

4.06 Of Huts in General

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a. the itinerant builder

There is considerable evidence, especially in the period 1830-1860, of a substantial informal building industry in the eastern colonies, comprising itinerant splitters and sawyers who engaged in other building operations as necessary. Their origins were often doubtful and their status unclear, but they constituted an indispensable supply of skilled labour. In South Australia, for example, both settlers and government officials:

were obliged to employ banished men (not asking if they were ex-convicts or runaways), who had been well trained to work as convicts, but were skilful splitters, sawyers, pincers, and builders of huts. High wages were paid to them.¹

It was men such as these who generally built a squatter's dwelling, rather than the squatter himself or his employee.

The typical early squatter's home was described by the Hon R D Murray, who toured the settled areas in 1841-2:

In the centre stands the principal hut, with two or three others intended to serve as offices. Their whole appearance is characteristic of a half-savage state of existence. The walls are constructed of that material known in the colony as 'wattle and dab', or, in other words, a frame of wicker-work overspread with mud, and support a roof covered with rolls of bark which the wooden stretchers that press them down can scarcely keep from resuming their original circular shape. Two or three windows, or port-holes, admit the light, while a huge, misshapen chimney of turf flanks one end of the dwelling in front, which, on the whole, may be considered a pretty fair specimen of a bush hut.²

¹ *** J W Bull, *Early Experiences of Life in South Australia* (2nd ed, London 1884), p ...

² R D Murray, *A Summer at Port Phillip* (Edinburgh 1843), p 191.

When Alfred Joyce bought a run in 1844 the improvements consisted of 'two very primitive huts, a log sheep yard, fifty hurdles and a watch box'. It was not long before he laid timber slabs on the earth floor of his hut, installed a proper door in place of the hurdle which had served the purpose, fitted glass windows, and replaced the bark roof with shingles. Itinerant splitters could be called upon to split slabs, palings and shingles, and a little later to pit-saw proper flooring boards. Sawn stuff was in general use only for sheep battens, floors and roof framing, while everything else was of slabs and squared timber.³

An article in the *Town and Country Journal* in 1881 discussed the lack of skilled labour in the bush, and was the first of a series designed to provide guidance for employers of unskilled labour. Having stressed that 'Buildings designed for temperate climates are quite unsuitable here,' it unselfconsciously went on to list the sources upon which the forthcoming articles would draw, nearly all of which were British. It is instructive to consider them. They include Robert Scott Burn on *Carpentry and General Framing* and *Bricklaying and Masonry*, and many of the technical series published by Spon and by Weale. The other contributors who are named seem mostly to be authors in the series of Weale's *Rudimentary Treatises*: Tredgold (presumably referring to his *Carpentry and Joinery*); Dobson (author of five works in the series: *Building*; *Brick and Tile Making*, *Foundations and Concrete Works*; *Masonry & Stone Cutting*; *Pioneer Engineering*); Swindell (*Well Sinking and Boring*); Heather (*Use of Instruments*); Allen (*Cottage Building*); Burnell (*Limes and Cements*); Bland (*Arches, Piers and Buttresses*); Brooks, (*Dwelling Houses*); Beaton (*Quantities and Measurements*). Some of these seem of very questionable use to the average country dwelling builder, and two are surely completely irrelevant - Baker (*Subterranean Surveying*) and Stevenson (*Civil Engineering in North America*). Some of the titles cited other than these in Weale's series are of equally marginal relevance.⁴

³ Alfred Joyce [ed G F James], *A Homestead History* (Melbourne 1949 [1942]), pp 53, 62, 79, 80.

