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CONTACT PERIOD HOUSES FROM THE
LAKE ROTOAIRA AREA, TAUPO

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The houses excavated by Trevor Hosking as project archaeologist on the Tongariro Power Development all belong to the post-European contact period (Newman 1988). This paper examines the Tongariro data in the light of previous discussion on houses.

The major works on houses (Groube 1965, Prickett 1974, 1982) are concerned with the use and reliability of ethnohistorical records in the interpretation of prehistoric houses. Groube chose to accept only the earliest ethnohistorical accounts "as valid for projection into the prehistoric period" (Groube 1965:58). In his opinion:

"houses and settlements are not culture items which can be expected to have retained their prehistoric character after European contact. Ethnographic records of settlement pattern must be treated with considerable caution before being projected ...into the immediate prehistoric setting" (Groube 1965:6).

Prickett (1982:111) suggested that Groube over-reacted to the classical descriptions of houses by Best, Firth, and Buck. He (Prickett 1974, 1982) collated extensive observations from ethnohistorical sources and demonstrated the value of ethnographic analogy in the interpretation of prehistoric houses. His analysis of house forms extends further than Groube's into the realms of social behaviour and the influence of interaction patterns and tapu restrictions on house styles and use: "the issue of conservatism in prehistoric New Zealand house form is based, not on the persistence of architectural form per se, but on the persistence of systems of belief and perception" (Prickett 1974:120). In detail, he argues that "the conservatism of house forms is based on two contributing factors: the conservatism of culturally prescribed ways of enacting social relations and of culturally ordered perception of the surrounding world" (Prickett 1974:245). The variety of the traditional house forms excavated at Tongariro, however, argues against the adoption of too rigid an approach in the interpretation of houses in the archaeological record.

The Tongariro houses

The Tongariro houses fall into two categories.

Seven houses - from N112/5, N112/15, and N112/24, - have a

traditional form. These can be compared with other prehistoric and post-European contact houses from the archaeological record to gauge some indication of post-European contact retention of house form in the Central North Island. The archaeological evidence can also be compared with examples in the ethnographic and ethnohistoric literature. A number of ethnohistorical observations were made in the Central North Island (Angas 1847:123, Cooper 1851:292, Hochstetter 1867:369-70, Smith in Taylor 1959:370, Wakefield 1845 I:380-81), making it possible to keep the discussion regionally specific. Observations made in coastal areas may not necessarily apply to the interior, or vice versa, and there is always the possibility that some areas were more conservative than others and that change in house forms occurred at different rates and ways in different areas. Prickett (1974:118), for example, believes that the Ngati Tuwharetoa were one tribe who continued to build large carved houses in the early years of the 19th century simply because they had not experienced the same political upheavals as the northern tribes.

Five houses - from N112/34, N112/50, N112/118, and N112/119, - vary in form from the traditional houses and have been influenced by European contact. These houses all date to the late 19th century and early 20th century.

Houses in the traditional form

A traditional house has been mentioned and this has been defined by Prickett (1974:51) as follows:

"The rectangular whare can be defined as having a very small door, an extension of roof and walls at door end to form a porch, an internal plan of hearth or hearths down the centre and sleeping places or platforms down the sides, and a proportion of length to breadth of from about 1.5-2:1."

The door was almost always on the right hand side of the house looking out.

The porch was an important feature of a house as it "provided important and unique space for social activity" (Prickett 1974:90). In the ethnohistorical sources Prickett (1974:90) found that the percentage of porch depth to total house length ranged from 8-24 per cent and averaged 15 per cent. The Tongariro houses are anomalous with porch depths of more than 24 per cent. They are:

N112/5	Grid 1	33%
	Grid 2	30%
	Grid 3	30%
N112/15	Grid 1	27%
	Grid 2	24%
	Grid 3	27%

N112/24

33%

The depth of the porch of the house described by Cooper (1851:292) at Tokaanu is 20 per cent of the total house length. Perhaps porch depths higher than the average were a regional characteristic, although there may be some functional explanation related to the social usage of the porch area.

The length-breadth ratios of the houses fall within Prickett's estimation although they vary between sites; those from N112/5 and N112/24 are closer to the 1.5:1 ratio, while the Opotaka (N112/15) houses are closer to 2:1.

The use of the interior space in the house was rigidly socially determined, as well as being physically marked by centre posts and the fireplace. Prickett (1974:139) argues for the importance of the fireplace:

"In the whare puni the fireplace is set in the centre of the floor and it is one of the most important features; which separate the two sides of the building - formally and functionally".

In all the houses at N112/5 and N112/15, except for House 1 at N112/5, the fireplaces are in the centre of the house. Centre posts were, however, not obligatory: Firth (1926) did not observe them nor have they always been found in prehistoric houses (see Fox 1976:36). Only two of the seven traditional style Tongariro houses had centre posts.

