

CHAPTER 2

ABORIGINAL LANDSCAPES



Obiri Rock, Northern Territory. Photograph by Reg Morrison. WELDON TRANNIES

ABORIGINAL LANDSCAPES illustrate the Aborigines' use of the environment and the richness and complexity of Aboriginal culture. Two hundred years after the Europeans' arrival, traces of Aboriginal environmental use can still be found in the landscape. The Mallee maps, for example, show how the Aboriginal occupation of the continent reflected a changing environment. The McArthur Creek and Mangrove Creek studies show a skilful exploitation of natural resources, as do the maps of the Kartan industry in South Australia. A central element in Aboriginal culture is the special sense of place the Aborigines bring to the environment, reflected here in three ways: Aboriginal art, carved trees (which served ritualistic purposes) and the Dreamings. Dreamings were both navigational aids and religious statements. Songs not only identified landmarks but gave them spiritual significance. The maps of the Wik people of Cape York hint at the complexity of a people whose landscapes are not only physical but also spiritual. The Aboriginal sense of place lies behind their land claims and it also partly explains the capacity of even the dispossessed such as the Wiradjuri to remain within their clan regions.

Archaeological sites	28
Kartan industry	30
Occupation of the Mallee	31
McArthur Creek	32
Upper Mangrove Creek	34
Wik people	36
Art styles	38
Carved trees	40
Arabana Rain Dreaming	41
Aborigines and land	42
Wiradjuri	44

Archaeological sites

SITES AND ARTEFACTS can be important sources of archaeological information. They can reveal much about the culture and technology of peoples in the past, and when and why those peoples made social and technological changes.

In Australia scientific archaeology is relatively new and there are few professional archaeologists. The three maps reflect this; most archaeological work done since the 1930s is concentrated in particular regions, and much of Australia remains to be investigated.

Before World War II few sites were excavated scientifically. A notable example was Devon Downs, a rock shelter beside the Murray River in South Australia. Layers of ancient deposits on the floors of caves and rock shelters yield information about long sequences of human activity, and reveal social changes through the development of stone tools and other cultural items. The Devon Downs excavation uncovered much about how Aborigines lived during the last 5000 years. Dating changes in types of stone tools was very difficult until the 1950s, when radiocarbon dating was developed. Until the use of this and other geochemical and geophysical dating techniques, there was no proof that people lived in Australia before 6000 years ago. Now a number of sites are known to be at least 30 000 years old, and several are thought to be more than 40 000 years old.

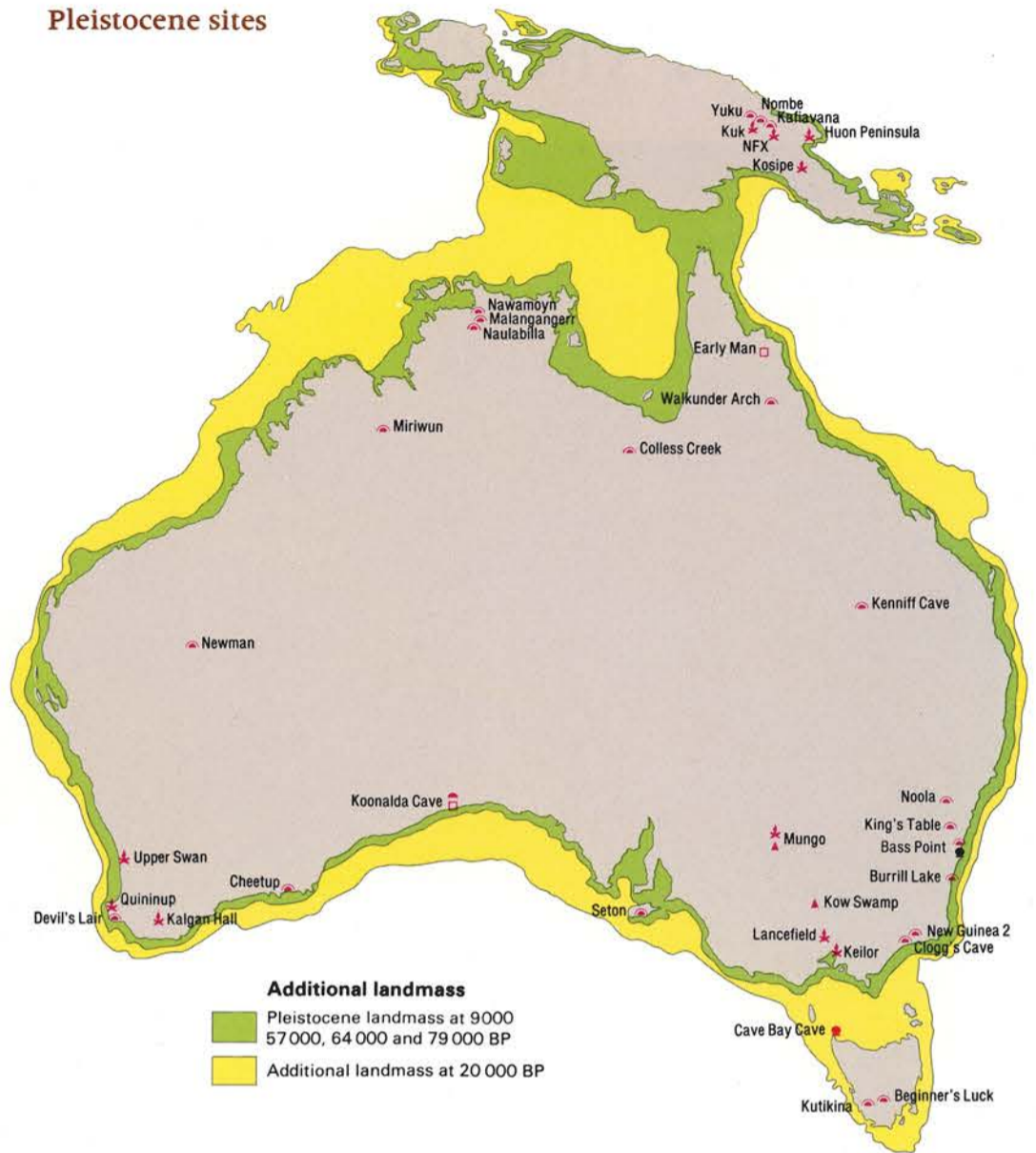
The pace of archaeological research increased during the 1960s, and sites away from southeastern Australia began to be investigated. Interest shifted to investigating larger areas and a wide variety of sites, and to understanding local variations and patterns of settlement. During the 1970s, state organisations were set up to administer new legislation protecting archaeological sites. Awareness of the importance of sites continues to grow.

Some sites provide our only evidence of the earliest human occupation of Australia. Some, such as those at Keilor near Melbourne, Lake Mungo in western New South Wales and Upper Swan near Perth, present problems of interpretation, as they were formed by the buildup of river sediments or lakeside dunes over long periods. To help understand them, the geomorphological history of the landscape is investigated. It provides important evidence about sequences of human occupation and the changing climate and environments in which people lived. In southwestern Tasmania many sites show particular adaptation to changing environments. Kutikina Cave and adjacent sites show occupation 20 000 to 15 000 years ago of what was then a cold, subglacial region. As the climate changed and dense rainforests developed, these sites were abandoned.

The lower map shows more recent sites. Several at Louisa Bay reveal changing seasonal patterns in the use of resources and the development of new technology in the form of rolled bark canoes for hunting seals on offshore islands. Shell middens at Louisa Bay, Moonlight Head, Bass Point, Keppel Island and elsewhere provide information about the changing economy of the people living along the coast. In all these excavations, hypotheses about what happened are based on careful analysis of large quantities of stone tools, shellfish remains, fireplaces and other evidence of human activity.

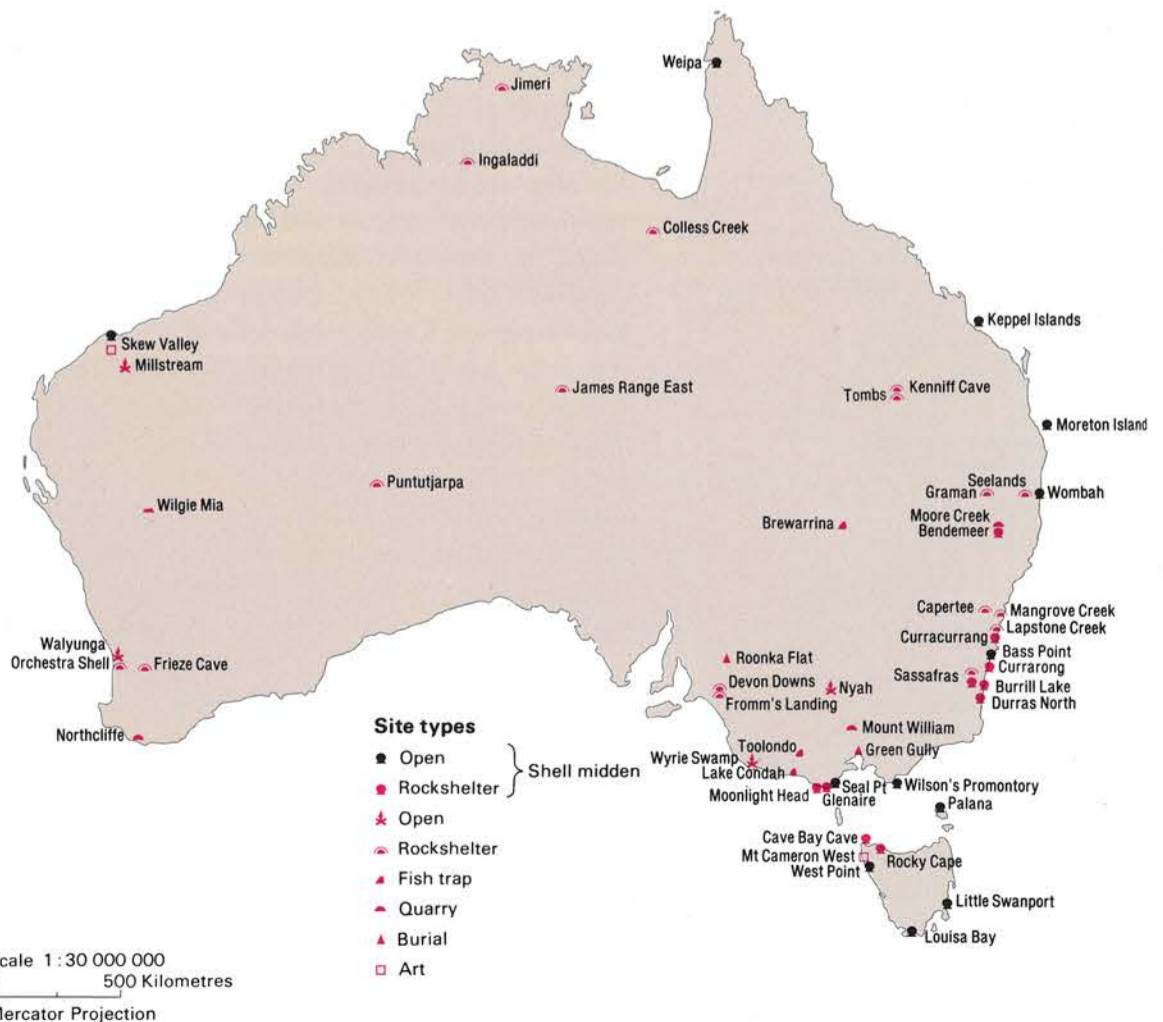
Studies of raw materials and their sources, for example the Mount William greenstone quarry in Victoria, can also tell us about social relationships and networks of trade or ceremonial exchange. Burials such as those at Lake Mungo, Keilor and Kow Swamp inform us about aspects of health and about physical changes that have taken place among Aborigines over tens of thousands of years.

Pleistocene sites



Additional landmass
 Pleistocene landmass at 9000, 57 000, 64 000 and 79 000 BP
 Additional landmass at 20 000 BP

Holocene sites



Site types
 ● Open } Shell midden
 ■ Rockshelter
 ★ Open
 ▲ Rockshelter
 ▲ Fish trap
 ▲ Quarry
 ▲ Burial
 □ Art

Scale 1:30 000 000
 0 500 Kilometres
 Mercator Projection



Puntutjarpa in central Australia. A 10 000-year-long sequence from this site is important for our understanding of the early use of the arid zone.

DAVID FRANKEL

Early Man Rock Shelter, Laura, Cape York Peninsula. Rock engravings here have been dated to 13 000 years. Photograph by Andrée Rosenfeld, 1973.

Concentration of archaeological activity

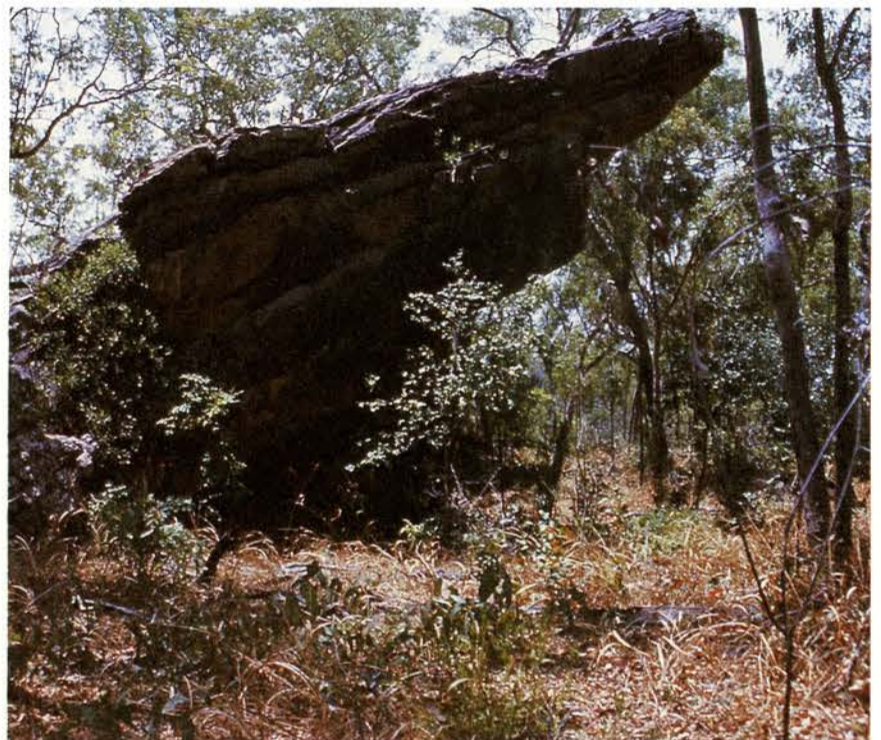
Before 1960



1960-1969



1970-1982



Devon Downs, beside the Murray River in South Australia, was an important site for establishing a basic stratigraphic sequence for southern Australia.

DAVID FRANKEL

Moonlight Head, Victoria. Excavations in progress at a shell midden formed over the last 1000 years. Researchers excavate and record stratified deposits, and sieve, sort and count shellfish to show changing exploitation of the coastal environment.

