The northern region



HIS REGION INCLUDES three disparate strips of coastline. All were mapped by Matthew Flinders in 1802 during his survey of sections of the southern Australian coast until then largely unknown. From the head of Spencer Gulf he named Mount Brown and Mount Arden in a 'rugged chain of mountains' subsequently named the Flinders Ranges.

The first European to penetrate the region was Edward Eyre who, in 1840, followed the Flinders highlands inland, keeping mainly to the marginal western plain. He named Lake Torrens and Mount Deception and pushed beyond as far as Lake Eyre South which he mistook for a continuation of Lake Torrens. Returning to the ranges he scaled and named Mount Serle, observed salt encrusted Lake Frome to the east, and finally saw Lake Blanche and Lake Callabonna beyond the ranges. Mistakenly convinced that all these lakes were parts of a continuous, impassable, horseshoe-shaped Lake Torrens, he turned back.

His assumption bedevilled inland exploration for the next 18 years. In 1843 Surveyor-General E.C. Frome followed the eastern flank of the Flinders as far as Mount McKinlay: like Eyre, he reported most unfavourably on the country traversed. Charles Sturt (1844–45) travelled well to the east to outflank the 'horseshoe' and penetrated South Australia from the Barrier and Grey ranges in New South Wales. He named Cooper Creek and advanced into the gibber strewn wastes and sandhill country beyond from which he was forced to recoil. John Horrocks (1846) set out to outflank the 'horseshoe' to the northwest, but his expedition was cut short when he accidentally shot and killed himself while mounting his camel.

The Flinders Ranges were left largely to the pioneer pastoralists to explore and by 1851 they had established unfenced runs based on springs as far north as Wilpena and Aroona. Tragic conflicts arose between the pastoralists and the Aborigines: one outcome was the establishment of a police station in 1856 at Angepena in the northern Flinders.

The earliest towns were Clare (1842) and Burra (1846), the latter developing around its great copper mine. Port Wakefield (1850) was laid out primarily to serve the Burra mine. But pastoral settlement in the Flinders soon required a port at the head of Spencer Gulf and Port Augusta was laid out in 1854. By 1857 practically all suitable grazing land in the Flinders was occupied. Stock water provided by wells, dams and bores then permitted pastoral

expansion over the more arid, saltbush-covered plains, marginal and beyond.

In March 1858 B.H. Babbage left **Port Augusta** as the leader of a well-equipped government expedition to penetrate the interior west of Lake Torrens. He was soon overtaken by John McDouall Stuart, a surveyor who had accompanied Sturt in 1844–45. Sponsored by William Finke and James Chambers, whose runs he had been engaged to survey in the Flinders, Stuart set out lightly equipped with two men and five horses. He travelled far beyond Babbage to the northwest before turning south to reach the coast at Streaky Bay. In the meantime the government, impatient with Babbage's progress, sent Major Peter Warburton to succeed him. Warburton caught up with Babbage in the middle of the land bridge between Lake Torrens and Lake Eyre through which the new leader returned. Also in 1858 A.C. Gregory, in search of traces of Leichhardt, followed Cooper Creek into South Australia and, turning southwards, passed through the 'horseshoe' between the lakes later named Blanche and Callabonna. Stuart was quick to exploit the breakthrough and on his

third attempt he finally succeeded in crossing the continent, returning in December 1862.

Pastoral expansion extended steadily inland west of Lake Eyre and to the east along and beyond Cooper Creek until halted by the great drought of the mid-1860s. The line drawn by Surveyor-General G.W. Goyder in 1865 to define the southern limits of the devastated country later became used by some to delimit the areas available for reasonable expansion of agriculture. Pastoral leases at lower rentals and a run of favourable seasons encouraged further expansion, while the Strangways Act of 1869, which made land for agriculture available on credit, initiated a great northward wheat drive beyond Goyder's Line until the dry 1880s. Many towns were established and more than a few disappeared.

