CHAPTER 5

URBAN LANDSCAPES

Central railway station, Sydney, the hub of the state and city transport services. Photograph by George Hall, c 1983. WELDON TRANNIES

SINCE THE MIDDLE of the nineteenth century Australia has ranked as one of the most highly urbanised nations in the world. Some cities began as penal settlements; others developed as centres for rapidly developing hinterlands. As the cities grew, railways and tramways enabled more people to move from the inner areas to live in detached houses in developing suburbs. Mass car ownership after World War II allowed the capital cities to expand well beyond those areas served by trains, trams and buses.

By 1986 all the mainland state capitals had populations of between about one and three and a half million. Only three other cities could boast more than a quarter of a million people: Newcastle, Wollongong and Canberra (the only inland city to have a population of over eighty thousand). Towns with prosperous hinterlands continued to thrive after World War II, but the coming of the car meant that many regional centres grew at the expense of smaller towns, and some of these are now just place-names on a map.

Beginnings

AUSTRALIA'S FIRST CITIES began as urban gaols for British convicts. Sydney, established in 1788, and Hobart Town, established in 1804, were tiny port settlements for the early years of their existence. Early maps and paintings show that the settlers clung to the shores of Sydney Cove and Sullivan Cove. Sydney's population rose from only a little over 1000 in 1788 to 2500 in 1799. But by 1828 Sydney had a population of 10 800 while Hobart stood at 5000. The Aborigines in both regions were quickly dispersed.

From the 1830s Sydney's population began to expand rapidly, reflecting the city's role as a port for the export of produce — especially wool — from the developing hinterland. Sydney also flourished as an administrative centre. When it became the centre of a growing railway network from the mid-1850s, the city's future was assured. Between 1851 and 1861 Melbourne's population increased fourfold on the proceeds of the gold rushes. While Sydney's numbers did not quite double in that period, the city nevertheless continued to grow steadily, even through the depression of the 1890s, so that by the early 1900s it became the first Australian city with a population of more than half a million.

Hobart's economy grew on the proceeds of wool and whaling, with the associated growth of shipbuilding and warehousing. But the city's growth soon slowed as settlers sought their livelihood in other parts of the island. A population of 19 000 in 1861 had only increased to 35 000 in 1901. In such a small society Hobart's citizens found it harder to shake off their convict origins than did the citizens of Sydney and Brisbane, which both grew rapidly in these decades.

In 1823 Governor Brisbane instructed the surveyor-general, John Oxley, to investigate sites for another convict settlement. In September 1824 a settlement was established at Redcliffe, on Moreton Bay, but by May 1825 it was moved up the Brisbane River to what is now the site of Brisbane's central business district. Most convicts were withdrawn by 1839 but it was not until 1842 that the first land was available for purchase. With the discovery and exploitation of a rich agricultural hinterland Brisbane began to prosper. In 1859 it became the capital of the new colony of Queensland. With 6 000 people in 1861 the city doubled its population every decade until the 1890s, reaching 119 000 by 1901.

The Swan River colony was established by Captain James Stirling as Australia's first non-convict colony in June 1829 with a port at nearby Fremantle. The poor soil did not induce many settlers to stay, and by 1832 Perth had only 360 people. Labour shortages in the 1840s led to a demand for convicts, the first arriving in 1850. Convict transportation continued until 1868. In 1861 Perth's population hovered around 5000 but the 'city', proclaimed as such by Queen Victoria in 1856, only managed to accumulate another 4000 people in the next two decades. The granting of colonial self-government in 1890 coincided with major gold discoveries from which Perth benefited. By 1901 Perth and Fremantle boasted a population of 60 000.

Pastoralists from Van Diemen's Land were the first to settle in the Melbourne area, where they displaced the Wuywurrung Aborigines. In May 1835 John Batman claimed to have 'purchased' 240 000 hectares around Port Phillip Bay from the Aborigines. In March 1837 Governor Bourke authorised the survey of a township on the Yarra estuary. In 1850 the Port Phillip district separated from New South Wales to become the colony of Victoria. By 1852, with the discovery of gold in a number of places to its north, Melbourne was much like an immigrants' camp, serving as a base for thousands bound for the goldfields. The city's population increased from 29 000 in 1851 to 125 000 in 1861, by which time it was larger than Sydney, which could only muster a population of 96 000 in that year. Melbourne underwent a spectacular boom in the 1880s when many grand houses and public buildings were erected, but the city's economy, including its real estate, suffered badly in the 1890s depression, and Sydney again became the largest Australian city.

Sydney Cove in 1842, painted by Prussian-born Jacob Janssen (1779–1856), who arrived in Sydney in 1840. At the time Janssen painted the cove, Sydney had a population of just over 30 000. Most of the city's main structures were convict built, including Fort Macquarie, now the site of the Sydney Opera House. Oil on canvas.
TASMANIAN MUSEUM AND ART GALLERY

The first settlers in South Australia, arriving in July 1836, landed at Kangaroo Island. Colonel Light, the surveyor-general, had been requested by the colonisation commissioners in London to establish the site of a capital for the new colony. He placed Adelaide on a site ten kilometres from the river mouth. Adelaide grew slowly, containing only 15 000 people in 1851, but with the development of the wool and wheat industry the city began to prosper, doubling its population in the 1860s and again in the 1880s; it overtook Hobart in the 1860s to become the third largest city in Australia, a position it maintained until the early 1940s, when it was overtaken by Brisbane.

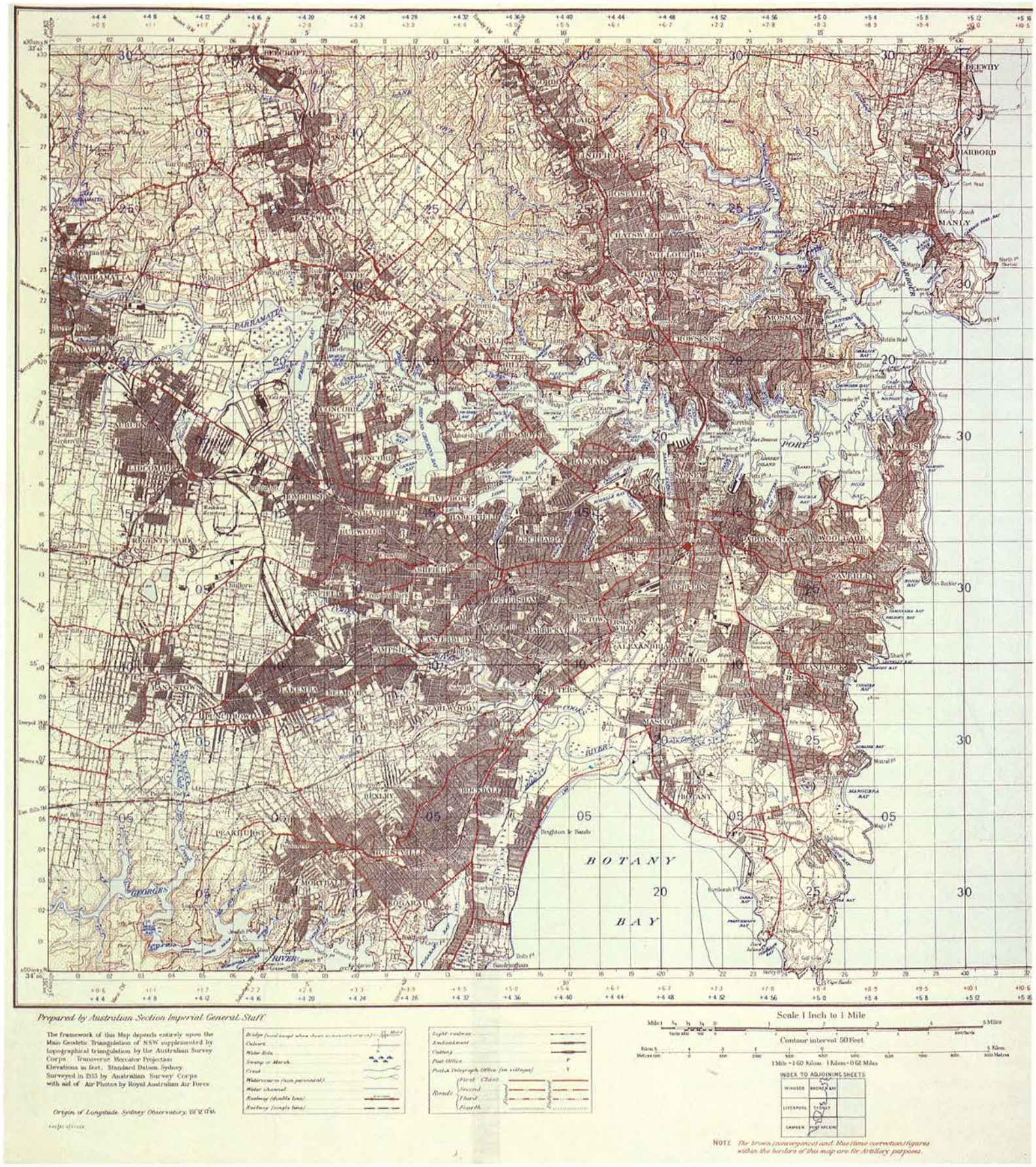
South Australia claimed what is now known as the Northern Territory in 1863 and attempted to establish a settlement at Escape Cliffs. This failed, but in 1869 a new town was surveyed at Port Darwin. The only port for the Northern Territory, the town became an administrative centre with a hinterland economy of mining and pearling. By the 1890s its population had reached five thousand.

SIZE OF POPULATION (THOUSANDS) AND PERCENTAGE WITHIN EACH COLONY/STATE

	1871		1901		1933		1961		1981	
	no	%	no	%	no	%	no	%	no	%
Sydney	138	27	482	36	1235	48	2183	56	2985	58
Melbourne	191	26	478	40	996	56	1859	65	2723	71
Adelaide	43	23	162	45	313	54	770	79	952	72
Brisbane	15	13	119	24	300	32	778	51	1096	47
Perth	5	21	36	20	207	47	558	76	922	71
Hobart	19	19	35	20	60	27	141	40	171	40

Sources: P. Spearritt 'Melbourne and Sydney at the census', in J. Davidson (ed) *The Sydney–Melbourne Book,* Sydney 1986; *Commonwealth Year Books.*

Sydney



SYDNEY HAS ALWAYS been subject to the topography which provides the city with much of its beauty, but makes transportation difficult. In the early days of European settlement, harbour ferries and barges transported passengers and freight, but as the population grew and industries moved to landlocked sites new forms of transportation were needed. Railway construction after 1855 enabled the city to grow along the new rail lines but most of the population continued to live around the city centre, with easy access to jobs, shops and leisure facilities. In the 1880s, with the construction of a tramway system and the extension of the rail network, it became possible to live some distance from one's workplace. Scattered villages started to merge into a network of suburbs, radiating from the city along the rail and tram lines. By 1895 most of the suburban system was complete, but the tramway system continued to expand until World War I.

By 1933, when this map was drawn, Sydney had 1 235 000 inhabitants. It became the first Australian city to reach a population of one million in the early 1920s, having taken the lead from Melbourne in the late 1890s.

Mass car ownership in the 1950s and 1960s gave families the option of living further away from the public transport routes. Between 1947 and 1981 Sydney doubled its population, becoming the first Australian city with three million people. One quarter of these now live in flats, terraces and town houses. The remainder live in detached houses throughout the metropolis, which now stretches to the hills district in the north, Penrith to the west, Campbelltown to the southwest and Sutherland to the south. The impact of rail routes on the direction of urban growth before World War II has its modern-day parallel in Sydney's developing freeway system.

Prepared by the Australian Survey Corps in 1933, this one-inch-to-one-mile map shows the main built-up area of Sydney. Settlement did extend further along the railway lines to the north, west and south. The map demonstrates that the most closely settled areas were on or near rail and tram routes.
NATIONAL LIBRARY

Hobart

HOBART VIES WITH SYDNEY for the most spectacular site of any Australian city. Located 20 kilometres up the Derwent River, it has a fine port, but the absence of a river crossing hampered development on the eastern side of the river. On the western side development was restricted by Mount Wellington, so commerce, industry and housing were forced to spread along a strip of land running from south to north.

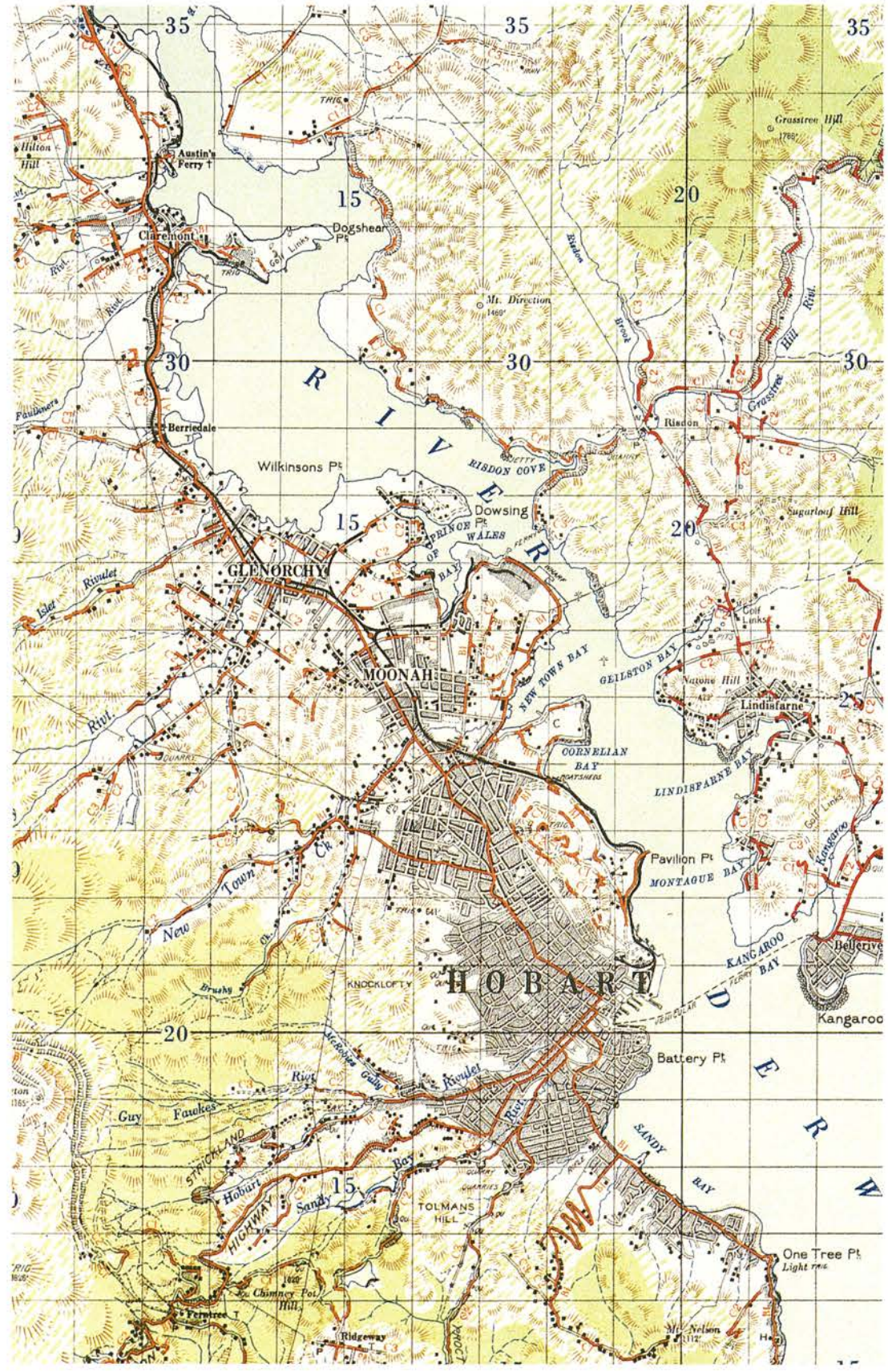
In 1901 Hobart's population of 35 000 was much the same as Perth's. Hobart's first tramways, which from the start were electric, started running in 1893 within the immediate environs of the city. From 1916 Hobart received hydro-electric power from the Great Lakes scheme, and began to attract export industries such as the Cadbury chocolate plant built at Claremont, upriver from the city centre.

By 1942, when this map was drawn, central Hobart had a series of well-established and closely linked suburbs. To the immediate west, settlement consisted of relatively isolated dwellings on the foothills of Mount Wellington. With the coming of the car, and increasing population pressures after World War II, available land in the foothills was quickly covered with detached cottages.

Until 1943 when a 1.6 kilometre floating pontoon bridge was completed, there were no bridges over the Derwent, only a vehicular ferry. The floating bridge was replaced in 1964 by the Tasman Bridge between Pavilion Point and Montague Point. In 1975 the bridge was rammed and partially collapsed. At that time, one-third of Hobart's population lived on the eastern side of the Derwent. Because most factory, commercial and office jobs were on the western side of the river commuters were severely disadvantaged. The bridge reopened in 1977.

Today, Hobart's suburbs spread 48 kilometres to the north and south of the city incorporating settlements which in 1942 regarded themselves as distinct communities.

Because of its smaller population Hobart has been subjected to less redevelopment pressure than has any other capital city. This factor, and a strong historic conservation movement since the 1960s coupled with a shrewd commercial assessment of the tourist value of history, has led the Hobart City Council and the state government to preserve many structures built before 1850. Despite less pressure to redevelop, Hobart still has much the same proportion of flats (14 per cent) as have the medium sized capital cities — Brisbane, Adelaide and Perth. Even in Hobart, households are willing to pay a premium price to live near the city centre.



Murray Street, Hobart. Postcard c1912.
TASMANIANA LIBRARY,
STATE LIBRARY OF TASMANIA

Elizabeth Street, Hobart, looking north, c1900. Postcard of Baily photograph.
TASMANIANA LIBRARY,
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Perth

PERTH IS THE FIFTH largest Australian city, with a population of around one million. It extends about 65 kilometres from north to south and 40 kilometres from west to east. When this map was drawn in 1942 the city had only one-quarter of a million inhabitants and most of these lived within twenty kilometres of the city centre. Perth held less than one-half of Western Australia's population; in 1986 it accounted for almost three-quarters. The metropolis was growing faster than any other capital city except Canberra and Darwin.