DAVID FRANKEL



The Kartan industry

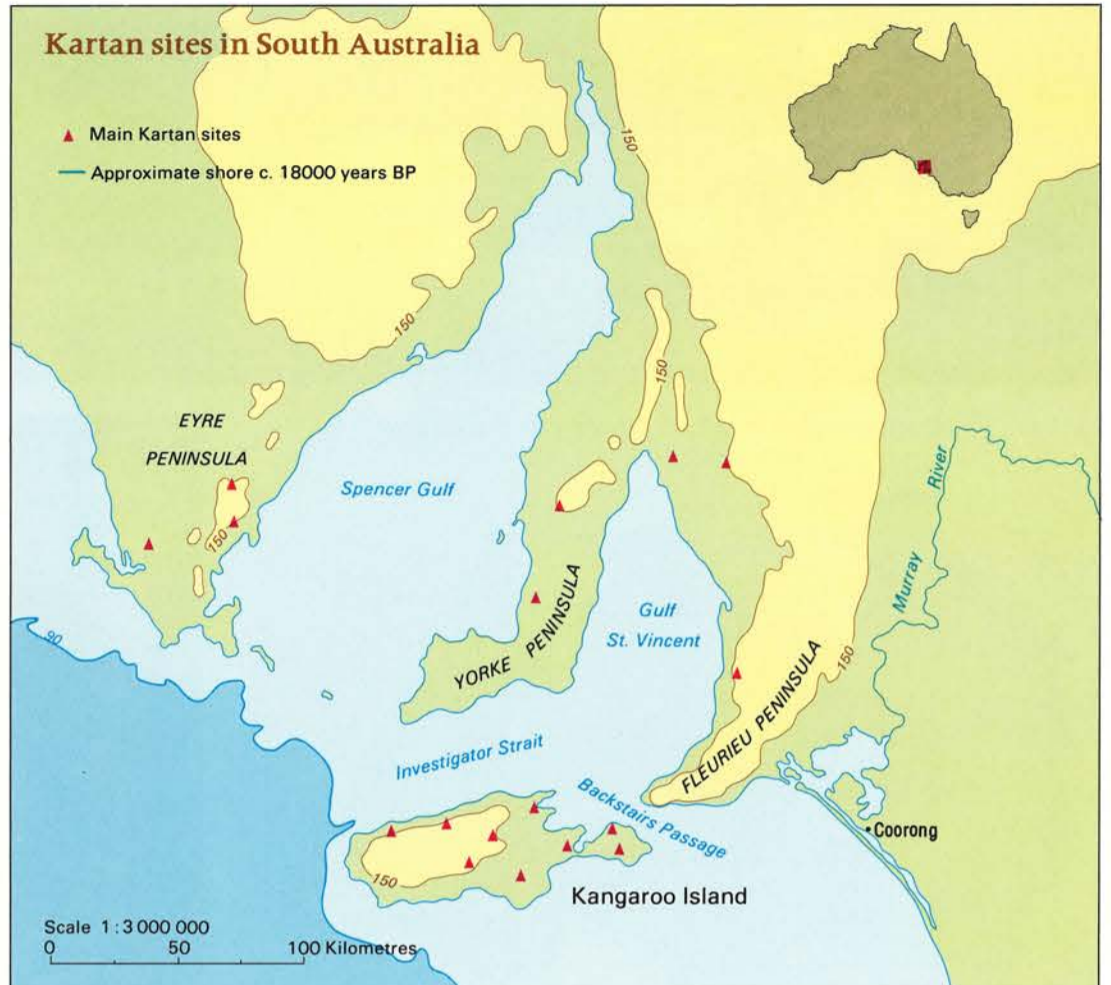
WHEN EUROPEANS FIRST visited Kangaroo Island around 1802 it was uninhabited, but in the 1930s Aboriginal stone tools were found there. As mainland Aborigines called the island *Karta*, the tool assemblage was termed Kartan. Archaeologists do not know when its makers arrived, or when and why they left. People are known to have occupied a cave in the area about 16 000 years ago, but no typical Kartan tools were found. Possibly the island was occupied more than 18 000 years ago, when it was part of the mainland. From about that time, as the last ice age ended and seas began to rise, the land area was gradually reduced until, about 9000 years ago, Backstairs Passage broke through, cutting the island from the mainland. By then people may already have abandoned the island, or they may have done so later – certainly no people, or very few, lived on the island during the last few thousand years. On the other hand, many sites containing Kartan tools and suggesting a large population date from the time when the area was part of the mainland. This was probably because, during part of that time, Kangaroo Island was near an ancient mouth of the Murray River, and so was a rich resource area for hunter-gatherers.

Kartan tools are common on surface sites on Kangaroo Island, and also occur at a few sites on the mainland as far north as Hawker in the Flinders Ranges. The Kartan industry was almost certainly a variant of the Australian core tool and scraper tradition, a general term used to describe tool assemblages throughout Australia which date from at least 30 000 years ago to about 5000 years ago. The Kartan was distinguished by a much higher proportion of heavy choppers to flaked scraping tools than is usual in this tradition.

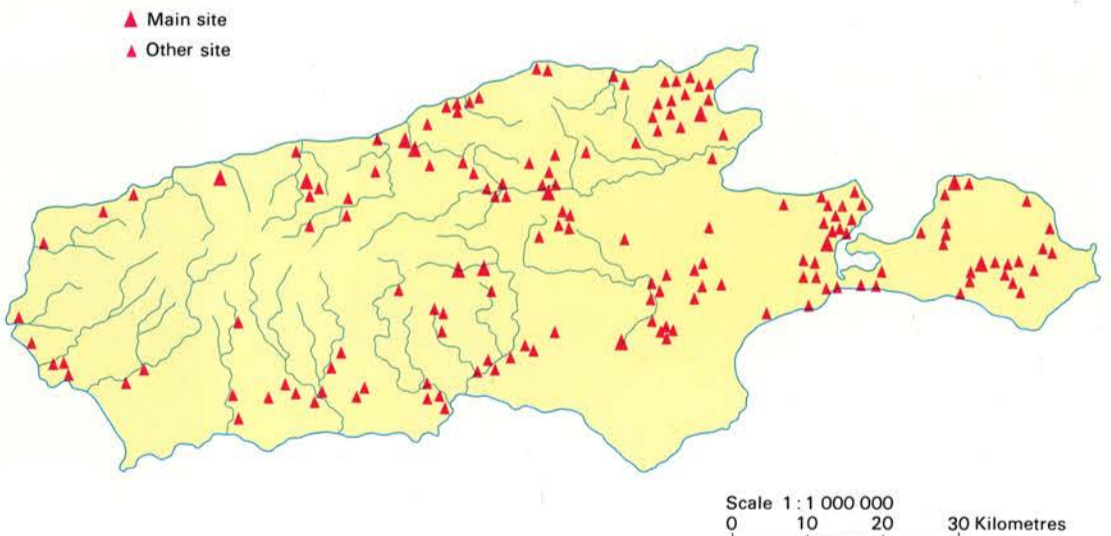
In a typical Kartan assemblage large chopping tools predominate. Usually these were made of pebbles, and have an average weight of 0.5 kg. A few steep edged scrapers made of flakes also occur on Kangaroo Island, but flakes removed during the course of implement manufacture are usually scarce. This is surprising, because normally the large choppers were also cores from which large flakes were struck. One type of core, the horsehoof core, gets its name from its distinctive shape. Opinions differ as to whether these large cores were simple sources of raw materials for manufacturing flakes, or whether they were used as chopping or planing tools.

Rising seas

The map of Kartan sites in South Australia also illustrates the changes which occurred along the Australian coastline from about 18 000 years ago, when oceans fell to their lowest level, to about 6000 years ago, when sea levels were about where they are now. The Murray River reached the sea south-east of Kangaroo Island during the ice age, and people who had been exploiting its resources lost enormous tracts of rich riverine land. But they were compensated for this loss by the gradual formation of lakes at the river mouth, and by the Coorong, in recent times one of the richest habitats for hunter-gatherers in Australia. The rising seas advanced rapidly across the land. Within about 9000 years, the mainland coast retreated over 100 kilometres around Kangaroo Island.

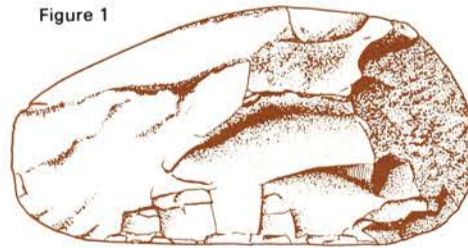


Kartan sites on Kangaroo Island



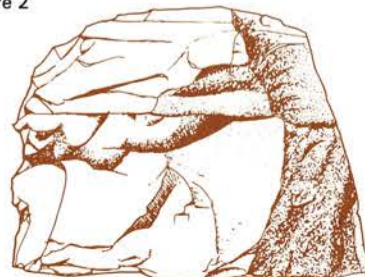
Kartan tools

Figure 1



0 1 2 3 4 5
Centimetres

Figure 2



The large chopping tools that predominate in the Kartan industry are usually made of stone, with an average weight of 0.5 kg (figure 1). It is unknown whether large cores, such as the distinctively shaped horsehoof core (figure 2), were used as choppers or planing tools or were simply raw material for the manufacture of smaller tools. These figures show the stone tools at one-quarter of their actual size.

Occupation of the Mallee

MANY FACTORS influenced the way in which hunting-gathering people settled a region. Scholars formerly believed that environmental conditions were the most significant factors, but recent investigations into prehistoric Aboriginal settlement patterns in the semiarid Victorian Mallee district have cast some doubt on this belief.

The Mallee environment

Today the Mallee district of northwestern Victoria lies within Australia's semiarid zone, characterised by semisaline lakes and vegetated, stable sand dunes. The Mallee, however, has undergone substantial climatic changes since the arrival of Aborigines in the region. During the peak of the glacial period, around 20 000 years ago, the Mallee was arid. On average the district was several degrees colder than today, rainfall was low, and water and food were scarce. The area was practically uninhabitable.

From about 14 000 years ago, temperature and rainfall increased, and by 12 000 years ago lakes throughout the Mallee were filling with water. From 10 000 to 7 000 years ago lakes Hindmarsh and Albacutya on the Wimmera River-Outlet Creek system were full, and even the terminal Pine Plains lakes — which today contain water only for a few weeks after severe floods — were up to eleven metres deep. At Raak Plains fresh water in some of the lakes supported freshwater mussel populations, as well as emus and some macropods, such as kangaroos and wallabies.

Thereafter the district grew increasingly dry, and by about 6 000 years ago semiarid conditions were established. Except for a short period around 2 000 years ago when fresh water briefly refilled some lakes, northwestern Victoria has remained semiarid throughout the last 6 000 years.

Aboriginal occupation

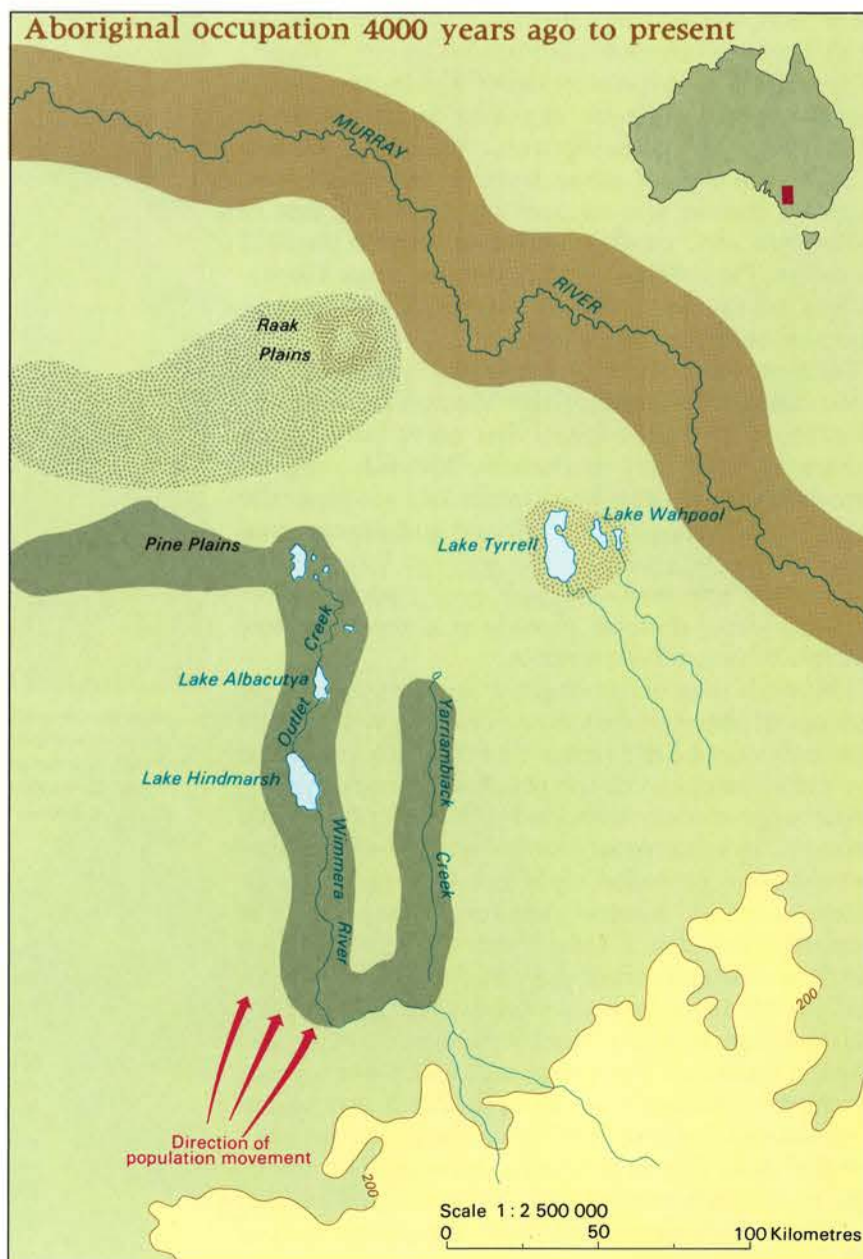
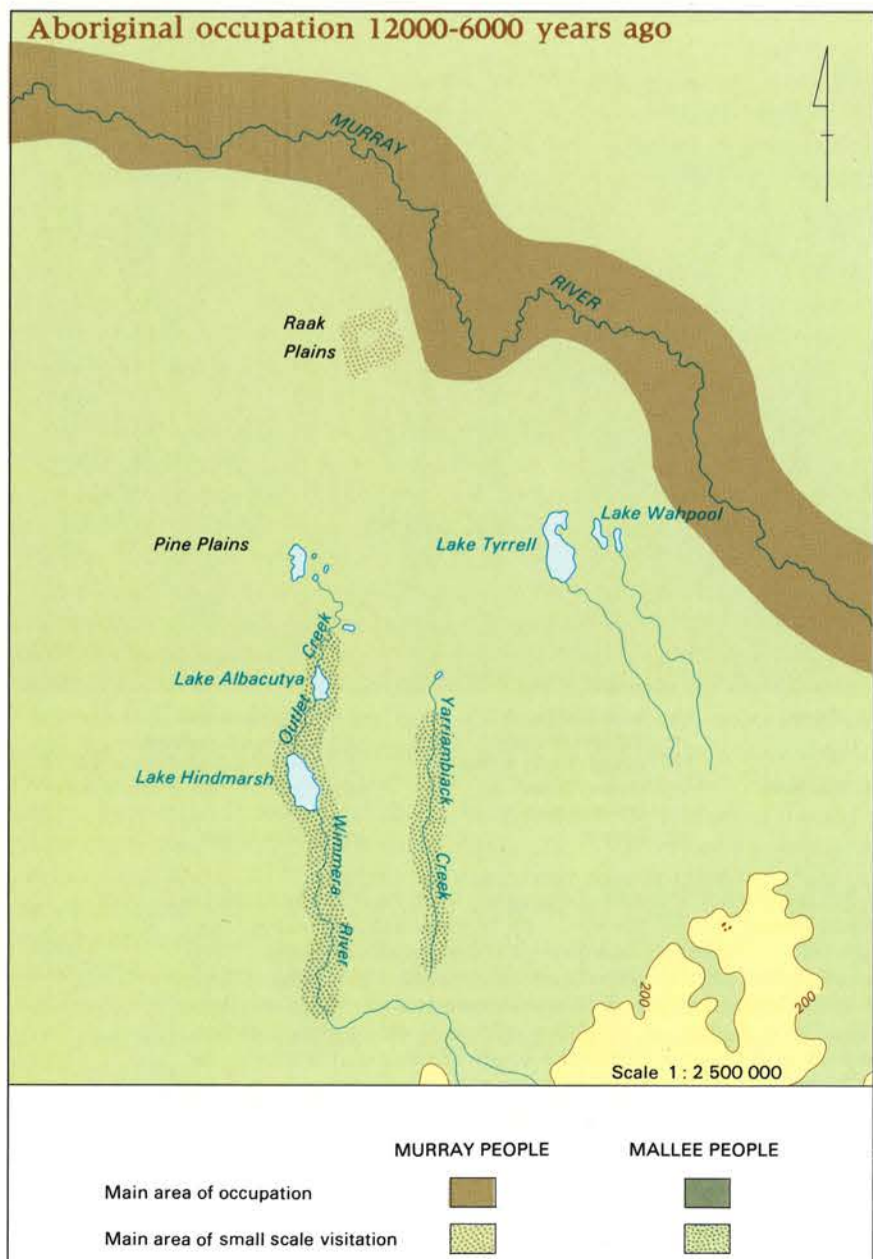
There is no known evidence that Aborigines occupied the Mallee during the arid glacial period. However, by 7 000 years ago a number

of sites around Raak Plains, in the northern Mallee, were occupied. These contain stone tools, fireplaces and food remains of freshwater mussels, emu eggs, and macropods (probably kangaroos). Grindstones at some sites suggest that grass seeds were ground for food. The evidence indicates that Aborigines occupied this area, bordering the Murray River, when food and water were widely available.

