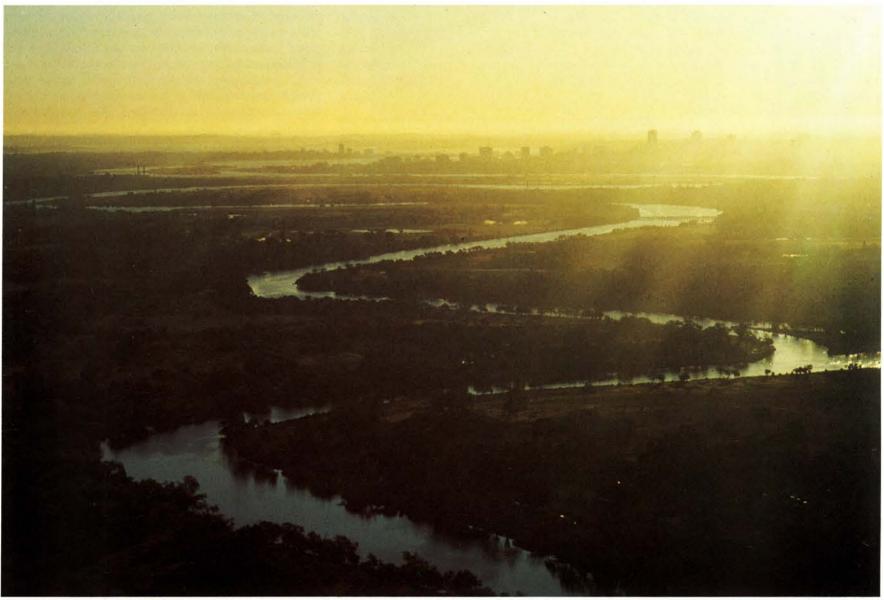
CHAPTER 15 COUNTRY



The Swan River meandering towards Perth and the Indian Ocean. Photograph by Kevin Diletti, 1984.

DISTINCTIVE COUNTRY LANDSCAPES have developed in response to local demands for domestic consumption, and overseas demands for Australian foodstuffs and raw materials. Wool was the first export commodity to change the appearance of vast tracts of the country. From the late nineteenth century wheat also began to have an impact. Technological developments such as the stump-jump plough and the bulldozer encouraged farmers and mining companies to clear extensive areas almost overnight. This chapter explains the development of country landscapes from the irrigation schemes along the Murray and the Cornish mining landscapes of South Australia to the rise and decline of coastal dairying districts near the cities.

Country

Right. Mills Plains, Tasmania by John Glover, 1837. The early settlers found this grassy forest country to be ideal for sheep and cattle grazing. The influence of the Italian painter Claude on Glover is evident; the tree on the right is a typical Claudean tree rather than an attempt to portray a gumtree accurately.

TASMANIAN MUSEUM AND ART GALLERY

Below. Table Cape, near Wynyard, Tasmania. Photograph by Reg Morrison. WELDON TRANNIES

TEEN FROM THE AIR the Australian rural landscape is an affair of sharp rectangles separated by occasional patches of uncleared land occupying the steep ranges. This rectangularity, in sharp contrast to the countryside of the old world, marks almost all the new world countries and is a sign of their development in the rational age of industrial civilisation. Only the main roads, as they thread their way irregularly over the country, show how the early tracks chose the easiest routes through an often difficult terrain. As Australia was settled piecemeal – the earliest settlers choosing the choicest spots - it does not share the uniform grid pattern seen on the prairies of the United States where surveyors preceded the settlers. Nevertheless, rectangularity prevails, from the moister coastlands deep into the pastoral semiarid country where



the fences mark off paddocks of many square miles. Beyond, especially in the tropical north, lies the unmarked open range.

The creation of the rural landscape

Land was a commodity to be rationally measured, as Australia was born into the capitalist world system during the nineteenth century, with governments' land policies and surveyors acting as midwife. The world metropolis in northwestern Europe was longing for raw materials and foodstuffs, and its supply lines grew even longer as transport costs fell with the introduction of larger and faster sailing ships, steamships, and the opening of the Suez and Panama canals.

Australian rural society developed to supply that market, as individual settlements formed to provide the products in overseas demand, from the vast pastoral stations centred on their woolsheds to the small dairy farms hacked out of the forest on Queensland's Atherton Tableland, the coast of New South Wales, Gippsland in Victoria and the southwest of Western Australia. As the continent was penetrated, and as the economy became more diverse, distinctive rural landscapes were associated with each new export. As the population grew, some rural industries supplied local needs. This was particularly true of dairying and sugar growing, which have largely depended on subsidisation by



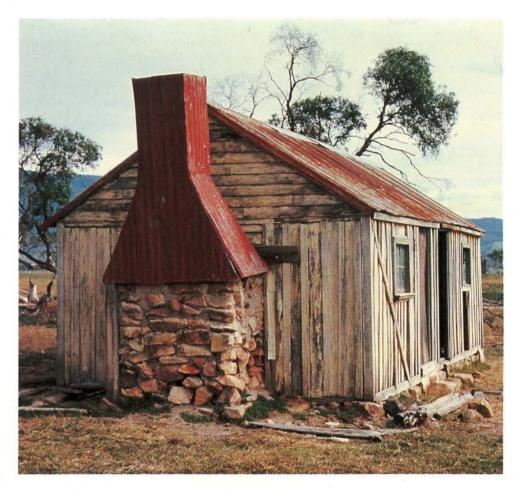
COUNTRY 275

the Australian consumer for their survival as export industries.

Wool was the first export commodity to shape the rural landscape, exceeding the export revenues from the whaling and sealing industries in 1834. As British wool manufacturing mechanised, so the demand for wool grew. By 1850 Australia was supplying over half of Britain's wool, growing it in areas as varied as Wide Bay in the north and the basalt plains of Western Victoria, 'Australia Felix'.

Wheat was more costly to transport, and only after the 1870s was Australia a significant supplier, firstly from South Australia and Victoria, then New South Wales, and later Western Australia. There was little chance of selling cattle products other than liver, bones, horns, oil and tallow, until the introduction, in the 1880s, of refrigeration on board ship, an Australian invention, which opened up overseas meat markets. Refrigeration made it more feasible to drive cattle from the northern tropical pastures to coastal ports and abattoirs, and enabled large overseas sales of butter, which stimulated the spread of small dairy farms and factories. It also created a British market for Tasmanian fruit. Technology, from the stump-jump plough (1870s) to power shearing (1880s) and the cream separator (1880s), has been the key to Australian rural development, helping solve the problems of labour, alien environments and overseas demands for quality.









Top. Early homesteads were built of split slabs and bark. This slab cottage has small window panes — then the only kind available. The chimney above the stone fireplace would originally have been made of bark sheets, and the roof of bark or wooden shingles. Photograph by D.N. Jeans.

Above. The typical colonial fence, made of split rails morticed into slab posts, replaced the English hedge, for which no suitable plant existed in Australia. Smooth wire became available from the 1850s and barbed wire was used from the 1870s on, but the two or three-rail timber fence was still commonly built in wooded districts. Photograph by D. N. Jeans.

Above left. Wealthy landowners built grander homes as they became settled. Here, at Belle Vue near Braidwood, NSW, the early pisé homestead in Georgian style, to the right, became kitchen, laundry and storeroom for the larger house built in the prosperous 1870s, in the Gothic style then fashionable. Photograph by D.N. Jeans.

Left. Most of the population of Australia was of British origin in the nineteenth century, but Germans were a significant early group. Many settled in the Barossa valley in South Australia, using their skills of vine growing and winemaking to create a significant agricultural region around such villages as Klemzig, Friedrickeswald, New Mecklenburg and Gnadenfrei (Marananga).

Regional characteristics

As opportunities expanded, regional specialisations developed, in part dictated by the natural environment, notably rainfall. There are still large desert areas of the continent where even the sparsest grazing industry cannot survive, but which now attract oil exploration. But landuse is also determined by proximity to centres of consumption and export, especially the capital cities. Those industries able to pay the highest land rents lie closest to the cities. Vegetable and fruit growing, and dairying for liquid milk production occupy the most advantageous locations, such as the Swan valley in Western Australia and the central coast of New South Wales, a densely populated landscape of small holdings, lately encroached upon by urbanites.



Right above. An abandoned selector's cottage near Braidwood, from the late nineteenth century, constructed of sawn timber and with a characteristically asymmetrical plan and facade. Tenancy, and the free selection acts of the 1860s, spread such small farms over the countryside. Photograph by D.N. Jeans.

Right below. One reason for the abandonment of farms in the more humid coastal districts in this century has been the shift of the wheat industry inland. Flour mills were also left derelict by this shift. This massive steampowered mill near Braidwood, NSW, is now used as a woolshed. Photograph by D. N. Jeans.

Below. Lawn Hills stockyard, Queensland. In remote pastoral districts methods have changed little, and crude structures such as this are the tools of the pastoralist. Photograph by Grenville Turner, 1985.

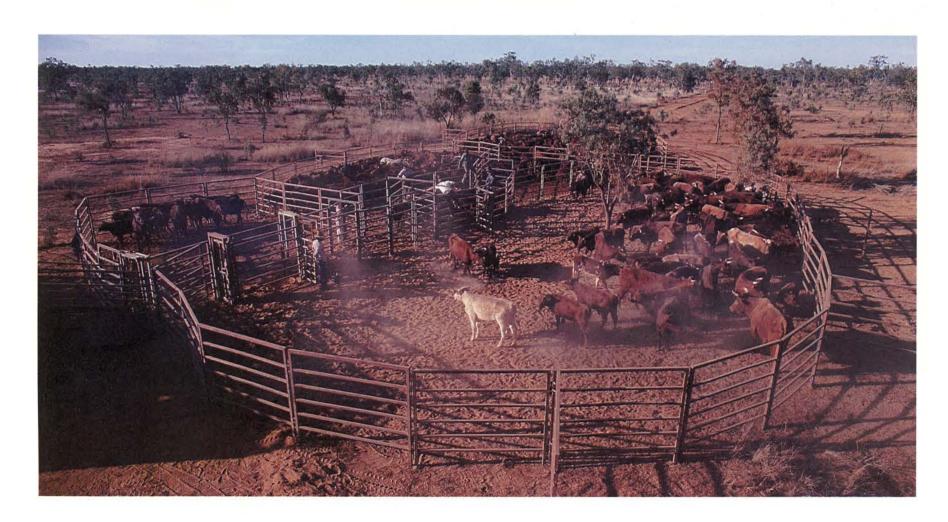


Similar landscapes are found inland in the irrigation districts along the Murray, where vine-growing is important, as it is in the Barossa valley, the southeast of South Australia and the Hunter valley of New South Wales. In many places the dairying industry has been forced to retreat by loss of markets overseas for butter and cheese; land is being taken up for hobby and retirement farms and communes, for beef cattle and specialist crops such as avocados, or left to return to bush.

Inland from such regions are the large grazing holdings (districts) carrying fat cattle and sheep for the high-quality meat market, and stud breeding stock for pastoralists further out. These holdings were the first areas to be taken up, and many homesteads remain from the years before 1850. Wealthy pastoralists built fine mansions in the prosperous period between 1860 and 1890. Most of the larger holdings have now been subdivided, but a gentry tradition sometimes survives in local society.

Further out is the more extensive wheat-sheep belt, the outer margin of which is fixed by low rainfall, though breeding of new varieties pushes this frontier onward. There have also been occasional extensions into drier country in wet periods. The rust fungus, and competition from more profitable products such as maize and dairy goods, have driven wheat out of the coastal districts. In most states, wheat farms are of several hundred hectares, many with modern homesteads, a product of past periods of good wheat prices. Clearing land for wheat has been a recent phenomenon in Western Australia and northern New South Wales.

Beyond the wheat-sheep belt, in semiarid country, extensive pastoralism prevails, dependent for water on tanks, artesian bores and wells powered by steel wind-pumps. The land in the south is mainly suitable for sheep farming, while the climate of the hotter north, with its summer wet seasons, makes it a suitable area for cattle raising. The largest acreages are in the remote north of Queensland, the Northern Territory and the Kimberleys in Western Australia where one head of stock is run to several hectares. Most state governments have introduced policies to reduce the size of holdings in the better country. The north poses special problems of mobility and pests in the wet season, and of great distance to markets.



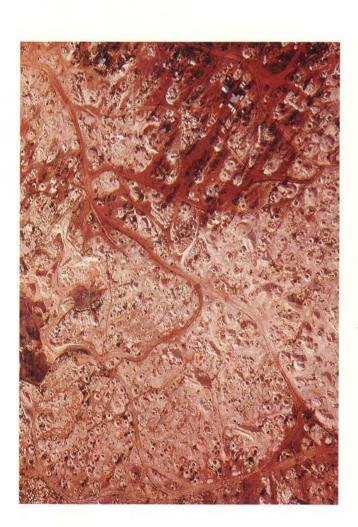
COUNTRY 277

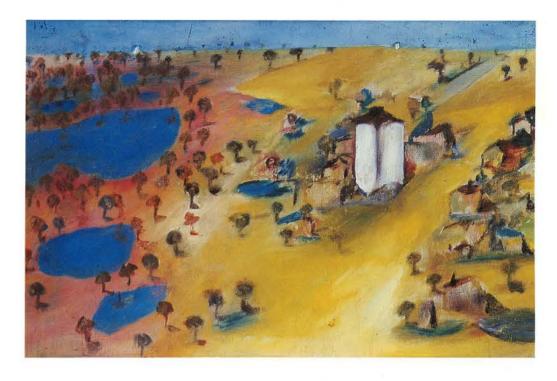
Rural towns

Many of the largest country towns were founded in the 1830s and 1840s, such as Bathurst and Toowoomba. Others date from the goldmining days, such as Ballarat. These are the most complex country town landscapes, often retaining some mid-nineteenth-century housing and government premises such as courthouses, the grand buildings of the late nineteenth century, some art deco buildings, notably cinemas of the interwar period, and post-1950s commercial buildings. The motor car has enabled these centres to capture the trade of smaller towns.

Some large towns are found in the wheat-sheep country, but most are smaller centres struggling to survive, particularly as the fortunes of the wheat industry fluctuate. The railways mostly created these towns, and tall concrete silos dominate their skylines, while late-nineteenth-century buildings line the main streets. Agricultural machinery dealers are prominent among the local businesses. Local society consists of business people, workers, many of whom are employed by the state, and a transient population of school teachers and other professionals. There may be an Aboriginal reserve nearby, poorly serviced, though government policy in some states is to rehouse Aborigines in the towns.

Apart from ports on the coast such as Cooktown (Qld), Darwin (NT) and Carnarvon (WA), the only considerable settlements in the north are mining centres such as Mt Isa (Qld), Katherine (NT) and the recent Pilbara settlements of Western Australia. Early mining took place in areas already settled, but before long the prospectors were out ahead even of the cattlemen, seeking gold, copper, silver, lead and zinc, and more recently bauxite, iron ore, oil and uranium. Mining has taken settlement into the most remote parts of the continent, but has left many ghost towns behind, such as Silverton, Milparinka, and Coolgardie. Miners have cleared the timber for miles around to provide fuel; their ambitions now come into conflict with Aboriginal claims for land rights, because it is in these remote districts that Aboriginal society has best survived. Modern mining towns insulate themselves against the harsh climate using modern technology, such as air-conditioning, and house design appropriate to tropical conditions.









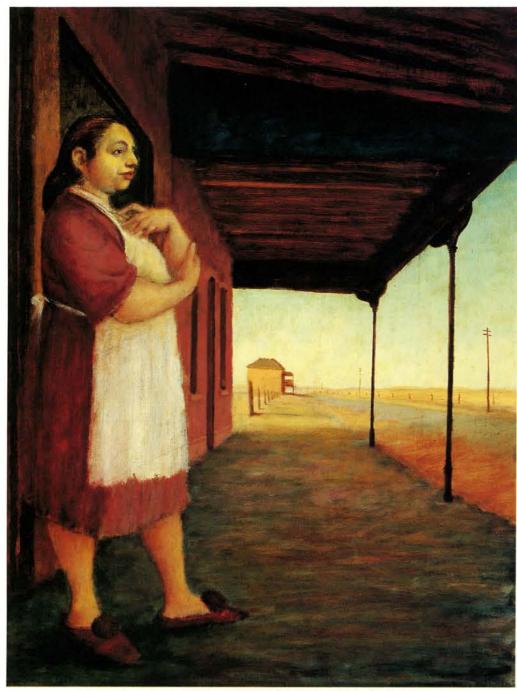
Left. Opal mining remains the last preserve of the individual digger in Australia. The landscape of Lightning Ridge, NSW, is pockmarked by small mines controlled by government licensing. But this small-scale industry is beginning to be mechanised, with bulldozers being used to expose the opal veins.

