Murchison and the eastern goldfields



HE INTERIOR OF WESTERN AUSTRALIA is a vast undulating plain from 300 to 600 m above sea level, with higher ranges few and mainly confined to the periphery. There are no permanent rivers and drainage is either inland to a system of dry salt lakes or via the Murchison and Gascoyne rivers to the Indian Ocean. The region is underlain by ancient granite and greenstone belts, the latter yielding most of the mineral wealth of the area. Younger sedimentary rocks underlie the desert regions to the east and north.

Few Aboriginal dwelling sites are known, for the Aboriginal population in the arid inland area was very small because of the lack of surface water. The Puntutjarpa site in the Western Desert near Warburton Mission, however, was occupied from 20 000 to 5000 years ago, and remains of giant marsupials have been found in early cave dwellings at Balladonia. Aboriginal paintings and an ancient habitation site have been discovered at Walga Rock in the Murchison. The Aborigines of this area had a widespread trading system based on the valuable ochre from Wilgie Mia (see Cue) mined for over a millennium.

The southern coast near modern Esperance was the first part of the region known to Europeans. Dutch explorer Francois Thyssen sailed the coast in 1627; and in 1792 a French expedition under Bruny D'Entrecasteaux named Esperance Bay. More names were added to the coastline on a voyage by Matthew Flinders ten years later and, by the time Edward Eyre made the first European land crossing in 1841, the numerous bays had become the haunt of whalers and sealers. The district was not settled, however, until fears of South Australian interest in establishing sheep runs in the area prompted the Western Australian government to send an overland exploratory party in 1863. Members of the expedition, the Dempster brothers, took up land near Esperance Bay soon afterwards and remained the sole settlers for several years. In 1870 John Forrest crossed the region; and in 1877 Eucla on the edge of the Nullarbor Plain was established as part of the telegraph link with the eastern colonies.

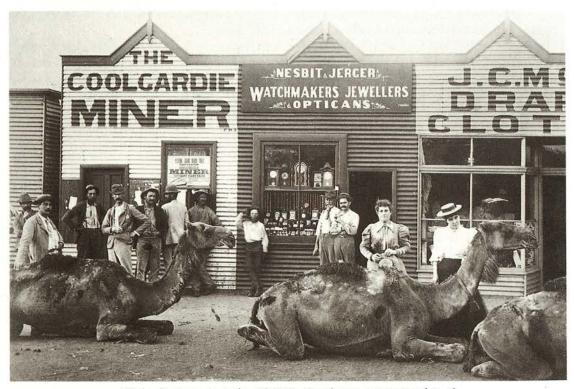
Following European exploration of the district in the 1850s, pioneers such as the Wittenoom brothers began settling the Murchison region in the 1870s, but settlement proceeded very slowly. Good pasture was similarly sought in the Eastern Goldfields region by several exploratory parties in the 1860s. H.M. Lefroy reached the Coolgardie district in 1863, but was dismayed by the lack of water. The following year C. Hunt reached and named the Hampton Plains further to the east and established a track and wells. Subsequently, probably in the late 1870s, a London-based company, Hampton Areas, acquired a number of freehold properties incorporating mineral rights in what was later to become the most active gold and nickel country near Kalgoorlie. But little pastoral activity took place until after the early gold discoveries when the Jones, Lardner and Cable families took up pastoral leases in the Kalgoorlie area in 1903 and the Halford family drove cattle overland from near Tarcoola SA to take up land at Bulong in 1904.

It was the lure of gold which opened the Murchison and Eastern Goldfields in a major way following the discovery of a gold nugget at Mujakine, between Bencubbin and Trayning, in 1887. The first payable gold, found by prospectors at Eenuin and Golden Valley, led to the proclamation of the Yilgarn Goldfield in 1888. Fraser's, the first dividend-paying mine, was founded at Southern Cross, where a canvas town swiftly grew. In 1892 Arthur Bayley and William Ford found the riches of Fly Flat and the Coolgardie rush was on.

Within seven years the new town was an orderly community which could stage an international exhibition for over 75 000 visitors and where a coach and greys were not uncommon among the carts and camels of Bayley Street. On foot or using those poor unsung four-footed pioneers, the diggers travelled out to discover waterholes that they could use as depots from which to prospect further.

