



NEW ZEALAND
ARCHAEOLOGICAL
ASSOCIATION

ARCHAEOLOGY IN NEW ZEALAND



This document is made available by The New Zealand
Archaeological Association under the Creative Commons
Attribution-NonCommercial-ShareAlike 4.0 International License.


To view a copy of this license, visit
<http://creativecommons.org/licenses/by-nc-sa/4.0/>.

NEW ZEALAND
ARCHAEOLOGICAL ASSOCIATION
ARCHAEOLOGY IN NEW ZEALAND



This document is made available by The New Zealand
Archaeological Association under the Creative Commons
Attribution-NonCommercial-ShareAlike 3.0 Unported License.

To view a copy of this license, visit
<http://creativecommons.org/licenses/by-nc-sa/3.0/>.



PRELIMINARY REPORT ON THE INVESTIGATION OF A SECOND COB COTTAGE SITE AT CUST, NORTH CANTERBURY

Michael Trotter and Beverley McCulloch,
Summer Wine Initiatives,
Tuahiwi, North Canterbury

Now that you've excavated a Scottish cob cottage site", said Bernard Kingbury, president of the Cust and District Historical Society, "wouldn't it be interesting to do one that was built by an Irish family?"

He was referring in the first instance to our 1997 investigation of the Webster cottage site in Terrace Road, Cust, North Canterbury (Trotter and McCulloch 1998), and had in mind another cottage in Tippings Road, just a few kilometres away. We agreed – it would indeed make an interesting comparison, and it would fit well into our general, if somewhat informal, programme of researching information on how people lived in North Canterbury in the past. We applied for authorization from the Historic Places Trust (1998/139), and after a series of delays caused by a variety of things (not all of them related to archaeological research), we carried out the field work in March 1999.

The Site

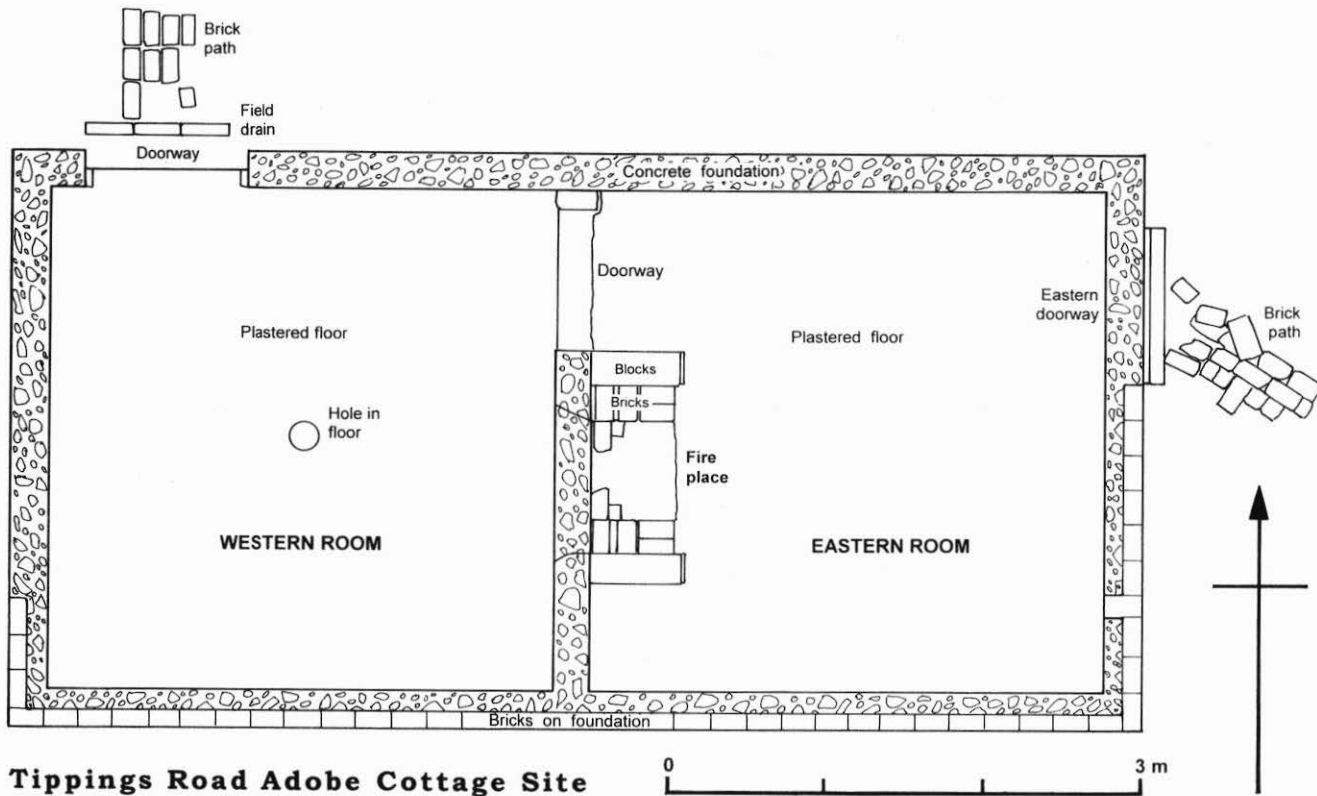
As we first saw the site prior to excavation it was a low, roughly figure-of-eight-shaped mound of clayey soil, baked particularly hard after two summers of Canterbury drought. But the cottage had been standing until the mid-1970s (a photograph had been taken of it in 1963), and a number of local residents could remember it clearly. Its demise was attributed to a large branch falling on it, the roof blowing off in the *Wahine* storm, and vandals demolishing what remained. Photographs and recollections indicated that it had been a two-roomed cottage built of adobe (sun-dried clay blocks commonly referred to as cob; see Taylor 1986) with a corrugated iron roof, a fireplace in the centre, and two windows and a door on the northern side.