AUSTRALIAN PICTURE LIBRARY

Top. Wimmera from Mt. Arapiles by Sidney Nolan (1943). Prominent in the wheat-belt landscape are the concrete wheat silos, served by railways, which were introduced with bulk handling in the 1930s and 1940s. Western Australia was the pioneer, but the Victorian Wimmera and the New South Wales Riverina soon followed. NATIONAL GALLERY OF VICTORIA

Above. In areas where small farms predominate, the towns are larger and more substantial, with verandahs running the length of their main streets. Lockhart, in the wheat district of New South Wales, has architecture typical of a country town that grew up when the railway arrived in the 1890s. Photograph by Steven Dunbar, 1985.

Left. Municipal government flourished with the development of a substantial merchant middle class in country towns in the late nineteenth century. Many towns built fine town halls to mark their progress, and introduced gas lighting, sewerage and water works, hospitals and schools of the arts. This fanciful town hall at Glen Innes, NSW, is typical of the exuberant architecture of the long boom from 1860 to 1890. Photograph by D. N. Jeans.



Above. Maria by Russell Drysdale (1950). The remote outback town consists of a few buildings with verandahs, at least one of which is a pub, scattered along a dusty main street or across a largely unoccupied grid of surveyed streets.

ICI

Europeans and the Australian rural landscape

The incongruity of European presence in the harsh outback has been a theme of the paintings of, among many others, Sidney Nolan, but the outback itself is now attracting tourists, for its strangeness, beauty and sense of space and freedom. Painters and writers have created an ethos of the outback, described in Russel Ward's The Australian Legend (1958), in which the country 'back of Bourke' has become a symbol of the Australian identity. If the Australian home displays a print or a painting, it may well be a Hans Heysen landscape. City dwellers can adopt a rural image by buying R. M. Williams's country clothing and footwear. While the country struggles for its economic survival in the 1980s, some citydwellers still claim the country image as their national heritage. The desire to escape from the city is affecting the rural landscape in the form of tourism, as at Ayers Rock, and with the proliferation of four-wheel-drive vehicles. Hobby farms, until recently given impetus by taxation advantages, have invaded many of the older rural areas.

This rural heritage is of increasing concern to the conservation movement, which resists further encroachment on the natural landscape. The Franklin River in Tasmania has been saved from damming, national parks proliferate at various rates in all states, with the Queensland government notably lagging, and there is frequent conflict over further forest clearance, especially in Tasmania. The regeneration of rainforest in such areas as the Big Scrub of northern New South Wales is a sign that environmental damage can sometimes be overcome. Forestry supports many small communities, but since the 1950s a number of forest areas have been designated as national parks. Forest workers and conservationists are now engaged in bitter disputes in a number of states.

Below. The spreading network of railways from the 1850s brought fast, cheap travel to the interior, and revolutionised outback life, supplying luxuries such as window glass and corrugated iron tanks for rainwater collection. The 'flash' Ghan, with sleepers and dining car, and the 'dirty' Ghan, without such amenities, ran from Port Augusta to Alice Springs from the 1930s on. The camel train, usually led by Afghans, was relegated to serving stations remote from the railhead. Photograph by Douglass Baglin, 1959.

AUSTRALIAN PICTURE LIBRARY



COUNTRY 279

Meanwhile, government agencies set about solving problems of environmental damage such as soil erosion, and the salinisation that threatens the whole Murray valley as well as much of the Western Australian wheatlands. Australia's rural areas were settled when a blind belief in machine technology was common, and when ecology was an unknown science: the disastrous results have been noticed since the great retreat to Goyder's Line in South Australia in the 1880s and in the destruction of the fodder base in western New South Wales between 1895 and 1902. The full Australia-wide effects are only now becoming apparent.

The future of the Australian rural landscape is difficult to predict. International markets are uncertain, depending on such factors as the policies of the European Economic Community, the rising grain production of Asia and the possibility that the Soviet Union will improve its rural productivity under new leadership. The variable effects of environmental degradation, and the new ideology of environmental protection, must also be taken into account. Almost everywhere in the world, agricultural production is retreating from marginal lands as technology raises the output of a better, safer country, and there is an industrial shift towards agribusiness, that is, larger, better-capitalised holdings, that replace the family farm. Australia retains a legacy of settlement policies from the nineteenth century which may no longer be appropriate. Farmers react with increasing anger to rural crises, but there is no sign that rural Australia has enough political influence to protect itself; economically its future remains tied to international trade. Perhaps only the historical conservation movement, led by the National Trust of Australia, will be able to show us much of the present-day rural landscape at Australia's next centennial.





Above. The removal of timber, which raises the water table, has brought to the surface old cyclic salt lying further down in the soil, which destroys cropland and leads to widespread soil erosion as seen here in Western Australia. The irrigation areas also suffer severely from salinisation. Photograph by Kevin Diletti, 1982.

Left. Sand mining at Smiths Lake, NSW. The large-scale working of Australian sand dunes to extract minerals such as rutile and zircon is a threat to coastal dune environments and is the subject of much controversy. Companies are now obliged to carry out restoration of vegetation. Photograph by L. & B. Hemmings.
AUSTRALIAN PICTURE LIBRARY

Below. Sheep pasture at Pyalong in Victoria. Photograph by Ray Joyce. WELDON TRANNIES



ACKNOWLEDGMENTS

J.F. Atchison, Alan Atkinson, F.H. Bauer, Sandra Blair, A.G. Bomford, E.L. Brown, J.M.R. Cameron, D. Urlich Cloher, Mrs Davis (Tawonga), B.F. de Vries, J.S. Duncan, C. Elkington, J. Forrest, R.G. Freestone, B.J. Garner, Bill Gammage, Alan D. Gilbert, Dorothy Hart, Alan Ives, G.J.R. Linge, C. Lonergan, Michael McKernan, Jim Malone, Isolde Martyn, I.D. Murray, R. Nile, A.J. Nuttall, John Perkins, J.M. Powell, Howard Quinlan, G. Rhodes, P.J. Rimmer, S.J. Routh, D. Stefanovic, O.H.K. Spate, J. Stokes, C. Veenstra, Tom Stevenson, Jurgen Tampke, M.J. Webb, A. Young.

CONVENTION ADOPTED IN QUOTATIONS

Throughout this series quotations have been transcribed literally from the original documents. The use of 'sic' to refer to errors has generally been avoided.

CONVERSION TABLE

IMPERIAL TO METRIC		METRIC TO IMPERIAL	
inch foot yard mile	= 2.54 cm = 0.30 m = 0.91 m = 1.60 km	centimetre metre kilometre	= 0.39 in = 3.28 ft = 0.62 mile
ounce pound hundredweight ton	= 28.3 g = 454 g = 50.8 kg = 1.02 tonne	gram kilogram tonne	= 0.04 oz = 2.20 lbs = 0.98 ton
pint quart gallon acre	= 568 ml = 1.141 = 4.551 = 0.41 ha	millilitre litre megalitre cubic metre hectare	= 0.35 fl oz = 1.76 pint = 0.81 acre feet = 27.50 bushels = 2.47 ac

NOTES ON ILLUSTRATIONS

1 ENVIRONMENT

Page 30 Drawings of Kartan tools, R.J. Lampert.

Page 32 Squatter's map, Mitchell Library.

3 EUROPEAN DISCOVERY AND EXPLORATION

Page 52 Sketch by Thomas Mitchell, Menzies Library, ANU. Page 58 Map of Australia published in The friend of Australia, or a plan for exploring the interior and for carrying a survey of the whole continent of Australia, by a retired officer of the Hon. East India Company's Service (T.J. Maslen), London 1830, National Library. Emmanuel Bowen, A complete map of the southern continent, London 1744; W.S. Jevons, Waugh's Australian Almanac, 1859.

4 RURAL LANDSCAPES

Page 71 Photograph of wheat harvesting from Album 259, Queensland farming and pastoral industry, 4, photograph 10, National Library.

Page 80 Sketch of a hufendorf settlement in The Barossa Survey, Vol. 1, G. Young et al, 1977, 67.

5 URBAN LANDSCAPES

Pages 91-95 The maps of Sydney (1933), Hobart (1942), and Adelaide (1937) were drawn by the Australian Survey Corps, a branch of the army. These 1 inch:1 mile maps are all held by the National Library.

9 RELIGION AND EDUCATION

Page 182 Rev John Flynn, photograph published in What is the AIM?, Australian Inland Mission, Sydney 1932, 4. Page 185 The first church in Australia, Mitchell Library.

10 CONVICTS, BUSHRANGERS AND LARRIKINS

Page 208 Tom Roberts, Bailed up, 1895, oil on canvas 134.6 x 182.9 cm, Art Gallery of New South Wales.

Page 210 Sketch of Alexander Pearce, 1824, by an unknown artist. Page 213 Undated photograph of Ben Hall by an unknown photographer.

Page 214 Photograph of Ned Kelly, 1880, by an unknown photographer.

Page 215 Undated photographs of Superintendent Hare and Kelly's house, both by an unknown photographer.

11 AUSTRALIANS AND WAR

Page 219 Joseph Lycett, Drawings of the natives and scenery of Tasmania and New South Wales, c1820, National Library.

Page 234 William Dargie, Stretcher bearers in the Owen Stanleys, 1947, oil on canvas 143.2 x 234.4 cm, Australian War Memorial.

12 THE GREAT DEPRESSION

Page 242 Poster, La Trobe Library.

15 COUNTRY

Page 275 Barossa Valley, Australian Picture Library.

Page 277 Sidney Nolan, Wimmera from Mount Arapiles, 1943, ripolin enamel on board, 61 x 91.5 cm, National Gallery of Victoria.

Page 278 Russell Drysdale, Maria, 1950, oil on canvas 99 x 101 cm, ICI.

ENDNOTES

I PLACE

1 ENVIRONMENT

4-5 Palaeogeography J.E. Hobbs MAPS: G.E. Wilford, 'Phanerozoic palaeogeography' in Bureau of Mineral Resources, *Earth science atlas*, Canberra 1983. TEXT: B. Pillans, 'Canberra, twenty million years on', *Australian geographical studies* 21/1, 1983, 92-101; Wilford, 'Phanerozoic palaeogeography'.

6-7 Land and seabed relief J.E. Hobbs and J.A. Yarra

MAP: 'Relief drawing' compiled by J.A. Yarra, produced by the Division of National Mapping, NNP 81/052. TEXT: J.J. Jennings and J.A. Mabbutt, 'Physiographic outlines and regions', in D.N. Jeans (ed), Australia: a geography, Sydney 1977, 38-52; 'Landforms', Atlas of Australian resources, second series, Canberra 1973.

8-9 Surface rocks J.E. Hobbs

MAP AND TEXT: 'Australia: surface rock types', Atlas of Australian resources, third series, 'Geology and minerals', Canberra 1982.

10-11 Soils J.E. Hobbs

MAP AND TEXT: 'Australia: soil resources', Atlas of Australian resources, third series, 'Soils', Canberra 1982.

12-13 Water J.E. Hobbs

MAPS AND GRAPH: Snowy Mountains Engineering Corporation, Australia, surface water quantity and quality, Canberra 1983; Bureau of Mineral Resources, Australia, ground water yield and quantity, Canberra 1983. Text: Department of Resources and Energy, Water 2000: a perspective on Australia's water resources to the year 2000, Canberra 1983; Water Resources Council, The first national survey of water use in Australia, Occasional paper no 1, Canberra 1981.

14 Vegetation J.E. Hobbs

MAPS: J.A. Carnahan, 'Vegetation' in Jeans (ed), Australia, 175-95. TEXT: 'Natural vegetation', Atlas of Australian resources, second series, Canberra 1976; J.M.B. Smith, 'An introduction to the history of Australasian vegetation' in J.M.B. Smith (ed), A history of Australasian vegetation, Sydney 1982, 1-31.

15 Temperatures J.E. Hobbs

MAPS: 'Temperatures', Atlas of Australian resources, second series, Canberra 1973. TEXT: A. Auliciems and J.D. Kalma, 'Human thermal climates in Australia', Australian geographical studies 19/1, 1981, 3-24; D.O. Gaffney, 'Temperatures', Atlas of Australian resources, second series, Canberra 1973.

16 Sunshine and cloud J.E. Hobbs MAPS AND TEXT: Bureau of Meteorology, *Climatic atlas of Australia*, map sets 4 and 7, 'Sunshine' and 'Cloud', Canberra, 1975/1979.

17 Winds and seasonal rainfall J.E. Hobbs MAPS AND TEXT: 'Climate', Atlas of Australian

resources, third series, Canberra (forthcoming); Bureau of Meteorology, Climatic atlas of Australia, map set 5, 'Rainfall', Canberra 1975.

18-19 Rainfall J.E. Hobbs

MAPS AND TEXT: 'Rainfall', Atlas of Australian resources, second series, Canberra 1970. Data supplied by Bureau of Meteorology, Melbourne.

20-2 Droughts and floods J.E. Hobbs MAPS AND TEXT: Bureau of Meteorology, *Drought review*, *Australia*, Melbourne 1966-84.

23 Bushfires J.E. Hobbs

MAP: N.P. Cheney, 'Bushfire disasters in Australia 1945-1975' in R.L. Heathcote and B.G. Thom (eds), Natural hazards in Australia, Canberra 1979, 72-93; R.H. Luke and A.G. McArthur, Bushfires in Australia, Canberra 1978. Text: House of Representatives Standing Committee on Environment and Conservation, Bushfires and the Australian environment, Canberra 1984; K.L. Bardsley and A.S. Fraser, 'The second Ash Wednesday: 16 February 1983', Australian geographical studies 21/1, 1983, 129-41; M.E. Voice and F.J. Gauntlett, 'The 1983 Ash Wednesday fires in Australia', Monthly weather review 112/3, 1984, 584-90.

24-5 Tropical cyclones J.E. Hobbs MAPS: Australian meteorological magazine 29/4, 1981, 30/4, 1982, 31/4, 1983, 32/3, 1984; J.E. Hobbs, 'Three tropical cyclones in five weeks in Western Australia', Journal of meteorology (UK) 5/50, 1980, 170-3; D. Hopley and N. Harvey, 'Regional variation in storm surge characteristics around the Australian coast', in Heathcote and Thom (eds), Natural hazards, 164-85; R.S. Lourensz, Tropical cyclones in the Australian region, July 1909 to June 1980, Canberra 1981. TEXT: J.E. Hobbs and S. Lawson, 'The tropical cyclone threat to the Queensland Gold Coast, Applied geography 2, 1982, 207-19.

26 Dust storms J.E. Hobbs MAPS: F. Loewe, 'Dust storms in Australia', in Bureau of Meteorology, *Bulletin 28*, Melbourne 1943; N.J. Middleton, 'Dust storms in Australia: frequency, distribution and seasonality', *Search* 15/1-2, 1984, 46-7. TEXT: G. Blainey, 'The great drought', *National Times*, 31 Oct-5 Nov 1977, 30-4; R.S. Lourensz and K. Abe, 'A dust storm over Melbourne', *Weather* 38/9, 1983, 272-5; Loewe, 'Dust storms'; Middleton, 'Dust storms'.

2 ABORIGINAL LANDSCAPES

28-9 Archaeological sites D. Frankel MAPS AND TEXT: D. Frankel and L. Frankel, 'An archaeological bibliography', *Australian Aboriginal studies* 1, 1984, 54-6.

30 Kartan industry R.J. Lampert MAPS AND TEXT: R.J. Lampert, *The great Kartan mystery*, Canberra 1981.

31 Occupation of the Mallee A. Ross MAPS AND TEXT: A. Ross, 'Aborigines in north-

western Victoria', PhD thesis 1984, Macquarie University.

32-3 McArthur Creek E. Williams
MAP: William Thomas papers, item 22,
537, uncatalogued manuscript, Mitchell Library.
DIAGRAMS AND TEXT: William Thomas papers, item
24, 'Aborigines: superior races', 13 July 1858,
uncatalogued manuscripts, Mitchell Library;
E. Williams, 'Documentation and archaeological
investigation of an Aboriginal "village" site in southwestern Victoria', Aboriginal history 8, 1984, 173-88.

34-5 Upper Mangrove Creek V. Attenbrow and P. Vinnicombe

MAPS, PROFILE AND TEXT: V. Attenbrow, 'Archaeological investigation of Deep Creek shelter, Mangrove Creek Dam', Report to National Parks and Wildlife Service, New South Wales 1982; V. Attenbrow, 'Mangrove Creek Dam salvage excavation project', Report to National Parks and Wildlife Service, New South Wales 1981; L. Furey, 'Mangrove Creek, archaeological survey, dam storage area', Report to National Parks and Wildlife Service, New South Wales 1978. With assistance from the staff of the Cultural Resources Section and Hawkesbury and Sydney District Office of National Parks and Wildlife Service, New South Wales; the staff of the Mangrove Creek Dam Resident Engineer's Office; Robert Thompson and Lionel Young of Kulnara.

36-7 Wik people P. Sutton MAPS AND TEXT: P. Sutton, 'Wik: Aboriginal society, territory and language at Cape Keerweer, North Australia', PhD thesis 1978, University of Queensland.

