Chapter 9

Natural and Cultural Heritage

'Barmah Forest' by Lin Onus shows a natural river red gum forest on the River Murray, significant to local Aboriginal communities. The painting suggests irreparable changes to the ecosystem since European settlement.

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Introduction

Australia's natural and cultural heritage is integral to the environment. Our natural heritage is the physical landscape — the biological and physical elements such as plants, animals, mountains, rivers, deserts and oceans. This landscape is also imbued with human associations, stories, myths, personal histories and emotions.

People have lived in Australia for at least 50 000 years. Over the last 200 years, the first Australians have been followed, initially by British settlers and convicts, and later by immigrants from many countries. All helped shape our physical environment and left tangible evidence in the form of archaeological remains, material objects, structures or remnants of infrastructure. They also left an intangible legacy — the stories of places and people, the meanings attached to places and objects and cultural practices and traditions. This cultural heritage, which provides the fabric, context and web of history, is as much a part of the Australian environment as our natural heritage.

Heritage provides the cultural and physical links with the past, with the history of human habitation and settlement in Australia and with the evolution of biota and the physical landscape. It is integral to our 'sense of place', an element central to the cultural identity of any nation and a source of spiritual well-being. Natural landscapes, with their biological and physical diversity, and cultural landscapes, with their diversity of cultural records and layers of meaning, objects and stories, collectively give us our uniquely Australian sense of place.

A society that values its heritage will want to retain it for future generations and act to do so. The state of our heritage is just as important as the state of Australia's atmosphere, its water, oceans, land, plants and animals.

This chapter covers Australia's natural and cultural heritage as described in the box on page 9-5. Natural heritage comprises significant places and objects that are part of the biophysical environment. As previous chapters focus on the biophysical aspects of the natural environment, this chapter only covers those aspects specifically related to heritage.

Australia's cultural heritage includes places and objects significant to Aborigines, Torres Strait Islanders and non-indigenous Australians. It contrasts strongly with that of countries whose heritage is displayed most visibly by ancient monuments. Yet places significant to the Aborigines may have even greater antiquity. For example, at Lake Mungo in New South Wales, archaeological sites date to at least 40 000 years ago. Australian Aboriginal culture is one of the oldest continuing cultural traditions in the world and remains a vital and creative force in modern Australia. Its ancient record makes places such as Lake Mungo a focus today for Aboriginal groups celebrating this continuity of cultural survival. Only relatively recently has the heritage of Aborigines and Torres Strait Islanders been widely accepted as part of Australia's overall cultural heritage. However, not all Aborigines believe their heritage belongs to all Australians.

The cultural heritage of the last 200 years or so is a complex record of immigration, settlement and dramatic modification of the biophysical environment. It can be seen in skyscrapers and suburban villas, in farms, forests and factories, in ruins in the landscape and relics in museums. People who arrived here as migrants after World War II may perceive heritage as just relating to their own history, in the places left behind or the traditions brought with them. However, the places where they have continued their cultural life and practices in Australia are indeed of heritage value. That these places are relatively young — as is all of our cultural heritage since European occupation — does not make the heritage any less valid. 'It is just more elusive and less easily understood' (Armstrong, 1994).

For both indigenous and non-indigenous communities the value of cultural heritage is not just a matter of age. Local communities value places for their current roles and ongoing uses, as well as their ability to symbolise the past and provide tangible links with it.

The state of Australia's natural and cultural heritage and associated pressures were first described in detail in the 1974 Report of the Committee of Inquiry into the National Estate (the Hope report),

Rottnest Island, Western Australia — a place with significant natural and cultural heritage values.

with the situation reviewed in 1981 (Yencken, 1985). The state of museum collections was described in 1975 in the Report of the Committee of Inquiry on Museums and National Collections (the Pigott report), and in the 1987 report of the Committee to Review Australian Studies in Tertiary Education (CRASTE) (Daniels, 1987).

The following sections outline current human pressures affecting Australia's heritage, summarise its present state and describe responses to its condition particularly over the last decade. Where relevant, the above reports are used as benchmarks to measure changes in pressures and trends in state. Severe constraints were imposed by the very short time available to collate relevant data or initiate studies. Mostly indirect measures were used to assess the condition of the heritage environment. Often it has been possible only to raise relevant issues without being able either to quantify them or assess their importance with confidence.

The inclusion of Australia's natural and cultural heritage adds a new dimension to state of the environment reporting. This chapter concentrates on heritage places and heritage objects. People could well argue that heritage objects should include library and archival material, as they are one means by which heritage meanings are transmitted and also have heritage value in their own right. However, this chapter concentrates on objects with a direct physical relationship to place (see page 9-7) because of their interconnectedness.

Wilderness

The term 'wilderness' is often understood to mean wild and remote areas — that is, land to which people are alien. However, Aboriginal communities have lived in every part of Australia for many thousands of years; they have managed the land, and their stories and songs testify to their relationship with it. For indigenous people today, areas that may be 'wild' in the eyes of many people are cultural landscapes and rich in meaning and law. Because of this long association of indigenous peoples with the land, 'wilderness' is now defined as remote areas that remain substantially undisturbed by the activities of colonial and modern technological society and that are large enough to ensure the long-term protection and integrity of their natural systems and biological diversity.

Land remote from settlements, that has been little disturbed by non-indigenous land-use practices is important for conservation. The protection of these areas may also be important to maintain indigenous values and life-styles, to reaffirm cultural heritage and traditional social relationships and to foster traditional ecological knowledge and land management practices.

Sources: 1994 Environment Policy of the Aboriginal and Torres Strait Islander Commission; Robertson *et al.*, 1992.

Defining natural and cultural heritage

Places

Heritage places are those natural and cultural sites, structures, areas or regions that have 'aesthetic, historic, scientific or social significance or other special value for future generations as well as for the present community' (*Australian Heritage Commission Act 1975*, Section 4). Many places have both natural and cultural heritage values.

Objects

Heritage objects are those which provide material evidence of Australia's natural and cultural environments or its historical and cultural life and biophysical evolution. They may be *in situ* at significant sites or held in collecting institutions — archives, libraries, museums, galleries, zoos, herbaria or botanic gardens — or historic buildings.

Living collections of flora and fauna are also included because of their relevance to biodiversity.

Values and meanings

Places and objects have heritage significance because of the meanings that people attach to them. They reflect the values of their times. These intangible aspects underpin natural and cultural heritage and so are discussed before a description of the state of places and objects, and associated pressures and responses.

It is likely that future generations will value nearly all the places identified today as having heritage significance, but it is also certain they will value other types of places that our society does not. The reasons for this are threefold. Firstly, places (and objects) that seem to be quite commonplace today will have different significance with the passage of time as historical assessment of them changes or as they become rarer through attrition. Secondly, new places and objects will be created and will in time have their own significance. Thirdly, attitudes are constantly changing — in the last couple of decades many new dimensions of our heritage have been recognised and valued. These changes result in a broader awareness of the strong attachments of

The community responded forcefully when Melbourne's Fitzroy swimming pool was threatened with closure — an example of people's strong attachment to places of social value.

Table 9.1 Australia's overseas-born population

	Date of Census 1971	1981	1991
Total Australian population ('000)	12 755.6	14 576.3	16 850.5
Overseas-born			
Total population ('000)	2 579.3	3 182.5	4 125.8
Per cent of total Australian population	20.2	21.8	24.5
Total number of birth-place countries[1]	*c.* 87	*c.* 102	*c.* 238
Per cent born in English-speaking countries	48	44	42
Per cent from the top 20 overseas birth places[2]	89.7	80.4	82.1
Per cent from birth places other than the top 20 birth places	10.3	19.6	17.9
Overseas-born as a per cent of the total Australian population, by region of birth place			
Oceania and Antarctica (excluding Australia)	0.8	1.5	2.1
Europe and the former USSR	17.3	15.5	13.6
Middle East and North Africa	0.6	0.8	1.0
Asia	0.8	1.7	4.1
Northern America	0.3	0.3	0.4
South and Central America & Caribbean	0.1	0.3	0.4
Africa excluding North Africa	0.3	0.4	0.6
Not stated	-	1.2	2.2

Notes:
1. The increase in number of birth places from 1971 to 1991 is a mixture of re-classification of birth place categories as well as a real increase in the actual number of countries.
2. Top 20 birth places are the 20 countries with the highest number of overseas born Australians

Source: Unpublished census data from the Australian Bureau of Statistics, January 1995.

