

## 8.07 Ornamental Cast Iron

- a. imported castings
- b. early Australian castings
- c. towards a Victorian style
- d. regional variations
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Ornamental cast iron in Australia has been extensively illustrated in the works of the late Dr E G Robertson,<sup>1</sup> who was almost single-handedly responsible for the revival of its popularity. Since that time Brian Turner's *Australia's Iron Lace*<sup>2</sup> has added new material and ordered the topic more systematically. Even now, however, it is surprisingly difficult to come to a clear picture of its distribution and development. Nor is its stylistic development clearly understood, and this will need to be considered here to the extent that it relates to technical changes or assists in dating individual examples. One conclusion may be adumbrated immediately. Ornamental cast iron is generally a phenomenon of the late nineteenth and early twentieth centuries, and during that period it became so common that earlier examples, often quite distinctive in character, have been swamped, and undervalued by recent aficionados.

### a. imported castings

Cast iron balconies, balustrades, railings, grates, bars, doors and porches had apparently been made in England since 1775,<sup>3</sup> and some of these, as a matter of course, came to Australia during the first half century of settlement. The myth that they came as ballast, however, has been unequivocally debunked by Turner.<sup>4</sup> It is characteristic of this period that the forms should be light and sinuous, deriving from British wrought and cast iron decoration of the Regency period; that there should be a preponderance of void and a minimum of modelling; that the supports should have the character of broad openwork pilasters rather than solid cylindrical columns; and that the decorative motifs should be Regency Greek - the palmette, anthemion [honeysuckle], lyre and so on. A house design by James Houison of Sydney in the 1830s, possibly 'Newington' near Parramatta, has a verandah and upper balconettes balustraded in panels of a design built up from simple

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<sup>1</sup> E G Robertson, *Victorian Heritage* (Melbourne 1960); *Sydney Lace* (Melbourne 1962); *Ornamental Cast Iron in Melbourne* (Melbourne 1967); *Adelaide Lace* (Adelaide 1973); [ed Joan Robertson], *Decorative Cast Iron in Australia* (South Yarra [Victoria] 1984).

<sup>2</sup> Brian Turner, *Australia's Iron Lace* (Sydney 1985).

<sup>3</sup> W H Chaloner, 'Early Iron no. 3', *Architectural Review*, CVI, 525 (October 1940), p 333, quotes a report on the English industry by the Sieur Marchant de la Houlière, referring to the cast iron doors and porches made by John and William Wilkinson, and proposing that William be brought to France to manufacture balconies, balustrades, grates and bars (as indeed occurred).

<sup>4</sup> Turner, *Australia's Iron Lace*, pp 28-9.

segments of a circle, consistent with this Regency phase.<sup>5</sup> The intention must have been to import the iron.

In 1834 Samuel Lyons of Sydney was advertising 'sixty-three richly-ornamented cast-iron honeysuckle pannels [*sic*], of large size, and forty-three smaller ones'. These were undoubtedly imported, being 'the only article of the kind in the Colony', and Lyons suggested breaking them into lots each containing six large and four small panels, which would be enough for a frontage of thirty feet [9 m].<sup>6</sup> The anthemion pattern in large and small panels is illustrated in Cottingham's *Smith and Founder's Director* of 1824, though with vertical bars as well.<sup>7</sup> But whether or not bars were to be included, it is difficult to see how six broad and four narrow panels could be used, as the two normally alternate.

In 1831 iron of the anthemion design was imported for 'Hythe' in northern Tasmania, was imported from England,<sup>8</sup> though it was off the hook rather than being designed by the architect of the house, Samuel Jackson. Jackson did, however, suggest that it should be 'cast in lightest possible manner', presumably to reduce freight costs, and also suggested importing two sets, one of which he would be happy to buy himself if it was not required. According to Jackson family history two sets were in fact sent in different ships, and both arrived undamaged.<sup>9</sup> The spare set is probably the source of the similar panels which were found at 'Albion House', George Street, Launceston, and 'Pleasant Banks', Evandale.<sup>10</sup> In 1835 'balcony railing, in panels of different patterns' as well as area or park railings, and two pairs of iron gates, were advertised in Sydney from the cargo of the newly arrived *William*.<sup>11</sup>

Often such ironwork was custom made for a specific project rather than bought off the hook, as in the case of the porch at 'Brickendon', Tasmania, of about 1830, for which the iron was designed by the architect William Archer and ordered from the London founders Cottam & Hallen.<sup>12</sup> It is of Regency character, in that the supports are of openwork, the bars are overwhelmingly uniform in section and curvilinear in form, and the decorative motifs are classical ones such as the lyre. Cottam & Hallen were the leading London foundry for ornamental iron, and probably the source of much of it in colonial New South Wales and Tasmania. Rather exceptional, however, is

<sup>5</sup> Barrie Dyster, *Servant and Master* (Kensington [New South Wales] 1985), pp 124-5.

<sup>6</sup> *Sydney Herald*, 3 February 1834, p 2.

<sup>7</sup> L N Cottingham, *The Smith and Founder's Director* (London 1834), plate I, no 1, reproduced in Robertson, *Adelaide Lace*, p 148.

<sup>8</sup> 'William Archer (1820-1874), in Joan Kerr [ed], *The Dictionary of Australian Artists* (Melbourne 1992), p 26; Robertson, *Decorative Cast Iron in Australia*, p 71.

<sup>9</sup> Information from Elizabeth Milewicz-Tyson, who is researching the Jackson family, 28 August 2013.

<sup>10</sup> Turner, *Australia's Iron Lace*, pp 38-9, 42. Pleasant Banks has been demolished, but the iron from it is held by Dr Eric Ratcliff at Albion House.