There is little evidence that the southern Mallee was occupied at this time. In spite of high contemporary lake levels and abundant food resources, very few sites found date without question to this period, and those that do appear to represent brief forays into the area by visitors.

When the country began to dry out some 6 000 years ago, and lakes such as those on Raak Plains grew saltier, people largely quit the northern Mallee. There is virtually no evidence for the presence of Aborigines at Raak Plains after about 6 000 years ago. Probably Aborigines in the northern Mallee concentrated along the Murray, only occasionally exploiting what had become desert country for particular resources at suitable times of the year.

The situation was very different in the southern Mallee. Although lake water levels were falling and aridity increasing, many sites were being occupied for the first time. These were close to lakes, creeks or soaks found at low points in the dunefields. They reveal scatters of stone tools and fireplaces, and indicate a major influx of people into the Mallee, probably from well-watered areas further south. It is significant that in southwestern Victoria at this time, archaeological evidence suggests a growth in population density associated with the development of widespread social and trading networks. Probably some of these people expanded into the southern Mallee: linguistic evidence lends weight to the suggestion that the Aborigines of the southern Mallee were more closely linked with those of the Western District of Victoria in the south than with those along the Murray. Environmentally, the Victorian Mallee is seen as a 'marginal' zone where it is difficult to make a living. Yet the Aborigines who lived in the region were able to make use not only of times of abundant resources, but also times of limited resources, by adapting to a changing environment.



McArthur Creek

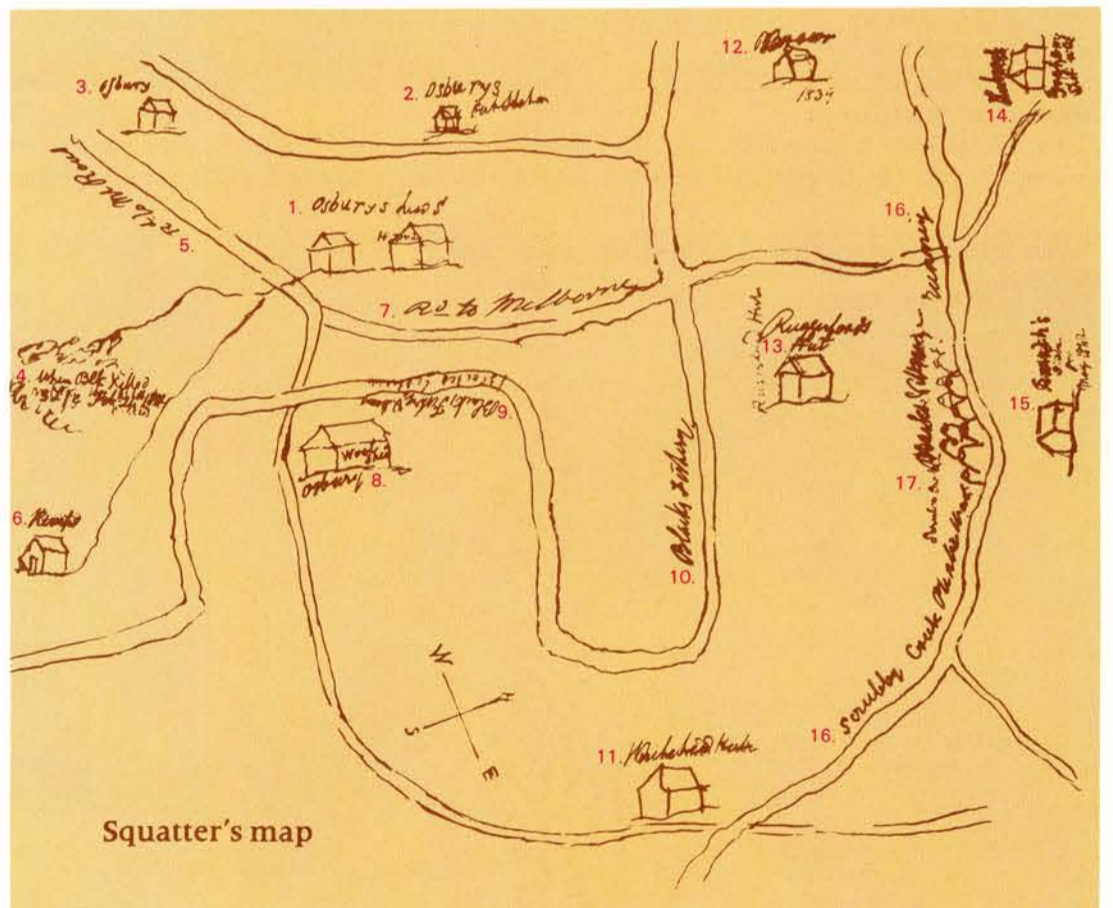
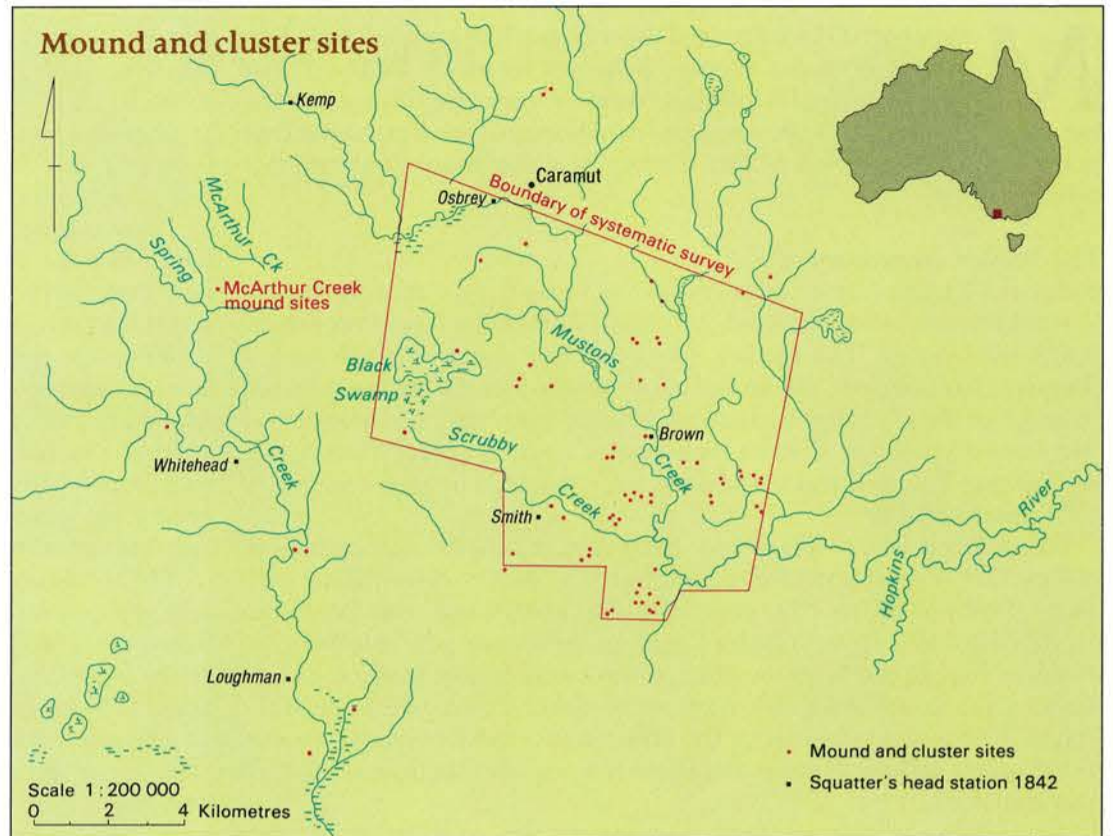
MUCH RECENT WORK in Australian prehistory has focused on Aboriginal patterns of settlement. A region of particular interest for its large number of occupation sites is the fertile Western District of Victoria. Several detailed descriptions of the Aborigines of this area date from the initial period of contact in the early 1840s. They describe societies which contrast with those of the popular stereotype of the Australian Aborigine as a wandering nomad whose life was determined by the harsh environment. These Aboriginal groups manipulated their environment. The organisation of their social and economic life was elaborate, including the construction of complex eel-trapping systems and the building of substantial beehive-shaped huts, grouped together in clusters that observers believed to be semipermanent 'villages'.

Historical accounts of the early period of contact between European and Aboriginal societies are fragmentary; the archaeological record provides a useful supplement. Described and illustrated here is the search for the archaeological remains of a number of settlements, beginning with a historical description of an Aboriginal 'village' together with a contemporary map showing its location relative to settlers' huts in 1842–43.

The first step in a field search is to determine the approximate position of the site. Although records of settlement are scanty, historical sources provide sufficient information to plot the location of settlers' huts independently of the 'Squatter's map'. The available historical information is plotted on the map 'Mound and cluster sites'. Comparison of the two maps shows that prominent landforms are depicted quite inaccurately in the 1842 map, making it difficult to pinpoint the location of the 'village'. The written description of the village locates the site beside Scrubby Creek opposite Smith's station. According to contemporary sources, Scrubby Creek was a place name from at least 1846, and Smith's station was situated on the south side of Scrubby Creek, evidently the one noted in the 1842 account. The 'village' must have been located somewhere on the north side of Scrubby Creek near its junction with Muston's Creek.

The next step is to locate the site in the field. An archaeological survey of the Muston's Creek and Scrubby Creek area found that earth mounds are common, especially in clusters. Mounds range in size from 6m to 25m in diameter and are generally less than 0.5m high. The 'Mound and cluster sites' map shows the results of this survey. A systematic survey in the area checked every paddock for mound sites, thereby providing a representative sample of mound distribution.

Mounds may occur singly or in pairs, but also in groups of about twenty-five. The larger clusters of mounds may be the remains of 'villages' identified by early European observers. With one exception, these large clusters are found at the junction of two streams, in swampy or marshy areas. Such habitats would have provided sufficient food resources to allow a small hunter-gathering community to remain there for a long time. Observations by settlers and explorers of the ways in which Aboriginal people used mounds suggest that there was a relationship in some cases between mounds and huts. Observers noted that mounds were used as ovens for cooking food, as open camp sites and as foundations for huts; perhaps to improve drainage on the heavy clay soils which can become waterlogged in this high rainfall area. It is quite possible that earth mounds developed from the destruction of substantial huts.



- | | | |
|---------------------------------------|--------------------------|---|
| 1. Osburys (Osbreys) head S (station) | 7. Rd to Melbourne | 13. Rutherfords Hut |
| 2. Osburys Outstation | 8. Osburys Woolshed | 14. Luffmans (Loughman) |
| 3. Osbury (Outstation) | 9. Blacks Fishery & Dams | 15. Smith's Station. Formed May 1842 |
| 4. Where Blacks Killed Feb 21st 1842 | 10. Blacks Fishery | 16. Scrubby Creek—plenty of water running |
| 5. Rd to Mt Rouse | 11. Whiteheads Hut | 17. Blacks Village |
| 6. Kemps | 12. Brown | |

In 1858 William Thomas, Protector of Aborigines, wrote the following description to accompany the map reproduced above: . . . by Mustons and the Scrubby Ck to the westward . . . first settlers found a regular Aboriginal settlement . . . [of] between 20 and 30 huts of the form of a beehive or sugar loaf, some of them capable of holding a dozen people. These huts were about 6' high or [a] little more, about 10' in diameter . . . of a circular form, closely worked and then covered with mud, they would bear the weight of a man o[n] them without injury. These blacks made various well constructed dams in the creek, which by certain heights acted as sluice gates at the flooding season . . . They also had a superior kind of fishing nets, made like a large round bag with a hoop on the top and a pole attached to it— they manufactured and wore grass hats like our straw hats but without a brim . . . My informant . . . gave me a drawing . . . of the village, the following is from it on a smaller scale.

In the 'Mound and cluster sites' map, one cluster is located in the vicinity of the documented 'village'. This cluster consists of 27 mounds, making it large enough to be the remains of the village, if we assume that a hut was built on each mound. But since this site was severely disturbed by farming activity before excavation could take place, another group had to be chosen for analysis. The McArthur Creek mound cluster was selected because it lies close to where George Augustus Robinson, Protector of Aborigines, had noted another 'village' in 1841. Unfortunately Robinson left no description of the encampment. Since the McArthur Creek cluster lies outside the area previously surveyed, further fieldwork was necessary to define the site accurately.

A small excavation, indicated on the map 'McArthur Creek mound sites', revealed a series of large fragments of burnt wood on top of one mound (Mound 5). These fragments trace out the shallow foundations of a burnt, collapsed structure but little debris was found above the foundations. This suggests that if the structure was a hut, it was not a substantial beehive-shaped one. The shape of the hut may be reconstructed from the archaeological remains and it may have resembled the mia-mia depicted in the illustration. This form was also common in the Western District. Analysis of historical observations suggests that while the beehive type of construction was associated with wet and cold weather, this type was occupied during more temperate seasons. At the first sign of bad weather, a hut of this type could be converted to the more substantial form by adding mud, clay and sods to the existing framework. Excavation uncovered light coloured gravelly sediment. Analysis of these buried layers indicates that they had been built up, perhaps to provide a well-drained foundation for the living area.

