10. Southern Tableland

Undulating country differentiates the tableland from the highlands of the Blue Mountains and Monaro. Important entrance points are southwestern corridor via Berrima, the Lachlan River valley to Cowra, and the Michelago Pass to Monaro.

Topography is fairly uniform. Low rounded hills with occasional ridges with some flat land dominate in the centre of the region. Crookwell and Mulwaree Shires are almost entirely undulating country, as are Gunning and Yass Shires with occasional ridges, while the south has more dissected upland country.

Vegetation is mainly open bushland and was attractive to early pastoral settlement. Box trees predominates, with stringybark on poor dissected uplands.

Grazing is the predominant activity, with sheep for fine wool being predominant. The Crookwell region has been notable for potato growing on soils derived from basalt. Wheat growing, which in the nineteenth century was important, is now insignificant. Timber getting and dairying have been important in the more rugged eastern fringes, and gold was important from 1853 to the early 1900s at Braidwood.
LOCAL GOVERNMENT UNITS

CITIES
Goulburn, Queanbeyan

SHIREs
Boorowa, Crookwell, Gunning,
Mulwaree, Tallaganda, Yarralumla,
Yass

(The area of the Australian Capital Territory is excluded.)
ABORIGINAL PEOPLE

The high tableland with its open bushland and undulating country, dramatised on the east by the Shoalhaven gorges, offered food supplies less ample than did the coast. The principal groups of Aboriginal inhabitants, in the south the Ngarigo and Walbanga, in the north the Nyugawal and Gandangara, were exclusively highland people and, while having their own associations with clearly defined areas, were more consistently nomadic than the Wandandian and the Wodi Wodi, who, although their area extended as far as Marulan and Charlewong on the tableland, were primarily coastal people. The tableland provided consistent vegetable nourishment for mobile people: the tubers of the yam daisy in spring, summer and autumn, wattle-seeds in July and August or orchid tubers in August and September. From September until May there was fish in the major rivers (including large Murray Cod in the Murrambidgee) while crayfish, yabbies and platypus abounded in most streams. In July and August the moulting ducks on Lake George could be captured easily. Meat from possums was in consistent supply and teams of hunters could capture the larger game. Fire was used to encourage the growth of grass to attract grazing animals: Sylvester Hunt describes the deliberate burning of the grassland around Lake George in 1820.

For the Aborigines of the south of this area, there was the annual pilgrimage to the adjacent high country of the Bogong Mountains [in Region 12] and the Snowy Mountains [in the ACT and Region 11]. Here in December and January large numbers of men from various groups assembled at the higher granite tors to feast on roasted bogong moths, while the women and children remained in the valleys below. All this made for a mobile existence, following natural patterns, totally different from those followed by the European settlers.

These patterns were disrupted from the 1820s onwards by the increasing settlement of the tableland. Alexander Harris, 'the emigrant mechanic', was in the area of Bungonia some time in the 1830s and reported that:

the black says "Plenty water before white man come, plenty fish [fish], plenty kangaroo, plenty 'possum, plenty everything: now all gone. Poor fellow now, black fellow".

Some Aborigines did occasional work for the newcomers. At Amprior, north of Braidwood, the Ryries had in the 1830s 'frequently employed aborigines but never more than twelve to fifteen at a time and only for two-three days continuance cutting bark, washing sheep and gathering potatoes. Some adults preferred to work, others to hunt. Their wandering habits seem to be guided by those with influence on the tribe.' In Braidwood itself Dr Wilson employed an Aboriginal man in his kitchens for two years but 'after receiving a new suit of clothes, he left the place at midnight and the next time I saw Mundilly he was [perhaps more becomingly] dressed as a savage chief; he evidently preferred a precarious existence, perfectly uncontrolled - to every comfort in a state of thralldom.'

But an independent existence was not to endure. Not only had the natural resource-chain been disrupted, but exotic diseases decimated the Aborigines and the influenza epidemic of 1846-7 dramatically increased the death-rate. The highland way of life had evolved over a very long period: Aboriginal camps at the Bogong Cave in the ACT show that the specialised moth-eating was at least eight centuries old when white people came to Australia. Within half a century of the first white settlement on the southern tableland the bogong moth ceremonies had totally ceased; the large intertribal meetings at various centres had ceased; the corroborees which early settlers witnessed in the 1830s and 1840s were unknown in the 1860s, the last 'king' of the Braidwood Aborigines died in the 1870s, his widow in 1900, Micallem, the chief in Araluen, survived to be photographed by Kerry in 1890, 'queen' Nelly at Gundaroo, the last full-blood in the area, died in 1897. But effectively Aboriginal traditional life had expired by 1850.
THE NEW SETTLERS
The exploration by Hamilton Hume, Charles Throsby, James Meehan and John Oxley in 1817-20 made colonists aware of the potential of the southern tableland. Throsby's enthusiasm about the area near Gundaroo and the Yass River knew no bounds: 'the finest country as ever was seen, admirably watered and a fine rich black soil fit for any purpose either for grazing or agriculture.'

As a result an increasing amount of land was settled in the course of the 1820s. In 1821 James Richard Styles' herds were in the vicinity of Revesdale and Hamilton Hume himself had Collingwood near Gunning. Promises of future grants encouraged settlement: the earliest surviving homestead, Caarne at Bungonia, was built by Louis Huon de Kerilleau as early as 1826. And groups of Scots were well ensconced in the Braidwood area by 1830: the Ryries at Arnprior, George Galbraith at Nerriga, Duncan Mackellar Sr at Strathallan, Dr David Reid at Inverary and John Coghill at what became Bedervale. During the 1830s other Scots came to the area: William Scott at Manar, Colonel Mackenzie at Nerriga and Dr Thomas Braidwood Wilson at Braidwood Farm, the site of the future town. Taralga was settled by James Macarthur and his resident stockman Thomas Taylor in 1822, while Lachlan MacAlister founded Strathaird at Myrtleville in 1824.

The open country round Goulburn attracted early settlement. On the Breadalbane plain as early as 1821 there were 4,462 cattle and over 6,000 sheep: the first hectares of potatoes had been sown and some 13 hectares of barley. William Pitt Faithfull shouldered other settlers aside and created Springfield in 1828, where the surviving complex of 1840 and beyond reflects the success of the Faithfulls' merino stud.

The choicest land and the water frontages on the Yass, the Shoalhaven, the Cookbundoon, the Fish, the Wollondilly and many lesser streams were largely occupied by the 1830s, when occupancy was confirmed by a stream of land-grants. An increasing number of proprietors became resident and market-centres grew up along the major lines of communication coming south from Sydney. The key centre on the tableland was Goulburn, marked out as a town in 1828: this was Goulburn Plains (now North Goulburn) and the layout of the adjacent township of Goulburn to the southwest in 1832-3 created a substantial administrative centre for the future. In 1836 there was still only one small inn at North Goulburn, with a slab courthouse, some police huts and a lock-up; and Goulburn to the south had only a 'few scattered buildings of brick', but by 1841 there were 655 people in the town, by 1845 almost twice as many, 1,200 people. More permanent houses, made of stone or brick, now outnumbered wooden houses by almost two to one. Goulburn did not lack early competition, however. In Baker's map of the county of Argyle [the northeast sector of this region] in the mid-1840s, there are inserted plans of three townships: one is Goulburn, the others are Bungonia and Marulan.

Marulan was on the main road south in any case: the surveyor-general, Thomas Mitchell, had the original Marulan [not the present township] laid out in 1834-5 on the junction where the south road divided leading to Bungonia on the east or Goulburn on the west. Mitchell's intention had been to develop the Bungonia road, as a shorter route to Braidwood, but, as he complained in 1839, 'the bridges have been allowed to go to ruin, before the line of the road had ever been completed; consequently the township of Bungonia has been retarded' and Braidwood traffic had to take the long road round by Goulburn. So Bungonia stagnated: between 1841 and 1846 its population rose only from 84 to 98, while Goulburn went from 655 to 1,200.

Between Marulan and Goulburn Towrang Stockade was the headquarters for roadmaking gangs between 1833 and the mid-1840s. These gangs of at least 100 men constructed the main south road from Marulan to Goulburn in the years around 1840: the beautiful stone bridge over Towrang Creek received its keystone in 1839 and the ascendency of Goulburn as the principal city of the plain was assured.
The stages to be expected in the development of country towns can be neatly summarised as: administrative and legal origins in a properly surveyed township; the provision of essential services such as an inn, a store and a smithy; the growth of settled population epitomised by resident ministers of religion and church buildings, instead of visiting clergy conducting services in private homes or barns; then the provision of educational facilities for an increasingly youthful population; the creation of community self-help organisations, such as a School of Arts or a Debating Society or an Oddfellows Lodge; the hallmark of colonial success, the production of a local newspaper; the quintessential country-town feature, the Pastoral, Agricultural and Horticultural Show; and finally the right to have a municipal council. These things may not happen in precisely this order, but they are convenient yardsticks for the transition from a police-magistrate’s small settlement to a developed country town community.

Viewed in this light, the consolidation and dynamism of country towns in the tableland can be compared. Goulburn, founded in 1829-33, became a major ecclesiastical centre: the Scots Church and manse were opened in 1841, the Anglican community grew so rapidly that Goulburn became the seat of a new bishopric in 1863 and the seat also for a Roman Catholic diocese in 1867. Facilities had grown rapidly in the young town: five stores and five inns in 1844, more than twenty hotels by 1867. The magnificent surviving industrial complex of Bradley’s flourmill and brewery had been built between 1836 and 1845, by 1867 there was another steam mill and a steam tannery. Goulburn had become a municipality in 1859 and community improvement was represented by a masonic lodge, two Oddfellows’ lodges and a Mechanics’ Institute by 1867. The first newspaper [the Herald] had been established in 1848, the second [the Argus] in 1864, the third [the Southern Morning Herald] in 1868 and the fourth [the Evening Post] in 1870. One newspaper makes a town, two confirm it but four show a commanding regional eminence.

Bungonia, its old rival, was far outstripped. Although by 1839 it had three inns and an Anglican church, it did not have a public school until 1868, never achieved incorporation, never published a newspaper and remained a small focus for the fine properties around and, after 1889, for the tourist attraction of the limestone caves and gorge.

Nor did Marulan flourish. It was well sited originally on the south road and grew modestly. In 1847 it was described as ‘a small cluster of houses with two inns, a post office and three or four stores’ and an Anglican church was built in the same year. This wayside halt for travellers had respectable prospects, but everything went wrong in the 1860s. The railway to Goulburn bypassed the town and there was a drift away to the area around the railway station which opened in 1868 more than two kilometres away. The road to Braidwood was simultaneously not improved, so no advantage was derived from that source. Over the next twenty years, the original township quietly decayed and became abandoned in the twentieth century, although the Catholic church remained in use until 1930. The final indignity was the building of the new freeway that bypasses new Marulan through the site of old Marulan. The growth of the town at Marulan railway station followed the usual pattern but without an administrative phase and beginning in the late 1860s: the Presbyterians built a fine church in 1873 followed by the Anglicans five years later. A school was opened in the new town in 1870 and the earlier school [founded in 1860] in Old Marulan finally closed in 1877. Simultaneous with the creation of the new town, the wealth of marble, lime and sandstone, which had been known and exploited since the 1830s, became a large business in the 1870s and a small industrial suburb, Marulan South, developed near the quarries in the 1920s. The main township did not grow much after 1900 and preserves in its ribbon main street, now freed of highway traffic, a very interesting new town of the last quarter of the nineteenth century. It makes a most valuable comparison with the ‘historic village’ of Bungendore, which has Turalla dating from the 1830s, had six more
houses by 1848, two hotels and two churches by 1867, a railway station in 1884 and a rabbit-freezing works that survives in part: unlike Marulan, Bungendore is dedicated to the arts and crafts and the ACT tourist market.