<sup>11</sup> *Sydney Herald*, 12 November 1835, reproduced in Turner, *Australia's Iron Lace*, p 29.

<sup>12</sup> Isabella Mead, 'Brickendon, Tasmania', in J H McClemens et al, *Historic Homesteads of Australia* (North Melbourne 1969), p652.

the advertising of two complete Cottam and Hallen balconies for sale in Melbourne in 1854:

For Sale, from Cottam and Hallen's Manufactory, London. Two balconies, each 26 feet long, with ornamental cast iron brackets and railings, Slate Slabs for flooring and ornamental roofing. A plan of the same and details may be seen at the office of the undersigned. Vieusseux and Tayler, Architects and Surveyors, Commercial Chambers, 41 Swanston-street.<sup>13</sup>

The description suggests cantilevered roofed balconies in the Regency manner.

While such imported iron was overwhelmingly British in origin, Robertson located two balustrades deriving from the catalogue of Barbezat & Cie of Paris, said to be in Sydney but not otherwise identified. Brian Turner, however, has identified Barbezat iron in old photos of the Australian Joint Stock Bank in George Street, and the Holtermann house in North Sydney (1874), and also in the surviving Royal Hotel at Hill End (of 1872).<sup>14</sup> Whether these were imported, cast from French originals, or even newly modelled on the basis of French catalogue illustrations, has not been established. However, a fountain in St George's Square, Launceston, erected in 1857, is branded as the actual manufacture of Barbezat, and must have been imported direct.<sup>15</sup> Glasgow was a more important source of imports, though few early examples can be very precisely documented, except for the products of Walter Macfarlane & Co, discussed separately. The iron at 'Barton Vale', South Australia, is reported to have been a Glasgow brand, but whether it was contemporary with the building, of about 1850-52, is unclear.<sup>16</sup>

'The Hermitage' at Geelong was probably the first example in Victoria of a complete suite of ornamental iron, including balustrades, columns and brackets at both the verandah and the balcony level, and it is very light and of a Regency style. The house dates from 1858 and was designed by Edward Prowse, but whether the iron was locally made, or was designed by the architect, we do not know. In 1859 balcony iron is mentioned amongst products being imported, but both the price and the wording suggest that it consisted merely of iron bars with little or no architectural development.<sup>17</sup> The verandah and balcony iron at Como, South Yarra, illustrates the genre. At both levels it is of the standard palisade form, made up of cylindrical bars, and at the ground floor level the central bar in each panel is slightly ornamented. Very surprisingly, this ground floor palisade rises from a cast

<sup>13</sup> *Argus*, 8 August 1854, p 8.

<sup>14</sup> Turner, *Australia's Iron Lace*, pp 56-7, 119.

<sup>15</sup> Robertson, *Adelaide Lace*, pp 169-170. Some of Barbezat's work, mostly of a much grander nature, are illustrated in the *Art Journal* catalogue of the Paris Exhibition of 1867: Paris, Exposition Universelle 1867 [S C Hall, ed], *The Illustrated Catalogue of the Universal Exhibition published with the Art Journal* (London 1868), pp 37, 287, 292, 299.

<sup>16</sup> CHECK SOURCE: Danvers? not in ACNT *Hist Houses*, *Hist Homesteads* I or II, nor Fraser, *Heritage of Australia*.

<sup>17</sup> C B Mayes, *The Victorian Contractors' and Builders' Price-Book* (Melbourne 1859), p 141.

iron plinth, similar to a stone plinth in appearance. This iron was probably imported, and it is likewise probable that occasional decorative pieces were also brought out, but if so the quantities were not sufficient to be mentioned in the *Victorian Contractors' and Builders' Price-Book*. Nor was the cost structure of the industry likely to favour local casting.

In the case of other products, such as railings and columns, Mayes regarded local castings as exceptional, and priced them simply by doubling the cost of the equivalent import.<sup>18</sup> Verandah columns would have been equally austere. The columns at Black Rock House, of 1856, are slender and very simple; the contemporary columns at Mills Cottage, Port Fairy, as has been mentioned, are more decorative but were cast in Sydney; the columns at Royal Terrace, Nicholson Street, Fitzroy, are of a similar date, and look quite impressive, with polygonal bases, fluted shafts, turned heads and attached brackets - however, only certain components are of iron, and the bulk is timber.<sup>19</sup>

Imports from overseas, and especially from Glasgow, never ceased entirely, but from the 1860s they pale into insignificance - in terms of volume if not of quality - compared with local production. Moreover regular balustrade iron, friezes and columns become less important than special items ranging from urns to complete conservatories. In the 1860s Walter Macfarlane's Saracen Foundry supplied the verandah and balcony iron for A G Johnston's 'Dalintober House' at Oakbank, South Australia,<sup>20</sup> probably because of the family's strong Glasgow connections. 'The Acacias' in Marryatville, South Australia, built in 1875-7 to the design of Michael McMullen, has an elaborate verandah and balcony which is reported to have come from Glasgow, and in fact most of all of the elements can be identified in Macfarlane's catalogue.<sup>21</sup> Macfarlanes were responsible for a number of lamp standards in Perth,<sup>22</sup> but no verandah iron has so far been identified.

Up to the turn of the century MacFarlanes continued to export not just to Australia but to South Africa<sup>23</sup> and elsewhere, but after that time their output seems to have sharply declined. A Macfarlane catalogue of about 1876 is inscribed by the company to Cumming & Davies of Adelaide,<sup>24</sup> indicating that

<sup>18</sup> Mayes, *Victorian Builders' Price-Book*, p 141.