Australia's cultural diversity

The cultural diversity of the Australian population is increasing, with the proportion of overseas-born rising steadily over the last two decades. In 1991, people born overseas comprised 25 per cent of the total population, and the percentage from English-speaking countries had declined (Table 9.1). People born in Europe and the former USSR comprised the majority of overseas-born in 1991. Their proportion of the whole population, however, had declined over the last two decades, while that of people from Asia had increased. The proportion of people from countries other than the top 20 overseas birth-places in 1991 had almost doubled since 1971.

different groups of people to particular places and objects. For example, Australians of European origin long ignored the relationship of indigenous peoples to their land in so-called wilderness areas (see the box on page 9-5), and only recently have included indigenous interests in discussions about such areas (Robertson *et al.*, 1992).

Values and meanings related to natural and cultural heritage have rarely been explored in community attitude surveys (see Purdie, in press). However, surveys on attitudes to the environment indicate poor awareness and appreciation of cultural

Heritage registers

In Australia, governments have passed major Acts designed to protect our natural and cultural heritage. Many of these require lists (registers) of places that fall within their definitions of heritage. Some require a judgement about whether places meet a certain level of significance before they are included. Heritage registers include information about the location of places, their characteristics and their significance. The Register of the National Estate is the only one covering significant natural, historic and indigenous places in all of Australia's States, Territories and External Territories.

heritage, both indigenous and non-indigenous. For example, in one study in 1990, preservation of Kakadu National Park (a World Heritage area) and of historic buildings generally were both ranked very low compared with matters such as forest management and conservation of flora and fauna (Imber *et al.*, 1991). In one survey specifically targeted at heritage rather than the environment (Elliott & Shanahan Research, 1993), heritage was most commonly perceived to relate to historic places, although 87 per cent of respondents considered it was important to protect Australia's natural and cultural heritage. Attitudes varied with age, gender, region, education level and ethnic background. People of non-English-speaking background felt their heritage was generally excluded.

Australia's cultural diversity has increased over the last two decades (see the box), placing pressure on Commonwealth, State and Territory agencies to ensure that their heritage registers represent the heritage of all ethnic groups. Such places must also be managed in a way that allows groups to maintain the cultural traditions and continuity that give the places their heritage value. However, this may be difficult where differences in attitudes towards heritage between people from different cultural groups result in conflicting heritage values (Armstrong, 1994).

The homogenising effect of mass media and other global influences on contemporary culture also affects attitudes to places and objects. For some people, these factors strengthen the value they place on their local heritage and they wish to see it retained. For others, local heritage is seen of little importance and moves to replace it may be welcomed.

Differences in community and personal values and in the meanings that people attach to natural and cultural heritage increase the complexity of pressures on heritage places and objects, and complicate decisions about conserving and managing them.

Why are objects part of Australia's natural and cultural environments?

'*However we conceptualise culture, in contemporary society or in the past, it is entangled with the objects which give it tangible ... expression ... It is impossible to consider one in isolation from the other.*'

(Anderson, in press).

Cultural heritage sites often include objects. These may be: the 'contents' of places, such as fittings and furnishings of historical buildings or machinery of industrial sites; or archaeological material, like shells, fragments of bone and stone artefacts in middens; or broken glass, ceramics and the remains of metal implements in sites of European settlement.

The contents of a place often reveal far more about the owners and their society than the place alone (for example, Calthorpes' House). 'Without their contents, places are empty shells, stripped of the primary evidence for their function and use' (Anderson, 1994), their heritage significance thus diminished. The interpretation of archaeological sites is largely based on the objects recovered from them (for example, Leichardt Billabong), their position relative to each other and the depositional context.

Individual plants, animals, fossils or rocks are integral parts of the natural environment not generally viewed as 'objects' until 'collected' and removed for scientific or other purposes. The natural heritage value of many places depends on the 'objects' located there, whether animate (such as the Wollemi Pine) or inanimate (such as Australian mammal fossils). Removal of numbers of 'objects' can threaten the quality of a place's significance.

Natural history and cultural institutions across Australia house vast collections of objects removed from their places of origin (see page 9-28). The millions of biological specimens represent an irreplaceable record of Australia's past and present biota. The specimens of now-extinct plant and animal species and of 'living fossils' (for example, the Wollemi Pine) provide an essential basis for understanding historical changes in Australia's natural environment. Biological specimens collected as part of environmental assessment or for management purposes are critical aids to understanding the state of our environment today and for monitoring changes over time. Captive breeding programs in zoos and botanical gardens may ensure the survival of threatened or endangered animal and plant species. The living collections are thus vital to maintain Australia's biodiversity.

Artefacts (such as toas) housed in museums are similarly essential for understanding Australia's cultural environment. Many aspects of history and cultural experience cannot be interpreted fully through either the physical fabric of sites or written records.

Objects still *in situ* retain both their physical and cultural context and are an important physical and heritage component of a place. Those included in public and private collections remain significant, although physically and culturally displaced, and if adequately documented help people understand the significance of their places of origin. Objects now stored in collections are therefore an important part of Australia's natural and cultural environments.

Despite their close links, places and objects are often treated separately in legislation, administration and management.

Calthorpes' House, Canberra

This house in Canberra is a fairly typical middle-class home of the 1920s. It was decorated and furnished at the time of building, the fittings chosen and obtained by mail order. Over the years, the owners introduced few technological innovations, and in most cases they kept original implements in store rooms, even if obsolete. The house remains substantially intact, together with the layers of domestic technology. Oral histories from the Calthorpes' long-serving maid and family members provide a record of much of the routine of the household.

Calthorpes' House has been listed in the Register of the National Estate largely because of the heritage significance derived from its intact interior and contents, which allow the place to be interpreted as both home and work site. It is possible to experience it almost as the Calthorpes knew it — a unique opportunity for Australians to glimpse their past — which would have been impossible had the house been stripped of its contents.

Source: Anderson, in press.

Excavation in the limestone hills at Riversleigh, Queensland, (above) revealed treasures such as this 20 million-year-old bandicoot skull and jaw (left).

Australian mammal fossils

Fossils from an area of rugged limestone hills at Riversleigh in north-western Queensland and from caves at Naracoorte in the south-east of South Australia, were first discovered early this century and specimens placed in museums. More recent studies have revealed the immense scientific importance of the sites, which contain fossils providing significant insights into key stages of the evolution of Australia's fauna in prehistoric times. Although many fossils have been collected for research, the sites themselves received the 'ultimate' heritage recognition in December 1994, when they were inscribed on the World Heritage List.

Research on these fossil collections provides information not only about Australia's environment in the past, but also for the development of conservation strategies for animal species and communities living today.

Source: Boden, in press.

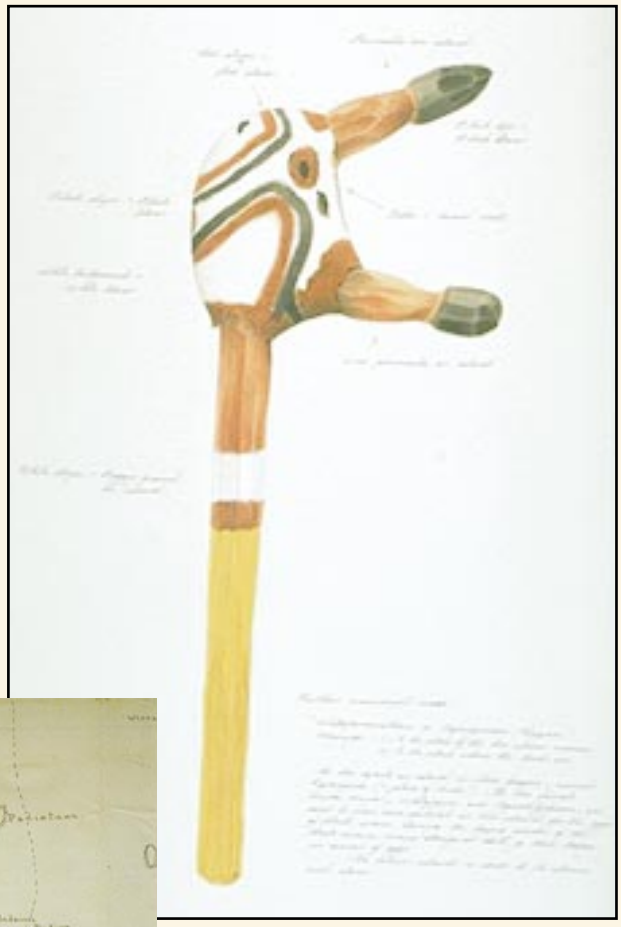
Leichhardt Billabong, Northern Territory