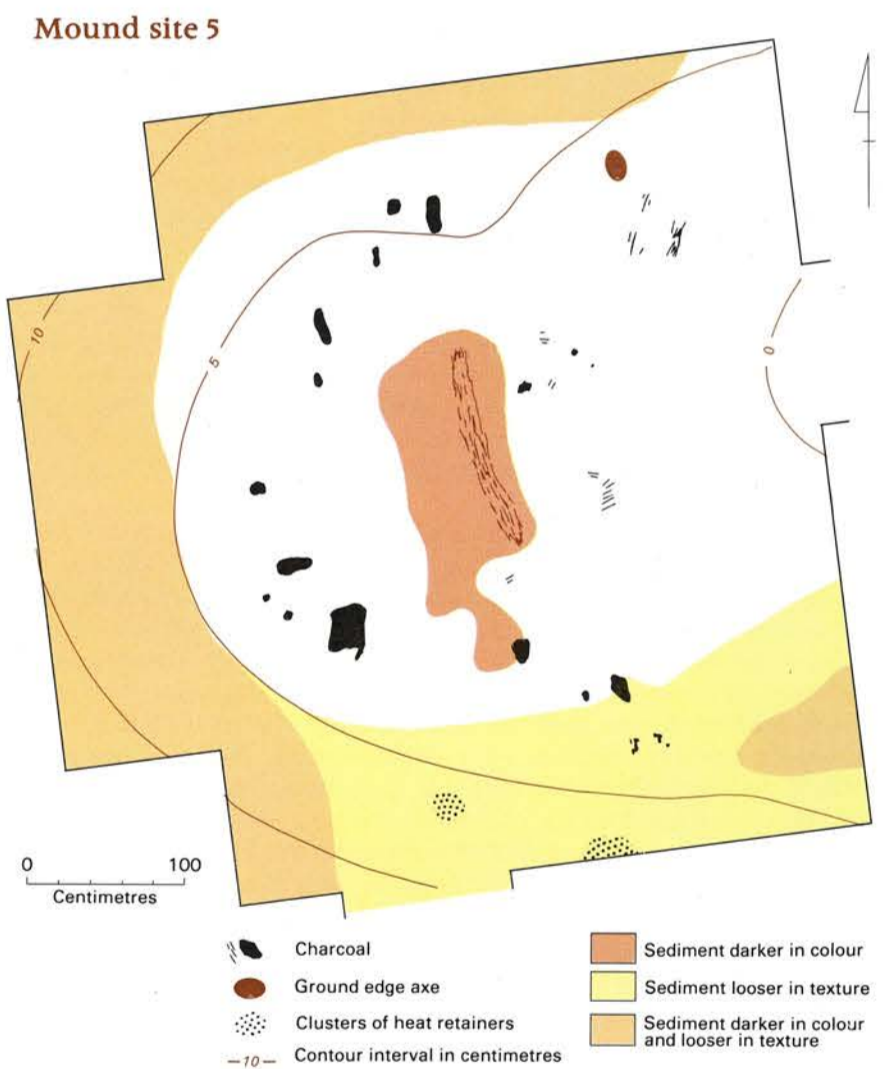
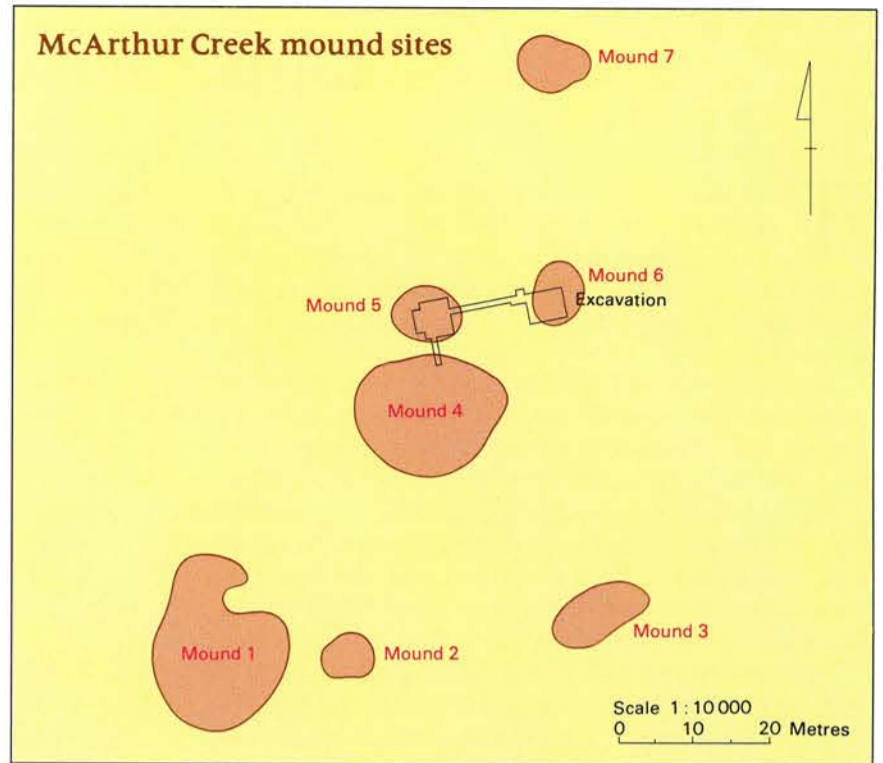
Charcoal from different layers of sediment in the mound has been dated using the radiocarbon 14 method. The results indicate that the mound began to develop about 800 years ago. Occupation and buildup of the site continued for the next 600 years. Unfortunately surviving evidence cannot determine whether the mound was occupied continuously or intermittently, or whether it accumulated naturally, or was deliberately built up over time by the inhabitants. The hut dates to the final period of occupation of the mound, around the European contact period. The lack of European items on the site, such as flaked bottle glass, indicates that occupation did not continue after European settlement. No evidence of earlier hut structures occurs within the mound.

Number six mound was also excavated, but it contained no identifiable structural remains. The only feature located was a narrow ditch, about 30cm in width, which rings the central area of the mound. The narrowness of this structure and its location near the upper section of the mound suggests that it was simply a drain. The first mound construction in this cluster dates to a much earlier period, some 2000 years ago, and the archaeological information indicates that it was used until contact times.

Evidence of the occupation of the McArthur Creek site includes cooking pits and stone artefacts which occur in the area between the two mounds that were excavated. More of these are found closer to each mound indicating that mounds were the primary focus of activity.

Although excavations of further mounds are needed, the evidence suggests that in the Caramut area they were habitation sites and not ovens as in other areas. Oven pits are found away from these sites, but are associated with them. Further research is needed to establish whether this relationship holds true generally for the Caramut district.

The broader significance of the McArthur Creek cluster and the Caramut mounds is best assessed in a regional context. Work in other parts of the Western District has produced archaeological examples of mounds used as ovens, a contrast with the Caramut form. Current research indicates that the earliest mounds date from around 2500 years ago. Where mounds occur elsewhere in Australia, for example along the middle reaches of the Murray River, in the Riverina region and in the wetland areas of northern Australia, construction of the oldest mounds also belongs to the last 2500 years. A variety of hypotheses has been put forward to explain why mounds appear relatively late in the prehistoric sequence over such widespread areas. Explanations include environmental change, population increase and changes in social organisation. The issue is still being debated, but a mound-building phase followed by the construction of substantial huts indicates that settlement patterns changed and Aboriginal society was a dynamic entity.



This illustration shows what the hut on Mound 5 might have looked like before it was burnt down. This type of hut was commonly built by Aborigines in this region. Copy of a postcard.
NICOLAS PETERSON

Wilmol Strahan in his Mia Mia, Warrnambool, Vic.

Upper Mangrove Creek

THE AUSTRALIAN LANDSCAPE was subject to thousands of years of human occupation, and traces of prehistoric landuse patterns survive. Many sites are unrecorded, while some are now protected. Others are still being obliterated to meet the needs of late-twentieth-century Australians. Upper Mangrove Creek is one example. By 1988, part of the area will be submerged by a dam.

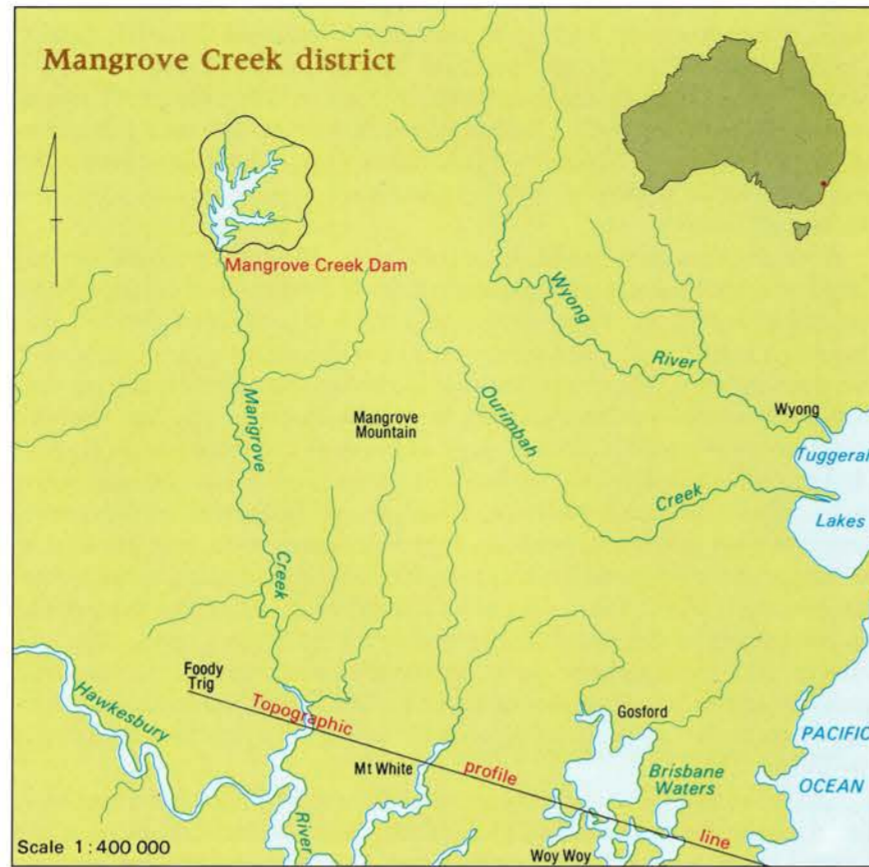
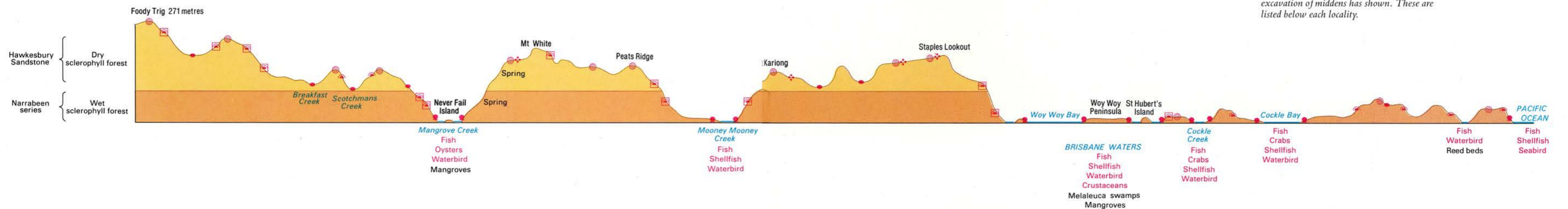
Between 1978 and 1981, a major archaeological salvage project was undertaken to locate and investigate sites in the dam storage area. A separate project was undertaken to analyse Aboriginal landuse patterns. Both studies involved locating, recording and excavating sites. The design of the archaeological survey for the landuse project required the investigation of a series of small sample areas scattered throughout the catchment area. This region contains terrain and resources fairly typical of the Hawkesbury sandstone country of the New South Wales central coast, particularly those parts drained by the upper reaches of freshwater streams.

The type of evidence found at the sites is listed in the legend. Habitation sites, art and grinding grooves occur either in the open or in rock shelters. Open habitation is usually situated on alluvial flats along creeks, or on flat areas along ridge tops. Art and grinding grooves in the open occur on flattish exposures of sandstone, both large and small. Evidence of habitation, and art and grinding grooves, frequently occur at the same sites. As the cross-section shows, grinding grooves are more common on the ridgetops and are usually associated with water. The ridgetops are Hawkesbury sandstone which obviously provided a better medium for this activity than the Narrabeen series of the valley bottoms where few grooves are found. The density of engraving sites in Upper Mangrove Creek is lower than that of other sandstone areas. Shell middens are absent in these upper reaches, although they are common along the foreshores of the tidal estuaries and the marine coastline, as shown in the cross-section.

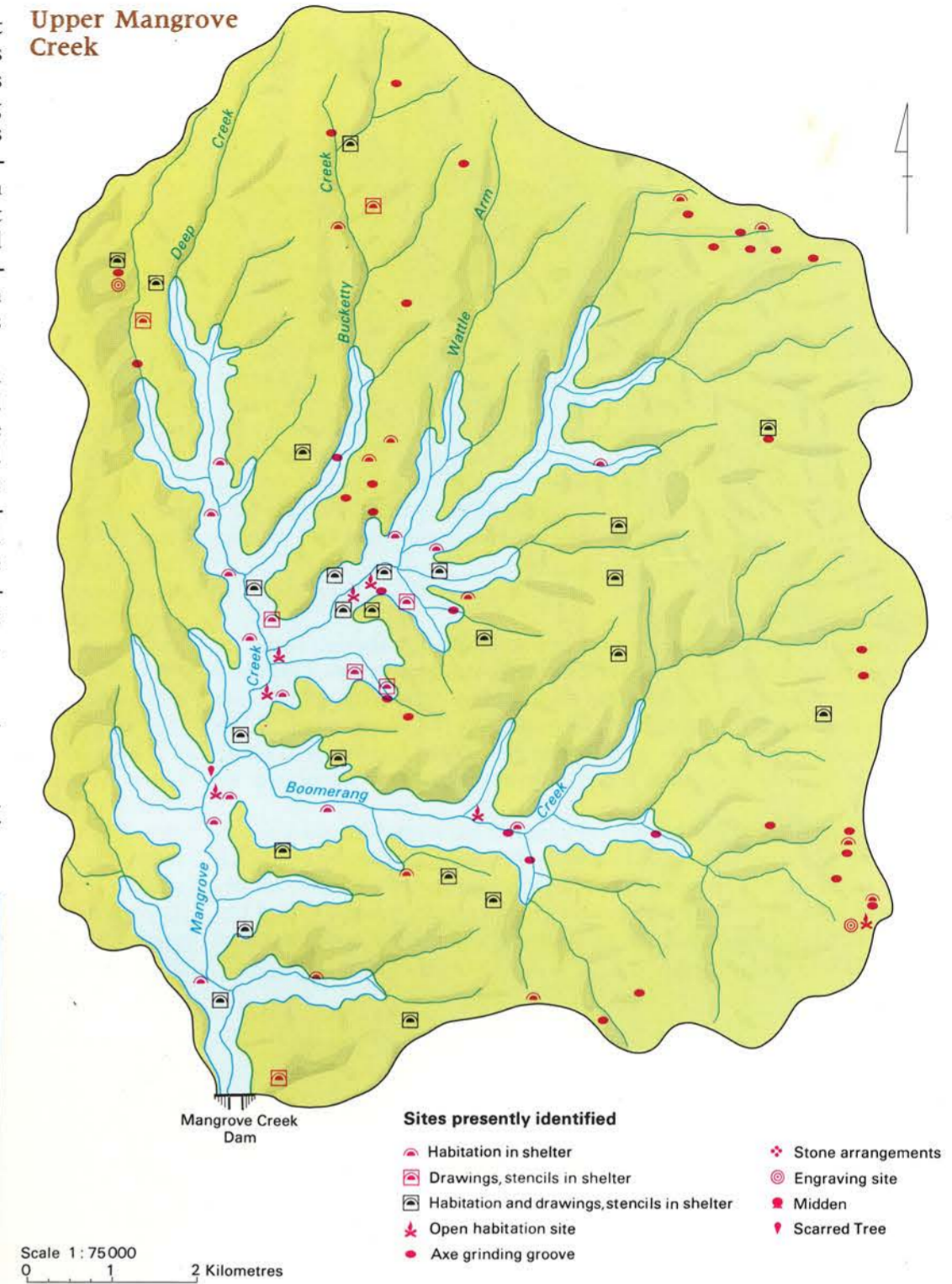
Upper Mangrove Creek was only part of the region that a local Aboriginal group visited during their subsistence cycle. The major habitation sites — those with large numbers of stone artefacts — were located on the valley bottoms of the main creeks and on the major ridge tops, which suggests that these were favoured camping areas. Most of the art in shelters occurs on the ridgetops above subsidiary creeks. Why this is so is not clear.

Analysis of the sites, their contents and the dates at which they were first inhabited indicates that changes occurred during the 11 000 years of Aboriginal occupation. During successive millennia, for example, there were changes in the type and number of stone artefacts left in habitation sites, in the number of habitation sites established and inhabited and in the types of sites formed. The rate at which habitation sites were established continued to increase until the period of contact with Europeans, as did the number inhabited in each millennium. However, the rate at which stone artefacts accumulated in the sites did not always increase, and the overall trend for the catchment was for a dramatic increase in the artefact discard rate around 3000 years ago, with a subsequent significant decrease in the last 1000 years. The evidence from sites and artefacts is used when reconstructing landuse patterns, and the apparently contradictory trends in sites and artefacts during the last 1000 years introduce an added dimension to the picture. The temporal patterning from Upper Mangrove Creek suggests that after a long period of gradually increasing use there was a dramatic increase in the number of people or in the time people spent in the catchment. This increase lasted from around 3000 years to 1000 years ago. The decrease in artefacts suggests that the last 1000 years witnessed a decrease in the use of the catchment, either in the number of people or the time spent; the continued increase in sites suggests greater mobility and more intensive use of the area.

Topographic profile (idealised)



Upper Mangrove Creek



Wolloby Gully, a shelter with evidence of habitation and drawings near Boomerang Creek. Excavation and recording in progress. Excavation at the habitation sites has shown that Aborigines occupied the area for at least 11 000 years and that occupation continued until European settlement. Stone artefacts (stone tools, and the debris that results from their manufacture) were the main evidence at habitation sites. Animal remains suggest that kangaroos and wallabies were eaten more often than other animals. Possum, bandicoot, snakes, yabbies and freshwater shellfish were also recovered. Photograph by Val Attenbrow, 1982.

The topographic profile below gives a clear picture of the relationship between topography and Aboriginal landuse. The profile itself runs to the south of the storage area on Mangrove Creek. Most of the sites with habitation, including those with art, are located along the valleys of the major watercourses (for example, Mangrove and Mooney Mooney Creeks). Engravings and stone arrangements are found along the ridges of Hawkesbury sandstone, Peats Ridge and Staples Lookout being two examples. Grinding grooves are found in sandstone areas near water which was used in the grinding of stone tools. Middens are also located along watercourses and in bays along the coast. Each locality produced different foods, as excavation of middens has shown. These are listed below each locality.

