16. Western Plains

The region comprises an attenuated Western Division drained by the Darling River, and with the lower Murray as its southern boundary. The whole area is semi-arid grazing country in a fragile state of unimproved and much-degraded vegetation.

Bordering the Darling, Paroo and Cuttaburra Creek are black-soil plains, with degraded Mitchell Grass in the north and degraded saltbush in the south. The interflue between the Darling and Murrumbidgee is covered with sandy colluvial soils carrying limited grazing, while the red soil areas west of the Darling have saltbush and mulga grazing and artesian bore development. The whole is held in large grazing leases; it has long been government policy to reduce these to living area size.

West of the Darling solid geology penetrates the Pleistocene and Holocene alluvials and colluvials in the Barrier Ranges and Mt Browne which provided access to minerals, notably at Broken Hill, Milparinka and Thabeburra. In the far northeast, dunes intrude from the central desert region. There are many dry lakes, active and important for Aboriginal occupation 25,000 to 15,000 BP, and mallee vegetation occurs in the southwest. The Darling was navigable.
LOCAL GOVERNMENT UNITS

CITY
Broken Hill

SHIRES
Balranald, Bourke, Brewarrina,
Carrathool,
Central Darling, Cobar, Hay, Walgett
Wentworth

UNINCORPORATED
Western Division
ABORIGINAL PEOPLE

In the huge area bisected by the Darling River, there were some fifteen major groups of Aboriginal people [Fig 16.1]. Those who had the river frontages of the Darling, Barwon, Warrego, Paroo, Lachlan and Murray had ready access to relatively secure food supplies than the people of the backblocks and the mallee.

Along both banks of the Lachlan, right through Carrathool and Hay shires to its junction with the Murrumbidgee, were the westernmost of the Wiradjuri, whose heartland lay further to the east, in the Murrumbidgee, Lachlan and Central Tableland heritage regions. Neighbours to the Wiradjuri in Balranald Shire were the Jitajita. Along the north bank of the Murray west to the Darling junction were the Kureinui and beyond the junction, around Lake Victoria and the Anabranch, were the Maraura, who hunted in the mallee of South Australia each winter. This area along the Murray encouraged the most consistently close settlement before Europeans arrived. The river banks had many well-trodden pathways and bark canoes made the Murray a major Aboriginal thoroughfare. The fish, shellfish and tortoises in the river were supplemented by fruits, nuts, yams and edible grasses in the adjacent countryside.

To the north, the Darling offered similar, though less consistent, advantages. The large groupings known as the Barkindji were the dominant occupants of the lower Darling, which was known to them as the Barka; the Barkindji are literally the Darling folk. The southern boundary of the Barkindji was quite close to the Murray junction, where Wentworth now stands, and they controlled the northern part of the Great Anabranch. Their group lands extended upriver beyond Wilcannia and their good relations with the Parundji who straddled the Paroo in the north expanded the Barkindji area into Queensland.

On the middle Darling, south of the Warrego junction, the Anbalso inhabited the west bank and upstream the Ngemba had the eastern frontages around Bourke and Brewarrina, the Baranbinja and the Ualarai the western.

All these people had ready access to the major river systems of the north, the Paroo and the Darling (including the Warrego, the Barwon and the Barwon tributaries). These people of the Darling used the river in the same way as the Murray Aborigines enjoyed that more dependable waterway. They too made bark canoes, unlike the Parundji who did not travel on the Paroo River at all. Since food was less easy to obtain in the Darling, the use of fishing aids is more impressive here than on the Murray. Although weirs were not unknown on the Murray, the stone dam just below the Warrego junction and the Brewarrina fish-traps are justly famous examples of water management by the Aborigines of the Upper Darling. In 1848 the Commissioner of Crown Lands, W.C. Mayne, described the rock traps constructed by the Ngemba at Brewarima [Fig 16.2].

In a broad but shallow part of the head of the River where there are numerous rocks, the Aborigines have formed several enclosures or Pens, if I may use the word, into which the fish are carried, and there retained. To form these must have been a work of no trifling labour, and no slight degree of ingenuity and skill must have been exercised in their construction, as I was informed by men who had passed several years in the vicinity, that not even the heaviest floods displace the stones forming these enclosures.

The Aborigines catch immense quantities of fish in these and are enabled also to destroy great numbers of fishing Birds of various kinds that are attracted to them by their prey thus imprisoned.128

The remaining Aboriginal groups of the Western Plains had only occasional access to the rivers, usually in drought and excessive heat. On the east, between the Darling and the Lachlan were the Barindji and the Wongaibon. On the west, in the corner country, the principal groups were the Wiljakali around Broken Hill, the Maliangapa on the seasonal lakes south of Tibooburra and right on the Queensland border the Karenggapa. Those groups nearest to the Darling might more regularly visit: the Wiljakali of Broken Hill joined the Barkindji on Menindee Lakes each year. But the far
corner people looked out to the further west and north rather than south to the Murray-Darling.\textsuperscript{124}

In these arid lands, water management was quite effective: wells and tanks, sometimes several metres deep, conserved water and bark roofs inhibited evaporation. In the mallee of the west, the roots of trees acted as small water reservoirs which could be squeezed to supply a small but invaluable quantity of water fresher than any retained in the tanks.

It was the people of the mallee and the arid plains who survived European settlement longest. The Barindji, east of Menindee, still in the 1850s occupied scrubland with little European interference. The groups along the major rivers were already subject to much greater dislocation as the equipoise of their hunting, fishing and collecting was disrupted in the 1830s and 1840s. Although people like the Barkindji might fight back, their victories were shortlived. European settlers might abandon runs north of Menindee such as Tintinabling or Weinteriga in the 1850s, the overlanders might avoid the route down the Darling in these years, but the intermission was brief.

The introduction of steamboats on the Murray and Darling after 1853 brought a decisive change for the riverine Aborigines. The first steamboat voyage to the upper Darling was in 1859, when W.R. Randall reached Brewarrina. At Brewarrina the \textit{Gemini} was stopped by the fish-traps. The European reaction was ominous and characteristic:

\begin{quote}
I believe [Randall's captain recorded in the \textit{Gemini} log] that a passage may be very easily made through these rocks, so that steamers could ascend the rapids with the assistance of warps in seasons of moderate flood, when another 100 miles [160 km] would be open to navigation.\textsuperscript{125}
\end{quote}

The fish-traps were partly dismantled and paddle-steamers could occasionally go as far upstream as Walgett in the 1870s.

Already in the years before steam navigation, Aborigines on the Murray were working on stations and using their bark canoes to transfer bales of wool from the northern stations to the Victorian markets. But the steamboats accelerated the rate of change and brought it much further north. The Aborigines became timber cutters to feed the steamers' boilers; many became shearsers and cattlemen on the stations increasingly occupied in the 1860s and 1870s; Aboriginal women found employment as homestead domestic helpers and an increasing proportion bore children to settlers. The Ngemba were disrupted on the Darling and Barwon and the Parundji lost their Paroo frontages in the 1860s, a decade after the Barkindji. By 1871 on the Paroo stations:

\begin{quote}

nearly all the work is done by blacks, who are transferred from one employer to another, sometimes at a very low figure indeed. They make splendid shepherds and their rations are not very expensive, as they consist of six or seven pounds of flour, two pounds of sugar, no tea, a fig of tobacco with a sheep to the tribe once a fortnight.\textsuperscript{126}
\end{quote}

Only in the arid area on both sides of the lower Darling did traditional life continue into the 1870s. But mobility was essential to life in the mallee and the sandhills and in times of drought the Aborigines, deprived of the full range of their traditional options, were obliged to come into stations or missions to avoid starvation. By the 1880s the process was complete.

The people had no alternative but to graft European absurdities on to traditional camp life, for it could no longer be maintained in its pure form, and they were to some extent bewitched by the enchantment of the strange and the new. Thus it was partly for expediency, partly for novelty, that they made the adaptations which gave an appearance of squalor.\textsuperscript{127}

With the failure of most of the old paternalistic station owners during the depression of the 1890s, the Aboriginal position and population declined rapidly. Aboriginal reservations were created as displacement from the stations continued, under the Aborigines' Protection Act of 1909. The 275 hectare reservation at Poonearie

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south of Menindee had the most permanent housing: the reserves in the corner country at Milparinka and Tibooburra or at White Cliffs north of Wilcannia had intermittent communities in tents. The influenza epidemic of 1919 devastated the remaining Aborigines. Some of the survivors were put on to a new reserve at Menindee in the 1930s and the last community of 70 Maliangapa living in the corner country in something like a traditional style was in 1936 trucked against its will to Brewarrina. In Bobbie Hardy's words, they had simply been 'squeezed out from the land which gave them continuity and contentment.'