Wall construction as described by Firth (1926) differs slightly from that of Best (1974:244-45) and Wakefield (1845 I:380-81). Best and Wakefield say the framework for the walls was provided by plank-like timbers or slabs 3 in (7.6 cm) thick and set at intervals of 2 ft (61 cm) (Best, 1974:244). The intervening spaces were filled with raupo and rushes, and lined with totara or manuka bark (Best 1974:245). Firth's description is

"Dressed slabs (pou), about a foot wide and three or four feet high, are then set in the ground about 2 or 3 feet apart, as framework for the sides ...similar slabs (epa), graded in height to fit the pitch of the roof, are set likewise at the ends of the house. Small battens, a couple of inches thick and a few inches apart, are spaced in between the pou to act as lesser studs and serve as further support for the walls ...Against the supporting pou of the sides wide planks an inch or two in thickness are laid horizontally on edge one above the other and secured, to form the walls, and similarly in the case of the ends ...The inner wall is backed or lined to preserve the warmth, raupo (*Typha angustifolia*) or ponga (tree-fern) slabs being used for the purpose. Outside this again are set perpendicular slabs of wood which form the exterior wall, against which earth is banked up to still further retain the heat" (Firth 1926:54-55).

The type of construction outlined by Firth where inner wall planks are placed horizontally and outside slabs are set in perpendicular should be archaeologically visible, as imprints of planks and slabs. This is not so in any of the excavated houses so that the walls were more likely to be of the type described by Best and Wakefield, with earthing up of the walls to retain heat.

There is some variation in the types of slabs and posts in the house walls from N112/5, N112/15 and N112/24. At N112/24 (Newman 1988: Fig. 22) slabs only were used on the walls (except for the circular centre post) and on the side walls these were closer set (sometimes less than 1 ft (30 cm) apart) than expected. At N112/5 (Newman 1988: Fig. 23) the side walls of the houses in Grids 2 and 3 are constructed of slabs with smaller circular posts in between, in the manner which Firth described. In neither house do the front and back walls have the intervening circular posts; in the Grid 2 house the front and back centre points are distinguished by the use of circular posts while in Grid 3 slabs are used. The Grid 1 house walls are built of similarly sized posts except for the front and back centre posts. This house then exhibits three differences from the Grids 2 and 3 houses: the percentage of porch depth is greater, the fireplace is not centrally located, and the wall posts are different.

The Grid 2 house at Opotaka (N112/15) (Newman 1988: Fig. 7) is similar to the Grids 2 and 3 houses at N112/5 with the use of small circular posts on the side walls only. The back wall slabs and front wall posts are set closer together than the side wall slabs. The Grid 1 house at Opotaka (Newman 1988: Fig. 6) is constructed of slabs only while the Grid 3 house (Newman 1988: Fig. 8) has slabs and posts, the slabs being along the back wall only.

The method of wall construction, with the use of slabs and posts, is varied. There is, however, one thing that the houses from N112/5 and N112/15 have in common and that is that they are slightly sunken.

Ethnohistorical observations of houses by Cooper (1851), Hochstetter (1867), Smith (in Taylor 1959) and Wakefield (1845) in the Taupo-Tongariro area do not specifically state that the houses were sunken and thus it is assumed that they refer to above surface houses. At N112/5 and N112/15 there is archaeologically visible evidence that a pit, larger than the house itself, was dug out as the first step in house construction. After the house was completed the gap between the house wall and the pit edge was backfilled, the house walls thereby being earthed up. This practice is recorded by both Best (1974:241) and Firth who recorded in the Ureweras that the house site was dug out to "as much as a couple of feet" (Firth

1926:54). At N112/15 the depths of the houses were:

- Grid 1 The floor of the house was 18 in (45 cm) below the ground surface in the centre of the house and the wall backfill was 2-3 ft (60-90 cm) deep and (Newman 1988: Fig. 6).
- Grid 2 The floor was 1-2 ft (30-60 cm) below the ground surface and the wall backfill was 13 in (45 cm) deep at the sides of the house (Newman 1988: Fig. 7).

At N112/5 (Newman 1988: Fig. 24) the depths of the houses were:

- Grid 1 The floor was as much as 16 in (40 cm) below the ground surface and the wall backfill was 1 ft (30 cm) deep.
- Grid 2 The floor was up to 16 in (40 cm) below the ground surface and the wall backfill 1 ft (30 cm) deep.
- Grid 3 The floor was up to 2 ft (60 cm) below the ground surface at the sides and ends of the house, and the wall backfill was up to 18 in (45 cm) deep.

The sunken house, even when called a pit house, is not to be confused with a pit storage structure used as a dwelling. Groube (1965:86) puzzles "that references to pit dwellings come only from a late (post-1840) context". However, he notes that the references by Angas (1947:153) and Thomson (1859:208) "are to a slightly-lowered house rather than to a true pit dwelling" and that "the evidence for [the slightly-lowered house] appears to be more convincing than that for a completely sunken dwelling" (Groube 1965:89). The Opotaka (N112/15) houses are at least as early as the 1840s, if not earlier, and the houses at both N112/5 and N112/15 have been built in pits especially dug for that purpose. The pits are shallower than those dug for storage pits. These houses are, therefore, examples of slightly-lowered houses rather than pit dwellings. It seems, therefore, from documentary sources and archaeological evidence, that both above surface and slightly sunken houses were in use in the 19th century.