At Leichhardt Billabong, on the black clay floodplains of the South Alligator river in Kakadu National Park, the traditional Aboriginal owners and archaeologists have been systematically recording and collecting all the artefacts from an occupation site covering four hectares. This exercise is unusual, as such total collections are rare in archaeological practice. However, special circumstances led to the traditional owners requesting that archaeologists assist them in collecting and recording the artefacts, which they considered to be under severe threat from the increasing numbers of vehicles and visitors using the area, a popular recreation spot. An archaeologist has been employed to make a detailed analysis of the collection so that the maximum amount of information can be retrieved from it.

In this carefully planned exercise, thousands of artefacts have been collected from the surface of the site. Analysis has shown they include a range of implements (such as axe blades, spear points, scrapers, and grind stones), ochre and worked glass. The finding of glass suggests that the site's use continued into the post-European contact period. Cores, flakes and hammer stones bear witness to tool-making there. The site is interpreted as an annual dry-season hunting and fishing place used by Aborigines for at least the last 7000 years. The artefacts are already providing insights into ceremonial life, trading patterns, manufacture of tools from stone and wood, and the collecting and processing of food.

Once the analysis is completed, all the artefacts will be stored in a local Keeping Place to be designed by the traditional owners.

Source: Behr *et al.*,1994, and M.Grant, pers. comm., January 1995.



This decorated wooden sculpture (toa) refers to features of an island in Lake Gregory (left), an important place in the Aboriginal Swan history tradition handed down through traditional owners over the generations. The map (left) was prepared at Killalpaninna in 1905.

The Wollemi Pine, New South Wales

In December 1994, scientists announced the discovery of 40 trees of a previously unknown type of native conifer in a remote area of Wollemi National Park in New South Wales. Initial studies suggest their closest relations are fossil *Araucarites* known only to live in the Jurassic and Cretaceous periods about 65 to 200 million years ago. Botanists from the New South Wales Herbarium are researching specimens of the trees, and horticulturists of the Mt Annan Botanic Gardens have started propagation trials.

The Director of the Royal Botanic Gardens in Sydney considered the find comparable to the 1941 discovery of living plants of *Metasequoia glyptostroboides* in 'Metasequoia Valley' near Shui-Se-Pa in western China. Undoubtedly, the remote small valley in Wollemi where the trees occur will become equally botanically significant. For most people, however, their first opportunity to see the living tree will be in the Botanic Gardens. Plants propagated at the Gardens will also be critical in ensuring continued survival of the species by guarding against possible loss of the population in its natural habitat.

Source: Boden, in press.

Toas

Toas are small, beautifully decorated wooden sculptures between 15 cm and 45 cm in height, shaped to suggest they should be placed upright in the ground. They appear to have been made by one generation of Aboriginal people in the Diyari (Dieri) country east of Lake Eyre and were collected from them by Pastor Reuther of the Killalpaninna Mission between 1900 and 1904. The South Australian Museum acquired them in 1907.

Reuther described toas as direction markers or 'sign posts'. The symbolism of the decoration indicates both the topographic features of a place and its mythological or spiritual associations with the activities of the Muramuras, the creator ancestors. Reuther interpreted the toas as having the capacity to direct observers with knowledge of the country and its Dreaming stories to specific locations. Although toas had religious meaning, they were not sacred but public objects. Recent research suggests more complicated interpretations reflecting interactions between the local Aboriginal people and the missionaries. However, the toas still illustrate well the vital links between people, place, landscape and beliefs in the Lake Eyre region, as do the numerous Aboriginal place names recorded for this part of Lake Gregory.

Source: Jones and Sutton, 1986.

Pressure

The physical condition of natural and cultural heritage places and objects *in situ* is affected by a wide range of 'natural' factors — ageing of cultural structures and materials, soil erosion, storms, cyclones, floods, droughts, sea level changes and earthquakes — many of which are characteristic of the Australian environment. Although human activities may exacerbate the effect of these natural phenomena on the condition of our heritage, they have not been considered in this chapter.

Pressures on heritage places

Over thousands of years indigenous people are thought to have modified the biophysical landscape of Australia (see Chapter 2). The last two centuries of occupation and settlement have caused additional widespread and severe change (see Fig. 9.1). Those regions that remain least disturbed are likely to contain many significant natural and cultural heritage places, although few have been listed on heritage registers (see the box on page 9-6).

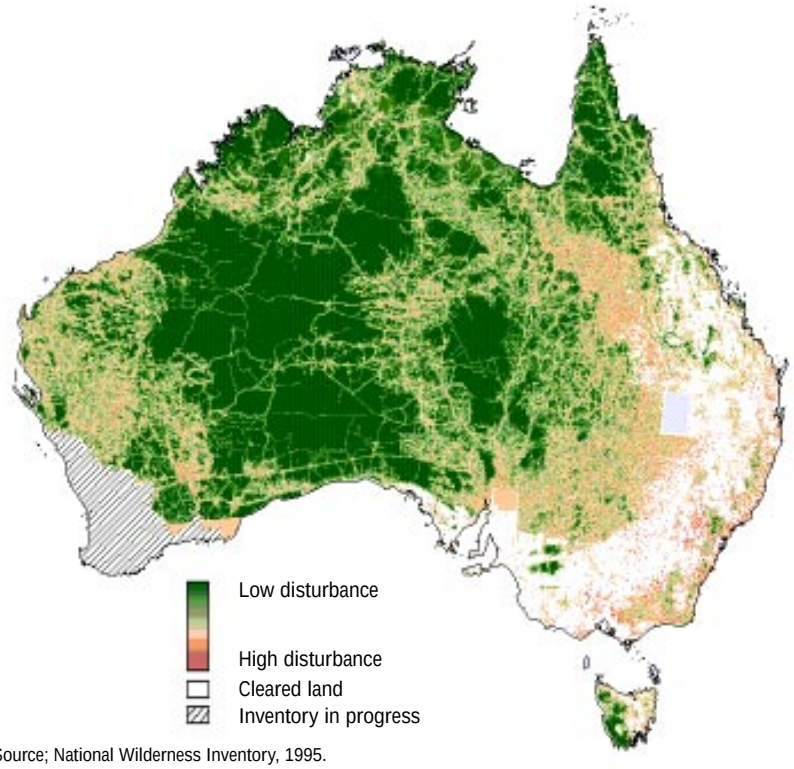
Society places a wide range of pressures on heritage places across Australia (see Table 9.2). These may affect the identification, evaluation and conservation of places, or just their physical condition. Some have positive and negative effects, but many have only a negative impact. The pressures are frequently interrelated: they often act in combination, or one may be a consequence of another.

Earlier chapters of this report describe major pressures affecting the natural environment, such as forestry, mining and pastoralism. Many of these have a direct or indirect impact on sites of cultural significance as well as affecting the heritage of natural places.

Progress has been made since 1981 on some pressures identified then on cultural places (Yencken, 1985). Some pressures, like ageing infrastructure and demolition, are specific to built heritage structures. Others, such as alienation of people from their traditional lands and custodial roles, and loss of languages, apply specifically to indigenous heritage places (see page 9-42).

Many pressures on natural and cultural heritage occur at the three levels of government. In general, information was more readily available for Commonwealth and State/Territory governments than for local governments, although the last are frequently responsible for management decisions affecting heritage places (see Table 9.18).

Figure 9.1 Broad levels of disturbance of Australia's natural environment since European settlement



Source; National Wilderness Inventory, 1995.