Braidwood, like Bungendore, has become very dependent on the crafts industry and on Canberra for its well-being in the 1980s and 1990s. The police magistrate (who was Duncan McKellar of Strathallan nearby) had a court-house built in 1837, two years before the township was gazetted, three years before the first auction of urban allotments. An Anglican church was immediately planned, but the depression of the early 1840s stunted Braidwood’s early growth. Most of the fine stone hotels, stores and other buildings which make Braidwood so outstanding a colonial town were built only after 1845. The process was sedate: population within Braidwood stayed fairly steady in the 1840s at around 200, the Anglican and Methodists churches were not built until the mid-1850s and the Presbyterian church only in 1861. The first school was opened in 1849. While the town was struggling to become more impressive, the goldrush of 1851 jolted the small rural community. The mining hopefuls stimulated bakeries, stores, flourmills, banks, hotels and the prosperity of the larger properties with fine wool, fat cattle and horse breeding stimulated the building of those ‘boom-style’ stores which are so characteristic of Wallace Street today. The local newspaper, the Braidwood Despatch, was founded in 1858 and survived as an independent paper until 1970: it had short-lived rivals, two opening in 1859, a third in 1862 and a fourth around 1867, but except for this brief period from 1859 to 1867 the area supported only the Despatch. The peak of the town’s prosperity was reached at the end of the colonial period. Since then, it has quietly faded as the land became less profitable, communications remain a problem, there is no railway and Braidwood and surrounding district present a cultural landscape deeply nineteenth-century.

In the centre the region around Gunning and Gundaroo had rather a similar history, with development declining sharply after 1900. By 1838-9, when the surveyed town allotments were sold, Gunning was surrounded by some thirty grants of land, all of them sizable or made sizable through consolidation. The village had the usual facilities in the 1830s, such as a store in which John Kennedy Hume, the explorer’s brother, was murdered by bushrangers in 1840. It developed slowly over the 1850s and 1860s, with a school opened in 1858 and rebuilt for 56 children in 1872. After the railway came in 1875, offering a daily mixed passenger and goods service to Goulburn, the town continued to expand, with six hotels, several churches, the Gunning Times in 1887 and its Agricultural Show shortly afterwards.

Gundaroo like Marulan had two separate sites: the earlier, Upper Gundaroo in the early 1840s, with its hotel, church, school and post office, the later, the present Gundaroo, to the north in 1849. By this time all usable land in the area was occupied and the need for a service town was considerable. Upper Gundaroo did not fulfil this need by the 1860s, while its northern neighbour prospered. To an unusual extent Gundaroo’s commercial and community life was dominated by one family, the Scottish Afflecks. From the 1850s for virtually a hundred years, William Affleck and his relatives were prominent storekeepers (at the surviving Caledonia Store rebuilt in 1880). In 1865 William had built the Royal Hotel also in Cook Street (now restored to active life). He contributed to the school in the 1860s, to the Oddfellows’ Hall and to the creation of the recreation park. Despite an attractive new court-house (now an Anglican church) built in 1876, despite the Elite Skating Rink of 1890, despite the Gundaroo Arcade of 1893, the second hotel (the Commercial, opposite the Caledonia Store) failed in 1896. The depression and the shearsers’ strike, coupled with the failure of the minor goldrush at nearby Bywong in 1895-6, made the 1890s a watershed in Gundaroo, as in many of the townships of the southern tableland.

Yass to the west, on the main road south from Goulburn to Albury, managed to survive into the twentieth century, like Goulburn itself, while
its smaller neighbours stagnated. Gazetted in 1837, Yass had over 2000 inhabitants and 315 houses within ten years: by 1867 it had four banks, seven insurance offices, two lodges, a Mechanics’ Institute, four large hotels and the Yass Courier had been published since 1854. As at Goulburn, farmers diversified successfully into tobacco and fruit growing; there was a large area of wheat and the grazing properties around produced high quality wool. Yass was initially bypassed by the railway: the line extended from Gunning to Bowing in 1876 did not approach nearer than five kilometres to Yass town. But the construction of a spur line [the present Yass tramway] in 1892 allowed the transport of heavy goods from Yass to Yass Junction on the main line. The 1890s did not prove a climacteric for Yass. The creation of the new federal capital uncomfortably close in 1913 with its new railway in 1914 going not to Yass but to Queanbeyan, was followed by the decline of wheat-growing in the 1920s. Yass shared the tableland pattern of stability without growth in the twentieth century, but was less directly affected by the 1890s than the smaller towns.

The northern towns, Crookwell, Binda, Laggan, Boorowa, developed later than Yass after an initial impetus from the Tuena goldrush of the early 1850s. Binda, which had been the administrative centre in 1850-1 when the township was laid out, did not develop, although its fine stone flourmill remained in use throughout the colonial period. Laggan, also with a surviving mill, did not achieve township status at all - and the future lay with Crookwell in the centre of the wheat growing area of the 1860s and beyond. Although Crookwell was laid out in 1860, urban allotments were not sold until 1869 and the ‘stirring little township’ with its own Progress Association, brickworks and two flourmills in the 1880s, was poised to consolidate its position with the railway from Goulburn in 1901: the creation of the shire of Crookwell in 1906 was the final link in this chain.

TOURISM

The antidote to stagnation for many centres on the tableland was tourism. The first area to organise tourism was Bungonia. The remarkable limestone gorges of the Shoalhaven river had been commented on as early as 1818, by Charles Throsby, and explored by Louis Huon de Kerilleau, who died there in 1829. Some of the dramatic Bungonia caves had been partially explored in the 1820s: Allan Cunningham descended the Drum Cave in 1824, Thomas Mitchell the Grill in 1828 and the Drum in the following year. Governor Gipps visited the still unspoilt look-down in 1838 and visitors came sporadically: Eccleston du Faur to Hogans Hole in 1868-9. The Fossil Cave was first explored in 1872. The turning-point came with the official opening of the caves and the appointment of a caretaker in 1889, with a cottage built in 1896-7. Records of attendance exist from 1891 to 1906, showing quite high interest, especially around 1900:

<table>
<thead>
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<th>Year</th>
<th>Visitors</th>
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<tbody>
<tr>
<td>1891</td>
<td>95</td>
</tr>
<tr>
<td>1892</td>
<td>85</td>
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<tr>
<td>1893</td>
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<td>314</td>
</tr>
<tr>
<td>1906</td>
<td>268</td>
</tr>
</tbody>
</table>

Despite the erosion of the view from the look-down by limestone quarrying and despite very severe threats indeed from the insatiable quarries since World War II, Bungonia caves, gorge, township and early homesteads such as Caarne (1826), Inverary Park (1830s), Limley Park (1830s), Glenrock (1840–3) and Reevesdale (c 1830), have enjoyed substantial success as a varied tourist attraction.

The caves at Wombeyan, east of Taralga, have been much better known and more visited in the twentieth century, but had a history of early exploration similar to Bungonia. The Grand Arch at Wombeyan was discovered by John Oxley in 1828, while recovering his horses, but the caves themselves were not entered by Europeans until
1842. The first caretaker was appointed in 1865, much earlier than at Bungonia (and two years before a keeper was appointed at Jenolan on the central tableland): more caves at Wombeyan were opened to the public every decade - Mulwaree in 1865, Kooringa in 1875, Wollondilly in 1885 and the Junction (discovered only in 1897) in 1906. A Caves House for visitors was opened in 1900 but burnt down in 1934; this tourist accommodation followed the construction of a road from Taralga in 1895 and one from Mittagong in 1900, but the crossing of the Wollondilly remained uncertain until a bridge was opened in 1967. Just as the Caves House immediately followed the original road in 1900, so the present caravan park (opened in 1972) was the logical result of the improved access from Mittagong.

Because of the limestone which abounds on the tableland there are numerous caves other than Bungonia and Wombeyan. The Grove Creek caves near Tuena in the far north had already attracted thousands of visitors by 1867: Baillière's gazetteer describes how Grove Creek 'runs through the caves, its sublimity cannot be described by pen, nor can words eloquent enough express the grandeur of the scene which the eye alone can convey to the mind.' Such publicity brought even more visitors to the Tuena area in subsequent years to add to the graffiti 'and hieroglyphics in charcoal' which already adorned the caves.

Limestone caves were the key to tourism in the nineteenth century on the tableland. In the more recent past the well preserved colonial townships have capitalised on their heritage appeal and on the leisure needs of the Australian Capital Territory to create a different sort of tourism.

Gundaroo, Bungendore and Braidwood have all exploited their heritage streetscapes in this way. All three have developed a distinctive reuse of old buildings for craft products: blacksmithing at Bungendore, weaving, pottery and artshows at Braidwood, art display and crafts at Gundaroo. The development of Canberra and the ACT had a restrictive effect on Yass but gave a new lease of fairly sophisticated life to Gundaroo, Bungendore and most of all to Braidwood. The emphasis on heritage has created also successful ventures such as the Pelican Sheep Station near Goulburn, the museum of historic engines at Goulburn's 1883 pumping station and the historic goldmining centre at Bywong. The very circumstances which made most of the southern tablelands stagnate economically and socially from the 1890s onwards have now become an asset which, if developed along sound principles, will continue to enhance the area.

MINING AND INDUSTRY

The southern tableland is much less generously endowed with mineral deposits than the central tableland, but gold, copper and iron, together with marble and other limestone deposits, have played an important role in the heritage character of the region.

In the far north, close to the Abercrombie River, there was recurrent goldmining at Tuena, with alluvial gold for at least thirty kilometres along Tuena Creek, first exploited in 1852. The Tuena field followed some of the mixed fortunes of the Trunkey area to the north of the Abercrombie, and many of the leases and shaft mines were abandoned by the 1870s. The field was very quiet in the 1880s: by 1891 there were only 80 alluvial gold-seekers, ten of them Chinese, and 30 quartz-miners. The later 1890s saw an increased output of gold and the reopening of known lodes, but despite consistent optimism and some capital investment in crushing machinery the Tuena mining community was reduced to a few fossickers by World War I.

The more successful early goldfields were in the Braidwood area, at Jembaicumbene, Majors Creek and Araluen. With popular awareness of gold very high after the Ophir rush early in 1851, 200 men were panning at Araluen Valley in June 1851; high above on Bells Creek at Reidsdale similar alluvial finds were made in September and in October gold was found in Majors Creek to the northwest; further east gold was found in the Mongarlowe at Monga in 1852; by 1859 there
were sufficient Chinese on the Jembaiacumbene swamps south of Braidwood to construct their first joss-house. The 1860s saw quartz-mining alongside large-scale alluvial mining and by 1871 there were eleven ore-crushing batteries in the Braidwood area. The very substantial difficulties in descending from the Bells Creek area into Araluen Valley and into parts of the Mongarlowe valley limited the development of the goldfields and has also preserved some important mining sites in out-of-the-way places.

In the 1870s alluvial mining became more mechanised, with water wheels, pumping mechanisms, long water-races, hydraulic mining with monitors scouring the landscape (as at Majors Creek) and ultimately in 1899 with dredges. The dredge transformed the mining industry in the twentieth century, mainly in the Araluen Valley and on the flats at Jembaiacumbene: at least eleven dredges operated in the earlier twentieth century generating work for the iron foundry at North Araluen which turned to making dredge buckets. The last dredge, at nearby Glen Innes, ceased to operate only in the 1940s and two of the dredges still survive as bizarre shipwrecks on the Araluen landscape.

Conventional alluvial and shaft mining began at Bywong in 1894, with a tent-town of some 300 miners, sensitively recreated since 1981, along with a horse-whim. Original machinery, a battery hand-made by Arthur Crouch for his children in 1902, and a full-size three-head battery, also hand-made by Arthur Shepherd in the 1940s, with its accessories constitute important testimony to this small but representative goldmine which was worked until 1964.