The graves of 'those that done a perish' and the memoirs of those lucky to survive Barcoo rot, sandy blight, typhoid, dysentery, dust, flies and thirst, testify to the atrocious living conditions that challenged the diggers. But the gold discoveries went on. In 1893 Paddy Hannan found gold near the site of the present Mount Charlotte mine at **Kalgoorlie** and W.G. Brookman and S. Pearce pegged nearby **Boulder**. Throughout the goldfields, towns sprang up around the mines. As the more accessible surface gold ran out, mining companies moved in. The towns became more substantial with public buildings of stone and improved water supplies, usually from huge desert condensers. On the Murchison Goldfield, declared in 1891, towns also grew around wealthy mines. To the east, prospectors like David Carnegie pressed on into the desert, but conditions were too hard and no significant finds were made. The government sent out parties to map and locate waterholes in the region, but their efforts were, in the opinion of the gold diggers, insufficient.

The miners had come mainly from overseas or from depressed Victoria and, led by articulate men such as journalist F.C.B. Vosper, they demanded better conditions with a freedom of speech and independence of mind liberated from colonial authoritarianism by isolation, mateship and gold. They soon comprised one-third of the colony's population, but lacked political representation, lived without reliable water supplies and dependable communications and were compelled to rely on easily delayed camel trains and expensive carriers for mining machinery and food. Their agitation helped persuade the government to open the railway to Coolgardie in 1896 and to construct the Goldfields Water Supply



Coolgardie street scene in the mid-1890s. Camels were an important form of transport during the gold-rush era. Photograph, c1895.

NATIONAL LIBRARY

pipeline from the **Darling Range** near **Perth** during 1898–1902. These developments physically linked the capital city and the goldfields, fostering a sense of unity. The miners' toil, moreover, earned the goldfields magnates dividends to invest in choice Perth real estate, creating a coastal land boom. Perth's changing skyline and a full treasury were not the only side effects. With political representation for the goldfields came votes for women (in 1899) in order to counteract the large digger vote. Despite conservative attempts to lessen their influence, the miners managed to change the colony's history: through their insistence on a referendum on federation in 1900 they dragged the reluctant coastal colonists with them into the Commonwealth of Australia.

The new water supply bestowed a permanence on **Kalgoorlie** and **Boulder** which, because of its telluride gold deposits, was recognised as the richest gold area in the world. Local technological pioneering made Kalgoorlie an international pacesetter in mining, while good transport and continuing gold recovery shaped it into the service and mining centre and the regional focus it remains today. The resilience of gold prices during the depression meant that the town retained its vitality. Its gradual decline was reversed by the nickel boom in the late 1960s and the high price of gold in the 1970s.

Discovery of the Kambalda nickel deposits by Western Mining in 1966, acting on information and samples collected by prospectors in 1954, led to renewed interest in the region. Intensive exploration over the next five years led to the commercial discoveries at Windarra near Laverton in 1968, prompting the great share market boom, and the Perseverance deposit near Agnew in 1971. The revitalising effect on communities was dramatic: Kalgoorlie benefited greatly; new towns such as Kambalda and Leinster were built; and a new town was constructed around old Laverton. In addition, important zinc, copper and silver deposits were found at Teutonic Bore in 1976.

The gold revival had a sluggish start beginning with Mount Charlotte (**Kalgoorlie**) in 1963, and Telfer, a new deposit discovered in the Great Sandy Desert, in 1971. But it was from 1981–84 that mining gathered momentum when the dramatic rise in gold prices made lower-grade ore and discarded tailings economic to work.

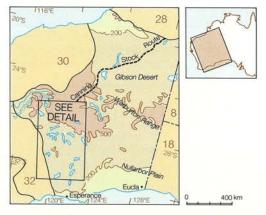
Not all towns were revitalised. Norseman with its continual payable gold, kept going, but Coolgardie was not so fortunate, and when gold mining ceased it eventually shrank to a museum piece for tourists. Other smaller towns changed into travel stopovers or faded away completely. Those towns nearer the wheatbelt abandoned mining: soldier settlement around Bullfinch barely survived the depression but stabilised after the 1950s; and Southern Cross became the centre for a wheat farming area with a large Italian community.