However, similar decreases in the rates of artefact accumulation are seen in the upper levels at other sites in eastern Australia. So Upper Mangrove Creek does not just reflect local population shifts due to the changing focus of landuse over time, but supports indications that such shifts were widespread. There was a dramatic increase in the general level of population between 3000 and 1000 years ago, but in the last 1000 years it dropped to lower levels. The period between 3000 and 1000 years ago was cooler and drier than was the preceding period or the present climate. The changes in the archaeological record may reflect cultural changes associated with long-term climatic events.

An alternative explanation is that the population size remained stable, but some aspects of Aboriginal life changed in such a way as to necessitate or stimulate the increased number of stone artefacts manufactured per head of population. The environmental changes were probably accompanied by a change in the availability of water, aquatic and terrestrial animals, and food plants. These changes may have dictated the number of implements required, the degree of mobility and the intensity of landuse. People moved about the landscape more, and their search for food, and perhaps other resources, was more intensive.

Both explanations require further investigation before we can conclusively state what happened in prehistory. But archaeological changes documented in eastern Australia indicate that, though the hunting-gathering mode of subsistence continued throughout Australian prehistory, long-term patterns of Aboriginal behaviour and activities changed.

Scale 1:75 000
0 1 2 Kilometres

The Wik people

ABOUT 1500 ABORIGINAL people in western Cape York Peninsula are known to anthropologists as the Wik-speaking people or simply as the Wik. They have no name for themselves, but recognise a shared cultural background. The maps on these pages show three elements of Wik culture in part of the Wik region.

The key Wik group is the clan, a group of about twenty people sharing common descent through the male line. They inherit a shared set of totems (called 'dreamings' in some other parts of Australia), languages, ceremonies and totemic personal names. Each clan has its own estate or country. These estates have been simplified and are numbered 1 to 26 on the three maps below.

Although individuals always retain a clear sense of clan identity, members of various clans mix freely together, travel in each other's estates and intermarry. The three elements of culture mapped here are only a few among the many which may be responsible for bringing different clans together.

Language groups

A dozen or so Wik languages have been identified, although some are no longer spoken and some have changed considerably since the early twentieth century. On the first map closely related languages are grouped under different colours. Groups B and D, for example, differ only slightly, being about as similar as Australian English is to urban Scottish English. But group E is as different from B as English is from Dutch.

Language is neither a bridge nor a barrier between Wik clans. Clans speaking the same language do not always associate closely with each other to the exclusion of others. They may be separated by the estates of clans owning different languages (for example, groups C and D). The Wik have a long tradition of marriage into clans whose members speak different languages.

Ritual groups

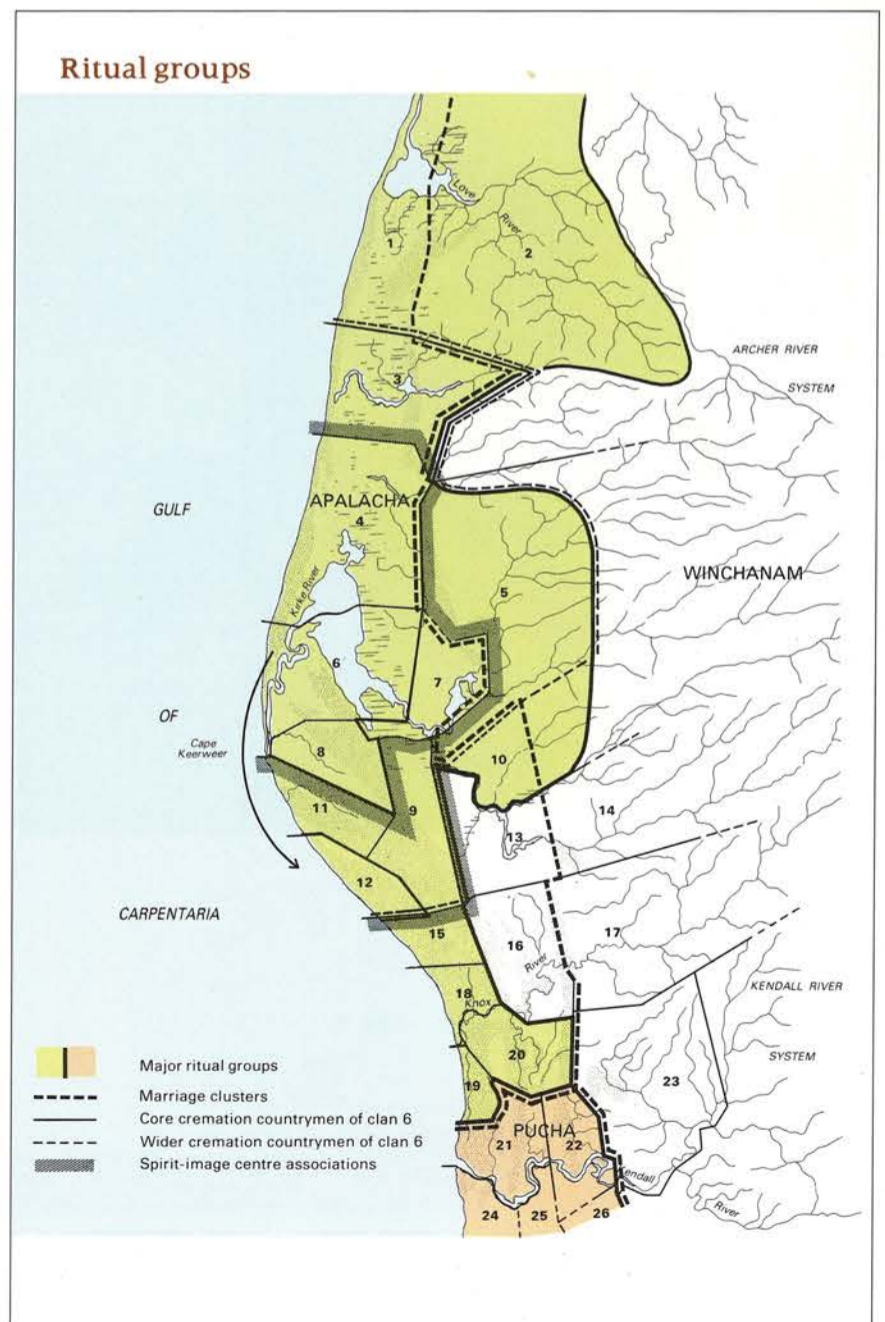
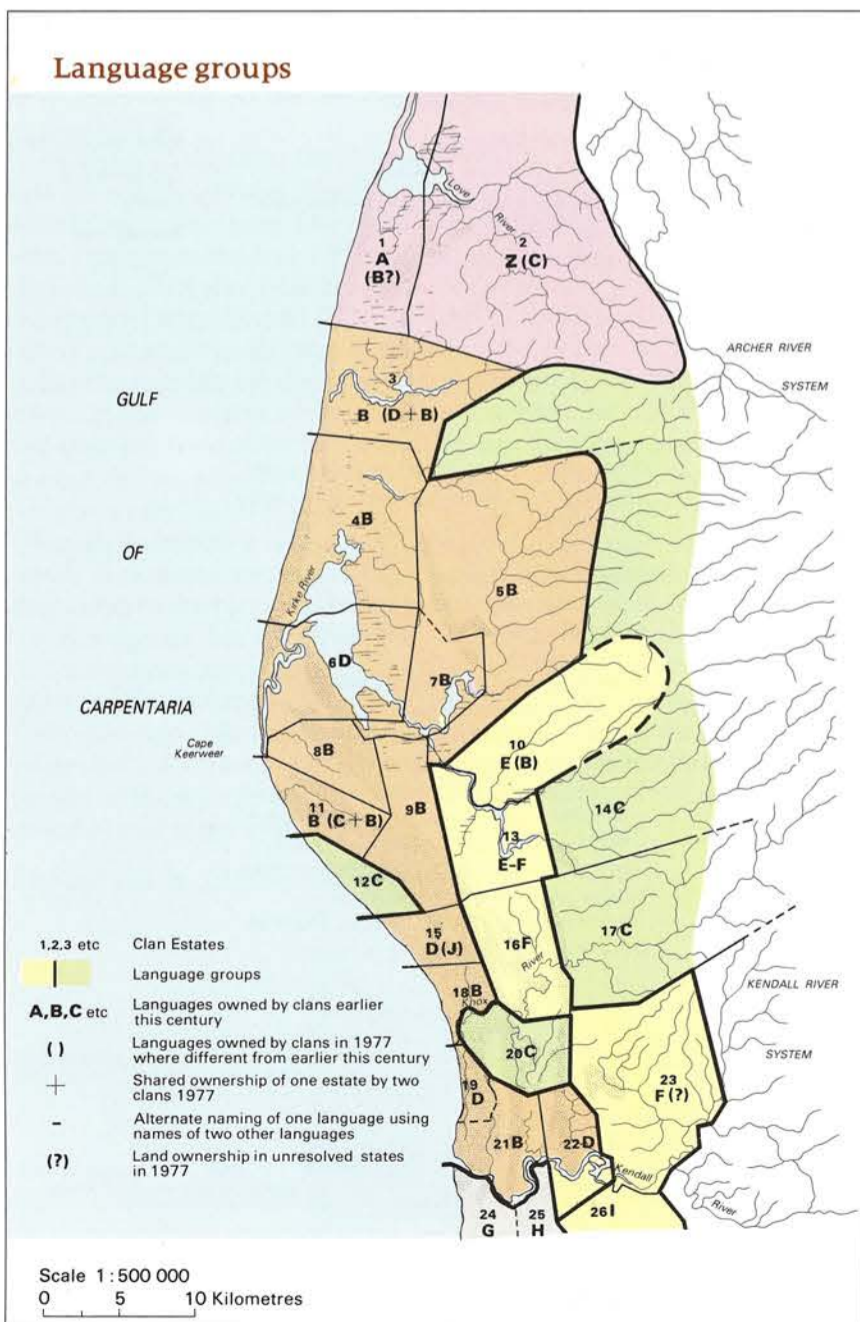
Another method of grouping clans is by ritual group. Those shown here are the Apalacha, Pucha and Winchanam groups. The spectacular rituals of these groups portray episodes of stories which tell how the land and its totemic sacred sites were originally 'found' and allocated to clans. As the map indicates, there is a strong tendency for people of the same ritual clans to intermarry, regardless of language.

Some clans cremated their dead on particular sites in the estate of clan 6. At one site people from clans 3, 4, 6, 7, 8, 9, 11 and 12 had been cremated. The map shows which clans sent spirit images of their recent dead to a shared centre. Clans 4, 6, 7 and 8 for example, sent theirs to a mudbank off the coast near estate 12.

Nickname clusters

Each clan in the area has a nickname given by other clans, based on the terrain or the vegetation in its estate, or on the name of an important place there. Clans 6, 7 and 8, for example, are called Kuuchanma or 'those from acacia tree [country]'. Clans 12 and 15 are Puthan-nhikanam, 'those from the beach in between [two rivers]'. Clans 18, 19 and 20 are Era-mangkam, 'those from Knox River'. These nicknames refer indirectly to clans or individuals, and often figure as descriptions of people's place of origin in situations of conflict.

The map also shows two examples of totemic cult associations. Clans with adjacent estates might jointly possess and control songs, dances and designs associated with a powerful figure from mythology. On the map the northern cult association is that of the Shark, centred on the lower Kirke River system, and involves clans 4, 5, 6, 7 and 8. The more southerly cult, that of the Dog, is centred on the lower Knox River and involves clans 15, 16, 18 and 20. Clans from the same river are often referred to as 'one mob', no matter how many different languages they have.



The three examples mapped here hint at the complexity of Aboriginal culture and make it clear that 'tribal' maps based on only one element, for example languages, tell only part of the story of how Aboriginal people are grouped together.

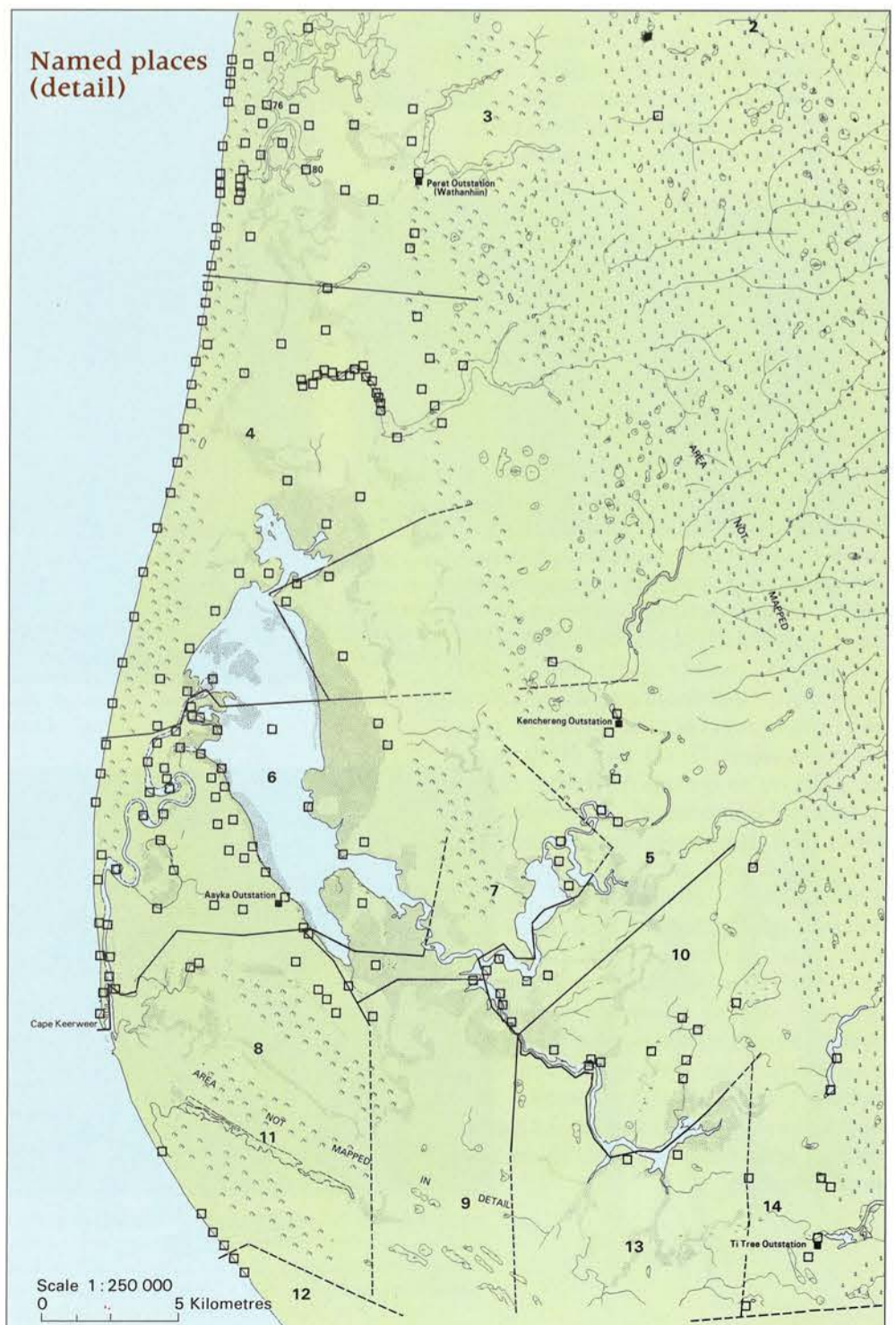
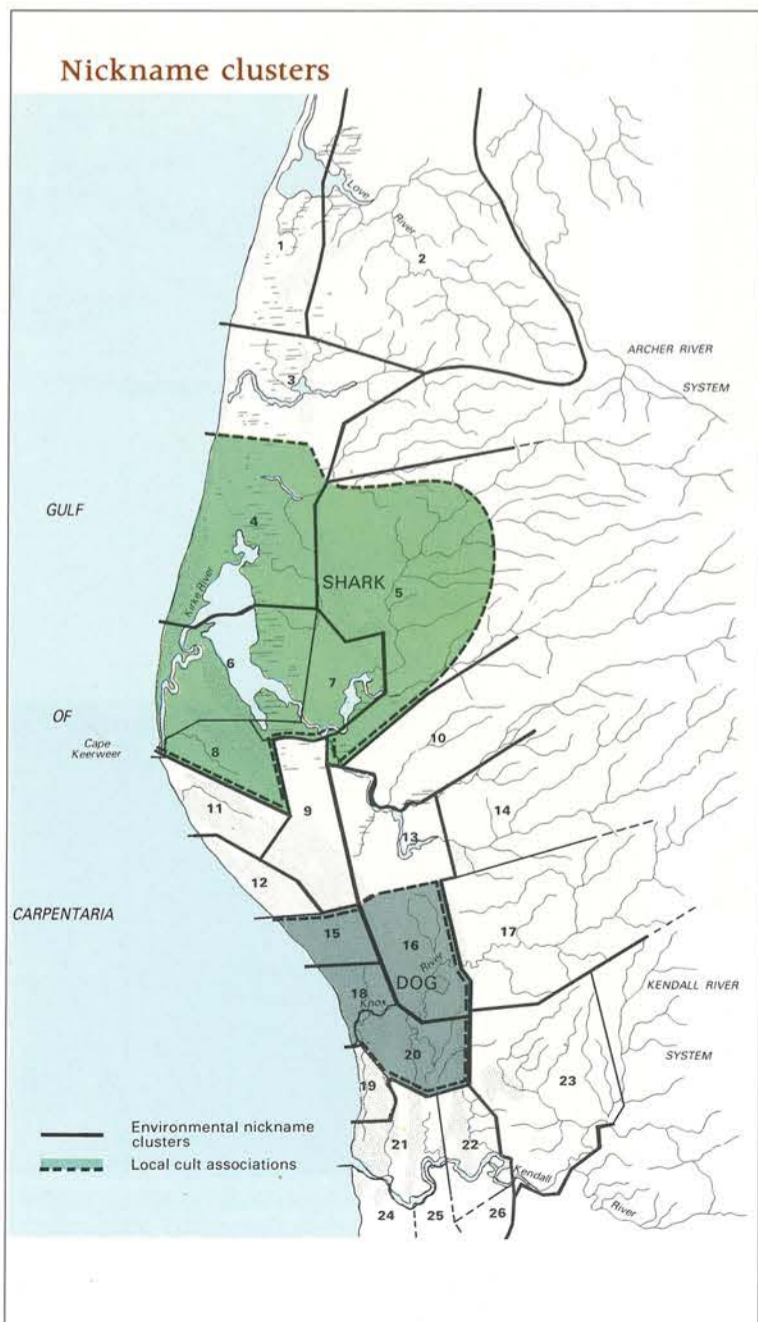
Named places