EARLY EUROPEAN SETTLEMENT

The 'seeming interminable flat' of the Western Plains, approached from South Australia by Sturt in 1829 and from the northeast by Mitchell in 1835, was gradually occupied by squatters in the 1840s. There were already wild cattle on the Darling in 1829, escapes from South Australian herds, and new stock were congregated also around the reasonably dependable waterways. The overlanders' route from the Namoi in the north down the Barwon and the Darling to the Murray in the 1840s created the need for small isolated supply towns at places where the rivers could be easily forded. The location of the Commissioner for Crown Lands first at Balranald in the late 1840s and then at Euston after 1853 both reflected and encouraged the growth of these townships. The entire west Murray and lower Darling frontages had been divided into stations by the mid-1840s, with absentee owners like Thomas Darchy at Boyong or George Hobler at Nap Nap and Faika or C.W. Wentworth at Tala [Fig 16.3]. To the south at Boomiarcool Edmund Morey had settled with his sheep and cattle in 1846 and built a wooden homestead and outbuildings which are still in use today.

On the upper Darling, in the Warrego country extending from Bourke far into Queensland, settlement came in the 1840s from the pastoral areas to the east and southeast, along the Bogan, Castlereagh, Namoi and Gwydir Rivers (Fig 16.4). By 1850 the best grazing lenses had been taken along the Barwon and the Mooni, by 1859 also on the east bank of the Warrego and right along the Culgoa, Birrie, Bokhara and Narran Rivers up to and beyond the Queensland border. The backblocks between the Barwon and the Narran and much of the extensive arid area between the Culgoa and the Warrego had been taken up in the early 1860s during the general land boom (Fig 16.5).

Before 1860 cattle had been the most important element in the pastoral economy of the Western Plains close to the major rivers. Sheep were not unimportant, but they were consistently outnumbered and, since six sheep can graze on an area which will support only one steer, the hectarage devoted to sheep was quite small. In the Warrego district in 1859 where there were 39,000 cattle and 28,000 sheep, the sheep required only 12% of the area needed by the cattle.

The wool-clip was not unimportant in the 1850s and the Aborigines plied a brisk trade in their canoes ferrying Darling wool across the Murray, but cattle reigned supreme until the steamboat came.

RIVERBOATS

The first steamboats started to ply the Murray in 1853 and by 1859 their range was extended to the Darling. Although the Darling was never a dependable waterway, the impact of the riverboat and the wool-barge in the last third of the nineteenth century was very great. The 1870s were relatively wet and the Darling was unusually navigable, even beyond Brewarrina: in the floodwaters of 1879 the steamer Brewarrina even managed to get to Collarenebri, eighty kilometres upstream from Walgett,134 while another paddle steamer was said to have crossed from the Darling to the Paroo and thence to Queensland during a similar flood.135

The river trade continued as the vital route for wool to Echuca (the Victorian railhead) or to Goolwa in South Australia, and declined only in the twentieth century. On the upper Darling, however, the purpose of the river traffic changed when the railway reached Bourke in 1885. This turned Bourke into the Echuca of the Darling, for, instead of steamers going all the way down to the Murray, a feeder service to Bourke developed instead. Thus, when the Davidson weir was built on the Darling in 1897 to improve Bourke's water
REGIONAL HISTORIES
OF NEW SOUTH WALES

supply, a lock (the only lock anywhere on the
Darling complex) was also constructed to allow
the wool-barges to reach the railhead. In the
twentieth century, however, the river trade
decayed in the upper Darling as in the lower and
the last wool shipment along the river to Bourke
railway station was delivered in 1931.

Most of the surviving steamboats are found in the
Murray heritage region: the Canberra, Etona,
Pevensey, Adelaide at Echuca, the Gem at Swan
Hill, wool-barges at Swan Hill, Moama and
Echuca, the Pyap of 1898 plying a tourist trade
from Swan Hill. Within the Western Plains region
the former barge Wanera, built in 1900 at Echuca
and converted to a steamer in 1911, plies the
Darling as a tourist vessel out of Mildura. The
Melbourne also travels the Murray from its base
at Mildura, where several other early barges and
paddle-steamers have been restored. At
Wentworth, on the Murray-Darling junction, the
Reliance operates regularly.

Naturally there were numerous shipwrecks on
these inland waters; some of the wrecks are of
considerable interest. The burnt-out hulk of the
82-tonne wooden steamboat Hero, built at
Echuca in 1874 and used as a Boundary Bend
(Vic) timber mill until it was burnt in 1959, is
easily visible a few kilometres west of the
Murray-Murrumbidgee junction.¹²¹

At Wentworth the hull of the Rodney in the
Darling is an unexpected aspect of the shearers'
strike of 1894. The Rodney was used to transport
strike-breaking shearers to Moorara station and
in exasperation the Wentworth strikers burned
the steamship. Although the Rodney's boiler and
machinery were salvaged in 1895, the hull
remains and is visible when the Darling is low.¹²²
The remains of the Rodney encapsulate much of
the regional history: pastoralism, the river trade,
the water-frontage stations, the tensions with
the shearers' union, the uncertainties of the
Darling flow.

Trade along the Barwon between Brewarrina and
Walgett is also commemorated in the wreck of the
Wandering Jew. This 66-tonne paddle steamer
was built in 1866 at Echuca. It plied the Murray-
Darling for over half a century and latterly was the
last paddle-steamer on the Barwon. In 1912 it went
into retirement at Brewarrina, where it burnt to the
waterline in 1916. Like the Rodney, the Wandering
Jew is highly visible (just above Brewarrina weir)
when the river is low.¹³³ It is a potent symbol of the
breaching of the Aboriginal fish-traps.

Although the large majority of the riverboats was
built in Victoria, particularly at Echuca, or in
South Australia, at Goolwa, there was a small
industry in the building of wooden steamboats at
Wentworth: the Warrego (1865), the Emu (1867)
and the Mystery (1884) were all constructed
there.¹³⁴ A limited amount of shipbuilding was
also undertaken at Wilcannia, where the 13-tonne
Mary Ann was launched in 1886.¹³⁵

RIVER TOWNS
As a result first of overlanding cattle and then of
servicing the steamboat trade of the later colonial
period, towns grew up along the Barwon, the
Darling and the Murrumbidgee. Almost all of
these townships were laid out and officially
organised in the 1850s and 1860s. Balranald, Hay
and Maude on the Murrumbidgee were gazetted
in 1851, 1859 and 1861 respectively. On the
lower Darling Wentworth was created in 1859 and
Menindee in 1863. On the central Darling
Wilcannia received town status in 1866 and on
the upper part of the Darling and Barwon,
Walgett, Bourke, Brewarrina and Collarenebri
were all constituted between 1859 and 1867.

The two decades after 1850 therefore created all
the river towns of importance. The beginnings
were small: Balranald was described in 1853 as
'this obscure and miserable township'.¹³⁶ Even
after the river trade developed the towns
remained small: in 1874 Wilcannia was 'anything
but prepossessing in appearance; the buildings on
the whole being of a very poor description,
principally small weatherboard places'.¹³⁷

The better known buildings of these towns that
date from the 1880s are the gaol, police station,
court-house, Athenaeum, hospital and brewery at
Wilcannia, the court-house at Walgett, the banks
in Bourke (the London Bank of 1881 and the CBC
1883 building demolished in 1959), the post

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office, court-house and hospital at Hillston on the Lachlan. The development of Brewarrina had taken place a little earlier, with the Mechanics’ Institute opening in 1873 and the gaol at Wentworth was built in 1879, but the 1880s was the main period for consolidation.

The wharf was a central feature of all these river towns and it is an emotive part of the surviving fabric of Balranald, Brewarrina, Euston, Maude, Wentworth and most of all Wilcannia. The whole design of Wilcannia, with its dozen public buildings all ranged along the Darling, and the great wharf in a central position beside the 1896 opening bridge, is a marvellous summation of a vanished way of life on the western rivers (Fig 16.6).

AWAY FROM THE RIVERS: WATER AND SETTLEMENT

There are huge areas of the western plains which are far from the rivers. The regular supply of water for stock and graziers alike has always been a critical problem just as it caused concern to the original inhabitants. Even in the runa tolerably close to the tributary system of the Darling, options open to eastern farmers were closed: there are virtually no rock formations on the western plains so that dams and weirs are difficult to construct on the major rivers. Clay foundations are simply washed away in flood and the standard timber overshot dam of the colonial period was not employed because of the scarcity of suitable trees. In any case, when the Narran River was dammed around 1873, the river simply gouged out an alternative channel within a few years, bypassing the dammed section. As a result artificial drainage channels were rare and were on the Lachlan, not the Darling.

The red-soil country which dominated the plains away from the major rivers was quickly compacted by grazing animals. This was seen as an advantage by the graziers of the far north in the Bokhara channel country near the Queensland border because the compacting facilitated runoff of rainwater into the channels: these graziers in the 1880s claimed that thirty years earlier it had taken twice as much rainfall to fill the channels. But the effect of compacting on feed growth on the red-soil plains was serious and the improved flow of the outback channels was still very wasteful of water.