Australia's major cities contain many significant buildings that are affected by urban redevelopment. The Bow Truss woolstore, Geelong, Victoria, was demolished in 1990 despite professional advice about its heritage value and possible World Heritage significance due to its unique form of construction.

Heritage in Australia's population 'hot spots'

Population growth in Australia has been concentrated in metropolitan areas, especially in coastal areas in south-eastern Australia. Outer metropolitan areas have expanded and the number of dwellings in core and inner areas have increased (see Chapter 3). These areas of highest population growth correspond with regions that contain the highest proportion of listed national estate places because of their pattern of occupation over time (see Figs 9.4 and 9.5) — particularly historic places (see Fig. 9.7).

Pressure

Demographic changes in inner metropolitan areas create strong pressure for redevelopment and consolidation. These impose direct pressures on historic places through demolition or re-use of buildings and precincts, and loss of sympathetic surroundings. In many cities, demolitions anticipating future developments that have not eventuated, have turned heritage buildings into derelict sites. Urban expansion and development of associated infrastructure in outer metropolitan areas create pressures on natural heritage places, such as bushland, which may be destroyed or altered. Sites significant to indigenous communities, especially in coastal areas, are often destroyed or lose their natural and cultural context. Rezoning and altered patterns of land use impose significant pressures on surrounding rural landscapes of heritage significance.

Provincial cities and boom towns frequently lose their historical fabric and sense of place. Heritage planning may be integrated into local and regional planning requirements. However, cultural mapping or main street programs, which have been seen as major ways of achieving this, are not necessarily effective — the former is in its developmental stages, while the latter often focus on economic benefits (Marshall and Pearson, in press).

Population decline in rural areas imposes different pressures on the local heritage. The numbers of places listed in heritage registers are often much lower than in metropolitan regions (see Fig. 9.5) for a number of reasons. However, many places in rural areas have heritage significance because of their historical associations or vernacular architecture, or because of their social value to local communities. Few of these places are likely to have been documented or considered for heritage registers, and hence are not eligible for conservation funding. Empty buildings, which often occur as populations decline, promote physical decay and often invite vandalism. It is often not feasible to maintain the buildings' heritage values by re-using them, because of reduced rural economies.

Some Commonwealth government initiatives focusing on employment or development affect both metropolitan and rural areas. Heritage matters often have a low priority in these programs, and sometimes are addressed only in response to the concerns of the community or heritage agencies.

State

Almost 4900 heritage places have been identified in metropolitan areas in Australia (Australian Heritage Commission, in press). Of these, 91 per cent are places of predominantly architectural or historical significance. Places of social value, those demonstrating modern architectural techniques and styles, cultural landscapes and places significant to ethnic communities in these areas are all under-represented in heritage registers. Equally, in rural regions, such registers under-represent places of social significance to both indigenous and non-indigenous people.

National and State and Territory data do not provide a comprehensive picture of the physical condition of heritage places.

Response

The establishment of local environment plans and city-specific heritage studies have resulted from increased rates of inner city redevelopments. However, heritage conservation has not kept pace with the increased level of identification and evaluation.

Heritage legislation enacted in Queensland, Western Australia, the Australian Capital Territory and the Northern Territory has increased the level of protection of heritage buildings. Developments in metropolitan areas that affect such places are required to meet more stringent conditions for approval. In 1994, a review of government demolition policies by the chairs of Commonwealth and State heritage agencies showed that generally places on their registers are adequately protected. However, many places are demolished or radically altered before their heritage value is assessed or before they can be placed on the registers.

Some industry bodies have responded to heritage issues in metropolitan areas. The Royal Australian Institute of Architects surveyed 20th century buildings in inner city areas as a direct response to redevelopment pressures. This resulted in recognition of the heritage value of many buildings and their inclusion in heritage registers. In 1994 the Building Owners and Managers Association produced a draft document addressing a broad policy view of reforming Australia's system of planning and development control. The 'Heritage and Conservation' chapter looked at streamlining key areas such as legislative controls, duplication, registration processes, appeals and the economic effects of listing. Many of these matters are being addressed through the national coordination program of heritage officials (see page 9-38).

Urban development activities — such as building demolition to make way for new, 'better' developments, inappropriate use of places or rezoning areas for new types of use — often provoke a strong community reaction. The National Trust has continued to be a major force channelling community support for the retention of heritage places under threat. Such support is often strengthened in the face of developments and leads to the formation of local action and lobby groups. In areas of demographic change, new layers of social meaning are added to old and new places, creating the heritage of tomorrow.

Prognosis

Changes in the patterns of Australia's population growth and distribution have a direct impact on Australia's cultural heritage, particularly in cities and associated metropolitan areas experiencing rapid population growth. While heritage registers remain unrepresentative of many types of places, the effectiveness of government heritage legislation will be limited. Community groups will continue to lobby for heritage protection to counter inadequate integration of heritage in government policies and programs developed in response to changing demographic patterns.

Local government appears to accord low priority to heritage matters — particularly indigenous heritage (Brown, 1994), although some councils have taken positive action.

The following sections outline the major pressures affecting the identification, evaluation and conservation of Australia's heritage places.

Population patterns

Regional demographic variations create pressures on natural and cultural heritage (see the box opposite). Areas with the greatest population — the major capital cities and associated metropolitan areas — also have the highest number of historical places listed in heritage registers, and contain other natural and indigenous heritage places. Development, consolidation and expansion in urban areas resulting from population changes create direct pressures on heritage places through either demolition or re-use, although a range of other pressures interact at the same time (see Fig. 9.2).

Some major government programs, such as the Better Cities program (see Chapter 3), have accelerated redevelopment in city and metropolitan areas. These programs are providing future models for the urban environment, including good examples of heritage conservation and re-use. However, they have the potential for major adverse impacts unless heritage matters are addressed early in the planning stages and fully integrated into each program.

▲ Unoccupied buildings are prone to physical decay and vandalism. This cottage in Yass, New South Wales, contributes to the historic character of the town, but it has been allowed to deteriorate.

Table 9.2 Generic pressures on the identification (I), evaluation (E) and conservation (C) of heritage places

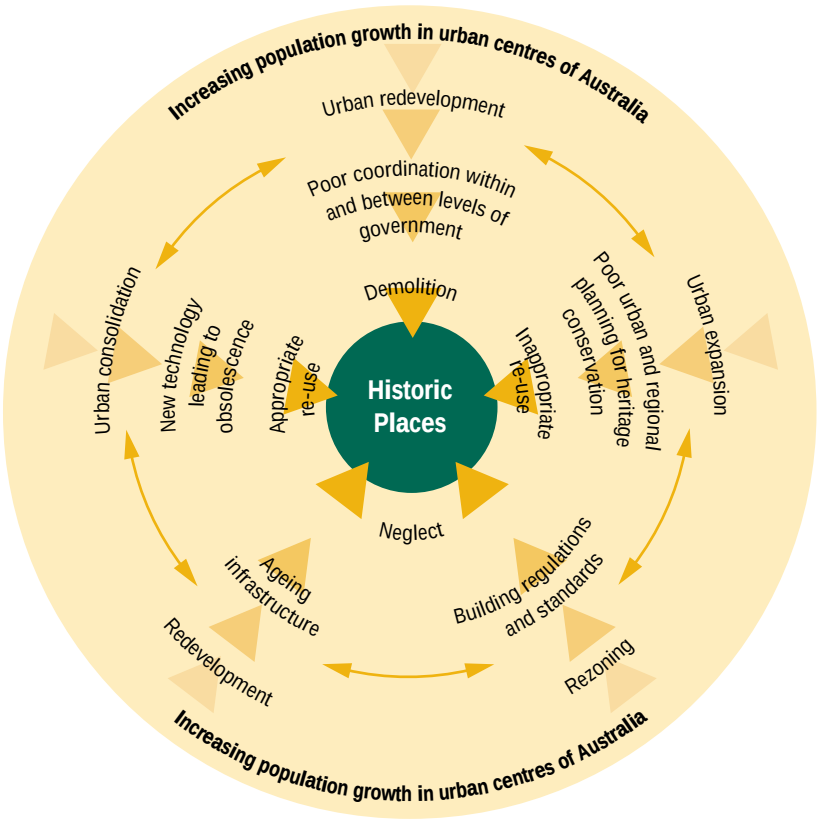
Knowledge base	
• incomplete basic knowledge about and inventory of heritage places	I, E, C
• research needs exceed available funding	I, E, C
Government management and administration	
• policies and programs affecting heritage places, including	I, E, C
— privatisation of government agencies	C
— disposal, leasing of government assets	C
• inadequate development of integrated strategies within governments	I, E, C
• poor coordination between levels of government	I, E, C
• low level of heritage identification and conservation in urban and regional planning	I, E, C
Heritage expertise	
• demand for expertise exceeds supply and/or the number employed	I, E, C
• traditional conservation skills disappearing	C
• low level of heritage expertise in many local governments	I, E, C
Community issues	
• attitudes and perceptions of heritage generally	I, E, C
• misconceptions/misunderstanding about heritage values	I, E, C
• inadequate community involvement in planning decisions and their implementation	I, E, C
Development from changing population patterns	
• urban consolidation, development and expansion	C
• re-zoning and land use planning	C
• land clearance	C
Commercial use of specific heritage places	
• use of natural resources such as forests, minerals	C
• industry attitudes to heritage conservation	C
• tourism	C
Degradation arising from general human resource use	
• degradation arising from air and water pollution	C
• accelerated natural degradation (eg erosion)	C
Conservation and management	
• national economic state	C
• high costs of conservation works	C
• management inappropriate for heritage values	C
• management for conflicting heritage values	C
Monitoring	
• inadequate systems to monitor change	C