The final map shows in greater detail the central section of the area covered in the first three maps. Each square is a named place or site, which might be a sacred totemic centre, a wet season campsite, a dry season base campsite, an outstation, a cremation ground, a hunting and food-collecting centre, a major shade tree, a well or a prominent natural feature. Most of these places have rich personal associations in the memories of those who have lived among them. A large number are locations of events that took place in the myths of the people. The sites are close together, and most of those mapped up to 1979 and shown here are on the floodplains and beach ridge systems that form one of the richest natural habitats in Australia. The result is more like a city street directory than a scatter of a few bush placenames.

Clearly this landscape is not a 'wilderness'. It has been humanised and domesticated by the human tendency to intellectualise and to explain, to transpose into religious and artistic imagery the mundane elements around us. The Wik people still live on this land, if more intermittently and less extensively than before. They collect and hunt its bush foods, fire its grasses seasonally, speak formally with the spirits of the sites, maintain graves and cremation grounds, open and close wells, build yards and sheds and clear airstrips. They organise and maintain their land with care and affection.



Apalacha ceremony at Umo Toch, near Aurukun, 1971. The songs and dances of this ceremony relate to specific sites in the area shown on the accompanying maps. Photograph by John von Sturmer.



Art styles

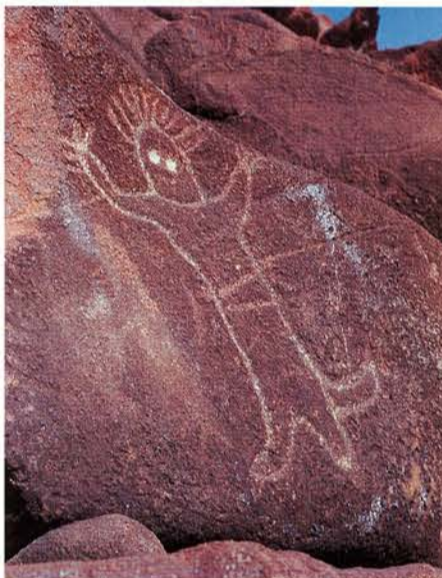
AUSTRALIA IS RICH in prehistoric pictures. Although many galleries remain unrecorded, this heritage forms one of the world's largest art collections and probably some pictures rank among its oldest. Individual works across the continent number millions. Galleries are unevenly distributed; almost 1500 art sites are known and recorded in western Arnhem Land and 2750 in New South Wales, but only a few are listed in Tasmania. These differences result partly from environmental factors affecting preservation, but also from the fact that systematic research effort varies regionally. With such richness and complexity, and an antiquity of at least 20 000 years, it is not easy to present an overall view of art styles in use before 1788.

The pictures are made using two main techniques. *Engravings* involve removing material from the rock surface and occur frequently on rocks in the open. *Paintings, stencils and drawings* are usually found in caves, overhangs and other sheltered places. The natural earth colours used are red, yellow, black, and white. It is likely that both paintings and engravings were made in all periods, although the earliest works dated are all engravings, probably because they endure better than paintings. Art works in other media, such as carved trees or beeswax figures, are less likely to survive.

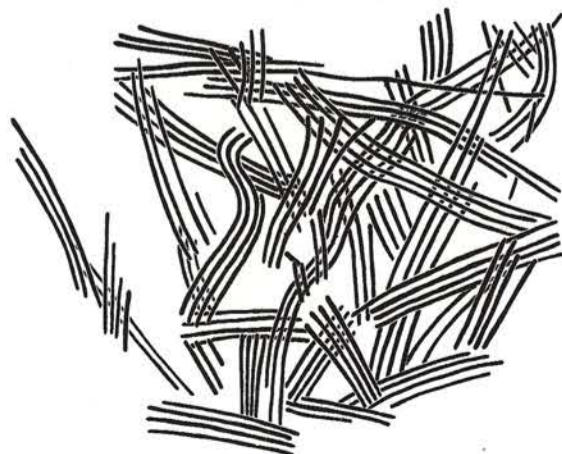
Art has been made and used by diverse Aboriginal societies for many purposes. It is a widespread traditional Aboriginal belief that the initial artists were mythic beings; most art was related to ceremonial activities which related people to the land and so to their religion.

Archaeologists have so far dated few prehistoric art sites, but some conclude that a sequence exists of at least four main stylistic classes, although this is complicated by striking regional variations. *Finger markings* were made in caves, particularly across the south of the continent, possibly more than 20 000 years ago. *Panaramittee style engravings* were made over most of Australia, possibly between 15 000 and 5000 years ago. Those in central Australia, called 'classical panaramittee', resemble each other, but sites nearer the coast are less comparable and are called 'provincial panaramittee'. Possibly the use of panaramittee motifs spread outwards from the centre of the continent, although existing dates suggest the reverse. *Simple figurative styles* are ancient in origin but they are the typical southeastern art style in the centuries before 1788. *Complex figurative style* occurs in tropical Australia. As a ceremonial art form it has continued into modern times.

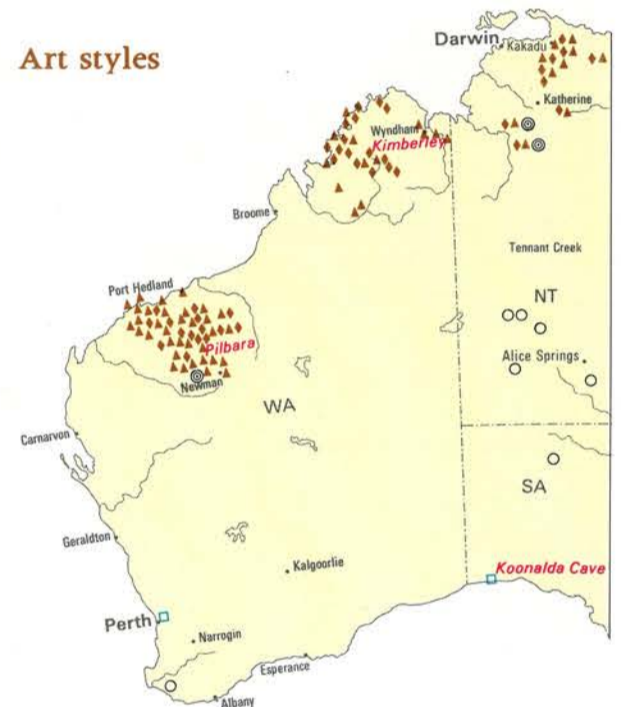
Complex figurative paintings in the Kakadu National Park, N T. This broad class has been divided into several phases in this region. Dominant motifs seem to be related to the changes accompanying the rapid sea level rise up to 6000 years ago and the subsequent formation of monsoonal flood plains. These pictures (right and far right) illustrate the change from a dry to a wetlands environment. Human figures and barramundi about lifesize. Photographs by George Chaloupka.



The art of Dampier and the Pilbara consists of immense numbers of simple figurative engravings pecked on sandstone or granite outcrops, often highly weathered. There is a wide variety of 'naturalistic' animal and human figures. Top, figures are about lifesize, above figure 750mm tall. Photographs by Lesley Maynard.



Art styles



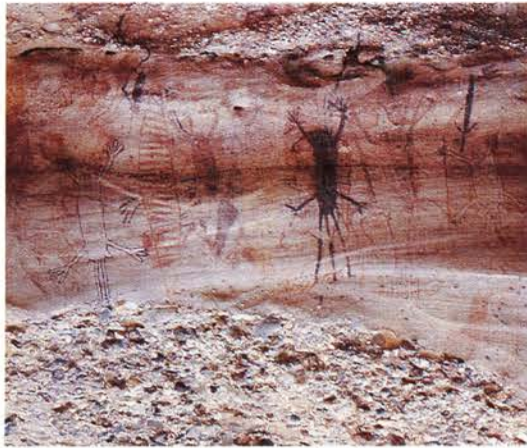
Selected sites showing Aboriginal art styles

- Classic
- Provincial
- ▲ Figurative Simple
- ◆ Figurative Complex
- Finger markings

Scale 1 : 30 000 000



These examples probably rank among the world's earliest art. Fingers drawn across soft limestone surfaces produced patterns of fluted lines. Koonalda Cave under the Nullarbor Plain contains extensive wall markings, possibly 20 000 years old. Photograph by Robert Edwards.



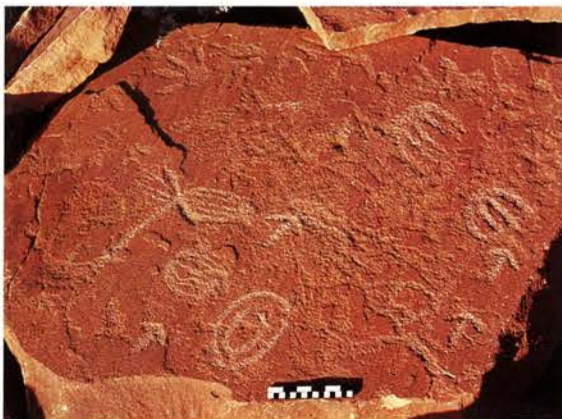
The massive sandstone shelters on Cape York's Koolburra Plateau contain thousands of simple figurative paintings and engravings, many of which seem to be arranged in deliberate compositions. These views are of the Green Ant site, one of the major galleries in the area, where pictures include Dreaming creatures with human characteristics. Photograph by J. Flood.



Archaeologists excavated the area below these lifesize simple figurative paintings at the Early Man shelter near Laura on Cape York. The deposit beneath them was found to cover some engravings in the 'provincial' panaramittee style. Charcoal from the bottom layer of the deposit was dated to 13 000 years ago, providing a minimum age for the drawings. Photograph by Andrée Rosenfeld.



In the Sydney area there are both drawings and engravings. While some, such as the 4-metre engraving on the left, may be very old, others are as recent as 1788. Photograph at left by Lowen Turton, photograph above (boomerangs approx 1 metre long) by John Clegg.



'Classic' panaramittee sites consist of numerous engravings scattered over rocky outcrops close to drinking water. Around 60 per cent of the motifs resemble lifesize animal tracks; another 30 per cent are simple circles, spirals and other geometric figures. The engravings shown come from Allambi Station, NT. The circles are approximately 200mm in diameter. Photograph by Robert Edwards.



Simple figurative motifs in Victoria's Grampians. Victorian rock art consists primarily of red paintings of stick-people, sets of bars and lines, and hand stencils. The picture on the right, of the distinctive lizard-people motifs at Glenisla is by R.G. Gunn. The photograph above, of 200mm-high figures, by Michel Lorblanchet.



Carved trees

ALTHOUGH WIDESPREAD, the practice of carving trees was concentrated in New South Wales and southeastern Queensland. It appears to have been particularly common among the Kamilaroi and Wiradjuri groups, but was not restricted to them. The practice has an unknown antiquity but the existence of metal toolmarks suggests that most carvings were made after 1800.

Carved trees in southeastern Australia can be classified into two groups: burial trees or taphoglyphs (associated with burials) and initiation trees or teletglyphs (associated with initiations). To date some have eluded classification.

Carvings on burial trees are found predominantly in the central west of New South Wales, particularly along the Bogan, Macquarie and Lachlan river systems. The most common carving technique involved removing the outer bark and sapwood from a portion of the trunk. The carvings were then made into the inner wood of the cleared panel. The carvings themselves are non-figurative, displaying a great variety of combinations of geometric forms and curved lines. It is not known exactly what the carvings signify, but they might have identified the social or totemic affiliations of the dead person.

Initiation trees occur mainly in southeastern Queensland and northern New South Wales, although some examples also occur in the southern part of New South Wales. They are generally associated with initiation ceremonies of the bora or tooth-removing type. The carvings appear to have been used in the education of novices. The range of carvings found at inland initiation sites is very broad, from simple 'cut-out' shapes in animal and human forms to geometric shapes similar to those found on burial trees. The carvings on initiation trees in coastal areas were usually cut into the bark rather than into an exposed wood panel. They have complex patterns of concentric diamonds, lozenges or intersecting lines repeated regularly over the whole surface.

Although there were probably thousands of carved trees in southeastern Australia, only 299 are still known. One hundred are located on their original sites; the rest are on private properties and in museums.