W.E. Abbott’s acute analysis of the water problem, read to the Royal Society of New South Wales in 1884, called for far more excavated tanks no more than ten kilometres apart. This cheap and effective palliative to water sheep was, of course, merely the European version of what the Aborigines had been doing for centuries.135

Dams on the creeks were also increasingly effective both for watering stock and for industrial purposes. The need to scour the greasy wool-clip to reduce weight was generally recognised and woolscours, either on stations and operated by hand, as at Mount Wood near Tibooburra,137 or in commercial mechanised plants on the navigable rivers, as at Bourke, were common by the 1890s. The station scours, such as Yancanna’s, installed in 1880, were characteristically associated with a small dam and a steam engine for heating the water and driving the pumps.136 The effect of all this on station layout is very well illustrated by the changes at Yancanna between 1867 and 1885 (Fig 16.7).

Some stations were fortunately sited for groundwater. This was particularly true of the arid region around Menindee Lakes. Kinchega station took advantage of the overflow lakes and flood channels of the black-soil flats not too far from the Darling. Kinchega’s 400,000 hectares supported 143,000 sheep in the 1880s, and the great shearing shed from that period is a characteristic symbol of the heyday of pastoralism, as are the conversion of the Menindee Aborigines into shepherds, the regular teams taking the wool bales to the Darling and the wool-barges, and all relying heavily on the husbanding of the water resources of the area. The conversion of this overflow water into a really permanent catchment did not occur, however, until the Menindee Lakes storage scheme began in 1960, controlled from the first successful dam in the Darling through the lakes, back into the Darling and the Anabranch. The innovations of the late nineteenth century were the sinking of deep wells and the tapping of the still deeper artesian basin.

Wells were costly. The Public Works Department in the 1860s established a string of wells on the main stock route from the Darling...
to the Lachlan and gradually improved the watering facilities on the far-west overlanders' route. Wells were sunk in large numbers by graziers but salinity was a perpetual problem. In the 1880s five out of six private wells sunk on the western plains reached salt water at a depth of less than 30 metres. Abbott told of one sheep station on which 19 wells had been sunk: only one had produced fresh water.\textsuperscript{141}

The change came with the exploitation of the Great Artesian Basin. Artesian water seems to have been tapped first on a sheep station back of Bourke: here on Kallara station, artesian water flowed in 1878, just before the scientific identification of the Basin. Kallara is on the southern edge of the Great Artesian Basin and a large area to the south of Bourke [including Cobar] has no access to the underground reservoir because of the depth of bedrock: the Murrurwi basin, however, extends from the Victorian coast as far north as Central Darling shire and provides bore water for the southern and western parts of the western plains. The Murrurwi water is, however, markedly more saline than the Great Artesian water, so it is used largely for watering stock in the west: along the Lachlan and Murrumbidgee, however, the Murrurwi water is much less saline and is used extensively for irrigation.

The bores transformed the settlement of the region. Capital investment in bores was considerable: the deepest in the region today is 1,200 metres and a number of the colonial bores exceeded 300 metres. Despite this expense and despite the high failure rate in the nineteenth century when over 80% of the bores sunk were dry, the new resource created confidence and expansion. Artificial channels were constructed to carry bore water through the dry paddocks. The chairman of Goldborough Mort in 1893 looked forward to 'unlimited supplies of water enormously increasing the carrying capabilities' of the plains and, despite the setbacks of the 1890s, by 1910 there were 364 artesian bores in New South Wales, extracting some 500,000,000 litres every day from the underground catchment.\textsuperscript{141}

The rate of flow from these earlier bores has declined and, although the number of bores continued to increase, the total amount of water flowing has steadily contracted, in New South Wales by 35% between 1915 and 1958. It remains, however, a fundamental resource and in the north where the water is least saline it provides the reticulated domestic supply for towns such as Walgett and Lightning Ridge.

To the outback graziers and overlanders the bores were fundamental resources from the 1880s onwards. The government sank bores along the arid route from Bourke west to Wanaaring on the Paroo. A few years later, at the end of the 1880s, the largest grazier of all, Samuel McCaughey, had sunk four successful bores on Dunlop station, southwest of Bourke, and Momba's 810,000 hectares northwest of Wilcannia received their first bore-water as early as 1882. West of the Paroo, the first private bores were sunk at Yancanina station in the 1890s, although, as with ordinary wells, there was quite a high failure rate with these drillings. The Pastoral Review recognised the importance of the innovation and by 1895 had a regular column entitled 'Boring Notes'. And the great mineral discoveries of the corner country, at Broken Hill, Milparinka and Tibooburra, were much assisted by artesian wells, built both by the government and by private enterprise.\textsuperscript{143}

Artesian water was not an unmixed blessing: it encouraged overstocking and just before the drought of the late 1890s, the western plains were carrying 15,000,000 sheep. It also drained the capital of the graziers and, as rabbits assumed plague proportions, sandstorms accompanied the drought, tanks and channels were silted up and by 1902 the sheep numbers had declined to around five million.

The region was the subject of a royal commission into crown tenancies in 1900-01 and the Western Lands Act of 1901 resulted. With amendments passed in 1934 and 1949, this is the legislation which still governs the Western Division. The 1901 Act extended pastoral leases until 1943 but also withdrew land to provide for smaller properties. This was used to give land to soldier settlers after World War I and again after World War II. The result of the complex shifts in land occupancy in the Western Division has been the
virtual end of the nineteenth-century pastoral leases and their replacement by over 6,600 perpetual leases [representing about 1,800 stations]. 30,000,000 hectares out of a total of 32,500,000 hectares are now held on perpetual leases in units varying from 4,000 to 40,000 hectares, carrying 3,000 to 10,000 sheep. This is in sharp contrast to the nineteenth-century runs, when 100,000 hectares was a common size, when the largest station, Momba, occupied 810,000 hectares and when Samuel McCaughey's interlocking holdings totalled 1,420,000 hectares, with a Darling River frontage of 450 kilometres.144

During the twentieth century, sheep have remained central to the plains. The droughts of 1901-02, 1911-16 and 1935-45 naturally enforced a contraction in sheep numbers, but the numbers always rose again in wetter seasons, peaking at about 60% of the 1890 figure in 1910 and 1925. Action to combat soil erosion has been very slow indeed: the Erosion Commission originally operated only outside the Western Division in the mid-1930s but the creation of the Soil Conservation Service in 1938 saw the gradual introduction of better management advice.

MINING
There were spectacular deposits of gold, silver, copper and opal on the western plains. The towns far away from the major rivers - Tiboburra, Milparinka, White Cliffs, Lightning Ridge, Silverton and, of course, Broken Hill - owe their existence to mineral discoveries. Although the first discovery of gold in the Barrier Ranges was made in the 1860s the critical period of successful exploration for gold, silver, tin and lead was the ten years following 1875. The first significant find was silver at Thackaringa, 36 kilometres to the west of Broken Hill [Fig 16.8]. The expense of transporting the ore overland to the Darling, and thence to Europe via the Murray for smelting was not sustained by the quality of the ore and in 1880 Thackaringa was overshadowed by the gold discoveries 250 kilometres to the north at Mount Poole and Mount Brown [Fig 16.9]. The gold mining in these hills led to the establishment of the town of Milparinka, where the sandstone court-house, police station and bank, still standing in the ghost town today, are all testimony to the importance of the town in the 1880s. By the 1950s only three houses and the pub were still occupied.

Tiboburra, only 50 kilometres away, by contrast, has survived and is growing slightly in the 1980s and 1990s because of tourism. Its origins were similar to Milparinka, to serve the needs of goldseekers in the 1880s. Unlike Milparinka, granite is available in local outcrops and the principal buildings make some use of this most permanent of building stones. Despite the lagoon at Milparinka [almost certainly Sturt's Depot Glen of 1844], despite the Chinese market gardens on the creek out of town, the site of Milparinka did not lie on the primary stock route and as gold dwindled it was entirely superseded as a local centre by Tiboburra.

Prospecting continued around the future Broken Hill. To the north, at Euriowie 'the rugged splendour of the gorge was mutilated for a small amount of tin'.145 In 1882 hopeful finds, primarily of silver ore, were made to the northwest at Umberumberka and at Silverton. Day Dream mine nearby opened in the same year and operated its own smelter in 1885-86: the chimney-stack and the great hillside flue leading to it are among the scenic splendours of the district's industrial heritage. Both Umberumberka and Day Dream closed early in the 1890s [Fig 16.8].