Source: adapted from Marshall & Pearson, 1995.

Cultural values in natural landscapes

Forest ecosystems, which historically have been managed primarily for their natural values, contain a large number of significant cultural places (see page 9-13). Other natural landscapes are also likely to contain areas with significant cultural values that have been neither documented nor listed in heritage registers, and are not managed to retain their cultural values. Within conservation reserves, experience has shown that active management is often required to conserve cultural places. Specific management to conserve natural values has sometimes destroyed cultural features — for example, the removal of historic buildings to restore the 'naturalness' of remote areas (Griffiths, 1991).

Figure 9.2 Major pressures on historic places resulting from changed population distribution in metropolitan areas



Level of demand for heritage assistance

The National Estate Grants Program is the Commonwealth's annual funding program specifically to assist in identification, conservation and presentation of the National Estate. In 1994–95, a significant proportion of applications could not be funded in the areas of greatest demand for assistance.

For natural places:

- identification projects comprised more than two-thirds of all applications and funds applied for
- one-third of the projects could be funded, meeting 21 per cent of the funds requested

For historic places

- conservation projects comprised 57 per cent of all applications, representing 62 per cent of all funds applied for;
- 30 per cent of the projects could be funded, but this met only 13 per cent of the funds requested
- community organisations applied for three-quarters of these funds; less than 10 per cent of the funds requested could be met

For indigenous places

- identification projects comprised about three-quarters of all applications and funds applied for
- almost half of the projects could be funded, but this met only 32 per cent of the funds requested.

Source: Australian Heritage Commission, in press.

Tourism

Many of the least disturbed areas of Australia are the focus for specialist nature-based ecotourism and cultural tourism. Museums, historic sites and heritage buildings also attract large numbers of visitors. Tourism has the potential for a wide range of positive and negative pressures, and can affect both the physical fabric of places as well as intangible aspects of heritage (see page 9-32). This is particularly relevant for sites of cultural significance, where physical damage and culturally inappropriate activities by visitors represent a direct assault on the cultural values of people with strong links to the places.

The main negative effects of tourism include: physical damage to sites and their associated objects; a lack of funds required to provide facilities and appropriate management; inadequate data on visitation rates and visitor attitudes essential for sound planning and management decisions; insufficient involvement of community groups in developing and implementing cultural tourism strategies and activities; and inadequate assessment of the social and cultural impact of new tourism projects.

Community involvement in heritage identification

Community groups value many places for their role in social practice and tradition (Blair, 1994). People can contribute to decision-making through the environmental planning process of local governments. However, it is often not until places are visibly threatened that people speak out about their significance, taking planners and decision-makers by surprise.

Heritage studies involving community representatives often reveal large numbers of places of social significance that are not identified by heritage professionals. For example, in the Central Highlands forests of Victoria almost half of the significant historic places were identified only by local and regional residents, not as part of expert studies (see the box opposite). More heritage practitioners are recognising the importance of social value in heritage identification, but many studies to date have lacked adequate community input. This is often because funding authorities or professionals have not appreciated the need to determine places of social value or have not accepted the way it is done (Blair, 1994). Language differences exacerbate low levels of community involvement, and put some types of heritage at particular risk, for example, places significant to migrant groups (Armstrong, 1994) and indigenous places (see page 9-13).

While poor consideration of social value and inadequate community involvement in heritage studies continue, heritage registers will remain unrepresentative and important parts of Australia's cultural heritage will remain vulnerable to destruction or degradation through ignorance of their existence.

Cultural values of natural landscapes — forests of the Central Highlands, eastern Victoria

The Central Highlands region north-east of Melbourne covers an area of about 0.7 million hectares. Its forests have long been recognised as a valuable natural resource for timber and as a water catchment for metropolitan Melbourne. Their nature conservation values were given added recognition in 1977 when the Victorian Land Conservation Council (LCC) recommended additional national parks and other conservation reserves in the region. However, cultural values were not considered comprehensively in the LCC study.

A later detailed heritage assessment (Australian Heritage Commission and Department of Conservation and Natural Resources Victoria, 1994) recorded diverse natural values in the region. These included landscapes essentially undisturbed by European activity, areas of old-growth forest, rainforest and remnant vegetation communities, rare, endangered or endemic species of plants and animals, a rich biota, areas acting as biological refuges and important geological and geomorphic features.

The 1994 heritage assessment revealed a diverse assemblage of cultural sites for the first time. Although often not grand or beautiful, these sites are of immense value as reminders and evidence of a rich and complex human past in the region. Places with significant Aboriginal values included 140 sites associated with traditional beliefs and 100 prehistoric archaeological sites. More than 200 significant historic places were identified, including mining landscapes and associated transport routes of goldfields, and an extensive network of sawmills and tramways characteristic of early bush sawmilling in Victoria's mountains. An additional 194 places, including some of Victoria's earliest national parks, were important to local and regional communities for their social and aesthetic values. These places were identified at community workshops, which drew on the extensive local knowledge of the region and its history, as well as allowing local groups to be involved in the assessment of heritage values.

The Central Highlands forests have not been managed consistently in the past to conserve their cultural values. Pre-logging surveys of public forests required under the Victorian Code of Forest Practices often focus on identifying discrete cultural remains, which are then avoided during road-building or logging. This has protected only some aspects of the very limited number of documented sites.

In response to the more detailed knowledge and understanding of the cultural values, those sites identified in the 1994 assessment are being integrated into decision-making and planning processes for State forests in the region, including Forest Management Plans. The information is available for consideration in new plans being prepared for park management and the Melbourne Water catchment, and for planning by local councils.

Throughout the long history of management of the region, the emphasis was almost entirely on natural values — a situation typical of forests across Australia. In the 1970s and 1980s, little systematic information was available about Aboriginal or historic sites in forests. Until recently it was commonly thought that indigenous people did not use such areas extensively in the past. Increasing emphasis on undisturbed natural values and wilderness has seen forests often viewed as devoid of both people and history. At a national workshop in Canberra in 1992, participants concluded that, despite the growing research into Australia's native forests, the human history and cultural significance of these areas continued to be poorly documented and understood.

Identification, evaluation and conservation

Places need to be recognised and their heritage significance evaluated and documented before the most appropriate way of conserving them can be determined. This often does not happen to an extent that matches either the need for heritage information in planning and decision-making at the three levels of government or conservation needs commensurate with the places' heritage values and physical state. For cultural places, the shortfall appears to result from both the high costs involved in identifying and conserving heritage places and the limited number of professionals trained to do such work.

Data from the National Estate Grants Program indicated that many heritage places remain unassessed or in poor condition. In 1994–95 the Program received 866 applications totalling $28 million for the $4.7 million available. Only 30 per cent of the applications, representing 17 per cent of funds requested could be met, with major shortfalls for natural, historic and indigenous places (see the box opposite).