<sup>19</sup> Royal Terrace, 50-68 Nicholson Street, Fitzroy, is dated to 1853-6: the columns in question have in fact been reconstructed in a recent renovation, but accurately so far as their appearance goes.

<sup>20</sup> Jim Faull & Gordon Young, *People, Places & Buildings* (Adelaide 1986), p 77. For illustrations see Deborah Jordan, 'The Brewing Industry', in Gordon Young [ed], *Onkaparinga Heritage* (?Adelaide 1988), pp 102-3.

<sup>21</sup> Large balcony panels, Walter Macfarlane & Co, *Illustrated Catalogue of Macfarlane's Castings* (6th ed, 2 vols, Glasgow nd [c 1880s]), I, p 393, no 201; brackets, II, p 546, no 68; panels between column heads, I, p 354, no 123 (though narrower in proportion as illustrated).

<sup>22</sup> Moshe Gilowitz, 'Decorative Cast Iron in Perth 1885-1910' (unpublished paper, School of Architecture, University of Western Australia, no date, no pagination).

<sup>23</sup> For example, the balustrades of a school in Johannesburg, of about 1890: Pedro Guedes, *The Macmillan Encyclopedia of Architecture and Technological Change* (London 1979), p 228.

<sup>24</sup> See the catalogue title page reproduced in Turner, op cit, p 81.

there was a formal business connection, and by about 1882 MacFarlanes had Neave & Co as agents in Sydney,<sup>25</sup> but their patterns appear to have been extensively pirated elsewhere. Certainly some imports continued. The gate of 'Ontario' (or 'Labassa') in Melbourne, now relocated to the Botanic Gardens at Bacchus Marsh, bears Macfarlane's brand and is identifiable in the company catalogue.<sup>26</sup> As late as 1891 a newly-built Melbourne suburban house had a fence of 'exceedingly beautiful specially imported palisading',<sup>27</sup> which one would assume was of cast rather than wrought iron, with Macfarlane as a probable source.

### ***b. early Australian castings***

The broad honeysuckle balustrade panels of the imported iron at Hythe are also found at 'Pleasant Banks' and at 'Albion House' in George Street, Launceston, where they are more likely to have been locally made than imported and, as Turner notes, they are in part identical with a design in Cottingham's *Director*.<sup>28</sup> At 'Mountford' in Tasmania is iron cast by P N Russell & Co of Sydney<sup>29</sup> which has openwork verticals which are no longer explicitly represent pilasters, as they lack the classical capitals and bases, and are treated simply as decorative strips. But there is still a strong Regency Greek character, especially in the brackets and drops. The same columns or pilasters appear in four other Tasmanian examples,<sup>30</sup> one of which is a later house at Deloraine, together with a matching balustrade and with a fringe of valance decoration rather than the brackets and drops of Mountford. The baluster form is one derived from Macfarlane's Foundry of Glasgow, suggesting that the same is true of the matching column.<sup>31</sup>

In Sydney too, imported panels were at first used as the basis for local castings, and these Regency characteristics became the norm, and remained so even when designs began to be produced by local modellers. Thus a large proportion of Sydney ironwork throughout the rest of the century uses the openwork pilaster, which is totally unknown in Melbourne-made iron (though it does occur in one or two designs produced at the provincial city of Ballarat). At first it was more usual to place iron balustrades between conventional masonry or timber columns, a striking example of which was the Royal Hotel in George Street, Sydney, built to replace the earlier structure destroyed by fire in 1841. The facade presented four storeys of verandah and balconies carried on Tuscan columns (the lower ones of stone and the upper of wood), with on the three balcony levels iron balustrading of a geometric quasi-Chippendale pattern of criss-cross diagonals overlaid on concentric

<sup>25</sup> Richard Neylon [Sydney book dealer].

<sup>26</sup> Macfarlane, *Illustrated Catalogue*, I, pp 317, 339.

<sup>27</sup> *Argus*, 31 January 1891, p 2.

<sup>28</sup> Turner, *Australia's Iron Lace*, pp 56-9.

<sup>29</sup> Robertson, *Decorative Cast Iron*, p 73.

<sup>30</sup> E G Robertson & E N Craig, *Early Houses of Northern Tasmania* (2 vols, Melbourne 1964), I, p 167.

<sup>31</sup> Robertson, *Decorative Cast Iron*, p 89.

rectangles. It is illustrated in Fowles's *Sydney in 1848*,<sup>32</sup> which, Turner notes, includes fifty-seven of examples of cast iron verandah or balcony balustrades and a number of balconettes besides.<sup>33</sup> Of the buildings shown by Fowles, 'Horbury Terrace'<sup>34</sup> survives as a pair of houses at 171 and 173 Macquarie Street, with the original balconettes on 171.<sup>35</sup> The pattern is one of a seemingly Regency character but first identified at 12 John Street, Adelphi, of about 1775, and presumably designed by its architect, Robert Adam. It was illustrated in Cottingham's *Smith's and Founder's Director* of 1823 and became common in London as well as in Sydney.<sup>36</sup>

One of the first openwork pilaster designs in Victoria, in the verandah of Mills Cottage, Port Fairy, of about 1856, is the product of Dawson's foundry in Sydney. There is here an interesting contrast here between the upper part, with simple segmentally curved bars, and the lower part, containing a panel of densely modelled foliated work - that is, Regency above, Victorian below. So far as can be discerned in Professor Smith's pioneering photograph of a cottage in Glebe, of the later 1850s, the columns there are of the same design.<sup>37</sup> In earlier examples like Mills Cottage, and 'Josieville', Richmond, New South Wales, of 1857, the pilaster is formally expressed with a base and capital, but later it is sometimes reduced to an ornamental strip, and that process was taken to its extreme in the (now demolished) porch at 138 Davey Street, Hobart,<sup>38</sup> where it is more like four hanging cords.