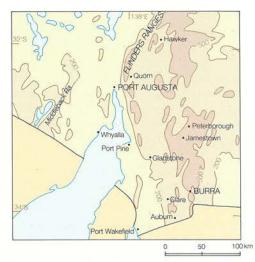
From Port Pirie, laid out in 1871, a railway was begun to tap the new wheat bowl. Following the discovery of silver, lead and zinc at Broken Hill, this line was extended to the New South Wales border to rail ore to Port Pirie for smelting. The finding of numerous copper deposits in the Flinders Ranges raised never-realized hopes of another Burra. Mining promoters early pressed for a railway north from Port Augusta, but the record 1875–76 harvest of the wheat farmers who had advanced beyond Goyder's Line brought construction from 1878. The narrow-gauge line reached Farina in 1882, Marree (Hergott Springs) in 1884 and Oodnadatta in 1891 from where in 1929 it was extended by the commonwealth government to Alice Springs. This railway ceased to operate beyond Marree in 1980 when the new standard-gauge line from Tarcoola to Alice Springs was opened. Tarcoola is also on the route of the east-west line between Port Augusta and Kalgoorlie completed in 1917.

Minerals have also been important in the region's recent history. Coal, discovered at Leigh Creek in 1888, has been mined by open-cut methods since World War II. Railed to Port Augusta, it is used there to generate 20 per cent of the state's electricity needs, while natural gas piped to Adelaide from the Moomba-Gidgealpa field since 1969 generates the other 80 per cent. A second pipeline was laid in 1982 to convey hydrocarbon liquids to Port Bonython (see Whyalla), where a 2.4-km jetty has been built. Whyalla arose as a small port when the Broken Hill Proprietary Co laid a private railway from Iron Knob (see Middleback Ranges), but its fortunes have fluctuated with those of the iron and steel and shipbuilding industries. Other mineral wealth of the region includes talc and barite, mined since the 1940s in the Flinders Ranges, and opals, chiefly at Coober Pedy. The vast copper, uranium, and gold deposit discovered on Roxby Downs station in 1976 has enormous potential. Woomera, laid out in 1947 for personnel involved in weapons testing, had a population exceeding 5000 in the 1960s, but a restriction on operations has now reduced the number to below 2000. British atomic weapons were exploded in the 1950s at two testing sites further west, Maralinga and Emu. Aborigines from a large prohibited area were removed south to Yalata (see Ooldea) in 1952 where they have suffered severe social consequences. In 1984 the commonwealth government initiated a royal commission to inquire into the tests and to make an official assessment of physical effects suffered by white personnel and Aborigines in the area at the time.

Except for a very limited area of good agricultural land immediately north of St Vincent Gulf, the vast area of this region, some 85 per cent of the state, is predominantly arid country, of which more than half is held as pastoral leases and one-quarter remains unoccupied crown land. Pitjantjatjara lands include 102 630 sq km in the northwestern corner of the state and, after the granting of the Maralinga lands of 76 000 sq km in 1985, about 18 per cent of South Australia was under Aboriginal control.

Hans Mincham

SUGGESTED READING







AUBURN

[34°02'S 138°42'E]

Popn: 423 (1881), 142 (1901), 624 (1911), 262 (1971), 304 (1981). On busy road to copper mines at Burra from Port Wakefield; settled by Europeans c1849 as private township. Growth in the 1850s. Courthouse and police station (RNE) built c1859, now Nat T museum. Post office built 1861–74. Methodist church (RNE) opened in 1861; St John's Anglican church (RNE) consecrated in 1863. Old telegraph station (now a hotel) received first messages sent by Charles Todd (SA postmaster-general) on Overland Telegraph in 1872. Poet C.J. Dennis born here in 1876. Central conservation area listed on RNE.

BELTANA [30°48′S 138°25′E]