Silverton was the main township of this preliminary phase. It was well sited, on a gently sloping rise above a creek, with many eucalypts. By September 1883 it had 250 inhabitants, by December 500, and by the close of 1884 over 1,700. The Town and Country Journal caustically described the population of Silverton of 1883: 'the scum of the country began to be attracted to the new and prosperous field like blowflies to a carcass'.146 It is appropriate that the Silverton gaol building of 1889 should be a principal feature of the township today and house a valuable museum of mining relics. The relationship between Silverton and the Darling steamboat trade is emphasised by the Wilcannia interests in Silverton. The Reschs' cordial factory and brewery in Wilcannia opened another Lion Brewery in
Silvertown in 1885; the lawyer Thomas Johnson, well-known later in Broken Hill, came to Silvertown from Wilcannia, and the son of Charles Dickens opened a branch of his Wilcannia stock and station agency in Bourke Street, Silvertown in 1884.

The river was a long way away: the railway within South Australia was extended to Cockburn on the New South Wales border in 1885. The New South Wales government declined to link Silvertown to Cockburn, so the Silvertown Tramway Company was formed in 1886 to build a railroad over the 50 kilometres to Cockburn. This successful enterprise had several effects: it oriented Silvertown-Broken Hill firmly towards Adelaide and away from Sydney or Melbourne; it terminated the local coaching business; and it supplied the necessary bulk transport to make the dramatic development of Broken Hill easy.

The rise of Broken Hill from 1885 onwards effectively stultified the growth of Silvertown. The population there declined from over 2,000 to 600 in 1900 and municipal status was removed in 1907. The future lay with Broken Hill.

The jagged outline of the Broken Hill rendered up the secret of its miraculous lode only slowly over the two years after Charles Rasp collected some sample ore in 1883. The syndicate of seven became the nucleus of BHP in 1885: they discovered that the ores in their leases on Broken Hill were not only rich but also easy to smelt, so they first used the Day Dream smelter and then constructed their own Nevada furnaces in 1886. The Silvertown Tramway was extended to the new mines in 1888, just as the silver boom hit the stock exchanges and the town and mines expanded at an extraordinary rate. By 1891 there were some 20,000 people in the town and it had become the third largest conurbation in the state (Fig 16.10). Broken Hill remained, however, much more a part of South Australia than of New South Wales, while Melbourne, as the financial centre of Australia, had more influence over the company shares and the investments than Sydney: it was in Melbourne that the majority of the newly rich directors chose to live. Philip Charley, at Belmore Park, North Richmond, NSW, was very much the exception.

The history of the silver, lead and zinc from Broken Hill and the prodigious expansion of BHP into iron-smelting at Newcastle and Port Kembla and the Zinc Corporation into Conzinc Riotinto, have given Broken Hill a unique place in Australian mining heritage. A series of new mines, the North and South in the 1920s in particular, contributed to the continuing well-being of the town. Like all mining centres, however, Broken Hill has been at the mercy of international prices. The number of men engaged in the mines peaked in 1907 at 8,800, a quarter of the town’s total population and, although the population remained at around 27,000 in the 1920s and 1930s, rising to 30,000 in the 1960s, the percentage of people employed in the mines has steadily dropped until in 1987 it was only 8.5%.

The townscape of Broken Hill is an unusual palimpsest of history. Because of its isolation, it built up early, and retained, a comprehensive retail service and catered for its own transport needs very flexibly. The Technical College and the mining branch of the Museum of Applied Arts and Sciences reflected the engineering and mineral rationale for the entire community. But the city lacks outstanding cultural amenities, it has a signal lack of the grand houses of managers or directors and the building stock is more egalitarian than impressive. The heavy male hand of the Barrier Council is enshrined in the townscape: the uncertainties engendered by mining risks, miners’ strikes and international pricing are implicit in the low-key self-image of Broken Hill.

Long before Broken Hill was a twinkle in Charles Rasp’s eye, Cobar had been cutting a national figure as a copper producer. Due south of Bourke, in an area chronically short of water (for the artesian basin is inaccessible), Cobar succeeded despite transport and climatic difficulties. The first recognition of copper ore in 1870 was followed by mining in the next year: the ore was taken overland to the Darling wharf at Bourke and sent to be smelted at Port Adelaide. Two companies were created and merged as the Great Cobar Copper Mining Co in 1876. Smelting on the spot had already begun in order to reduce the problems of transporting untreated ore to Bourke.
or, after 1877, to the railhead at Orange. A whole series of experiments with blast-furnaces was undertaken after 1885 and the slag-heaps from the earlier reverberatory furnaces were progressively used as copper-producing flux. The railway reached Cobar in 1891 and thereafter the company used its own coal-burning refinery at Lithgow to complete processing of the copper regulus.

Although the Great Cobar plant at Cobar was dismantled in 1920, other companies had opened mines and some had remained independent of Great Cobar. The New Occidental, after two false starts, operated profitably between 1889 and the 1920s and again after 1936, as its impressive tailings testify. The Chesney mine, owned by the New Occidental Mining Co and the New Cobar Mine operated from the 1930s until 1948. This group of mines under the New Occidental umbrella closed in 1952 and a great deal of destruction to buildings and plant followed in the 1960s.

Copper mining is not entirely dead and the Elura Mine is still owned by the Electrolytic Zinc Company who assisted in the redevelopment of the Cobar Regional Museum in the administrative offices of the Great Cobar company. This museum not only preserves mining (and pastoral) relics but also interprets a remarkable modified environment. The museum, as Kylie Winkworth has commented, ‘pays tribute to the persistence and tenacity that kept the town alive through heat and dust, drought, depression and mining disasters’. It also draws attention to the satellite towns which grew up around the mines outside Cobar: these abandoned sites are of rich heritage potential, containing such evocative images as a garden of rocks ‘laid out in the scrub with elaborate shapes marked out in stones and bricks on the red soil’.

Finally there are the opal fields of the west. On Tarella station, north of Wilcannia, opal was found in the 1880s but disregarded until 1890. By the time of the rich strikes of 1893-94 the township of White Cliffs had been created. The population peaked in 1899 with 2,500 miners and over 1,000 others: this was greatly reduced in 1900 and a huge exodus to Lightning Ridge occurred in 1907-08. By 1914 White Cliffs had contracted to about thirty inhabitants and now only three buildings survive from the 1890s, surrounded by very tangible traces of mining. Because unreasonably large areas were granted as individual mining concessions and because of the power of a single company, the Wilcannia Blocks Syndicate, there are some very large mullock heaps indeed at White Cliffs, particularly at the open cut which closed in 1898. As early shafts were abandoned, they were converted into underground facilities, so that, like Coober Pedy, White Cliffs by 1900 had an underground restaurant, an underground bakery and a number of underground dwellings, which are still in use as workshops and homes. The town above ground had grown when the silver mining ended on the nearby station of Nuntherungie and an entire hotel was re-erected at White Cliffs.

The decline in the international opal market after 1898 created a decline in the population and facilities at White Cliffs and the Centennial Hall seating 600 people became sadly inappropriate. Lightning Ridge became the premier opal centre of the state from 1906 onwards. Here, near the Queensland border, north of Walgett, many of the White Cliffs miners settled: the problems of the relationship between the freelance miners and the syndicate with capital were largely resolved at Lightning Ridge, as they never had been at White Cliffs, and open-cut opal mining was stopped. Here on the black-soil plain, the opal layers outcrop on the side of slopes such as Bald Hill but can also be reached by shafts which cut across payable opal at four different levels, between 12 and 30 metres in general. A very similar opal field was found in 1926 at Gravin 50 kilometres to the south and Glengarry also opened profitably.

The famous opals with romantic names, Light of the World, Flame Queen, Pandora, which have come from Lightning Ridge, reflect an international business which is still important.
Just as Tullie Cornthwaite Wollaston so interested European, American and Japanese buyers in White Cliffs opals almost a century ago, so the dealers of today command an exceedingly lucrative market for Lightning Ridge stones. Both these opal centres, the ghost town beyond Wilcannia and the success story beyond Walgett, have very substantial heritage value.

CONCLUSION
The western plains are a vast, largely arid area, tempered by the waters of the Darling, the Barwon, the Paroo, the Lachlan, the Murray and the Murrumbidgee, but primarily the Darling. Both Aboriginal and European settlement found the river frontage easy and convenient, but unlike the Europeans Aborigines had come to terms with the austerities of the backblocks and lived a culturally rich and economically viable life far from the major rivers. The disruption to traditional life by European pastoralists usurping the water frontage was followed by further European expansion only after the introduction of paddle-steamers and barges on the Murray-Darling made large-scale wool production attractive. The immensity of the sheep runs gave some security against localised problems and also gave some sort of alternative way of life to the Aborigines.