Another characteristic which distinguishes Sydney from Melbourne iron is the use of an iron rail to cap the balustrade, which is common (though not universal) in Sydney, but unknown in Melbourne. The reason for the difference is not apparent at all, and it appears remarkably early, for the house in Glebe of Smith's photo has such an iron rail, but Mills's cottage, with the same or similar column design, has fixing lugs to accommodate a rail and traces of a paint silhouette of dimensions suggesting that it was of timber. The balustrade iron of the Glebe cottage, panels containing close-set ornamental baluster bars with a narrow band of rinceau decoration at top and bottom, is identified by Turner as one still advertised by the Sun Foundry in Adelaide in 1914, six decades later. The now established Sydney Regency characteristics were in this way more or less permanently entrenched, for they were also continued by the later established foundries, notably Bubb & Temperley, which was in existence by 1855, later becoming Bubb & Son, and then Bubb & Rees, an exceptionally prolific manufacturer.<sup>39</sup>

<sup>32</sup> Joseph Fowles, *Sydney in 1848* (Sydney 1848), pp 49-54.

<sup>33</sup> Turner, *Australia's Iron Lace*, p 20.

<sup>34</sup> Fowles, *Sydney in 1848*, facing p 80.

<sup>35</sup> Turner, *Australia's Iron Lace*, p 20.

<sup>36</sup> Turner, *Australia's Iron Lace*, p 24-7, reproducing the illustration from L N Cottingham, *Smith's, Founder's and Ornamental Metal Worker's Director* (London, no date [c 1823]).

<sup>37</sup> Reproduced in Turner, *Australia's Iron Lace*, p 28.

<sup>38</sup> Illustrated, E G Robertson, *Early Buildings of Southern Tasmania* (2 vols, Middle Park [Victoria] 1970), I, p 149.

<sup>39</sup> Turner, *Australia's Iron Lace*, p 47.

### ***c. towards a Victorian style***

In Melbourne, where the character of the architecture in the 1840s had tended toward the Regency, it was notable that in about 1851 there were 'no iron railings or balconies in the city'.<sup>40</sup> In May 1856 the *Australian Builder* stated:

There are few wants more keenly felt at the present time in Melbourne, more especially among the Building community, than a foundry devoted exclusively to the manufacture of metal castings. To the first enterprising capitalist who embarks in such an undertaking, and produces, among other castings, railings of a diversity of pattern, at a moderate cost, we can promise a speedy fortune.

Wooden palings and corrugated iron should now give place to light and fanciful ironwork, possessing, as the latter does, every superiority over the former in point of beauty, strength and durability. Corrugated iron, in spite of the ingenuity shown to impart to it an ornamental character (as may be witnessed in the case of the fencing which surrounds the Legislative Council Chambers) possesses little to recommend it to the eye over a dwarf brick wall.

No better time than the present can be devised for commencing the manufacture of cheap metal castings, when the authorities have under their consideration the enclosure of our public parks, squares and gardens.<sup>41</sup>

Graeme Robertson interpreted that item, together with an advertisement later in the year, wherein iron railings are mentioned,<sup>42</sup> as marking the appearance of Melbourne's 'iron lace', notwithstanding that he could offer no supporting documentation for another fourteen years.<sup>43</sup> There are in fact other references over those years, as we shall see, but both the *Builder's* comments and the subsequent advertisement must be taken to refer to iron palisade fences, not to iron lace. So also, in the absence of evidence to the contrary, we must interpret a reference to 'ornamental iron-work of a very tasteful description' being produced in 1857 at the Langlands and Fulton foundries,<sup>44</sup> and one in 1860 to the fact that the better houses were 'often fenced off from the street or road by handsome iron railings or gates'.<sup>45</sup>

The development of a Victorian, as opposed to a Regency style, arose from two tendencies. The first was the importation and imitation of the more advanced British designs. The second was the emergence of local designers and modellers, especially in Melbourne. An example of the first is a set of

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<sup>40</sup> F Lancelott, *Australia as it Is* (2 vols, London 1852), II, p 79.

<sup>41</sup> *Australian Builder*, 10 (7 May 1856), p 79.

<sup>42</sup> *Australian Builder*, 13 (29 May 1856), p 101.

<sup>43</sup> E G Robertson, *Victorian Heritage* (Melbourne 1960), p 59.

<sup>44</sup> P Just, *Australia* (London 1859), p 289.

<sup>45</sup> L A Meredith, *Over the Straits* (London 1861), p 96.

delightful curvilinear balustrade panels on the Sandhurst Grammar School, Bendigo, of 1885. The pattern has been found in the 1875 catalogue of Jenkins & Law, Birmingham, but whether the iron is theirs or an imitation has not been established.<sup>46</sup> There were a number of active Bendigo foundries capable of turning out imitation castings, just as it is known that a number of Australian makers used pieces from Walter Macfarlane of Glasgow as models..