⁴ *Town and Country Journal*, 4 June 1881, p 1077. Some other works cited are Molesworth, *Pocket-Book of Engineering Formulae*; Hurst, *Architectural Surveyor's Handbook*; Yeoman, *Dictionary of Daily Wants*; Spon, *Workshop Recipes* [actually *Receipts*], Tomlinson, *Cyclopedia (Cyclopedia of Useful Arts and Manufactures, &c)* and Templeton, *Workshop Companion*. There are many others including the American works of 'Vause' [Calvert Vaux, *Villas and Cottages*] and 'Woodwood' [George Woodward, various]. This presents a very strange picture. For example R S Burn's *Colonist's and Emigrant's Handbook*, and Young's *Every Man his own Mechanic*, would be far more relevant than most of the books cited.

b. the V hut

The V hut is a characteristic pioneering type, essentially a frame in the form of an inverted V, clad in bark, slabs, grass or reeds. It is not unique to Australia, and is an ancient European type, where such structures were built with some sort of rafters, and never with than bark. Similar tent-like structures were used by settlers at Chesapeake Bay, North America for tobacco houses, and perhaps for dwellings,⁵ and some early British dwellings in Natal in the 1820s, built of reeds, were said to have 'resembled a house roof placed on the ground, with one gable-end missing to provide an entrance'.⁶

But it is such a basic and obvious type that it makes little sense to ask from what overseas source the idea derived. Locally it is a different matter, because there are plenty of local references suggesting derivations or from or analogies to Aboriginal huts, which must in at least some cases have inspired the European structures. There are also references suggesting that the huts either imitated tents or were actually converted from tents.

Such a hut resembles a tent, and in New Zealand Samuel Butler referred to the 'thatched tent' or V hut as 'a roof, in shape of course like the letter V, set down without any walls upon the ground - mine is 12 feet long by 8 feet broad [3.6 x 2.4 m]. It was made with rafters of black bean, and thatched with *raupo*,⁷ a local plant resembling a bullrush.⁸ At Canterbury, as will appear, it is claimed that sails draped over poles, in the same inverted V shape, were later replaced with thatch.⁹ At Paynesville, Victoria, the fishermen's huts reportedly began as tents, but were 'more or less enclosed and built over with the ti-tree boughs or cane and thatched with reeds, the material for which is abundant'.¹⁰ Of the resultant structures illustrated, two were of the inverted V shape and two had vertical sides and pitched roofs, which would be consistent with their having evolved from the two sorts of tent.

Some reed thatched huts of this shape were seen at the fishing village of Paynesville, Gippsland, in 1879, and Coral Dow also infers that they result

⁵ Gary Carson et al, 'Impermanent Architecture in the Southern American Colonies', *Winterthur Portfolio*, XVI, 2/3 (summer- autumn 1981), p 27.

⁶ Brian Kearney, *Architecture in Natal* (Cape Town 1973), p 1

⁷ C P Murphy, 'The Fencible Cottage: Soldier Housing' (MArch, University of Auckland, 1975), p 63, quoting from P M Marling, *Samuel Butler at Mesopotamia* (Wellington 1960), p 17.

⁸ Keith Sinclair, *A History of New Zealand* (Harmondsworth [Middlesex]1976 [1959]), p 103.

⁹ *Australian Settler's Hand Book: The Farm, being Practical Hints for the Unexperienced on the most simple and profitable method of cultivating their land: being the result of many years experience in the Colony* (James W Waugh, Sydney 1861), p 6.

¹⁰ *Illustrated Australian News*, 7 June 1879, p 90.

from the practice of building a ti tree frame directly over a tent.¹¹ This may be rash, firstly because this is the simplest way to build a hut, regardless of any tent connection; secondly because the better tents themselves had side walls; and thirdly because this sort of structure was frequently used in cases where there is no reason to believe that a tent had preceded it. If a specific source is to be adduced it might equally well be the V-hut form commonly built in bark, and in fact we have seen that Janet Millett referred to both bark and thatch huts of this form.

Alexander Harris built for himself in the 1820s: 'a few sheets of ... bark ... leaned together, top and top, tent like, with one end stopped by another sheet.'¹² Harris also mentions other such 'tent huts' at later dates.¹³ These would have closely resembled the Aboriginal bark buildings described by Arthur Phillip, and many others seem to have been much the same. In January 1839 Robert Muir, Colin Campbell and John Campbell slept in a bark gunyah on arrival at their squatting run, 'Glenmore', New England.¹⁴ At Kangaroo Island, South Australia, 'Governor' Wallen, who claimed to have lived there for twenty years before the official settlement in 1837, occupied 'a square about some ten feet long by five, the sides resembling the letter A, composed of the bark of a tree.'¹⁵