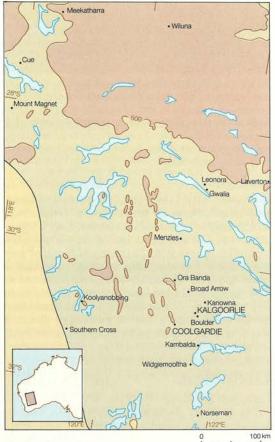
Developments elsewhere have been varied in kind and timing. In the inland Murchison large pastoral properties produce wool and beef, while towards the coast soldier settlements have been established to produce wheat. Goldmining continues at Mount Magnet, and in 1971 substantial deposits of copper, zinc and silver were found at Golden Grove, near Yalgoo. On the south coast, Esperance prospered initially as a port for the diggers, but the town languished when deprived of a rail link to the goldfields until 1927 lest it rob Fremantle of its pre-eminence and benefit South Australian enterprise. The introduction of superphosphate, subterranean clover and American investment in the 1950s led to intensified farming in the hinterland, though cultivation in more marginal areas still proved a struggle. Tourism has become important, too, for the entire region: Esperance with its coastline and the Murchison and Eastern Goldfields with their ghost towns and beautiful seasonal flowers are now well established tourist attractions.

Isolde Martyn

SUGGESTED READING

G. Casey and T. Mayman, The mile that Midas touched, Adelaide 1964. H.H. Wilson, Westward gold!, Adelaide 1973. H.H. Wilson, Gateways to gold, Adelaide 1975.





BOULDER [30°45′S 121°29′E]

Popn: 14585 (1901), 5908 (1933), 6463 (1947), now combined with **Kalgoorlie**. Named after 'the Boulder', SA mine of 1893 discoverers of goldfield. 'Golden Mile' discov later that year by Cammilleri: became richest square mile of gold-bearing country in world (approx 1000 tonnes mined). After Great Boulder find of 1895, 342 companies floated in London. Deeper rich ore deposits discov in 1896. Miners' Union formed in 1896; racing club estab in 1897. Rlwy extended from Kalgoorlie in 1897. Town site surveyed

and proclaimed in 1897, though already well estab. Mining and investment peaked 1897–1903, with renewed activity in the 1930s. Town hall (RNE) built 1907–08. Homes of Italians and Yugoslavs burned in race riots in 1934: state govt compensated victims. Hainault mine of 1895 was one of ten major producers in 1910, closed in 1968, restored and opened to public in 1972.

BROAD ARROW [30°25′S 121°19′E]

Popn: 542 (1901), 134 (1947). Named in 1893 after prospector who left trail of broad arrows to mark track. Also known as Kurawah. First gold lease in 1893. Town became business centre for Broad Arrow Goldfield gazetted in 1896: municipality created in 1897 and named Kurawah. At its peak there were eight hotels, two breweries, a cordial factory, a large hospital, and a stock exchange. Rlwy from Kalgoorlie opened in 1896. Largely deserted by 1925, now ghost town except for one hotel. Brief resurgence in the 1930s. Large alluvial gold lead at nearby Paddington; municipality absorbed by Broad Arrow in 1903. Substantial new gold reserves investigated in the early 1980s and mine opened in 1985.

COOLGARDIE [30°56′S 121°09′E]

Popn: 4920 (1901), 650 (1933), 963 (1947), 891 (1981). Name: Aborig koolgoor-biddie = 'mulga tree in hollow'. Also known as Bayley's Find, Fly Flat, Old Camp, Old Diggings.

Early history District traversed by Lefroy and Landor in 1863; explored 1864–66 by C. Hunt who built wells at base of Gnarlbine Rock in 1866 and did much in the 1860s–80s to establish the existence of water supplies.

Arthur Bayley and William Ford discov Mining alluvial gold at Fly Flat in 1892 leading to rush: by 1898 town had 15 000 people (10 000 more in district), 23 hotels, seven newspapers, two stock exchanges. By 1897 over 700 companies floated in London to mine field. State gold-crushing battery estab 1902-04, but decline had already begun as easily won gold ran out. Second boom in 1930s; slump during World War II; brief post-war revival. Bayley's Reward mine finally closed in 1963. Nickel mine at Nepean main employer in 1979, but closed in 1983. In 1983 there were many small mining operations involving tailings, alluvial and 'hard rock' gold. In early 1984 prospector announced gold discovery perhaps richest in WA for 50 yrs, although doubt cast on its value by later investi-

Municipal history, services Town site laid out and named Coolgardie in 1893; municipality estab in 1894, dissolved in 1921. Largely a tent town in 1893 when telegraph, tent school, first sanitorium in WA estab; post office (RNE) built in 1895. Cobb & Co coaches from Southern Cross until rlwy opened in 1896. Swimming pool opened and first electricity provided in 1896. Early water supply poor: partly to blame for 1000 typhoid deaths 1894–99, serious fires in 1895 and 1897. Much of early supply from huge condensing plants: largest took in 545 500 litres of salt

water and produced 454 600 litres of fresh water daily. Goldfields Water Supply scheme piped water from Mundaring from 1903. Denver City Hotel (RNE) built in 1898; many other 1890s buildings listed on RNE.