The depression and drought of the 1890s was followed by new legislative controls over the western area which led to substantial reductions in the size of runs, to new settlers (including returned soldiers) and to the final displacement of the Aboriginal people. The river towns, with their woolstores, wharves and facilities, had grown in the heyday of the steamboats but that had passed in the twentieth century and the railway system determined their continuing prosperity. New towns, most strikingly Broken Hill, the only city of the plain, appeared away from the river because of mineral discoveries: copper at Cobar in the 1860s, opals at White Cliffs and Lightning Ridge, silver, lead and zinc at Broken Hill in the last hundred years.
Aboriginal groups are named in block capitals. Compiler: R Ian Jack.
FIGURE 16.2. THE ABORIGINAL FISHERIES AT BREWARRINA AS THEY WERE IN 1906.

NGUNNUH OF THE NGEMBA
A — Position from which photograph p.41 taken.
B — Muar.
C — Kullur.
D — Derraginni.
E — Kirragurra.

PLAN OF THE FISHERIES AT BREWARRINA

FIGURE 16.3. THE STATIONS IN THE BALRANALD AREA IN THE 1840S

Showing both water frontages and backblocks.

FIGURE 16.4.

The expansion from the east into the Warrego country of New South Wales in the mid 1840s.

FIGURE 16.5. THE PHASES OF PASTORAL SETTLEMENT IN THE WARREGO COUNTRY FROM 1850 TO 1883.

FIGURE 16.6. WILCANNIA: THE RELATIONSHIP OF THE TOWN'S HERITAGE FEATURES WITH THE DARLING RIVER.

Compiler: R Ian Jack.

1. Prison
2. Courthouse and police station
3. Queen's Head Hotel
4. Club Hotel
5. Knox and Downes
6. Rich and Co
7. Court House Hotel (originally Punt Hotel)
8. Custom House
9. Post Office
10. Athenaeum (now Museum)
11. Shire Chambers
12. Wharf
13. Public school
14. St James Church of England
15. Uniting Church
16. Catholic convent
17. Resch's Lion Brewery (now part of golf clubhouse)
FIGURE 16.7. YANCANNIA HOMESTEAD AREA IN 1867 AND 1885.

Showing the development of fencing and wool-processing plant.

'Torowoto' (Yancannia) homestead layout, 1867

Homestead and woolshed blocks, 1885

FIGURE 16.8

Map of the southern part of the Barrier mining district, drawn by A.B. Black in 1888.

Published in The Barrier Silver and Tin Fields in 1888. Adelaide, 1888.
FIGURE 16.9. THE ROUTE FROM WILCANNIA TO MILPARINKA AND THE MOUNT BROWN AND MOUNT POOLE MINES IN 1881.

The route to the Mount Brown goldfields, 1881


CITY OF BROKEN HILL

17. Lord Howe Island

Lord Howe Island has many claims to special treatment. It is an anomaly in New South Wales. It lies 5° east of the limit of state jurisdiction and so, alone among the state's islands, it had to be separately designated as part of the state in the Constitution Act of 1855. Its physical structure is remarkable. The bar which protects the lagoon on the western side of the island is the most southerly coral reef in the world and Mount Lidgbird and Mount Gower tower 800-900 metres above the lowland. The island was wholly innocent of human contact until 1788; alone among the heritage regions of New South Wales, it has no Aboriginal history nor prehistory. Even its nomenclatures are distinctive: it is the only habitable island in a group of twenty-eight rocky projections from an underwater ridge, but the group is nameless; the various settlements on different parts of the island have never attracted individual names, so that to this day there is no township name. Finally, among its particularities, Lord Howe Island with its adjacent marine environment has been, like the Great Barrier Reef, designated as a World Heritage site by the UNESCO Committee for the Protection of World Cultural and Natural Heritage.

The primary reason for Lord Howe's admission to World Heritage status in 1982 has nothing to do with its history. The 1455 hectares of subtropical island, 700 kilometres northeast of Sydney, are internationally recognised as having an exceptionally diverse natural beauty and a high proportion of unusual and unique flora and fauna. All that human intervention has done since 1788 is to exterminate endemic species, such as the island pigeon, the white gallinule and the Island parakeet, and to introduce, unwittingly or accidentally, destructive exotic animals such as pigs, goats, rats and cats.
FIRST VISITORS

Lord Howe Island was first sighted within a month of the First Fleet’s arrival at New South Wales: Henry Lidgbird Ball, in command of the Supply, passed Lord Howe en route to Norfolk Island on 17 February 1788 and on his return journey sent a landing party ashore on 13 March. His log laconically stated: ‘sent a boat to examine the isle and found abundance of turtle’,125 but in fact the first steps were taken by his crew towards the extinction of the gallinule and pigeon and the near-extinction of the woodhen as well.126

The birds of Lord Howe were exceptionally easy to catch - even today muttonbirds sit placidly unaware of danger - and the marine life, turtles and fish, was also plentiful. Once the misapprehension that fresh water was not available on the island was dispelled, the advantages of Lord Howe as a refuelling spot for shipping became doubly clear. But the doubt over fresh water took several decades to dispel and Lord Howe did not immediately become an established port of call or a source of fresh turtle for Sydney Cove. There was a flurry of activity in May 1788, when four of Phillip’s fleet were anchored off the island, but in the early nineteenth century the only visitors seem to have been from whaling ships. The first sure information is as late as 1830 when the Hobart whaler, the George, was holed on George Rock (off the southeast of Mount Gower) and was beached, probably in Georges Bay to the north. The crew were taken off by a government ship and by another whaler three months later in 1831 and the wreck remained behind as the first archaeological evidence of human contact with the island.127

The drama of the George attracted journalists and the only information about visits to the island in the 1820s comes incidentally from accounts of the shipwreck. By this time, water was well-known to be available on the east coast below Mount Lidgbird. The uncertain water supply on the flat part of the island along the lagoon did not entice landings through the coral reef on the west: the early landfalls were in Boat Harbour where fresh water came down from the rainforest. During the 1820s it appears that pigs were released on the island by a whaling captain, perhaps to ensure fresh meat on future visits.128

FIRST SETTLEMENT

The first people to inhabit the island were landed from a whaling boat in the winter of 1834. Like other ships, the Caroline anchored off the east coast and the eight settlers were deposited on Blinkenthorpe Beach (named after the master of the Caroline). These first settlers numbered eight: three Europeans, probably ex-whalers, called Ashdown, Bishop and Chapman, their three Maori wives and two Maori boys, almost certainly children of the Maori women.

These first settlers established a vegetable garden close to Blinky Beach (just north of the present airstrip around portion 114); there they grew potatoes, carrots, maize, pumpkins and taro.129 This is the earliest cultivated land on the island. But the settlers’ huts were on the northwest end, overlooking Hunter Bay, in the sheltered lagoon. Their huts were almost certainly simple structures made from the palm trees and the hypothesis put forward in the Lord Howe Island Heritage Study of 1984 that they were made partly of brick is not sustainable.130

The eight founding settlers eke out a simple existence there for seven years. They had some transient company during this time: a convict escapee from Hobart along with two seamen in 1834-35; the crew of the revenue cutter sent to recapture the convict in 1835; the shipwrecked crew of the Wolf for five weeks in 1837; some whalers ashore in 1840 to bury their cooper under a slate gravemarker that was still on the island a century later.131 The presence of a settlement clearly attracted ships: four are known to have called in December 1839 and at least ten in 1840.132

SECOND PHASE OF SETTLEMENT: SERVICING THE WHALERS

In 1841 the original eight settlers left the island, bought out for £700 by two Sydney men, one the owner of the Australian Foundry, Richard Dawson (who merely invested in the island), the other a retired Indian Army captain, Owen Poole, who actually took up residence late in 1841 or
early in 1842. Poole initially took three married couples to the island, primarily to service the visiting ships. In July 1842 Poole brought to the island another married couple, Thomas and Margaret Andrews, from Sydney as ‘general servants’ on a twelve-month contract. Population grew in a variety of ways: a young woman, Johanna Britton, was put ashore on the island as a romantic stowaway in 1843 and was joined by her lover Alan Moseley in the following year. A Sydney medical man, Dr John Foulis, bought half of Poole’s share of the island, with his wife and daughter, Foulis came to the island in August 1844, accompanied by the reappointed Andrews and four young single men. Dr Foulis established his family home at what is now known as Pinetrees and when he (like Poole) left Lord Howe in 1847, first a whaling captain called Pierce and then in 1848 Thomas and Margaret Andrews took over the land which is still leased by the Andrews’ descendants. Foulis had erected four huts on the site and there were several cultivated clearings, shown on the map drawn in 1851 from Foulis’s memories of 1847 (Fig 17.1).