In the Port Phillip District J H Kerr claimed the V-hut as his own invention, but used an Aboriginal term to describe it, stating that whilst the permanent huts were being built, his party lived in

Mia-mias, which, though put up on an improved principle of my own invention, were very airy dwellings. They were made simply of long sheets of bark, meeting at the top in the form of the letter A. One side was closed, and the other half open for an entrance, and on chilly nights a fire was kindled close by.¹⁶

Another quatter, W T Mollison similarly spoke of his party living in 'reed mia-mias' on the Coliban in 1838.¹⁷

¹¹ Coral Dow, 'Tea Tree and Reeds', citing a report in the *Illustrated Australian News*, 7 June 1879, pp 85, 90, the illustration from which is reproduced as the endpaper of this issue of the *Gippsland Historical Journal*.

¹² [Alexander Harris], *Settlers and Convicts* (Melbourne 1953 [1847]), p 30.

¹³ Harris, *Settlers and Convicts*, pp 159, 182.

¹⁴ Walker, *Old New England*, p 24.

¹⁵ W H Leigh, *Travels and Adventures in South Australia 1836-1838* (London 1839 [facsimile 1982]), p 123.

¹⁶ J H Kerr [introduced by Margaret Hancock], *Glimpses of Life in Victoria: By 'A Resident'* (Carlton [Victoria] 1996 [1876]), p 27.

¹⁷ W T Mollison to La Trobe, 22 August 1853, in Bride, *Letters from Victorian Pioneers*, p 257.

The Fishing Station, Paynesville, Raymond Island' (Gippsland Lakes), Victoria, showing huts which had reportedly evolved from canvas structures: *Illustrated Australian News*, 7 June 1879, p 85.

The first illustration of a European building in what is now Victoria shows a sealer's hut in Westernport Bay in the gable form of a mia mia or simple tent. It was built out of rushes such as were long afterwards used for thatching on French and Phillip islands. The structure was seen by Captain Dumont D'Urville's party on their visit in 1826, and was subsequently published in his *Voyage de la Corvette l'Astrolabe*.¹⁸ The *Settler's Hand Book* of 1861 said that 'In some instances the tops and large boughs of trees are placed against each other in the form of a tent, and at one end a fire-place a chimney formed.'

In New Zealand in 1850-3 Charlotte Godley made various references to V-huts, though not necessarily made of bark. The first was 'a mere sloping roof of boards, overlapping, set on the ground without any walls to stand on.'¹⁹ Other references are less specific, but seem to imply raupo [reed] construction,²⁰ and at one point she asks 'it ought to be an A hut, oughtn't it?'²¹ As late as 1858 the Spencer family, at 'Mount Abundance' on the Darling Downs lived for six months in two V-shaped bark humpies about 1.8 metres high at the peak, and about 4 by 2 metres in plan.²² In Western Australia, although the Aborigines used paperbark for hut construction,²³ European settlers adopted it, and J R Wollaston refers to 'V-huts', which may have been of bark. One had been built by himself and his son William at Dardanup, and two he came across in 1851 at Stanton Spring, on the Perth-Albany Road.²⁴ Janet Millet later wrote more explicitly of European V-huts, some of which were thatched and others covered with strips of paperbark.²⁵ In Western Australia, apart from Janet Millet's reference, we have a later illustration showing the New Norcia settlement as it was in 1847, including a large thatched V-hut.²⁶ In 1850 V-huts were built for the military pensioners at the first convict outstation, North Fremantle, and others at stations outside

¹⁸ *** Jules Dumont D'Urville, *Voyage de la Corvette l'Astrolabe: exécuté par ordre du Roi, pendant les années 1826, 1827, 1828, 1829, sous le commandement de M. J. Dumont D'Urville, capitaine de vaisseau* (13 vols, Paris 1830-1835), I ...

¹⁹ Charlotte Godley [ed John Godley], *Letters from New Zealand by Charlotte Godley 1850-1853* (Christchurch 1951), p 159.

²⁰ Godley, *Letters from New Zealand*, pp176-7.

²¹ Godley, *Letters from New Zealand*, p 178.

²² Eve Pownall, *Mary of Maranoa* (2nd ed, Melbourne 1959 [1959]), p 125, ref Mary McManus, 'Reminiscences of the Maranoa District'.