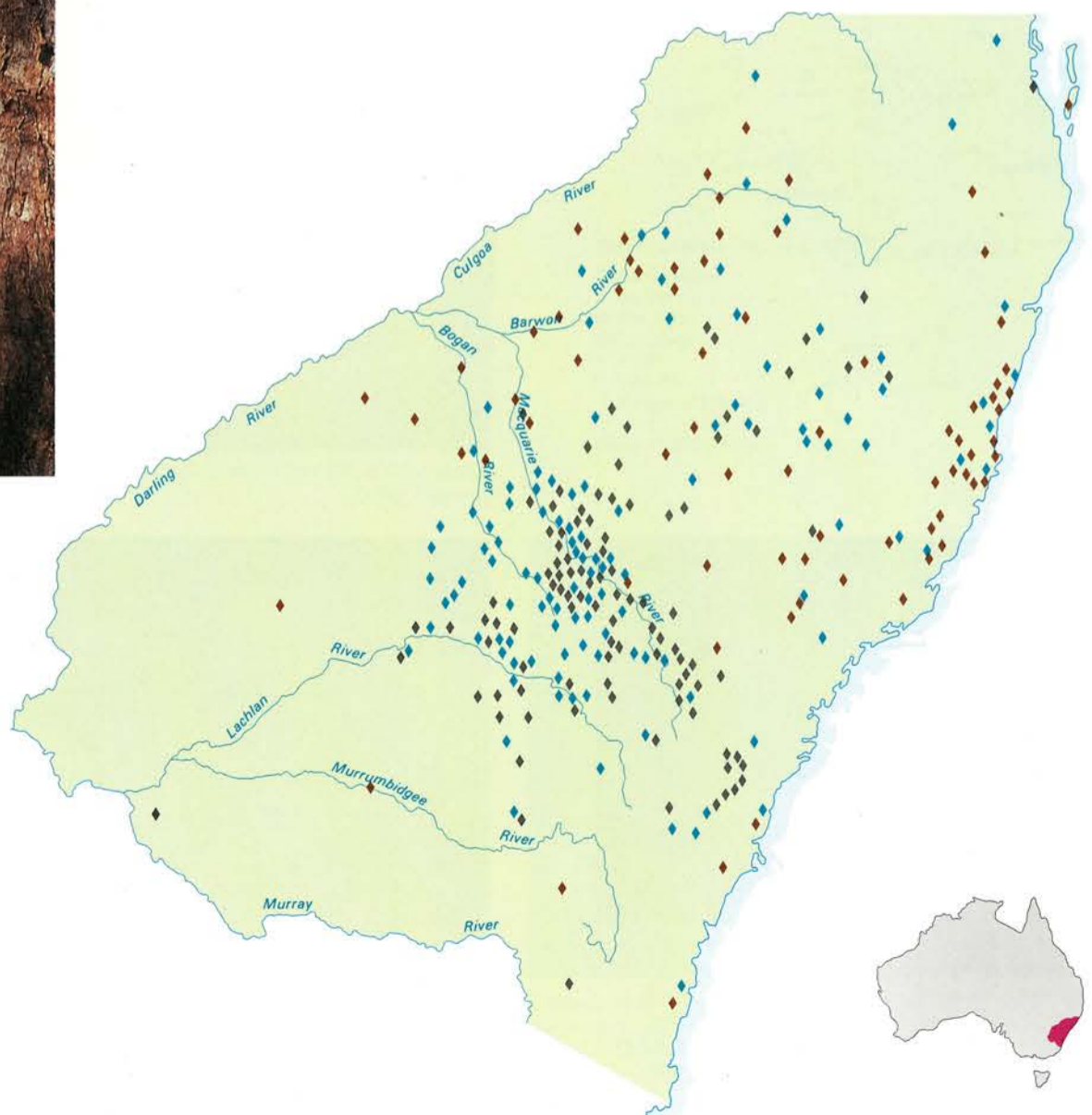
Carved tree at Yuranigh's grave near Molong, New South Wales. Yuranigh was a guide on Thomas Mitchell's 1846 expedition to north-eastern Australia. Photograph by Reg Morrison, 1983.

WELDON TRANNIES



Detail of a carved tree at Yuranigh's grave. Photograph by Reg Morrison, 1983.

WELDON TRANNIES



Known carved tree sites

- ◆ Burial tree site
- ◆ Initiation tree site
- ◆ Site use not known

Scale 1 : 7 500 000

0 100 200 300 Kilometres

Arabana Rain Dreaming

THE ANTHROPOLOGIST W. E. H. Stanner, in what must remain one of the most thoughtful contributions to our understanding of the Dreaming, wrote in 1953:

A central meaning of The Dreaming is that of a sacred, heroic time long ago when man and nature came to be as they are, but neither 'time' nor 'history' as we understand them is involved in this meaning.

The way in which a person is associated with the Ancestors of the Dreaming is complex and varies greatly between different groups of Aboriginal people. These associations may be handed down from father to son, or mother to daughter, or through the place of one's birth. A person may have only one such association, or a number of them. But whatever the mechanisms of the associations may be, the central meaning of the Dreaming as summarised by Stanner remains.

The Ancestors of the Dreaming are associated with prominent landscape features. They are believed to have once travelled across the land, leaving on the landscape the impact of various events during these journeys. There is not a simple one-to-one relationship between the myth and the land: one single myth may refer to two different areas, and one single prominent place may have a number of myths associated with it. Some Ancestors are major Cult Heroes travelling far and having their adventures celebrated in long song cycles and rituals. Others are minor Ancestors; their story will 'only go a short way', and only a few songs, if any, celebrate them. They may also play a small role in the adventures of major Cult Heroes. This page summarises a Dreaming myth, the all-important Rain myth.

The Rain myth belongs to the heritage of Arabana people who once lived on the western and northwestern side of Lake Eyre. In the arid Arabana country rain was all-important, and the thunderclouds looming over the horizon represented a major Dreaming.

This myth has been set in a number of locations: Andado in Aranda country and the central Simpson desert in Wangkangurru country. As retold here, it is set in Nilpinna Springs in Arabana country, and has far-reaching ritual implications. It was connected with a major ritual which was carried out frequently at the Thantji-wanparda site. A long sequence of songs was related by the late Mick McLean Irinjili, for the whole of the Rain: the line of song and story refers to a large area belonging to peoples of different languages. It was a Dreaming that united and held meaning for people of the same Dreaming affiliation over a large section of south central Australia.

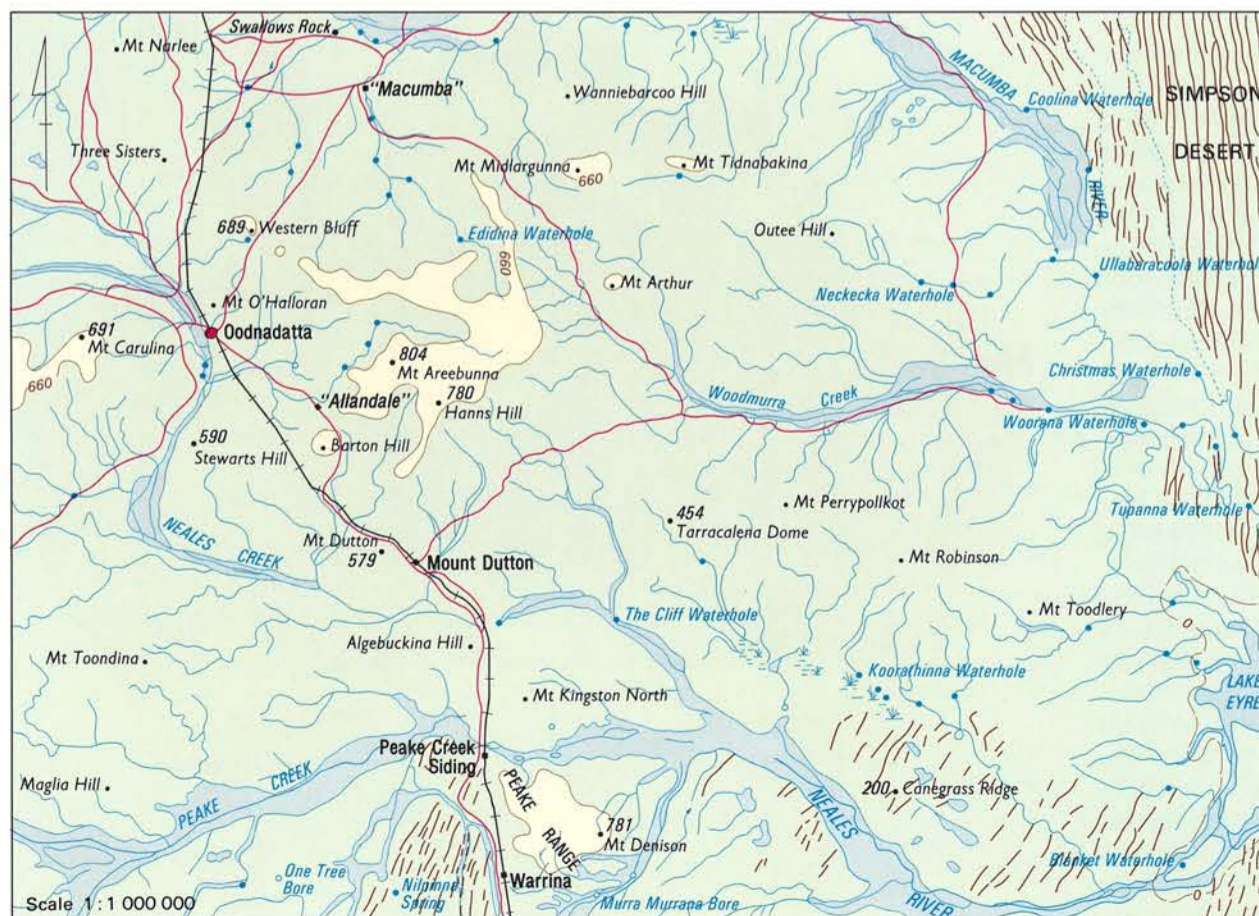
Wantu-wantu the man-eating hawk was killed, and his less evil companion *karrawara* the eagle-hawk, was injured. The huge injured bird flew up, darkening the sky. He sang:

The vein in my arm is opened, the blood-vein in my wing is destroyed, the blood drips on the ground with a splattering sound.

The blood turned into rain, and the eagle-hawk himself became a thundercloud. The cloud travelled east from Nilpinna and approached the northern Peake Range. A terrible hailstorm began, leaving the western part of the Peake shining white and covered in small pieces of quartz, the hailstones. Then came flood rain. All the people at Thiriyangunha ('the cliff waterhole') were drowned. Five miles to the west at another waterhole the people were also drowned and became rocks. A grandfather, in a desperate bid to save his young grandson, held him up on his shoulders, and both are still there as spectacular boulders from which the name of the place Thantji-wanparda ('he is holding up his grandson') is derived. Before these events the Thantji-wanparda people had been making rain with a special rain-stone, too successfully as it proved. An Aranda rain-man called Anintjola, who is sometimes identified with the Rain, stole this stone and travelled north with it. He still stands there as Mount Kingston North. He travelled back amid sundry adventures: at Hanns Hill Tjilthi-karranha ('tying up the rain') he tied up his rain-maker's bag; at the Swallows Rock a few miles northwest of Oodnadatta he drowned all the swallows. He ultimately travelled far to the north.



The rockform Thantji-wanparda ('he is holding up his grandson') on Peake Creek in South Australia.
LUISE HERCUS



Arabana country, in which this version of the Rain Dreaming is set. Nilpinna Spring is shown at the bottom of the map.

Aborigines and land

ALTHOUGH THE RAISING of the British colours on 26 January 1788 took no more than a few minutes, the ceremony symbolically dispossessed the Aboriginal inhabitants who had been in occupation for more than forty thousand years. To the British, Australia was *terra nullius*, land that belonged to no-one. They believed that Aborigines did not cultivate the land and therefore had no right to possess it.

From the Aborigines' point of view the situation was quite different. They had a complex system of traditional rights and responsibilities in land matters. They depended on the land for their survival and they were spiritually attached to it.

For the majority of Aborigines the ceremony at Sydney Cove had no immediate results, but those living near the settlement were soon to suffer the effects of European occupation. Disease demoralised and depleted the Aboriginal population and conflicts with the colonists over land use quickly occurred. Deprived of land, many Aborigines became dependent on the newcomers. In 1815 a school for Aborigines was established at Parramatta. In 1819 it was moved to a reserve at 'Black Town'. This policy of separation was continued through the establishment of Aboriginal reserves from the 1830s. In most cases the reserved areas were small and focused on a mission body. Reserves shown on the map covered no more than 260 square kilometres at the date shown. In some cases large reserves were briefly declared and then resumed or reduced in size.

Fifty years after settlement there was no reserve larger than 260 square kilometres. The most extensive reserve was the 165 square kilometres set aside for the Buntingdale Wesleyan Mission on the Barwon River west of Geelong, established in August 1838 and ended in 1848. The first large reserve declared was for the Lutheran Mission at Hermannsburg west of Alice Springs, established in 1877. The map of European settlement for 1888 implies that areas like Arnhem Land were settled in the same manner as New South Wales. Although there was much land speculation, with people leasing huge tracts of land sight unseen, Europeans actually occupied little of the Territory.

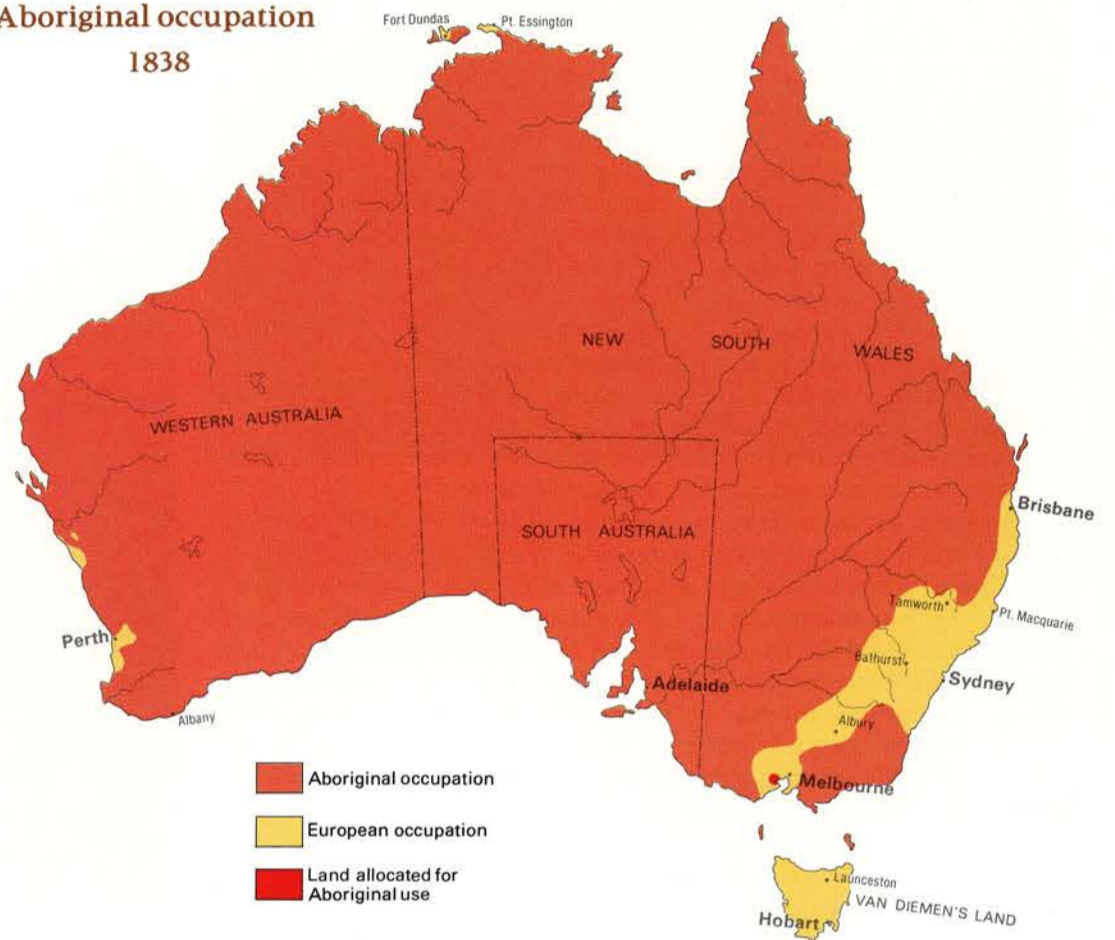
Although in the mid-1870s there was a move to set up reserves in Queensland on an experimental basis, most of these were cancelled by 1885. The movement to protect Aborigines really gained momentum with a spate of legislation in the 1890s. A Queensland act of 1897 introduced a systematic policy of declaring reserves and removing Aborigines to them. In Western Australia special legislation in 1886, 1897, 1899 and 1905 resulted in the proclamation of a number of reserves. For the Northern Territory, Sir Baldwin Spencer, Chief Protector of Aborigines during 1912, recommended the creation of large reserves to protect Aborigines. At that time Europeans believed that the extinction of the Aboriginal population and the physical assimilation of those of mixed descent was inevitable. The 'Aboriginal problem' would solve itself, eventually, therefore removing the need to solve the problem of rights to the land.