Many MacFarlane designs appear in the 1887 catalogue of Fulton's foundry in Adelaide.<sup>47</sup> Some of the same designs are repeated in the 1897 catalogue of C Stewart and A C Harley's 'Sun' foundry in Adelaide,<sup>48</sup> and one of them was also regularly used by the North Queensland builders, J & J Rooney, as, for example, at Tattersall's Hotel, Townsville, of 1887. Here the iron is locally branded, showing that it is an imitation rather than the genuine Saracen Foundry product.<sup>49</sup> In the case of Fulton's castings in Adelaide, Turner has observed that they are fractionally smaller than MacFarlane's originals, showing that they are second generation castings, taken off MacFarlane's product rather than a wooden pattern, and therefore undergoing a further contraction on cooling.<sup>50</sup> One palmette pattern appears in the Fulton Catalogue in almost exactly the same dimensions as the original, and in larger rather than smaller dimensions in the 'Sun' catalogue. It reappears in three locations in Perth, but whether in the form of authentic MacFarlane casting, copies from imported castings, or a new pattern based on the MacFarlane original.<sup>51</sup>

A MacFarlane pattern appears on Matthew Rooney's house in Townsville, of 1885, and Peter Bell believes it be the genuine imported article rather than an imitation. He asserts that 'the panels have been fabricated by welding cast elements: the technique is a compound of cast and wrought iron', a claim which deserves to be treated with some scepticism. More weight should be attached to another of Bell's points - that the iron is not branded - whereas MacFarlane's catalogue states unequivocally that their brand appears 'on every casting'.<sup>52</sup> It seems, therefore, that this work is a local imitation. Similarly a modified version of a MacFarlane pattern, cast single-sided and probably of local make, is on the Yungaba Migrant Hostel, and was on the Belle Vue Hotel in Brisbane, now tragically demolished.<sup>53</sup>

Local production on any scale seems to date in Melbourne from about 1860. In that year the quartz mining boom burst, and it seems that the local founders, who until now had been flat out making machinery, suddenly found it worth turning to ornamental ironwork, and marketed it at prices equivalent to

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<sup>46</sup> Mike Butcher & Wayne Gregson, *A Year in the Heritage of Bendigo* (Bendigo 1992), p 15.

<sup>47</sup> Turner, *Australia's Iron Lace*, p 78.

<sup>48</sup> Turner, *Australia's Iron Lace*, p 78.

<sup>49</sup> Turner, *Australia's Iron Lace*, p 91-3.

<sup>50</sup> Turner, *Australia's Iron Lace*, p 80.

<sup>51</sup> Turner, *Australia's Iron Lace*, pp 100-101.

<sup>52</sup> Peter Bell, *Timber and Iron* (St Lucia [Queensland] 1984), pp 160-1.

<sup>53</sup> Turner, *Australia's Iron Lace*, pp 133-5.

the English imports. In his 1862 builders' pricebook Charles Mayes lists examples of the first indisputably Melbourne manufactured 'iron lace':<sup>54</sup>

Balconies of various patterns, fixed, from cwt.)	30/- to 34/- (per
Ditto light	34/- to 36/-
Balconies, large honeysuckle pattern, fitted with wrought iron top rail and standards, fixed complete, per foot run	8/- to 10/-
Ditto, plain Gothic, do. fixed	7/- to 9/-
Ditto, very richly ornamented, p.l.ft., fixed	10/- to 12/-
Ditto, plain diamond pattern, do.	5/- to 6/-

Mayes's categories are taken directly from *Laxton's Price Book*,<sup>55</sup> the English work upon which is own was modelled, and they provide no evidence whatever of any locally emerging design characteristics. It appears, nevertheless, that many patterns were being designed locally (in contrast to the situation in Sydney), first by William Fulton (no relation of the ironfounder) and then by Angus McLean, David Livingstone and William Hutchinson. In 1866 William Hutchinson showed at the Intercolonial Exhibition balcony panels, which were said to be of good design and weighed about nine kilograms, while Russell & Co of Sydney showed balcony panels, and garden chairs cast with iron from the Fitzroy Mines.<sup>56</sup> One can only begin to get a more detailed picture of local work from 1870, when the Victorian Government instituted a system of registering designs - the equivalent of copyrighting them. Between 1870 and 1890 thirty-three manufacturers registered 161 designs, of which 48 were from the one firm of Angus McLean.<sup>57</sup>

It would be rash to suppose that there was a uniform pattern of stylistic development, especially when some designs remained in use for thirty or more years, and when others were borrowed from overseas patterns. However, it is possible to discern certain tendencies. In the tradition of the honeysuckle pattern, some very wide panels appear at early dates, and so do arrays of single palisade bars. The phase of wide panels is most distinctively represented by the balcony balustrade of a chemist's shop of 1865 in Queen Street, Brisbane, designed by Benjamin Backhouse. The panels are of a criss-cross pattern, apparently of cast iron, but so extremely light as to resemble wrought iron.<sup>58</sup>

After single palisade bars, with or without some cast ornament, the development of narrow panels seems to follow - in some cases still alternating with single bars. A further development is to cast into panels a

<sup>54</sup> C B Mayes, *The Australian Builders' Price-Book* (Melbourne 1862), p 99.

<sup>55</sup> William Laxton, *Laxton's Builder's Price Book for 1863* (43rd ed, London 1863), p 118.

<sup>56</sup> Intercolonial Exhibition of Australasia, 1866-67, *Official Record* (Melbourne 1867), pp 328, 333.

<sup>57</sup> David Saunders [ed], *Historic Buildings of Victoria* (Melbourne 1966), p 38.

<sup>58</sup> Donald Watson & Judith McKay, *Queensland Architects of the 19th Century* (Brisbane 1994), p 12.

design which is essentially made up of bars, but now giving an effect of greater continuity. Generally similar in date in Australia, though going back to some of the earliest balcony iron designs in Britain, are normal width panels, say 400 mm or 500 mm, and then these too are developed in more distinctively local fashion to create a continuous pattern. Until the 1860s any upper decoration was confined to brackets and drops, and possibly a fringe or valence, but then a full depth frieze became fashionable, with a horizontal timber rail below it and sometimes a fringe below that. Finally, towards 1880, the rail began to be eliminated to unite frieze, brackets and fringe into a continuous all-over pattern - the famous iron lace appearance.