Popn: 391 (1881), 195 (1891), 68 (1954). Rlwy station named in 1882 after run estab in the 1860s: Aborig = 'place of running water'. Mt Deception climbed by Edward Eyre in 1840. Runs in district surveyed for pastoralists in 1855 by John McDouall Stuart. Thomas Elder estab Beltana station in the 1860s by combining earlier Puttapa and Mt Deception runs: homestead RNE. Aust's first camel breeding farm estab here by Elder in 1866, provided animals for Overland Telegraph (1870s) and central Aust rlwy (1880s). Township gazetted in 1873; grew to serve Sliding Rock-Cadnia copper mine in the early 1870s. Temporary telegraph station, first repeater station north of Port Augusta on Overland Telegraph, opened in 1872; more permanent stone station built in 1875. Police station built and rlwy opened in 1881. Rev John Flynn began his missionary work here in 1911-12 at the Smith-of-Dunesk mission opened in 1895. Hospital opened in 1919. Became less important after establishment of Leigh Creek township and when new rlwy built to west, rlwy here closed in 1957. Township declared a historic reserve. Ediacara district to west had silver-lead mines and smelter, closed by 1900: fossil of 600m-yr-old jellyfish and other primitive marine life found in Ediacara Range in 1946. Large zinc deposit being quarried in area in the 1970s. Beltana Historic Reserve listed on RNE.

BLINMAN

[31°05′S 138°42′E]

Popn: 172(1881), 237(1891), 66(1961). Named after Thomas Blinman who discov copper here in 1859. Copper mining centre 1862–1907, four smelters constructed, finally abandoned in 1918. Township estab in 1864; Blinman North, closer to mines, in 1867: latter became main town and popn reached approx 1000. Mine manager's cottage (RNE) built in c1862 remains. Blinman North Hotel built in 1869. Police station built in 1874.

BURRA [33°40′S 138°57′E]

Popn: 4347 (1861), 1994 (1901), 177 (1911), 1725 (1933), 1222 (1981) Name: Hindustani burra burra = 'great, great'. Copper discov by shepherds in 1845, Burra mine opened later that yr. Bon Accord mine (RNE) opened in 1846, closed in 1866. Kooringa, Aust's first company town, laid out by SA Mining Assoc in 1846 with small terraces of miners' cottages and company run hotels. Govt town of Redruth estab in 1849 as alternative, became a 'little Cornwall'. Popn of approx 5000 in the 1840s, largest SA town outside Adelaide by 1851. By 1870, seven settlements collectively known as 'the Burra': the other five govt townships were Burra



The town of Burra in 1981. WELDON TRANNIES

North, Aberdeen, Copperhouse, Hampton and Llwchyr. Smelting works estab in 1849. Almost £5m worth of copper extracted from Burra Burra mine before it closed in 1877. Over 1500 people lived in dugouts along creek during boom rather than pay company rent; most destroyed by floods in the 1850s, two remaining now Nat T and RNE. Miners Arms Hotel opened in 1847. Paxton Sq cottages (RNE) built in 1849-50 — terrace of 33 two-roomed cottages built for Cornish miners, being restored by Nat T. Old post and telegraph office (RNE) built in 1860. Burra Burra mine remains (RNE) include restored 1847 powder magazine (oldest mining building in Aust), pumphouses, mine shafts. Redruth gaol (RNE, Nat T) built in 1856. Burra North courthouse opened in 1857. John McDouall Stuart ended his north-south expedition here in 1862 and telegraph message sent to Adelaide. Princess Royal homestead (RNE, Nat T) built in 1864. Rlwy opened in 1870. Mining ceased in 1877, from when town became agric service centre. Some extraction of cupric oxide from remaining lowgrade ores since 1972.

CLARE [33°48′S 138°40′E]

Popn: 1004(1871), 1132(1876), 788(1901), 1221(1911), 2381 (1981). Named after county of Ireland. Known earlier as the Twins, Inchiquin or Gleeson's Village; became Clare Village or Clareville in 1846. Town site settled in 1842 by Edward Gleeson; Inchiquin homestead begun in 1842 for Gleeson. Sheep runs estab and Silesian settlers arrived in the 1840s. St Michael's Church built 1847-49. First vines planted by Gleeson, larger vineyard by Jesuits in 1851. Prospered with trade to Burra, then with Walleroo and Kadina. First town hall built in the 1840s. Wolta Wolta homestead built for pioneer pastoralist John Hope in 1846 on merino stud estab in 1841. Police station and courthouse built in 1850, now museum (RNE, Nat T). Sevenhill College estab in 1856, closed in 1886-87. Grew as wheat frontier pushed north in the 1870s, but suffered when bypassed by rlwys in the 1880s. First SA indoor swimming pool outside Adelaide opened here in 1882. Stanley Wine Co estab in 1894, Wendouree Cellars in 1895. Butter factory opened in 1894; first apples from local orchards exported in 1895. Rlwy opened in 1918. Clarevale co-operative winery estab in 1928. More than 30 buildings in Clare listed by Nat T. Martindale Hall to east (Nat T, RNE) built in 1879.