The Tuena district in the north had diverse mineral deposits: as well as gold, silver, copper and zinc which were exploited from the 1870s onwards. The Peelwood Copper mine, exploiting a complex ore body found in 1874, had erected four reverberatory furnaces and was employing 500 men in 1875: the mine produced well for four years, and sporadically into the 1880s. The boom in silver in 1888 prompted the building of a water-jacket furnace to extract silver from the mixed lode, but the entire plant, for copper and silver, was dismantled in 1889 and did not reopen.

As Peelwood and other mines in the area declined, Captains Flat opened, also with complex ores, containing copper, lead, gold and silver. The ore-body had been prospected in 1874, like Peelwood, but mining began only in 1882 and was consolidated as the Lake George United Mining and Smelting Company. The smelters built in 1885 and 1889 were superseded in 1896-7 when English capital was brought in and three modern blast furnaces were built. The effective winning of gold, silver, copper and lead from difficult and poor ores aroused the admiration of J.E. Carne, the government geologist, but the effects of the pyritic smelting, the high sulphur content of the ore and the additional use of cyanide did enormous ecological damage up to the mine’s closure in 1900 and again when the National Mining Corporation reopened it in 1926. The poisonous effluvium from the mine area today is a major problem for the local ecology and is the major heritage of the mineral industry on the tableland.

The other extractive industry which has left considerable marks on the landscape is limestone quarrying. These are the ‘limestone plains’: not only did limestone caves attract tourists to the Bungonia area but also the deposits of marble and lime attracted entrepreneurs. The marble to the north at Marulan had been worked since the 1830s: the quarry on the Wollondilly about ten kilometres from Marulan is believed to have been the first of its sort in Australia and its marble was much in demand for early Victorian mantelpieces. The marble was overshadowed by other quarries later in the century but the more mundane limestone deposits between Marulan and Bungonia were developed commercially from 1875 onwards. Local lime-burning was a significant industry in the 1880s and again, after a gap, from World War I onwards: a number of ruined limekilns survive, though they do not seem to have been investigated archaeologically. From 1921
onwards really large operations began, first by Southern Portland Cement and Davis Gelatine Pty Ltd, then in the 1930s by Metropolitan Portland Cement who established a large cement plant near Picton to process the crushed limestone. The link with Hoskins Bros [later Australian Iron and Steel] at Lithgow and Port Kembla, where the ironworks had a huge appetite for limestone flux, culminated in the close association of BHP (the heir to AIS) and the Associated Portland Cement Manufacturers [Australia] Ltd which bought Metropolitan Portland Cement in 1960. The danger to Bungonia Gorge itself and to some of the cave systems provoked considerable public debate in the 1960s and 1970s when such protests were still uncommon. Already by 1960 the view from Bungonia look-down had been seriously vandalised by quarries: by 1972 quarrying dominated the view beyond the gorge.

The southern tableland has had much less mining activity than the central tableland but the effects on the environment at Captains Flat and Marulan-Bungonia have been far more public and serious than anything in Evans Shire save Sunny Corner (which, however, is much harder to visit than Captains Flat).
11. Monaro

The plateau has an undulated hilly surface for the most part, with some flat areas, averaging 1,000 metres above sea level. Streams occupy broad flat valleys, but enter gorges when leaving the region; thus the Snowy River provides no route to the south except for past drovers. Near Dalgety and Adaminaby the plateau rises to form the Australian Alps, now mostly in the Kosciusko National Park which provides conservation and recreational facilities such as skiing and walking. The Snowy Range rises to 2,300 metres, and forms a watershed between Snowy River and Murray River waters exploited for water storage and hydroelectricity. The effects of glacial action are visible around Mount Kosciusko.

Outlets are via the Michelago corridor to the north, the Brown Mountain road to the south coast, and via Adaminaby and Kiandra to Tumut in the west. The plateau may then be said to be an isolated distinctive region.

The plateau’s vegetation comprises forest (Alpine Ash in the east, Peppermint, Stringybark, Box, Cypress Pine on the plateau), subalpine woodlands in the mountains, and extensive grassland, including Kangaroo Grass.

The whole of the upland plateau is used for sheep grazing, with beef cattle of secondary importance. Sheep are raised mainly for wool. Grazing on the high alps has now been stopped.
LOCAL GOVERNMENT UNITS

SHIREs:
Bombala, Cooma-Monaro, Snowy River
THE TERRAIN
Monaro is high country and the eastern part is entirely alpine (Fig 11.1). The original European divisions of the area into the three counties of 1848, Beresford, Wallace and Wellesley, produced distinguishable geographical units (Fig 11.2). County Wallace (which contained the present Snowy River shire plus a strip at the north along the Murrumbidgee) had all the alpine and sub-alpine country together with the valleys of the Snowy River and Wullwye Creek to the east and south. County Beresford, the present shire of Cooma-Monaro (which includes also the northern portion of county Wallace), lies between 1,000 and 1,600 metres, with lower tableland in the valleys of the Murrumbidgee and the Umarra. The third county, Wellesley, equates with Bombala shire and is largely tableland between 500 and 1000 metres. The only part of the entire region which lies below 500 metres is the southern stretch of the Snowy River valley near the Victorian border.

ABORIGINAL PEOPLE
The Aboriginal inhabitants did not divide Monaro into sub-regions. Almost the entire area was occupied by the Ngarigo people. The only other groups in the present Monaro were the Wallagai in the northwest corner around Kandura and the Bidawal, who were basically a coastal people whose territory extended inland through the southeast part of Bombala shire, south of Bombala, with the Snowy River as their northern border and Currawong Creek as their western. As in the southern tableland and the eastern Murray region, this high country offered significantly less ample food supplies than the coast. The Bidawal had both coast and tableland: the Ngarigo were entirely highland people and so were consistently more nomadic.

The high country was not inhospitable if treated with respect and understanding. If the Ngarigo explanation that ‘Monaro’ meant a woman’s breasts was correctly understood by the early Europeans, then the Aboriginal perception of their highland home was not of rugged peaks but of undulating hills, offering comfort and nourishment. The tableland provided consistent vegetable food for mobile people: there were the tubers of the yam daisy in spring, summer and autumn, wattle-seeds in July and August or orchid tubers in August and September. From September until May there was fish in the major rivers (including large Murray cod in the Murrumbidgee), while crayfish, yabbies and platypus abounded in most streams. Meat from possums was in constant supply and teams of hunters could capture the larger game.

There was the annual pilgrimage to the alpine country of the Bogong Mountains (in region 12) and the Snowy Mountains. Here in December and January large numbers of men from various groups, not only from Monaro, assembled at the higher granite tors to feast on roasted bogong moths, while the women and children remained in the valleys below. All this made for a mobile existence, following natural patterns, totally different from those followed by the European settlers.

These patterns were disrupted from 1827 onwards, when Richard Brooks first grazed his animals on Gagedzicrick, just northeast of Berridale. By 1836 the major runs of the colonial period were all occupied by Europeans. Exotic diseases, particularly syphilis and influenza, had a disastrous effect on the Aboriginal population. John Lhotsky, the observant Polish biologist, noted in 1834 that the Monaro group ‘is already very weak, consisting of about fifty men; they are entirely tame (indeed not civilised but corrupted).’ The ‘tame’ ones might serve as guides, most memorably Charley Tara who served Strzelecki well at Kosciusko in 1840, and probably some Aborigines worked sporadically on stations as they did on the southern tableland and in the Tumut area. The Sydney Morning Herald might report in 1856 that the Monaro Aborigines were almost extinct, but the census showed 166 Aborigines (probably Ngarigo) around Cooma and 319 (probably mostly Bidawal) around Bombala. Still in 1867 Aborigines were receiving government blankets in Cooma and in 1872 Alfred McFarland met a group of about thirty Aborigines ‘of every age’, lying on possum rugs, roasting possum and koalas while an old man whittled a boomerang. This group was camped west of Cambalong, where the Bombala and Delegate rivers unite. These may not have been either Ngarigo or Bidawal, since Aborigines from Gippsland and Omeo are known to have been in Monaro, usually as stockmen, in the 1850s. But
Bony Jack and his son Biggenhook were certainly Ngarigo and Biggenhook lived on into the present century, one of the most dedicated supporters of the Cooma Cricket Club. When Biggenhook died, however, aged about sixty, in 1914 the Ngarigo people became extinct.

EUROPEAN SETTLEMENT
The pressure for grazing land on the tablelands took herds and flocks well beyond the limits of location in the 1820s. By 1827 Richard Brooks had established himself on Gegezertick, northeast of Berridale; in 1828 Wambrook, northwest of Cooma, was occupied and by 1830 William Woodhouse had opened up Inchbyra on the Snowy River in the far south. By the late 1830s virtually the whole region was taken up with squating runs. The only areas left unoccupied were: the alpine area along the western boundary, the triangle of land north of the great loop of the Murrembidgee (the area around Shannons Flat); and the southern portion of what is now Kosciusko National Park on the Victorian border.

The occupied land was suitable both for cattle and sheep. The 15,000 hectares of Brooks’ Gegezertick carried 5,000 sheep and 6,000 cattle in 1833; in 1848 Thomas Bloomfield ran 13,000 sheep on 14,000 hectares at Coolamatong on the Snowy River. A speculative like Benjamin Boyd was encouraged to acquire fourteen runs totalling over 24,000 hectares in the 1840s. Many squatters, like Farquhar McKenzie of Kerrasdale, moved on to Victoria. Some, like Ben Boyd, went bankrupt. But others, like the Woodhouses, have continued to have a stake in Monaro to the present day.

When the list of lessees and runs in the Monaro Pastoral District was gazetted in 1848-50 following the squating legislation of the mid-1840s, it showed a total of 172 runs. The Pastoral District was more extensive than the present Monaro: when south coast runs are removed from the 1848-50 lists, there are 130 runs in Monaro, as shown on the accompanying map [Fig 11.3]. There were 57 properties on which only cattle grazed, 28 with only sheep and 44 with both cattle and sheep. The other run [John Lambie’s at Cooma] was dedicated to horses: as the herds of brumbies increased, horses become an important element in the economy and folk-lore. There were many men from Snowy River.

TRANSHUMANCE
From the 1860s onwards the potential of alpine grazing in summer had been realised. Until 1957 the practice of transhumance grazing, moving stock up to the highest country in the Snowy Mountains in summer and driving them back into the valleys in the autumn, was practised on a familiar European model. It was the newcomers’ equivalent of the bogong moth migration of the Aborigines.

Droughts or very heavy snowfalls might restrict the period of high grazing in individual years. Early attempts at creating permanent stock stations at high altitudes had run into recurrent difficulties. In 1839, for example, Dr Gibson’s cattle perished near Kiandra on Gibsons Plains through severe weather and in 1855-56 the Palmer’s cattle were smothered by snow in the same area. Palmer and Gibson were not practising transhumance: they were suffering the effects of the alpine winter. There was still no transhumance in 1840, when Stewart Ryrie, a member of the pioneering family at Arnprior near Braidwood, who had come south with stock, commented that there were no cattle or sheep taking advantage of the good pastures which he explored above the tree line in summer. Still in 1855 W.A. Broadribb commented that none of the high grazing north of Jindabyne was occupied at any time of the year.

The real emergence of transhumance was a direct result of the land legislation of the 1860s which sub-divided so many of the larger runs in Monaro as elsewhere. The smaller selections which were created in a complex pattern of division and partial reconsolidation over the following decades made graziers more susceptible to drought conditions than the huge undivided runs had been in the 1840s and 1850s.