²³ H W Bunbury, *Early Days ... Western Australia* (1930), pp 72-6, quoted in A C Staples, *They Made Their Destiny* (Harvey [Western Australia] 1979), p 13.

²⁴ J R Wollaston [ed C A Burton & P U Henn], *Wollaston's Albany Journals (1848-1856)* (Perth 1954), pp 239, 134.

²⁵ [Janet] Millet, *An Australian Parsonage* (London 1872), pp 44-5.

²⁶ Battye Library 77606P, from Bishop Rosendo Salvador's *Memoirs*, reproduced in David Hutchison [ed], *A Town like No Other* (South Fremantle [Western Australia] 1995), p 45.

York and at Toodyay.²⁷ Many buildings which were not of the V-hut form also has both walls and roof made of thatching materials. The first church at Perth, built in 1829-30, was described as 'composed of reeds and wood',²⁸ and commonly known as the rush church: it was removed to the whaling station at Carnac Island before the court house was built on the site in 1837.²⁹

c. homestead forms

Amateurs are much addicted to various theses about homesteads, of which the typical one is that they arise in three stages the squatter's primitive hut, the comfortable farm building he put up for his family, and the pretentious mansion built for him in the boom years. Commonly, so the story runs, all three stages may still be seen either adjacent to each other or embedded one inside the next like the layers of a pearl. Of these two stereotypes the former was being applied to Canadian houses as early as the 1830s, when the 'Backwoodsman's' *Sketches of Upper Canada* described the 'glaring and staring red brick house' built close to the road so as to conceal the frame dwelling 'which at one time the proprietor looked upon as the very acme of his ambition'. The frame house is now used as a kitchen; the substantial log house which preceded it has become 'a chapel of ease to the stable or cowhouse'; and the original shanty or log hovel is now the piggery.³⁰

In Australia the first building was more commonly altered stage by stage, until it made no sense to call it the first, second or third homestead:

well, we pulled down the chimney and lengthened the hut 8 feet, & put up the chimney as it was before, at the end decently, [and] took down the front slabs & made the whole front a mud wall, took off the roof & put on one with gable ends & forming a skillion 7 feet broad behind, & a verandah 5 feet broad in front & the plate 6¹/₂ feet high. The [verandah] rafters rest two feet up the rafters of the hut, so the verandah & skillion are much higher than our old verandah. The roof is carried on to shelter the chimney, it being mud, instead of round stuff as before.³¹

²⁷ R M Campbell, 'Building the Fremantle Convict Establishment' (PhD submission. University of Western Australia, 2010), pp 8.8, 8.17, 8.25.

²⁸ Barbara Chapman [ed], *The Colonial Eye* (Perth 1979), p 80, quoting 'The Diary of Mary Ann Friend', *Royal Western Australian Historical Society Journal*, I, part X, 1931, p 7.

²⁹ John White, 'Building in Western Australia 1829-1850', in Margaret Pitt-Morison & John White [eds], *Western Towns and Buildings* (Nedlands [Western Australia] 1979), p 85.

³⁰ *Architectural Magazine*, II, February 1835, p 72.

³¹ William Bucknall to Albert Bucknall, 21 May 1872, in Graeme Bucknall & Lorna McDonald [eds], *Letters of an Australian Family, 1827-1880* (Carisbrook [Victoria] 1984), p 166.

There are doubtless many cases where the evolution does in fact conform to one of the theoretical models, but one should remember, when looking at buildings which seem to belong to the first stage of this evolution, that very crude outbuildings were often attached to sophisticated homesteads and that it is quite unreasonable to assume that the most primitive building a site is the earliest. William Howitt, however, did describe a squatter's hut which, in conformity with the ideal pattern, had taken second place in the 1850s to a small but more sophisticated house nearby:

... there is a broad verandah on the sunny, that is the north, side of the house, and the whole has a rough and picturesque aspect. At each end there is a chimney, built externally of wood and lined some four or five feet high [1.2 - 1.5 m] in the inside with slabs of granite to prevent the wood catching fire. These fire-places are very capacious - I suppose nearly six feet [1.8 m] square, and the fire is laid on the hearth. In the room where we were first located, the bare wood of the walls had no lining, and the chinks between the slabs were often wide enough to put your hand through. There was no ceiling, but all open to the roof ... the room at the opposite end of the building ... was lined and ceiled with canvass ... but the floor was still mud.³²

d. chimneys

Howitt's description of the chimney applies with minor variations to many examples – all very large, built of timber, and at least partially lined with stone or earth to stop them catching fire. One of the earliest descriptions of the type was that in the novel *Ralph Rashleigh*, in the 1820s. It occupied the whole end of the hut, was built of wood (presumably vertical slab like the rest of the building) and was lined to a height of 'a couple of feet' with clay lumps set in a tempered clay mortar.³³ When Alexander Hunter proposed a four roomed slab hut for his run on the Delatite River he sketched a plan with a six foot [1.8 m] square fireplace attached to both of the principal rooms. A month later he had enlarged his ambitions, and was building a five-roomed house with a six foot fireplace in the biggest room and five foot [1.5 m] square fireplaces in two other rooms.³⁴

The most important, and certainly the most substantial part of these huts, seems always to have been the fireplace and chimney. According to J K Andrews, who was in the Goulburn Valley of Victoria in the later nineteenth century:

³² William Howitt, *Land, Labour, and Gold* (2 vols, London 1855), I, p 129.

³³ James Tucker ['Giacomo de Rosenberg'] [ed Colin Roderick], *Ralph Rashleigh, or the Life of an Exile* (Sydney 1952 [?c1845; 1929]), p 113.

³⁴ Alexander Hunter Papers, State Library of Victoria, reproduced by Kerry Jordan, 19i99..

the chimney was made of logs, nicely fashioned as other chimneys are. The fireplace is about 6 ft x 5 ft [1.8 x 1.5 m] - some larger, for safety's sake the place is lined with pug, ... about eighteen inches [0.45 m], and four feet [1.2 m] high. From an iron bar up and across the chimney, trace (plough) chains are fixed; on these hang the large or smaller boiler, the 3 gallon [14 litre] water fountain and or the ordinary size tea kettle, and when needed a frying pan saucepan, or a campoven [*sic*], a pot hook with a 'sort of a swirl' held the saucepan. The cooking utensils were of cast iron. As the settler increased in riches and knowledge, an iron crane was introduced to the fire place, this was like a one bar (top) gate and held with simple gadgets, the hanging cooking vessels, and did away with long chains and heavy lifting, the kettles and pots could be brought on and off the fire with little effort, a camp oven was used for baking - (bread, meat, potatoes + some kinds of puddings) placed in the fire-place, a fire under and above.³⁵

H W Haygarth, like Howitt, described a chimney built of wood with a lining of stones to stop it catching fire.³⁶ Some illustrations show chimneys formed of horizontal poles, crossing at the corners, and chinked with pug in between, a form also found in Canada.³⁷ There were also more ramshackle structures, such as Lady Franklin found at the hut of the squatter Mundy in 1839. This was

... a good chimney of stones in the lower part but the upper, not completed, is formed first by a barrel over which is an old tea chest and some movable planks to shift according to the wind.³⁸

According to Sandy McCrae chimneys could be of brick or split she-oak, but their own chimney resembled the one described by Howitt and was of stringybark plastered outside with mud and lined internally with stones.³⁹ George McCrae recalled that

... the chimney was constructed of hardwood boards nailed across a framework of slabs, tapered towards the top, and plastered internally with mud. The fireplace, lined with rough stones, composed quite a room in itself.⁴⁰

This appears to be typical enough, for J H Kerr visited the property of an Indian major settled in Victoria whose fireplace could have accommodated

³⁵ J K Andrews, 'History of Merrigum' (manuscript, Merrigum [Victoria] 1954, copy supplied by Anne Tyson, 1997), p 61.

³⁶ H W Haygarth, *Recollections of Bush Life in Australia* (London 1848), p 16.

³⁷ Basil Hall, *Travels in North America in the Years 1827 and 1828* (3rd ed, 3 vols, Robert Cadell, Edinburgh 1830), I, p 312.