COOBER PEDY [29°00'S 134°47'E]

Popn: 66 (1933), 2078 (1981). Name: Aborig = 'white man's hole in ground', referring to dugout houses. Poor quality opals mined in 1911, better-quality stones discov and town estab in 1915. 'Olympic Australia', possibly largest opal ever mined in world, found in 1956. Mt Clarence station resumed by govt in the 1950s for Aborig reserve. Town proclaimed in 1960, local govt estab in 1981. First reticulated water followed \$2.8m desalination plant opened in 1985.

FLINDERS RANGES [32°07′S 138°52′E]

Named after Matthew Flinders who first saw range in 1802. Edward Eyre explored northern ranges in 1840. Punitive police expedition against Aborigs found traces of copper near Mt Remarkable in 1846; pastoralists in the Melrose district by 1845. Copper also discov and mined in Beltana and Blinman district from the 1860s. Most of central ranges taken up by pastoralists by 1851. Northern ranges surveyed 1857-59. Wilpena Pound reached in 1850, homestead built within Pound in 1904, farm abandoned when flood destroyed road in 1914. Wilpena mine worked for silver and lead approx 1870-1900. Wilpena Pound area became forest reserve in 1921: development for tourism began in 1947 after forerunner of Nat Pk formed in 1945. Northern Oraparinna section was sheep station from 1851 until purchased by govt in 1970. Two sections of Nat Pk amalgamated in 1972. Oraparinna barytes mine (outside park) has operated from 1940. Aborig ochre mines (RNE) at Bookartoo and Parachilna. Appealina homestead built in 1851; this was among the many stations abandoned in 1865 because of devastating drought. Copper mined on property 1858-60, then 1896-1911. Angorichina estab as sanitorium in 1927, became a tourist resort in 1973.

GLADSTONE

[33°16′S 138°22′E]

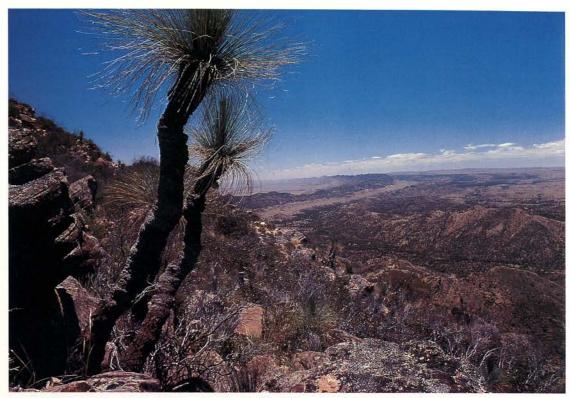
Popn: 729 (1881), 609 (1891), 840 (1911), 1063 (1961), 680 (1981). Named after British prime minister W.E. Gladstone. Township laid out in 1871. Important rlwy junction where 3 gauges meet: first line from Port Pirie opened in 1876 (extended to Broken Hill by 1888); broad-gauge line from Blyth opened in 1894; standard-gauge line from Broken Hill in 1969. Former maximum security gaol and military internment camp built in 1881, closed in 1975, now restored as craft market. Booyoolee homestead (RNE) begun c1845: in c1870 first bully beef packed into cans here for Overland Telegraph provisions.

HAWKER [31°53′S 138°27′E]

Popn: 142 (1881), 466 (1933), 538 (1961), 291 (1966), 431 (1971), 351 (1981). Named after G.C. Hawker, SA pioneer and govt minister. Earlier settlement at Wonoka was coaching stop, but abandoned after rlwy built to Hawker in 1880: station (Nat T) built then. Surveyed in 1880 and town lots sold: seen as centre of large wheat growing area, but soon defeated by severe droughts. Royal Hotel opened in 1882. Main rlwy relocated to west in 1956, but ran to Quorn until 1970. At Willow Waters ruins of properties abandoned in the 1890s. Kanyaka homestead (RNE) built in 1851 to south has ruins of station that once covered 984 sq km and supported 70 families. Gordon, Wilson and Cradock are other former agric towns in district now in ruins.