Initial archival research by Bernard Kingsbury (Kingsbury 1999) suggests that the cottage was built by one John Page, a carpenter-joiner of Irish descent, who acquired a 40-acre block of land with a narrow frontage on Tippings Road about 1875 – records also show that in that year Page had a ten-year-old daughter at the Cust school and that an infant daughter was buried in the Cust cemetery. Some ten years later, however, Page built himself a larger, wooden cottage just over twelve metres away in front of the adobe building. (The former is still standing, if somewhat dilapidated, although the present owner has taken steps to make it weatherproof. Newspapers published in 1885 and 1887, and pasted to the internal walls, indicate the approximate date it was built – although it could, of course, be later than this.) Page sold out in 1898, and the property changed hands again in 1911, 1916 and 1951, the penultimate owner – another Irishman, John Tait – using the cob cottage as a dairy early last century. By 1951 the original section with the two cottages, now derelict, had been incorporated in a larger farm owned by the Ensor family. In the 1960s Boy Scouts from Christchurch sometimes camped in the wooden building and used the large fireplace in the cob cottage for cooking. In 1988 Bernard Kingsbury and the late Richard Ensor (who then owned the property with his wife Togs Parsonson) collected the best preserved of the adobe blocks from the now demolished structure and stored them inside the adjacent wooden cottage. The site has been given the New Zealand Archaeological Association number M35/371 and has a grid reference of M35/571 676; it is located at Cust, North Canterbury, on the south side of Tippings Road north-west of its intersection with Elliotts Road.

Method

As with the previous cob cottage site, we were assisted in our field investigation by members of the Cust and District Historical Records Society and other volunteers from around the district. An area slightly larger than the clay mound was pegged out into two-metre squares oriented on an east-west baseline behind the south side of the mound. (As it happened, the cottage had been built facing true north, hence its long axis conveniently paralleled our base line.)

Excavation was aimed at removing clay derived from weathered building blocks and other soil and debris (varying up to 50 centimetres thick) that had accumulated over the site, to reveal structural and other features that would provide information on the size and layout of the cottage. With one exception, the lifting of a single clay block from the south wall to determine some structural detail, all such features when uncovered were left in position. Wherever possible, excavation was by trowel and brush, but in some areas the



Tippings Road Adobe Cottage Site

Figure 1. Plan of Tippings Road adobe cottage, Cust, North Canterbury.

hardness of the redeposited clay made the use of a geology hammer and a small hand grubber necessary. Fieldbook records were made of notes and measurements, and photographs of features were made on colour print and slide film.