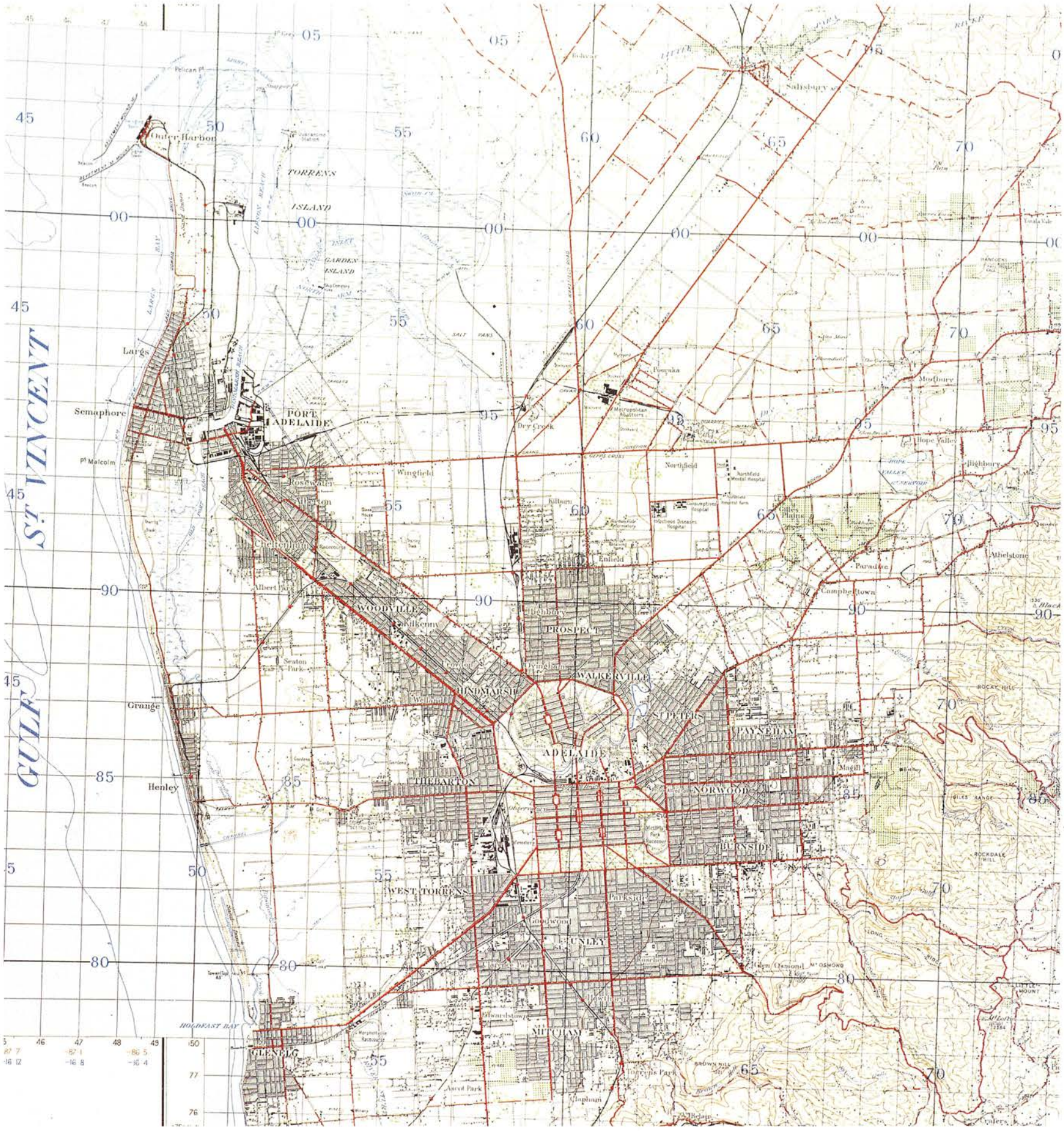
As with other capital cities, the development of Perth in the late nineteenth and early twentieth centuries was strongly influenced by the expanding rail network. Railway lines from Perth to Fremantle and Guildford, built in 1881, were followed by a southern link to Carrington and beyond. From 1899 tramways began to serve areas in between the rail lines, and by 1925 they had reached their maximum route length of 55 kilometres, after which the routes were gradually closed and converted to trolley buses or motor buses.

The rapid growth of Perth after World War II coincided with the coming of mass car ownership. Suburban settlement began to spread in all directions. A number of industrial plants were erected during the 1950s boom, including motor works at Mosman Park and North Fremantle. Both were closed down in the 1970s when the rationalisation of the car industry confirmed Adelaide and Melbourne as the main centres of production.

The development of the city to the south and east was assisted in 1959 by the opening of the Narrows Bridge, which linked Perth and south Perth, and the opening of the first stage of the Kwinana freeway, extended in the 1980s. The mining boom of the late 1960s and early 1970s, especially the major finds of iron and nickel in Western Australia, contributed to a spate of high-rise office building in the city centre. From King's Park, four hundred acres of parkland and bushland overlooking the city from the west, the view changed from one of a quiet, low-rise city, to one of a heavily built-up central business district.

With a population approaching one million Perth is beginning to suffer some of the drawbacks of size that afflict its larger rivals, especially longer journeys to work. But, as in other capitals, retailing, commerce and industry have been gradually moving out of the city centre and nearby suburbs to middle and outer suburban locations. This eases some of the pressure on the city centre.

Adelaide



ADELAIDE HAS SPREAD to the north and south along an alluvial plain, with the Mount Lofty ranges to the east and the Gulf of St Vincent to the west. In the nineteenth century urban growth reflected the fortunes of a hinterland economy centred on wheat, with wool, hides, fruit and wine being other important products. Since the early 1900s the city has added, to such local manufacturing activities as brewing, flour milling, footwear and clothing, a new range of industries aimed at the national market, sometimes the international export market, namely motor vehicles, electrical goods and household appliances. The establishment of Holden's Motor Body Builders plant at Woodville in 1923 marked out Adelaide as a major centre of motor manufacturing in Australia. Since 1930 Adelaide and Melbourne have become the centres of the vehicle industry.

With the coming of mass car ownership in the 1950s and 1960s and a rapidly increasing population (from 313 000 in 1933 to 770 000 in 1961) suburban development, as in the other capitals, went well beyond the pattern set by the rail and tram system in the nineteenth century. Most vacant land west and southwest of the city centre was taken up by detached housing, except for a parcel of land southwest of Thebarton, which in 1955 became the site of Adelaide's airport. Adelaide's central business district remains close to the geographic centre of the city's expanding area.

Prepared by the Australian Survey Corps in 1937, this one-inch-to-one-mile map shows the full extent of the urban development of Adelaide before World War II. As in the other capital cities before the war, the suburbs developed close to the railway and tram lines.
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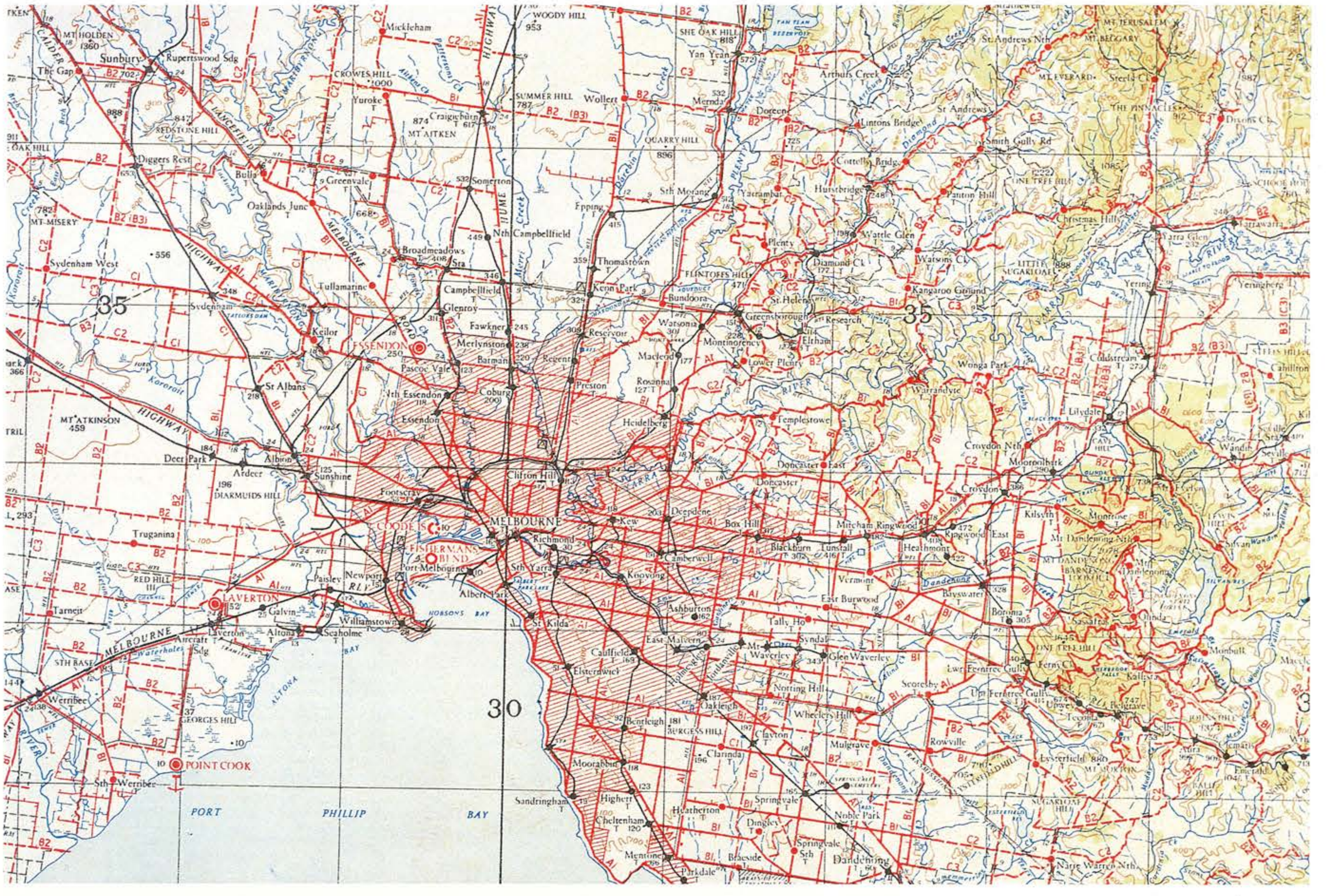
Melbourne



Above. This 1943 map of Melbourne, compiled by LHQ Cartographic Company, shows the extent of the city's built-up area (shaded red).
NATIONAL LIBRARY

Left. The southeastern corner of the Melbourne central business district, from which the city's road, rail and tram routes radiate. Photograph by Paul Steele, 1986.
AUSTRALIAN PICTURE LIBRARY

IN 1901, WHEN MELBOURNE became the temporary home of the new commonwealth parliament, its population had just been overtaken by Sydney's. The wealth generated by the gold rushes of the 1850s and 1860s could still be detected in buildings dating from the construction boom of the 1870s and 1880s. Suburbs to the east of the city, such as Kew, Hawthorn and Malvern, boasted many large villas, while the city itself had the finest urban buildings in Australia. Railway and tramway construction, begun with enthusiasm in the 1880s, gathered pace again in the early 1900s, and from 1906 some of the cable trams were electrified, as was the suburban rail system in the 1920s.

Melbourne's manufacturing industries, mostly situated in the poorer suburbs to the north and west of the city, continued to expand throughout the twentieth century. In the early 1950s they began to decentralise. Large motor plants and other industries have been established at Broadmeadows, to the north of the city, and Dandenong to the east. A new international airport (to relieve pressure on the airport at Essendon) was built at Tullamarine, twenty kilometres to the north of the city, in 1970.

Since the late 1950s retailing and offices have also become more decentralised. With its relatively flat topography and wide roads, Melbourne is a straightforward city to drive in, and most workers choose to drive to work. In Sydney, with its greater congestion, 20 per cent of employees take public transport to work, but in Melbourne and the other capitals 10 per cent or less choose public transport.

Since 1943, when this map was compiled, Melbourne's population has increased from a little over one million to almost three million. Most of this extra population lives in detached houses to the east and southeast of the city. Melbourne's suburbs now stretch beyond Ringwood to the east and south to the tip of the Mornington Peninsula. Along with Sydney, Melbourne has seen much more redevelopment than other Australian cities. Over 17 per cent of the city's households now live in flats, over half of which have been built on the sites of preexisting dwellings. After 1960 the redevelopment in the central business district and in some of the prettier inner suburbs was so extensive that a Historic Buildings Committee was formed in 1974 to try to save some of the city's more historically significant structures.

Brisbane

BRISBANE EXPERIENCED ITS FIRST major building boom in the 1860s. The Brisbane River proved a formidable barrier until the erection of a bridge in 1865, which facilitated the development of the south bank. Swept away in the floods of 1869, this bridge was replaced by the Victoria Bridge in 1872. The colony gained a number of fine buildings in the 1860s, including a parliament house. The rail system developed rapidly in the 1870s and 1880s. The completion of the Indooroopilly railway bridge in 1876 meant that Brisbane could be linked with Ipswich to its southwest. The river steamer trade between the two cities soon ceased. The opening of the railway to Sandgate to the northeast in 1882 gave city residents ready access to a bayside retreat.

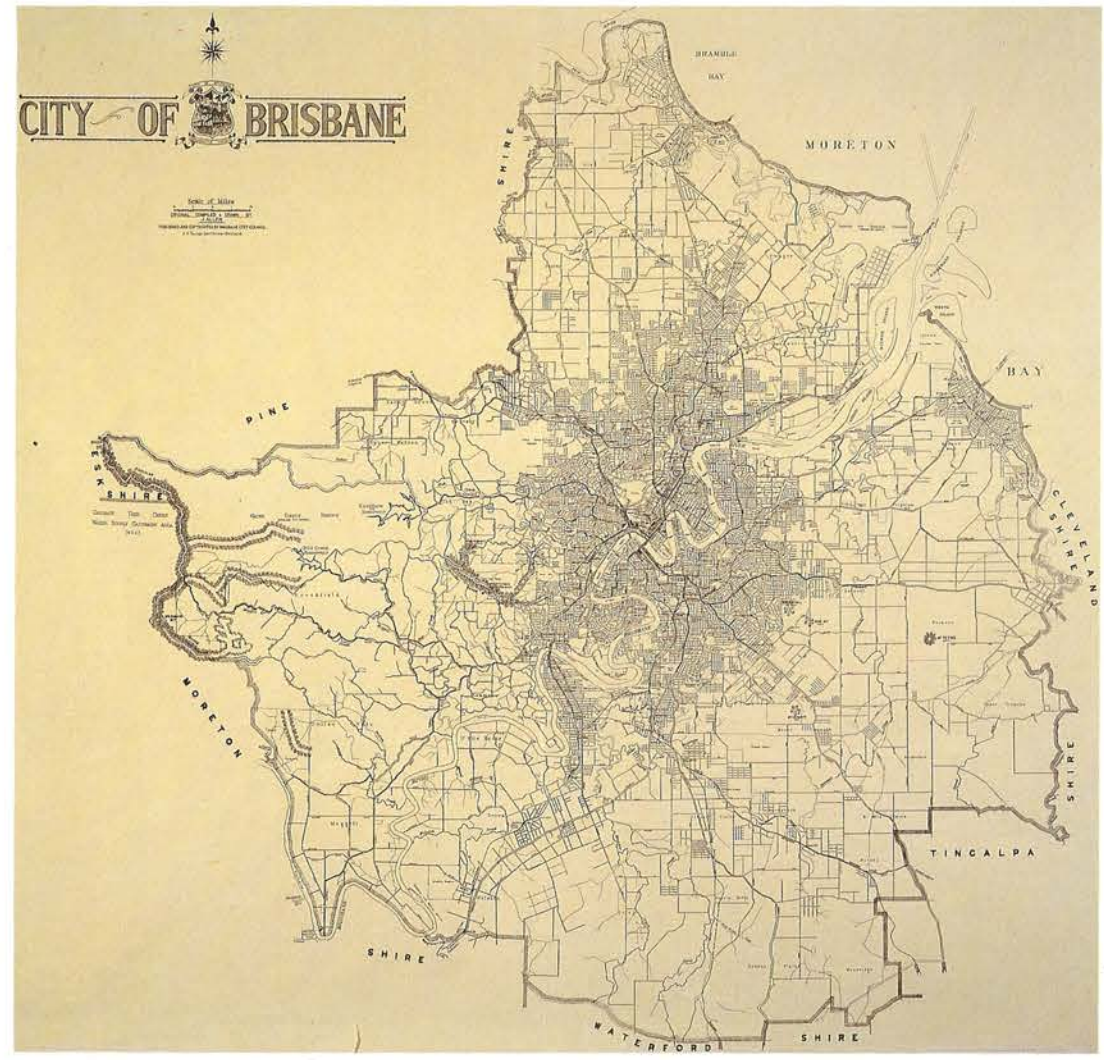
In 1893 Brisbane experienced a spectacular flood, which destroyed many houses and businesses and the Victoria Bridge. The colonial government and the city council took measures to protect the city from local flooding, but much of the metropolis is situated on low-lying land, and it proved difficult to protect from serious flooding, which next occurred in 1974, resulting in damage to over 14 000 homes. The state government has since built the Wivenhoe dam in an attempt to prevent the recurrence of such a flood.

Despite floods and depressed economic conditions, Brisbane entered the new century with a population of 120 000. The city was growing in almost every direction. In 1925 the state Labor government created the City of Greater Brisbane, increasing the city's jurisdiction from 1425 to 97 200 hectares. Brisbane remains the only example of unified metropolitan government in Australia, although urban growth has now linked adjacent local government areas, such as Ipswich, to the metropolis.