The first major instance of transhumance seems to have been from one of these old, still undivided runs in 1865. The manager of the Cooma section of William Bradley’s huge holdings drove 48,000 sheep and 2,000 cattle into the mountains to the
west during the summer drought in 1865. This very practical expedient became a commonplace from the late 1860s onwards, despite recurrent losses when winter came to the high country unexpectedly early as in 1871.

One significant corollary of the introduction of alpine grazing as a supplement to the established tableland station was a marked increase in carrying capacity. As Sir Keith Hancock noted from the unpublished station records of Bibbenluke [just north of Bombala], “by the late 1880s H.T. Edwards had lifted Bibbenluke to a carrying capacity of one sheep to the acre; but he would have been unable to do so had he not lightened the pressure on his paddocks by sending 10,000 to 20,000 sheep every summer into the Kiandra country.” All this high grazing was uncontrolled until the first government snow leases were introduced after the Crown Lands (Amendment) Act of 1889. In 1893 there were 22 such snow leases, by 1921 61, covering some 100,000 hectares, which had tripled by 1943. Despite government restrictions, which were flexible to reduce grazing when the alpine pastures were in poor condition or under snowdrifts, the deterioration of the vulnerable environment of the high country was finally recognised in 1957, thirteen years after the Kosciusko State Park Act, by the abolition of snow leases. The movement of cattle and sheep into the snow leases from the late 1940s up to 1956 had been monitored and show a very high concentration in the northeast sector of the park with sheep varying in number between 105,000 and 168,000 each year and between 5,600 and 13,600 cattle.

The sixty stockmen’s huts which survive have been the object of NPWS policy debate. These simple one-roomed structures with a fireplace hung with an assortment of chains and billies, a bed made of sacking and saplings, sometimes a window and often with a dirt floor were constructed of slabs or logs or weatherboard. They are in general earlier than the corrugated iron huts built in the 1930s and 1940s when grazing properties had again become smaller and even more dependent on intensive use of the alpine pastures in summer; this need coincided with legislative changes that made payment for a snow lease much more inviting in the 1920s and beyond. The abolition of snow leases in 1957 did not end alpine grazing; that had to wait until the government’s acceptance of the Edgar Report in 1969, when grazing within the Kosciusko National Park was totally prohibited, while at the same time developing leisure uses of the high country.

One hundred years of grazing both on one’s own run and on the common pastures of the Alps created an important wool, mutton and beef industry in the Monaro. There was also some dairying: butter factories became quite common in the 1890s and production remained high up to 1905, peaking again in the early 1920s before dwindling decisively. The Monaro was not suited to intensive dairying and the lifeblood of the region remained wool and meat. Its prosperity therefore fluctuated with the prices of these two staples and was much bound up also with the vagaries of drought, flood and snow. Although the graziers (and all those whose livelihoods depended on the graziers) had some difficult times, in the slump of the 1840s, in the drought and low wool prices of the mid-1880s, in the crash of the early 1890s, the drought which ruined so many countryfolk in the late 1890s did not affect the Monaro and the rabbits were less successful there than in the districts of the west.

**Agriculture**

Like almost all country districts, Monaro had been obliged to grow wheat for its basic flour supply from the very beginning. As a matter of basic subsistence the hand-operated steel mill ground wheat into flour on many of the 130 early runs. The first water-powered flourmill was built at Jindabyne by Stewart Rytie as early as 1847 and
three others opened in the region in 1853: these all failed and only one horse-mill at Bombala was entered in the 1854 and 1855 returns. But commercial milling soon revived with a similar development in Cooma in the following year. A second steam-mill opened in Cooma in 1865 and a second watermill in Bombala in 1869. The Bombala district maintained at least two mills and the Cooma district four for over twenty years. But, as Alfred McFarland noted in 1872, ‘scarcely any man in [Monaro] could live by agriculture alone; the country stands too high and the climate is too dry.’

In 1871 just over 1,700 hectares around Cooma and 540 around Bombala were under crop (mostly wheat, with some oats, a little barley and a useful crop of potatoes). At its peak of agrarian optimism in the early 1880s, the region had eight steam-mills and three watermills in the expectation that the projected railway link with Goulburn would provide wider markets for Monaro flour. But the drought of 1885-7 curtailed grain production and the railway in 1889 brought less expensive wheat from the Murrumbidgee region instead of opening up lucrative Sydney markets for the Monaro farmers. Wheat acreage declined in the 1890s and, despite a sharp upsurge in the first decade of the new century, steadily diminished until, after 1920, it was of negligible importance. It is ironic that one of the most striking industrial monuments in the Monaro is the stone windmill tower at Nimmitabel built by a German settler between 1865 and 1872 to grind grain but never used because of local fears that the sails would frighten horses; after a few years as a horse-driven timber mill, the building became derelict in 1885. Geldmacher’s mill at Nimmitabel is telling evidence of an industry which could not succeed.

HOMESTEADS, TOWNS, CHURCHES
The relative success of the graziers is enshrined in their homesteads, outbuildings and outstations. All these homesteads were single-storied; McFarland commented in 1872 that there was only one staircase in all the country properties of Monaro.”

The towns themselves grew up as natural service points for the graziers. Bombala was the most successful early centre, with over 300 residents by the mid 1850s. Cooma only gradually reached its position of ascendancy in the region: it started as an inn strategically sited on James Kirwan’s run at the intersection of rudimentary roads to Goulburn, Coolangatga station, Mittagong and Queanbeyan. It was a convenient centre for the administration of crown lands in the 1840s by Commissioner Lambie who took up some of Kirwan’s run. The village of Cooma was gazetted in 1849 and the first town allotments were sold in the following year. The usual stores and other services followed in the 1850s, with a hospital and a court. It rapidly reached parity with Bombala and the first newspaper in the region, the Monaro Mercury and Cooma and Bombala Advertiser, was published in Cooma in 1860. The two Bombala newspapers did not start until 1863 and both of them emphasised the connection with the south coast: the wool clip from Bombala went by bullock team to Merrimbula for shipment to Sydney, whereas the Cooma wool went to Goulburn for railising to Sydney. When the Monaro’s rail link to Goulburn was opened in 1889, it ended at Cooma: the line was not extended to Bombala until the 1920s and the ascendency of Cooma was assured.

One prominent feature shared by the rural and urban parts of Monaro was building in stone. There is excellent granite in the region, red granite quarries near Cooma, at Jindabyne and on Maffra station and a quarry for dark grey granite on the Berriedale road south of Cooma. Partly because of acute transport difficulties, these granite outcrops were not exploited like those at Moruya on the south coast, but they were used extensively for local domestic and public buildings. In particular the stone churches of Monaro demonstrate the character of religion in the lives of the settlers.

The earliest stone church is Christ Church at Cooma, built in 1845-6; the next was begun in 1849 as a private chapel on Richard Brooks’ Gagedzerick. St Mary Virgin at Gagedzerick is a particularly interesting instance of grazier aspirations, since Brooks had already built the exquisite Gothic chapel still standing at Denham Court near Campbells Plains in the Sydney region. The Presbyterian church on Round Plain
MINING: GOLD AND COPPER

Stockmen on the mountains in the 1850s occasionally found some gold and did some rather casual digging. The regular presence of gold from decomposed granite in the Snowy and Eucumbene rivers was confirmed by the geologist W.B. Clarke in 1852. This news got around in a very gold-conscious decade and in the mid 1850s a few parties of regular diggers of the more enterprising sort - those who prefer remote, quiet, and moderately paying diggings - a large proportion of whom are Americans - have prospected and partly worked the southern part of Maneero, where the many beds of the Snowy River rise; and I have known of a party who have worked continuously for two years on the Delegate River country.\(^{46}\)

The main gold deposit at Kiandra, however, was not found until November 1859. By January 1860 more than 1,500 miners had reached Kiandra, one man for each metre above sea level, for this is the highest gold area in Australia. By April there were 10,000 on the field. The nearest station was William Russell's Denison on the Eucumbene River south of the new goldfield and Russell at once opened the Digger's Rest inn and did a brisk trade in beef and mutton. The two crossings of the Eucumbene River between Denison and Kiandra were hazardous and the track was extremely boggy, but improvements were rapidly made and Kiandra developed the usual goldfield facilities before the end of 1860. The Alpine Pioneer and Kiandra Advertiser first appeared in August 1860. But the rush was transient and the spectacular nuggets from Surface Hill and the Jackass Flat beside the township had all been found by December 1860.

This early phase, the real gold rush period, in 1859-61 was dominated by surface sluicing; this continued on a much reduced scale into the 1870s and some attempts at reef-mining were undertaken, particularly on New Chum Hill, but in the late 1870s only some Chinese miners were active. The year 1883 saw the introduction of large-scale hydraulic sluicing, using long races from the Three-Mile Dam (built in 1881) and American-style monitors: in 1883-6 the deep leads in New Chum Hill were exploited, leaving the great scars in the hill still so evident today. From time to time work resumed on these leads but this form of mining had peaked by the late 1890s (Fig 11.6).

In the early twentieth century, from 1900 to 1903, dredging on the Gungarlin, Snowy and Eucumbene rivers was undertaken with some success, but the last of the dredges was taken away to Tumbarumba in 1904. Thereafter there was a long period of small-scale mining in the Kiandra area; the last abortive effort of note was again at New Chum Hill in 1937.

The outstanding features of the mining sites around Kiandra are the stark remains of hydraulic erosion, along with dams and water channels.

In the various other diggings south and north of Kiandra, a rather similar sequence of mining modes has left various significant traces: riverbed sluicing at Four Mile (with a slab and kerosene tin hut of the 1930s), creek flat sluicing on a grand scale, a huge sluice hole and foundations of houses and stores at Nine Mile; the Broken Dam at South Bloomfield; and the scatter of machinery at the Elaine Mine on Bloomfield Creek dating from 1926 to 1938.

As Dr Pearson has commented, these high diggings are of rare significance. 'They represent an unusual mining regime in Australia, one where heavy snowfalls meant abandoning mining or modifying methods for many months each year. Also unusual in this state is the combination of ground sluicing, hydraulic sluicing and tunnelling methods.'\(^{46}\) Since the entire Kiandra mining area has been within a national park for more than forty years, it has preserved its 1930s aspect, to a degree not known among any but the most isolated mining sites in New South Wales.

The only other mining of any importance was for copper. In Snowy River shire, copper was found at
Kyloe in 1860, at Gegendzerick and Cootralanta in 1872. At Cootralanta Solomon’s mine produced quite a lot of ore, which Solomon hoped to smelt on the spot: to fuel the projected smelters, coal leases at Wambrook (northwest of Cooma) were opened, but this was a short-lived venture. Cootralanta was reopened in 1906 but without dramatic results. Gegendzerick, where shafts were sunk in 1872, was reopened in 1907, while Kyloe had shafts dug in 1872, and extended in 1882 and 1904-7. A Krupp ball mill was constructed at Kyloe in 1907 but the mine closed in 1914.

In the Bombala area, copper had been found by W.B. Clarke in 1852 and the Belmore Freehold Silver and Lead Mining Co did extensive prospecting on these copper ores at Quindong from 1868 onwards. Silver-lead ores were smelted here on the Delegate River in the 1880s and the area has archaeological potential, but its economic promise remained unfulfilled.

TOURISM
The snow country has made Snowy River shire one of the tourist meccas of Australia. Skiing was introduced first at Kiandra. The first winter for the miners in 1860 saw sledges being built but only in 1861 were skis improvised, ‘constructed of two palings turned up at the front and about four feet long, with straps to put the feet in, and the traveller carries a long stick to balance himself and to assist him up the hill.’ These were the first skis seen in Australia and the younger miners used them simply for relaxation. Races seem to have been organised in the late 1860s or early 1870s, and the Kiandra Snow-Shoe Club was founded in 1870. This was one of the earliest ski clubs outside Europe and two years before the first American club.