McFadgen and Sheppard (1984:20-1) report five houses at Ruahihi pa (N67/72) near Tauranga had slightly sunken floors. The site is thought to have been last occupied about 1810 (Sheppard and McFadgen 1984:41). The contact period house excavated by Buist at Waimate Pa (Buist 1962) had a floor 1-2 ft (30-60 cm) lower than the ground surface and a fireplace in the centre in the traditional manner. It was unusual, however, for the absence of a porch and its length-breadth ratio (it is 10 ft 8 in long and 8 ft 9 in wide). By way of contrast, the contact period houses excavated by Thacker (1960) at Pa Bay

were surface houses. One house at Pa Bay, however, is singled out for the discrepancy in the widths of the front and back walls, the front wall being 1.2 m narrower than the back (Prickett 1974:161-2).

The floor of a contact period house excavated by McFadgen at Orongorongo was about 18 in (45 cm) below the surrounding ground surface and there was "a buttress in the south east corner which might have provided a step down to the floor" (Prickett 1974:139). There is, however, one major difference in the house plan:

"the hearth is set against one wall. It has been shown that in the whare puni the fireplace is set in the centre of the floor and it is one of the most important features which separate the two sides of the building - formally and functionally. In this instance however, the hearth is to one side of the building, assuming that it was indeed entered from the end. The explanation for this can probably be connected to the presence of food refuse on the floor. The building is not a whare puni; the inhabitants regarded it casually and without the food prohibitions or the ordered spatial distinctions characteristic of that building" (Prickett 1974:141).

The Orongorongo house is functionally different from the traditional whare puni. In other words, once there is a change in function then a change in form can be expected.

Houses in non-traditional forms

Functional change in house use and form may be caused by many interacting social and economic variables. The changes in the second category of Tongariro houses from N112/34, N112/50, N112/118, and N112/119 no doubt have some functional explanation.

Only the house at N112/118 has a porch, which formed 14 per cent of the total house length. The interior of the house measured 9 ft 4 in (2.84m) square. The fireplace was opposite the door but differed from tradition by being too far to the right hand side of the house. The walls, except for the east wall, were built of very close-spaced timbers and there were major posts at the centre back, corners and at two points along the side walls. The absence of the slabs along the east wall was interpreted by Hosking as the spaces for windows. However the distance between the four timbers was only 2 ft 6 in (76 cm) which traditionally would be an acceptable space between slabs.

Neither of the two houses at N112/119 had porches and the doors were in the east wall rather than at the end. The fireplaces were at the ends of the houses, projecting 3 ft (91 cm) out from the wall. At N112/34 and N112/50 the stone-lined

fireplaces were both at the ends of the houses. Hosking reasonably suggested that placing the fireplace at the end of the house rather than in the centre opposite the door was an important indication of change in Maori house style during the 19th century.

The house at N112/50 is marked on Cussen and Simms 1883 survey map and probably dates to 1878-79 when the Grace Brothers ran sheep in the area. Hosking thought N112/118 was probably occupied in the early part of the present century. N112/119 was probably later as it is marked as Mutu Hohepa's house on Bogle's survey plan of 1922. There is no date for the occupation of the slab hut at N112/34; part of the walls of this structure were still standing and another house at the site, built of milled timber, had 1930 newspapers on the walls.

Conclusion

The position of the fireplace in the traditional whare puni is regarded by Prickett (1974) as the most important diagnostic feature of this type of structure. The fireplace plays an extremely important role in the social division of space in the interior of the house. When the fireplace is not centrally located, as in McFadgen's Orongorongo house, Prickett (1974:141) argues that the house is not a whare puni. Using Prickett's criterion all three houses at Opotaka (N112/15) may be interpreted as whare puni, but only two at N112/5 are. The Grid 2 house at N112/5 has a fireplace too close to the right wall for a whare puni, as well as having other minor differences from the Grids 1 and 3 houses. All three houses are interpreted on artefactual and stratigraphic evidence as contemporary and a functional explanation for the difference in the Grid 2 house is difficult. The N112/24 house lack a fireplace but has a centre post instead. All the houses from N112/5, N112/15 and N112/24 display both inter- and intra-site differences and similarities.

The explanation for the change in house forms in the second category of houses discussed is probably linked with the more broad issue of changes in settlement patterns and economy during the 19th century. The major alteration in the plan of these houses is the location of the fireplace at the end of the house. Consequently the door was moved to the side wall, and there was no porch.

The traditional whare puni was used by a group of people, both male and female. The houses at N112/34, N112/50, N112/118 and N112/119 were possibly not used by a family group but by one or more males who were engaged in either farming or cultivation, in bush clearings. The sites were occupied either seasonally or for only a few years. The houses were functionally different from permanently occupied whare puni;

and the tradition of defining the use of the interior space by the position of the fireplace, according to social custom, was not regarded as necessary. Instead, these non-traditional houses were close in form to 19th century slab huts of the type used by early European settlers in bush areas.

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