for human activity. As Michael Linzey has phrased it:

*the fundamental understanding that the meeting house is a living presence is richer than any mere simile; it is beyond the idea of a metaphor or a representation in the European sense (Linzey, 2004, p. 13).*

It too contains a rich interior, which is not merely decoration. Many of the carvings or illustrations within depict ancestors. The representations of ancestors are the crucial feature of the building and contrast the ancillary position of ornament within most Western architecture. Both Albert Refiti and Deidre Brown have discussed how 'decoration' is essential to the *falé* and *whare nui* respectively and make analogies to *moko* (traditional tattoo). *Moko* is not adequately described as decoration of the face; rather it is inseparable from the *mauri* (life) of the person. This correlates with John Scott's observation, in relation to Maori architecture, that it is not the building that is important, it is the *mauri* which is achieved through the detail, the art, the craft.

*The wharepuni (Meeting House) has a spiritual basis and the building itself is unimportant. The Maori will not worry about buildings but he will worry about those particular kinds of things he has around – the carvings, the teko-teko (sic. tukutuku, woven panels) work (Scott, 1973, p. 290).*

The open space in front of the Meeting House is essential to the protocols by which one is welcomed onto the *marae*. This primacy of interior and outdoor space, combined with the

notion of the human body, would seem to collapse Western notions of architecture as the three-dimensional object and reduce it to a skin or face mediating the two profound poles of human existence: inside and outside, a duality that mirrors the human body and its relation with the world, the in and the out, the interior and the landscape.

It is important to remember the Meeting House is a post-contact structure. As mentioned earlier, the *whare raupo* does not have conventional Western architectural elements such as a distinct roof, walls and windows. But the *whare nui*, or Meeting House, does. This is a nineteenth century Maori building type that is a response to *pakeha* (New Zealander of European descent) building. The Meeting House uses Western tools and techniques, but if we look at the sole window and door that characterise most Meeting Houses it is interesting to note that the pre-contact chiefs' houses, from which the *whare nui* developed, had a door for entry but no window. Instead they had a hole at the top of the wall under the ridge to let out smoke from the dwelling. The window is a Western invention for looking through walls and traditional Maori dwellings did not have them. European buildings had chimneys but no element for smoke-hole. Thus the traditional wall smoke-hole has been translated into 'window' rather than rooftop 'chimney' in the limited repertoire of architectural elements that Maori found they had in the late nineteenth century. This warns us to look at indigenous buildings from a historical and cultural perspective rather than from a system of Western architectural elements or types that can stereotype or homogenise that which is different.

However despite its 'architectural' appearance (roof, walls, door, window) it is interesting to note how the *whare nui* continues to be referred to as a body rather than as a structure. Deidre Brown has noted a number of references that have couched the house as cloak rather than building (Brown, 2005). Discussions surrounding the rebuilding of the Wairoa *whare nui* Te Pohu O Tahu for instance are couched in terms of body and garment, rather than in architectural terminology:

*... the earlier Te Pohu O Tahu had not had carvings, and the current one had only kowhaiwhai (painted designs) on the maihi (gable barge boards). Whaanga's answer was that it was 'time the old chief had a cloak' (Whaanga, 2004, pp. vii).*

To summarise, this paper has looked at three Pacific indigenous building types, not in terms of architecture, but in terms of the garment and the body. It is doubtful if the people of the Pacific share a Western notion of architecture as something separate from craft, art, ornament, interior, landscape or other European notions. The methodologies of the disciplines of interior and landscape design can be used to explore the conception of building in the Pacific and, in turn, a knowledge of Pacific buildings can infiltrate a sense

of 'architectural' form and release us from the dominance of architecture. This can enrich our understanding of how one can live in this part of the world and the possibilities for habitation.

## References

- Attiwill, S. (2004). Towards an interior history. *IDEA Journal 2004*, Brisbane: Queensland University of Technology.
- Austin, M. (2003). Pacific island migration. In Cairns, S. (Ed.), *Drifting: Architecture and Migrancy*. London: Routledge, 224–239
- Austin, M. (2004). Kiwi architecture: Modernism recycled. *Fabrications*, 14, (1&2), iii–xi.
- Brown, D. (2005). Clothed not clad: Maori woven architecture (unpublished manuscript).
- Fletcher, B. (1987). In Musgrove, J. (Ed.), *A History of Architecture*. (19th Edition). London: Butterworths.
- Hoskins, R & Wilson, C. (2004). Te whare raupo: Back to the future? *Pacific Architecture Colloquium*. Wellington: Victoria University of Wellington.
- Linzey, M. (2004). On the pointing signification of the Meeting House. *Fabrications*, 14, (1&2), 13–19.
- McKay, B. & Walmsley, A. (2003). Maori time. In Gusheh, M. & Stead, N. (Eds), *Progress*. Sydney: SAHANZ 2003, 199–204
- McKay, B. & Walmsley, A. (2004). Resonant time and cyclic architecture. In Edquist, H. & Frichot, H. (Eds), *Limits*. Melbourne: SAHANZ 2004, 295–300.
- Refiti, A. (2004). The forked centre: Duality and limit in Polynesian spaces and architecture. *Pacific Architecture Colloquium*. Wellington: Victoria University of Wellington.
- Richardson, G. S. (1925). *NZ Government Handbook of Western Samoa*, Wellington: NZ Government Printer.
- Scott, J. (1973 interview). Of woolsheds, houses and people. *Islands* 5, 2, (3), Spring, 290.
- Treadwell, J. (2004). Repositioning the fale samoa: a colonial project. *Pacific Architecture Colloquium*. Wellington: Victoria University of Wellington.
- Whaanga, M. (2004). *A Carved Cloak for Tahu*. Auckland: Auckland University Press.