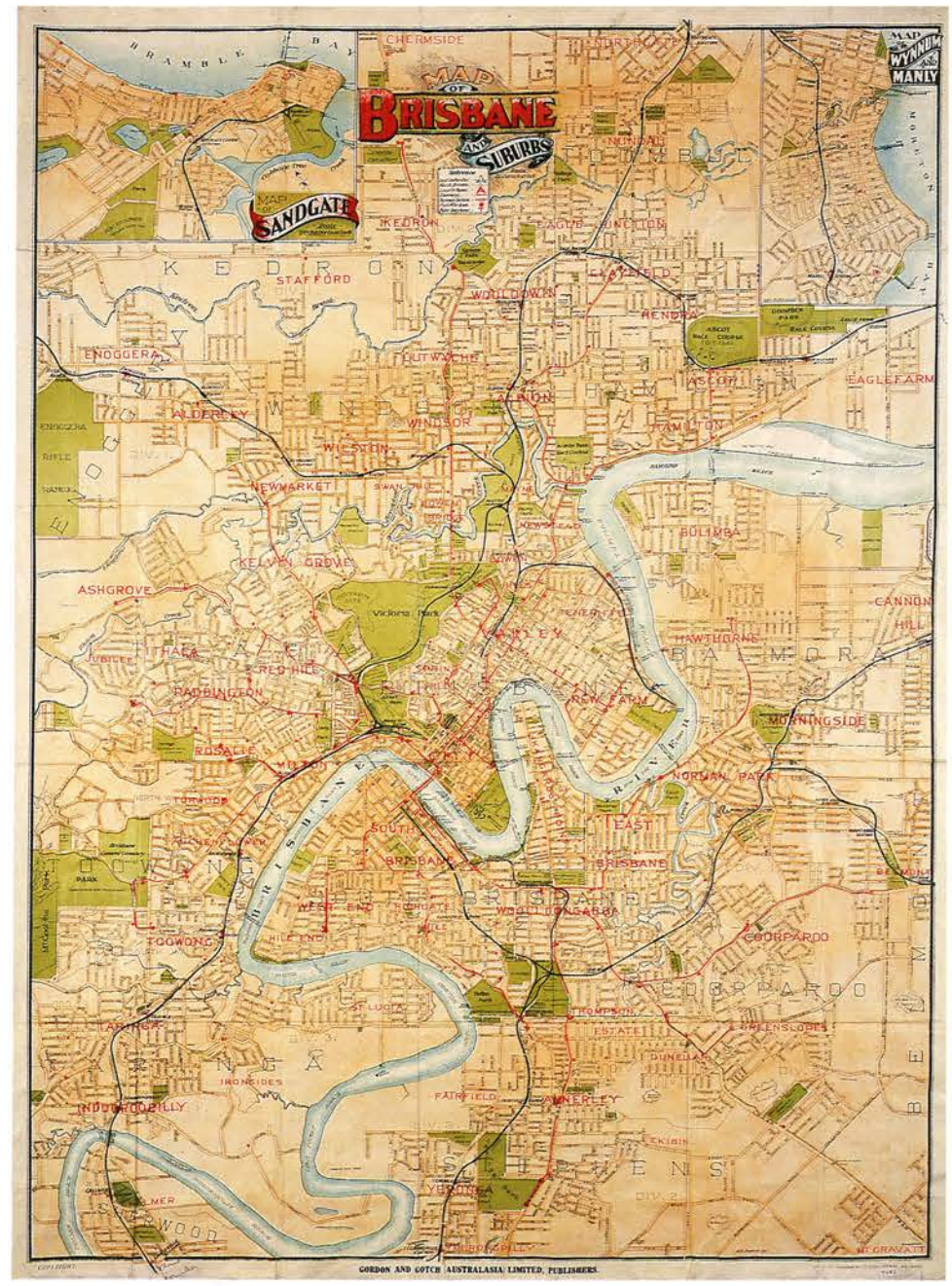
A real-estate boom in the late 1950s, which quickly spread to the Gold Coast to the south of the city and the Sunshine Coast to its north, was cut short by a credit squeeze. A similar boom in the late 1960s and early 1970s was brought to an abrupt halt by the 1974 flood. In the same decade many of Brisbane's leading firms, especially retailers, were taken over by southern conglomerates and a number of industrial plants were closed down. But the city continued to attract office development, and, like other Australian cities, has a rapidly expanding services sector.

Because it is more than 20 kilometres from the coast Brisbane can grow in almost any direction, as it did with the coming of mass car ownership after World War II. Houses — in Brisbane the demand for detached housing is more pronounced than in any other capital city — were built further and further away from public transport. In 1969 the tramway system was finally abolished.

Brisbane experienced a surge of flat building in the 1960s and 1970s but it still has a smaller proportion of flats than have Adelaide or Perth. Nonetheless the relatively small number of medium and high-rise flats dominate the urban landscape situated as they are overlooking the river.



Above. When this map was compiled, soon after the creation of the City of Greater Brisbane in 1925, most urban development was within seven miles (11 kilometres) of the city centre. Coastal spots like Sandgate and Wynnum remained quite distinct settlements, until after World War II.
NATIONAL LIBRARY



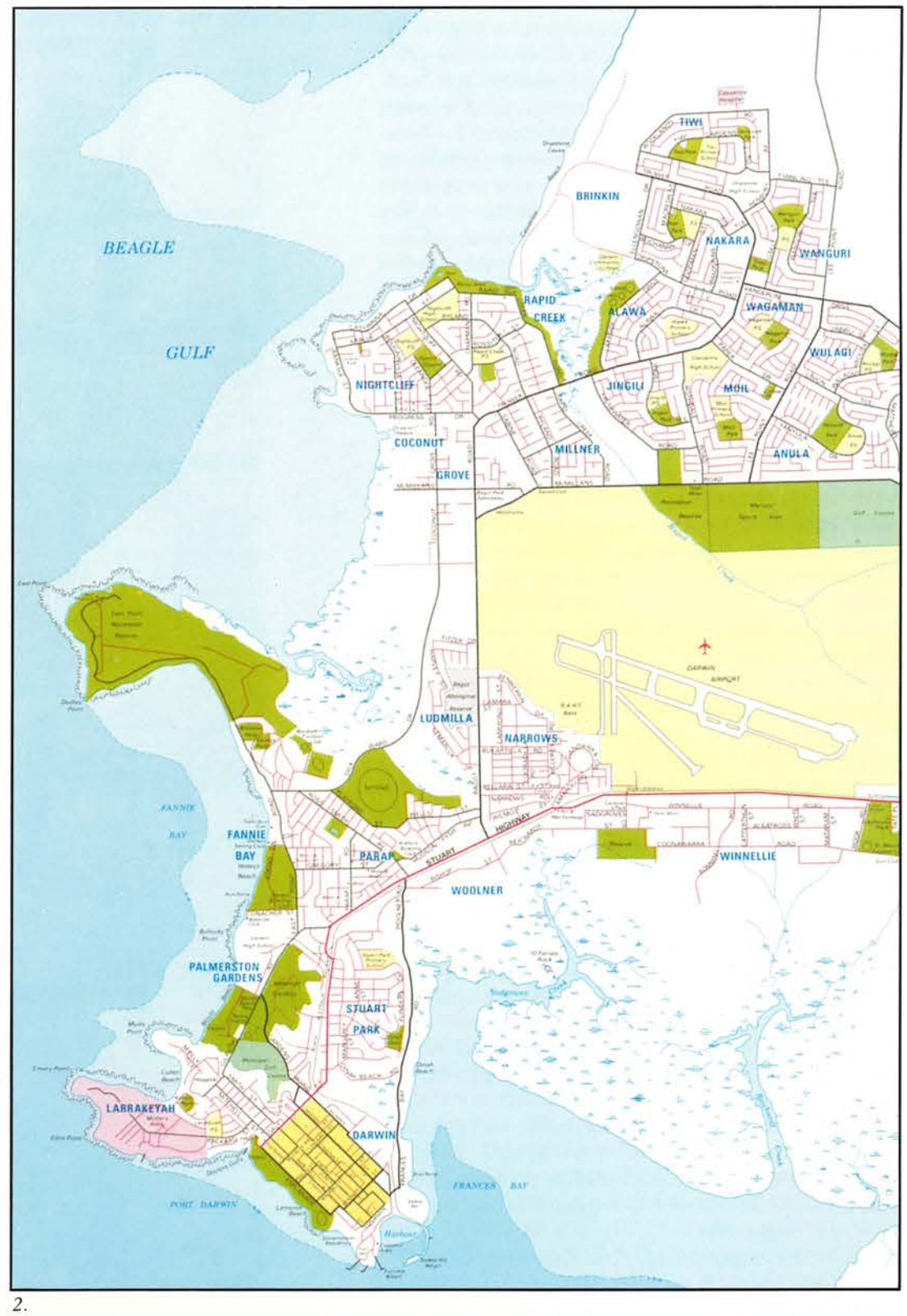
Right. Published by Gordon and Gotch c1928, this map shows the principal road, rail and tram routes in central Brisbane, Sandgate and Wynnum and Manly. Brisbane grew rapidly in the 1950s and 1960s; by the 1970s it was linked to Ipswich to the southwest.
STATE LIBRARY OF VICTORIA

Darwin

DARWIN BEGAN AS an outpost of the South Australian government and is still a government town. With a population of 61 412 at the 1981 census, it is the smallest capital city, considerably smaller than a number of provincial cities. Nonetheless Darwin dominates its hinterland, being the only port and possessing the Territory's major airport. In 1978 Darwin became the seat of the new Northern Territory government.

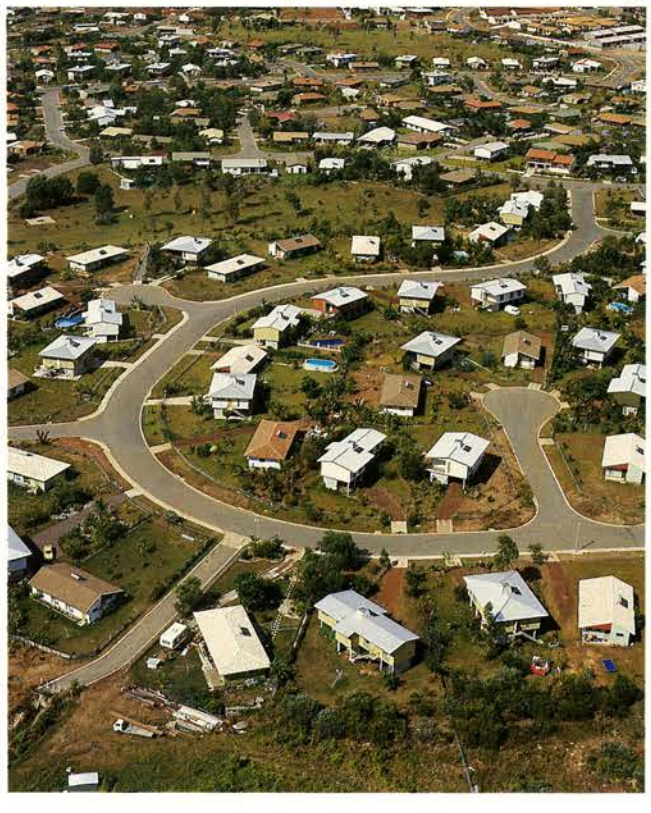
For most of its history Darwin has been little more than a large port town, thrown into prominence by its isolation on Australia's northern coast. With the completion of the Overland Telegraph from Adelaide to Darwin in 1872, Darwin became a link between Australia and the world via a submarine cable to Java. A modest gold rush in the 1880s and a railway line to Pine Creek in 1889 linked Darwin to its hinterland, but the city has been unsuccessful in obtaining a rail link to Alice Springs.

Darwin had become a city in 1959 and grew rapidly on the proceeds of uranium mining in Rum Jungle and other sites in the 1960s. Darwin has been rebuilt twice in the last 45 years, firstly after repeated air attacks by the Japanese in 1942 and 1943 and secondly after the devastation caused by Cyclone Tracy on Christmas Day in 1974, when hundreds of houses and other buildings were destroyed. When the cyclone hit, Darwin had a population of 40 000. More than 30 000 people were evacuated. A Reconstruction Commission was created by the federal government to plan the rebuilding of the city. Between 1975 and 1977, 2000 new homes were built and 7000 rebuilt, and by 1986 the city had a population of well over 60 000, although half of the residents had not lived in the city before the cyclone struck.



By 1984 Darwin had spread well beyond the original settlement into new suburbs to the north of the airport. The central business district (at the bottom of the map) includes some buildings erected before the cyclone. The street patterns, shown on the map on the right (from Robinson's road atlas of Australia, *1984) are designed to minimise through traffic by the widespread use of cul-de-sacs. The houses shown in Leo Meier's photograph (1), taken in 1985, are typical of Darwin today. The power station, shown in Gunther Deichmann's photograph (2), was opened in 1962.*
WELDON TRANNIES

1.



2.

Hobart's changing centre

THE MAPS ON THIS and the next page illustrate different aspects of change in inner city areas. Even the centre of Hobart, the smallest of the state capitals, has experienced marked changes in the density and specialisation of landuse. Hobart in the 1980s has a much larger population and occupies a very much larger area than it did in the mid-nineteenth century. The location of its city centre has not changed, nor has the basic alignment of the streets in the central area. But the majority of the buildings that line the main streets of the central parts of the city are either refurbished versions or replacements of earlier buildings on the same site. The uses to which buildings and sites have been put have also changed, in some cases many times. A comparison of the two maps of Hobart's city centre shows the changes in the urban landscape that occurred from 1847 to 1954.

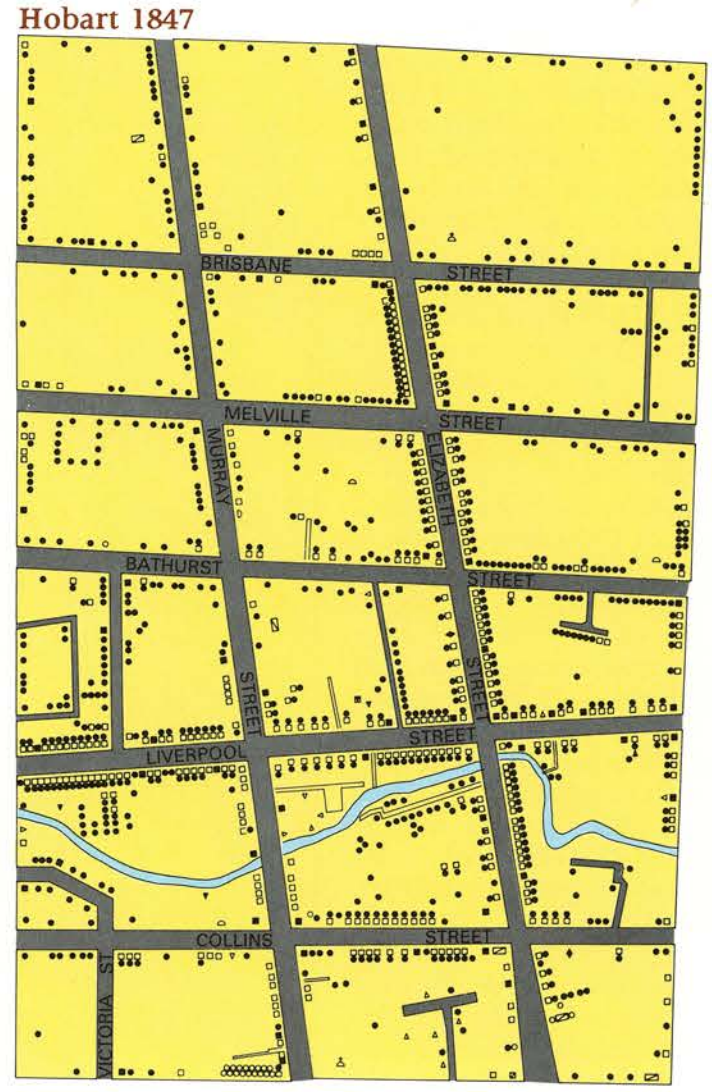
By the early 1950s the features of modern Hobart were becoming evident: there was a well-defined commercial and shopping area focused on the Elizabeth–Liverpool Street intersection. Shops extended along the eastern side of Elizabeth Street from Collins Street in the south almost as far as Melville Street in the north. Offices had become a feature of central Hobart, approximately one building in eleven being used for offices. Many were located south of Collins Street. Factories, hotels and specialised buildings, and a large number of residences, accounted for the remainder. Just over two-thirds of all buildings were residences.

In contrast to the Hobart of the 1950s, landuse and buildings were much less specialised in 1847. In the mid-nineteenth century the majority of the buildings around the Elizabeth–Liverpool Street intersection served as both ground-floor shops and first-floor residences. This was also true of Elizabeth Street between Collins Street and Brisbane Street. On the 1847 map the term 'shop' includes buildings used as banks, counting houses and smiths' shops. Liverpool Street was also flanked by shop-residences. Murray Street from Collins Street to Bathurst Street had a number of single purpose buildings that served as shops. In mid-nineteenth-century Hobart there were a few offices along Macquarie Street, but generally offices took up only about one building in a hundred. Away from the area around Elizabeth–Liverpool Street the city blocks became more residential, and north of Brisbane Street the majority of buildings were houses. In the entire central area approximately three-quarters of the buildings were residences.

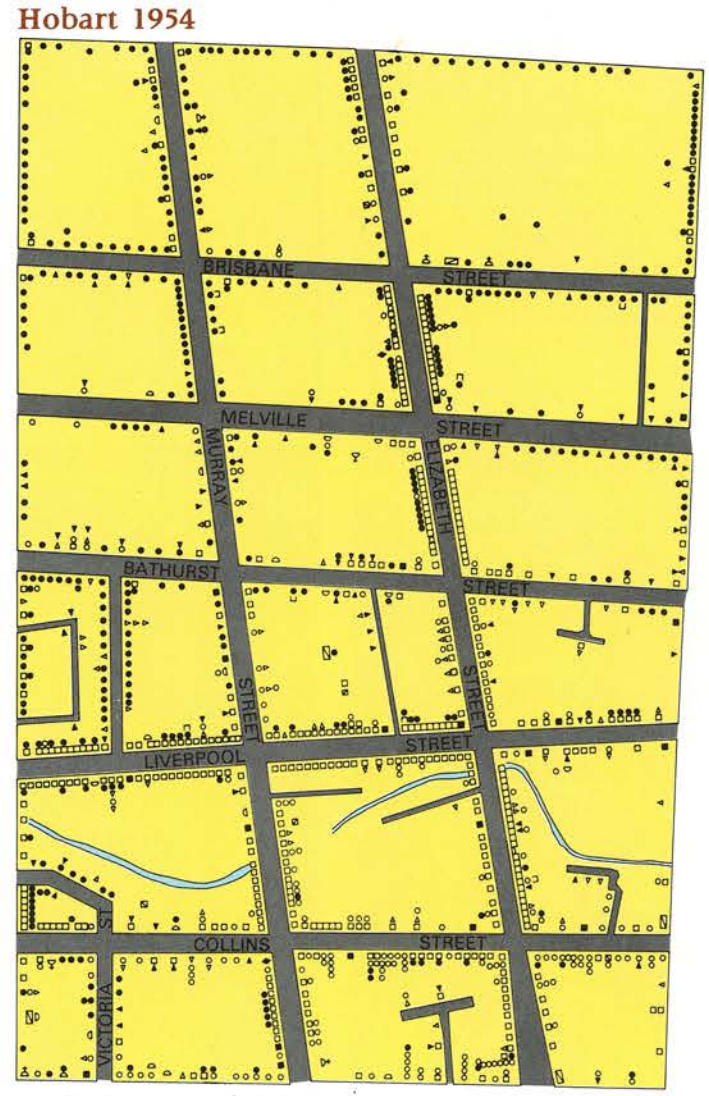
Several other features of the 1847 map can be contrasted with those of the 1954 map. In the mid-nineteenth century there was a public house (hotel) on almost every city block. More than fifty are shown in the central area, or one to each sixteen residences. There were many fewer in 1954. The 1847 map also shows three markets, two in the block bounded by Elizabeth, Liverpool, Murray and Bathurst streets and one south of Collins Street. Next to the market off Liverpool Street was a factory building that served as one of the city's four slaughterhouses. Detached buildings away from the main street frontages, such as the slaughterhouse, were another feature of Hobart.