Tippings Road Adobe Cottage Site

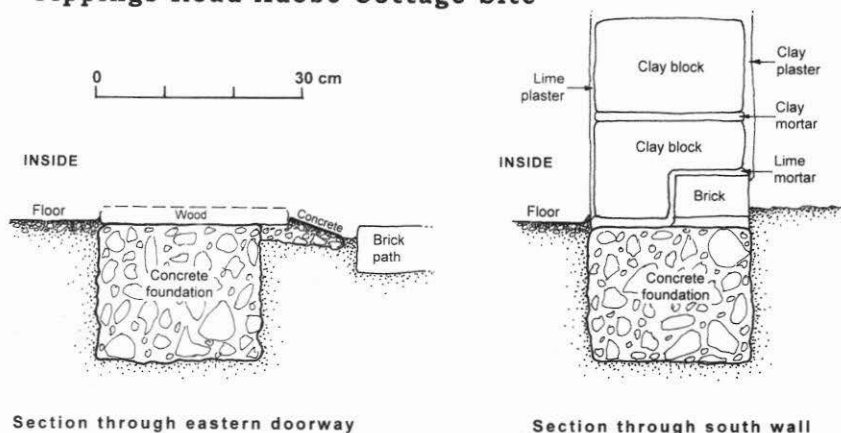


Figure 2. Interpretative details of the construction of the Tippings Road cottage.

Work with the team of volunteers was carried out on 20, 21, 27 and 28 March 1999 and on another three days by ourselves. An 'open day' for local people was held on 28 March and pupils from the Cust School were given an on-site lesson on 29 March following classroom discussion the previous week.

Because of the considerable interest generated by the investigation, the site has been left open to enable visitors to better appreciate its size and layout. In time it will, of course, again become covered by material transported by wind, and that shed from the nearby trees. It is currently protected from livestock by a temporary fence.

Foundations and Walls

It soon became evident that the site comprised a rectangular perimeter foundation of concrete enclosing a floor of cement plaster, with at least one course of clay blocks (now somewhat eroded) still in place along the south, west and internal walls. Part of the collapsed internal dividing wall lay in the south-east corner of the western room and was left intact by us (see Figure 3). Rotted

remains of some pieces of timber from around doorways plus nails, hinges and door locks were found, but portable artifacts were few and mostly dated to relatively recent use of the cottage – for instance, part of a small cream separator and an X670 cog for an agricultural drill. Better preserved pieces of structural timber lay beneath nearby trees and some of these had clearly been rafters of the cob cottage, but others may well have derived from the later wooden building or other sources.

The perimeter foundation was of rough concrete, 22 to 25 centimetres wide and about 20 centimetres deep, and it was continuous except across a doorway at the western end of the north wall (see plan, Figure 1). Its top surface was approximately at floor level. The internal dimensions of the cottage were 6.68 metres by 3.20 metres (externally 7.16 metres by 3.66 metres but varying slightly according to where it was measured). An internal wall projected from the midpoint of the southern wall for 2.18 metres where it met a doorway, thus dividing the floor area into two equal-sized rooms; this wall incorporated a fireplace which projected into the eastern room. There was a concrete foundation under the internal wall (but not beneath its doorway), though this internal foundation was approximately 20 millimetres below floor level.

The walls of the cottage had been constructed of rectangular, sun dried, adobe clay blocks with up to 20 millimetres of clay mortar between them; grass or straw visible in broken blocks showed that this was a constituent. The source of the clay was not determined. The eroded state of the blocks still extant made their original size difficult to determine, but it was approximately 350 by 170 by 140 millimetres. The bottom course along the south side and parts of the east and west sides had been shaped during manufacture to fit over a row of burnt (kiln baked) bricks that had been laid with lime mortar on top of the outside edge of the concrete foundation (Figures 1, 2). We presume that the purpose of these was to keep the clay blocks clear of dampness from a higher ground level outside these walls, though we were not able to determine exactly where the ground level was when the cottage was built (see below).

Protected by the present built-up ground level, some small fragments of smooth-surfaced clay at the base of the outside walls indicated that the walls had been plastered on the outside, perhaps to a thickness of about 20 millimetres. There was no sign of applied pigment such as a lime wash, but because of the poor state of preservation this cannot be discounted.