The sixteen or so settlers were scattered about the northern section of the island. Foulis’ sketch map shows six buildings behind Old Settlement Beach on Hunter Bay. Captain Middleton and his wife had made three clearings behind North Beach, with the eponymous Mount Eliza beyond, and sank a well which is still visible; Alan Moseley and his sweetheart Johanna settled permanently near the very first vegetable garden inland from the north end of Blinky Beach (Fig 17.2); the Andrews, father, mother and daughter, were at Pinetrees, and the Wrights lived further down on the north bank of Soldier Creek (Figs 17.1, 2). According to Foulis all the huts were ‘built of the cabbage tree’: the settlers lived by supplying whalers (up to 80 a year, Foulis claimed), ‘catching pigs and fish, and growing vegetables and fruits’. ‘All kinds of vegetables’, Foulis enthused, ‘can be produced in great abundance, potatoes, pumpkins, and other garden provisions are reared twice a year and sometimes oftener from the same ground. Maize and wheat grow well and have yielded large crops as also the sweet potato, which seems very well adopted for the more sandy parts. The banana grows luxuriantly and ripens very well, and some vines which I planted on my arrival on the Island flourished exceedingly well and were producing fruit before I left [in 1847].’

There were already many exotic plants: the banana and vine had come from Port Stephens, the potatoes from Hobart; melons, cape gooseberries and mint were brought from Sydney. Wells had been sunk by Foulis, although the shallow natural well on Pinetrees sometimes dried up, the new five-metre deep wells sunk into the clayey soil gave permanent sweet water on the main settlement area. Four clay beds were identified by Foulis on his sketch map, one above North Bay, two in the centre of the island behind Pinetrees and one down south on Lovers Bay near the Wrights’ farm (Fig 17.1). This clay had not been used for brickmaking by 1847, since Foulis remarks that ‘I should consider it well adapted for brickmaking if mixed with a portion of a kind of ferruginous earth which is abundant in the same neighbourhood’. The brick remains dug up from time to time on the flats behind Old Settlement Beach (if not imported bricks) are therefore likely to be experiments with the local clay conducted after Foulis’ time but before abandonment of the Old Settlement area in the 1870s. All eyewitness reports agree that the houses in the 1840s and 1850s were universally constructed from local palm products along with some sawn timber brought from Sydney or cut from cedar wood washed ashore.

The island community grew slowly. In 1853 Nathan Chase Thompson brought two women and the runaway daughter of a chief from the Gilbert Islands to Lord Howe, as well as the first mare, and built a house which survives in the northeast area inland from Ned’s Beach. To confirm the cosmopolitan flavour of the island community, a black American, Perry Johnson, and his South African wife lived on one hectare in the south, near the Wrights’ farm, close to Johnson’s Beach, where their drainage ditches are still visible.

The numbers continued to increase by recreation and immigration. By 1869 there were thirty-five inhabitants, who had added onions of uncommon quality to the goods bartered with the whalers: some onions were also sold direct to Sydney in the 1870s.
PALM SEED INDUSTRY
Whaling declined in the southern oceans in the 1870s. In 1876 when the HMS Pearl landed a party, the surgeon reported that ‘sometimes six or twelve months pass without a vessel calling at the island. Now this once much frequented and favoured little spot is apparently quite deserted; the old families have lost all zest for cultivation, having to live, as it were, from hand to mouth seeing the fruits of their labour decaying and rotting in the storehouses’.

Although Surgeon Corrie was perhaps too severe in his judgement on the Andrews, Thompsons, Johnsons, Nichols, Wrights and other settlers, the island certainly had a basically subsistence economy between the decline of whaling and the creation of a palm seed trade in the 1880s. Animals had increased in number: there were by 1882 40 cattle, five sheep, as well as a single horse, pigs and poultry.

In this transitional period, an important administrative change took place. Land tenure on the island had been extremely vague: the quasi-purchase of the island by Poole and Dawson, for example, in 1841, was a purely private arrangement between them and the existing squatters. The superintendent of the Trigonometrical Survey complained in 1882 that:

leases of small areas, ranging from about 1 acre to 11 acres, have been granted under the 38th section of the Crown Lands Occupation Act of 1875; in many cases the homestead only is included in this area. Other small patches in the vicinity have been cleared and brought under cultivation, the occupiers having no legal claim whatever to the land; and the consequences are, that disputes occur as to the limits of the assumed individual rights, only acquired by acts of occupation.

In 1878 the New South Wales Government declared the island a Forest Reserve and sent Captain Armstrong there as a sort of Pooch Bah: Armstrong was Forest Ranger, Registrar, Postmaster, Resident Magistrate and Clerk of Petty Sessions. During Armstrong’s four-year term on the island a number of significant steps were taken which led gradually, after Armstrong’s time, to large changes in the island community and economy. The first school on the island was started in 1879. The passage into the lagoon was greatly improved in 1880 by the dynamiting of the rocks in the north entrance; lighters going to steamers anchored briefly outside the reef became a more regular way of sea communication.

Armstrong encouraged the exploitation of the trees of the island, sending fibre to the mainland, using fibre for packing fruit and selling the first seeds of the Kentia palm to a visiting ship in 1881. It was later alleged that Armstrong and his New Caledonian assistants had cut down about forty palms and pandanus trees to obtain their seeds for Creswell, the Sydney seedman. Certainly some palm trees were chopped down in Armstrong’s time and after his dismissal the island was declared a Botanic Reserve in 1883.

Over the next twenty years, as the palm court culture took root in Europe and Australia, islanders increasingly competed to sell palm seeds to Sydney nurseries, without destroying the trees. In 1907 the forty-seven islanders laid aside their competitiveness to form the Kentia Palm Seed and Plant Co-operative Co Ltd: by 1911 twenty-eight islanders were shareholders in this company, exporting all over the world.

THE BOARD OF CONTROL
The Royal Commissions of 1911-12 acknowledged the signal importance of the seed industry and, as a corollary, of the preservation of the trees: the decision was made to remove the industry from private ownership and to set up in 1913 the Lord Howe Island Board of Control ‘to take charge of the island and trade thereof’. An unforeseen and regrettable corollary proved to be the clearing of more land for grazing by islanders whose incentive to tend palms had been eroded.

The creation of the Board also changed the system of landholding. The Board was ‘vested with a permissive occupancy of the whole of the island’ and ‘all previously existing permissive occupancies of such land shall be cancelled’. The problem of equitable control over landholding on the island, among categories of old-established residents, non-resident heirs of...

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island folk and outright foreigners, holding or seeking special leases, residential leases, permissive occupancies or leases in perpetuity was intransigent.

The developments on the island during the eight years of Board control are in many ways characteristic of more conventional local government on the mainland, with the addition of the administration of the school from 1902 until 1922. By 1914 there were 43 children on Lord Howe, almost half the total population. The prosperity which all this reflected did not, however, endure. Problems began locally with an invasion of rats after the Makambo went aground at Ned’s Beach in 1918; these rats bred enthusiastically and did harm to the island economy. The rat infestation coincided with a sharply declining demand for palm-trees in the post-war world, so the island’s basic source of revenue was attacked on all fronts. The rats also wreaked havoc on the unique fauna of Lord Howe, killing off five species of birds within a few years. The attempt to control rat numbers by importing owls was unhappy, since the owls enjoyed a tasty small bird as much as the rats. The dimension of the problem remained large into the 1930s and the highest number of rats tails presented for the bounty was 27,500 in 1932. There was, however, a positive gain, for in 1930 all birds on the island, whether native or migrant, were given official protection.

TOURISM

The revival of the island’s fortunes came after World War II, from a renewed market for palm-trees on the one hand and from tourism on the other. Lord Howe has obvious attractions for tourists, with its equable climate, varied scenery, exotic flora and fauna, beaches, coral reef and lagoon, with excellent fishing grounds around and the remarkable spectacle of Ball’s Pyramid only sixteen kilometres away. But access by sea has always been undependable, since there is no deepwater harbour and seas are often rough; boats have never been frequent and the whalers a century and a half ago visited in greater number than any boats since. There was therefore a problem about developing a tourist industry. The regular sailings of the Burns Philp steamers Morinda and Wanganella in the 1920s and 1930s brought a large number of day-trippers, rowed ashore through the lagoon in small boats while the steamer hove to outside the reef. Only a small minority stayed in the expectation of returning to Sydney on the next boat, which might not be able to anchor in the treacherous seas. For this minority, however, two guest-houses were developed, one at Pinetrees (the original Foulis-Andrews property), the other at Ocean View (farther north, between Ned Beach and the lagoon, run by Gower Wilson, the son of the first schoolmaster and the grandson of Nathan Thompson).

The market for residential accommodation remained restricted until air-travel to the island became possible in 1947. For twenty-seven years, from 1947 until 1974, flying-boats left from Rose Bay in Sydney Harbour and touched down in the Lord Howe lagoon. It was an unforgettable and magical experience for those of us lucky enough to have taken the four-hour flight in the old Sandringhams. The service opened up Lord Howe to ordinary tourism and the island developed facilities to meet the new demands. A nine-hole golf-course was created near the land once farmed by the Wrights north of Soldier Creek in sporting terrain which is often swampy: local rule 32/3 deals with the special hazard of balls ‘lost in mud’. New tourist lodges such as Blue Lagoon, beachcomber Lodge and Seabreeze Lodge opened and holiday flats were built at Leanda Lei, Pacific Palms, Trader Nick’s and the Broken Banyan. During the last decade of the flying-boats, the number of visitors each year increased from 3,000 to over 4,400, the number of islanders exceeded 250 and vehicles became common, although always overshadowed by the ubiquitous bicycles hired by tourists.