In 1847 city blocks were not completely built up and landuse was much less intense. By 1954 the intensity of landuse was much greater, particularly in the central blocks around Elizabeth and Liverpool streets, and buildings occupied nearly all the available space within each city block. Demands for space in central areas have encouraged the development of multi-storey buildings, which have come to dominate all of Australia's inner city landscapes.

Hobart 1847



Hobart 1954

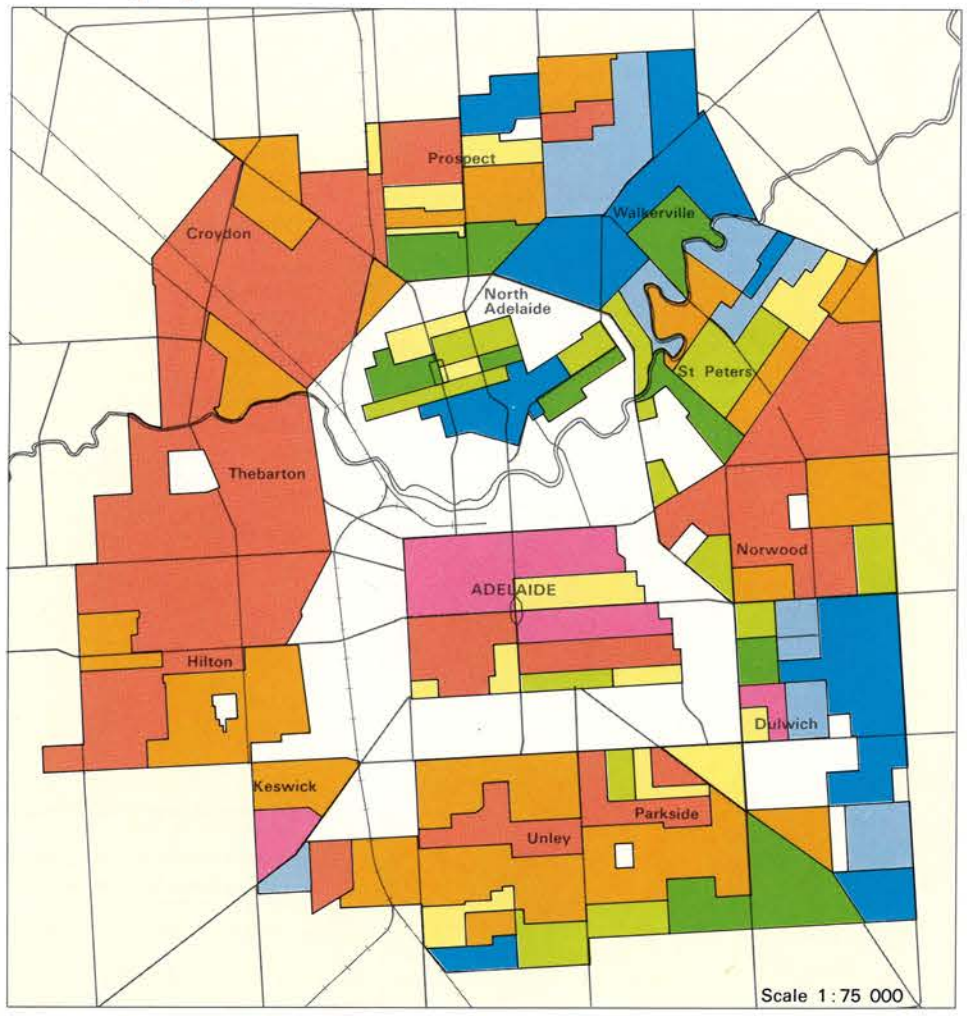


- Residence
- Shop
- Market
- Hotel
- Warehouse
- Factory
- Office
- Public Building
- Church
- Hall
- Stable
- Public utility

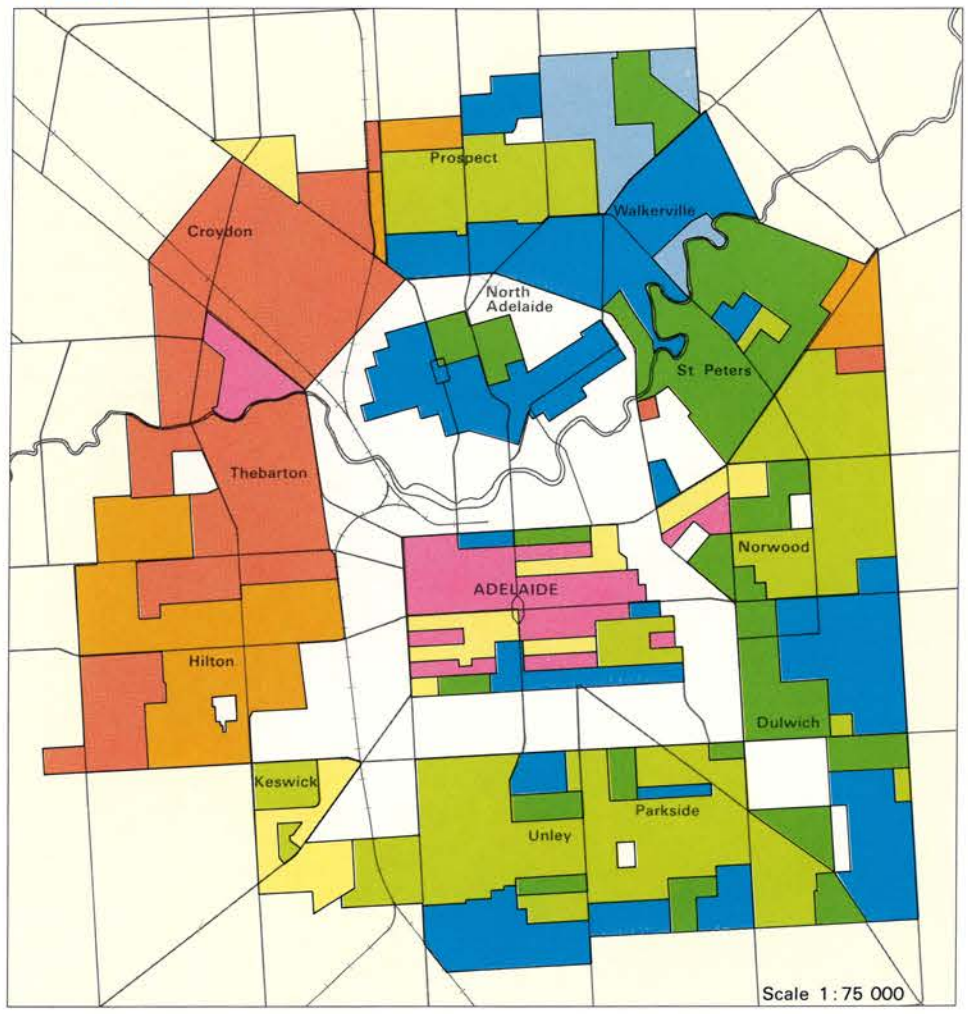
1:6000

Gentrification

Inner city rejuvenation: Adelaide 1966



Adelaide 1981



Neighbourhood occupational status

- Low
- Low and middle combined
- First stage gentrification
- Second stage gentrification
- Middle and high combined
- High
- Irregular mix
- High and low polarised

SINCE THE LATE 1960s many residential suburbs near the centres of Australian cities, and particularly those in capitals built in the Victorian era, have experienced a good deal of rehabilitation. This has been accompanied by decreases in population and employment possibilities in the inner city areas. Adelaide provides a good example of this residential rejuvenation of inner city suburbs.

The major cause of the rehabilitation of inner suburbs has been the gradual movement of middle-class households into neighbourhoods of deteriorated housing formerly occupied by working-class households. This process of displacement is known as 'gentrification'. Often previously rented housing is purchased and improved by the new occupiers. Their families usually have fewer children, accounting in part for the fall in inner city population.

Many factors contribute to the gentrification process, including the attractions of easy access to the jobs, entertainment and cultural facilities of the city centre, rather than more spacious housing in outer suburban subdivisions and long journeys to the city centre. Dual-income households without children find this access particularly attractive, and the initial stage of renovations in many inner suburbs has been carried out by members of this group. Once the process of renewal has started and the signs of improvement become evident, two other groups contribute to gentrification: investor–renovators and developers. Investor–renovators buy and renovate housing to sell or rent, and developers demolish inner city housing in attractive locations and replace it with flats and townhouses.

The changes that these three groups set in motion are cumulative and gradual. Housing values and rentals increase, and households with low incomes are forced out of the suburb. The second stage of gentrification occurs when most houses have been restored and only people with high incomes can afford the higher purchase prices.

Gentrification has been welcomed by many people because it reverses the physical decay of some older parts of urban areas. It has also improved the ratable value of property in some previously poor municipalities, and has broken down segregation that threatened to produce inner city ghettos. But gentrification has also had its critics, many of them low-income tenants and home owners whom it has forced out of work in inner city service jobs. Not only have their housing costs increased but in the middle and outer suburbs to which they must move they do not have access to good public transport, or to the amenities, such as hospitals and clubs, of the inner suburbs.

The maps of Adelaide show the development of gentrification in the period from 1966 to 1981. They show that in 1966 North Adelaide was already experiencing first and second stage gentrification, as were St Peters and Prospect. By 1981 the occupational status of a substantial part of inner Adelaide immediately north, east and south of the central and northern parklands had also changed from 'low' or 'low and middle' status, and this area was experiencing the first stage of gentrification. Much housing in Norwood, Dulwich, Parkside and Unley had been improved.

By 1981 almost all of North Adelaide had experienced gentrification and could be classified as a 'high' status area. Similarly the high status neighbourhoods in Walkerville had spread to adjacent areas in Prospect. South of the city centre the small area of high status in Unley in 1966 had since expanded, and high status areas were to be found in Parkside.

Canberra, the nation's capital

THE RIVALRY OF Sydney and Melbourne regarding the seat of the government of the commonwealth was ended by the state premiers in 1899 when they inserted, in Section 125 of the draft Constitution, the requirement that

> the seat of Government shall be determined by the Parliament and shall be within territory which shall have been granted to or acquired by the Commonwealth ... and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

More than twenty sites were considered by two royal commissions, the first appointed by the government of New South Wales in 1899, and the second by the commonwealth in 1903. Parliament, sitting in Melbourne, the temporary capital, settled on an area near Dalgety, Buckley's Crossing, on the Snowy River in 1904, but the government of New South Wales would not agree and urged consideration of the area of 'Yass-Canberra'. The commonwealth parliament agreed to the Yass-Canberra area in 1908, and in 1909 the surveyor, Robert Charles Scrivener, recommended a city site in the Canberra valley, astride the floodplain of the Molonglo River in a territory that embraced the catchments of the Molonglo and Queanbeyan rivers and included the town of Queanbeyan. The New South Wales government refused to cede Queanbeyan and the river catchments east of the railway line, but the commonwealth accepted a similar area to the south of the city site. The territory of 2360 square kilometres was surrendered in 1911. All crown land was ceded to the commonwealth and freehold lands have been progressively brought into public ownership.

The city plan

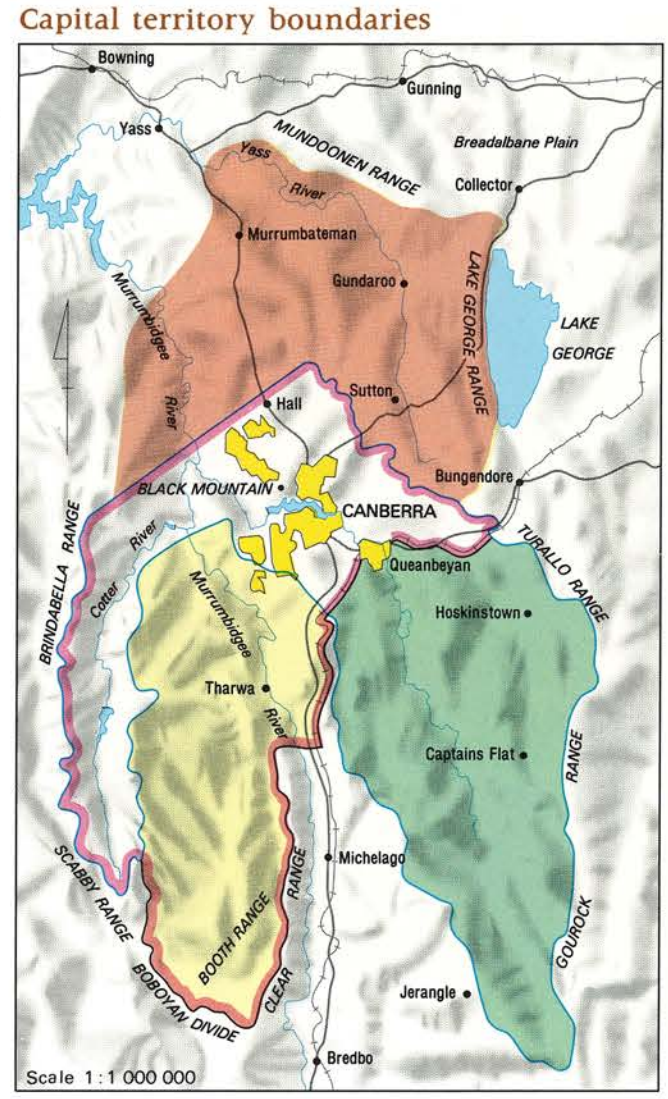
An international competition for the design of the federal capital was won by Walter Burley Griffin, an architect and landscape architect of Chicago, in 1913. The focal point of his plan was the 'capitol' occupying the most prominent site in the valley (now the site of the permanent Parliament House), from which avenues were to radiate. It was also a terminal of his 'land axis' that extended to the peak of Mount Ainslie, five kilometres away, which now has at its foot the Australian War Memorial. At right-angles to, and bisecting the land axis, his 'water axis', beginning at Black Mountain, proposed the transformation of the Molonglo floodplain into a sequence of water basins at the centre of a system of lakes. A triangular pattern of avenues extends throughout his city plan, with vistas of the enclosing hills and ridges linking the urban areas to the regional landscape.

Bush capital

Although Griffin held the post of federal capital director of design and construction for seven years from 1913, World War I, government reluctance and Griffin's disputes with the authorities delayed progress. In 1920 a Federal Capital Advisory Committee, on which Griffin refused to serve, was given the responsibility for preparing a program of works 'with a view to enabling the Federal Parliament to meet ... as early as practicable at Canberra on the basis of the acceptance of the plan of ... Mr W.B. Griffin'. This required that a start be made on developments in several different parts of the city.

The advisory committee was replaced by the Federal Capital Commission in 1925, which succeeded in completing the 'provisional' Parliament House and sufficient office and housing accommodation for parliament to sit in May 1927. Most commonwealth departments remained in Melbourne, and the Depression put an end to the program of development. In 1933, there was a widely scattered

Capital territory boundaries

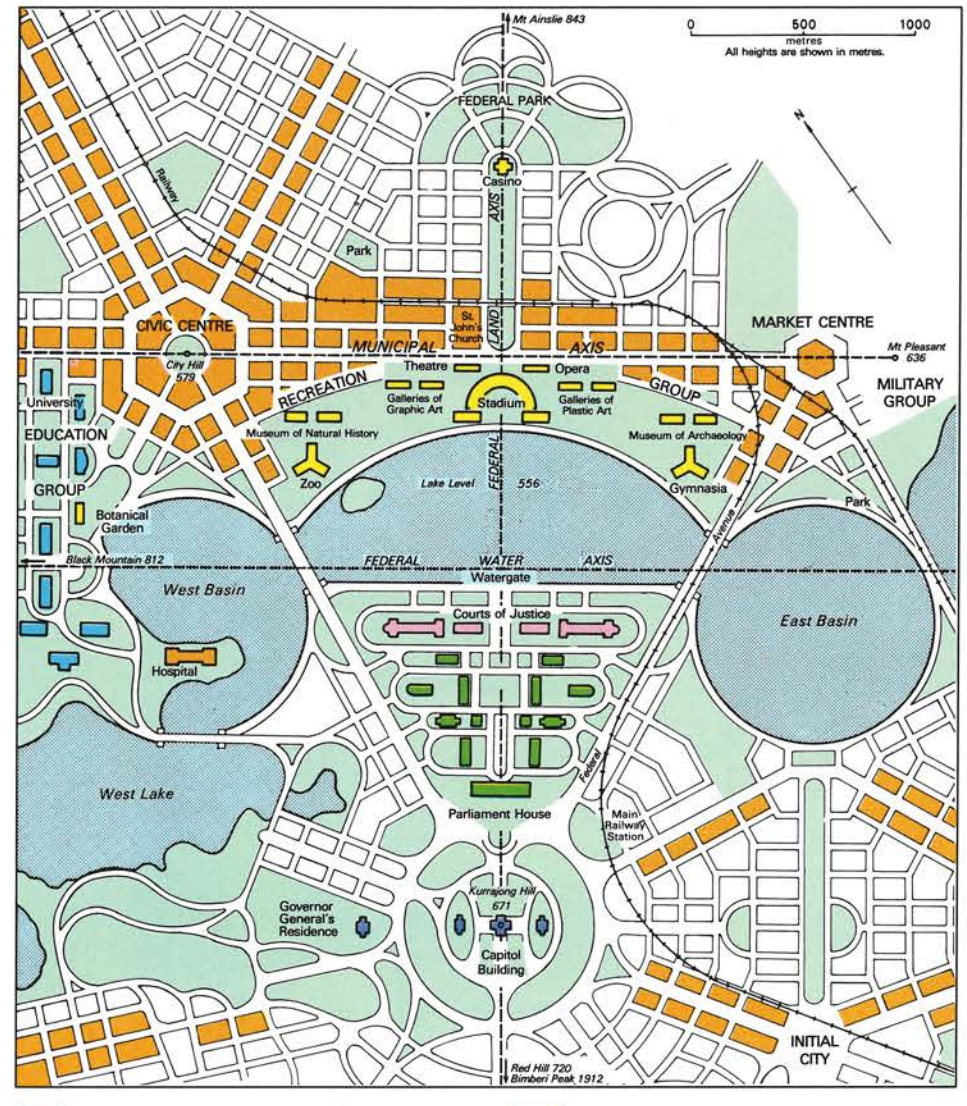


Suggested sites

Albury
Armidale
Barbers Creek
Bathurst
Bellingen
Bemboka
Bombala
Bowna
Braidwood
Buckleys Crossing
Canberra
Carcoar
Cootamundra
Corowa
Dalgety
Delegate
Eden
Glen Innes
Goulburn
Hay
Howlong
Inverell
Junee
Lake George
Lyndhurst
Millthorpe
Molong
Moss Vale
Murrumburrah
Nowra
Orange
Port Stephens
Queanbeyan
Rylstone
Tenterfield
Towrang
Tumbarumba
Tumut
Wagga Wagga
Wellington
Wentworth
Yass
Young