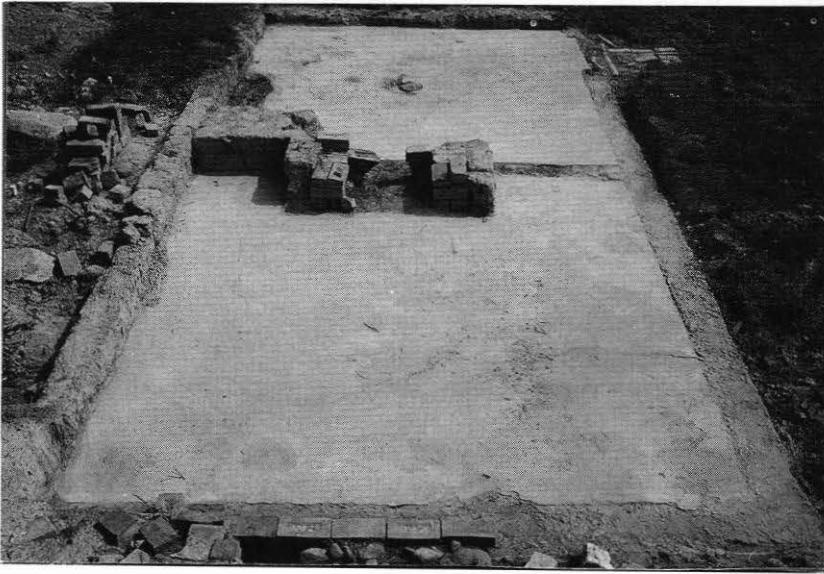


Figure 3. Photograph of the excavated cottage site, looking to the west.

Inside, particularly near the fireplace in the eastern room, we found a number of pieces of lime plaster having one smoothed surface which had been coloured pink with a blue (possibly rag-impressed) decoration. These indicated that the interior wall, at least near the fireplace, had been plastered and coloured.

Floor

Almost all of the floor area had been covered with a thin smooth plaster of cemented sandy shingle at some time subsequent to the erection of the walls and doorways. As we felt it important to leave this intact we were not able to determine if the cottage had been used before this was laid, that is, with a 'dirt' floor. In places where the plaster had worn thin, a hard packed layer of pebbles and clay was visible immediately beneath it, and a sondage beneath the floor from where the internal door had been showed that the hard packed layer was something like 20 to 50 millimetres thick, lying in turn on loamy soil. In many places around the walls, at doorways, and where wooden uprights had stood on either side of the fireplace, the floor plaster had been lipped up against the vertical surfaces.

In the centre of the floor of the western room a circular wooden plug (Fig. 4), some 190 millimetres in diameter and 30 millimetres thick, covered a 600 millimetre deep hole formed by a section of glazed clay pipe with an internal diameter of 145-150 millimetres that had been set vertically into the ground. The sides of the plug were slightly tapered; it had a 30 millimetre hole through the middle, and two nails had been driven right through it. The sides and bottom were coated in some tar-like material and it was very difficult to remove. This structure is interpreted as a safe hole which would have been covered by a mat or even furniture when the cottage was occupied. It contained only a rusted $\frac{5}{8}$ inch diameter wood-boring bit, which may well have got there from an earlier unsuccessful attempt to remove the plug.

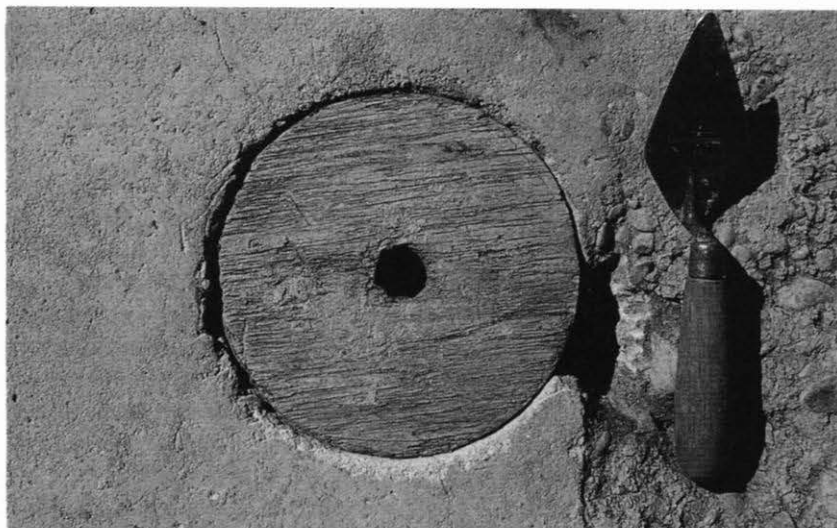


Figure 4. The wooden plug over the 'safe hole' in the floor of the western room.