Oral history is an important tool for identifying and assessing social value. For indigenous heritage 'knowledge of oral history, folklore and traditions is often the only way of ascertaining, assessing and assigning significance; it is the only way of dealing with spiritual significance and with the heritage of communities with no written traditions' (McCarthy *et al*., in press). Over the last decade, the support for oral history research in Australia has increased, reflecting a growing interest in Australian history, although most of the projects have had a biographical emphasis. The work is severely hampered at the local and regional level by inadequate access to training, the required technology for conservation, storage and access to collections and personnel (McCarthy *et al*., in press).

Loss of languages within cultures

Cultural heritage values and meanings are most fully expressed within the relevant traditional languages. The continued loss of languages of indigenous Australians is being exacerbated by the death of remaining speakers or by other languages replacing them in daily use.

Aboriginal English is now spoken throughout Australia, while two major creoles are spoken by a significant number of indigenous people in northern Australia. Aboriginal English and creoles are necessary for communication in contemporary communities, but their use entails a significant loss of detail of certain types of traditional knowledge (Henderson and Nash, 1995). For this reason and the potential loss of cultural traditions, some Aboriginal people are concerned about the

continued spread of creoles in the northern part of Australia, at the expense of traditional languages (see page 9-23).

Indigenous communities in Australia have inadequate resources, including training, equipment, funding and specialist assistance, to maintain their traditional languages and cultures (Henderson and Nash, in press). Education and electronic media are the most powerful influences promoting language shift. However, while education has included some bilingual learning programs (see page 9-40), many indigenous communities have had few opportunities to use electronic media to help maintain their languages. The way in which various government departments and other organisations deal with indigenous languages suggests that they are given relatively low priority (Henderson and Nash, in press). The costs of language maintenance activities are typically under-estimated by government and other agencies, which often have little experience in this area.

It is possible that loss of language will diminish the heritage value of places significant to communities of non-English-speaking background in Australia in a similar manner.

Cultural insensitivity

Many government agencies and industry groups either manage or use land that is likely to contain places significant to indigenous peoples. These organisations appear to be increasingly willing to understand and accept the importance of indigenous cultural values associated with this land (Australian Association of Environmental Education, in press; Council for Aboriginal Reconciliation, 1993) although they often have a poor understanding of these values. With some exceptions, it appears there is little formal provision for staff training about indigenous culture (Australian Association of Environmental Education, in press).

The Distributed National Collection

In 1991, the Heritage Collections Working Group, set up by the Cultural Ministers' Council and the Council of Australian Museum Associations, reviewed heritage collections in Australia. The Group defined these collections as 'those objects or specimens which together constitute the material evidence of Australia's environment and of its historical and cultural life'. Objects of cultural significance included 'not only those judged in some way "unique", but those which provide evidence of a style, trend or movement, or of a political, social, cultural or economic process of significance to Australia' (Anderson, 1991). The Distributed National Collection refers to the aggregate of those objects located in major Commonwealth, State and Territory collecting institutions as well as those held in community, regional and specialist museums, libraries, schools and private collections.

Pressures on heritage objects

Physical decay affects material objects located in their original context as well as those removed to private and public collections, their maintenance requiring some form of conservation. Other pressures may differ, depending on the context. For example, objects located in collecting institutions may be the subject of strong pressure for their return to more culturally appropriate settings, such as a community keeping place in the area of origin. Similar objects *in situ* would not be subject to this pressure. In many cases it is culturally appropriate that indigenous objects left *in situ* are subject to natural decay.

Major pressures described in the 1975 Pigott report and the 1987 CRASTE report still apply. These and other important pressures are described below.

National policies and coordination

Inadequate national policies and inadequate institutional coordination of activities relating to the Distributed National Collection (see the box) can adversely affect its representativeness and physical condition. These problems arise because people do not appreciate the significance and cultural roles of objects and scientific specimens compared with the built environment and natural heritage (Anderson, in press).

The 1975 Pigott report recommended that a national body should be responsible for conservation standards and policies on collecting across Australia. In 1991 the Heritage Collections Working Group identified a wide range of needs for a national approach to the Distributed National Collection. However, national policies and strategies are still not in place, although a national body — the Heritage Collections Committee — was set up in 1993–94 (see page 9-41).

Collecting policies of major museums in Australia have in the past tended to omit aspects of historical or contemporary Australian material heritage related to women, migrants and working-class people. Collections relating to indigenous Australians have tended to focus on scientific concerns rather than on Aboriginal history more generally. Although policy has shifted somewhat in recent years (see page 9-44), continuing bias in collecting policies and inadequate national strategies will inhibit the Distributed National Collection from becoming representative of Australia's cultural heritage.

Museums, zoos, botanic gardens and herbaria have coordinated their efforts, exchanged ideas and shared resources to some extent through 'heads of institution' organisations (Boden, in press). However, individual agencies in the States and Territories appear to operate largely independently within their own charters.

Conservation facilities

Objects are often fragile, requiring special conditions for survival when removed from their original environment into collections. Maintaining the physical condition as well as heritage

significance of objects requires appropriate facilities for housing, storing and displaying collections, and the employment of appropriately trained scientific and technical staff to document, maintain and conserve them.

The last two decades have seen a significant decrease in the level of technical and other support for biological collections in Australia's major government-funded museums and herbaria (see Table 9.3). The size of both herbarium and zoological collections approximately doubled, while the number of technical and other support staff decreased by 34 per cent in museums and increased marginally in herbaria. Scientists employed on taxonomic studies dropped by 15 per cent in major herbaria, a reduction related to funding constraints (Richardson and McKenzie, 1992).

In 1994, the Council of Heads of Australian Herbaria stressed the urgent need to do something about pressures on major biological collections caused by funding shortfalls. The Council also called for increased funding of the Australian Biological Resources Study. These measures were seen as essential to implement the National Biodiversity Strategy.

Most State, regional and local museums were unable to provide suitable care for their material culture collections in 1991 (Anderson, 1991). Surveys by the Heritage Collections Working Group indicated that sub-standard storage conditions in some institutions were still causing highly significant material to deteriorate and were posing a threat to the continued existence of the collections. In many cases the situation for institutions with nationally significant collections still warranted concern, despite some problems being identified as early as 1968 (Anderson, 1994) and recommendations for improved facilities in the 1975 Pigott report and the 1987 CRASTE report to redress 'the profound threat of physical decay and loss of vital collections'.

In 1991, only major museums in Australia employed conservators (Anderson, 1991). Local and regional museums experienced difficulty gaining access to conservation services (Anderson, 1993), although they badly needed them. The Pigott and CRASTE reports also raised this situation. State government assistance to regional and local museums is inadequate for long-term curation and preservation of objects, much less research on their heritage significance. The major museums have limited resources from which to offer conservation training programs.

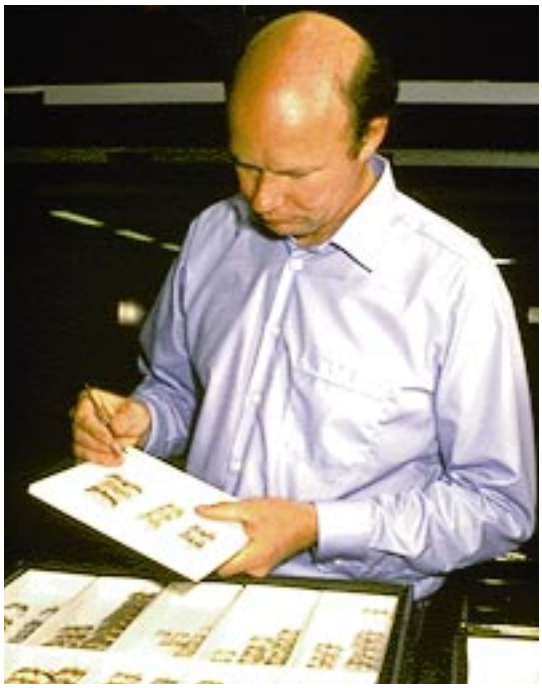
Until recently, material culture studies were largely neglected in formal anthropology courses in Australian universities, so major museums have only a small pool of trained professional staff to document and curate ethnographic collections. These are probably at greater conservation risk than the archaeological ones because of the nature of the materials involved. Relatively few conservators exist in these specialist areas, and opportunities for formal training are still limited (see Table 9.10).