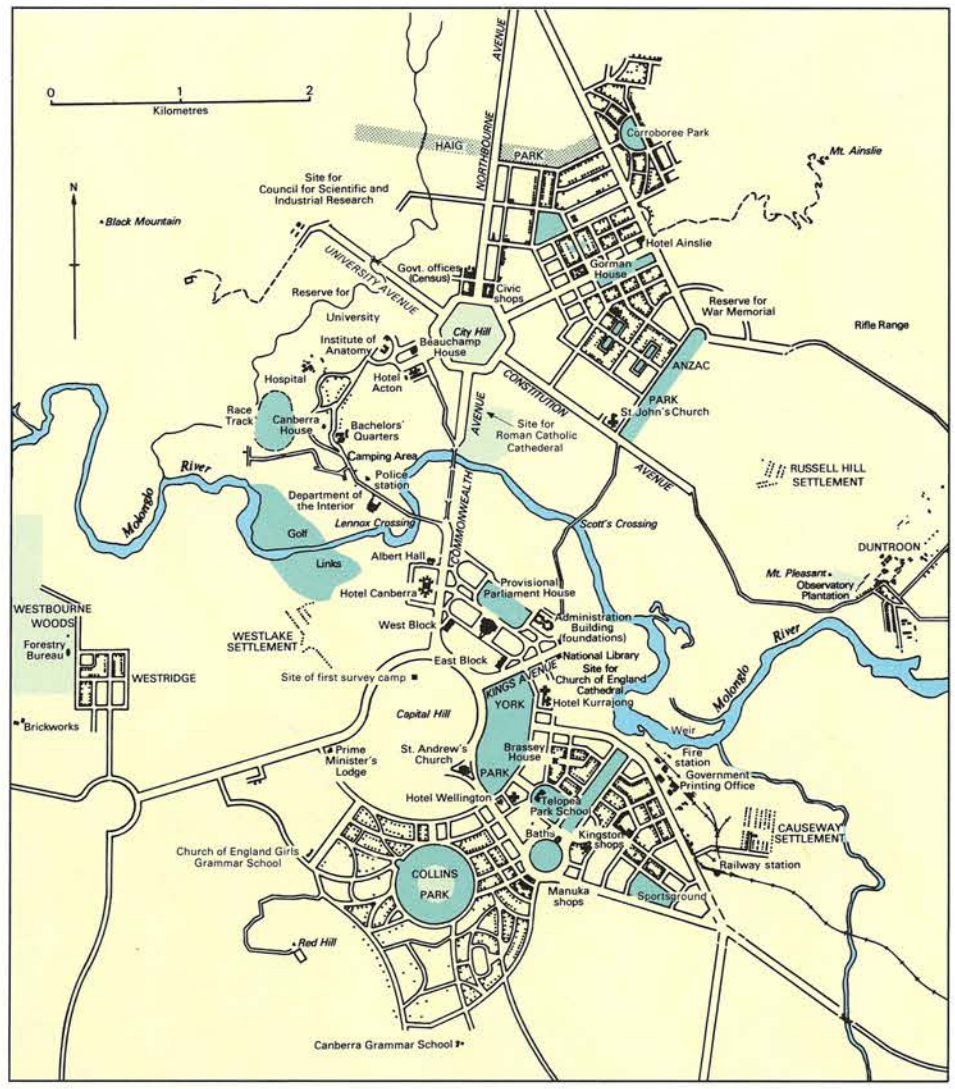
Boundary of federal territory proposed by Scrivener in 1909
Territory retained by NSW government
Territory added as exchange by NSW government
Boundary of additional territory proposed in 1975
Urban development to 1975
ACT boundary 1985

Griffin's preliminary plan 1913



City services and medium density housing
Executive buildings
Legislative buildings and government offices
Judiciary buildings
Public recreational and cultural facilities
Education and scientific uses
Parks and public gardens
Proposed railway

The 'bush capital' 1936



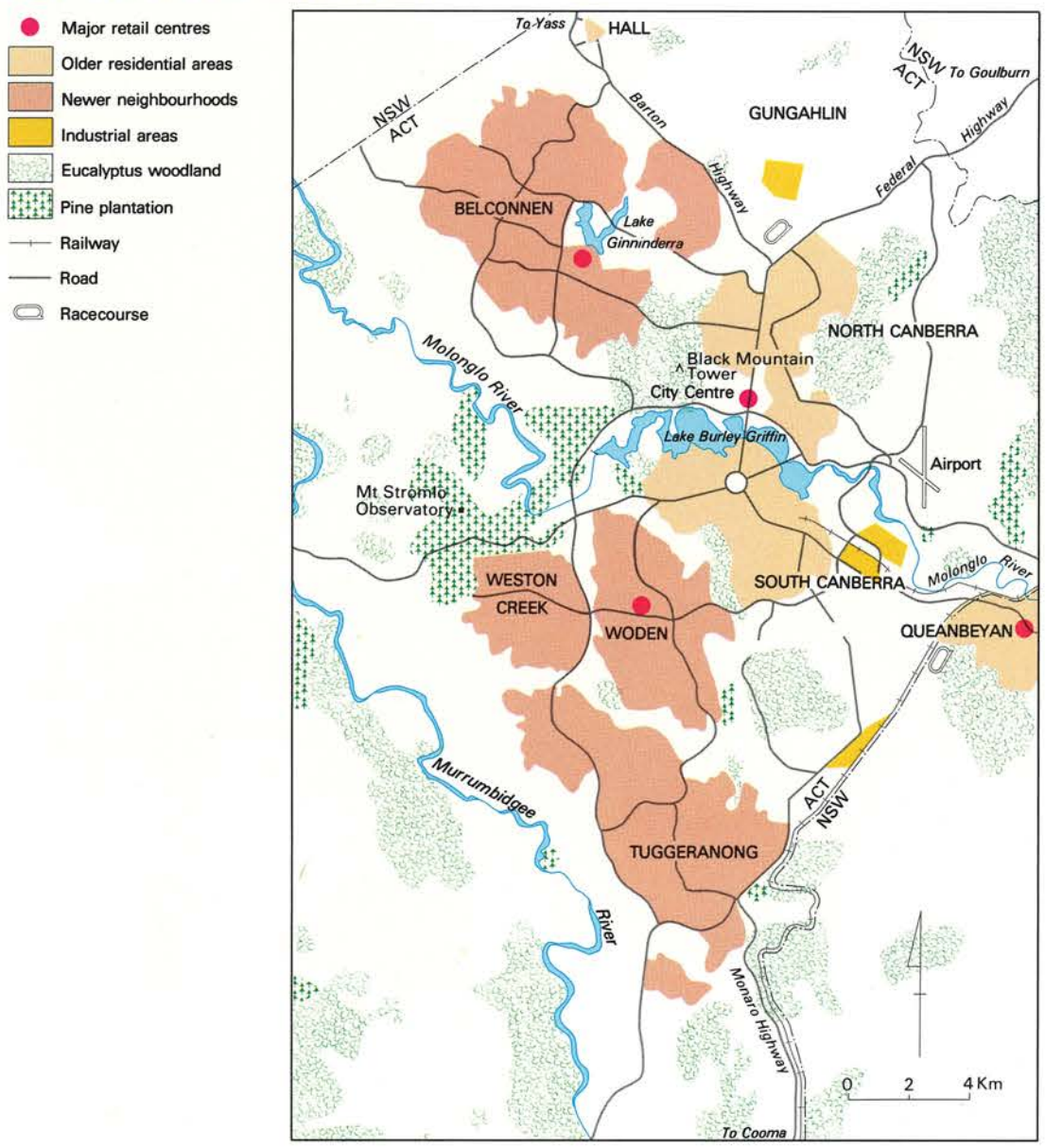
population of 7050 on each side of the Molonglo floodplain. Only the landscape planning, pursued vigorously from the inception of the Australian Capital Territory, gave any hint of the city to come.

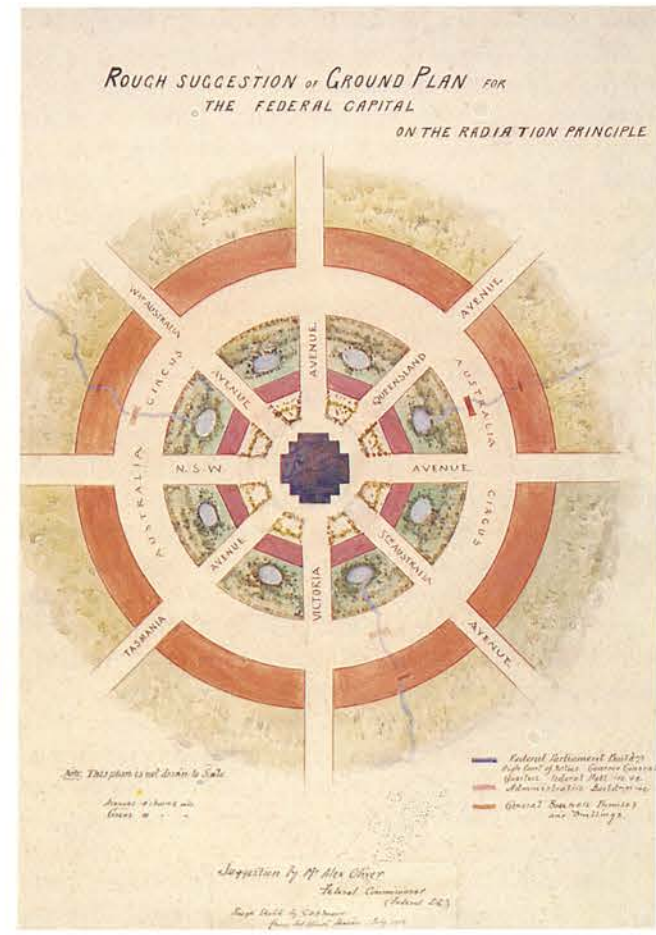
A metropolitan capital

But Canberra continued to grow, especially during the years of World War II, when temporary buildings and other expedient developments threatened to destroy Griffin's design. The recommendations of a Senate inquiry in 1955 led in 1958 to the establishment of the National Capital Development Commission responsible for the 'planning, development and construction of the City of Canberra as the National Capital'. The population was then approaching 40 000 but the resumption of transfers of departments from Melbourne and the expansion of employment in the public service in Canberra produced unprecedented population growth, reaching an estimated 250 000 in 1985.

The greater part of the efforts of the National Capital Development Commission have been directed towards 'normal basic community requirements', such as roads, services, dams for water supply, sewerage works, schools, colleges, playing fields, swimming pools, recreation areas and public housing. But it is the lesser part of the commission's construction programs, 'national works', that has contributed to the stature of the capital. The lakes scheme, spanned by handsome bridges, was completed in 1964, with Anzac Parkway, the processional approach to the Australian War Memorial, emphasising Griffin's land axis. The Australian Mint, National Library, Art Gallery and High Court, the National Athletics Stadium and the Museum of Australia, commenced in 1985, and the permanent Parliament House to be completed in 1988, are fulfilling the promise of the capital's founders.

Canberra's urban districts 1984





Canberra, 1901. This rough sketch by G.V.F. Mann was a suggestion for a future ground plan for the federal capital, drawn on the radiation principle.
NATIONAL LIBRARY

Urban growth

SINCE THE FIRST European settlements, a high proportion of European Australians have lived in 'urban centres' (towns with 1000 people or more), particularly in the capitals.

In the first years of convict settlement, Sydney and Hobart were the only towns. Although the population spread rapidly into rural areas, towns were slow to emerge. Even with new urban centres at Parramatta, Launceston and Newcastle, the total urban population remained low and by 1833 it accounted for barely one-third of the European population. Nevertheless, there was a higher proportion of town dwellers than in most other countries at the time.

The spread of pastoral settlement from the 1820s on stimulated the development of new metropolitan centres linking the colonies and the rest of the world. The gold discoveries of the 1850s and 1860s in New South Wales and Victoria encouraged the growth of other centres. By 1861, 41.9 per cent of the European population lived in urban areas.

Steady migration, closer settlement and the spread of the railways led to the emergence of new towns as service centres. By 1881 more than half of Australia's population lived in urban areas. Metropolitan centres other than Hobart grew rapidly, as did other towns. By 1901 the capital cities were linked to well-developed networks of mining and service centres in the southeastern states.

During the first half of the twentieth century, immigration, agricultural expansion and the development of large-scale manufacturing encouraged the further growth of urban centres, especially the larger ones. Capital cities continued to increase their shares of state and territorial populations, consolidating their economic and political pre-eminence. Other urban centres collectively maintained their shares of state populations, though the growth rates of individual towns varied significantly: many of the older mining centres, even the larger ones, declined, and many smaller service centres in older rural areas found it hard to maintain their populations. At the same time other smaller service centres grew to urban status in new rural areas, especially in Queensland and Western Australia. Many larger service centres, especially in Queensland, experienced rapid growth based on new manufacturing industries. By 1947 three-quarters of Australia's population lived in towns and cities, half in metropolitan areas.

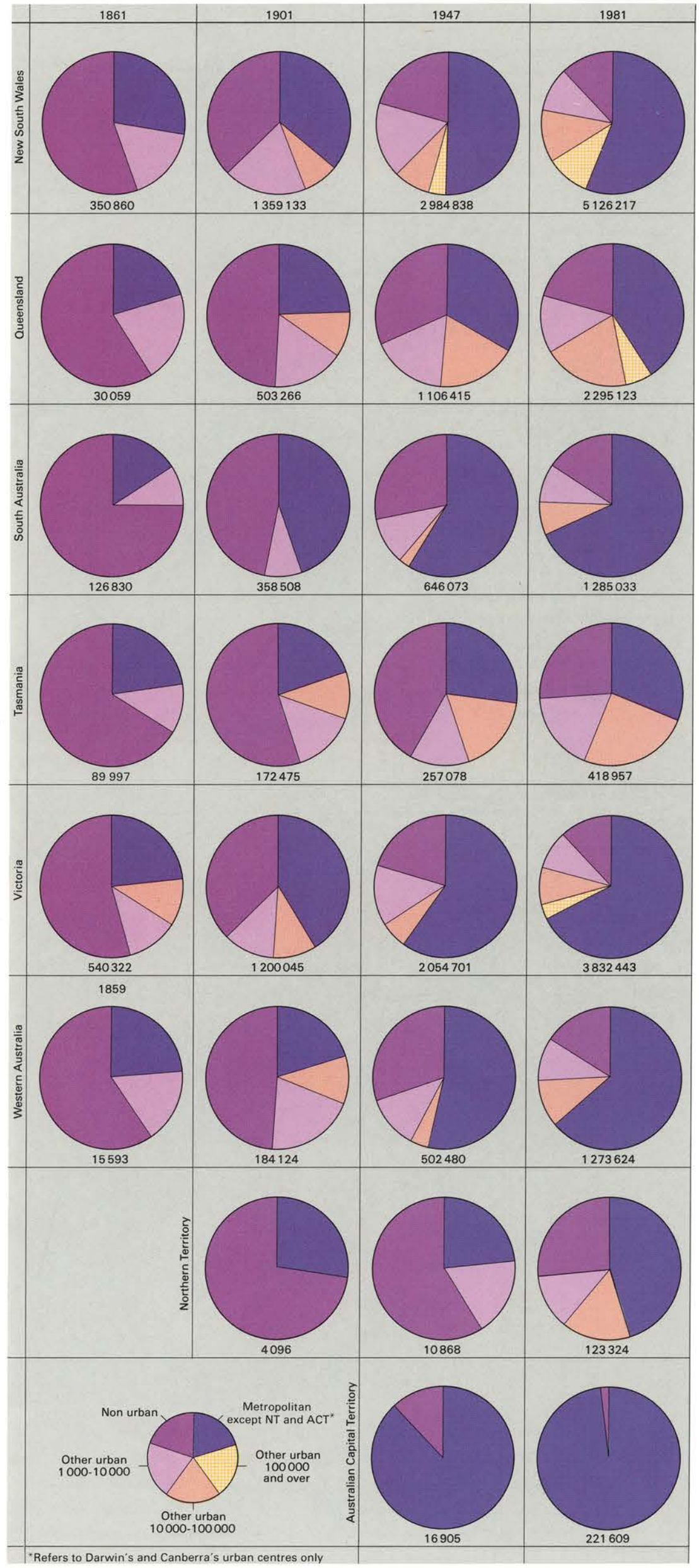
From the 1950s changed economic and social conditions in Australia brought significant changes in urban patterns. Metropolitan centres became more closely locked into the international economic system. Owing mainly to natural increase and migration, they continued until the 1970s to increase their shares of the populations of their respective states. With increasing affluence and car ownership, they spread to absorb neighbouring towns.

But their expansion has slowed, and since 1971 the metropolitan percentage of the Australian population has fallen slightly, with a decreasing rate of international immigration and a decline in manufacturing employment.

The most rapidly growing urban centres have been those in the metropolitan corridors of New South Wales, Queensland and Victoria, where cities have grown as offshoots of the metropolitan economies. Mining towns and ports, especially in the north, have also grown quickly, as have towns in coastal areas that attract retired people, tourists and people seeking second homes.

By 1981 more than 85 per cent of the nation's population lived in urban areas, with metropolitan populations accounting for just under 60 per cent.