Because ornamental cast iron became so abundant in 1880s, it is difficult to recognise the more diverse and innovative character of previous years. Some of the first iron registered in Victoria was designed by Davidson & Henderson, Geelong architects who were influenced by Viollet-le-Duc.<sup>59</sup> One of their designs is to be found in the verandah at 'Narrapumelap' homestead, of 1873-8. This has the timber frieze bar so characteristic of the decade, and the curved brackets below the frieze are labelled as being registered by Davidson & Henderson on 18 July 1870. These are perhaps less characteristic of their work than the columns which are not specifically attributed, though they bear the mark of the ironfounder, Humble & Co of Geelong. The shaft is slender and unfluted (unusual in Victoria) and the elongated foliated capital, which is almost Egyptianizing in character, suggests Davidson & Henderson. The frieze iron, though less specifically in the style of these architects, is a more innovative and complex design, which defies description but suggests a sophisticated origin.

Although some architects designed houses using cast iron, by the 1880s leading designers tended to disapprove of the material. The firm of Terry and Oakden put it this way:

In this colony we cannot perhaps dispense with cast-iron verandahs altogether, but great care and thought should be used in the selection of the pattern. The finical frieze and fringe which form the prominent features in so many of our suburban villas are excellent as designs for lace and crochet work, but adapted for no other use that we can see; wrought iron, though preferable, will be found too expensive for general use; the Italian system of stone balconies and balconettes, forming an integral part of the design, is much more architectural.<sup>60</sup>

Thus it is clear that 'lace' in this context was originally a pejorative term. The detail shows the frieze/valence and the traditional palisade fence at ground level. The Sydney architect John Barlow spoke even more strongly of iron

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<sup>59</sup> They included Victorian registration no 11, of June 1870, for a 'metal hand-rail' [actually a balcony panel]; no 12, of June 1870, for a metal bracket; nos 14, 15, 17 and 17, all of July 1870, for cast iron brackets; nos 18, 19 and 20, of July 1870, for cast iron friezes; nos 21 and 22, July 1870 (the first of them very oddly shaped).

<sup>60</sup> Terry & Oakden [architectural partnership], *What to Build and How to Build It* (Melbourne 1885), p 7.

bedecked terraces 'with their hideous iron balconies and preposterous parapets ... pitiful in their vulgarity, dispirited, dyspeptic.'<sup>61</sup> By 1918, when this form of decoration was totally discredited, it was clear enough to A B Wilson that 'Friezes and brackets of cast iron have not been a success. The roof masses have always appeared too heavy from the slight appearance of support given by the posts.'<sup>62</sup>

#### **d. regional variations**

Some of the best examples are found in gold mining towns, largely because they were the towns which had foundries, and also no doubt because they were prosperous, and were distant from the disapproving eyes of architects like Terry & Oakden. By the 1880s Bendigo had at least three foundries producing ornamental iron. Joel Horwood, son of a prominent Adelaide ironfounder, set up at his Bendigo Ironworks in mid-1856 as an ironfounder, engineer and millwright, with a competent patternmaker who had been associated with him in Adelaide, and by 1860 he had a staff of thirty tradesmen and an unspecified number of labourers.<sup>63</sup> In 1862 he opened a branch at Inglewood which supplied castings for stamp batteries, and in 1868, with his brother John William Horwood, he bought the Albion Foundry in Castlemaine.<sup>64</sup> Of the many other foundries which followed in Bendigo, William Challinder's Phoenix Foundry in Creek St by 1886 advertised capital heads, brackets, balcony panels &c, and sold an enormous range of builder's ornamental ironwork. The foundry was bought by Carter, Brown & Redpath in 1888, and continued to produce these items.<sup>65</sup> A third Bendigo establishment was the City Foundry of George and Francis Gripe (subsequently James Watts, then William Ruddock), and a fourth, by the end of the century, was Dunn & Redpath.<sup>66</sup>

At Castlemaine the Imperial Hotel has a delightful pattern which was produced locally at Joel Horwood's foundry. The now demolished Ballarat Orphanage was a most extravagant example, but what is more important at Ballarat is the local style of openwork verandah supports in the form of pilasters, as opposed to the solid columns always found in Melbourne. There are two standard Ballarat designs, one of them a distinctive strawberry pattern. Similarly, an openwork pattern was produced by the Phoenix Foundry

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<sup>61</sup> *Australasian Builder and Contractor's News*, 10 December 1892, p 283, quoted in Morton Herman, *The Architecture of Victorian Sydney* (Sydney 1956), p 153.

<sup>62</sup> A B Wilson, 'Domestic Architecture for Tropical and Subtropical Australia', in *Second Australian Town Planning Conference, Volume of Proceedings* (Brisbane, no date [c 1918]), p 145.

<sup>63</sup> Matthew Churchward, 'Bendigo Foundries and Engineering Works', in Mike Butcher & Yolande Collins [eds], *Bendigo at Work: An Industrial History* (Strathdale [Victoria] 2005), pp 33-4.

<sup>64</sup> Churchward, 'Bendigo Foundriess', p 36.

<sup>65</sup> *Bendigo Evening News*, 30 July 1886, reproduced in Churchward, 'Bendigo Foundries', p 40; also Churchward, pp 44, 45.

<sup>66</sup> Mike Butcher & Y M J Collins, *An American on the Goldfields: the Bendigo Photographs of Benjamin Pierce Batchelder* (Strathdale [Victoria] 2001), p 112.

at Bendigo.<sup>67</sup> The only other openwork pilaster in Victoria is the one at Port Fairy which was manufactured in Sydney. Thus in Victorian provincial towns, as in Sydney and Melbourne, it is possible to identify local styles in ironwork because it comes from local foundries.