The uncertainty created by the obsolescence of the Sandringhams was removed by the contentious decision to build an airstrip across the narrowest part of the island abutting Blinky Beach. The small aircraft using this runway have ensured continuing tourist revenue, spread among a fairly stable number of residents. Road maintenance, waste disposal and vehicle pollution remain substantial problems, since the island is a fragile resource. But
the tourist capacity is tightly defined and controlled by the reconstituted Lord Howe Island Board, by the Island Building Code of 1977 and by the recent Lord Howe Island Regional Environmental Plan, while the Lord Howe Island Permanent Park Preserve created in 1981 protects for posterity the uninhabited hilly country to the north and the south, along with the circumbatant isles.

CONCLUSION
In a short history of human contact, Lord Howe Island has passed through four main phases. It started as an uninhabited, casual port of call for government ships, traders and whalers, seeking fresh food and water. From the 1830s onwards it became a small subsistence community of islanders who bartered vegetables and meat for tradegoods to an increasing number of whalers. As whaling declined in the southern seas in the 1860s and 1870s, the island went into recession, but was jolted out of this by New South Wales government intervention, by the growth of scientific interest and, most of all, by the international market for exotic palms. Like whaling, palm-trees also failed, but in the 1920s and 1930s the regular supply steamers from Sydney brought day-tourists and a small number of longer-term holiday-makers, who were housed in two guesthouses. The introduction of air-travel after 1947 and a renewed market for palms have combined to bring a new period of prosperity to the island, with the attendant problems of over-straining critically important natural resources.

1) Quoted in M. Nicholls, A History of Lord Howe Island, Hobart (1953), 10.
3) Nicholls, op. cit., 42-45.
4) Rabone, op. cit., 16, an unsourced assertion.
5) Ibid., 24; Nicholls, op. cit., 24, both quoting H.J. White's report of 1835.
9) Ibid., 80. Nicholls says that the Midliffsons built a thatched hut on North Beach, but no structure is shown on Foulis' map (Figure 17.1).
11) Ibid., II, 719.
12) Surgeon J.D. Macdonald, 'Remarks on the natural history and capabilities of Lord Howe Island' (1853), Ibid., II, 720.
13) Foulis, ibid., II 720.
14) Nicholls, op. cit., 54.
15) Quoted in M. Kelly, 'History', in Tanner, Lord Howe Island Heritage Study, 18.
17) W.J. Conder to J.B. Wilson, 6 May 1882, Ibid., IV, 1469.
18) Rabone, op. cit., 41.
20) Lord Howe Island: Regional Environmental Survey. Sydney, 1985, I 42.
FIGURE 17.1. SKETCH-MAP OF LORD HOWE ISLAND MADE IN 1851 BY DR J. FOULIS, RESIDENT ON THE ISLAND FROM 1844 TO 1847.

Seventeen huts are shown in four locations along the lagoon. Twenty-one clearings are also shown.

Source: Votes and Proceedings, Legislative Council, New South Wales, 1853, II after 732.
FIGURE 17.2. MAP OF LORD HOWE ISLAND IN 1882, SHOWING THE INHABITED SECTIONS.

Huts are shown as small black squares, clearings as open rectangles. Three farms are named: from north to south, Andrews', Moseley's and Wright's. No habitation is shown on Old Settlement Beach in the north.

Source: Votes and Proceedings, Legislative Assembly, New South Wales, 1882, IV item 36, after 1474.
Appendix A

INTRODUCTION TO RESEARCH SOURCES

LOCAL HISTORY AND HERITAGE

BIBLIOGRAPHY

The original draft Historical Guidelines for the State Heritage Inventory Project included a bibliography of secondary sources which could be used as initial references for regional and local heritage studies. As these bibliographies were compiled at a point in time it was evident that, like all printed bibliographies, they would become increasingly outdated with the effluxion of time. A decision was therefore made to create an electronic bibliographic database of NSW local history, taking advantage of information technology now available.

The task of compiling the database has been given to the Royal Australian Historical Society [RAHS] which holds in its library a comprehensive dedicated collection of secondary references on NSW local history. The Mitchell Library in Sydney has a vastly larger Australian history collection of both primary and secondary sources and is used by all professional historians for detailed research in this field. However, the RAHS collection has been chosen because its collection of secondary sources on local history is virtually as comprehensive as that of the Mitchell and because a viable database could be compiled more readily than was possible for the Mitchell’s vast holdings.

The RAHS Local History and Heritage Bibliography, as it is called, is thus essentially a starting point for initial references, although it will be expanded as time and resources allow to include photographic and other reference material. In the longer term it is hoped to make the bibliography available on CD-ROM to improve its accessibility.
The bibliography is maintained by the Royal Australian History Society, 133 Macquarie Street, Sydney (ph. 02 247 8001; fax 02 247 7854) and enquiries should be directed to the Society's librarian.

**FINDING AIDS**

(a) Electronic [Computer] Data Bases

AUSTROM [Royal Melbourne Institute of Technology] - includes APAIS [journal index] and ARCH [architectural index] [CD-ROM].

Heritage and Environment [Royal Melbourne Institute of Technology] - includes HERA [Australian Heritage Commission's heritage database] [CD-ROM].

RAHS Local History and Heritage Bibliography [see above].

(b) Other Guides


Australian Society of Archivists [NSW], PO Box A952, Sydney South 2000.

(c) Special Collection Catalogues

Many organisations have libraries or collections which specialise in particular fields which can be relevant to heritage research. The Mitchell and RAHS Libraries have already been mentioned and most municipal and shire libraries have local history collections.

Some other examples are:

Department of Urban Affairs and Planning Library, Sydney (Ph. 02 391 2130)

Lyndhurst Resource Centre, Glebe (Historic Houses Trust. Ph. 02 692 8366)

National Maritime Museum Library, Pyrmont (Ph. 02 552 7777)

Organ Historical Trust of Australia (GPO Box 676, Sydney 2001)

**SECONDARY SOURCES**

Not all the secondary works on NSW local history are of equal merit. Although local history writing has come of age in NSW over the past decade, questionable assumptions and 'facts' of dubious authenticity are still enshrined in many works, both amateur and professional. The Local History and Heritage Bibliography, for example, includes a number of items in which shortcomings are very evident. Those shortcomings must be balanced against unique local knowledge, the presentation of oral testimony and the publication of early photographs and correspondence existing only in private hands. This information is important and often cannot be obtained elsewhere.

Moreover, what is believed to be true by a community is in itself a matter of history: the explorers' tree on the Great Western Highway in the Blue Mountains may not be 'genuine' but mistaken local belief in its authenticity is an historical fact which has affected perceptions of its heritage value and which must be taken into account. The landscape of New South Wales has many such folk-myths or embroideries on sober history. The local history which it is so easy to criticise is often the best source for this vital folkloric element in Australia's perception of its past.

These factors highlight the need to use professional historians for critical analysis of local history and heritage. Professional historians have the training, skills and background knowledge for extracting the important and the useful from local histories of varying sophistication.

**PRIMARY SOURCES**

Many published local histories, especially the older ones, have not used research based on original contemporary sources. Heritage studies may therefore need to make judicious use of some supplementary original and statistical materials. Primary sources are wide-ranging and may be found in repositories such as the Mitchell Library, Archives Office of NSW, local
councils and businesses. Again, professional historians are trained in the efficient and critical use of primary sources.

(a) Statistics

Each set of nineteenth century census records is arranged according to several regional districts e.g. towns/villages, land parishes, police districts, local government areas (including wards) and census districts. Statistics were collected about domestic buildings from 1841 but were not always recorded as a separate series about dwellings, nor does every census calculate the dwelling information for each permutation of regional figures. Nineteenth and twentieth century Censuses are available on microfiche.

Nineteenth Century Dwelling Information in Censuses

<table>
<thead>
<tr>
<th>Year</th>
<th>Occupied</th>
<th>Building Materials</th>
<th>Rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1828</td>
<td>o</td>
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<td></td>
</tr>
<tr>
<td>1833</td>
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<td>1881</td>
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<td>1891</td>
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<td>o</td>
<td>o</td>
</tr>
<tr>
<td>1901</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

For more information see:


(b) Maps

Copies of appropriate historical maps are an essential component of heritage studies. Relevant map collections include the Archives Office of NSW, Mitchell Library, Land Titles Office, Lands Department and Water Board. Military maps from the 1930s and the current 1:25,000 series frequently mark the locations of abandoned structures and historical places. A folio of historical state maps, collected for the SHIP project, is held at the Department of Urban Affairs and Planning Library (see Appendix B).