38-9 Art styles J. Clegg and R. Bednarik MAP AND TEXT: P.J. Ucko (ed), Form in indigenous art, Canberra 1977; Rock art research 1-2, 1984-85; G. Chaloupka, From Palaeoart to casual paintings, Darwin 1984.

40 Carved trees D. Bell

MAP AND TEXT: D. Bell, 'Aboriginal carved trees of southeastern Australia', Report to National Parks and Wildlife Service, New South Wales 1982; L. Black, Burial trees, Melbourne 1941; R. Etheridge, The dendroglyphs or 'carved trees' of New South Wales, Sydney 1918; F.D. McCarthy, 'The carved trees of New South Wales', Australian Museum magazine 3, 1940, 161-6; M.J. Morwood and B.J. Fillery, 'Carved trees in Queensland', Occasional papers in anthropology 6, 1976, 97-107.

41 Arabana Rain Dreaming L. Hercus MAP: Division of National Mapping, Canberra. TEXT: W.E.H. Stanner, White man got no Dreaming, Canberra 1979, 23-40; B. Spencer and F.J. Gillen, The native tribes of central Australia, London 1899; A.P. Elkin, 'Studies in Australian totemism', Oceania monographs 2, 1933; A.P. Elkin, The Australian Aborigines: how to understand them, Sydney 1938; R.M. Berndt, Kunapipi, Melbourne 1951; R.M. Berndt and C.H. Berndt, The world of the first Australians, Sydney 1964; T.G.H. Strehlow, Aranda traditions, Melbourne

1947; T.G.H. Strehlow, 'Totemic landscape' in R.M. Berndt (ed), Australian Aboriginal anthropology, Canberra 1970; L. Hercus and P. Sutton (eds), Narratives – historical Aborigines, Canberra 1986; B. Spencer and F.J. Gillen, Across Australia, 2 vols, London 1912.

42-3 Aborigines and land N. Peterson MAPS AND TEXT: N. Peterson and M. Langton (eds), Aborigines, land and land rights, Canberra 1983.

44 Wiradjuri G. Macdonald

MAPS AND TEXT: Black, Burial trees; D.K. Eades, The Dharawal and Dhurga language of the New South Wales south coast, Canberra 1976; E. Gostelow, 'Aboriginal names and their meanings', Science of man 2/11, 209; F.D. McCarthy, New South Wales Aboriginal place names and euphonious words, with their meanings, Sydney 1971; S. Musgrave, The wayback, Sydney 1926; N.B. Tindale, Aboriginal tribes of Australia, California 1974.

3 EUROPEAN DISCOVERY AND EXPLORATION

46 Introduction T.M. Perry

TEXT: Entries on individual explorers in Australian dictionary of biography, Melbourne 1966-83; E.H.J. Feeken and E.F. Feeken, The discovery and exploration of Australia, Melbourne 1970; E. Kunz and E. Kunz, A continent takes shape, Sydney 1971; K.G. McIntyre, The secret discovery of Australia, Sydney 1982; T.M. Perry, The discovery of Australia: the charts and maps of the navigators and explorers, Melbourne 1982; A. Sharp, The discovery of Australia, Oxford 1963; R.A. Skelton, Explorers' maps, London 1958; O.H.K. Spate, Let me enjoy: essays, partly geographical, Canberra 1965; G.A. Wood, The discovery of Australia, London 1922.

47 Maritime discovery and exploration T.M. Perry

MAPS AND TEXT: Feeken and Feeken, Discovery and exploration; McIntyre, Secret discovery; Perry, Discovery of Australia; Skelton, Explorers' maps; Wood, Discovery of Australia.

48-9 City sites T.M. Perry

MAPS: 'Chart of the three harbours of Botany Bay, Port Jackson and Broken Bay, showing the cultivated grounds in and about the settlements', in D. Collins, An account of the English colony in New South Wales, 1, London 1798; 'Port Phillip surveyed by C. Grimes, Actg Surveyor Gl. N. So. Wales, 1803', in J.J. Shillinglaw, Historical records of Port Phillip, Melbourne 1879; 'Plan of the River Brisbane by John Oxley, Surveyor General of New South Wales', in B. Field (ed), Geographical memoirs on New South Wales, London 1825; 'Chart of Terra Australis by M. Flinders 1798-9. South Coast, sheet VI', in the atlas published with M. Flinders, A voyage to Terra Australis, London 1814; 'Chart of the Swan River from a survey by Capn. James Stirling, R.N. 1827', London 1829.

50-1 Land exploration to 1860 T.M. Perry MAPS AND TEXT: Feeken and Feeken, Discovery and exploration; Kunz and Kunz, Continent takes shape; Perry, Discovery of Australia; Sharp, Discovery of Australia; Skelton, Explorers' maps; Wood, Discovery of Australia.

52 Oxley and Eyre T.M. Perry

MAPS: E.J. Eyre, Journals of expeditions of discovery into central Australia and overland from Adelaide to King George's Sound, London 1845; J. Oxley, 'A reduced sketch of two expeditions', inset on 'A chart of part of the interior of New South Wales by John Oxley. Surveyor General 1818', in J. Oxley, Journals of two expeditions into the interior of New South Wales, London 1820.

53 Continental crossings

MAPS AND TEXT: Feeken and Feeken, Discovery and exploration; Kunz and Kunz, Continent takes shape; Perry, Discovery of Australia; Sharp, Discovery of Australia; Skelton, Explorers' maps; Wood, Discovery of Australia.

54-5 Leichhardt and Sturt T.M. Perry TEXT: Perry, *Discovery and exploration*.

56 Land exploration from 1860 T.M. Perry MAPS AND TEXT: Feeken and Feeken, Discovery and exploration; Kunz and Kunz, Continent takes shape; Perry, Discovery of Australia; Sharp, Discovery of Australia; Skelton, Explorers' maps; Wood, Discovery of Australia.

57 South to north crossings T.M. Perry MAP: 'Map of the eastern part of Australia showing the route of Messrs Burke and Wills from Melbourne to the Gulf of Carpentaria', in A. Jackson, Robert O'Hara Burke and the Australian exploring expedition of 1860, London 1862. Text: Perry, Discovery of Australia.

58 High hopes and stark realities T.M. Perry MAPS: E. Bowen, 'A complete map of the southern continent', in J. Harris, Navigatum atque itinerantium bibliotheca or a complete collection of voyages and travels, London 1744; W.S. Jevons, 'Some data concerning the climate of Australia and New Zealand', in Waugh's Australian almanac for the year 1859, Sydney 1859, 97; T.J. Maslen, The friend of Australia, or, a plan for exploring the interior . . . by a retired officer of the Hon. East India Company's service, London 1830. Text: Perry, Discovery of Australia.

4 RURAL LANDSCAPES

60-1 Land tenure J. McQuilton

MAPS AND GRAPHS: Colonial, state and commonwealth year books; R.L. Heathcote, 'The evolution of Australian pastoral land tenures: an example of challenge and response in resource development', in R.G. Ironside et al (eds), Frontier settlement, Edmonton 1974, 226-46. TEXT: Commonwealth year books; Heathcote, 'Australian pastoral land tenures'; J.M. Powell, Environmental management in Australia 1788-1914, Melbourne 1976; J.M. Powell and M. Williams (eds), Australian space, Australian time: geographical perspectives, Melbourne 1975.

62-3 Pastoral occupation R.L. Heathcote See notes for 'Pastoral landuse'.

64 Pastoral landuse R.L. Heathcote and J. McQuilton

MAPS AND TEXT: G. Alexander and O.B. Williams, The pastoral industries of Australia, Sydney 1973; A. Barnard (ed), The simple fleece, Melbourne 1962; G.N. Harrington et al (eds), Management of Australia's rangelands, Melbourne 1984; R.L. Heathcote, 'Pastoral Australia', in D.N. Jeans (ed), Australia: a geography, Sydney 1977, 252-88; T.L. McKnight, The long paddock: Australia's travelling stock routes, Armidale 1977; S.H. Roberts, The squatting age in Australia 1835-1847, Melbourne 1975 (1935).

65-8 Cattle and sheep R.L. Heathcote MAPS: Colonial and state statistical registers were used to gather information which was then adjusted for the 1951 statistical division boundaries of Australia. TEXT: Harrington et al (eds), Australia's rangelands; Heathcote, 'Australian pastoral land tenure'; Heathcote, 'Pastoral Australia'.

69 Artesian water J.C.R. Camm
MAPS, GRAPHS AND TEXT: Australian Water
Resources Council, Groundwater resources of Australia,
Canberra 1975; Department of the Co-ordinator
General of Public Works, Australian water supplies in
Queensland 1954, Brisbane 1955; Department of
Resources and Energy, Water 2000: a perspective on
Australia's water resources to the year 2000, Canberra
1983; Queensland year books.

70-1 Wheat M. McCaskill

MAPS AND GRAPHS: Colonial and state statistical registers; commonwealth year books, E. Dunsdorfs and L. Dunsdorfs, *Historical statistics of the Australian wheat growing industry*, Melbourne 1956. TEXT: G.L. Buxton, *The Riverina 1861-1891*, Melbourne 1967; A.R. Callaghan and A.J. Millington, *The wheat industry in Australia*, Sydney 1956; E. Dunsdorfs, *The Australian wheat growing industry 1788-1948*, Melbourne 1956; D.N. Jeans, *An historical geography of New South Wales to 1901*, Sydney 1972; D.W. Meinig, *On the margins of the good earth: the South Australian wheat frontier 1869-1884*, Chicago 1962; M. Williams, *The making of the South Australian landscape*, London 1974.

72-3 Barley and Fruit M. McCaskill MAPS, GRAPHS AND TEXT: Colonial and state statistical registers; colonial, state and commonwealth year books; D.B. Williams (ed), Agriculture in the Australian economy, Sydney 1967.

74-5 Irrigation J.C.R. Camm

MAPS, GRAPHS AND TEXT: Commonwealth year books; Division of National Mapping, 'Australia. Dams and storages', second edition, NNP 81/053; Division of National Mapping, 'Australia. Pastures and crops irrigated 1980/1981', NNP 82/096. A3; International Commission on large dams, Australian national committee, *Register of large dams, dams diary*, 1976, 1980; New South Wales Water Resources Commission annual reports; Queensland Water Resources Commission annual reports.

76 Sugar J.C.R. Camm MAPS, GRAPHS AND TEXT: Queensland and New South Wales statistical registers.

77 Dairying J.C.R. Camm MAPS AND GRAPHS: State statistical registers. TEXT: N.T. Drane and H.R. Edwards (eds), The Australian dairy industry, Melbourne 1961; Williams, Agriculture.

78 Progress and blunders M. McCaskill MAP, TEXT AND TABLE: G. Blainey, A land half won, Melbourne 1982; B. Fraser (ed), The Macquarie book of events, Sydney 1983, 152-68.

79 'The grey tide' J. McQuilton
MAPS: E.C. Rolls, They all ran wild, Sydney 1969;
Western Australia Parliamentary papers, 1891–1910.
TEXT: Blainey, Land halfwon; K. Peterson, 'The 1888
New South Wales royal commission into schemes for the extermination of rabbits', Australia 1888 bulletin 5, 1980, 60-6; Rolls, They all ran wild.

80-1 German settlement, South Australia G. Young

MAP AND DIAGRAMS: G. Young et al, Barossa survey, Adelaide 1977; G. Young et al, Hahndorf, Adelaide 1981; G. Young et al, Lobethal, valley of praise, Adelaide 1983. Text: A. Lodewyckx, Die Deutschen in Australien, Stuttgart 1932; Williams, South Australian landscape; E.M. Yelland (ed), Colonists, copper and corn, Melbourne 1970; Young, Barossa survey; G. Young, 'Early German settlements in South Australia', Australian historical geography 2, 1981, 45-69; Young, Hahndorf; Young, Lobethal.

82 Selection B. Gammage
MAP AND TEXT: Drawn from research currently
being undertaken for a history of the Narrandera

83 Closer settlement J. McQuilton and J.C.R. Camm

MAPS: Colonial, state and commonwealth year books. TEXT: D.N. Jeans, 'The impress of central authority upon the landscape: southeastern Australia 1788–1850', in Powell and Williams, Australian space, 1-17; Powell, Environmental management; M. Williams, 'More, and smaller is better: Australian rural settlement 1788–1914', in Powell and Williams (eds), Australian space, 61-103.

84 Soldier settlement M. McCaskill and J. McQuilton

MAP: Lands Department, Annual reports in Parliamentary papers for each state; state and commonwealth year books; statistical registers for each state. TEXT: J.M. Powell, 'The debt of honour: "soldier settlement" in the dominions', Journal of Australian studies 8, 1981, 64-87; J.M. Powell, 'The mapping of 'soldier settlement': a note for Victoria', Journal of Australian studies 3, 1978, 44-51.

85 Closer settlement, South Australia

M. McCaskill

MAP AND TEXT: Department of Lands and Survey, Annual report 1926-27, in South Australia Parliamentary papers, 1, 1927; Department of Lands and Survey, annual report 1953-54, in South Australia Parliamentary papers 2, 1954; Williams, South Australian landscape.

86-7 Building materials R.L. Heathcote MAPS: Commonwealth censuses. TEXT: R. Boyd, Australia's home, Melbourne 1952; colonial and commonwealth censuses; J.M. Freeland, Architecture in Australia, Melbourne 1968; D.N. Jeans and P. Spearritt, The open air museum, Sydney 1980; A.J. Rose, 'Some boundaries and building materials in southeastern Australia', in M. McCaskill (ed), Land and livelihood: geographical essays in honour of George Jobberns, Christchurch 1962.

88 Rural dwellings R.L. Heathcote and R. Singer DRAWINGS: Mike Gorman.

5 URBAN LANDSCAPES

90 Beginnings P. Spearritt

TEXT: J. Bird, Seaport gateways of Australia, Oxford 1968; G.J.R. Linge, Industrial awakening, Canberra 1979.

91 Sydney P. Spearritt

TEXT: M.F. Poulsen and P. Spearritt, Sydney: a social and political atlas, Sydney 1981; P. Spearritt, Sydney since the twenties, Sydney 1978.

92 Hobart P. Spearritt

TEXT: R.J. Solomon, Urbanization: the evolution of an Australian capital, Sydney 1976.

93 Perth P. Spearritt

TEXT: C.T. Stannage, The people of Perth, Perth 1979; G. Stephenson and J.A. Hepburn, Plan for the metropolitan region, Perth and Fremantle, Perth 1955.

ENDNOTES 283

94-7 Adelaide, Melbourne, Brisbane, Darwin P. Spearritt

TEXT: H. Stretton, Ideas for Australian cities, Adelaide 1975; G. Davison, The rise and fall of marvellous Melbourne, Melbourne 1978; P. Harrison, 'Major urban areas', Atlas of Australian resources, third series, Canberra 1981.

98 Hobart's changing centre R.J. Solomon and J.C.R. Camm

MAPS AND TEXT: Solomon, Urbanization, the evolution of an Australian capital, 160, 214.

99 Gentrification B.A. Badcock

MAPS AND TEXT: B.A. Badcock and D.U. Urlich Cloher, 'Neighbourhood change in inner Adelaide, 1966-76', *Urban studies* 18/1, 1981, 41-55; H. Kendig, *New life for old suburbs*, Sydney 1979.

100-1 Canberra, the nation's capital T.G. Birtles and P. Harrison

MAPS AND TEXT: National Capital Development Commission, *Tomorrow's Canberra: planning for growth and change*, Canberra 1970; L. Wigmore, *The long view: a history of Canberra, Australia's national capital*, Melbourne 1963.

102-3 Urban growth I.J.S. Bowie MAPS, GRAPHS AND TEXT: Colonial and commonwealth censuses; P. Spearritt, 'Melbourne and Sydney at the census' in J. Davison (ed), *The Sydney-Melbourne book*, Sydney 1986, includes a discussion of defining urban boundaries over time and the effect that this has on population estimates.

104-7 Non-metropolitan growth G. Aplin MAPS: Colonial censuses, 1861, 1891; commonwealth censuses, 1911, 1933, 1947, 1966, 1981.

108-9 Urban water supply G. Aplin MAPS AND TEXT: J. Parr, 'Perth water supply', Journal of the Institute of Engineers, Australia 8, 1927, 363-407; Perth Metropolitan Water Supply, Sewerage and Drainage Department annual reports in Western Australia Parliamentary papers; Perth Metropolitan Water Supply, Sewerage and Drainage Department, Commemorative volume, 1925.

110 Sewerage services G. Aplin MAPS AND TEXT: W.V. Aird, The water supply, sewerage and drainage of Sydney, Sydney 1961; 'The sewerage system of Sydney' Sydney Water Board journal 1/2, 1951, 33-42; Sydney Metropolitan Water, Sewerage and Drainage Board annual reports in New South Wales Parliamentary papers; L.L. Holzen (ed), Victorian municipal directory, state guide and water supply record for 1979, Melbourne 1979; Victorian year books, especially 1980-84.