³⁸ Mabel Brookes, *Riders of Time* (Macmillan, South Melbourne 1967), p 70.

³⁹ McCrae, *Georgiana's Journal*, p 60.

⁴⁰ McCrae, *Georgiana's Journal*, p 154.

the whole family,⁴¹ and Boldrewood mentions a wooden chimney lined with stones which, he says, worked well without smoking.⁴² In the fifties too, James Armour found a fireplace in a shearers' hut which was large enough for a man to sit at each side when the fire was low - in fact quite the traditional inglenook.⁴³

Sometimes the chimney was of bark framed on poles, of cob or of sods. The *Settler's Hand Book* described all three

... a fire-place and chimney formed, by good stout poles fixed as a frame, and sheets of bark fastened round the outside – or a good, durable fire-place and chimney may be made of clay, well tempered, kept upright, and smooth, about a foot in thickness, the chimney carried up to any height desired. The clay soon hardens, and with occasional repairs will last a considerable time – no wooden frame is required.⁴⁴

For a turf hut the chimney might also be of turf, provided it was large enough to avoid the fire being in direct contact with the turf blocks.⁴⁵

For chimneys might also be built of timber and mud without any stone there was some American precedent in a 'doubbed stickd dirt chimney' specified for a building in North Carolina.⁴⁶ At Paynesville, Gippsland, chimneys were formed of what sounds like wattle and daub, being 'constructed of poles and interwoven with sticks, hurdle-fashion, and more or less faced with mud where necessary.'⁴⁷ A few years later at Seaspray, campers would build 'A large fire place of semi-circular shape' outside the tent. 'A quantity of stout ti-tree saplings are cut in pieces of about four feet [1.2 m] in length and then driven into the ground fully twelve inches [0.3 m]; heavy clods of earth are then piled up in rows to the same height against them.'⁴⁸

In the gold rushes the craziest chimneys appeared, and at Bendigo in 1853 William Howitt found them

... extraordinary pieces of architecture; some are built of horizontal, some of perpendicular timbers, up to the eaves (sic) of the tent, and

⁴¹ Kerr, *Glimpses of Life in Victoria*, p 38.

⁴² 'Boldrewood', *Old Melbourne Memories*, p 46.

⁴³ James Armour, *The Diggings, the Bush and Melbourne* (Glasgow 1864), p 13.

⁴⁴ *Australian Settler's Hand Book: The Farm, being Practical Hints for the Unexperienced on the most simple and profitable method of cultivating their land: being the result of many years experience in the Colony* (James W Waugh, Sydney 1861), pp 6-7.

⁴⁵ *Australian Settler's Hand Book: The Farm, being Practical Hints for the Unexperienced on the most simple and profitable method of cultivating their land: being the result of many years experience in the Colony* (James W Waugh, Sydney 1861), p 8.

⁴⁶ C W Bishir, 'Good and Sufficient Language for Building', *Perspectives in Vernacular Architecture*, IV (Columbia [Missouri] 1991), p 51.

⁴⁷ *Illustrated Australian News*, 7 June 1879, p 90.

⁴⁸ Coral Dow, 'Ti Tree and Reeds', *Gippsland Heritage Journal*, 21 (March 1997), p 7, quoting the *Gippsland Times*, 7 February 1887.

then tapered away to some height, covered with bark, or sheets of tin which have lined packages. Others, again, are covered with bullock-hides, and some with sheepskins, and not put on in any very orderly style. A considerable number are surmounted by dry casks - American flour barrels - which make the upper shaft of the chimney ...

Our tent itself is now accommodated with a substantial open fireplace, made of solid pieces of boughs, of about nine or ten inches diameter each, fitted together at the corners, and neatly plastered at the joints with clay. From this frame springs an obelisk-like chimney of poles, covered with green bullock-hides, which, altogether, displays a degree of shapeliness and neatness that may be looked for in vain far around.⁴⁹

The chimneys at the Green Hill diggings in 1860 were much the same as those of Bendigo,

... with the lower part roughly built of stones topped by corpulent old casks, very much awry, and looking as rakish and dissipated as such portly shapes could look; one or two more chimnies were of the common rag-bag and stick order of architecture, consisting of a few slabs or sticks dabbed with mud and swathed round with wraps of old canvas tied together, looking exactly like great cut fingers, clumsily bandaged up; others again were designed in more rural taste, being the trunks of growing trees, with hollows in them⁵⁰