JAMESTOWN [33°11'S 138°38' E]

Popn: 995 (1881), 630 (1911), 1489 (1954), 1282 (1966), 1384 (1981). Named after either James Ferguson, early settler, or James Fergusson, SA gov. Bundalier run, including town site, taken up in 1843, then most northerly in SA. Town laid out in 1871, proclaimed in 1878. Rlwy station (Nat T) built in 1878 when line opened, replaced when standard-gauge rlwy opened



View north from Tanderra Saddle, Wilpena Pound, in the Flinders Ranges.

WELDON TRANNIES

in 1969. Has become centre for major wheat-growing district.

LAKE EYRE [28°26'S 137°17'E]

Named after Edward Eyre by surveyor G.W. Goyder in 1860. Eyre discov Lake Eyre South in 1840, concluded it was continuation of Lake Torrens. B.H. Babbage and Peter Warburton crossed between the two in 1858, disproving theory; Goyder mapped area between two lakes in 1860. Northern end of Lake Eyre North explored by Warburton in 1866; most of shore mapped by J.W. Lewis in 1874-75. Aerial surveys conducted by Madigan in 1922 and 1929. Lake filled after unusually heavy rains in 1949-50, the first time this had been known to happen. Donald Campbell broke land speed record on salt crust in 1964, reaching 649 km/h in Bluebird II. He was based at Muloorina to east of Lake Eyre South: estab as sheep station in 1882, closed in 1902; govt camel station 1919-29 then re-estab as sheep station in 1938 by Elliot Price and run by a company since 1973. Lake filled for second time in recorded history in 1974.

LEIGH CREEK [30°15′S 138°20′E]

Popn: 155 (1911),1635 (1981). Named after Harry Leigh, head stockman for local pastoralist. Rlwy station opened in 1881. First SA coal discov here in 1888, small quantities mined in 1907. Open-cut mine begun in 1944, largely as response to industrial disputes and hence uncertain supplies from other states. Now

supplies nearly 2m tonnes of coal a yr for power stations at Port Augusta. New standard-gauge rlwy built in 1956 to replace old northern rlwy opened in 1882. Earlier settlement of Copley to south estab in 1891. Aroona Reservoir built in 1955 to supply mine and town. New Electricity Trust town of Leigh Creek South begun in 1977, opened in 1981, as old town situated on coal deposits.

MIDDLEBACK RANGE [33°17'S 136°56'E]

Mining rights to Iron Knob acquired by Broken Hill Proprietary Co in 1897. Township of Iron Knob estab in 1901 when mine opened as source of flux for Port Pirie lead smelter and tramway built to Whyalla. Mine much extended when iron ore needed for Newcastle (NSW) works in 1915; worked until 1939. Further open-cut iron ore mines since developed at Iron Monarch and Iron Prince, with Iron Baron as township for latter. Over 60m tonnes extracted from group of mines to supply works at Whyalla and in eastern states.

MOOMBA-GIDGEALPA

[28°08'S 140°16'E]

Santos Ltd formed in 1954 to explore Cooper Basin. Natural gas discov in Gidgealpa field in 1963: since then many other wells in Cooper Basin have recorded significant flows of gas and oil, including wells on Moomba field in 1965. Pipeline from Moomba to Adelaide opened in 1969, that to Sydney in 1976.

Liquids pipeline with 80 000 barrels per day capacity opened to Port Bonython near Whyalla in 1984.

OODNADATTA [28°33'S 135°27'E]

Popn: 162 (1891), 95 (1901), 187 (1911), 100 (1933), 229 (1976). Name: Aborig = 'mulga flowers'. Town laid out in 1890. Rlwy from Adelaide opened in 1891 and town served as railhead for Central Aust until line to Alice Springs opened in 1929: line followed route taken by John McDouall Stuart in 1861–62 on southnorth expedition. Govt date farm here in the 1890s. Aust Inland Mission nursing home estab in 1912. Base for Mackay, Bennett and Neale aerial surveys of inland Aust in 1935. United Aborigs Mission home built in 1966. Rlwy closed with opening of new allweather route further west in 1980, town has declined since.