However, by the end of World War I, it seemed that the Aboriginal population would neither die out nor be assimilated rapidly. In 1917 church representatives approached the South Australian government to set aside a large area in the northwest of the state for surviving nomadic Aborigines. They also suggested to the Western Australian and federal governments the creation of a huge central reserve in the area of the borders. Despite initial rejection, the idea was taken up. In 1918 Western Australia declared a temporary reserve 'subject to cancellation

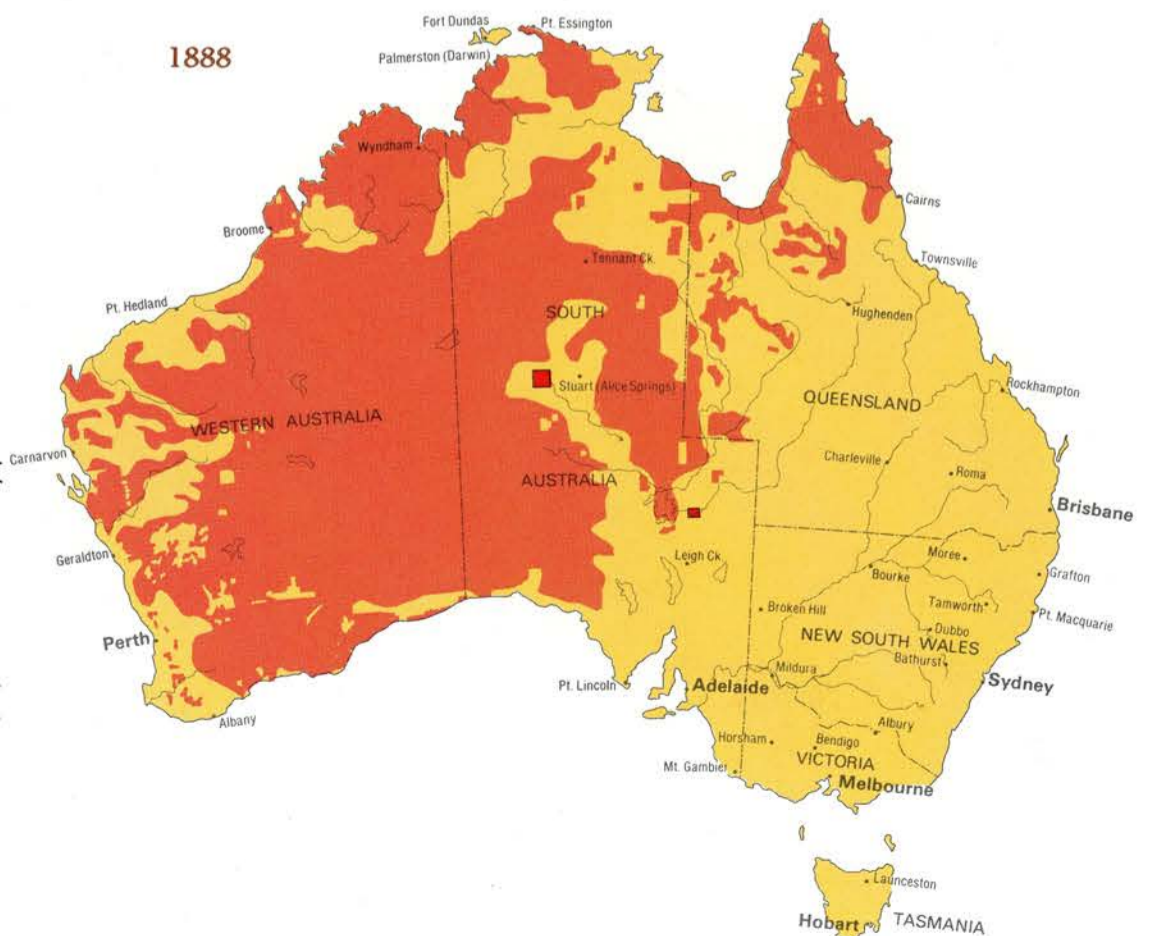


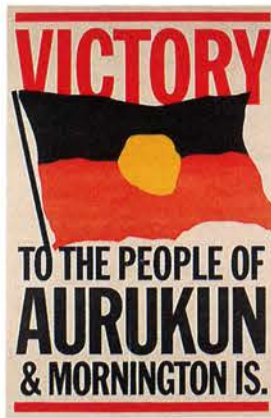
Aboriginal occupation

1838

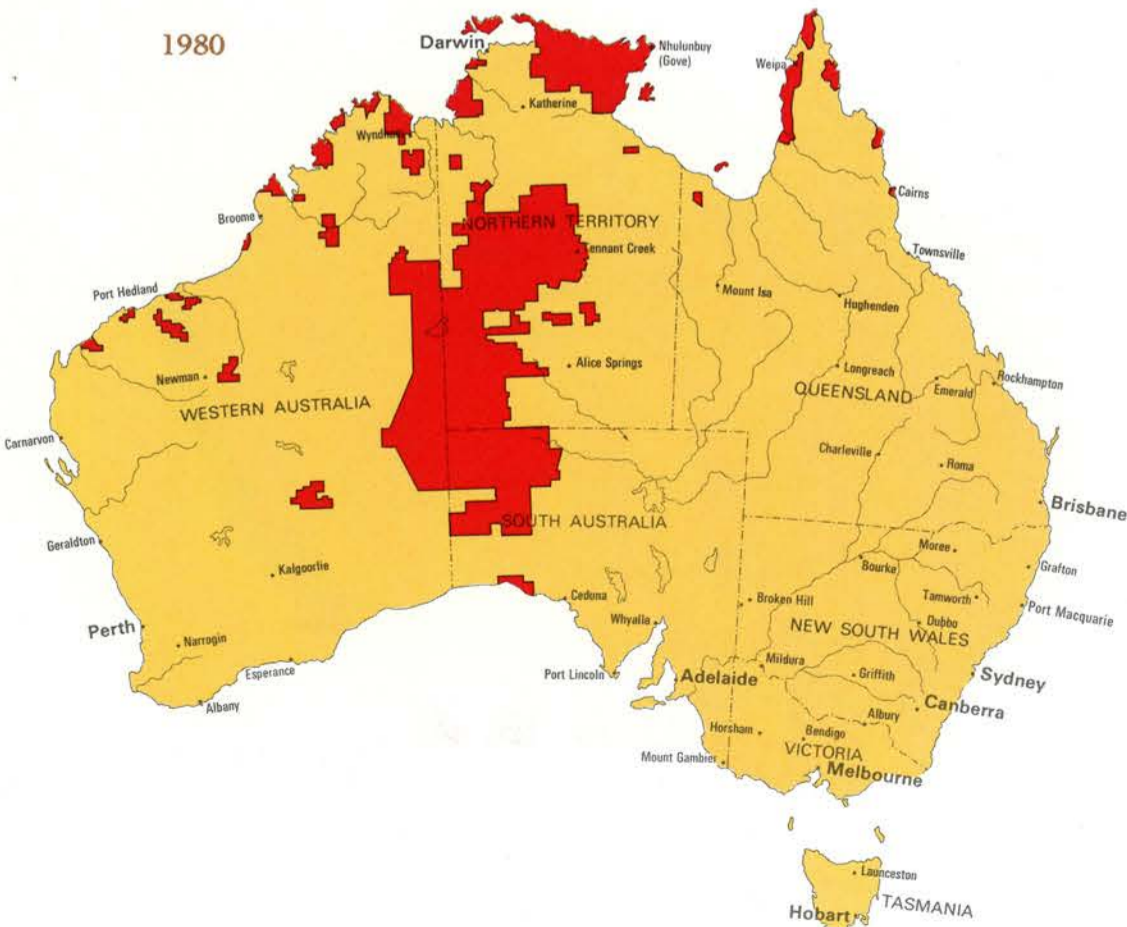
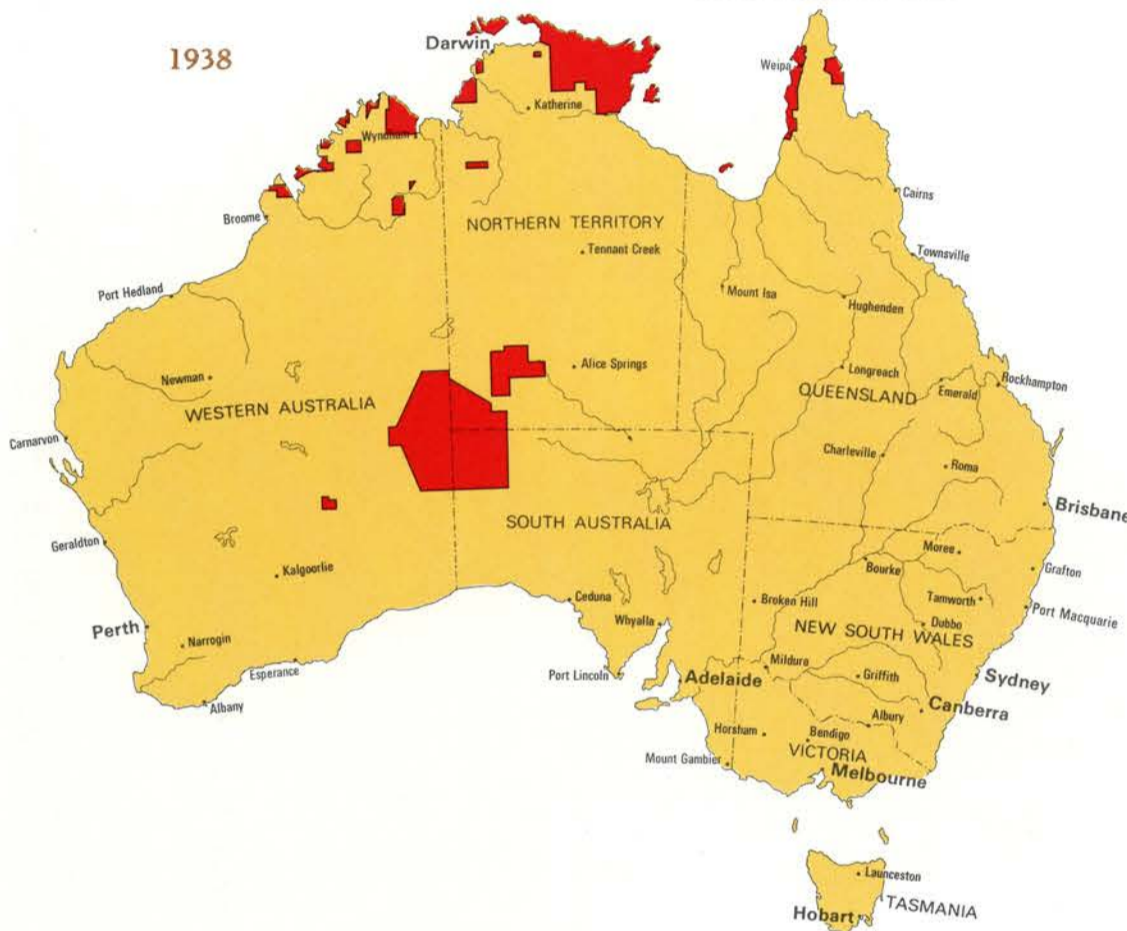


1888





Poster produced during the 1978 land rights dispute between the people of Aurukun and Mornington Island, and the Queensland government.
BOOROWA PRODUCTIONS



as a reserve should it be required for other purposes'. In 1920 the federal government declared an area in the southwest of the Territory on the condition that the government would not be called on to patrol or administer it; and in 1921 South Australia declared a reserve which, with some small changes, became the lands of the Pitjantjatjara Land Act of 1981. Later, other reserves were declared, most notably the Arnhem Land Aboriginal Reserve in 1931. The last major reserve to be created was in 1957 when the Lake Mackay Reserve in the southwest of the Territory was created for the few dozen Pintupi still living a traditional life in the area.

Although by this time more than 528 000 square kilometres, or 6.9 per cent of the continent, had been reserved, not one square metre was owned by Aborigines: all of it was held for their use and benefit either by the government or by some charitable organisation ministering to them. Almost all the land was in remote Australia and, although extensive, it had been available for reservation only because it was unwanted by pastoralists.

The first moves to hand over any of these reserve lands to Aboriginal control came in South Australia with the formation of an Aboriginal Lands Trust in 1966. Subsequently legislation was passed in Victoria in 1970, in Western Australia in 1972 and in New South Wales in 1974. None of this legislation proved satisfactory. Indeed it was not until 26 January 1977, exactly 189 years from the original act of dispossession, that substantive land rights came into force with the gazetting of the Aboriginal Land Rights (Northern Territory) Act 1976. This legislation recognised that land rights are not simply about property but also about restoring some elements of the lost independence and autonomy of action that prevailed before the arrival of Europeans. The act achieved this by providing substantial control over mining development on Aboriginal land and the right to royalty income. The Territory legislation is not without its problems. It does not adequately cater for those Aborigines living on pastoral stations or on the fringes of towns. But it has set a benchmark for Aboriginal people in other states. So far, the South Australian Pitjantjatjara Land Rights Act (1981) and Maralinga Tjarutja Land Rights Act (1984) have followed.

New South Wales revised its land rights act in 1983 so that Aboriginal communities could hold their own title. The most innovative aspect of the legislation was to grant 7.5 per cent of land tax for 15 years to fund the land councils, who are able to use much of their money to buy land on the open market. As in the Northern Territory, land claims can be made only for land held by the government, and not all government lands at that.

Queensland enacted legislation in 1982 that gave reasonably secure title to the reserves but without any rights to the mineral and forest resources. As in Victoria, the great majority of Aborigines live outside the reserves, so their wish for land rights remains unsatisfied. In neither state are land claims really possible.

The 1972 Western Australian legislation set up an Aboriginal Lands Trust, but left all control in the hands of the relevant government minister rather than an Aboriginal body. Despite an inquiry in 1984 that recommended a modified form of the Northern Territory legislation, opposition by the mining industry and the farming community has led an originally sympathetic Labor government to rule out the possibility of any change.

In Tasmania there is no reserve land at all.

By 1988 just over 10 per cent of Australia will be held by Aboriginal people under one form of title or another. That may sound a lot for 1.2 per cent of the population, but fewer than 500 square kilometres are held by Aborigines in New South Wales, Victoria and Tasmania combined; almost all the land is in isolated areas.

The Wiradjuri

THE WIRADJURI refer to themselves as ‘the people of the three rivers’, the Wambool (Macquarie), the Kalar (Lachlan) and the Murrumbidgee (Murrumbidgee). Their clan area covers over 60 000 square kilometres, stretching from the foothills of the Blue Mountains almost to the junction of the Kalar and Murrumbidgee and from the Wambool to the country between the Murrumbidgee and Millewa (Murray) rivers. Boundaries were not fixed in the European sense (hence the special sites on the map of the ‘Wiradjuri country in the past’), but members of particular groups knew whether they were in their own country or not. The penalty for trespass was death.

Aboriginal groups are differentiated by language, particularly when marriage and ritual characteristics are shared. Wiradjuri was the language spoken throughout the region that set these people apart from other groups such as the Barkindji and the Kamilaroi. The Wiradjuri and the Wongaibon were close linguistically and socially.

Among the Wiradjuri speakers were many small localised bands, whose members sometimes fought each other. Fights are recorded between the Kalar and Murrumbidgee bands, for example, but they also came together to fight threatening neighbours such as the Namoi River people and the white invaders.

The rivers were central to the lives of the Wiradjuri, even to the bands who roamed the interfluvial country. Rivers provided rich supplies of food, including fish, shellfish and waterfowl. Bark for canoes was stripped from the red river gums that flanked the streams. Away from the rivers, good natural grazing land provided food such as emus, kangaroos and other animals. Seasonal fruits and nuts were also gathered. When the rivers were high and food was plentiful, the Wiradjuri bands gathered for ceremonies.

Wiradjuri descendants maintain strong ties with their country, despite the almost complete destruction of their traditional lives by Europeans in the nineteenth century. The survivors of frontier warfare remained in or near Wiradjuri territory, gradually shifting towards the newly established towns. Most Wiradjuri still live in their traditional area, as the map of ‘Wiradjuri communities’ shows. Links between communities are as strong now as they were 200 years ago and the people continue to identify themselves as Wiradjuri. Even the large numbers in Sydney and Canberra retain close links with their home communities and visit them regularly. Their strong sense of identity is reflected in the establishment of the Wiradjuri Aboriginal Land Council in 1982 and the Wiradjuri Cultural Resource Centre in 1983. Both bring people together to discuss political issues, economic needs, research priorities and the preparation of educational resources on Wiradjuri culture and history.

The Wiradjuri people differentiate themselves from non-Wiradjuri Aborigines in several ways including the continued use of Wiradjuri words as well as English words and more importantly through their identification with place. This is reinforced by powerful kinship links between the communities. Marriages traced for the Wiradjuri community at Cowra between 1890 and 1982 demonstrate this. The map of ‘Marriage patterns’ shows a strong preference for finding a spouse within other Wiradjuri communities and within the Wiradjuri region, despite the fact that other Aboriginal communities may be just as accessible. The Wiradjuri often move between communities where they have kin and opportunities for visiting are highly valued. Consequently, the map also reflects patterns of social interaction between the communities generally.