The use of casks or barrels on chimneys was not an exclusively local characteristic, for pork barrels were used in the same way during the American Civil War.⁵¹

In Queensland there was a government specification for the construction of iron-lined slab chimneys in post and telegraph offices of the 1880s:

Form chimneys as shown with stumps and plates all as before, sheeted on top with six inch by two inch slabs of hardwood. Studs to be three inch by three inch all framed as shown with gathering formed of sawn scantling; the lower part of the chimney to be closed in with slabs fixed vertically and secured with one inch by one inch fillets well nailed; the shaft to get weatherboards all as before specified; line shafts and gathering inside with stout sheet iron well nailed at top and bottom, rivetted along joints. Fill in up to floor level, and line fireplace up to height shown with large flat stones set in ant bed mortar and floated with same.⁵²

⁴⁹ Howitt, *Land, Labour and Gold*, pp 377-8.

⁵⁰ Louisa Meredith, *Over the Straits: a Visit to Victoria* (London 1861), p 255.

⁵¹ D E Nelson, "'Right Nice Little House[s]': Impermanent Camp Architecture of the American Civil War', in Camille Wells [ed], *Perspectives in Vernacular Architecture, 1* (Columbia, Missouri, 1987), pp 86-7.

⁵² Quoted in Donald Watson, *The Queensland House* (Brisbane 1981), p 4.5.

e. diggers and selectors

Of diggers' dwellings in general it is necessary only to say that log and slab huts have already been discussed, and perhaps to quote Howitt once more on one typical ethnic characteristic:

You may generally distinguish the abodes of the natives of Ireland, by their picturesque resemblance to the cabins of the Green Isle, being more remarkable for their defiance of the symmetry than any others. They seem to be tossed up, rather than built, and are sure to have sundry black poles sticking out of the top, and pieces of sacking or old breeches hung up before them, here and there, to keep the wind from drawing all the smoke down into the interior.⁵³

After 1862 the land became available for selection, and miners and others with little capital settled down to agriculture, needing buildings which were cheap, but no longer necessarily portable. The census figures actually show a decrease from twenty-eight per cent to five per cent in the proportion of temporary dwellings between 1861 and 1871, but this would be largely attributable to the number of tents on the goldfields which disappeared or were converted to cottages, while on the other hand many more or less primitive buildings were probably classified as permanent. During this period a large number of both traditional and mongrel methods of building in timber, masonry, mud and wattle-and-daub seem suddenly to have come into their own.

f. the bough shed

The 'bough shed', with a roof of boughs and with either open sides or walls also of boughs, became an institution. The idea is so basic that it may not seem to call for much explanation, but it is also so widespread that some account must be attempted. One of the earliest of the type was the wattle-roofed shed which Cunningham reported in the Moreton Bay district, already referred to above. A small example appears in one of the Holtermann photographs of Gulgong in 1872, a square bough-roofed bay standing at the eastern end of a bark roofed dwelling.⁵⁴ But most known examples are later, and they are commonest in Queensland.

⁵³ Howitt, *Land, Labour and Gold*, I, pp 377-8.

⁵⁴ Keast Burke [ed], *Gold and Silver* (Melbourne 1973), pl 77.

Constance Ellis describes a changing station on the mail route to Charleville in 1889 which was simply a sapling frame with a roof of mulga boughs.⁵⁵ A few years later she and her husband, living in a tent at 'Noondoo' station, built themselves a dining room with walls and roof of green boughs.⁵⁶ Across the border in South Australia the Pope family, storekeepers at Innamincka in 1900-13, would often sleep out in 'a big lignum shed, six or seven feet high, with a gap at the bottom so we could have air underneath'.⁵⁷ At Innamincka station homestead, five kilometres away, there was another bough shed, described in the 1920s as:

constructed on the lines of a coolgardie safe, to form a spacious room made with wire netting, boughs, saplings and leaves. Guttering contained holes through which water was played between layers of wire netting and leaves, which composed the walls.⁵⁸

The watering of the walls is a tradition almost certainly brought to Australia from India in the 1830s, as will be discussed below.