PETERBOROUGH [32°57′S 138°52′E]

Popn: 345 (1881), 2530 (1911), 3473 (1954), 2575 (1981). Originally known as Petersburg after Peter Doecke, first selector of land on which township later estab. Name anglicised during World War I. Rlwy from Adelaide opened in 1881; that from Broken Hill in c1888. Town became an important rlwy junction after competing with Terowie for that function. Municipality incorporated in 1887. Govt gold battery opened in 1897.

PORT AUGUSTA [32°30′S 137°48′E]

Popn: 569(1876), 2075(1881), 855(1911), 3270(1933), 9711 (1961), 15 254 (1981). Named in 1852 after wife of Gov Young. Matthew Flinders anchored near town site in 1802. Edward Eyre in area in 1839, led expedition from here to Lake Eyre area in 1840. Stock drives made from district to Port Lincoln in the 1840s. Village estab in 1852, surveyed 1854–56. First wool shipment to Adelaide in 1854, developed as an important port in the 1860s. Troopers' barracks (RNE) built 1860–82. Former brewery (built 1860–70) now a hotel. Town hall (RNE) built in 1866, yr that first shipment of camels for use in inland arrived at port. Greenbush gaol built in 1869. Town proclaimed in 1875. Rlwy from Adelaide via Quorn opened in 1882. First long distance telephone call in



Ellen Street, Port Pirie, with railway line running down the middle of the thoroughfare.

MAGAZINE PROMOTIONS

Aust made from Semaphore (Adelaide) to Port Augusta in 1878. Courthouse (RNE) built in 1884. Smelters opened in 1901, but closed within 6 mths. Town declined with slump in wool and wheat industries 1895–1903: renewed prosperity with building of trans-continental rlwy 1912–17. Saltworks set up in 1917, closed in the 1930s. Standard-gauge rlwy from Port Pirie opened in 1937. Water supplied by the pipeline from Morgan to Whyalla from 1944. Large power station opened in 1954, supplied with coal from Leigh Creek by new rlwy opened in 1957: second stage opened in 1960. Proclaimed a city in 1963. Last regular shipping service in 1973. New Northern power station under construction in 1984, first stage commissioned in 1985.

PORT PIRIE [33°10′S 138°02′E]

Popn: 1530 (1881), 7968 (1911), 15566 (1966), 14695 (1981). Named after the John Pirie, first vessel to navigate inlet in 1845. Village founded in 1848; original settlement at Solomon Town, now an eastern suburb. Town surveyed in 1871. Grew slowly as minor wool port in the early 1870s, but wheat increased in importance later in decade and port gained ascendency over Port Broughton. Became a municipality in 1876. Rlwy to Gladstone opened in 1876, extended to Jamestown in 1878, linked to Broken Hill in 1888. Broken Hill Proprietary Co began smelting lead in 1889, now largest lead smelters in world; controversy over air pollution 1983-84. Original customs house (built in 1875) and former rlwy station (built in 1901-02, replaced in 1967) now a Nat T museum (both buildings RNE). Gas first produced in 1892. Broadgauge rlwy from Red Hill and standard-gauge line from Port Augusta opened in 1937. Proclaimed a city, second in SA, in 1953. St Mark's Roman Catholic cathedral built in 1953 on site of former building destroyed by fire. First country television station in SA estab here in 1965. Rlwy bogey exchange centre opened in 1965. Conservation area in town centre listed on RNE.

PORT WAKEFIELD [34°09′S 138°10′E]

Popn: 506 (1881), 606 (1911), 429 (1947), 485 (1981). River Wakefield named after Edward Gibbon Wakefield who devised system of colonisation used in early settlement of SA. Earlier known as Port Henry. Harbour seen as port for Burra copper in 1849, township laid out in 1850 as first govt town in north of colony. Copper brought from Burra by mules and bullocks. Police station built in 1858. Horse-drawn tramway built in 1870, extended in 1875, to tap wool and wheat exports of hinterland. Poor harbour and lack of rlwy until 1878 led to decline.