111 Melbourne's railways G. Aplin MAP AND TEXT: J.S. Duncan (ed), Atlas of Victoria, Melbourne 1982, 146; Davison, Rise and fall of marvellous Melbourne, 156; Victorian Year book, 1961, 682-5; Victorian year books.

112-13 Tramways G. Aplin MAPS AND TEXT: D.R. Keenan, *Tramways of Sydney*, Sydney 1979.

114 Parks G. Aplin MAPS AND TEXT: UBD Adelaide street directory, Adelaide 1985.

6 Mining, manufacturing and transport

116-17 Major mineral discoveries J.C.R. Camm MAP AND TEXT: G. Blainey, 'A theory of mineral discovery: Australia in the nineteenth century', Economic history review 23/2, 1970, 298-313; G. Blainey, The rush that never ended: a history of Australian mining, Melbourne 1978; commonwealth and state year books; Department of Trade and Resources, Australia's mineral resources, Canberra 1980; Atlas of Australian resources, first and second series, Canberra 1957/76; Division of National Mapping, 'Value of mines production', 1981.

118-19 Gold J. McQuilton MAP AND GRAPHS: J. Flett, The history of gold discovery in Victoria, Melbourne 1970; Victorian and Western Australian statistical registers; H. Saddler, 'Minerals and energy' in Australians: historical statistics; Western Australia year book, 1902-04. TEXT: Blainey, The rush that never ended; F.K. Crowley, Australia's western third: a history of Western Australia, Melbourne 1960; Flett, Gold discovery in Victoria; G. Serle, The golden age: a history of the colony of Victoria 1851-1861,

120 Coal J.C.R. Camm MAP, GRAPHS AND TEXT: R. Crivelli, 'History of the

Melbourne 1963; Western Australian year books.

coal industry in Australia', Journal and proceedings of the Royal Australian Historical Society 16/3, 1930, 152-60; Division of National Mapping, 'Coal resources 1981', 1982; H.S. Elford and M.R. McKeown, Coal mining in Australia, Melbourne 1947; Joint Coal Board, Black coal in Australia 1983-84. A statistical year book, Sydney 1984; Queensland Energy Advisory Council, Annual review and energy statistics, Brisbane 1984; Queensland year books.

121 Iron ore J.C.R. Camm MAPS, GRAPH AND TEXT: Commonwealth year books; Department of Trade and Resources, Australia's mineral resources, iron ore, Canberra 1981; Western Australian year books.

122-3 Electric power J.C.R. Camm MAPS, GRAPHS AND TEXT: Department of Resources and Energy, Energy demand and supply: Australia 1960-61 to 1982-83, Canberra 1984; 'Power and fuel', Atlas of Australian resources, first series, Canberra 1955; 'Electricity', Atlas of Australian resources, first series, Canberra 1962; H. Saddler, Energy in Australia. Politics and economics, Sydney 1981; Annual report of the Electricity Commission of New South Wales, 30 June 1984, in New South Wales Parliamentary papers, 1984.

POWER (measure of generating capacity)
W = Watt
KW = Kilowatt (1000 watts)
MW = Megawatt (1 000 000 watts)
ENERGY
Wh = Watt hour
KWh = Kilowatt hour (1000Wh)
MWh = Megawatt hour (1000KWh)
GWh = Gigawatt hour (1 000 000KWh)

TWh = Terawatt hour (1 000 000 000KWh)

124 Snowy Mountains scheme J. McQuilton TEXT: 'Report of the Snowy River Investigation Committee on the utilization of the waters of the Snowy River, 1944' in New South Wales *Parliamentary papers*, 1, 1944-45; commonwealth year books, 1950-80.

125 Oil and gas J.C.R. Camm

MAPS AND GRAPHS: Department of Resources and Energy, Energy demand; Esso Australia Ltd, An Esso report: Australian energy outlook, Sydney 1984; National Energy Advisory Council, Australia's energy resources 1980, report 14, Canberra 1981. Text: D.W. Barnett, Minerals and energy in Australia, Sydney 1979; Esso Australia Ltd, An Esso report; National Energy Advisory Council, Australia's energy; Saddler, Energy in Australia.

126-7 Manufacturing M. Neutze and N.G. Butlin MAP: Originally prepared and published by the Department of National Development, Canberra, Ref No A102/20.31, 'Manufacturing industries', Atlas of Australian resources, first series, Canberra 1960. TEXT: N.G. Butlin, Investment in Australian economic development 1861-1900, Canberra 1972; 'Manufacturing industries', Atlas of Australian resources, second series, Canberra 1975; C. Forster (ed), Australian economic development in the twentieth century, London 1070

128-9 Railways J. McQuilton, J.C.R. Camm and G. Parkinson

MAPS: The map showing dates of opening of lines was compiled from railway maps and reports in the colonial and state *Parliamentary papers*. The map of Australia's railways in 1986 was compiled by the Geographic Section of the Division of National Mapping. TEXT: N.G. Butlin, *Australian domestic product, investment and foreign borrowing 1861 – 1938/39*, Cambridge 1962, *Atlas of Australian resources*, first and second series, Canberra 1956/74; P.J. Rimmer, 'Politicians, public servants and petitioners: aspects of transport in Australia 1851–1901', in J.M. Powell and M. Williams, *Australian space, Australian time, geographical perspectives*, Melbourne 1975.

130 Roads J. McQuilton and P. Spearritt GRAPHS: Bureau of Transport Economics, Assessment of the Australian road system: 1984, Canberra 1984. TEXT: Department of Main Roads New South Wales, The roadmakers: a history of main roads in New South Wales, Sydney 1973; J. Fitzpatrick, The bicycle and the bush, Melbourne 1980.

131 Overseas trade J. McQuilton CARTOGRAMS, GRAPHS AND TEXT: P. Drysdale, 'Trade', Australian encyclopaedia, Sydney 1977; A. Lougheed, 'International transactions and foreign commerce', in Australians: historical statistics.

II PEOPLE

7 AN IMMIGRANT NATION

136-7 Aboriginal colonisation A. Ross MAPS AND TEXT: J.B. Birdsell, 'Some population problems involving Pleistocene man', Cold Springs Harbour symposium on quantitative biology 22, 1957, 47-69; S. Bowdler, 'The coastal colonisation of Australia', in J. Allen et al (eds), Sunda and Sahul, London 1977, 205-46; D.R. Horton, 'A review of the extinction question: man, climate and megafauna', Archaeology and physical anthropology in Oceania 15, 1980, 86-97.

138-9 Aboriginal languages M. Walsh, S.A. Wurm and P. Black
MAPS AND TEXT: M.J. Walsh and S.A. Wurm, 'Maps of Australia and Tasmania', in S. Wurm and S.
Hattori (eds), Language atlas of the Pacific area, part 1, Canberra 1981.

140 Missions and reserves J. McQuilton MAPS AND TEXT: Aboriginal Land Rights Commission, First report, Canberra 1973; P. Biskup, Not slaves not citizens: the Aboriginal problem in Western Australia, St Lucia 1973; Division of National Mapping, 'Australia. Aboriginal lands and population', NNP 79/112; P. Hasluck, Black Australians: a survey of native policy in Western Australia 1829-1897, Melbourne 1980 (1942); J. P. M. Long, Aboriginal settlements: a survey of institutional communities in eastern Australia, Canberra 1970; R. H. W. Reece, Aborigines and colonists: Aborigines and colonial society in New South Wales in the 1830s and 1840s, Sydney 1974; C. D. Rowley, Outcasts in white Australia, Canberra 1972.

141 Aboriginal population J.C.R. Camm MAPS AND GRAPHS: Division of National Mapping, 'Aboriginal lands and population'; National Population Enquiry, Population and Australia, a demographic analysis and projection, 1, Canberra 1975; C.D. Rowley, The destruction of Aboriginal society, Canberra 1970; L.R. Smith, The Aboriginal population of Australia, Canberra 1980.

142-3 Population growth J.C.R. Camm and J. McQuilton

The sources listed below also provided information for material mapped in the rest of this chapter. GRAPHS: Colonial and commonwealth censuses; commonwealth and state year books; statistics were also released by colonial, state and commonwealth governments as bulletins, as papers presented to parliaments and as annual statistical registers. Text: R.T.Appleyard, British emigration to Australia, Canberra 1964; W.D. Borrie, Immigration, Australia's problems and prospects, Sydney 1949; W.D. Borrie, 'Population' in Australian encyclopaedia, Sydney 1977; W.D. Borrie, Population trends and policies: a study in Australian and world demography, Sydney 1948; W.D. Borrie and G. Spencer (eds), Australia's population structure and growth: a major research study, Canberra 1965; T.A. Coghlan, Labour and industry in Australia, 4 vols, Melbourne 1969 (1918); F.K. Crowley (ed), A new history of Australia, Melbourne 1974; Department of Immigration and Ethnic Affairs, Australian consolidated statistics, Canberra 1979; Department of Immigration and Ethnic Affairs, A review of migration to Australia 1788-1975, Canberra 1979; R.B. Madgwick, Immigration into eastern Australia 1788-1851, Sydney 1969; Department of Labour and Immigration, Population and Australia: a demographic analysis and projection, Canberra 1975; C.A. Price (ed), Australian immigration, a bibliography and digest, Canberra 1966-81; J. Zubrzycki, Immigrants in Australia: a demographic survey based upon the 1954 census, Melbourne 1960.

144-5 Immigrant origins J. McQuilton CARTOGRAMS AND TEXT: Information for the cartograms was drawn mainly from census material. The separation of countries and the creation of regional blocks was made on the basis of the historical significance of a group and the nature of the statistics collected (eg, the Danes were separated from the regional grouping, Scandinavia; the 'Baltic republics' were often grouped as a block; in some censuses the Ukraine was counted separately, in others grouped with the USSR; the nationalities that presently make up Yugoslavia were rarely listed). For text sources, see those listed for pages 142-3, 'Population growth'.

146 The Australian born J. McQuilton MAPS AND GRAPH: Colonial and commonwealth censuses. TEXT: K.S. Inglis, *The Australian colonists: an exploration of social history 1788-1870*, Melbourne 1974; R. Ward, *The Australian legend*, Melbourne 1965 (1958); R. Ward and K. Macnab, 'The nature and

nurture of the first generation of native-born Australians', Historical studies 10/39, 1962, 289-308.

147 New South Wales 1846 J. McQuilton MAPS: 'Census of the population of New South Wales 1846', New South Wales Government gazette, 4 Nov 1846, 1327-78. Text: R. Mansfield, Analytical view of the census of New South Wales for the year 1846, Sydney 1847.

148-9 Population 1861 J. McQuilton and J.C.R. Camm

MAPS AND GRAPHS: Birthplace information for 1861 is from the censuses taken in New South Wales, Queensland, South Australia and Victoria. Regional breakdowns were not available for Tasmania and Western Australia. The date of the census taken in Western Australia in 1861 differed from the other colonies.

150-1 The German born G. Young and A. Green MAPS, GRAPH AND TEXT: W.D. Borrie, *Italians and Germans in Australia: a study of assimilation*, Melbourne 1954; C.A. Price, *German settlers in South Australia*, Melbourne 1945; G. Young, 'Early German settlers in South Australia', *Australian historical geography* 2, 1981, 45-69.

152-3 Pacific Islanders J.C.R. Camm MAPS AND GRAPHS: A. Birch, 'The organisation and economics of Pacific Islands' labour in the Queensland sugar industry 1863-1906', Business archives and history 4/1, 1966, 53-76; C. Price and E. Baker, 'Origins of the Pacific Island labourers in Queensland 1863-1906', Journal of Pacific history 11/1-2, 1976, 106-21; Queensland censuses and statistical registers. Text: Birch, 'Pacific Islands' labour'; G. Bolton, A thousand miles away: a history of north Queensland to 1920, Canberra 1972; E.W. Docker, The blackbirders: a brutal story of the Kanaka slave-trade, London 1981 (1970); T. Dunbabin, Slavers of the South Seas, Sydney 1935; Price and Baker, 'Origins of the Pacific Island labourers'.

154-5 Population 1901 and Population 1921 J.C.R. Camm, J. McQuilton, M. Neutze and T.W. Plumb

MAPS AND GRAPHS: Commonwealth censuses. TEXT: N.G. Butlin, Investment in Australian economic development 1861-1900, Canberra 1972; M.I. Logan, J.S. Whitelaw and J. McKay, Urbanisation: the Australian experience, Melbourne 1981; M. Neutze, Urban development in Australia, Sydney 1981. NOTE: Although the criterion used to identify 'large towns' was a minimum of 5 per cent, smaller centres were included down to a clear discontinuity in size. The cut-off points are around 0.4 per cent. 'Small towns' are other centres with populations over 1000. In Tasmania the criterion cannot be used in 1901 or 1921 as 'small towns' were combined with smaller settlements and rural areas. Launceston was the only large town that could be clearly identified.

156 The Chinese born J. McQuilton MAPS AND GRAPHS: Victorian censuses; K. Cronin, Colonial casualties, Chinese in early Victoria, Melbourne 1982, 144-5. TEXT: C. Choi, Chinese migration and settlement in Australia, Sydney 1975; Cronin, Colonial casualties.

157 Age-sex ratios 1901, 1921 J.C.R. Camm MAPS, GRAPHS AND TEXT: Commonwealth

158-9 Population 1954, 1981 J.C.R. Camm, J. McQuilton, M. Neutze and T.W. Plumb MAPS AND GRAPHS: Commonwealth censuses. TEXT: 'Population increase and decrease 1947-1954', Atlas of Australian resources, first series, Canberra 1958; Logan, Whitelaw and McKay, Urbanisation: the Australian experience; Neutze, Urban development in Australia

160 Age-sex ratios 1954, 1981 J.C.R. Camm MAPS, GRAPHS AND TEXT: Commonwealth censuses.

161 The Italian born J. McQuilton MAPS AND GRAPH: Colonial and commonwealth censuses; commonwealth census, 1961. Text: Borrie, Italians and Germans in Australia; C.A. Price, Southern Europeans in Australia, Melbourne 1963.

162 The Greek born J. McQuilton MAP AND GRAPH: Colonial and commonwealth censuses; commonwealth census, 1971. Text: Price, Southern Europeans; C.A. Price (ed), Greeks in Australia, Canberra 1975.

8 LIFE AND DEATH

164-5 Colonial mortality rates J.C.R. Camm MAPS, GRAPHS AND TEXT: N.G. Butlin, Our original

aggression, Aboriginal populations of southeastern Australia 1788-1850, Sydney 1983; J.H.L. Cumpston, The history of small-pox in Australia 1788-1908, Quarantine Service publication 2, Melbourne 1917; J.H.L. Cumpston, 'Time factor in quarantine practice', Health 5/3, 1927, 65-8; B. Gandevia, 'Sociomedical factors in the evolution of the first settlement at Sydney Cove 1788-1803', Journal of the Royal Australian Historical Society 61, 1975, 1-15; Report of the Director-General of Public Health for New South Wales 1933, in New South Wales Legislative Assembly, Parliamentary papers, 2, 1934; C.M. Young and L.T. Ruzicka, Population of Australia, Country monograph series 9/1, Economic and Social Commission for Asia and the Pacific, New York 1982.

166-7 The plague J.C.R. Camm
MAPS, GRAPHS AND TEXT: American Geographical
Society, 'Atlas of disease, world distribution of
plague', Geographical review 42/4, 1952; J.H.L.
Cumpston and F. McCallum, The history of plague in
Australia 1900-1925, Department of Health publication 24, Melbourne 1926; M. Kelly, Plague in Sydney
1900, Sydney 1981; J. Ashburton Thompson, Report
of the Board of Health on the first outbreak of plague at
Sydney 1900, Sydney 1901; J. Ashburton Thompson,
Report of the Board of Health on the third outbreak of
plague at Sydney 1903, Sydney 1906.

168-71 Influenza epidemic 1919 J.C.R. Camm MAPS AND GRAPHS: Commonwealth year books, 1920-21; J.H.L. Cumpston, Influenza and maritime quarantine in Australia, Quarantine Service publication 18, Melbourne 1919; New South Wales Department of Health, Influenza epidemic of 1919, Sydney 1920; New South Wales Statistical registers; New South Wales year book, 1920. TEXT: W.I.B. Beveridge, Influenza: the last great plague, New York 1977; F.M. Burnet and E. Clark, Influenza, Melbourne 1942; Cumpston, Influenza and maritime quarantine; commonwealth year books, 1920-21; H. McQueen, 'The 'Spanish' influenza pandemic in Australia 1918-1919', Journal of history 4, 1975, 85-107; M. Roe, 'The establishment of the Australian Department of Health: its background and significance', Historical studies 17/67, 1976, 176-92.