Urban and non urban populations



*Refers to Darwin's and Canberra's urban centres only

Urban centres 1901

Urban centres 1981

Population

- 1 000-3 000
- 3 000-10 000
- 10 000-30 000
- 30 000-100 000
- 100 000-300 000
- 300 000-1 000 000
- Greater than 1 000 000

Scale 1 : 20 000 000
0 250 500 Kilometres

Scale 1 : 20 000 000

Non-metropolitan urban places

Towns that first reached a population of 1000 by Census years

- by 1861
- 1891
- 1911
- 1933
- 1947
- 1966
- 1981
- Population fallen below 1000 in 1981

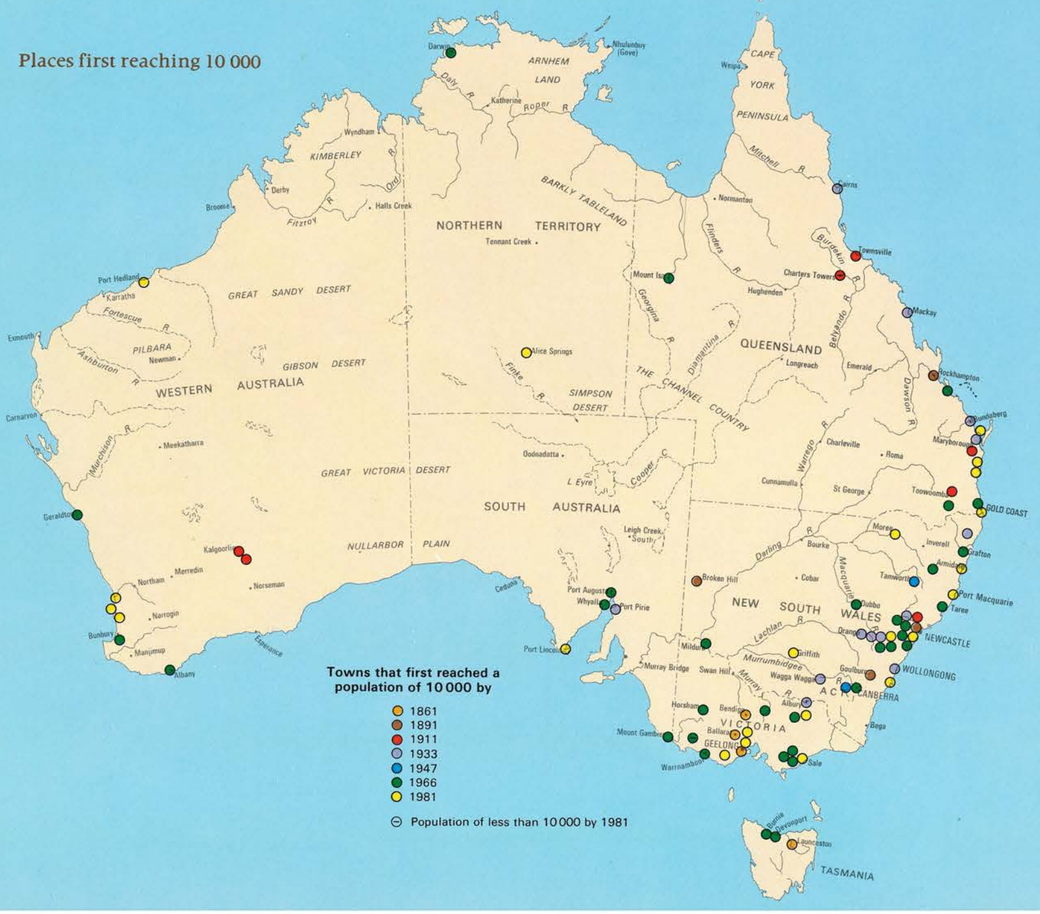
Metropolitan place shown thus

SCALE
1: 5 000 000
Kilometres 100 0 100 200 300 Kilometres

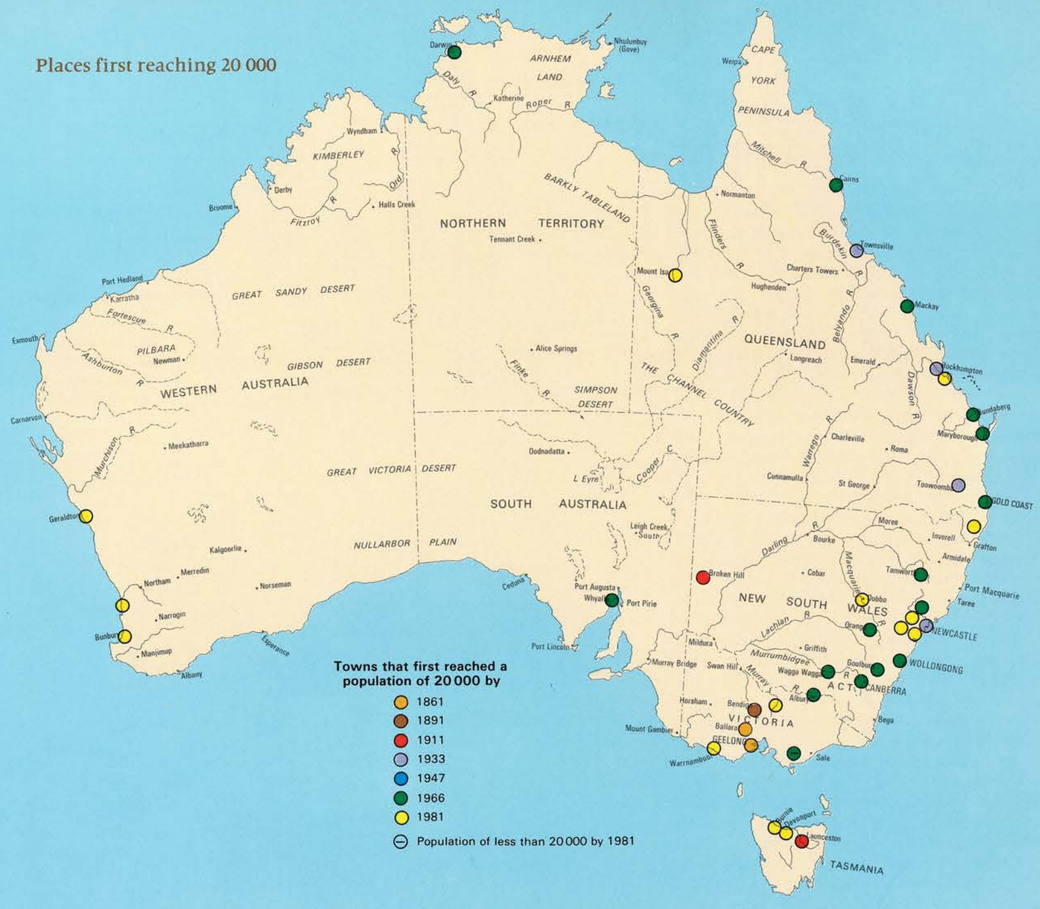
Non-metropolitan urban places

Places first reaching 5000

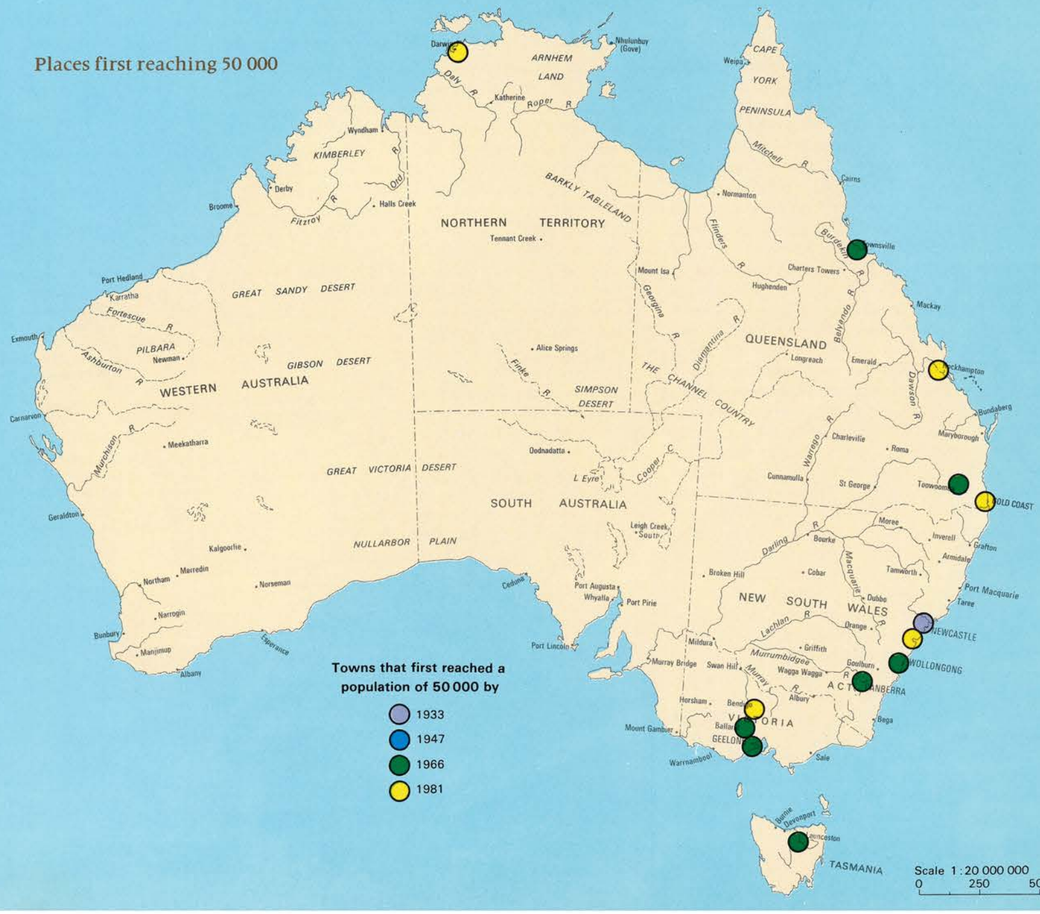
Places first reaching 10 000



Places first reaching 20 000



Places first reaching 50 000



Urban water supply

As long as urban settlements in Australia were small, or were situated in the well-watered coastal areas of the continent, the local stream or rainwater storage tanks were usually adequate to meet the demand for fresh water. But as new towns were established in drier areas and existing towns and local industries grew, demand for water began to outstrip supply and local water sources became polluted. Contaminated water supplies were also responsible for an increase in the incidence of water-borne diseases ranging from diarrhoea to typhoid and cholera. Local supplies often ran dangerously low in times of drought.

To remedy these problems governments began to provide water from sources beyond the urban areas. They built dams to harvest and store water, and constructed reticulated systems to bring the water to the towns. The map of Australia shows the introduction of reticulated water supply systems to towns to 1906. The majority were constructed by local councils. Colonial government involvement was usually restricted to the capitals and large provincial centres such as Bendigo in Victoria and Launceston in Tasmania. After 1906, state governments took a major role in providing smaller towns with reticulated water as part of integrated regional water supply schemes, and by subsidised independent schemes.

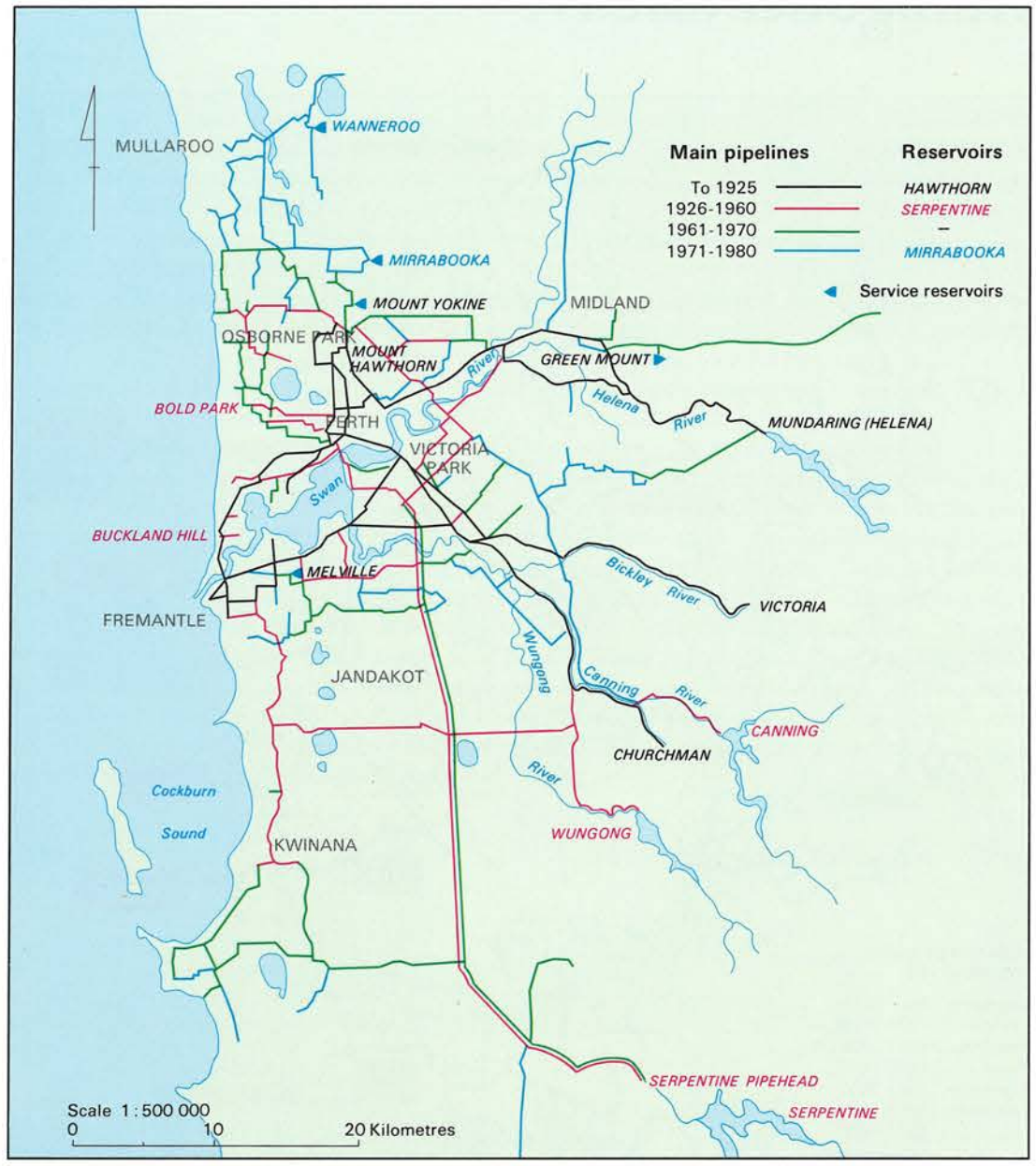
The pattern of the introduction of reticulated water supplies to urban centres outside the capitals varied from colony to colony.

Introduction of reticulated water

- by 1876
- 1877-1886
- 1887-1896
- 1897-1901
- 1902-1906

Scale 1:10 000 000

Perth's supply system



Sydney and Hobart had fairly comprehensive reticulated water supplies by 1850, as did Melbourne and Adelaide a decade later. Brisbane had to wait until the 1870s and Perth until the 1890s. Demand for water in the capital cities increased steadily during the twentieth century. Sewerage, industry, the development of parks and suburban gardens and even the change from the weekly bath to the daily shower increased demand. In response each capital reached further into its hinterland. Sydney, for example, had begun to tap a watershed in the Blue Mountains, some 60 kilometres from the city centre, by the early 1900s. More recently the city has drawn on the Shoalhaven River over 100 kilometres to the south. Melbourne, by 1983, had begun to tap sources in Gippsland, also over 100 kilometres away.

Below.
The Yan Yean reservoir, part of Melbourne's water supply, drawn in the high style of the day by James Waltham Curtis. Wood engraving by F.S. Sleap from J. Thomas, Illustrated Handbook of Victoria, *Melbourne 1886.*
NATIONAL LIBRARY

In Victoria, schemes were introduced earlier and to more urban centres. As late as 1896, more towns in Victoria were supplied with reticulated water than in all other colonies combined. In 1906 towns in Victoria with reticulated water still outnumbered those in any other colony. The first towns supplied were mainly those in goldfield and adjacent districts where a large population was capable of meeting the costs of supplying reticulated water, for example, Bendigo, Ballarat and Wangaratta. Other towns, such as Horsham and Warrnambool, acted as service centres for large regional populations and were capable of providing water for their citizens. And some, like Wycheproof, were able to take advantage of government water schemes established to provide water for livestock or irrigation.

In New South Wales, the provision of reticulated water was uncommon until the period 1897 to 1906 when government loans encouraged the development of local water supply systems in 84 towns. In Queensland, the number of towns supplied with reticulated water grew steadily, especially major regional centres (for example, Townsville, Roma and Warwick). A similar pattern occurred in Tasmania and South Australia.

As in Victoria, the discovery of gold in Western Australia stimulated plans to provide goldfield districts with a reticulated water supply to overcome shortages. In Western Australia, however, the government played a more significant role. It was responsible for the construction of the Goldfields Water Supply scheme, opened in 1903, which piped water 600 kilometres from the Darling Ranges to Kalgoorlie, Coolgardie and adjacent towns.

Perth's water supply

The development of Perth's supply closely followed earlier developments in other capitals: water was harvested from sources at increasing distances from the urban centre. Until the 1890s, the present metropolitan area tapped local sources. Fremantle had established a limited reticulation system using local groundwater by 1890. Perth's first reticulated supply was provided by a private company to about 100 houses from the Victoria Reservoir. In 1896, the government acquired the company and began to extend the system. By 1920, a comprehensive scheme to supply reticulated water to both Perth and Fremantle had been completed. It drew water from the Darling Range in Mundaring, Victoria and Churchman reservoirs on the Helena and Canning river systems, and from groundwater supplies.

As Perth grew, the demand for water rose and by 1960, the Canning and Wungong reservoirs had been built to feed into existing pipelines. A more radical departure was the tapping in 1957 of the Serpentine River, some 50 kilometres southeast of the city. Kwinana, developed as a major industrial centre in the 1950s, was joined to the metropolitan supply system at that time. Since 1970, the Dandalup catchments, 75 kilometres south of Perth, have been tapped. The greatest extension of the reticulation network has taken place since 1960, especially in the outer metropolitan area — Wanneroo in the north and Rockingham in the south.

Perth's reliance on groundwater supplies has declined since 1960 as new catchments have been tapped. Yet Perth still relies on groundwater for about 20 per cent of its supplies. Possible depletion and pollution of these water resources have caused concern in recent years. To meet rising demands, alternatives will have to be found. The challenge of finding new supplies faces all capitals.