Miscellaneous Explorer Ernest Giles died here in 1897, buried in cemetery. Prior's museum of old transport and machinery estab in 1963. Goldfields Exhibition opened in 1968 in Warden's Court building (RNE), largest building in WA outside Perth when built in 1898.

CUE [27°24′S 117°54′E]

Popn: 1327 (1901), 511 (1947), 248 (1966), 320 (1981). Named c1892 after Tom Cue, local prospector who made first gold discov. Typhoid outbreak in 1895. Complex of govt buildings (RNE) erected in 1897. Rlwy from Geraldton opened in 1898. In the 1890s and to 1917, a large quartz reef gave good mining. Popn of approx 10 000 in district in 1900s. Municipality, estab in 1894, merged with that of Day Dawn in 1912. Gold discov at Day Dawn by Tom Wilson in 1892; town for Great Fingal mine estab in 1899, mine closed in 1914, little of town remains. Wilgie Mia ochre mine (RNE) 70 km northwest: natural red ochre mined by Aborigs working extensive underground veins, first discov by Europeans in 1914.



This galvanised iron pub is one of the few buildings that remain in the township of Cue. The town originally served the goldmining population of the early twentieth century, but began to decline after the mine closed in 1914.

AUSTRALIAN PICTURE LIBRARY

ESPERANCE [33°51′S 121°54′E]

Popn: 337(1901), 239(1911), 2677(1966), 6375(1981). Named after French ship driven into bay by bad weather in 1792. Edward Eyre was first overland European explorer of district in 1841; John Forrest passed on his way to Port Augusta in 1870. Dempster brothers settled on large pastoral lease in 1863: homestead (RNE) remains. Overland telegraph opened in 1876. Thriving port for Coolgardie goldfields in the

1890s, but lost trade with opening of rlwy from Perth to Kalgoorlie in 1896. New prosperity after rlwy opened in 1927, but mallee farms in district failed. Esperance Downs Research Station estab in 1949, proved soil could be improved. Trace elements, subterranean clover and American capital led to new farming impetus in the 1950s. Beta carotene extraction and processing plant, using lake algae, under construction 1982–84.

EUCLA [31°43′S 128°54′]

Name: Aborig yer-coloya = 'bright'. Edward Eyre found lifesaving waterhole here on his 1841 expedition. John Forrest passed through on his overland expedition from Perth in 1870. First run in area estab in 1873 at Moopina station. On early trans-Nullarbor track. A manual repeater station was built for the Overland Telegraph in 1877 with a jetty and l-km tramline for supplies. Town site proclaimed in 1885 but never developed. Many diggers from the eastern colonies passed through on their way to the goldfields in the 1890s. With the opening of the new telegraph line along the railway in 1929 the settlement was almost deserted. The first rabbits in WA arrived here from the east in 1894: overgrazed vegetation and sand drifts resulted. Hundreds of cats were shipped here to control the rabbits but this led to a plague of feral cats. Many ruined buildings, including telegraph station built in 1899, are now almost covered by sand drifts.

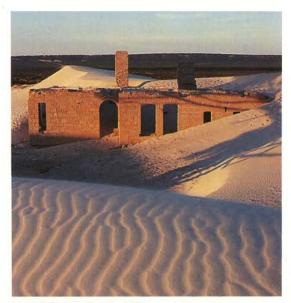
GWALIA [28°55′S 121°20′E]

Popn: 884 (1901), 1114 (1911), 338 (1966, with Leonora). Name: Welsh for Wales. Sons of Gwalia mine (RNE) estab in 1896: Herbert Hoover, later US president, was first manager. Second largest goldmine ever to operate in WA, producing 82.5m g of gold worth £20m before closing in 1963. Reopened in 1980s and gold treatment plant commissioned in 1984. Large Italian community c1900. Steam tramway to Leonora carried fuel for mines. State Hotel (RNE) built 1902–03 used as evacuation centre in World War II, known as La Hacienda: extensively renovated by Western Mining Corp c1972 during nickel boom (see Leonora).