In places where there are no local foundries ornamental cast iron is less used, and may come from a long distance away, especially if the building is near a port and/or a railway line. The iron at 'Tahara', in northern Tasmania, for example, is Melbourne-made. At 'Chatsworth', Hopkins Hill, in the west of Victoria, the iron brackets, which seem to have been added later in the century, bear the mark of A T Rees of Adelaide.<sup>68</sup> In Adelaide the iron patterns tended to derive from Victoria, but local foundries became involved in manufacturing it. The first edition of the catalogue of the Sun Foundry in Hindley Street, of 1897, shows these patterns, and in 1914 they are mostly unchanged.<sup>69</sup> Amongst them are pirated MacFarlane designs, as already noted, and some of the more extravagant patterns originating in Melbourne.<sup>70</sup>

In Queensland decorative iron made little impact until the 1870s, but by the early 1880s Richard Godfrey had emigrated from Victoria, bringing three hundred patterns, to establish the firm of Richard Godfrey & Sons of South Brisbane, which specialised in ornamental work. Harvey, Sargeant & Co, established in 1882, also had a wide range of balcony iron. The first locally registered design in 1885 was in the names of J Crase and A T Rees, but identical with a design registered by Rees in New South Wales two years earlier. Crase and Rees registered other A T Rees designs, and they were presumably made at the John Crase & Co foundry in Brisbane.<sup>71</sup> In northern Queensland, just as in Victoria, ornamental iron was produced by the foundries which had been established to supply the mining industry. Such foundries were Deane & Sadd of Charters Towers, from 1878; Walton of Charters Towers; Stuart & McKenzie's Union Foundry at Croydon from 1891; Smalley & Burns of Townsville; and Brand & Drybrough of Townsville. But the market was limited and the range was small so that, according to Bell, almost every design found in the region appears also in the catalogue of John Crase & Co of Brisbane.<sup>72</sup>

In Western Australia ornamental cast iron generally is later than elsewhere, and began to be popular in the 1880s. It was at first imported, some from overseas, but most from the eastern colonies. In 1883 Charles Harper (not Thomas Harper as per Gilowitz, or Charles Harpur as per Turner) ordered the

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<sup>67</sup> Butcher & Collins, *An American on the Goldfields*, p 112, report it at 'Nyora', 59 Victoria St, Eaglehawk. See also Mike Butcher & Gill Flanders, *Bendigo Historic Buildings* (Bendigo [Victoria] 1987), p 122.

<sup>68</sup> Information from Allan Willingham, 1993. Willingham has taken rubbings in two places and reports finding 'Registered at Rees & Co [?Foundry] February 25th 1854', but the year is clearly incorrect, and 1894 seems more probable.

<sup>69</sup> Katrina McDougall, 'A Preference for Stone', in Trevor Howells [ed], *Towards the Dawn* (Sydney 1989), p 136.

<sup>70</sup> Turner, *Australia's Iron Lace*, p 80.

<sup>71</sup> Turner, *Australia's Iron Lace*, p 85.

<sup>72</sup> Bell, *Timber & Iron*, pp 159-161.

cast iron for his house 'Woodbridge', West Midland, from Yates, Harwood & Co and the Rotherham Foundry Company Ltd, in England.<sup>73</sup> At 'Hillside', Albany, of 1886, the columns bear the brand of Revell Adams & Co's Vulcan Foundry, Adelaide,<sup>74</sup> and in Perth Moshe Gilowitz has noticed a number of examples made by G E Fulton & Co of Adelaide.<sup>75</sup> The Windsor Hotel in South Perth and the Rose Hotel in Bunbury, of about 1900, both have panels of designs which appear in Adelaide's 'Sun' foundry catalogue of 1897.<sup>76</sup> This does not necessarily mean that the iron was imported for when iron began to be made locally, it was - as usual - commonly of patterns which were themselves imported, as in the case of a pattern registered by A T Rees in 1883, which appears on Jones's Folly of 1886.<sup>77</sup> Although the registration of designs began in Western Australia in 1870, the first cast iron patterns were registered locally only in 1892 - two friezes and a bracket, lodged by the West Australian Foundry Company.<sup>78</sup> But even in 1903 the *West Australian Mining, Building and Engineering Journal* was advertising verandah iron and corinthian columns cast by William Stephens's Excelsior Foundry, South Melbourne.<sup>79</sup>

Fred Metters senior had emigrated from Cornwall to Victoria, and in the 1880s three of his sons formed a partnership to manufacture stoves in Melbourne. Fred Metters junior withdrew from this partnership to establish his own business in Victoria St, Adelaide, and later an office and showroom in Hindley Street. In 1894 he visited Perth and established a branch in premises leased from H L Spring, but the stoves were all shipped from Adelaide until 1896, when he began manufacturing them in East Perth. In 1898 the firm became Fred Metters & Company, and opened the Great Western Foundry in what was then Marquis Street, West Perth.<sup>80</sup> Up to now the business appears to have been all in stoves rather than ornamental iron, but in about 1911 a new foundry was established at Subiaco, and the 1914 catalogue contains many ornamental iron patterns derived from the Sun Foundry in Adelaide.<sup>81</sup>

In New Zealand ornamental cast iron was largely confined to Dunedin and Auckland,<sup>82</sup> but some foundries elsewhere, like Hosking Bros of Palmerston North, were producing ornamental cast iron well into the twentieth century.<sup>83</sup> In Australia likewise, iron balcony panels were advertised by Lassetter & Co

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<sup>73</sup> Gilowitz, 'Cast Iron in Perth', citing correspondence in the Battye Library.