Doors and Windows

Initially it seemed that there had been only one external door, and this was confirmed by local residents who could remember the cottage standing and who assured us it had only the one door. This was situated at the west end of the northern wall, opening into the western room. There was a gap in the concrete foundation at this point, and the doorway was visible in a photograph taken in

1963. However, the fireplace opened into the eastern room and it seemed highly unlikely that access to the living and cooking area had been only through the other room, which was most probably a bedroom. Because of this we spent some time examining the foundation of the eastern wall at a point where it appeared that a dry brick path (i.e. not mortared) – now much disturbed by tree roots and other agencies – had led from the cottage (see Figure 1). Outside the perimeter foundation, towards the northern end of the wall, we found a strip of concrete that we interpret as being the outside lip of a doorstep – the concrete having been moulded up against the wooden base of a door frame which had been placed on the foundation (see Figure 2); rotted remnants of this wooden base were found. The moulded up concrete was 990 millimetres long, suggesting the doorway was perhaps a little less than this in width. It remains a mystery as to why a door space was left in the foundation for the outer 'bedroom' door but not for that which gave entry to the 'living room' and which was presumably the main entrance to the cottage. One possibility is that the cottage was originally a single room, and that the dividing wall and the eastern door were installed later. But there are problems with this, too, as there was no sign of another fireplace that might have served this earlier stage.

The fact that the outside doorway at the eastern end of the cottage was unknown to people who remembered the cottage standing – members of the Ensor family and other local residents were positive that there was no doorway here – suggests that it may have been filled in and plastered over at some time subsequent to the use of the cottage for habitation, possibly to enhance its suitability as a cool room for the dairy – clay providing excellent insulation. The base of the door frame in the northern (bedroom) wall had been placed directly on the ground in the gap in the foundations, probably level with the floor (which would facilitate sweeping). Immediately outside this doorway were three sections of field drain lying parallel to the wall, and it seems likely that a wooden door step projected over these to butt up against another dry brick path (Figure 1). The internal width of this doorway, as indicated by where the plastered floor came up against the side timbers, was 960 millimetres.

The design of the external doorways and the level of the brick paths immediately outside them lead us to believe that ground level in the vicinity of these doors was very little below floor level.

The door frame in the internal dividing wall also had its base on the ground and it was no more than 840 millimetres wide.

The only real evidence of windows was the 1963 photograph which shows two in the northern wall, one for each room. The lack of window glass in the ground suggests that the windows had been broken and the glass cleared away while the cottage was still in use, perhaps during its period as a Scout cook-house.

Fireplace

There was an open fireplace half-way along the western wall of the eastern room. It was constructed of clay blocks and its base was unplastered clay and gravel. By the time of our excavation the sides of the fireplace had been reduced to two short parallel walls of clay blocks, two courses high and 107 centimetres apart, projecting 56 centimetres from the line of the internal dividing wall into the eastern room. Rectangular gaps in the plastered floor at the ends of these projecting sides indicated that they had been faced with timber, probably the upright supports of a mantel. Inside each wall was a short double row of burnt bricks three courses high (with mortar on top indicating that there had been at least one more course), leaving a gap of 62 centimetres for the actual fireplace. At the time of our investigation clay blocks of the dividing wall did not continue across the back of the fireplace, although the underlying concrete foundation and absence of floor plaster suggested that they had been there at one time. Inside the line of the wall at the back of the fireplace were the remains of several courses of burnt bricks which had been broken in such a manner as to suggest that there had been a tunnel from the back of fireplace into the western room (see Figure 5). Both the bricks in position and those lying near by were broken at an angle as if to form a circular or domed hole – the breaks were heat-stained and sooty. A tunnel from the back of the fireplace may be an impracticable way of either providing extra draught or supplying heat to the western room, but we can think of no other explanation for the broken bricks and absence of clay blocks here – a feature that appeared to be part of the original fireplace.