KALGOORLIE [30°43′S 121°28′E]

Popn: 9643 (1901), 13 488 (1911), 9088 (1933), 22 837 (1954, includes **Boulder**), 19 848 (1981, includes Boulder). Name: Aborig *kulgooluh* = 'silky pear'. Formerly known as Hannans after Paddy Hannan, first discoverer of gold here. Area first traversed by Lefroy and Landor in 1863.

Mining Gold first discov by Paddy Hannan in 1893. Easily won alluvial gold worked out by 1894, bigger companies moved in. Chamber of Mines estab in 1896. Alluvial disputes issue of 1897 over distinction between alluvial and other mining claims in which former limited to 3 metre depth: effigy of minister for mines, E.H. Wittenoom, hanged and burned. Gold production peaked in 1903. It seemed doomed to become a ghost town by the late 1920s, but increase in gold prices after Britain went off gold standard in 1931 led to boom and great influx of



Sand drifts at Eucla. The drifting coastal dunes have covered many of the ruined buildings in the township. Photograph by Oliver Strewe.

WILDLIGHT PHOTO AGENCY

unemployed: govt subsidised prospecting. Lake View mine installed first flotation plant for separation of gold in 1930: largest gold producer in Aust after revival by American interests in 1934. Decline in activity again from 1942. Govt aid to marginal goldmines from 1948, upswing in 1950s. Decline again from 1963 and closure of many mines on Eastern Goldfields. Withdrawal of subsidies in 1976 led to further closures and all underground mining ceased except in the Mt Charlotte mine. Nickel boom in area in 1970s. Only commercial nickel smelter in Aust, second of kind in world, built 1970-72: concentrates then sent by rail to Kwinana refinery. Resurgence of goldmining and prospecting in the early 1980s with high gold prices. The mines had produced over 1200m g of gold by the early 1980s and were still yielding about 3.5m g per annum. Uranium oxide pilot plant built in 1982.

Municipal history, services First post office estab in 1894. Town surveyed and proclaimed in 1895. First local newspaper the Western Argus and first local daily the Kalgoorlie Miner both estab in 1895. Rlwy opened in 1896: station (RNE) built 1896-1900. Post office (RNE) built in 1899. Tramline to Boulder built in 1901. Typhoid deaths in the 1890s have been largely attributed to poor water supplies. Early water supply largely dependent on large desert condensers (see also Coolgardie) until Eastern Goldfields Water Supply Scheme piped water from Mundaring in Darling Range from 1903. Many RNE buildings from 1895-1905 survive. In 1902, at peak, district had 30 000 people, 93 hotels, 8 breweries. School of Mines estab at Coolgardie in 1902, transferred here in 1903, became part of WA Inst of Technology in 1969. Town hall (RNE) built in 1908. First Olympic swimming pool in WA opened in 1938. Major new electricity transmission line from Muja power station completed in 1984.

KAMBALDA

[31°11'S 121°40'E]

Popn: 4224 (1971), 4463 (1981). Gold discov in 1897 and township estab largely to serve Red Hill Westralia mine: town gazetted in 1903, but mine closed in 1906. Nickel discov in area in 1954: Western Mining involved from 1964 and mine construction began in 1967. New company town built, control later transferred to local govt: Kambalda East built 1967–73, although expansion ceased when nickel discov in area next due for development; Kambalda West then built 1970–73. Smelter built at Kalgoorlie 1970–72, and Esperance to Kalgoorlie rlwy rebuilt through Kambalda. By 1979, 8 underground mines in operation.

KANOWNA

[30°36'S 121°36'E]

Popn: 2037 (1901), 148 (1933). Name: Aborig gha-nana = 'place of no sleep'. Formerly known as White Feather. Gold discov in 1893; major rush after large find on Fitzroy Lead in 1897. Town site selected in 1894; first battery opened in 1895 when there were approx 4000 people within 6 km radius. Municipality from 1896. Alluvial surface gold worked out by 1896 and underground mining began. Rlwy and electricity in 1897. Kanowna field yielded 22m g of gold in peak year of 1898. 'Sacred Nugget', weighing nearly 45 kg, said to have been found and led to renewed rush in 1898, but a hoax. Popn declined in the early 20th cent: water pipeline arrived too late in 1905. Ceased to be municipality in 1912, rlwy and post office closed in 1931; school in 1947; last hotel in 1952. Now a ghost town, though some treatment of alluvial material and tailings in the 1980s with higher gold prices.