In Western Australia, Campbell and Charles Deland, when mining at Hayes New Find in 1897, had two tents and a 'dining room ... of boughs laid on a framework of sticks but the walls are trans [?sans] everything'.⁵⁹ Bough sheds were also common in the Northern Territory, but there is no reason to believe that they first evolved there, nor is there any evidence for the suggestion that they derived from Aboriginal building forms.⁶⁰ In the Victorian Mallee John Edey built what was described as a bough shed, in about 1930,⁶¹ but it is difficult to distinguish from the common thatched shed. The latter had a frame of round timbers and a low pitched roof, usually constructed with a bottom layer of boughs, over which was laid crude roof thatching.

g. wheat bags & iron

While all these *ad hoc* methods are found to some extent in farm buildings of every period, the indications are that they were most common from the 1860s and the 1930s. Between these dates the wheat bag dwelling emerged. Southern Cross, on the Western Australian goldfields, consisted in 1895 of three or four brick buildings, others of wood or iron, and the remainder of

⁵⁵ C J Ellis, *I Seek Adventure* (Sydney 1981), p 4.

⁵⁶ Ellis, *I Seek Adventure*, p 68.

⁵⁷ H M Tolcher, *Innamincka* (Innamincka [South Australia] 1990), p 17.

⁵⁸ Elizabeth Burchill, *Innamincka* (Melbourne 1960), p 77.

⁵⁹ Charles Deland to Effie Wyllie, 21 May 1897, in M R Best [ed], *A Lost Glitter* (Netley [South Australia] 1986), p 170. See also pp 175, 207 & pl 25.

⁶⁰ A H Voisey, 'House Types of the Northern Territory, Australia', *Australian Geographer*, III, 3 (November 1937), p 29, quoted in Bridget Jolly, 'Solomit in Australia and its European Context' (PhD, University of South Australia, 1998), p 10.

⁶¹ John Edey, *From Lone Pine to Murray Pine: the Story of a Mallee Soldier Settler* (Sunnyland Press, Red Cliffs [Victoria] 1981), pp 119, 120.

'canvas and bags'.⁶² Hannan's, nearby, had comprised only five or six bag shanties until it experienced a minor boom and acquired fifty good commercial buildings.⁶³ One such building was photographed in 1905 at Bridgetown, Western Australia, while in 1908 every sort of hybrid combination of second hand hessian bags and corrugated iron could be found at Diamond Creek, outside Melbourne. In about 1900-20 huts clad in bags or other hessian material were commonly used by new settlers in the Victorian Mallee.⁶⁴ The use of hessian as a base for cement rendering is a more sophisticated development, which will be discussed below. Kerosene tins, which were always common building components on farms, probably enjoyed their heyday in the 1920s, as will appear below.

It is these later periods that provide the richest variety of vernacular building, and the structures themselves will only come to be fully documented and understood when there has been a coordinated survey of them, and a detailed study of the land selection records. The survey is the most urgent need. Time and bushfires continue to take their toll, and there are few farmers today who will preserve a bark roof when it can so easily be replaced in corrugated iron. These buildings are disappearing silently and rapidly and without check. Opinions may vary as to their aesthetic merits but their value as historical artefacts is beyond dispute. We can no more let these buildings be destroyed than we could allow all the works of colonial artists to be pulped. If one reader is able to bring about the preservation of one structure, then this work will not have been written in vain.

⁶² Campbell Deland to his parents, 18 June 1895, in Best, *A Lost Glitter*, p 29.

⁶³ Campbell Deland to his parents, 29 September 1895, in Best, *A Lost Glitter*, p 55.

⁶⁴ John Edey, *From Lone Pine to Murray Pine: the Story of a Mallee Soldier Settler* (Sunnyland Press, Red Cliffs [Victoria] 1981), pp 73, 79; Janet Lynch et al, *A Vision Realised* (Underbool [Victoria] 1988), pp 44, 108, 120, 126, 134, 139; Jocelyn Lindner et al, *Kow Plains and Beyond* (Cowangie [Victoria] 1988), p 26.