Sewerage services

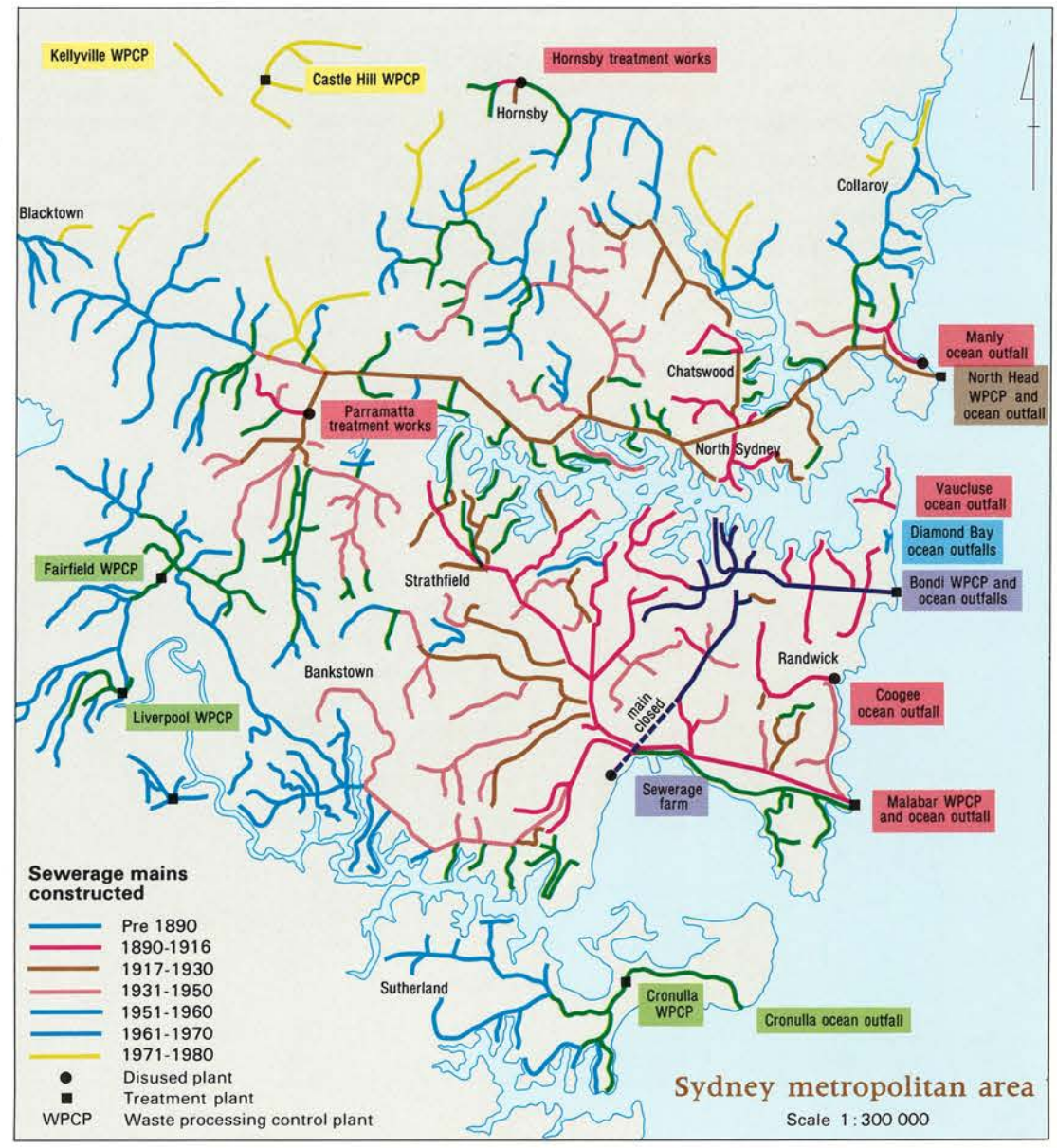
THE SEWERING of urban centres was an important health measure undertaken by local and state governments. Usually the capital cities were the first to be sewered, then the major provincial cities. Unlike the provision of reticulated water supplies, sewerage systems have been established mainly during the twentieth century. Sydney and Victoria provide case studies.

Sewering Sydney

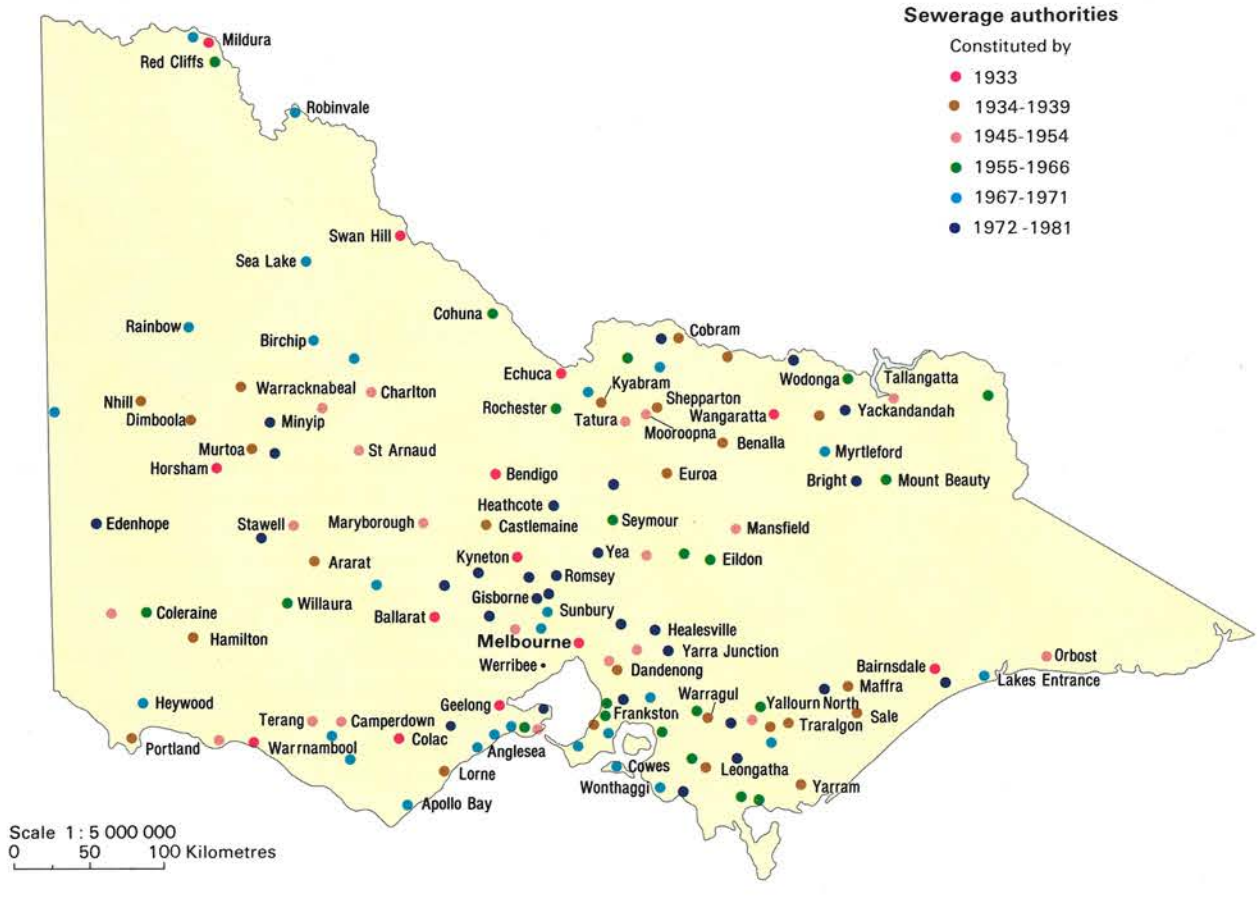
Sydney's first sewerage system, built in the 1850s, consisted of combined sewage and stormwater drains which emptied into the harbour. Working-class residential areas were poorly serviced and the waters of the inner bays of the harbour became heavily polluted.

A separate sewer network was begun during the late 1880s, with an ocean outfall from the city to Bondi through the eastern suburbs, and a second trunk main to a sewage farm on the shores of Botany Bay. The farm was superseded in 1916 by an ocean outfall at Malabar. Smaller ocean outfalls served Vaucluse and Manly, while treatment works at North Sydney, Parramatta and Hornsby served local systems. These treatment works were replaced between 1916 and 1930 by a trunk main from a new ocean outfall near North Head, which allowed additional areas to be sewered. Extensions to Sydney's sewerage system were made during the 1930s as part of various relief schemes, and by 1950 most of Sydney's established suburbs were sewered.

Before 1950 the Metropolitan Water Sewerage and Drainage Board, established in 1924 to co-ordinate sewerage construction, had barely managed to keep pace with suburban development. It lost the battle during the 1950s and 1960s. New suburbs often had to wait a decade or more to be connected to the metropolitan system. In the 1960s new regulations required developers to pay the cost of sewerage reticulation in new subdivisions. This measure, together with a slowing down of Sydney's suburban growth and an infusion of federal government funds in the early 1970s, led to an improved sewerage system in the metropolitan area.



Sewerage in Victoria



Melbourne's sewerage system was developed during the 1890s with the installation of mains, and the construction of a treatment plant at Werribee, southwest of Melbourne. As the city grew, the Melbourne and Metropolitan Board of Works gradually took over the sewerage systems previously administered by local bodies. Apart from Melbourne, Geelong and the Latrobe Valley, which have statutory bodies, Victoria's towns have been provided with sewerage systems by authorities consisting of locally elected members. The map shows by period when these local authorities were gazetted or proclaimed. Often there was a time lag of up to ten years between proclamation and the finished scheme.

Melbourne's railways

BY THE 1860s, the provision of public rail transport services in Australia's capital cities was already a controversial issue. Some argued that rail services should be provided by private companies, others that they should be provided by the state, which had the resources to build an integrated metropolitan system and to provide transport in areas where profits would be marginal. In the 1870s, the argument was resolved in favour of the state. This page examines the developments in Melbourne, one of the earliest and largest systems.

Australia's first steam railway line between Melbourne and Port Melbourne (Sandridge) was opened in 1854 by the Melbourne and Hobson's Bay Railway Company. By 1878 the company had opened lines to St Kilda, Brighton, Hawthorn and Oakleigh and used Flinders Street Station as its terminus. The Victorian government had built lines to Williamstown and Essendon, using Spencer Street Station as its terminus. In 1878 the government took over the Melbourne and Hobson's Bay Railway Company, establishing a monopoly on Melbourne's suburban railway system that continues today. From the 1870s on, major extensions were built to service new residential areas, and by 1885 lines reached Coburg and Broadmeadows and the resort areas of Lilydale, Dandenong and Frankston. By 1890 lines reached Somerton, Reservoir, Heidelberg, Ferntree Gully and Sandringham. Many of the lines built reflected political pressure; candidates who promised a railway line stood a good chance of being elected.

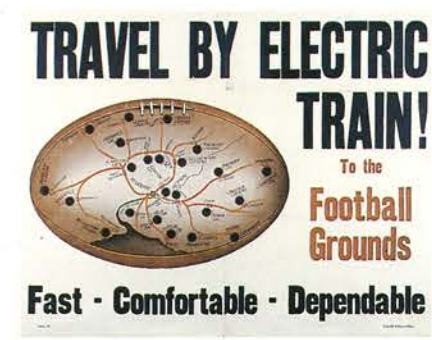
In the late 1880s, two large projects were undertaken. A viaduct was built in 1891 that allowed suburban trains to cross from the network ending in Spencer Street to the network ending in Flinders Street. An Outer and Inner Circle were also begun to enable trains to run between suburbs without having to pass through the city termini. Part of the Outer Circle, between Fairfield and Oakleigh, was opened in 1890 but closed again in 1893. It was dismantled except for the section between East Camberwell and Alamein, which came back into service in 1948 as a branch line. Little of the Inner Circle was built. The circle lines were never financially justified and became victims of the 1890s depression.

The suburban network constructed prior to the 1890s served Melbourne well into the twentieth century with only minor extensions. Electrification began in 1919 with the Broadmeadows to Sandringham line via the city, and all lines had been electrified by 1926. Lines were extended to Craigieburn and Epping to the north and Melbourne's satellite suburbs at Diggers Rest–Sunbury, Melton, Werribee and the Berwick–Pakenham district. The Ferntree Gully–Belgrave line was rebuilt and electrified, and in 1985 an underground loop was completed around the city area via Flinders and Spencer Street stations.

This pattern of rapid development of a suburban rail network in the nineteenth century by the state government, followed by minimal extensions in the twentieth century, occurred in Sydney and, to a much lesser extent, in the other state capitals.

Until well into the twentieth century, railways were considered integral to the progress of a nation or a city. Only pedestrians were stopped at the Gembrook railway crossing, as cars were not common at the time this postcard was produced, c1900.
NATIONAL LIBRARY

The Flinders Street station shunting yards. Postcard c1900.
NATIONAL LIBRARY



A poster calls the Melbourne faithful to football by the electric train network, c1970.
LA TROBE LIBRARY

Tramways

IN 1905 AUSTRALIA had ten urban tramway systems: seven were mainly electric, two (Newcastle and Broken Hill) were steam and one (Melbourne) was a cable system. There were also a number of individual lines in and between towns.

Until well into the second half of the nineteenth century, cities remained essentially 'walking cities'. They were compact and most people, of necessity, lived close to their workplace. Many towns and cities had horse buses as their first effective form of urban transport. However, as fares were dear, this form of public transport remained beyond the reach of most working men and their families. Horse buses nevertheless remained important, in Sydney for example, until the 1890s when they were replaced by the tramways.

Horse trams were widely used in the 1860s and 1870s. They ran mostly on separate and often isolated lines rather than as part of networks. The lines were often provided by suburban land developers to entice people to buy on their estates. Horse-tram lines (which have not been mapped here) were common in many more centres than were the more permanent and more expensive cable and steam tramways.

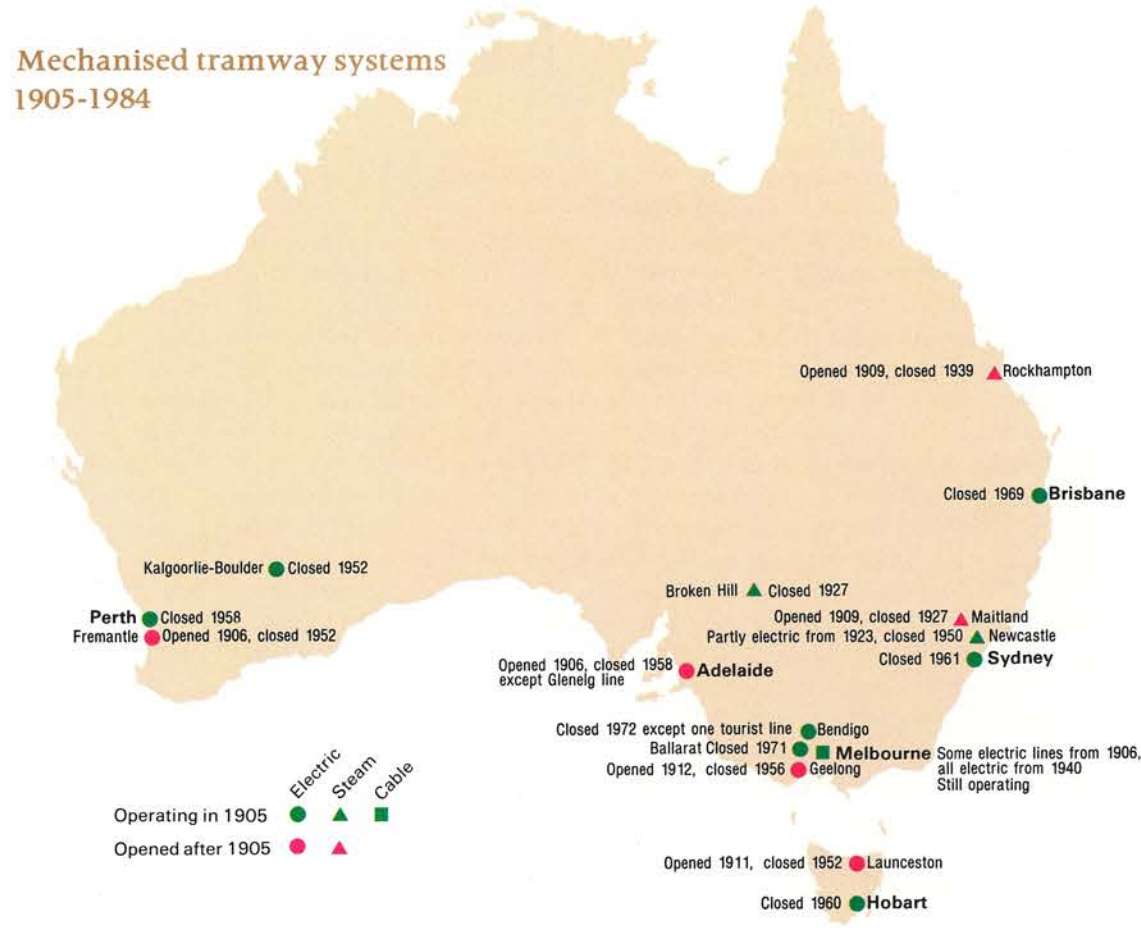
Late last century the application of industrial technology to urban mass transit allowed Australia's largest cities to expand. Public authorities took over most of the early tramways that had been built by private companies and by the 1920s all the major systems were publicly operated. Tramways and suburban railways revolutionised urban life for many and changed the face of urban settlements. Urban expansion occurred mainly in areas within easy reach of a tramline or railway station. New residential subdivisions in suburban areas were served by trams or clustered around stations. Shopping centres were also near stations or along tram routes. Areas between railway lines were often left undeveloped until motor transport dramatically altered the geography of cities.

A single line still operates in Adelaide, another as a tourist attraction in Bendigo. Since 1972 only one tramway network—Melbourne's—has operated in Australia. Melbourne is unique in this country in that its network was built as a cable tram system (1886–92), although new outer suburban extensions from 1906 were electric. The main system was not fully converted to electric traction until 1940. The Melbourne network is now among the largest remaining in the world. Over twenty routes are operated with a total track length of 220 kilometres. The city's faith in its service has been shown over the last decade by the purchase of a large number of modern tram cars and a major extension to the East Burwood route.