KOOLYANOBBING [30°48′S 119°32′E]

Popn: 121 (1966), 277 (1981). Iron ore deposits first recognised c1916, developed by Broken Hill Proprietary Co from 1960 with major production from 1967. Town development followed to serve as residential and service centre for mine project. Rlwy rerouted through town in 1968. BHP closed mine in 1983 leading to local unemployment and great hardship.

LAVERTON

[28°36′S 122°24′E]

Popn: 296 (1911), 121 (1933), 872 (1981). Named after Dr Laver, John Forrest's personal physician, settler and pioneer. Formerly known as British Flag after first mine. John Forrest passed through district in 1869. First European settlers in 1896. Gold discov in the mid-1890s. Town estab in 1898. At least 7 large mines in 1901 when district popn was approx 3500. Rlwy from Leonora opened in 1903–04, closed in 1955. Base for Mackay Aerial Expedition Surveys from 1935. Last deep mine closed in 1957, reopened early 1980s. Interest in nickel discov at Windarra from 1969: Laverton became main residential centre for project. Serious friction between police and Aborigs in 1975 led to royal commission and govt inquiry into Aborig–police relations.

LEONORA

[28°53'S 121°20'E]

Popn: 305 (1901), 1154 (1911), 338 (1966, with Gwalia), 524 (1981). An alluvial gold find in 1896 started a rush: town site declared in 1898, municipality estab in 1900. Steam tramway to Gwalia opened in 1900. Intense activity again in the 1970s with nickel boom in area. Harbour Lights mine area scene of intensive gold exploration 1981–83: Tower Hill mine reactivated in 1983, Harbour Lights mine in 1985.

MEEKATHARRA

[26°35'S 118°30'E]

Popn: 1220 (1911), 524 (1947), 989 (1981). Name: Aborig = 'bad watering place'. Prospectors in area in 1896, rich find made in 1899. Town declared in 1906. Former weatherboard courthouse and mining registrar's office (RNE) built in 1911. Old workings of Nannine and Ingliston mines to southeast being reappraised in 1982, new goldmine being developed.

Rlwy from Geraldton opened in 1903, closed in 1978: was railhead for cattle from Kimberleys via Canning Stock Route, first shipment of wool by rail in 1910. Flying Doctor base estab in World War II when need for safer inland base: manned by Royal Aust Corps of Signals during war; absorbed by Royal Flying Doctor Service in 1951. Solar–diesel power station opened in 1982: only commercial solar station in Southern Hemisphere.

MENZIES

[29°41′S 121°01′E]

Popn: 2042 (1901), 130 (1971), 232 (1981). Named after discoverer of first gold in 1894. Town estab in 1894; first land sale in 1895; municipality from 1896. Menzies' find developed by syndicate as Lady Shenton mine, largest producer in district. Small amounts of copper also mined. Town hall built 1896–98. Rlwy from Kalgoorlie opened in 1899, extended to Leonora



Prospectors, Break o' Day goldmine. Bicycles were in common use on the Eastern Goldfields and a bicycle mail service was provided by private companies for many years. Photograph, c1900, in Views of Dundas and Norseman goldfields, Westralia.

MELBOURNE UNIVERSITY ARCHIVES

in 1903. Popn in town and district approx 10 000 in 1900: town had 13 hotels, 2 breweries. Gold dwindled from 1905 and popn declined. State battery, most modern in WA, built in 1955. Now small mining operations at Goodenough and Aspacia mines. Small emerald production after 1973 find. Tourist 'ghost town'.

MOUNT MAGNET [28°02'S 117°50'E]

Popn: 632 (1891), 414 (1933), 618 (1981). Named for 'magnetic' ironstone mountain 5 km northwest by explorer Robert Austin in 1854. District settled by Europeans in the 1890s. Once thriving goldmining area, most mines now abandoned, although two mines operated through to the 1970s when this area was major producer along with Kalgoorlie and Norseman. Renewed mining activity in the early 1980s: in 1982, five mines had reserves of 10 yrs or more. Rlwy closed in 1978. Large sheep stations, some up to 202000 ha, in region. First meteorite crater found in Aust is 80 km northwest at Dalgaranga, discov in 1923.