<sup>74</sup> Noted by the writer.

<sup>75</sup> Gilowitz, 'Cast Iron in Perth'.

<sup>76</sup> Turner, *Australia's Iron Lace*, pp 115, 129.

<sup>77</sup> Information from Ian Molyneux, 1990.

<sup>78</sup> Gilowitz, 'Cast Iron in Perth'.

<sup>79</sup> *West Australian Mining, Building and Engineering Journal*, 31 October 1903, p 23, as advised by John Taylor, 2007.

<sup>80</sup> 'Metters Limited. Perth Branch. History' [typescript], reproduced in Gilowitz.

<sup>81</sup> Information from Ian Molyneux, 1990.

<sup>82</sup> Michael Fowler & Robert Van De Voort, *The New Zealand House* (Auckland 1983), p 54.

<sup>83</sup> As at 77 Te Awe Awe Street, Palmerston North, designed by L G West (1904) 1906: E D Woodhouse, *Colonial Houses of Palmerston North* (Wellington 1975), p 25.

of Sydney as late as 1914, and were used in some country areas as much as a decade later still.<sup>84</sup>

### ***e. the Angus McLean column***

A new type of column, cheaper and lighter than cast iron, was patented in 1873 by Angus McLean,<sup>85</sup> a patternmaker in the ironfounding industry, and later a founder in his own right. His column had the appearance of a regular cast iron verandah or balcony column, but in fact used much less iron and was lighter and cheaper. It consisted of:<sup>86</sup>

an outer casing of galvanized sheet iron, with a core in the form of an iron pipe, angle [or] T iron, the spaces being filled with cement and clean sharp sand as a concrete; the capitals and bases are of cast zinc.

By 1892 McLean's name was said to be 'safe for immortality' in connection with his patent columns. The composition was said, rather remarkably, to be two of parts cement to one of sand, and the columns were not put forward as inferior substitutes for cast iron but said to 'present the appearance of being made of solid iron, while they exhibit a degree of smoothness and polish which is quite unattainable in cast iron columns,' even though they cost 30% less.<sup>87</sup> Indeed it is interesting that whilst architects like Terry & Oakden generally reprehended ornamental cast iron, Frederick Harrison of Deniliquin could refer to the hundreds of available cast iron friezes and spandrels which 'with McLean patent columns, form a very handsome, durable, and by no means costly facade.'<sup>88</sup>

McLean's columns with some variations, such as bases also encased in sheet iron, spread through Melbourne in the 1870s, and an early surviving example is a house at 50 Newell Street, Footscray, of 1875. They were used in South Australia as early as 1873-5, at Struan House, Struan,<sup>89</sup> but given the location (on the Naracoorte-Penola Road), and the fact that the house was designed by W T Gore of Melbourne, it is likely that they came from Melbourne. They were also to be found at 'Ochiltree House', East Terrace, Adelaide (where they have since been replaced),<sup>90</sup> and 'Fulton Court', 185

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<sup>84</sup> Turner, *Australia's Iron Lace*, p 105.

<sup>85</sup> Victorian patents nos 1816, 1816A, to Angus Maclean [*sic*], 2 September 1873, for an improved method of constructng posts, pillars and columns.

<sup>86</sup> C E Mayes, *The Australian Builders' and Contractors' Price-Book* (7th ed, Sydney 1908), p 300. For Angus McLean see Victorian Exhibition, 1861, *Catalogue* (Melbourne 1861), p 216; Intercolonial Exhibition of Australia, 1866-7, *Official Record* (Melbourne 1867), p 35; Alexander Sutherland [ed], *Victoria and its Metropolis* (2 vols, Melbourne 1888), II, p 612; James Smith [ed], *The Cyclopedia of Victoria* (3 vols, Melbourne, 1903-5), I, p 565-6.

<sup>87</sup> *Australasian Builder and Contractor's News*, 9 July 1892, pp 22-3.

<sup>88</sup> *Building and Engineering Journal*, 10 August 1889, p 131.

<sup>89</sup> Danvers Architects, *Heritage of the South East* (Adelaide 1984), no page: heritage sheets item NAR:001.

<sup>90</sup> Information from Paul Stark, 1991.

Portrush Road, Maylands, of 1882-3 (where they survive).<sup>91</sup> It is likely that these examples were made in Adelaide, for by 1885 the columns were being manufactured there by Revell, Adams & Co, who advertised that they were cheaper than wood.<sup>92</sup> It has yet to be established whether a local patent for verandah and balcony posts, announced in 1878 by W R Farrent,<sup>93</sup> was an extension of the McLean patent. Meanwhile McLean's columns were being used in Sydney by about 1880,<sup>94</sup> and in Brisbane by 1883, though whether manufactured in those cities is not clear. One example is the Coronation Hotel in South Brisbane. Ultimately they were exported even to Cape Town.

It is interesting that whilst architects like Terry & Oakden generally reprehended ornamental cast iron, Frederick Harrison of Deniliquin was prepared to refer to the hundreds of Australian cast iron friezes and spandrels which 'with McLean patent columns, form a very handsome, durable, and by no means a costly facade'.<sup>95</sup>

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<sup>91</sup> Information from Katrina McDougall in the course of restoring the building, 1993.

<sup>92</sup> Advertisement from an 1885 directory, reproduced in Turner, *Australia's Iron Lace*, p 80.  
<sup>93</sup> *South Australian Register*, 15 May 1878, cited in E & R Jensen, *Colonial Architecture in South Australia* (Adelaide 1980), p 575.

<sup>94</sup> Mayes, *Australian Builders' Price-Book* (1883), p 168.

<sup>95</sup> *Building & Engineering Journal*, 10 August 1889, p 131.