172-3 Polio J.C.R. Camm MAPS, GRAPHS AND TEXT: Commonwealth year books; D.J.R. Snow, 'Poliomyelitis epidemic 1954. Appendix 8', in Report of the Commissioner of Public Health 1954, in Western Australia *Parliamentary papers*, 3, 1955; R.V. Southcott, N.D. Crosby

and N.S. Stenhouse, 'Studies on the epidemiology of the 1947-48 epidemic of poliomyelitis in South Australia (1947-48)', Medical journal of Australia 1, 1949, 4-12.

174-5 Death on the roads J.C.R. Camm MAPS, GRAPHS AND TEXT: Australian Bureau of Statistics, 'Annual returns of road traffic accidents'; commonwealth year books.

176-7 Health care J.C.R. Camm MAPS AND GRAPH: Commonwealth year books; colonial and state statistical registers. TEXT: B. Dickey, 'Hospital services in New South Wales, 1875-1900: questions of provisions, entitlements, and responsibility', *Journal of the Royal Australian Historical Society* 62, 1976, 35-76; B. Dickey, 'The Labor government and medical services in New South Wales, 1910-1914' in J. Roe (ed), *Social policy in Australia*, Melbourne 1976, 60-73; M. Horsburgh, 'Some issues in the government subsidy of hospitals in New South Wales, 1858-1910', *Medical history* 21, 1977, 166-81.

178 Preventive medicine Charles Kerr

9 RELIGION AND EDUCATION

180-1 Religious denominations J.C.R. Camm MAPS, GRAPHS AND TEXT: Colonial and commonwealth censuses; J. Barrett, *That better country: the religious aspect of life in eastern Australia 1835-1850*, Melbourne 1966; W. Burton, *The state of religion and education in New South Wales*, Sydney 1840; D.N. Jeans and E. Cosman, 'Religious adherence and population mobility in nineteenth century New South Wales', *Australian geographical studies* 10, 1972, 193-202

182-3 Australian Inland Mission J.C.R. Camm MAPS AND TEXT: The Inlander, 1917; W.S. McPheat, John Flynn: vision of the inland, Sydney 1977 (1963); J. Flynn, Northern Territory and central Australia: a call to the church, Sydney 1912.

184-5 Schools - church and state J.C.R. Camm MAPS AND DIAGRAMS: A. Barcan, A history of Australian education, Sydney 1965; Burton, The state of religion; C.M.H. Clark, Select documents in Australian history 1851-1900, Sydney 1955; colonial statistical registers. TEXT: A.G. Austin, Australian education 1788-1900, Melbourne 1972; Barcan, History of Australian education; J.F. Cleverley, The first generation: school and society in early Australia, Sydney 1971; A.G. Maclaine, Australian education: progress, problems and prospects, Sydney 1975; C. Turney (ed), Sources in the history of Australian education, Sydney 1975.

186 Schools, scholars and teachers J.C.R. Camm GRAPHS: Colonial and state statistical registers. TEXT: Austin, Australian education; Barcan, History of Australian education; Maclaine, Australian education.

187 Literacy J.C.R. Camm MAPS AND GRAPHS: Colonial censuses; colonial and state statistical registers; commonwealth year books. TEXT: Barcan, *History of Australian education*; Maclaine, *Australian education*.

188 Local schooling J.C.R. Camm MAPS, DIAGRAMS AND TEXT: Annual report of the Secretary for Public Instruction, 1890 in Queensland Parliamentary papers, 3, 1891; Education files, Queensland State Archives; S. Hawkins, 'The location of primary schools in Queensland: an historical overview', Capricornia 7, 1976, 73-88; J.D. Story, State education in Queensland, Brisbane 1915.

189 Women in teaching J.C.R. Camm MAPS AND DIAGRAMS: Colonial and state statistical registers; Annual reports of the Minister of Public Instruction, in New South Wales Parliamentary papers, 1881–1905. Text: Maclaine, Australian education; Turney (ed), Sources in Australian education.

190-1 Isolation and rural schooling J.C.R. Camm MAPS: Queensland census, 1886; Education gazette (New South Wales), 1 July 1922; Annual report of the Secretary for Public Instruction, 1911, in Queensland Parliamentary papers, 1, 1912. Text: Annual reports of the Secretary for Public Instruction, in Queensland Parliamentary papers; Maclaine, Australian education; S.A. Rayner, Correspondence education in Australia and New Zealand, Melbourne 1949; Story, State education in Queensland. ILLUSTRATIONS: Photograph of Mr Wilkins, Queensland Parliamentary papers; photograph of Braidwood family, New South Wales Department of Education, 1946.

192 Travelling to school J.C.R. Camm MAPS AND GRAPH: Tasmanian Statistical registers; L.J. Wood, 'Cost-saving options in school transport: a Tasmanian case study', Australian geographical studies 20, 1982, 219-30. TEXT: Maclaine, Australian education; Wood, 'Cost-savings options in school transport'.

193 The Schools of the Air J.C.R. Camm MAPS: J. Ashton, *Out of the silence*, Adelaide 1971; commonwealth year books; J. Fitzpatrick, 'The changing nature of outback isolation: an educator's perspective', *Australian geographer* 15, 1983, 319-21. TEXT: Ashton, *Out of the silence*; Fitzpatrick, 'The changing nature of outback isolation'; M.E. Foster, 'Katherine School of the Air: the bush school with a difference', *Developing education* 9/3, 1982, 26-30; C. Walker, 'The Alice Springs School of the Air', *Developing education* 9/2, 1982, 9-20.

194-5 Secondary education J.C.R. Camm MAPS AND GRAPHS: Commonwealth year books; New South Wales Department of Education, Government schools in New South Wales 1848-1983, Sydney 1984; New South Wales Statistical registers. TEXT: A. Barcan, A short history of education in New South Wales, Sydney 1965; New South Wales Department of Education, Government schools; Maclaine, Australian education; Turney (ed), Sources in Australian education.

196-7 Technical education J.C.R. Camm MAPS AND GRAPHS: Commonwealth year books; Commonwealth Tertiary Education Commission, Selected TAFE statistics 1980, appendix 2, 1981, 62-72. TEXT: Commonwealth year books; Maclaine, Australian education; TAFE quarterly (Journal of the NSW Department of Technical and Further Education).

198 University education J.C.R. Camm MAP AND GRAPHS: Commonwealth censuses; Commonwealth universities year book, London 1983; commonwealth year books. TEXT: J.J. Auchmuty and G.S. Harman, 'Universities' in Australian encyclopaedia, Sydney 1977; commonwealth year books; Commonwealth universities year book, 1983; D.S. Macmillan, Australian universities, a descriptive sketch, Sydney 1968.

ENDNOTES 285

10 CONVICTS, BUSHRANGERS AND LARRIKINS

200 Convicts in Australia J. McQuilton GRAPHS: New South Wales and Van Diemen's Land, Convict musters; New South Wales, Van Diemen's Land and Western Australia censuses; New South Wales, Van Diemen's Land and Western Australia statistics; Push from the bush Canberra 1983; C. Bateson, The convict ships: 1787-1868, Glasgow 1969, C.M.H. Clark, A history of Australia, vols 1 and 2, Melbourne 1962, 1968; C.M.H. Clark, Select documents in Australian history 1788-1850, Sydney 1955; F.K. Crowley, A documentary history of Australia, colonial Australia 1788-1840, Melbourne 1980; F.K. Crowley (ed), A new history of Australia, Melbourne 1974; L.L. Robson, The convict settlers of Australia, Melbourne 1965; A.G.L. Shaw, Convicts and the colonies, London 1966.

201 Convicts in Australia P. Shergold MAPS: Information for the maps was drawn from a project at the University of New South Wales.

202-3 Convicts in New South Wales J. McQuilton MAPS AND GRAPH: M.R. Sainty and K.A. Johnson (eds), Census of New South Wales November 1828, Sydney 1980; New South Wales Census, 1841. TEXT: Crowley, Colonial Australia; Crowley (ed), New history; R. Mansfield, Analytical view of the census of New South Wales for the year 1841, Sydney 1841; Robson, Convict settlers; Shaw, Convicts and the colonies.

204 Convicts in Van Diemen's Land J. McQuilton MAPS: 'Return of the population', Van Diemen's Land, Statistics; 'Van Diemen's Land census of the year 1848. Abstract of the returns', in Van Diemen's Land Legislative Council, Parliamentary papers, 1848. TEXT: Crowley, Colonial Australia; Crowley (ed), New history; L.L. Robson, A history of Tasmania, 1, Melbourne 1983.

205 Women convicts J. McQuilton MAPS AND GRAPHS: New South Wales, Census, 1841; 'Van Diemen's Land census of the year 1842. Abstract

of the returns', Hobart Town Gazette, 14 April 1843. 206 Convicts in Western Australia J. McQuilton and F.K. Crowley

MAPS AND GRAPHS: 'Censuses of Western Australia 1854', Statistics of Western Australia, Perth 1854; Annual reports of the convict establishment at Western Australia and Tasmania in British Parliamentary papers. TEXT: F.K. Crowley, Australia's western third: a history of Western Australia, Melbourne 1960; Crowley (ed), New history; C.T. Stannage (ed), A new history of Western Australia, Perth 1983.

207 Places of secondary punishment J. McQuilton TEXT: Crowley, Colonial Australia; Robson, Convict settlers.

208-9 Major bushranging outbreaks J. McQuilton MAPS AND TEXT: Police gazettes and annual reports for various colonies; G.E. Boxall, History of the Australian bushrangers, Sydney 1935 (1968); M. Carnegie, Morgan the bold bushranger, Melbourne 1974; I. Elliot, Moondyne Joe, the man and the myth, Perth 1978; P.H. McCarthy, The wild Scotsman: a biography of James McPherson the Queensland bushranger, Melbourne 1975; A.M. Nixon, One hundred Australian bushrangers 1788-1910, Adelaide 1982; C. White, History of Australian bushranging, Melbourne 1981 (1898).

210-11 The Vandemonians J. McQuilton MAP AND TEXT: J. Bonwick, The bushrangers, illustrating the early days of Van Diemen's Land, Melbourne 1856; Boxall, Bushrangers; E. Curr, An account of the colony of Van Diemen's Land, Hobart 1967 (1824); G.W. Evans, A geographical, historical and topographical description of Van Diemen's Land, Melbourne 1967 (1822); G. Mackaness, The Van Diemen's Land warriors, Sydney 1944; Nixon, Bushrangers; T.E. Wells, Michael Howe, the last and worst of the bushrangers in Van Diemen's Land, Dubbo 1979; J. West, The history of Tasmania, Sydney 1981 (1852); White, Bushranging.

212 Jack Donohoe M. Fitzgerald MAP AND TEXT: M. Fitzgerald, 'The wild colonial boy', MA thesis 1986, University of New South Wales.

213 The Lachlan men J. McQuilton MAP AND TEXT: Boxall, Bushrangers; E.P. Clune, Wild colonial boys, Sydney 1982 (1948); Nixon, Bushrangers; E. Penzig, A real flash cove: the story of bushranger Johnny Gilbert, Sydney 1983; D.J. Shiel, Ben Hall, bushranger, Brisbane 1983; White, Bushranging.

214-15 The Kelly outbreak J. McQuilton MAPS, GRAPH AND TEXT: J. McQuilton, The Kelly outbreak 1878-1880: the geographical dimension of social banditry, Melbourne 1979.

216 Larrikin turf K.S. Inglis

TEXT: A.H. Chisholm, The making of a sentimental bloke, Melbourne 1946, 75; E.E. Morris, Austral English, London 1898; J. Murray, Larrikins: nineteenth century outrage, Melbourne 1973, 136.

Australians and war

The author acknowledges the assistance given by Michael McKernan, Bill Gammage and Ken Inglis in the preparation of this chapter.

218-19 Aboriginal resistance to European occupation J. McQuilton

MAPS AND TEXT: The maps are exploratory in nature and underestimate the level of resistance by Aborigines. Reminiscences of European pioneers, regional and local histories all point to varying levels of resistance from 1788. Also used were government reports including police and parliamentary enquiries. See also H. Reynolds, The other side of the frontier, Townsville 1982.

220-1 Service overseas J. McQuilton MAP: The major sources for this map were the official war histories. See also F.K. Crowley (ed), A new history of Australia, Melbourne 1974; P. Firkins, The Australians in nine wars: Waikato to Long Tan, Sydney 1971; H. Simmelhaig and G.F.R. Spenceley, For Australia's sake: a history of Australia's involvement in nine wars, Melbourne 1984.

222 Service overseas (continued) J. McQuilton Statistics, especially casualty figures, in year books do not always agree with those published in the official histories or those compiled by the Central Army Records Office (CARO). Variations are small and every attempt has been made to select the most reliable statistics. GRAPHS: 'Australian Imperial Force gross monthly recruiting figures', Australian War Memorial; 'Australian Military Force weekly report by commander in chief, strength and distribution 1943-1945', Australian War Memorial; CARO, 'Australian casualty statistics for operational periods of service, Suakin to Vietnam', Australian War Memorial; Records Section, AIF Headquarters London, 'Australian Imperial Force, statistics of casualties compiled 30th June 1919', Australian War Memorial; C.E.W. Bean, The story of Anzac: the first phase, official history of Australia in the war of 1914-18, 1, Sydney 1921; E. Scott, Australia during the war, official history of Australia in the war of 1914-18, 11, Sydney 1927; commonwealth year books, 1917-20, 1942-47, 1951. TEXT: Crowley (ed), New history; Bean, The story of Anzac, 1; Scott, Australia during

223 Service overseas (continued) J. McQuilton MAPS, GRAPHS AND TEXT: N. Bartlett, With the Australians in Korea, Canberra 1954; Crowley (ed), New history; Firkins, Australians in nine wars; R.J. O'Neill, Vietnam task, Sydney 1968; Simmelhaig and Spenceley, For Australia's sake; R.L. Wallace, The Australians at the Boer War, Canberra 1976.

224-5 Australian Imperial Force and The Western Front J. McQuilton

MAPS AND GRAPHS: 'Australian Imperial Force casualties', Australian War Memorial; C.E.W. Bean, The Australian Imperial Force in France: 1916, official history of Australia in the war of 1914-18, 3, Sydney 1929; C.E.W. Bean, The Australian Imperial Force in France: 1917, official history of Australia in the war of 1914-18, 4, Sydney 1933; C.E.W. Bean, The Australian Imperial Force in France: December 1917 - May 1918, official history of Australia in the war of 1914-18, 5, Sydney 1937; A.G. Butler, The Western Front, official history of the Australian Army Medical Services 1914-1918, 2, Canberra 1940; commonwealth census, 1911; B. Gammage, The broken years, Canberra 1974; Scott, Australia during the war. TEXT: Bean, Australian Imperial Force, 3-5; Butler, Western Front; Firkins, Australians in nine wars; Gammage, Broken years; M.M. McKernan, The Australian people and the great war, Melbourne 1980; L.L. Robson, The First AIF, a study of its recruitment, 1914-18, Melbourne 1970.

226 Gallipoli J. McQuilton MAPS: Bean, The story of Anzac, 1, 548. TEXT: Bean, The story of Anzac, 1; C.E.W. Bean, The story of Anzac: from 4 May 1915 to the evacuation, official history of Australia in the war of 1914-18, 2, Sydney 1924; Firkins, Australians in nine wars; Gammage, Broken years.

227 Conscription J. McQuilton MAPS: Commonwealth Parliamentary papers, 4, 1917-19, 1449. TEXT: Crowley (ed), New history; McKernan, People and the Great War; Robson, First AIF; F.B. Smith, The conscription plebiscites in Australia, 1916-17, Melbourne 1980 (1965).

228-9 'The enemy within' J. McQuilton MAPS AND GRAPHS: Scott, Australia during the war; Nomenclature Committee's Report on enemy place names in South Australia, in South Australia Parliamentary papers, 3, 1916; commonwealth year book, 1922. TEXT: Crowley (ed), New history; McKernan, People and the Great War

230 Yackandandah J. McQuilton MAP AND TEXT: Based on a research project currently being undertaken by the author.

231 World War II J. McQuilton MAP AND GRAPHS: 'Australian Imperial Force gross monthly recruiting figures', Australian War Memorial; CARO, 'Aliens serving in the Second AIF' Australian War Memorial; 'Australian Military Force weekly report by commander in chief', Australian War Memorial; commonwealth year books, 1940-47, 1951. TEXT: Crowley (ed), New history; P. Hasluck, The government and the people 1939-41, Australia in the war of 1939-45, series 4/1, Canberra 1952; P. Hasluck, The government and the people 1942-45, Australia in the war of 1939-45, series 4/2, Canberra 1970; M. McKernan, All in! Australia during the second world war, Melbourne 1983.

232 Australia under attack J. McQuilton MAPS: G. Hermon Gill, Royal Australian Navy 1939-42, Australia in the war of 1939-45, series 2/1, Canberra 1957; G. Hermon Gill, Royal Australian Navy 1942-45, Australia in the war of 1939-45, series 2/2, Canberra 1968; Hasluck, Government and people 1942-45. TEXT: Crowley (ed), New history; Hasluck, Government and people 1942-45; McKernan, All in.