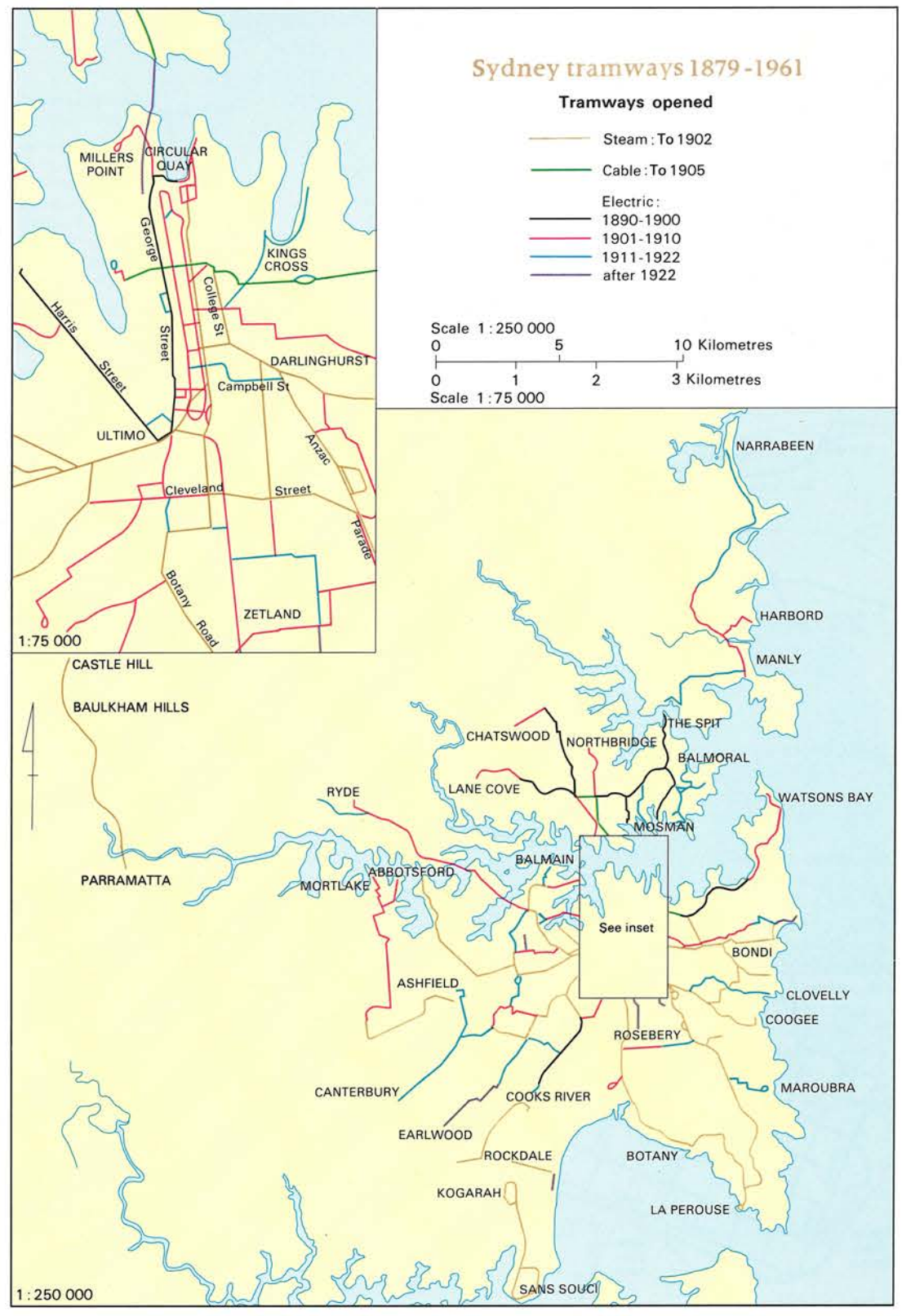
Other Australian tramways closed between the 1920s and the 1970s. Some smaller systems closed early in this period: Maitland and Broken Hill in 1927, Rockhampton in 1939. Most closures were completed in the 1950s and early 1960s. Victoria's two remaining provincial systems, those of Ballarat and Bendigo, operated by the State Electricity Commission, closed in 1971 and 1972. In all cases, authorities were convinced that motor buses were cheaper and more efficient than electric tramways. Another argument frequently used against trams was that they disrupted the ever-increasing motor traffic more than buses because the trams could not pull into the kerb at stops.

Although several European cities have established light-rail transit systems, there seems little prospect that the same will happen in Australia. Apart from Melbourne, all Australian cities seem wedded to buses.

Mechanised tramway systems 1905-1984



Sydney tramways 1879-1961



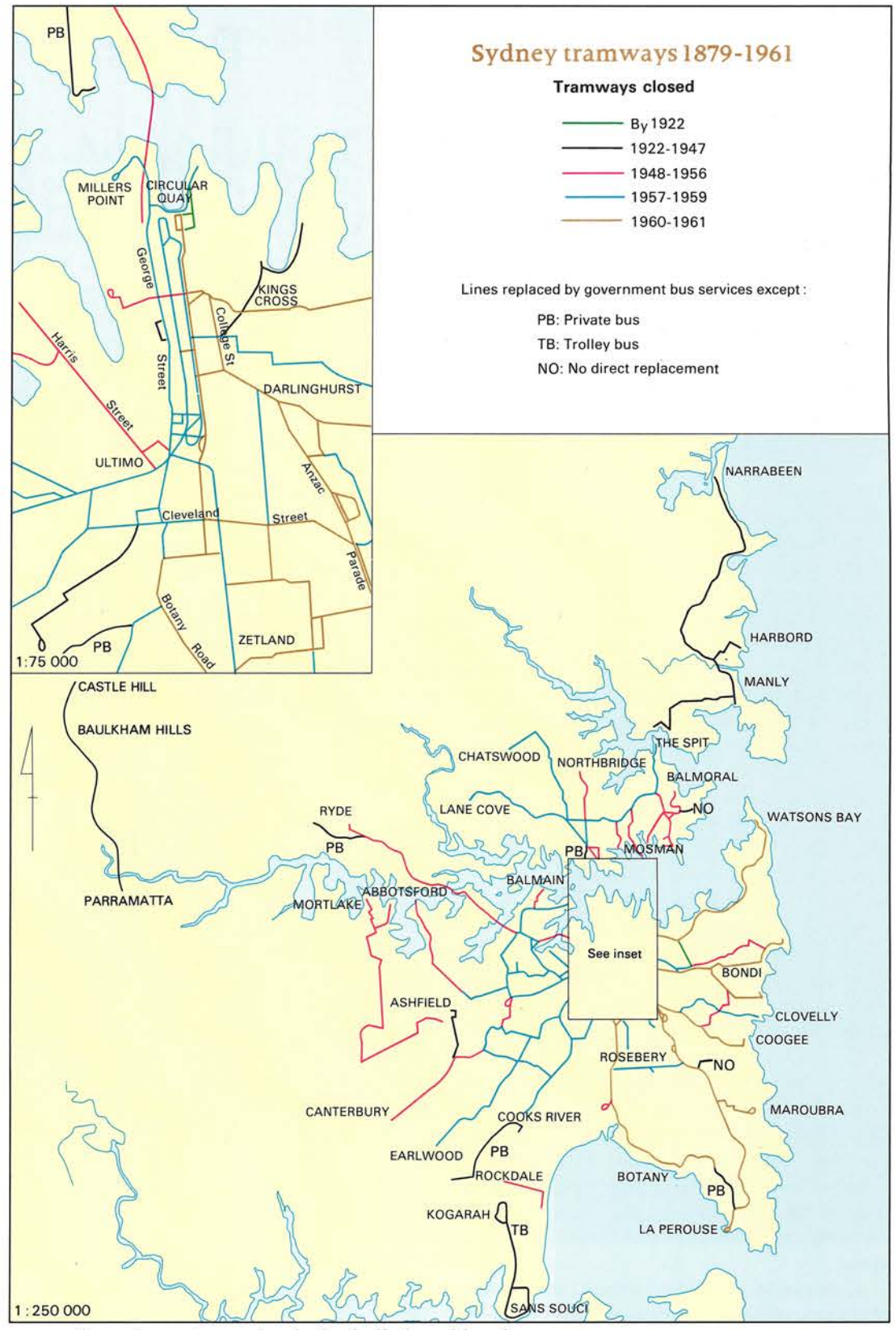
The rise and fall of the Sydney system

Sydney's first flirtation with tramways was a horse-drawn line opened in 1861 to join the main railway station to Circular Quay. It was closed five years later as the rails projected above the roadway, tripping horses and pedestrians. The first steam line was built in 1879 to transport patrons to the International Exhibition in the Garden Palace. By 1900 Sydney was served by a network of tramways, typically powered by steam engines pulling one or more double-deck passenger trailer-cars. Their noise, smoke, sparks and considerable speed terrified horses and provoked comments of disbelief from visitors. Most suburbs south of the harbour were served by this network. During this period Sydney also built two short cable lines, one from the city to Edgecliff, the other from North Sydney to Milsons Point to meet ferries to the city.

After 1893 many new electric routes were opened. By 1903 almost all steam and cable lines had been converted to electric traction using current (after 1899) from a purpose-built power station at Ultimo. Only a small number of isolated lines in outer suburban areas were not converted: the line from Castle Hill to Parramatta continued as a steam service until it was closed in 1926, and the line from Sutherland to Cronulla (south of the area covered by the map) continued as a steam service until its closure in 1932. The Kogarah–Sans Souci line was replaced by trolleybuses. The separate Manly system was operated by steam when it opened in 1903, but was converted to horse trams and then back to steam as patronage levels changed. The system was electrified from 1911.

At its maximum extent in 1933, the Sydney tramway system consisted of a dense network of lines serving most of the urban area, covering most of today's inner and middle-distance suburbs. Most lines of the main system ran directly to the city, although a number in the outer western area connected with railway stations where passengers were expected to transfer to trains. Passengers on the separate Manly system connected with ferries to Circular Quay. Trams served workers, school students and shoppers, and through special services those travelling to sporting events, beaches and festive occasions. People selecting a site for a building, whether residential, commercial or industrial, took account of ease of access to a tramline. The network was, in conjunction with the railways, the circulatory system for the metropolis.

The small Manly system was replaced by motor buses in 1939, starting a process that many saw as inevitable. The process was accelerated after World War II as the city entered an era dominated by motor vehicles. Lines on the North Shore and in the western and southwestern suburbs had all closed by the end of 1959. The remaining lines, all in the eastern suburbs, closed in 1960–61. There were emotional scenes when the last Bondi tram 'shot through' on 25 February 1961.



Above.
Central Square in Sydney served as a major tram and railway terminus, with Central station, opened in 1906, adjoining the tram terminus. Postcard c1910.
MUSEUM OF AUSTRALIA

Left.
The new electric tramway to the Melbourne suburb of Elsternwick, opened in 1913, occasioned much excitement. Postcard 1913.
MUSEUM OF AUSTRALIA

Parks

PRACTICE AND FASHION in Australian urban planning have varied greatly over the past 200 years. Street patterns in newer parts of the cities, for example, do not follow the grid system popular in the nineteenth century. But urban planning involves much more than simply laying out a town. It also involves designating landuse, creating transport networks and providing facilities for town residents. This page examines one such facility, open spaces or parklands. Adelaide is taken as an example of changing attitudes to areas of open space in Australian towns.

Land was specifically reserved for public use in all the capital cities. Its uses ranged from sports grounds to botanic gardens, from public buildings to public utilities such as railways, and from zoos to public parks. The amount of land reserved for open space in newly developing areas, however, varied over the decades as the attitudes of Australia's urban planners changed.

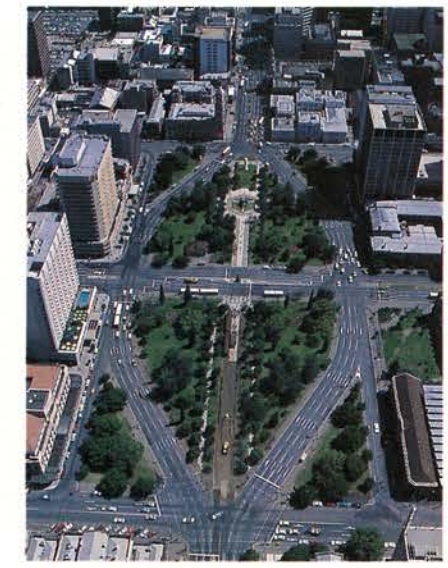
The responsibility for siting and surveying towns lay with colonial governments. The first surveys were generous in their allowance for open spaces, particularly in the capital cities. Inner Adelaide serves well as an example. Colonel William Light laid out Adelaide in great detail when he selected the site in 1836. A settlement was to be built on either side of the Torrens River on a grid system. Small parks were created in both Adelaide and North Adelaide. Surrounding both settlements, separating them from future suburbs, was a broad belt of open space, or parkland, reserved for public use. Initially, the parklands were used as commons, but over the years the public found other uses for them. These have included recreation (for example, the Adelaide Cricket Ground, a race track and playing fields), education (schools and the University of Adelaide), a zoo, a botanic garden, a cemetery, police stations and a hospital. Transport has also made demands on the space for a railway line and station and a bus depot. Basically, the belt of parkland that Colonel Light set aside in his plan has remained intact, although only about one-half is now public open space.

Colonial governments took little interest in the planning of suburbs beyond the inner city areas. Planning controls were virtually non-existent, and the provision of facilities such as parks was left to local governments. But these lacked the power to reserve large areas for parklands, and frequently they had neither the political will nor the finances nesessary to establish large parks. The suburbs surrounding inner Adelaide are typical of nineteenth-century suburban development. Population density was higher than in the city, and the street pattern was also denser. Open spaces were not considered to be an integral part of the suburban landscape. The provision of parks between suburbs varied according to the socioeconomic status of the suburb. Suburbs to the northeast and the west were seen to be superior areas, and had more parks than the southern and northwestern suburbs, which were mostly occupied by the working class. But compared with Light's broad belt of parkland, parks in the suburbs were few and smaller in size.

After World War II, the provision of open spaces, and recreational areas in particular, became important once more to urban planners. Interest in open spaces in cities reflected a new respect for urban planning and the increasing affluence of Australians during the 1950s and 1960s. State governments took a more active role, monitoring and regulating local planning. Elizabeth, now an outer suburb to the north of Adelaide, is an example of a well-planned postwar urban development. It was built as a satellite town by the South Australian Housing Trust in the 1950s and 1960s. The map shows that a greater proportion of land was given over to open spaces than in Adelaide's inner suburbs. The open spaces are also carefully placed, and evenly distributed throughout the area.

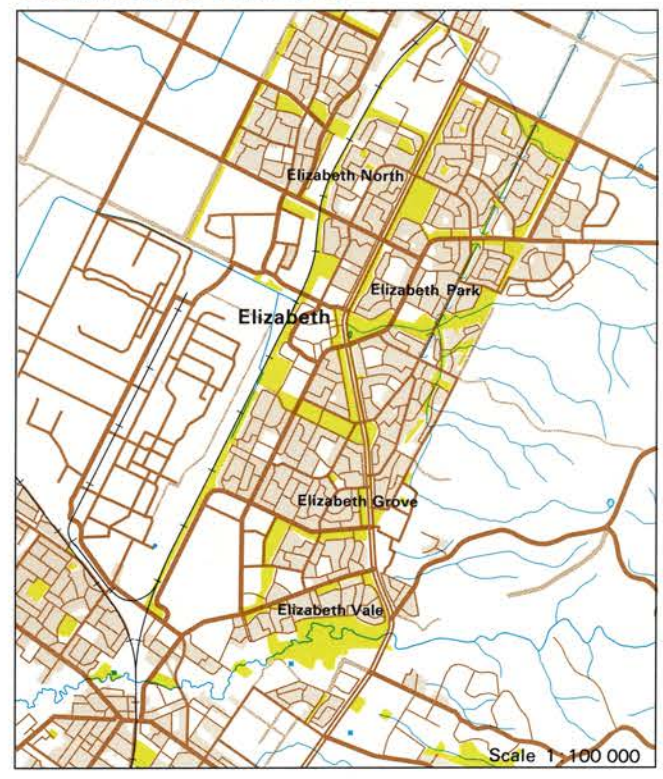
Elizabeth's plan also reflects other changes in attitudes towards urban planning. Main roads within the town feed traffic onto the major road link with Adelaide, and the plan of residential streets discourages through traffic. This hierarchy of roads and protection of residential areas is seen in the street pattern to the west.

The provision of parks in Adelaide is not unique in the history of Australian urbanisation. There are large areas of open space in central Sydney, Melbourne, Perth and to a lesser extent Hobart, Brisbane and Darwin. These cities also share Adelaide's relatively parkless nineteenth-century suburbs, and postwar urban developments like Elizabeth, designed to increase the area of open space available and to shield from traffic noise and pollution.



Some of Adelaide's parklands are now small oases in the midst of heavy city traffic. This one, in the centre of the city, was photographed in 1985. Photograph by Leo Meier.
WELDON TRANNIES

Parklands of Elizabeth



Botanic gardens established in the nineteenth century, like these in Adelaide, were models of Victorian symmetry.

Etching c1890.
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Postcard c1900.
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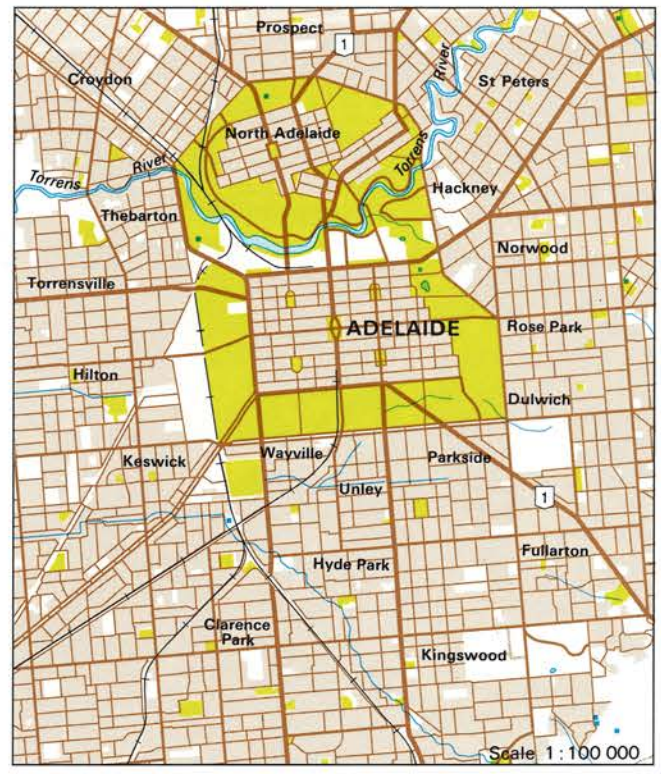
Parklands of inner Adelaide



Parks and open space
Residential and commercial landuse
Other landuse