Table 9.3 Diminishing staff support for expanding biological collections

	1975	1991	Change (%)
Herbarium collections (information from six herbaria)			
Number of specimens	2.4 million	4.1 million	+71
Technical & other support staff	55	58.1	+6
Scientific staff	55.5	47.2	-15
Specimens/staff member	23 000	39 000	+70
Zoological collections (information from seven museums)			
Number of specimens	14.6 million	29.4 million	+101
Technical and other support staff	154	101.1	-34
Scientific staff	74.5	90	+21
Specimens/staff member	64 000	133 000	+108

Source: Richardson and McKenzie, 1992.

Major agencies responsible for the protection of indigenous heritage have paid more attention to places of significance than to indigenous objects (Ward, in press). Apart from the established collecting institutions, agencies do not appear to regard indigenous objects as having a high priority for assistance or have no statutory responsibility for them. Thus a heavy burden rests on State museums — particularly in relation to conservation. Yet these museums are already subject to considerable pressure from heavy backlogs of documentation and accessioning, poor storage facilities and heavy demands for specialist services and advice in areas such as curation and conservation. They also have to meet research commitments to interpret and present materials, and to return human remains and return or lend other items of cultural heritage. They have limited resources to deal adequately with such requests. The consequent perceived lack of curation effort has contributed to scepticism among indigenous groups about the value of keeping their material in collections.



Natural history collections, such as the Australian National Insect Collection, are an important part of our natural heritage. Reduced levels of technical and curatorial support threaten the state of many collections.

The ultimate accolade — Australia's World Heritage Areas

Inscription on UNESCO's World Heritage List signifies that a property has been judged to have outstanding universal value. In becoming a State Party to the 1972 World Heritage Convention, the Commonwealth accepted the obligation to the world community to identify, protect, conserve and present World Heritage properties in Australia (see Chapter 2). To this end, the government passed the *World Heritage Properties Conservation Act 1983*.

Only the Commonwealth Government, as a State Party to the World Heritage Convention, can nominate places to the World Heritage List. Decisions about whether places are inscribed are made by the World Heritage Committee with advice from the World Conservation Union (IUCN) for natural nominations, and the International Council for Monuments and Sites (ICOMOS) for cultural nominations. All nominations are evaluated against criteria specified in the UNESCO Operational Guidelines for the Implementation of the World Heritage Convention. Places that fail to meet these criteria, although deemed not to have outstanding universal value, may still have outstanding value to a particular nation. In Australia, many such places (for example, Old Parliament House) are listed in the Register of the National Estate and may be listed on State and Territory heritage registers.

Major pressures

World Heritage areas in Australia have become a major focus for tourism. From 1990–91 to 1993–94 the total number of visitors to the Great Barrier Reef and Willandra Lakes Region grew by about 50 per cent, while visitor levels to Uluṟu rose by 17 per cent (Hyde, in press). Three other World Heritage areas experienced a 4–8 per cent increase in visitor numbers over the same period. This trend increases the management pressure to satisfy tourist expectations while maintaining the quality of the natural and cultural heritage resources.

Until recently, the applicability of the cultural World Heritage criteria to places in Australia appeared to be limited, especially for places whose significance is related to the living culture of Aborigines and Torres Strait Islanders. Aboriginal cultural practices associated with areas nominated to (and later inscribed on) the World Heritage List for their natural values were not always considered at the same time. Areas of possible historic significance have also not been considered, partly because of perceptions that Australia's historic places are not of sufficient merit. Consequently, current listings favour areas inscribed for their natural values.

Since the early 1980s, some World Heritage listings in Australia have been controversial. Despite processes to assist intergovernmental negotiations, some State governments still oppose further listings, while particular industry and community groups also continue to lobby strongly against them (Reid, 1995).

State

By December 1994, 11 properties in Australia had been inscribed on the World Heritage List for their natural values (see Table 9.4). All met one or more criteria in the Operational Guidelines. The Tasmanian Wilderness Area and Willandra Lakes Region were also inscribed for cultural values associated with their Pleistocene archaeology, while Kakadu was inscribed for its Aboriginal cultural values related to archaeology, rock art and traditional beliefs. Uluṟu-Kata Tjuṯa National Park was accepted as a cultural landscape seven years after its inscription for natural values. So far no places are listed solely for their cultural World Heritage significance.

Australia has gained international recognition for its management of Uluṟu-Kata Tjuṯa National Park and the Great Barrier Reef. However, management arrangements have sometimes been a source of contention between Commonwealth and State governments. Agreed management arrangements are in place for all but four properties, where they are under negotiation. The Commonwealth and the traditional Aboriginal owners jointly manage Uluṟu-Kata Tjuṯa and Kakadu National Parks on Aboriginal lands. The Great Barrier Reef and the Wet Tropics World Heritage Area in Queensland have joint State–Commonwealth management arrangements, and State government agencies manage the remaining areas. Eight of the inscribed properties have management or equivalent plans in place. The Willandra Lakes Region, inscribed in 1981, still had no management plan by early 1995. However, by mid 1995 plans for it and the remaining areas were being actively prepared.

Nourlangie Rock in Kakadu National Park provides impressive examples of the rich and complex rock art of the region. These paintings belong to traditions established over many millenia.

Responses

To facilitate the nomination of cultural areas in Australia, Australian experts have worked with ICOMOS and the World Heritage Committee to change the Operational Guidelines. They were influential in modifications to the cultural World Heritage criteria approved at meetings of the World Heritage Committee in 1992 and 1994, including the addition of cultural landscapes and the applicability of relevant criteria to living cultures.

Australia has also worked closely with the IUCN, the non-government organisation responsible for the evaluation of nominations of natural sites to the World Heritage Committee, about natural areas in Australia.

The InterGovernmental Agreement on the Environment (see Chapter 2) included a schedule to improve World Heritage nomination, community liaison and management arrangements. Since then, the States have approved all nominations submitted. However, limited progress has been made on some potential World Heritage nominations, such as the Nullarbor and the Lake Eyre regions.

In 1993, the Prime Minister announced that the Commonwealth would work with the State governments to develop a 'World Heritage Indicative List of Cultural Sites', as required by the World Heritage Committee. This list currently only includes existing properties and previous nominations that have been deferred (Sub-Antarctic Islands) or foreshadowed (Sydney Opera House and environs). In 1991, a conceptual framework was prepared for assessing places worth including on such a list (Domicelj *et al.*, 1992). The Commonwealth and State governments are continuing to negotiate about its development. National conservation bodies that have strong associations with IUCN have prepared their own indicative lists of natural areas for future consideration by the Commonwealth and States.

Community attitude surveys carried out for the Tasmanian Wilderness and Wet Tropics World Heritage areas have shown strong and positive support for the listings and subsequent management (Purdie, in press). However, some sectors of the community oppose World Heritage listing which they view as giving control to overseas bodies, losing rights and jobs and forgoing development opportunities (Reid, 1995). Management arrangements for most existing places now include avenues for community input, a requirement under the Convention. The Commonwealth is establishing a framework for community involvement in future nominations.

Prognosis

Australia's World Heritage properties are a focus for tourism and receive wide community support. However, misunderstandings about the implications of listing and the uncertainty created by the lack of an indicative list of potential cultural and natural World Heritage nominations exacerbate opposition to listing by some industry and community sectors. Disagreements between the Commonwealth and State governments currently prevent some natural areas being nominated. The revised World Heritage cultural criteria pave the way for the nomination of more cultural sites, especially as components of cultural landscapes and particularly Aboriginal places representing living traditions.