(c) Archives

There is usually not sufficient time in a heritage study to explore a wide range of documentary sources. Nevertheless, some work on selected series of records could prove rewarding. Major series of archives that are arranged by region can provide a useful and succinct overview of economic and cultural development, e.g:

Archives Office of NSW, Department of Education School Files [arranged by the name of individual schools, usually place names].
Australian Archives, Post Master General, Post Office files (arranged by the name of post office towns).

For locating local government archives see:


Other archival sources for heritage work include the vast manuscript and photographic holdings of the Mitchell Library, the Land Titles Office, private companies and some government bodies (e.g. State Rail).
FOLIO OF HISTORICAL MAPS
A folio of historical maps was compiled during preparation of the draft Historical Guidelines. The contents of the folio are set out [with sources] below. The folio of maps is held in the Office of Heritage library. The maps show the expansion of towns, roads, railways and other features of settlement as the colony of New South Wales expanded, and indeed their purpose was mainly in location and direction finding. Except by inference, they do not show the spread of actual settlement. Pastoral settlement was way ahead of the construction of a settled landscape, and the maps are not land-use maps, so that the spread of wheatgrowing, dairying and other activities cannot be read from them.

Readers are advised for these facts to direct their attention to the regional histories and The Historical Geography of NSW to 1901 by D.N. Jeans (Longman 1972). The evolution of landscape in detail is dealt with in The Open Air Museum by D.N. Jeans and P. Spearritt (Allen and Unwin 1982). The maps are general indicators of regional spread and intensification.

The first map, Sydney Cove in July 1788 may chiefly be of archaeological interest, showing the former boundaries of land and water, the disposition of early buildings, and an incipient street layout never realised, though the beginnings of George Street are apparent. The source of the lower Tank Stream is shown.

Grimes' map of 1796 shows the location of Sydney in relation to scattered patches of land grants to named individuals, in which the importance of the Parramatta area for early agriculture and the settlement at Mulgrave Plains (Windsor) are apparent. A road already leads from Parramatta to Windsor, although boat traffic via the Hawkesbury is also important.
Flinders' map of Australia in 1814 marks an early use of the names, and shows coastal discoveries. Flinders has added the knowledge of the Lachlan and Macquarie rivers as found by Evans and Oxley in this edition of 1820. The map is thus significant in showing early knowledge of the interior geography of New South Wales, sketchy as it was.

In 1814 a map of the County of Cumberland was made. Settlement in the Illawarra and the penal station at Newcastle are not shown. The location of settled land is shown, together with government reserves. The map reinforces T.M. Perry's theory that by 1813 the land within the County of Cumberland was taken up, and that this was a major impetus to the transmontane journey of Lawson, Blaxland and Wentworth. Commons have been made for the outlying settlements. District names are shown.

The County of Cumberland is shown again in a map of 1820, together with the northern Illawarra, connected by road or track to Appin. Landforms, drainage, towns and roads are shown. Richmond, Windsor, Wilberforce and Pitt Town are shown as clusters of buildings, from which it can be inferred that Macquarie's Hawkesbury towns had been occupied. No such settlements are shown at Campbell Town and Appin.

The horizon broadens with the map of 1825 which shows the great expansion of knowledge with the opening to settlement of the outlying districts and the free immigration of the 1820s. The routes of explorers are shown, notably those of John Oxley, Henry Lawson and James Meehan. From this map can be drawn much useful information about the original vegetation of the country and settlers' perceptions of its worth. Urban development outside the County of Cumberland is restricted to Bathurst and Newcastle, but the unofficial town of West Maitland is also marked.

Mitchell's map of the Settled Districts in 1834 includes the land inside the Limits of Location drawn in 1829, and was drawn to emphasise natural features which might serve to divide the area into counties and parishes. It therefore shows little detail of settlement, and is a topographic map based on his triangulation system. The Great South Road and the Great West Road are shown, but not his Great North Road then under construction.

Dixon's map of 1837 is much more informative than Mitchell's, relegating topography to the background, and showing alienated land from which the chief centres of settlement can be inferred. This is a guide to the estates of the gentry within the settled districts, including also the estates of the Australian Agricultural Company on Liverpool Plains. Roads and towns are shown. Since this is a map of the settled districts within the limits of Location, the areas of squatter settlement beyond, where no surveyors worked, is not shown. The location of squatters might be calculated from the licences issued in 1836 (see Jeans op cit.).

The next map shows New South Wales in 1850, extending into what became Queensland in 1859. Roads and postal stations are shown, most of the latter being towns or incipient towns. The map is useful in showing routes then in use, but later abandoned, as with the line from Armidale to Grafton. This map shows how far settled life had extended in the pastoral period up to 1850.

A general map of Australia shows the colonial divisions in 1851, and in a generalised way the main towns and drainage systems. Towns in New South Wales, such as Bona Bona are shown which are not known to have existed, so that the map is not reliable for internal use. It does not show the gold discoveries of that year.

Comparison of the 1858 map with that of 1850 shows the gold discoveries and the extensive development of the urban and road systems consequent upon a shift of the population inland. Patterns of settlement have also intensified in the area with a settled population by 1850. The development of the northwest Darling Plain region is particularly apparent.

The map of 1871 shows a significant advance into western New South Wales with the riverboat traffic which began to use the Murray and Darling rivers in the 1850s. The new pastoral technology of tanks, wells and fencing also allowed the land
to be occupied in this semi-arid region under the stimulus of high wool prices. The urban system is intensifying, due in some places to the operation of the Free Selection Acts of 1861, as in the lower reaches of the North Coast region.

By 1883, construction of the railway trunk network is well advanced, though the line to Bourke was not completed until 1885. The rail system was designed to draw the traffic of outlying regions to Sydney, in the face of competition from Melbourne, Adelaide and the riverboats. New mining centres, such as Cobar, Tibooburra and Mount Hope have appeared, and the chief river ports can be identified. Agriculture is spreading in the eastern Riverina, and a dense urban pattern appearing, and similarly in the central west. This map is reproduced at the largest size of photocopy supplied by the Mitchell Library, and a magnifying glass is recommended for reading this and some subsequent maps.

The 1891 map shows districts for land administration, and headquarters towns some of which, like Moree, still contain handsome Lands Offices from this period. The Lands function helped to make these towns into regional centres. The railway system has been further extended to serve new wheat areas, and a general intensification of settlement is apparent, including the survival of towns like Hill End and Sofala from the height of their mining significance.

In 1902 the basic pattern of towns and roads is well-established. Few new additions follow; subsequent maps record the emergence of more railways (until the 1930s), a main road system, and an urban hierarchy. Particular attention may be drawn to the 4-sheet (a,b,c,d) map of 1933 which shows the country in great detail, including tracks and tanks and wells, and the similarly detailed map of 1963. Both of these should make ideal reference maps for the identification and investigation of the detailed topography of each region, including many smaller settlements which have since disappeared. Counties are shown on the 1943 map, a unit of survey rather than local government.

CONTENTS OF THE FOLIO OF HISTORICAL MAPS OF NEW SOUTH WALES


1796 Plan of the Settlements in New South Wales by C. Grimes.

1814 General Chart of Terra Australia or Australia shewing the parts explored between 1798 and 1803. Corrected to 1822. M. Flinders. Reprinted by the Central Mapping Authority of New South Wales.


1825 A Map of New South Wales from the best authorities and from the latest discoveries. London. [Reproduced by the Central Mapping Authority.]

1834 Map of the Colony of New South Wales. T.L. Mitchell. [Reproduced by the Central Mapping Authority.]

1837 Map of the Colony of New South Wales. Robert Dixon. [Reproduced by the Central Mapping Authority.]

1850 Map shewing the roads in New South Wales prepared for the use of the post office department. Mitchell Library.

1851 Australia. J. Tallis. London. [Reproduced by Sunmap Centre, Brisbane.]

1858 Road map of the Colony of New South Wales, shewing the lines of communication by the main and other roads, the railways, rivers, and telegraphic lines. Mitchell Library.

1883 Map shewing the postal stations, railways and roads, New South Wales. From the latest government maps and revised from official documents. Mitchell Library.


1902 Pearson's cyclists' and travellers' district road map of New South Wales (with insets). Mitchell Library.


1921 Pearson's cyclists' and travellers' district road map of New South Wales (with insets). Mitchell Library.


1933 New South Wales, including Lord Howe Island. Lands Department, Sydney. (4 sheets.)

1943 Diagram map of New South Wales. Lands Department, Sydney.

1959 New South Wales, showing main roads system. (2 sheets.) Department of Geography, University of Sydney.

1963 New South Wales, showing main roads system. (2 sheets.) Department of Geography, University of Sydney.

1971 New South Wales. Classification of main roads with shire and municipal boundaries. Department of Geography, University of Sydney.