233 Raid on Sydney Harbour J. McQuilton MAPAND TEXT: Gill, Royal Australian Navy 1939-42.

234 Australian casualties J. McQuilton MAPS, GRAPHS AND TEXT: Gill, Royal Australian Navy 1943-45; J. Herington, Air power over Europe 1944-45, Australia in the war of 1939-45 series 3/4, Canberra 1963; G. Long, The final campaigns, Australians in the war of 1939-45, series 1/7, Canberra 1963; G. Odgers, Air war against Japan 1943-45, Australia in the war of 1939-45, series 3/2, Canberra 1957; commonwealth year book, 1946-47.

235 Kokoda J. McQuilton MAP: L. Wigmore, The Japanese thrust, Australia in the war of 1939-45, series 1/4, Canberra 1957. TEXT: Firkins, Australians in nine wars; Wigmore, Japanese

236 Australians as prisoners of war J. McQuilton MAPS, GRAPHS AND TEXT: CARO, 'Australian Military Force POWs, war against Japan and war against Germany and Italy', Australian War Memorial; Herington, Air power over Europe; Long, Final campaigns; Odgers, Air war against Japan; Wigmore, Japanese thrust; commonwealth year book, 1946-47.

237 Enemy aliens J. McQuilton MAP, TABLE AND TEXT: CARO, 'Enemy POWs in Australia, 1939-45 war', Australian War Memorial; Hasluck, Government and people 1939-41; Hasluck, Government and people 1942-45; CARO, 'Internees held in Australia, 1939-45 war', Australian War Memorial; McKernan, All in.

238 The munitions industry J. McQuilton MAP, GRAPHS AND TEXT: Hasluck, Government and people 1939-41; Hasluck, Government and people 1942-45; McKernan, All in; commonwealth year books, 1942-47.

12 THE GREAT DEPRESSION

240-1 The world and Australia J.C.R. Camm MAP, GRAPHS AND TEXT: N.G. Butlin, Australian domestic product, investment and foreign borrowing 1861-1938/39, Cambridge 1962; D. Copland, Australia in the world crisis 1928-1929, New York 1930; W. Galenson and A. Zellner, 'International comparisons of unemployment rates in universities', in National Bureau of Economic Research, The measurement and behaviour of unemployment, Princeton 1957; C.P. Kindleberger, The world in depression 1929-1939, history of the world economy in the twentieth century, London 1973; S.G. Triantis, Cyclical changes in the trade balances of countries exporting primary products, 1927-1933, Toronto 1967.

242-3 The world and Australia (continued) J.C.R. Camm

MAPS AND GRAPHS: Commonwealth census, 1933; commonwealth year books; Commonwealth Bureau of Census and Statistics, Labour reports, 1926-35. TEXT: C. Forster, 'Unemployment 1900-1940', Economic record 41, 1965, 426-50; G.V. Portus (ed), What the census reveals, Adelaide 1936; C.B. Schedvin,

Australia and the great depression: a study of economic development and policy in the 1920s and 1930s, Sydney 1970; E.R. Walker, Australia in the world depression, London 1933.

244-5 Metropolitan unemployment and poverty. J.C.R. Camm

MAPS: Commonwealth census, 1933. TEXT: C.R. Broomhill, Unemployed workers: a social history of the great depression in Adelaide, Brisbane 1978; P. Spearritt, 'Depression statistics' in J. Mackinolty (ed), The wasted years? Australia's great depression, Sydney 1981.

246-7 Male unemployment J.C.R. Camm MAP: Commonwealth census, 1933. TEXT: Broomhill, *Unemployed workers*; B.J. Costar, 'The great depression: was Queensland different', *Labour history* 26, 1974, 32-48.

248-9 Sustenance and relief works J.C.R. Camm MAPS, GRAPHS AND TEXT: Commonwealth Bureau of Census and Statistics, Labour report, 1932; annual reports of state relief councils; S.A. Bland, 'A note upon unemployment relief in New South Wales', Economic history review 8, 1932, 194-203; S.A. Bland, 'Unemployment relief in Australia', International labour review 30, 1934, 23-57; G.C. Bolton, A fine country to starve in, Nedlands 1972; Broomhill, Unemployed workers; commonwealth year books, G.D. Snooks, Depression and recovery in Western Australia 1928/29-1938/39: a study in cyclical and structural change, Nedlands 1974.

250 The Hunter valley J.C.R. Camm MAPS, GRAPHS AND TEXT: Broken Hill Proprietary Co Ltd, *BHP seventy-five years: 1885-1960*, Melbourne 1960; commonwealth census, 1933; S. Gray, 'Newcastle in the great depression', *Newcastle* history monograph, 11, Newcastle 1984; Newcastle Chamber of Commerce, Annual reports, 1920-35; New South Wales Department of Labour and Industry, 'Report on the working of the factory and shops act 1920-1935', Sydney 1936; New South Wales, Statistical register, 1925-35.

11 GOVERNMENT

252-3 The evolution of state boundaries V. Prescott

MAPS: State and commonwealth government gazettes; M.H. McLelland, 'Colonial and state boundaries in Australia', *Australian law journal* 45, 1971, 671-9.

254-5 Australia's maritime boundaries V. Prescott MAPS AND TEXT: J.R. V. Prescott, Australia's maritime boundaries, Canberra 1985.

256 Australia's external territories V. Prescott MAP AND TEXT: Commonwealth year book, 1975–76.

257 New state movements V. Prescott MAP AND TEXT: R. McL. Harris, 'The "Princeland" secession movement in Victoria and South Australia 1861-67', Australian journal of politics and history 17/3, 1971, 365-76; J. Bastin, 'The West Australian Separation for Federation Movement', Australian quarterly 27, 1955, 76-88; U.R. Ellis, Why new states are vital to Australia, Canberra 1948; 'New states', Current affairs bulletin 6/12, 1950, 195-203; Report of the royal commission appointed to inquire into the most equitable plan for the division of the colony into separate districts for financial purposes, 3 April 1877, in Queensland Parliamentary papers, 2, 1877, 147-91.

258-9 Referendums V. Prescott MAPS AND TEXT: Commonwealth parliamentary handbooks, 1968-85; commonwealth year books; various referendum returns in commonwealth Parliamentary papers.

260-1 Franchise and Governments since 1900 F.K. Crowley and V. Prescott MAPS, GRAPH AND TEXT: Commonwealth parliamentary handbooks; *Australian encyclopedia*, Sydney 1977; commonwealth and state year books.

III LANDSCAPES

261-281 City and Country

D.N. Jeans and P. Spearritt There is an extensive literature on the growth and development of Australian cities and their architecture. See the chapters on the National Estate, City and Region and Architecture in *Australians: a guide to* sources.

References on individual cities can also be found in the regional essays in Australians: events and places. City and country landscapes are discussed and depicted in the Australian Council of National Trust's magazine Heritage Australia and in the many books produced by the National Trusts and state and federal heritage organisations, including The heritage of Australia: the illustrated register of the National Estate, Melbourne 1981 and Australia in trust, Sydney 1985.

The economic, social and political forces that have moulded Australian urban and rural landscapes are discussed in R.L. Heathcote, Australia, London 1975; D.N. Jeans and P. Spearritt, The open air museum: the cultural landscape of New South Wales, Sydney 1980; G. Bolton, Spoils and spoilers: Australians make their environment 1788-1980, Sydney 1981; D.N. Jeans (ed), Australian historical landscapes, Sydney 1984; J. Davison (ed), The Sydney – Melbourne book, Sydney 1986.

Illustration and caption material appear in italics. AIF, see Australian Imperial Force AIM, see Australian Inland Mission AMF, see Australian Military Forces ANZAC, see Australian and New Zealand Army Corps AWAS, see Australian Women's Army Service Aboriginal art, 27, 29, 38-9, 38-9; see also carved trees Aboriginal clans, 36; see also Arabana; Wik; and names of specific clans, eg Wuywurrung Aboriginal colonisation, 136-7, 136-7 Aboriginal community, 32, 32 Aboriginal culture, 28-44 passim Aboriginal Dreaming, 41, 41 Aboriginal dwellings, 33 Aboriginal employment, 64 Aboriginal history, 31, 35, 136-7 Aboriginal implements, 34; see also Kartan tools Aboriginal land rights, 42-3, 42-3, 60-1, 140, 277 Aboriginal languages, 36, 138-9, 138-9 Aboriginal population, 141, 141
Aboriginal reserves, 42-3, 140, 140
Aboriginal warfare, 44, 211, 218-19, 218-19 Aborigines, 1, 14, 50, 52, *52*, *64*, 90, 134, 136-41, 164, 211, 277 acacias, 14 acacias, 14
accident prevention, 178
Acquired Immunodeficiency
Syndrome (AIDS), 178
Adelaide, 46, 64, 94, 94, 99, 99, 114, 114, 196, 244, 245
agribusiness, 279
agricultural education, 78
agricultural equipment, 70, 71, 71, 78
agricultural industry, 276
agricultural pests, 59, 78;
see also pesticides
agriculture, 78; see also specific aspects,
eg dairying, pastoral industry
Albany, 46, 51, 52, 154, 224, 257
Albury, 128, 158, 170
alcohol abuse, 178
Alice Springs, 26, 56, 86, 97, 129,
182, 193
alienation of land, see land grants; alienation of land, see land grants; land sales aliens, 231, 231; see also enemy aliens Allambi Station, 39 Allans Flat, 230 aluminium, 116-17 Anglican Church, see Church of England Antarctica, 256 antenatal care, 178 antimony, 8 Anzac Day, 217 apples, 73 apprentices, 196-7 Arabana, 41 Ararat, 73 archaeology, 28-9, 28-9, 31-3, 34-5 Armidale, 8 Armidale University College, 198

Arnhem Land, 135 Arthur, Sir George, 211, 219 asbestos, 116-17, 178
Ash Wednesday bushfires, 23
Ashburton, 119
Ashburton River, 56 Ashburton River, 56 Atherton Tableland, 274 Auralia, 257 Aurukun, 37, 43 Austin, Robert, 50 Austin, Thomas, 79 'Australia Felix', 50, 275 Australian Alps, 50 Australian and New Zealand Army Corps, 224 Australian born, see population-Australian born Australian Defence Force Academy, Australian Flying Corps, see Royal Australian Air Force Australian Imperial Force, 222, 224-6, 231 Australian Inland Mission, 182-3, 182-3 Australian Military Forces, 222 Australian National University, 198 Australian School Society, 184 Australian Women's Army Service, 231 automobiles, see motor cars Ayers Rock, 56, 278

BHP, see Broken Hill Proprietary Ltd Baden, 88 Ballarat, 8, 109, 112, 118, 154, 238, 277 Ballarat School of Mines, 196 Ballina, 166 Balranald, 170 bananas, 73 Bancannia, 13 Banks, Sir Joseph, 138 Bannister, Thomas, 50-1 Baptist Church, 180-1 Baranduda, 230 Barcaldine, 69 Barkly Tableland, 64 barley, 72, 72
Barossa Valley, 73, 80-1, 81, 275
Bass, George, 46, 47, 49
Bass Point, 28 Bass Strait, 79 Batavia (ship), 45 Bathurst, 50, 64, 130, 154, 184, 195, Bathurst Bay, 24 Batman, John, 46, 48 Baudin, Thomas Nicholas, 46, 47, 49 bauxite, 116 Baxter, John, 52 beach sands, 116-17 Beagle (ship), 46 Beechworth, 118, 215 beef, 66 Beltana, 182 Benalla, 215 Bendigo, 108, 109, 112, 118, 196 Berrima, 184 Bethany, 80, 81 Birdsell, J.B., 136 Birdsville, 182

Birdsville Track, 64 Birdum, 129 Birdwood, Sir William, 225 birth defects, 178 birth rate, 143 Black,—, Tasmanian explorer, 47 Blackall, 69 Blaxland, Gregory, 50, 51 Bligh, William, 47 Bligh, William, 47
Blue Heeler cattle dogs, 78
Blue Mountains, 46, 50, 159
Boer War 1899–1902, 220-1, 222, 223
Bogan River, 40
Bogan Valley, 52
Bonney, Charles, 50, 51 Boonah (ship), 168 borders, see state boundaries botanical gardens, 114 Botany Bay, 46, 48 boundaries, see state boundaries boundaries, maritime, see maritime boundaries Bourke, 64, 128 Bourke, Sir Richard, 184 Bowdler, Sandra, 137 Bowen, Emmanuel, 47, 58 Bowen, George, 49 Bowen Basin, 8 Boxer Rebellion 1900-01, 220-1, 222 Boyd, Benjamin, 152 Brady, Mathew, 50, 210, 211, 211 Braidwood, 191 brandy, 73 Brewarrena, 82, 83 brewing, 72 bricks, 86-7 bricks, 86-7
bridges, see Narrows Bridge;
Princes Bridge; Story Bridge;
Tasman Bridge
Brighton, Tas, 237
Bringelly, 202
Brisbane, 46, 49, 90, 96, 96, 196, 244, 245
Brisbane River, 49
British explorers, 46, 47 British explorers, 46, 47 Broken Hill, 8, 112, 116, 128, 154, 170, 193 Broken Hill Proprietary Ltd, 250 Broome, 232 bubonic plague, 134, 163, 164, 166-7, Buckingbong, 82, 83 building materials, 59, 86-8, 86-8, buildings, see dwellings Bulloo, 13 Bunbury, 128, 154 Bundaberg, 76, 153 Buntingdale Wesleyan Mission, 42 Burdekin River, 54, 76 Burke, Robert O'Hara, 46, 53, 57 Burnie, 158 Burra, 154, 155 Burrinjuck Dam, 74 Busby, James, 73 bushfires, 23, 23 bushrangers, 134, 199, 208, 208-15; New South Wales, 208-9, 212-13; Tasmania, 208-9, 210-11; Victoria, 208-9, 214-15; see also

convicts; names of specific bushrangers, eg Jack Donohoe Bussorah Merchant (ship), 174 butter, 78; see also margarine Byrne, Joe, 214, 215

Cairns, 76, 154, 161, 257
Cambrian period, 4, 4
Cambridge, 88
Campbelltown, 212
Camperdown, Vic, 65
Canberra, 60, 89, 100-1, 100-1, 251, 266
Canberra University College, 198
cancer, 163, 178
Canning Dam, 109, 248, 248
Canning River, 49
Canning stock route, 64
Canowindra, 213
Cape Leeuwin, 257
Cape York, 53
Caramut, 32, 33
Carboniferous period, 4, 5
Carnarvon, 26, 193, 277
Carnarvon Basin, 8
Carrington, 93
cars, see motor cars
carved trees, 40, 40 Carrington, 93
cars, see motor cars
carved trees, 40, 40
Casey, 256
Cash, Martin, 208, 210, 211
Castlemaine, 118, 154
Castlereagh River, 58
casualties, war, see war–casualties
casuarinas, 14
Catholic Church, 180-1, 184 Catholic Church, 180-1, 184 cattle, 65-8, 65-8, 69; New South Wales, 69, 78; Queensland, 66, 69, 78; Western Australia, 66, 78 Ceduna, 193 Central Australia, 5 Central Mount Stuart, 46 central schools, 192 Ceramic (ship), 168 cereals, 75; see also names of cereal creals, 75; see also names of ceres crops, eg rice, barley Chaffey, George, 74 Chaffey, William, 74 Channel Country, 53, 55, 64, 79 Charleville, 69, 182 Charters Towers, 8, 154 Chinese born, 134, 156, *156* cholera, 108 Christian Science, 181 Christmas Island, 256 Church of England, Church of Scotland, 180 church schools, see independent schools cities, 266-72; see also names of specific cities, eg Geelong citrus fruits, 73 Clarence, 76, 204 Clarencetown, 88 Clarke, John, 208, 209 Clarke, Marcus, 1 Clarke, Thomas, 208, 209 climate, 4-5, 136; see also temperature Cloncurry, 69, 128, 182 closer settlement, 59, 60, 70, 83, 83, 85, 85, 102, 230, 241; see also soldier settlement

cloud cover, 16, 16 Clunes, 118 coal, 8, 116-17, 120, 120, 250 coal swamps, 5; see also rainforests Cobar, 8 Cocos Islands, 256 Coffs Harbour, 170 Collie, 155, 246 Collie, Alexander, 50 Collins, David, 46, 48 Commonwealth Defence and Training Scheme, 197 Commonwealth Reconstruction Training Scheme, 197 compulsory education, 185 compulsory voting, 260 concrete, 86-7 Congregational Church, 180-1 conscription, 222, 223, 224, 227, 227, 231 consolidated schools, see central schools
Constitution, 251, 258
continental drift, 4-5
continental shelf, 5, 254-5
convicts, 130, 134, 199, 200-7;
New South Wales, 200-3;
Tasmania, 200, 204; Victoria, 200, 201, 203; Western Australia, 200, 206;
see also bushrangers; English
convicts; Irish convicts; Scottish
convicts; women convicts schools convicts; women convicts convicts; women convicts
Cook, James, 46, 47
Cooktown, 8, 277
Coolgardie, 109, 116, 119, 154, 155, 277
Cooper Creek, 53, 55
Coorong, 30
Cootamundra, 170
copper, 8, 116-17
Coral Sea, 222
Coral Sea Islands, 256
Corowa, 170
correspondence schools, 190-1 Corowa, 170 correspondence schools, 190-1 cotton, 75, 78 Cowra, 44, 73, 170, 237, 246 Cretaceous period, 4, 5 crown land, 60, 82 Croydon, Qld, 116 Cumberland County, 184 Cunnamulla, 69, 191 Cunningham, Allan, 50, 51 Cyclone Tracy, 24-5, 25 cyclones, 3, 18, 24-5, 24-5, 97

dairying, 59, 75, 77, 77, 78, 80, 83, 85, 276; see also butter
Dampier, William, 58, 256
dams, 74-5, 108-9, 108-9, 248; see also
names of specific dams,
eg Hume Weir
Darling Downs, 50, 64
Darling Ranges, 109
Darling River, 12, 50, 51, 53, 88
Darwin, 24-5, 46, 90, 97, 97, 129, 162, 232, 246, 277
Davis, 256
death rate, see mortality death rate, see mortality Dederang, 230 Deloraine, 128 Deniliquin, 64, 170 Dennis, Clarence James, 216 Depression 1929–33, 61, 134, 239, 240–50 Derby, 232 Derwent River, 46, 49 de Vlamingh, Willem, see Vlamingh, Willem de Devon Downs, 28, 29 Devonian period, 5 Devonport, 158, 187 Dhurringile, 237 Diamantina River, 55, 69 diamonds, 116-17 diarrhoea, 108, 165 dingoes, 65 diphtheria, 163, 165, 178 discovery, see exploration diseases, 164-73, 178; see also infectious diseases; names of specific diseases, eg smallpox distance education, correspondence schools, schools of dogs, see Blue Heeler cattle dogs; Kelpie sheep dogs dole, see unemployment benefits