The period from 1895 to 1905 is uncommonly well recorded because Charles Kerry, the leading Sydney photographer, who had been born in Monaro, was a skiing enthusiast and took many remarkable photographs of this early phase in the sport’s development.

The alps became more regularly the venue for winter sports. The Alpine Club of New South Wales met at Kiandra in 1906 and 1907 and the opening of the Hotel Kosciusko in 1909 gave a much needed base for the future extension of mountain tourism. Skiing developed only slowly, however, until the 1930s, when Austrian ski-instructors came to Australia and when the first ski-tow was erected at Charlotte Pass. The road from the coast to Wagga Wagga via Cooma and Kiandra had been upgraded as a state highway in 1928, but the real advances came in the 1950s when the demands of the Snowy Mountains Scheme improved the highway and opened up access roads in the southern part of the park, including the Alpine Way. As a result Thredbo developed as a ski-resort in the 1950s, ski lodges opened in various places and the first chair-lift was installed in 1957. The Thredbo Cup for slalom and giant slalom has become an international event since 1964.

In the past thirty years, therefore, the Monaro section of the Alps has become a major centre for winter sports, there has been a great deal of investment and a strong international element has been present in the exploitation of the snowfields.

FISHING
The lack of trout in the mountain streams seemed very regrettable to nineteenth-century Europeans. The first trout were put into Monaro rivers in 1884 and concentrated efforts to stock the Snowy River with annual offerings of trout fry over the fifteen years after 1888 were highly successful. As a result trout-fishing in Monaro became a very satisfying pursuit, not least for the new inhabitants of Canberra prepared to venture beyond the Cotter River. To such as Sir Keith Hancock, an acquaintance with the high country was simply incomplete without a rod in hand.

The rearing of trout on a commercial scale began in the very early twentieth century close to the Hotel Kosciusko, but this Diggers Creek hatchery was not a great success. The next hatchery, on the Thredbo River, operated by Jim McGregor, lasted up to World War II, and its four concrete ponds for stud fish were still there in 1960 in secure overgrown neglect. The Caden Hatchery, Trout Rearing and Research Station, also on the Thredbo River, at Paddys Corner took the dominant commercial and research position after 1958.
THE SNOWY MOUNTAINS SCHEME
The immense modification of the environment wrought by the Snowy Mountains Scheme was undertaken to supply electricity to much of south-east Australia and to regulate water supplies in the Murray and Murrumbidgee regions. The untapped resources of the snowfield and its major river, the Snowy, had been recognised in the colonial period. In 1884 the Surveyor General of New South Wales floated the idea before the Royal Commission on the Conservation of Water that the Snowy River might be diverted northwards to the Murrumbidgee through the gap now occupied by Cooma airport and that Lake George might become a reservoir.

The political interest in independent statehood for the Riverina focused some attention on the alpine catchment in the 1930s and the diversion of the Snowy River was again actively debated in 1938 when Burrinjuck Dam was unable to supply enough water to the Murrumbidgee Irrigation Area.

The catalyst which turned all this into reality was power shortage during World War II. After a detailed study of the hydro-electric potential of the alpine rivers in 1942-4, the Chifley government passed the Snowy Mountains Hydro Electric Power Act in 1949 and the Act was implemented to the full under Menzies. When Tumut Ponds Dam was opened in 1958, Menzies characteristically, and only too correctly, reminded the country that 'this scheme is teaching us and everybody in Australia to think in a big way, to be thankful for big things, to be proud of big enterprises and to be thankful for big men.'91

In the years before Lake Jindabyne and Lake Eucumbene in Monaro and the other new lakes in Tumut shire had filled, the Snowy Mountains Authority had done immense damage. To an extent it also repaired a great deal of this damage, for the dams could not be allowed to fill with eroding silt from the scarred landscape and therefore soil conservation after construction works was an essential priority for the Authority. So the mountains survived the onslaught of Sir William Hudson, his nine hydro-electric stations, his tunnelling and his road-building. The cost of the Scheme may or may not have been economically justified: there is argument over the cost advantages of water-generated electricity and scepticism over the cost-effectiveness of the benefits to irrigation. There is no doubt, however, about the way in which the Scheme caught the popular imagination and interested the international engineering world. At the expenditure of $820 million between 1949 and 1973, the Scheme succeeded in diverting the Snowy River and the Eucumbene to supplement the flow of the Murray and the Murrumbidgee; it provides electricity for the central grid of New South Wales, the ACT and Victoria; and it gave a major boost to the confidence and profits of the engineering and construction industries in Australia. It was the supreme achievement of the development lobby and it has left a long, long shadow over Australian attitudes.

FIGURE 11.1. THE PHYSICAL RELIEF OF MONARO.

On the local level, the establishment of the Authority’s headquarters at Cooma has brought growth and prosperity to the town. But it has also drowned Old Adaminaby, which was re-erected on its present site in 1956-7; it left the bed of the Snowy River virtually empty below Island Bend, and Lake Eucumbene swallowed up the mines of Kyloë.

CONCLUSION

Monaro has a consistent baseline of pastoralism, all over the river valleys and the sub-alpine plains. Wool, lambs and beef cattle have been the mainstay since the 1820s, although transport was less than adequate until a railhead was established at Cooma in 1889. The realisation that in most years the high alpine pastures could supplement the lower plains increased the carrying capacity greatly from the 1860s onwards.

Wheat-growing was never insignificant, but failed to have a more local importance and in the twentieth century wilted, along with the Monaro flour mills, before imported flour.

Mineral wealth was not of critical importance, although the Kiandra gold-field, significant in 1860-1, continued to produce some revenue and some employment until the 1930s. Copper seemed promising in the early 1870s, but there was no lasting success and the last mine closed in 1914.

Tourism, with winter-sports and some fishing, was the new element in the twentieth century, capped ironically after 1949 by the biggest engineering works in Australia. The completion of the Snowy Mountains Hydro-Electric Scheme, with dams, access roads and, as a corollary, ski-lodges and chair-lifts, brought some local benefits but was also a triumphant symbol for a whole development ethos. The Snowy Mountains have shared their environmental losses with the rest of Australia.

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Hancock, *Discovering Monaro*, 135.
Ibid., op.cit. 147.
Ibid., 102
*Sydney Morning Herald*, 12 August 1861, quoted in Moyer (ed) op.cit, 63.
L. Wigmore *Struggle for the Snowy*, Melbourne, 1968, 93.

### SURVIVING STONE CHURCHES OF THE MONARO

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<th>Place</th>
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<td>St John</td>
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FIGURE 11.2. THE THREE COUNTIES IN MONARO IN 1848: INSERT, MONARO PASTORAL DISTRICT.

FIGURE 11.3. THE PASTORAL RUNS IN MONARO IN 1850.

MONARO SQUATTING RUNS
1849-1850

Source: W.K. Hancock Discovering Monaro. Cambridge, 1972, map 7, 47.
FIGURE 11.4. TRANSHUMANCE IN MONARO IN 1954-55.

FIGURE 11.5. MINING SITES AROUND KIANDRA.

Source: M. Pearson, "A report on the mining history and remains in the northern half of Kosciusko National Park", NPWS Sydney [1979].
12. Murrumbidgee

This region coincides with the middle section of the Murrumbidgee River including drainage from the eastern uplands by way of the Tumut River. The river was navigable to Wagga Wagga, which provides the central town of the eastern part of the region. Undulating slopes give way in the west to level plains. This is now sheep country with Yellow, Grey and White Box, Stringybark and Red River Gum. To the west wheat continues to be grown as the river meanders through level plains with many prior streams. Here irrigation becomes important, and the Murrumbidgee Irrigation Area forms the western boundary beyond which are extensively-grazed plains of the Western Region.
LOCAL GOVERNMENT UNITS

CITIES
Griffith, Wagga Wagga

SHIRES
Coolamon, Cootamundra, Gundagai, Harden, Junee, Leeton, Lockhart, Murrumbidgee, Narrandera, Temora, Tumut, Young
ABORIGINAL PEOPLE

The entire Murrumbidgee area was Wiradjuri country. The southern extent of the 60,000 square kilometres where Wiradjuri was the dominant language lay south of the Murrumbidgee River and extended westwards to the west bank of the Lachlan on the Western plains (Region 16).

The Murrumbidgee was a plentiful giver of shellfish and fish, including large Murray cod, and the plants, tubers and nuts of the country between the major rivers supplied seasonal food: there were yam daisies in spring, summer and autumn, wattle-seeds in July and August, orchid tubers in August and September. Larger game such as possums, kangaroos and emus were captured by groups of hunters to make up a varied and nutritious diet.

Like the Aborigines of Monaro and the southern tableland (Regions 10 and 11) the Wiradjuri came annually to the alpine peaks in the extreme southeast corner of their country to feast on bogong moths. Tumut and the western flank of the alps were in Wiradjuri territory, directly adjoining the Monaro Ngarigo on the eastern slopes. Here in the Bogong mountains and the Snowy mountains, large numbers of Aboriginal men assembled each December and January to collect dormant moths and roast them or pound them into cakes, while the women and children remained in the valleys below.

Surviving sites of significance to the Wiradjuri people are not as numerous along the Murrumbidgee as on the Macquarie River or the Lachlan. Moreover, there are only three carved trees [one of them a burial site] near the Murrumbidgee. The absence of surviving carved trees is in strong contrast to the density of such trees between the Macquarie and the Bogang in the far north of the Wiradjuri area, but the original distribution was not necessarily the same as surviving examples. Certainly the Murrumbidgee group of the Wiradjuri were numerous and, like Wiradjuri elsewhere, have preserved a strong sense of identity into the present.

The dislocation by European settlers of normal Aboriginal routines of life was increasingly severe from the 1830s onwards and new diseases, particularly syphilis and influenza, took a terrible toll of the Wiradjuri. James Gormly, who went to the Murrumbidgee in 1844, told how at that time he regularly saw groups of 300 Aborigines. There were predictable problems over cattle. Frank Jenkins of Bangus station, on the south bank of the Murrumbidgee in the 1830s ‘found that about 200 aborigines had surrounded a mob of his cattle and were ringing them around, and within the circle formed the blacks were riddling the cattle with spears all the time.’

There was a whole series of incidents along 100 kilometres of the Murrumbidgee centring on Narrandera from 1839 to 1841 which have been called the ‘Wiradjuri wars’. The incidents, which involved cattle-taking by the Aborigines and the spearing of a few stockmen, were in reaction to atrocities by the settlers and the loss of traditional fishing grounds and significant sites. Many Aborigines were killed at Huulong in 1840 and about 70 Wiradjuri men, women and children were massacred on Murdering Island in the Murrumbidgee in 1841. Twenty years later, surviving Wiradjuri told the novelist Rolf Boldrewood that ‘white fellow shoot ‘em like possum’.

The end result was that the Wiradjuri were deprived of their riverine territory and driven to the hills and to employment on the stations as cattlemen, general hands, sheep-shearers, flour-grinders or, in the case of the women, domestic servants and mothers of settlers’ children. Ultimately the Wiradjuri were forced to live in the towns established to service those who had supplanted them.