NORSEMAN [32°11′S 121°47′E]

Popn: 259 (1901), 1057 (1911), 378 (1933), 2480 (1947), 1895 (1981). Named after main mine estab in 1894 and named after an early arrival's horse. Formerly known as Dundas: first gold discovs of 1892–93 known as Dundas Field. Town proclaimed in 1895, municipality from 1896. Many goldmines and one tin-tantalite mine estab over the years. Telegraph from 1896. Rlwy opened in 1927. Connected to Goldfields Water Supply scheme in 1936. Road between Port Augusta and Esperance upgraded in 1941; catering for cross-Nullarbor travellers important. Major gold producer now the Central Norseman mine: nearly closed after bad year in 1971–72; boom year in 1979.

ORA BANDA [30°22′S 121°03′E]

Popn: 216 (1911), 275 (1933), 68 (1947). Name: Spanish = 'band of gold'. Rich find of gold to south in 1893; Ora Banda mine estab by Weston brothers. Discov of rich ore bodies led to town moving 3 km south to present site in 1906. Battery erected in 1913, still operating in 1975. Water shortages interrupted activity 1914–18. Boom in the 1930s. Company also worked rich quartz deposits at Grant's Patch from 1931 until World War II: mine reopened post-war but closed by bad fire. Now small quantities of lateritic nickel ore mined locally by Western Mining to blend with Kambalda material. Many of Ora Banda's public buildings were brought from nearby Paddington.

SOUTHERN CROSS [31°12S 119°18′E]

Popn: 246 (1891), 1601 (1911), 615 (1933), 798 (1981). Named after constellation. Gold discov on Yilgarn Goldfield in 1887, gave rise to boom town and unofficial capital of field. Municipality from 1892. Problems in 1892 when mining depressed, wages cut as well as water supply difficulties: miners went on strike and mines temporarily closed. First courthouse on Eastern Goldfields built in 1893. Rlwy opened in 1894. Centre of wheatbelt development late 1890s.

WARBURTON RANGE [26°10'S 126°49'E]

Mission popn: 360 (1981). Named after explorer Peter Warburton. Ernest Giles traversed area in 1873, John Forrest in 1874. In 1897 David Carnegie crossed the range and H. Russell further explored the district, as did F.H. Hann in 1903–04. Scandal in 1957 over malnutrition and disease among Aborigs at mission and removal of school-age children to Cosmo Newbery by Dept of Native Welfare. Puntutjarpa, near the mission, is an important Aborig site in the Western Desert occupied between 20 000 and 5000 yrs ago.

WIDGIEMOOLTHA [31°29'S 121°34'E]

Popn: 87 (1933), 93 (1947). Name: Aborig = 'place of evil spirits' or 'crow's beak on rock'. Aborigs mined ochre in district. First gold discov in 1920, but little mining until main reef found in 1925. Town estab in 1900 as coaching stop. In 1931 'Golden Eagle' nugget, 35 303 g, found: largest in WA. Goldmining ceased in 1963. Nickel found in area in 1967–68, but 3 mines now inactive, recently acquired by Kambalda operators. Concentrates from Kambalda loaded on rlwy here in early 1970s. Salt from Lake Lefroy loaded for export to Japan.

WILUNA [26°35′S 120°14′E]

Popn: 327 (1911), 1181 (1933), 719 (1947), 221 (1981). Name: Aborig weeloona = 'bush curlew'. John Forrest estab depot north of present town in 1875, attacked by approx 60 Aborigs. Gold discov in 1896. Rlwy opened in 1932, closed in 1952. Prosperous in the 1930s with district popn of over 7000 because of antimony, arsenic and gold sulphide ore deposits: Wiluna mine was WA's largest in the 1930s, closed in 1947. Aust's only arsenic mine closed in 1948 and town declined. In 1974, Aborig co-operative took over desert farms, raised emus and irrigated vegetables and fruit. In 1982, feasibility studies on extraction of gold and silver from mine tailings and on development of 4.5m tonne uranium ore body at Lake Way to south. Once southern end of Canning Stock Route.