Donohoe, Jack, 208, 209, 212, 212

Dreaming, see Aboriginal Dreaming droughts, 20-2, 20-2, 26, 58, 61, 66, 108;

Duntroon, see Royal Military College

dwellings, 59, 81, 86-8, 88, 266, 268,

Dorrigo, 170

drug abuse, 178 Dubbo, 8, 64, 159, 246

see also dust storms

dust storms, 3, 26, 26 Dutch explorers, 46, 47, 58 275, 276; see also Aboriginal dwellings dysentery, 164, 165

Eaglehawk Neck, 211
Echuca, 64, 66, 118, 128
education, 134, 184-98;
New South Wales, 184-6, 189, 194-8;
Queensland, 184-6, 188, 190-1, 194, 196-8; South Australia, 184-6, 194, 196-8; Tasmania, 184-6, 192, 194, 196-8; Victoria, 184-6, 191, 194, 196-8; Western Australia, 184-6, 194, 196-8; see also compulsory education; distance education distance education free education; pre-school education; primary education; secondary education; secular education; tertiary education Elbow Valley, 188 elections, 251, 260, 260; see also compulsory voting; plural voting; preferential voting; secret ballot electricity, 115, 122-3, 122-3, 241 elementary schools, see primary elementary schools, see primary education
Elizabeth, 114
Emden (ship), 222
employment, 154, 155, 158, 159; see also unemployment
enemy aliens, 228-9, 228-9, 237, 237
English convicts, 200-1, 205
English migrants, 147-8, 147-8
environment, 4-26, 136, 279
epidemics, 166-73; see also quarantine;
and names of specific diseases. and names of specific diseases, eg influenza eg influenza erosion, 5, 10, 71, 279; see also dust storms; glaciers Esperance, 56, 159 ethnic distibution, 147-56, 161-2 ethnic groups, see Chinese born; German born; Greek born; Italian born; Pacific Islands labourers Eucalypts, 1, 5, 14 Eugowra, 213 Euroa, 215 Evans, George William, 50, 51 evaporation, 12 exploration, 45, 46-59 explorers, see specific nationalities, eg British explorers exports, 71, 116, 131, 131, 239, 240-1, 275 Eyre, Edward John, 46, 52, 52, 56, 57, Eyre Peninsula, 79, 85

factories, 242, 250 farm machinery, see agricultural equipment feral animals, 10, 14 fertilisers, 14, 71, 78, 85 fibro cement, 86-7 fisheries, 254-5 Fitzpatrick, Alexander, 214 FitzRoy, Sir Charles Augustus, 184 Fitzroy Crossing, 182 Flinders, Matthew, 46, 47, 49, 52 Flinders Ranges, 46, 64 Flinders Ranges, 46, 64
Flinders River, 46
floods, 3, 20-2, 20-2, 58, 96
Flying Doctor Service, see Royal
Flying Doctor Service
Flynn, Rev John, 182, 182
Forbes, 73, 213
forests, 3, 60; see also acacias; casuarinas; eucalypts; rainforests; vegetation Forrest, Alexander, 56 Forrest, John, 46, 56 Fortescue River, 53 Fossey, Joseph, 50, 51 franchise, see elections Franklin River, 278 Fraser, Charles, 46, 49 free education, 185, 185 Freemantle, 93, 173 French explorers, 46, 47 frost, 15, 15 fruit, 73, 73, 75; see also names of specific fruits, eg bananas Furneaux, Louis, 47

Gallipoli, see World War I 1914–18—Gallipoli Gardiner, Frank, 208, 213 gas, see natural gas Gascoyne River, 53, 64, 66, 86 gastroenteritis, 163 Gaythorne, 237 Geelong, 79, 127, 154, 200, 266 gentrification, 99 George Town, 204 Georgina River, 69 Geraldton, 128, 155, 182 German born, 59, 80-1, 80-1, 134, 150-1, 228, 237, 275
Gidgealpa, 125
Gilbert, Johnny, 209, 213
Gilbert River, 219
Giles, Ernest, 46, 56
Gippsland, 8, 50, 65, 66, 77, 274
glaciers, 5, 136
Glen Creek, 230
Glen Innes, 170, 277
Glenrowan, 215 Glen Innes, 170, 277 Glenrowan, 215 gold, 8, 70, 102, 116-17, 156, 257; New South Wales, 213; Northern Territory, 97; Victoria, 64, 90, 95, 118, 118; Western Australia, 119, 119 Gold Coast, 25, 96, 159, 266 Gondwanaland, 4, 4-5 Gosnells, 173 Gosse, William, 56 Goulburn, 50, 64, 154, 170, 195 Goulburn Weir, 74 government, 251-61, 261; federal, 261; state, 261 government schools, 179, 184-7 Governor, Jimmy, 208 Governor, Joe, 208 Goyder's Line, 85, 279 Grafton, 170 Grampians, 39 Grant, James, 47 grazing, *see* pastoral industry Great Artesian Basin, 64, 69 Great Australian Bight, 46, 47, 56 Great Barrier Reef, 254, 256 Great Depression, see Depression 1929–33 Great Dividing Range, 8, 10, 18, 46, 64, 66 Great Sandy Desert, 56 Greek born, 162, 162 Gregory, Sir Augustus Charles, 50, 51, 53, 55 53, 55
Gregory, Francis Thomas, 50, 51, 53
Greta, NSW, 246
Greta, Vic, 214
Grey, Sir George, 50, 51
Griffin, Walter Burley, 100
Griffith, 75, 170
Grimes, Charles, 48
Groote Eylandt, 24, 116
groundwater, 13, 13, 64, 276; see also
artesian bores artesian bores Guildford, 93 Gulf Country, 64 Gulf of Carpentaria, 13, 24, 46, 47, Gulf of St Vincent, 94 gum trees, see eucalypts Gundowring, 230

Gunnedah, 170 Gympie, 116, 154 Hahndorf, 80-1 Hall, Ben, 208, 209, 212, 213, 213 Halls Creek, 182 Halls Creek, 182 Hamersley Range, 116, 121 Hamilton, Tas, 204 Hampton, John Stephen, 206 Hancock, Lang, 121 Hare, Francis, 215, 215 Hargraves, Edward, 118 Hart, Steve, 214, 215 Harvey Dam, 249 Harvey Irrigation Area, 74 Harvey Irrigation Area, 74 Hawker, 30 Hawkins Creek, 59 Hay, 64, 128, 237 health services, 165, 176-8, 176-8, 182; see also preventive medicine Heard Island, 256 heart disease, 178 heart disease, 178 heat waves, 15 Hellyer, Henry, 50, 51 Herberton, 116 Hermannsburg, 42 high schools, 195 Hobart, 46, 49, 50, 90, 92, 92, 98, 98, 204, 244, 245, 266-9 passim Hope, Captain Louis, 76 hops, 75 Horsham, 109 Horton, David, 137 hospitals, 163, 165, 176, 176-7 housing, see dwellings Hovell, William, 50 Howe, Michael, 210 hufendorf settlements, 80-1 Hughenden, 69, 128 Hughes, W.M., 227 Hume, Hamilton, 50 Hume Highway, 130 Hume Weir, 264 Hungerford, 64 Hunt, John, 210 Hunter Valley, 22, 73, 123, 250 hydro-electricity, 122, 124

Ice Age, 5 igneous rocks, 8, 8-9 Illawarra short horn cattle, 78 illiteracy, see literacy immigrants, 83, 135-62, 202, 204; origins, 144-5, 144-5; see migrants immunisation, see inoculation; vaccination import controls, see tariffs imports, 131, 131 independent schools, 184-5 Indian Ocean, 13 Indigo, 230 Indonesian Confrontation 1965–66, 220-1, 222 infant mortality, 165 infantile paralysis, see poliomyelitis infectious diseases, 178 influenza, 134, 163, 168-71; New South Wales, 170-1 Innamincka, 182 Innisfail, 76 inoculation, 164, 178 Irish convicts, 116, 200-1, 205 Irish migrants, 147-8, 147-8 iron, 8, 86-7, 116-17, 121, 121, 250 irrigation, 74-5, 74-5, 78, 83, 85, 124 Islam, 181 isolated students, see rural students Italian born, 161, 161, 237 itinerant teachers, 190-1, 191

Japanese born, 232-3, 237 Jarrahdale, 116 Jerilderie, 215 Jerry Plains, 126 Jevons, W.S., 58 Jews see Judaism Jindabyne, 124 Johns, Joseph, 208, 209 Johnson, Rev Richard, 185 Johnson River, 3 Jorgensen, Jorgen, 50, 51 Judaism, 181 Jurassic period, 5

Kakadu Park, 38
Kalgoorlie, 109, 116, 119, 128, 154, 173, 246
Kambalda, 116
Kamilaroi, 40
Kanakas, see Pacific Islands labourers
Kangaroo Island, 30, 90
Kapunda, 154, 155
Karrakatta, 237
Karratha, 159
Kartan tools, 30, 30
Katherine, 182, 193, 232, 277
Keeling Islands, see Cocos Islands
Keilor, 28
Kelly, Dan, 214, 215
Kelly, Ellen, 214, 215
Kelly, Ellen, 214, 215
Kelly, Ned, 208, 209, 214-15, 214-15
Kelpie sheep dogs, 78
Kempsey, 170
Kennedy, Edmund, 53, 219
Kenny, Elizabeth, 172, 173
Keppel Island, 28
Kergunyah, 230
Kiewa, 230
Kimberleys, 8, 64, 116
King, Jack, 215
King, Phillip Parker, 46, 47
King George Sound, 46
Kings Park, 93, 268
Kings Plains, 88
Kirke River, 36
Klemzig, 80
Knox River, 36
Kokoda Trail, 235, 235
Koolan Island, 121
Koolburra Plateau, 39
Koonalda Cave, 38, 137
Korean War 1950–53, 220–1, 222, 223
Kununurra, 74–5
Ku-ring-gai Chase, 266
Kutikina Cave, 28
Kwinana, 109, 159

Laanecoorie Weir, 74

'Lachlan Men', see Gardiner, Frank;
Gilbert, Johnny; Hall, Ben;
Peisley, Johnny
Lachlan River, 40, 46, 50, 52, 213
Lake Albacutya, 31
Lake Eyre, 13, 64, 79
Lake Grace, 182
Lake Hindmarsh, 31
Lake Mungo, 28, 137
Lake Torrens, 52
Lambing Flat, 213
land grants, 60
land leases, 60-1, 64
land licences, 60-1, 64
land reserves, 60-1

land rights, Aboriginal, see Aboriginal land rights land sales, 60 land tenure, 60-1, 60-1; New South Wales, 60-1, 64; Queensland, 60-1; South Australia, 61, 64; Tasmania, 60-1, 64; Victoria, 61, 64; Western Australia, 60-1, 64; see also Aboriginal Australia, 60-1, 64; see also Aboriginal land rights; selectors; squatters larrikins, 134, 199, 216, 216
La Trobe Valley, 8
Launceston, 46, 102, 128, 187, 205, 210
Laura, 29, 39
Lawson, William, 50, 51
Laycock, Thomas, 50, 51
lead, 8, 116-7
Leichbardt, Ludwig, 46, 53, 54, 54, 56 Leichhardt, Ludwig, 46, 53, 54, 54, 56 Leonora, 128 Light, William, 46, 90, 114 Lightning Ridge, 277 Lismore, 155, 166, 170 literacy, 179, 187, 187 Lithgow, 155, 171, 238 live animal exports, 64, 66 Liverpool, 202, 237 Lobethal, 80, 126 Lockhart, 277 Long Reach, 49 Long Swamp, 230 Longford, 204 Longreach, 64, 69, 182 Louisa Bay, 28 Loveday, 237 Loxton, 85

Lutheran Church, 42, 180 MacArthur, Douglas, 231 McArthur Creek, 32-3 McDonald Islands, 256 Mackay, 76, 153, 257 McMillan, Angus, 50, 51 McPherson, James, 208, 209
Macquarie, Lachlan, 210
Macquarie Harbour, 207, 207, 210
Macquarie River, 40, 46, 50, 52, 58, 75
Maitland, 112, 184, 195 maize, 70 Malayan Insurgency, 1950–62, 220–1, 222 Mallee, 31, 85 malt, 72 manganese, 8, 116-17 Mangrove Creek, 34-5 Manning River, 76, 202 Mansfield, 214 Mansfield, 214
manufacturing industry, 95, 102, 115, 126, 126, 158, 231, 241, 242
Maori Wars 1863–64, 220–1, 222
Maranboy, 8, 182
Maranoa River, 53
Marble Bar, 15, 182
margarine, 77; see also butter
Maria Island, 207, 211
Maribyrnong River, 48 Maribyrnong River, 48 maritime boundaries, 251, 254-5, 254-5 maritime boundaries, 251, 254-5, 254-5
market gardens, see vegetables
Mary Kathleen, 116
Maryborough, Qld, 76
Mawson, 256
measles, 165, 178
meat, 64, 276
Medic (ship), 168
medical services, see health services
Meekatharra, 128, 193
Melbourne, 46, 48, 90, 95, 95, 111, 111, 112, 238, 244, 245, 266-72 passim
Melbourne Airport (Tullamarine), 95
Melville Island, 3
Menzies, 154, 155
Merbein, 129
metals, 8; see also names of specific metals, eg gold
metamorphic rocks, 8, 8-9
Mathelia Charles 12, 180, 1 metans, eg gord metamorphic rocks, 8, 8-9 Methodist Church, 42, 180-1 Middleback Range, 8 migrants, 83, 135-62, 202, 204; see also names of specific ethnic groups, eg Italian born migration patterns, 144-5 Mildura, 26, 74, 83, 129, 158, 162 military nursing, 224, 231 Millicent, 159 Milparinka, 277 minerals, 1, 8, 50, 56, 115, 116-17, 116-17; see also names of specific minerals,

eg phosphates

243, 277

Molong, 40

Molonglo River, 100 molybdenum, 8

mining industry, 93, 102, 116-17, 241,

mining licences, see land licences

Mitchell, Sir Thomas, 40, 46, 50-3 passim, 212, 219 Moe, 159

missions, 42, 140, 140; see also Australian Inland Mission

Monash, Sir John, 225 monsoon, 17, 18 'Moondyne Joe', see Johns, Joseph Moonie, 125 Moonlight Head, 28, 29 Moore Park, 216 Moorook, 237 Moree, 170 Moreton Bay, 46, 49, 49, 184, 202 Morgan, Dan, 208, 209 Mornington Island, 43 mortality, 143, 163, 164-5, 164-5; see also infant mortality Morwell, 115, 159 Moslems, see Islam motor cars, 91-6, passim, 102, 267, 268 Mount Bischoff, 116 Mount Buffalo, 266 Mount Dromedary, 211 Mount Gambier, 154, 257 Mount Isa, 159, 193, 277 Mount Kosciusko, 50 Mount Lofty Ranges, 80, 94 Mount Magnet, 116 Mount Morgan, 116, 154 Mount Nelson, 1 Mount Singleton, 23 Mount Wellington, 92 Mount William, 28 Mudgee, 73, 246 Mulwala, 238 munitions, 238, 238 Murchison, 237 Murchison River, 56, 64, 66, 86, 119 Murranji, 64 Murray, John, 47 Murray Bridge, 158 Murray-Darling Basin, 12, 13, 46, 65 Murray River, 30, 50, 52, 64, 73, 74 Murrumbidgee River, 50, 73, 74, 124 Murwillumbah, 170 Musquito, 210, 211, 211 Muswellbrook, 170 Myrtleford, 237, 237 mythology, Aboriginal, see Aboriginal mythology myxomatosis, 78, 79