Dame Mary Gilmore spent her childhood and adolescence in Wiradjuri country, as her father Donald Cameron moved around the Murrumbidgee region. Cameron was a close friend and blood-brother of the ‘last great chief’ of the Wiradjuri and Mary was also ‘made a child of the tribe and a “sister”’ in the early 1870s. Much later Mary Gilmore recalled that:

The result was that wherever the blacks were I was protected. Once when poisoned by arsenic intended for them, I was with them on the banks of the Murrumbidgee, alone, for six weeks. I grieved to leave them and they “wept” me as I left. Being a “sister”, all the men and boys had to be away when this occurred - a rare
ceremony, and given to very few white people indeed. But as we rode away, my father carrying me on the front of the saddle, the chief waited by a tree to see us pass, spoke a few words of friendship, and waved us farewell. I never saw any of that kind, friendly body of people again. They were raided, and all that were not in hiding were killed. It was because of word that this was to happen that my father had to come for me. What warning he could give he had given the chief, knowing he took his own life in his hand by even hinting a warning, should it leak out that he had given one. "Better we should all die", said the chief, sadly, "than that my clean young men should become like the white men's sons". I remember, too, that the men of this group, knowing how few could escape, themselves killed the young women of the tribe so that they might avoid capture and pollution. A feast was ordered by the chief, and when the girls, replete with food, were asleep - they slept on.

And Dame Mary Gilmore wrote a touching lament for her friends and for the whole Wiradjuri people:

Harrid we were, and spent,
Broken and falling,
Ere as the cranes we went,
Crying and calling.

We are the lost who went,
Like the cranes, crying;
Hunted, lonely, and spent;
Broken and dying. 87

Gribble also shows, however, the survival of traditional fishing among the Aboriginal men in the 1880s. When the mission was short of meat, the Aboriginal men went to the Murrumbidgee with a cart and on two consecutive days spear a total of half a tonne of Murray cod. "Even the black fellows themselves were amazed at our success. We could only remember Galilee, thank God, and take courage." 89

Most of the Aborigines, however, had no such Galilee. The numerous towns of the area, which became very closely settled with the irrigation schemes of the last hundred years, contained an increasing Aboriginal population. Today in the region, the principal Wiradjuri concentration is in the towns of Narrandera and Griffith, with significant numbers in Wagga Wagga, Leeton and Tumut and smaller communities in Junee, Cootamundra, Harden and Young.

A high degree of marriage within the Wiradjuri community, to the exclusion of other Aboriginal groups, has helped to foster their sense of identity, and the Wiradjuri Aboriginal Land Council and Cultural Resource Centre, established in 1982-3, are now vital focal points for the original people of the Murrumbidgee. 90

EUROPEAN SETTLEMENT

When Charles Sturt stood on the hill above Wantabadgere in the summer of 1829, he and George Macleay enjoyed a most beautiful view. Beneath us to the S.E. the rich and lightly wooded valley through which the Murrumbidgee flows, extended, and parts of the river were visible through the dark masses of swamp-oak by which it was lined, or glittering among the flooded-gum trees, that grew in its vicinity. In the distance was an extensive valley that wound between extensive mountain ranges. More to the eastward, both mountain and woodland bore a dark and gloomy shade. To the westward, the decline of the country was more observable than ever, and the hills on both sides of the river were lower and more distant from it. The change in the rock-formation and in the soil, produced a corresponding change in the vegetation. The timber was not so large as it
had been, neither did the hills any longer bear the green appearance which had distinguished those we had passed to their very summits.51

The features of the Murrumbidgee valley as modified by Aboriginal use, but still unchanged by Europeans, were expressively captured by Sturt. He understood very well the effect of the steady decline in regular rainfall as the river flowed westwards, with the consequent change in vegetation and stock-carrying capacity. (Fig 12.1)

Within fifteen years of Sturt’s visit, most of the water frontages along the Murrumbidgee had been occupied by pastoralists. Gundagai, on the track from Sydney to Port Phillip, was the first township to develop around Gundagai run, which had been established by 1826 by Sugar O’Braten. Already Peter Stockey was on the south bank of the Murrumbidgee, introducing those allegedly St Helena willows which became rivals to the eucalypts and casuarinas along the river. At the junction of the Tumut and the Murrumbidgee, north of Gundagai, Ben Warby’s stock were also grazing in 1826.

The pastoral expansion beyond the limits of location spread west along the Murrumbidgee. The area around Wagga Wagga was settled by emancipists such as Charles Tompson at Eunonyhareaungha (now North Wagga Wagga) and George Best on the south bank along the serpentine meanders were Wagga town was established in 1847-9.

The area around Wagga Wagga and Gundagai developed rapidly. The early pastoralists, all people with stock and capital gained in the nineteen counties, were reinforced by new men also on the make. As the prime frontages on the reliable Murrumbidgee were taken in the 1820s and 1830s, new stations were opened on the tributary creeks both north and south of the main river. In the east, John Harris stocked Kalangan and James Roberts Currawong in the vicinity of Murrumburrah on Currawong Creek about 1828; stations fronted on Muttama Creek from Cootamundra to Coolac, and on Billabong Creek where Nangus was stocked by the Macarthurs of Camden Park.

In the further west, Buckingbong was the prime station of Narrandera, with fifteen kilometres of Murrumbidgee frontage as its northern boundary. Whereas most of the western runs were entirely dependant on the river for summer watering, at Buckingbong

swamps and creeks fed vast beds of the nourishing tall spike rush after which the run was named, and plains of saltbush and kangaroo grass extending far to the south and west kept cattle fat even in drought years.62

Unlike those on the eastern Murrumbidgee, these western pastoralists met considerable resistance from the Aborigines. During the so-called ‘Wiradjuri War’ the two earliest settlers at Buckingbong were driven out by the Narrungdera group of the Wiradjuri, Michael Byrne in 1839, Robert Best in 1840. Only in the 1840s were the Jenkins brothers able to survive on Buckingbong.

The bad relations between Aborigine and settler resulted in the temporary abandonment of some of the Narrandera stations: Grong Grong, Narrandera, Brillinball and Ulong were all unoccupied in 1839 and 1840 as a direct result. But in the later 1840s, before the major drought of 1850-1, the European confidence reasserted itself and everywhere sheep and especially cattle increased in number. In 1848-50 the gazetted squating runs in the Murrumbidgee Pastoral District totalled 237. This total includes 22 runs fronting on the Murray and less than 200 were actually within the Murrumbidgee heritage region, but they covered all the best grazing land in enormous slabs. The largest was Henry Osborne’s Brookong on Billabong Creek, covering some 192,000 hectares south of the Murrumbidgee, partly in the Murray region. Like many other southern properties, Brookong was only a large link in a chain of pastoral stations, in Osborne’s case controlled from Marshall Mount in Illawarra.

After the traumatic drought of 1850-1, the opportunities offered by the gold rushes and the consequent rapid increase in rural and urban population brought riches to the Riverina in general, along both the Murray and the Murrumbidgee. Meat prices soared upwards between 1851 and 1854 and the Murrumbidgee stations.
became a vast fattening paddock, as squatter-dealers drew store cattle and sheep from the north and sold fats to Victoria. Overlanders no longer followed the rivers west to South Australia, but crossed them south to Victoria. Wagga, Narrandera and Hay [in the western plains region] became crossing places: local squatters were literally on the road to a fortune.\(^\text{61}\)

John Peter, already wealthy from investing in South Australia’s copper boom, acquired a total of 400,000 hectares mostly on the Murrumbidgee and the Lachlan between 1852 and 1861; while the Jenkins brothers who had weathered the storm at Buckingbong acquired another 100,000 hectares in the region.

The succeeding decades saw the triumph of sheep over cattle. The gold rush had exaggerated the market for beef and after 1860 the number of cattle sharply declined in the whole Riverina area, from 418,000 in 1859 to 259,000 in 1870, whereas sheep quintupled over the same period, from 1,000,000 to 5,500,000, particularly on the saltbush plains at the western end of the region. The Murrumbidgee and Lachlan Pastoral Districts [heritage regions 9, 12 and 13] contained around 75% of the entire pastoral investment of New South Wales in the 1870s.

The corollary of this pastoral expansion was the clearing of much of the still uncleared bush, the sinking of wells, the building of dams for stock and the systematic fencing of paddocks, even on the backblocks. Towns were encouraged and communications were transformed.

**TOWNS**

Gundagai was the earliest service town to be created. An inn and a smithy were already on the future town site by 1838, the site was surveyed in 1840 and a few allotments were sold in 1842. A disastrous flood in 1844, however, forced the resettling of the town on higher ground on the opposite (south) side of the Murrumbidgee. After this disrupted start, Gundagai became by 1850 the principal town south of Yass, with four hotels, a court-house and the usual services. Again flood destroyed the town in 1852 and 1853. Only the highest point, Sheridan Street, was unaffected and that street was transformed into the main street of the third town, high on Mount Parnassus. Recovery was rapid, as in the late 1840s, and the major flood of 1870 did not impede the growth of later colonial Gundagai.

Wagga Wagga, which became a far more important regional centre than Gundagai, had begun rather later. The town of Wagga Wagga was gazetted in 1847. As at Gundagai, a court of petty sessions was established, but, unlike Gundagai, the administrative need was the primary reason for the town’s existence and the police station and courthouse were opened at once in 1847. Wagga Wagga therefore had regional responsibility from its beginning because it dispensed justice over a wide area.\(^\text{62}\) It suffered from the 1852-3 flood, but not to the extent of Gundagai upstream. Stock sales began in 1855-6, the population virtually doubled between 1856 and 1861 and Wagga Wagga was poised for vigorous growth in the 1870s and 1880s.

As the old road south through Gundagai became largely superseded by the road from Dubbo and Forbes to Albury via Wagga Wagga, by-passing Gundagai, the strategic position of Wagga Wagga was reinforced. Another factor in Wagga’s success was that the new steam-boat traffic could reach Wagga but could not ply upstream regularly as far as Gundagai. The careful analysis by Keith Swan, however, has shown that in fact few paddle-steamers did reach Wagga Wagga regularly either and that only in the 1870s was this link with the Murray and Victoria of any real significance. This brief importance of the river-traffic was, moreover, the result of local businessmen forming the Wagga Wagga Steam Navigation Co in 1869 and purchasing the steamer *Victoria*. But even at the peak of their business, the *Victoria* could make only six round trips a year between Wagga Wagga and Echuca.

Further downstream the Murrumbidgee was more regularly navigable, but it never carried steamboat trade to the extent of the Murray. Nonetheless, the rapid development of Echuca as a river-port after the railway from Melbourne reached there in 1864 had repercussions on the Murrumbidgee. Narrandera had grown up as a crossing-place for road traffic and had had steady growth on its flood-free site after its gazetted as a town in 1863. River
transport for the burgeoning timber industry in the Narrandera district was of critical importance in the 1870s and 1880s, but was partly replaced by the Narrandera to Hay railway, opened in 1882, and decisively superseded when the railway-bridge across the Murrumbidgee towards Jerilderie was completed in 1884.

Still further west, however, the steamer trade had a decisive influence on Darlington Point. The first steamer came past Darlington Point in 1858 and the potential for selling local timber for boiler fuel was realised. As a result steamboats stopped regularly, an inn opened in 1864 and another in 1866 on the south bank at Waddi, and in 1869 another hotel opened on the north side. Significant development came to Darlington Point in 1876 when the greatest of the Murray trading firms, McCulloch and Co, leased two hectares at the settlement and erected a wool-store and a general store. Five years later a proper wharf was erected. Simultaneously the rail-link to Narrandera was opened in 1881, but, unlike the larger settlement, Darlington Point continued to have a steamer trade for another half century.

A telling memorial to the decline of the river-trade at Narrandera is the hulk of the Wagga Wagga. This 86-tonne wooden steamboat had been built at Cornella in 1877: after a long series of misadventures, it was used for pleasure trips from Narrandera in the 1890s and when it sprang yet another leak on Armistice Day 1918 its disgruntled owner left it to rot downstream from Roach’s mill wharf.65

There are many towns in the Murrumbidgee region far removed from the major river. They grew up for a variety of reasons: Junee because of the Coulburn to Albury railway in 1878 and despite a lack of reliable water; Young and to a large extent Tumut by gold-rushes in 1859-60; Griffith, Leeton and Coleambally as deliberate creations of the irrigation schemes of the twentieth century. The dynamics of growth of such towns were not, however, dramatically different from those of older centres and in the last 120 years changes in land use from a basically pastoral economy to one which is primarily agricultural have been critical factors throughout most of the region, not only in the areas of intensive irrigation.