QUORN [32°20′S 138°05′E]

Popn: 540(1881), 1502(1911), 566(1961), 1049(1981). Name shortened from Quorndon, town in Leicestershire, England. District settled by pastoralists in the 1850s. Surveyed in 1878. Quorn Mill (RNE) built in 1878 at height of wheat boom in north of SA, but suffered from recurring drought from 1880. Narrowgauge rlwy through Pichi Richi Pass to north (RNE)

opened in 1879 and town became important rlwy centre: line closed in 1957, then reopened as working museum in 1974. Town proclaimed in 1885 and present town hall built in 1891.

RADIUM HILL [32°21'S 140°38'E]

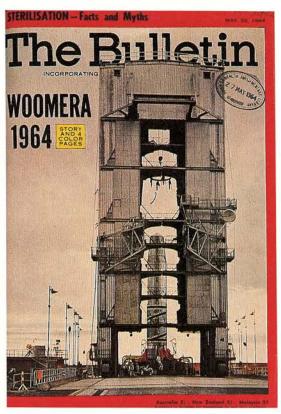
Popn: 867 (1961). Descriptive name. Uranium discov in 1909, worked by **Sydney** company for radium to be used in hospitals. Mine abandoned during World War I, worked again 1923–30. New mine and treatment plant set up after 1952 agreement to sell output to UK and USA. Mine closed in 1961.

ROXBY DOWNS [30°43′S 136°48′E]

One of world's largest mineral deposits discov at Olympic Dam on Roxby Downs station in 1976: said to be worth up to \$60 000m with uranium deposits of approx 500 000 tonnes. Focus of on-site protests against uranium mining in 1983–84, especially when Aust govt gave approval for sale of uranium overseas. Olympic Dam village estab for workforce. Decided in late 1985 to proceed with mine development, but at half scale originally intended. Andamooka to northeast an important opal field since 1930.

WHYALLA [33°02′S 137°35′E]

Popn: 119 (1911), 967 (1933), 7845 (1947), 22121 (1966), 33 426 (1976), 29 962 (1981). Name: Aborig = 'deep water place'. Known as Hummock Hill or Hummocky until 1920. Town officially proclaimed as Whyalla in 1914. Matthew Flinders climbed and named Hummock Hill in 1802. Tramway from Iron Knob (see Middleback Range) opened in 1901, jetty built in 1902 when settlement began. Hall and school opened in 1905. Wharf built to ship Middleback Range iron ore to Newcastle in 1911, further port improvements made in 1914. First blast furnace built in 1938. New wharf and deep water harbour built in 1938–39. Shipyard estab in 1940 to build corvettes for Royal Aust Navy in World War II. Water piped from Murray River at Morgan since 1944. Salt industry began in 1951. Integrated steelworks built from 1958, iron ore pelletising plant commissioned in 1968. Rlwy to Port Augusta opened in 1972. Largest ship ever built in Aust, a bulk carrier of 80 500 tonnes, launched here in 1972. Shipyards closed in 1978 and steelworks operations reduced, leading to extensive unemployment and economic difficulty. Proclaimed a city in 1961. Export terminal for oil and gas from Moomba-Gidgealpa field opened at Port Bonython in 1984.



The 102-tonne Blue Streak missile in its gantry at Woomera. The launch tower rises 40 metres over a scarp on the edge of the saltpans surrounding the dried-up Lake Hart. Bulletin, May 1964.

WOOMERA

[31°11'S 136°51'E]

Popn: 4808 (1961, including Maralinga), 1658 (1981). Name: Aborig = 'throwing stick'. Weapons testing range estab in 1947–48 on part of Aborig reserve. Town built by govt for employees. Rockets first launched for European ELDO space program in 1966. First Aust satellite launched by US rocket in 1967. Open-cut copper mining begun at old Mt Gunson mine to southeast of Woomera in 1982. Maralinga, in western desert, estab in 1955 as base for British nuclear weapons testing there and at Emu to north in 1956–57, although earlier tests had taken place in 1953. Town closed in 1968 and area restored to Aborigs, including radioactive fallout.