Namoi Valley, 75 Narrogin, 246 Narrows Bridge, 93 national parks, 60, 278; see also names of specific parks, eg Ku-ring-gai of specific parks, eg Ku-ring-g. Chase; reserves
National Trust of Australia, 279
natural gas, 8, 115, 117, 125, 125
Nauru, 256
New England, 64, 257
New Holland, 46
New Norfolk, 204, 210
New South Wales, 5, 66; see also
sub-heading New South Wales
under subjects, eg education – under subjects, eg education –New South Wales, and specific place names, eg Broken Hill new state movements, 251, 257 Newcastle, 102, 112, 127, 154, 170, 171, 205, 207, 232, 250, 266, 268 nickel, 8, 116-17 Nicolson, Charles, 214 Norfolk Island, 200, 202, 207, 207, 256 Nornalup, 248 North Shore Hospital, 176 Northam, 56, 237 Northern Rivers District, 76 Northern Rivers District, 76
Northern Territory, 4-5, 46; see also sub-heading Northern Territory under subjects, eg gold–Northern Territory, and specific place names, eg Barkly Tableland Nullarbor Plain, 8 nursing, 177 nursing, military, see military nursing nuts, 78

Oakover River, 53 Oatlands, 211 oil, 8, 116-17, 125, 125 Omeo, 50 Onslow, 24, 26 Oodnadatta, 56, 56, 128, 182 opals, 116-17, 277 Ophir, 118 Orange, 158, 170 orchards, see fruit Ord River Dam, 74, 78 Ordovician period, 5 Osbornes Flat, 230 ostriches, 78 Overland Telegraph, 46, 56, 57, 97 overseas trade, *see* exports; imports Oxley, John, 46, 49, 50, 51, 52, *52*, 90 Oyster Bay, 211

Pacific Islands labourers, 76, 134, 152, 152-3 Paddington, 239 Paechtown, 81 palaeogeography, 4-5, 4-5 Palmer River, 116 Palmerston, see Darwin Papua New Guinea, 256 Paraburdoo, 116 parks, 114, 114; see also botanical gardens parliament, 260; payment of members, 260 Parramatta, 102, 184, 202, 205, 266 Parramatta River, 73
pastoral industry, 14, 58, 59, 62-8, 64-8, 78, 241; see also cattle; sheep; squatters; stock routes; wool Peak Hill, 116 Peake Creek, 41 Pearce, Alexander, 210 pears, 73 pedal wireless, 182 Peel, Clifford, 182 Peisley, Johnny, 213 Penrith, 202 Pentecostal churches, 181 Permian period, 5 Perth, 46, 49, 90, 93, 93, 109, 173, 206, 244, 245, 266-72 passim pesticides, 78; see also agricultural pests; names of specific pesticides, eg myxomatosis pests, see agricultural pests etroleum, see oil Phillip, Captain Arthur, 46, 48, 73, 76 phosphates, 8, 256 phylloxera, 73, 78 Pilbara, 8, 38, 53, 64, 116, 119, 161, 277 Pine Creek, 97, 129, 182 Pine Plains, 31 pine plantations, 78 pine plantations, 78 pineapples, 73
Pinjarra, 116
placenames, 228-9
plague, see bubonic plague
Plains of Promise, 64
Plantagenet, 206 Plantagenet, 206 plants, 5 Pleistocene period, 5, 5 plural voting, 260 Plymouth Brethren, 181 pneumonia, 163, 165, 178 poliomyelitis, 134, 163, 172-3 political parties, 251, 261 pollution, 178 population, Aboriginal 141; age-sex characteristics, 149, 149, 157, 157, 160, 160; Australian born, 146, 147, 160, 160; Australian born, 146, 147, 148; Chinese born, 156; English born, 147, 148; German born, 150; Greek born, 162; growth, 142–3, 154–5, 158–9; Irish born, 147, 148; Italian born, 161; overseas born, 154, 155, 158, 159; Pacific Islanders, 152; Scottish born, 147, 148; urban and non-urban, 102–7 population distribution, 149, 157, 158, 160; see also ethnic distribution population minorities, 134, 141 population minorities, 134, 141 population trends, 143, 148-9 Port Arthur, 204, 207, 210 Port Augusta, 129, 193 Port Belches, 49 Port Curtis, 53 Port Curtis, 33 Port Dalrymple, see Launceston Port Essington, 53 Port Fairy, 88 Port Hedland, 24, 159, 182, 232 Port Jackson, 46, 48 Port Lincoln, 126, 158 Port Macquarie, 76, 170, 184, 207 Port Phillip, see Victoria Port Phillip Bay, 46, 48, 50 Port Pirie, 53 Port Sorell, 204 Port Stephens, 202 Portland, 46, 50 Portland, 46, 50 Portuguese explorers, 46 post-secondary education, see tertiary Pottinger, Sir Frederick, 209, 213 poverty, 244-5, 250 Power, Harry, 208, 209 preferential voting, 265 premiers, 261 Presbyterian Church, 180-1; see also Australian Inland Mission preschool education, 194 preventive medicine, 178; see also health services price control, 231 primary education, 194; see also

correspondence schools; itinerant teachers; rural schools; Schools of

primary industry, see agricultural

the Air

industry prime ministers, 261 Princes Bridge, 268
prisoners of war, 222, 236, 236
protection (trade), see tariffs
Puntutjarpa, 29
Pyalong, 279 289

quarantine, 164, 166, 169, 178 Queanbeyan, 100 Queensland, 5, 8, 66; see also sub-heading Queensland under subjects, eg education-Queensland, and specific place names, eg Cairns

RAAF, see Royal Australian Air Force RAN, see Royal Australian Navy Raak Plains, 31 rabbits, 10, 59, 78, 79 radiation, 178 radio see pedal wireless Radium Hill, 116 railways, 70, 90-6 passim, 111, 111, 128-9, 128-9, 278 rainfall, 17-22, 17-22, 24; see also Goyder's Line rainforests. 5, 278 rainforests, 5, 278 rationing, 231 Red Bluff, 230 Redcliffe, 46, 49 Redcliffs, 129 referendums, 251, 258-9, 258-9 relief works, 239, 248, 249; see also dams; irrigation; parks; roads; sewerage; water supply religion, 134, 180-3; see also names of specific denominations, eg Lutheran Church Renmark, 74, 83, 85 reserves, 82; see also national parks reserves, Aboriginal, see Aboriginal reserves rice, 75, 78 Richmond, Tas, 199, 204 Risdon Cove, 46, 49 Riverina, 257 rivers, 5, 65-6 rivers, 5, 65-6 road accidents, 134, 163, 174, 174-5, 178 road transport, 130 roads, 127, 130, 130, 248, 249 Robbins, Charles, 48 Robinson, G.A., 33, 50, 51, 140 Rockhampton, 112, 128, 154, 257 Rockingham, 159 Rockingham Bay, 53 rocks, 8-9, 8-9; see also igneous rocks; metals: metamorphic rocks: metals; metamorphic rocks; sedimentary rocks; surficial rocks Roe, John Septimus, 50-1 Roma, 109 Rossiter Bay, 52 Roxby Downs, 179 Royal Australian Air Force, 222, Royal Australian Air Force, 222, 231, 234 Royal Australian Navy, 222, 234 Royal Flying Doctor Service, 182-3, 183 Royal Military College, 198 Royal National Park, 266 rubella, 178 Rum Jungle, 97, 116 rural environment, 274-9 rural schools, 179, 188, 190, 192 rural students, 190-1 rural towns, 277 Rutherglen, 73 rutile, 116

Sabin vaccine, 172 St George, 75 salinity, 10-11, 12, 13, 279 Salisbury, 238 Salk vaccine, 172, 172 Salvation Army, 181 sand dunes, 136, 279 Sandy Creek, 230, 237 scarlet fever, 163, 165 school buses, 179, 191-2, 192 schools, 184; see also central schools; correspondence schools; high schools; independent schools; School of the Air, 190, 192, 193, *193* Scottish convicts, 201, 205 Scottish migrants, 147-8, 147-8 Scrivener, Robert Charles, 100 Scrubby Creek, 32 scurvy, 164 sea level, 4-5, 30 secondary education, 179, 194-5, see also high schools; technical colleges secret ballot, 260, 260 secular education, 179, 185, 185 sedimentary rocks, 8, 8-9 selectors, 59, 60, 82, 82, 83; see also squatters sewerage, 110, *110*, 165, 241, 268 sheep, 65–8, *65-8*, 69, 78

Shepparton, 159 Sherritt, Aaron, 215 silver, 8, 116-17 Silverton, 277 Simpson Desert, 26 Singleton, 250 smallpox, 163, 164, 165 Smiths Lake, 279 Snowy Mountains, 136 Snowy Mountains Hydro-electric Scheme, 124, 124
Snowy River, 124
Society for the Propagation of the Gospel, 183 soil degradation, 10, 279 soils, 10, 10-11 soldier settlement, 59, 84-5, 84-5, 129 Solomon Islands, 222 Sorell, William, 204 South Australia, 4-5, 80-1; see also sub-heading South Australia under subjects, eg education–South Australia, and specific place names, eg Hahndorf Southern Cross, 128 Southport, Tas, 205 Spencer, Sir Baldwin, 42 spinifex, 14 Springvale, 230 squatters, 64, 82, 83; see also selectors Staghorn Flat, 230 Standish, Frederick Charles, 215 Stanthorpe, 116 state aid, see government schools State Rivers and Water Supply Commission, 74 state boundaries, 134, 251-5, 252-3; see also new state movements; premiers; territories; names of states under subjects, eg | education - Tasmania status of women, see women's rights Stawell, 73, 154 steel, 250 Stirling, James, 46, 49, 90 stock routes, 64, 64 Stokes, John Lort, 46 stone, 86-7 stone fruits, 73 Storm Bay, 49 Story Bridge, 268 Stringybark Creek, 214 Strokes, 1/8
Strzelecki, Paul, 50, 51
Strzelecki Creek, 55
Stuart, John McDouall, 46, 47, 53, 55
student–teacher ratio, 186
Sturt, Charles, 46, 50, 51, 52, 53, 55, 55, 219 Sturt Desert, 26 submarines, midget, 232-3 Sudan Campaign 1885, 220-1, 222 suffrage, see elections sugar, 75, 76, 78, 153, 241 sunshine, 16, 16 Sunshine Coast, 96, 159 surface water, 12, 12 surficial rocks, 8, 8-9 sustenance, see unemployment benefits

Swan, 206

Swan River, 46, 49, 273, 276 Swanport, 204 Sydney, 48, 76, 90, 90, 91, 91, 170-1, 202, 205, 232-3, 244, 245, 266-72 passim Sydney (ship), 222 Sydney Basin, 8

TAFE, see technical and further education Table Cape, 274 Tamar River, 46 Tamworth, 155, 170 Tangambalanga, 230 Taree, 170 tariffs, 126 Tasman, Abel, 46, 47 Tasman Bridge, 92 Tasman map, 132-3 Tasmania, 46; see also sub-heading Tasmania under subjects, eg education-Tasmania, and specific place names, eg Redlands Tatura, 237 teacher education, 186 teachers, 186; see also itinerant teachers; women teachers technical and further education, 196-7 technical colleges, 196-7 temperature, 15, 15; see also climate Tennant Creek, 17, 26 Tenterfield, 246 tents, 86-7 territorial waters, see maritime boundaries territories, 256, 256, see also states; and names of specific territories, eg Norfolk Island tertiary education, 179; see also technical and further education; universities Tertiary period, 5, 5 Thomson River, 53 'Thunderbolt', see Ward, Frederick ticket of leave, 202, 203-6 passim timber, 60
Timor Sea, 13
tin, 8, 116-17
Tom Price, 116
Toodyay, 206
Toowoomba, 154, 277
Torrens River, 46
tourism, 278 tourism, 278 Towns, Robert, 152 Townsville, 17, 18, 109, 128, 154, 232 Traeger, Alfred, 182, *183* traffic accidents, see road accidents trams, 89-96 passim, 112-13, 112-13 transport industry, 243; see also road transport transportation, 200 Traralgon, 159 Triassic period, 5 Trundle, 170 tuberculosis, 163, 178 Tullamarine, see Melbourne Airport Tumbarumba, 84 tungsten, 8 Tyers, C.J., 51 typhoid fever, 108, 164, 165

Ulmarra, 166
underground water, see groundwater
unemployment, 239, 240-50; see also
employment
unemployment benefits, 239, 244
Uniting Church National Mission,
see Australian Inland Mission
Uniting Church of Australia, 181
universities, 198
Upper Swan, 28
uranium, 8, 97, 116-17
urbanisation, 89-114, 154-5, 158-9,
266-72

vaccination, 172, 173
Van Diemen's Land, see Tasmania
Vancouver, George, 47
Vandemonians, 208, 210
vegetables, 70, 75, 80
vegetation, 14, 14, 136-7; see also forests
vehicle industry, 94
Victoria, 66; see also sub-heading
Victoria under subjects, eg education—
Victoria, and specific place names,
eg Camperdown
Victoria Reservoir, 109
Victoria River, 53
Vietnam War 1965–72, 220-1, 222, 223
vineyards, see viticulture
viticulture, 73, 73, 75, 78, 80, 276
Vlamingh, Willem de, 46, 47, 49
voting, see compulsory voting; elections;
plural voting; preferential voting

WAAF, see Women's Auxiliary Australian Air Force WRANS, see Women's Royal Australian Naval Service Wagga Wagga, 64, 155, 170 Wagin, 246 Wahgunyah, 128 Walhalla, 118 Wallaroo, 154 Wangaratta, 109, 158, 215 war, 217-38; casualties, 222, 225, 234; see also conscription; prisoners of war Warburton, Peter Egerton, 46, 56 Ward, Frederick, 208, 209 Warrego River, 53 Warrnambool, 109 Warwick, 71, 109 water quality, 12 water resources, 12-13, 12-13; see also groundwater; surface water water supply, 108-9, 108-9, 248 water treatment, 165; see also sewerage wattle and daub, 86-7, 88 Waverley, 163 Wedge, John Helder, 50, 51 Wellington, NSW, 207 Wellington, WA, 206 Wembley, 237 Wentworth, 170 Wentworth, William Charles, 50, 51 Wesleyan Church, see Methodist Church

Western Australia, see sub-heading Western Australia under subjects, eg cattle-Western Australia, and specific place names, eg Pilbara Western Front, see World War I 1914-18-Western Front Western Junction, 128 Westwood, William, 210 whaling, 90, 275 wharves, 267 wheat, 70-1, 70-1, 78, 83, 84, 275, 276 White Cliffs, 116 Whitehead, John, 210 whooping cough, 165 Whyalla, 126, 158 Wickham, John Clements, 46 Wik, 36-7 Wilcannia, 64, 79 Willandra Lakes, 137 Willigobung, 84 Wills, William John, 46 Wilson, Thomas B., 50-1 Wilsons Promontory, 266 Wiluna, 64 winds, 17, 17 Windsor, 202 wine, 73 Wiradjuri, 40, 44, 44 Wivenhoe Dam, 96, Woden, 266 Wodonga, 64, 66, 118, 128 Wolloby Gully, 34-5 Wollongong, 89, 127, 155, 158, 162, 184, 266, 268 women convicts, 200, 205 women teachers, 189 Women's Auxiliary Australian Women's Auxinary Australian Air Force, 231 Women's Land Army, 231 women's rights, 224, 231, 238 Women's Royal Australian Naval Service, 231 wood, 86-7 Woodburn, 166 wood, 64, 65, 66, 78, 90, 275 wool, 64, 65, 66, 78, 90, 275 World War I 1914–18, 220-1, 222, 224-31; Gallipoli, 226, 226; Western Front, 225, 225 World War II 1939–45, 220-1, 231-8; Japanese attacks, 232-3; rationing, 231 Wungong Reservoir, 109 Wuywurrung, 90 Wycheproof, 109 Wylie, 52 Wyndham, 64, 182, 232

Yackandandah Shire, 230 Yan Yean Reservoir, 109 Yarra River, 48, 265 Yass, 50 Yilgarn, 119 York, 206 Yorke Peninsula, 72 Young, 246 Yuranigh, 40

zinc, 8, 116-17 zircon, 116