Up to the 1860s the production of cereals in the Murrumbidgee region had been for local consumption only. The process of breaking up large pastoral properties into much smaller selections, despite very adverse weather from 1862 until 1870, resulted in a sharp increase in mixed farming. Nixon's flour-mill in Wagga Wagga, opened in 1857, had encouraged wheat production as much as it reflected it, and in 1866 a second mill, on the other side of the river at Wagga, opened successfully while the acreage under wheat continued to rise. By 1875 Wagga Wagga had ceased importing wheat from the eastern areas, such as Tumut, and was exporting the grain reaped from 2,800 hectares. With the minimum size of blocks bought by conditional purchase raised to 256 hectares, wheat-farming received further encouragement.

In 1879 a reporter for the Melbourne Express toured the region from Darlington Point in the west to Wagga Wagga in the east, as far north as Junee and south into the Murray region. He inspected at least 200 selections, varying in size from 120 to 1,600 hectares.

The fact that he carefully mentioned the few farms on which he saw agricultural machinery indicates that at this time most of the selectors still relied on manual labour for their sowing and harvesting operations. With but very few exceptions they all had a second string to their bow in the way of sheep, cattle or pigs, and were self-supporting in foodstuffs. What social life there was consisted principally of church-going and associated activities, with the visit to the local show as the annual highlight. The wheat yield throughout was estimated at 20 bushels to the acre, the oats being an unknown quantity due to take-all, straining and other factors. There was no mention of linseed, sugar-beet or tobacco being anywhere in the area visited. The great majority of settlers on the Narrandera side of Wagga Wagga were found to be Victorians, thrifty, hardworking and capable, and the writer concluded that the future of Riverina as a grain-sowing centre was assured in their hands.66

The failure to improve farming methods prevented the Murrumbidgee from realising its potential for decades. The major change came in 1892 when the state government established the Experimental
Farm outside Wagga Wagga. This farm not only tested wheat varieties, developed improved strains and gave advice to local agriculturalists, but also encouraged the introduction of new crops, such as grapes, melons, potatoes, maize and fruit. Wagga Wagga Experimental Farm gained an international reputation and the whole central Murrumbidgee area became far more productive in the twentieth century.

IRRIGATION

The enormous change came through irrigation. The Irrigation Areas within this region are centred at Leeton (the Murrumbidgee Irrigation Area), at Griffith (the Benerembah IA with the Tabbita IA to the north) and, south of the Murrumbidgee, at Coleambally.

The concept of diverting water from dependable catchments to thirsty areas was not unfamiliar in the nineteenth century and it was practised on a small scale for a variety of industrial and mining purposes. The programmes in California for desert reclamation in the 1870s did not go unnoticed in Australia, but only after the financial crisis and major drought of the 1890s were any practical steps taken. The Water Conservation and Irrigation Branch of the New South Wales Department of Mines had already been created in the late 1880s, under H.C. McKinney, who had had experience in hydraulic engineering in India. After a report by Colonel Home in 1896, McKinney proposed the building of a substantial reservoir by damming the Murrumbidgee and three major tributaries at Burrinjuck, west of Yass on the southern tableland. The Water Rights Act of 1895 had given the necessary powers to the government and after the drought ended the New South Wales government implemented the McKinney proposals. It decided, moreover, that the Murrumbidgee area, not the Murray area as urged by Home, should have the benefit of Burrinjuck water. The dam at Burrinjuck began to be built in 1906. Although it was not completed until 1928, the first water reached Yanco north of Narrandera in July 1912 and 120,000 hectares between Yanco and Griffith were acquired by the newly created Water Conservation and Irrigation Commission.

In preparation for intensive farming on very close settlement, an agricultural college had been established at Yanco in 1909, following the successful Experimental Farm at Wagga Wagga.

The American architect, Walter Burley Griffin, fresh from his success in winning the competition to design the new federal capital, was invited in 1913 to plan two new towns, Leeton and Griffith (Fig 12.2). The lay-out of these two towns, showing in microcosm some of the concepts and aesthetics which were writ large at Canberra, has survived very well. Leeton already in 1911-2 had become the administrative centre for the Irrigation Trust, with 'a structure of weatherboard wherein new members of the staff could stay until they were able to obtain tents.'67 With the bureaucrats' tents laid out in tidy rows and a construction camp at the quarry to the north, town allotments in Burley Griffin's irregular circles sold briskly in 1913. The bureaucrats were the first to be housed on the outer ring roads, where Acacia Avenue East now boasts a historic row of this 1913-4 development. The police station, which was under canvas at the quarry camp in 1912, moved into weatherboard in 1913 and graduated to brick in 1923.68

To service the new, irrigated farms at Leeton a butter factory was built in 1913 and in the following year the first canning factory, initially for tomatoes, but soon canning peaches and other fruit as well. The farmers on their plots of a mere 35 to 40 hectares were trying to grow crops, fatten stock and milk cows: but the farms were too small and the farmers too inexperienced. Unsuccessful farmers were compensated in 1916-7 and the farming allotments were doubled in size. All in all the scheme suffered major dislocation until World War I ended and soldier settlers were encouraged to take up the farms. Because of the difficulties encountered at Leeton in 1913-6, the second irrigation town, Griffith, was delayed. Burley Griffin's designs were put into execution in 1916 and over the next four years the town was slowly transformed from a small tent community into a planned environment. The optimism which was expressed in the original brief to Burley Griffin, who was asked to design a town for 30,000 people, was only partially realised: in 1980 the population of Griffith was still only 15,000, one half the size projected in 1915.
Italian immigration gave and gives Griffith its distinctive character. Italian miners from Broken Hill were among the first settlers in the proto-town in 1913 and rapid settlement and chain migration from certain part of Italy came after World War I. Because many of the inexperienced soldier settlers and other irrigation farmers left in the 1930s, Italian families were able to buy farms cheaply. By 1933 about 10% of the fruit farms were in Italian hands, by 1954 at least one half. A combination of Italian interests and the large McWilliams company created a major wine industry at Griffith in the last thirty years.

Leeton, on the other hand, concentrated on fruit growing. The highly important Leeton Fruitgrowers' Co-operative Society was founded in 1932 and took over the cannery in 1935: until the 1960s this was the dominant fruit-canning business in Australia.

The third major irrigation area had a much less troubled birth and adolescence. Coleambally was planned in 1952 and receives its immediate water-supply from the Gogolnic Weir on the Murrumbidgee thirty kilometres upstream from Darlington Point, quite close to Yanco and Leeton. The weir was completed in 1959 and immediately twenty-six mixed farms were opened to the south. The plan, a refinement of Leeton's based on experience, was for 313 mixed farms and 22 larger 'horticultural' farms. The horticultural farms opened in 1965 and mainly grew vegetables until 1970 when potatoes became the basic crop. On the increasing number of 200-hectare mixed farms wheat and sheep dominated, but since 1968 sorghum, rice and a little cotton have been grown and cattle became more popular in the 1970s. The view expressed by a sanguine local that 'a Coleambally farm is a 500 acre stretch of mud with water flowing in one end and profits out of the other' may be too rosy, but certainly the sad mistakes made at Leeton and Griffith are much less evident at Coleambally.

Unlike Griffith, the population of the township of Coleambally, hacked out of the forest in 1964, has far exceeded all projections.

Coleambally Progress Association has produced a very comprehensive study of its recent origins and Bowmaker's Brief History of Leeton runs to 360 pages. The documentation of the twentieth-century heritage in these towns and their surrounding small farms is as a result unusually rounded, with a great deal of direct local input. Griffith, Leeton and Coleambally are, in their different ways, aggregations of physical evidence which might be used to appraise Richard White's judgment on this whole irrigation venture:

It is futile to blame the Murrumbidgee Irrigation Authority's failure to meet expectations of a particular group, such as farmers, engineers or politicians. It was the product of a complex interaction between limited knowledge, professional self-interest, political compromise and the community's simple desire to believe in it, all acting on considerations of economy, efficiency and the environment.

THE SNOWY MOUNTAINS SCHEME

Between the opening of the irrigation areas round Leeton and Griffith and the creation of Coleambally a great new factor in water management had entered the Murrumbidgee scene. The Snowy Mountains Scheme was conceived to supply electricity to much of south-east Australia and to regulate water supplies in the Murray and Murrumbidgee regions. The untapped resources of the snowfield and its major river, the Snowy, had been recognised in the colonial period. In 1884 the Surveyor General of New South Wales floated the idea before the Royal Commission on the Conservation of Water that the Snowy River might be diverted northward to the Murrumbidgee and that Lake George might become a reservoir for the southern region.

The political interest in independent statehood for the Riverina focused some attention on the alpine catchment in the 1930s and the diversion of the Snowy River was again actively debated in 1938 when Burrinjuck Dam was unable to supply enough water to the Murrumbidgee Irrigation Areas.

The catalyst which turned all this into reality was the power shortage during World War II. After a detailed study of the hydro-electric potential of the alpine rivers in 1942, the Chifley government passed the Snowy Mountains Hydro Electric Power Act in 1949 and the Act was implemented to the full under Menzies. When the Tumut Ponds Dam in the Murrumbidgee region was opened in 1958, Menzies told the invited...
audience characteristically, and all too accurately, that ‘this scheme is teaching us and everybody in Australia to think in a big way, to be thankful for big things, to be proud of big enterprises and to be thankful for big men.’

The Snowy Mountains Scheme was certainly big. In the years before the Talbingo and Blowering reservoirs [and Lakes Jindabyne and Eucumbene in Monaro] had filled, the Snowy Mountains Authority had done immense damage. To an extent it also repaired a great deal of this damage, for the new dams could not be allowed to fill with silt eroding from the scarred landscape and therefore soil conservation after construction works was an essential priority for the Authority. So the mountains in the east survived the onslaught of Sir William Hudson, his nine hydroelectric stations, his tunnelling and his road-building. The cost of the Scheme may or may not have been economically justified: there is argument over the cost advantages of water-generated electricity and scepticism about the cost-effectiveness of the irrigation plan. There is no doubt, however, about the way in which the Scheme caught the popular imagination and interested the international engineering world. At the cost of $820,000,000 between 1949 and 1973, the Scheme succeeded in diverting the Snowy and Eucumbene Rivers to supplement the flow of the Murray and the Murrumbidgee; it provides electricity for the central grid of New South Wales, the Australian Capital Territory and Victoria; and it gave a major boost to the confidence and profits of the engineering and construction industries in Australia. It was the supreme achievement of the development lobby and it has left a long, long shadow over Australian attitudes.

On the local level, the Snowy Mountains Authority is, and has been from the beginning, administered primarily from Cooma in Monaro, but the Murrumbidgee region has, of course, been one of the main beneficiaries of the increased water supplies. The new lakes have submerged fewer heritage items than in Monaro, but when Jounama Dam filled in 1960 Talbingo station and the birthplace of Miles Franklin were submerged. (Fig 12.3).

FRUIT-GROWING OUTSIDE THE MURRUMBIDGEE IRRIGATION AREA
Fruit growing was important in the east of the region long before the irrigation areas in the 1910s. The district around Young had already an enviable reputation for cherries. Cherry-trees had been planted on James White’s Burrangong station at Young in 1847, but the first commercial orchards were planted nearby in 1873 by Nicole Jasprizza, using some of the Burrangong trees. Once the railway reached Young in 1885, as a branch from Murrumburrah on the main south line, the wider market could be tapped. Over seventy other orchards were created, but Jasprizza remained supreme and by 1933 his cherry orchard was believed to be the largest in the world.