Near the fireplace was a loose rectangular frame of iron or mild steel with four short legs that could be swivelled through a small arc. It looked as if it had been a stand for holding large cooking vessels on an open fire but it is too wide to fit between the bricks of the fireplace. Possibly the bricks had formed hobs (though unexpectedly high) and it was intended to lie on top of them; alternatively it may have been a more recent import used after the fireplace had been partially broken down. There were also some double hooks of fencing wire and a traditional Scout 'toasting rack' made of No. 8 fencing wire. It seems certain

that the last mentioned at least related to the later use of the cottage as a cookhouse for camping Scouts.



Figure 5. Remains of the fireplace, looking west from the eastern room.

Roof

The roof shown in the 1963 photograph is of corrugated iron and the usual inverted V shape. Two of the pieces of timber that were lying beneath trees nearby were clearly rafters for this roof; they were 2.14 and 2.16 metres long respectively, each with an angled cut at one end to fit against a ridge-pole, and a notch at the other to fit over a top plate laid on top of the side walls. Nail holes on the top side of these rafters showed that they had supported three purlins – bottom (at 13 centimetres), intermediate (1.04 metres) and top (1.69 metres) – which is as would be expected for roofing iron.

The wooden cottage, build some ten years later, originally had a shingle roof – some shingles are still in place beneath its roofing iron – and it would not have been surprising if the cob cottage had also originally been shingled. Had this been the case, however, we would have expected sarking to have been nailed directly to the rafters to take the shingles; there were no nail holes to indicate that this had been done.

Paths

Mention has been made of remnants of dry brick pathways at the front and side doors. There was also an extensive area of brick paving in front of and to the

north-east of the site, and running to the back door of the later wooden building. Much, if not all, of this latter probably dates to the occupation of the wooden building. Although now much disturbed, part of this paving appears to describe the arc of a circle centred north east of the clay cottage as if there had been some point of interest here – possibly a garden or more likely a well. Local residents said that there had been a pipe well (i.e. driven by a monkey rather than dug) in this area, upon which there had been a cow-tail pump, but that it had come into conflict with a tractor some years ago. A superficial search of the area to a depth of some twenty centimetres failed to reveal any sign of a well.

Discussion

The use of concrete for foundations and cement for the floor in an 1875 cob building was unexpected, although concrete was certainly in use for more substantial structures in the district by that time. It is not impossible that the constructor, John Page, as a builder-joiner, had become familiar with concrete through being employed on a manufacturing job involving its use. While we did not find any proof that the floor was plastered at the time of construction, there is no reason to believe that it was not. Indeed, having used concrete for foundations, it is not surprising that the builder used cement to produce a hard-wearing, easily-cleaned floor.

Given that both the Tippings Road and the Terrace Road sites were basically two-roomed cob cottages, their main differences were in their siting, orientation, foundations and flooring, construction of internal wall, position of doorways, and location of fireplace and chimney. Whether these differences are related to the place of origin of their builders is a matter for future research, though it is commonly thought that a central fireplace is more a feature of Irish cottages.

Thanks

We wish to particularly thank Togs Parsonson for permission to excavate the site on her property, and other members of the Ensor family for their interest and assistance. Without Bernard Kingbury's initial suggestion and historical knowledge, and the help of members of the Cust and District Historical Society, the investigation would not have been undertaken. Our thanks are especially due to the volunteers who cheerfully trowelled and scraped and dug and brushed under the unrelenting sun of a Canterbury drought. And, as always, the support of the Canterbury Museum Director and Trust Board is gratefully acknowledged.

References

- Kingsbury, Bernard, 1999. Notes compiled from records held by the Cust and District Historical Records Society, Cust.
- Taylor, Ivan, 1986. "Sod, cob, pisé, adobe" *Historic Places in New Zealand* (Journal of the New Zealand Historic Places Trust), 15: 14-15.
- Trotter, Michael, and McCulloch, Beverley, 1998. Preliminary report on the investigation of an early European house site at Cust, North Canterbury. *Archaeology in New Zealand*, 41(2): 114-122.