Since the 1890s many other fruits had been grown near Young: quinces, apples, pears, oranges, grapes and strawberries. After 1910 apples rivalled cherries as the major cash crop, with their Blue Star packing brand and one of the largest concentrations of Granny Smith apple-trees in Australia. The soldier settlers in the area after 1918 also planted apple trees, although prunes were their speciality.

The growing of grape-vines expanded in the 1920s but, unlike Griffith, no major wineries were established at Young. At Wagga Wagga, where some grapes had been grown since the nineteenth century, the scientific study of wine-making developed into a degree course at the Riverina College of Advanced Education, with very happy results marketed under the College label.

The other prominent area for cold-weather fruit was Batlow, south of Tumut. The miners in the area in the 1850s and 1860s had planted apple, plum and cherry trees (still a help in locating mining sites). The schoolmaster at Upper Adelong, O.C. Barberic, had admired the blossom and noted the quality of the fruit, so he settled down in 1895 to create the first commercial orchard in the district. By 1907 there were 5,000 fruit trees and many new orchards were created in the next eight years. It was the success of the orchards which confirmed Batlow’s status as a town, declared in 1910. Once the railway came in 1923 the fruit no longer had to be hauled over appalling mountain roads to the previous railhead at Gilmore, and the first cool store in New
South Wales was erected in the same year close to Batlow railway station. The cool store remained in use until it was destroyed by fire in 1962; the success of fruit-growing continued unabated.

TOBACCO
Tobacco had a long history at Tumut, where William Bridle grew the leaf on his property (now Rosevale) throughout the later colonial period. In general the Chinese were recognised to have a dominant position in tobacco cultivation and at Tumut in 1889 a thousand busy Chinese gardeners grew a substantial proportion of the state's crop. In the present century the British Australian Tobacco Co took over plantations at Tumut in 1904-7 and again after 1922.

TERTIARY EDUCATION
The need for practical education for new agriculturists has dominated the post-secondary scene in the Murrumbidgee region. The Experimental Farm which opened outside Wagga Wagga in 1892 was soon training young people to spread the improved techniques and improved strains both of crops and of animals. This farm was fundamental to the success of the wheat-sheep farm in the central Murrumbidgee and in 1949 was translated into Wagga Wagga Agricultural College, with an Agricultural Research Institute created four years later. The Teachers' College in Wagga Wagga had been established in 1947 and the way was paved for the later emergence of the Riverina College of Advanced Education there and its translation in 1990 into a campus of the new Charles Sturt University.

MINING: GOLD AND COPPER
Just as Kiandra on the east side of the Snowy Mountains produced a gold-rush, so did Batlow and Adelong on the western side. Major discoveries were made from 1852 onwards, first at Adelong west of Tumut and then at Batlow to the south. In 1853 two Californians found alluvial gold in Stockyard Creek at Batlow, where one of them had built a slaughtering yard for stock to feed to the Adelong miners. The Mayday mine, found soon afterwards in 1853, remained the richest in the area, though the Poverty mine of 1860 was far from poor. One of the characteristics of the mining at Batlow is the number of long water-courses, bringing water for sluicing from Laurel Hill to the south and from Gilmore Creek to the north: the longest of these water-races is some 32 kilometres from Gilmore Creek and it is estimated that the total length of partially surviving channels in the hills around Batlow is over 240 kilometres. They are particularly evident on Paddys River, at Quartzville, below Laurel Hill.

The much better known mining area at Adelong had begun in 1852, when a township appeared, but did not gather momentum until 1857. Between 1857 and 1859 an exceedingly rich lode on Mount Charcoal, above the creek, was exploited by no fewer than eighty companies: about a quarter of these made substantial fortunes, despite the costs involved in the difficult location. There was massive investment in crushing equipment, including five stamp batteries. The Kiandra goldrush diverted attention across the mountains in 1860 but a new rush developed at Adelong in 1872. New and old reefs were vigorously attacked and over the following 44 years the Camp, Victoria, Currajong, Donkey Hill, Caledonian, Middle and Old reefs were honeycombed with shafts while the Gibraltar Consolidated Gold Mines at Grahamstown to the north had still 240 men working underground in its final year, 1916, and had constructed one of the largest crushing plants on any Australian goldmine.

At Adelong itself the remains of Wilson and Ritchie's public crushing plant of the 1870s are of major importance, with the skeleton of one of the waterwheels still in place beside the crushing equipment and the brick chimney still standing sentinel.

As shaft mining declined in the twentieth century, dredging commenced along the Adelong Creek. As at Araluen on the southern tableland, the dredging has left its desolating mark on the landscape. At Adelong two different techniques were used. First there were barges with monitor-nozzles washing away the creek banks to make it possible to extract gold from the alluvial gravels. Later, bucket dredges were used all the way along the creek from Tumblong to Grahamstown. Since these steam dredges were wood-fired, even more extensive felling of box and stringybark was an ecological corollary. Dredging appears to have stopped at the same time as reef mining during World War I.
There were two other significant gold areas in the region, both in the northeast, one at Young, the other at Temora.

On Temora station there was a small goldrush in 1869. The Morning Star reef mine was sunk and the transitory town of Sebastopol had a mushroom growth. The substantial rush was from 1880 to 1884. The gold escort handled very substantial amounts of bullion in 1881 and 1882, declining to about 33% in 1883 and 1884 and then going into a very steady decline into the 1890s. The Mother Ship ton main lead, found in 1881, was the principal source of wealth, but there was a great deal of pudding of alluvial gravels as well. The remains of pudding mills, six metres in diameter, with shafts worked either by horses or by waterwheels, are still unusually evident beside Trungley Road: failed mining sites often retain the most unusual heritage items.

To the east of Temora a major goldrush, with an infamous corollary, had occurred at Young in 1860. The area was then called Lambing Flat, on Burrangong station. James White's cook and an American, Alexander the Yankee, found the first gold near what is now Short Street in Young. By September 1860 many diggers from Kandura and Adelong had arrived: so had many Chinese. The area of alluvial gold was soon found to be extensive, some 20 by 16 kilometres, and the number of hopefuls grew to 1,500 in October, to 3,000 in November, to 10,000 in April 1861. The Chinese were soon confined to one area, Blackguard Gully and in June and July were the object of very serious rioting indeed. This led directly to the Chinese Immigration Restriction Act in New South Wales passed in November 1861.

Having proved their racist point, many of the miners went off to the new gold discoveries at Forbes at the end of 1861. Others remained, however, and the first reef-mining shaft was sunk in 1862, with an ore-crushing mill at Chance Gully to the north. The Grenfell goldrush enticed more miners away in 1866 and output declined: the gold escort ceased to ride in 1876.

But a new phase of mining began in the 1880s when, after some unsuccessful attempts by three companies to sink shafts, the Burrangong Steam Mining Co succeeded in gaining some alluvial gold. In 1892 the Dawn Gold Mining Co was active at Stoney Creek to the west and in 1900 dredging began. The Burrangong Gold Dredging and Sluicing Co built a 70-tonne barge on a creek near the Temora road to the west, but after some destructive success, the company was wound up in 1903. Although another company dredged Burrangong and Spring Creeks in 1906 and a new shaft was sunk on Quartz Reef Hill in 1909, this second phase of mining was virtually over by 1910.

There was only one more flurry of activity. In 1937 Morobi Gold Development Ltd put yet another dredge on Burrangong Creek and succeeded in winning some gold.

The only copper ore deposits in the region are found in the extreme east. The two major enterprises were at Lobbs Hole south of Talbingo and at Snowball near Gundagai.

The first ore to be discovered was at Lobbs Hole, probably in 1866, but mining did not begin until 1874. No smelting was done on site at that time and development of the shaft mine was slow, although some work was done in 1891-2. Between 1897 and 1899 however, a company reopened the mine and brought machinery from New Chum Hill at Kandura: Kandura in the Monaro region is only eighteen kilometres away. A watercourse two kilometres long was dug from the Yarrangobilly River (which never dries up) to supply the highly efficient Pelton-style waterwheel which powered haulage up and down the shaft. The ore was still not treated on the spot but taken on pack-animals to Yarrangobilly and on to Tumut by bullock wagon. The shafts needed constant pumping to prevent water seepage. After 1907 the new Lobbs Hole Copper Mining Co constructed a dam, perhaps on Wallace Creek, a new watercourse of three kilometres and introduced turbines and a Cornish pump. For the first time smelting was undertaken on site with a reverberatory furnace. Because of the transport difficulties, a claypit was dug near the Yarrangobilly and bricks were baked on the spot. Another company opened a shaft nearby in 1901 and two more shafts on the north bank of the river in 1907.
The village of Ravine grew up naturally in 1900-1 to house and service the mining community, but with the progressive closure of the mines between 1916 and 1919 the village declined. It did not close down immediately, although the pisc Washington Hotel and the police station closed in 1919, since the remaining miners turned their hand characteristically to eucalyptus distilling in the 1920s. Substantial remains of houses, hotels, mines and equipment bases survive at Lobbs Hole.

Since Lobbs Hole lies within Kosciusko National Park it has some security and the benefit of a useful interim report by Dr Pearson.73 Snowball has neither of these advantages. This major mine is situated on Snowball Hill at the headwaters of Snowball Creek fifteen kilometres south of Gundagai. The copper deposits were found in 1873 and by 1876 thirty men were at work and one smelting furnace was in the process of erection. In the years 1876-8 four reducing furnaces and one refinery were erected but smelting was abandoned in 1880, leaving a large slag dump, estimated by Carne as being between 2,000 and 3,000 tonnes. When the mine reopened in 1895 the railway had reached Gundagai and ore was sent to Lithgow for treatment. Like most such mines it closed and reopened: the Snowball Copper-Mining Co was floated in 1907 but mining seems to have petered out thereafter.75 Copper mines are very rare in the Murrumbidgee region. Because of the relatively early date of the main operations at Snowball in the 1870s, it presents potential heritage values complementary to those of the better known Lobbs Hole.

CONCLUSION

The water resources of the Murrumbidgee, of its tributaries and of the snow country to the east dominate the history of this region, from Aboriginal occupation up to the Irrigation Areas of the twentieth century. The water frontages were the earliest, choicest lands to be taken from the Aborigines; the fiercest conflicts between settlers and Wiradjuri were along the Murrumbidgee. Although the interfluval plains filled up with European stock, the main areas for early agriculture were in the eastern half where rainfall was more dependable and only with artificially channelled water did a major crop-growing area develop in the west around Leeton and Griffith. The major communication links by land between New South Wales and Victoria gave first Gundagai and then, decisively, Wagga Wagga the opportunity to become major towns and the development of close settlement and agricultural education helped Wagga Wagga to its present commanding position.

There are few mineral deposits except in the eastern mountains and neither copper nor gold had a lasting effect, although the heritage items around the few mining sites are of considerable significance. The effect of the Snowy Mountains Hydro-Electric Scheme in the past thirty years has been twofold: in the east to make major environmental modifications to the mountains and in the south to create a new intensive agriculture, with new crops, new opportunities, new problems, at prodigious expense.
FIGURE 12.1. THE RAINFALL AND PHYSICAL GEOGRAPHY OF THE MURRUMBIDGEE AND MURRAY REGIONS.

FIGURE 12.2. THE TWO TOWNSHIPS PLANNED BY WALTER BURLEY GRIFFIN: LEETON AND GRIFFITH, 1913-16.
FIGURE 12.3. THE SOUTHEAST PORTION OF REGION 12.

Showing Tumut, Batlow, Talbingo, Yarrangobilly and Lobbs Hole mines in 1978 after the completion of the Snowy Mountains Scheme with the filling of Blowering and Talbingo dams.