Table 9.4 Australia's World Heritage properties

World Heritage Property	Date inscribed	Values recognised	Management or equivalent plans	Commonwealth-State management arrangements
The Great Barrier Reef, Qld	1981	Natural	In place	Agreed
Willandra Lakes Region, NSW	1981	Natural, Cultural	Being prepared	Agreed
Kakadu National Park, NT		Natural, Cultural	In place	Agreed
— stage 1	1981			
— stage 2	1987			
— stage 3	1992			
Tasmanian Wilderness World Heritage Area		Natural, Cultural	In place	Agreed
— stage 1	1982			
— stages 2, 3	1989			
Lord Howe Island, NSW	1982	Natural	In place	Under negotiation
Central Eastern Rainforest Reserves, NSW & Qld		Natural	Most plans in place	Agreed
— original	1986			
— extensions	1994			
Uluru-Kata Tjuta National Park, NT		Natural, Cultural	In place	Agreed
— inscribed for natural values	1987			
— inscribed for cultural values	1994			
Wet Tropics World Heritage Area, Qld	1988	Natural	Being prepared	Agreed
Shark Bay, WA	1991	Natural	Being prepared	Being re-negotiated
Fraser Island World Heritage Area, Qld	1992	Natural	In place	Under negotiation
Australian Fossil Mammal Sites (Riversleigh, Qld & Naracoorte, SA)	1994	Natural	In place	Under negotiation

Source: Department of the Environment, Sport and Territories, 1995.

Archaeological excavation ahead of development in inner city areas may provide significant information on the past, as did this 1994 dig at The Rocks, Sydney. The dig revealed unrecorded details of inner Sydney's domestic and working life in the early nineteenth century.

Documenting collections

Nationally, in 1991 institutions had a considerable backlog of herbarium specimens and museum faunal collections awaiting processing. Many museums considered that 60 per cent or more of their total collection were well documented, although there were substantial differences between taxonomic groups (Anderson, 1991). While there did not appear to be a shortage of taxonomists in 1991, few of them specialised in some large, poorly known groups of biota such as arthropods, molluscs, and non-vascular plants (Richardson and McKenzie, 1992). This may affect documentation in the future. Many institutions are moving towards computerising their records, but in 1991 few were providing adequate support staff (Richardson and McKenzie, 1992).

Within museums across Australia, documentation vital for assessing the significance of objects related to history and anthropology was judged inadequate (Anderson, 1991). Documentation of the cultural collections was also hampered by a lack of common classification systems and a lack of standard nomenclatures, which requires research and program coordination by institutions. This pressure does not affect natural history collections.

Removing objects from their original context

Objects removed from their context lose heritage value (see page 9-7). The heritage significance of the places from which they are removed is also diminished. Continued demolition and/or sale and re-use of heritage buildings results in pressure for the removal of objects. This is greatest in urban areas subject to redevelopment (see page 9-10). Even historic buildings selected for presentation as house museums may be denuded of their original contents, which diminishes the values for both (Anderson, in press). Removing archaeological objects from sites can have a similar effect unless it forms part of a professional investigation arising from mitigation or research concerns.

Collections of indigenous cultural material

Many Aboriginal and Torres Strait Islander communities wish to assume control of their own cultural material (see page 9-42). While the return of indigenous cultural property to them will ensure this material is kept where it has most meaning, adverse effects may arise from the fragmentation and dispersal of collections. Growth in cultural tourism also results in more Aboriginal communities developing cultural centres, and seeking loan material from major museums for displays in these centres (Hyde, in press). However, as noted earlier for local museums, many indigenous communities also lack facilities, expertise and access to management advice for the on-going preservation of their collections in either keeping places or cultural centres.

The Register of the National Estate — criteria for inclusion

- importance in the course, or pattern, of Australia's natural or cultural history
- possession of uncommon, rare or endangered aspects of Australia's natural or cultural history
- potential to yield information that will contribute to an understanding of Australia's natural or cultural history
- importance in demonstrating the principal characteristics of a class of Australia's natural or cultural places, or a class of Australia's natural or cultural environments
- importance in exhibiting particular aesthetic characteristics valued by a community or cultural group
- importance in demonstrating a high degree of creative or technical achievement at a particular period
- strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
- special association with the life or works of a person, or group of people, of importance in Australia's natural and cultural history

Source: Australian Heritage Commission Act.

The heritage listed garden of Rippon Lea, Victoria is a fine example of a nineteenth century homestead garden. It has aesthetic qualities valued by the community and demonstrates a high level of creative and technical achievement in its design.

State

Any report on the state of Australia's natural and cultural heritage first needs to establish how much of our heritage is recognised and documented. This information is critical to assess the physical state of our heritage and ultimately to make informed choices about which parts will be consciously retained for future generations.

Heritage registers and collections of objects will always be 'open-ended', as they will continue to change in response to evolving community perceptions of what is significant. This chapter applies the concepts of 'representativeness' and 'comprehensiveness' as measures of the current state of knowledge about places (as reflected in heritage registers) and collections of objects. Comprehensiveness is defined as the extent to which the registers or collections include all significant places or objects of a particular type. Representativeness is defined as the extent to which each significant type of place or object is represented in heritage registers or collections.

The Earp Gillam bond store, Newcastle, a masterpiece of the German immigrant architect Frederick Menkens, was completed in 1888. It was unused for many years and deteriorated. After the 1989 earthquake (left), part of its front wall had to be demolished . The store was authentically restored (above) and converted for sympathetic re-use as offices at a cost of $2.5 million.

Large areas of Australia are cultural landscapes with various layers of cultural significance (see page 9-20). Individual places are an integral part of both natural and cultural landscapes, giving meaning to and deriving meaning from them. Their significance is often diminished when treated in isolation from the surrounding landscape. To date, however, heritage registers have focused on individual sites because these are often the focal points of significance and are more easily documented and listed than the whole landscape. This assessment of the state of Australia's cultural heritage is thus biased towards individual sites, particularly for historic places.

State of heritage places

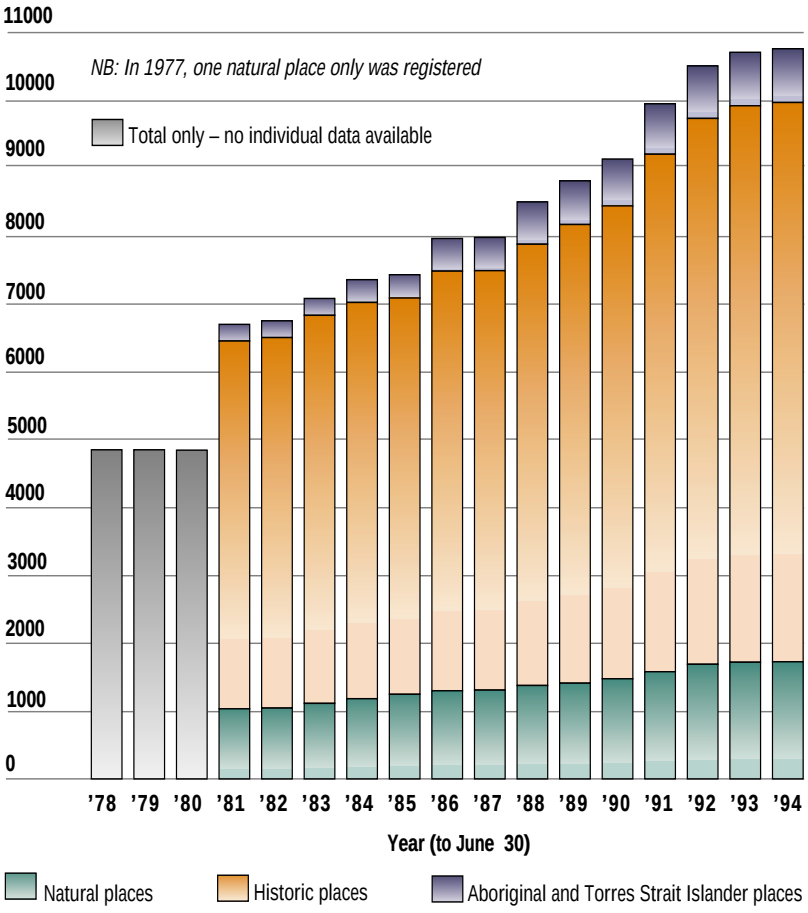
Knowledge

A primary measure of the state of knowledge is the number of places listed in various heritage registers.

The World Heritage List is a global register of places of outstanding universal value (see page 9-16). In Australia, 11 properties had been inscribed on this List at December 1994 (see Table 9.4) compared with none in 1980 (Yencken, 1985). All have been included because of their outstanding natural heritage values and four also for their outstanding cultural values. No formal assessment action has been taken for most other places noted in 1981 (Yencken, 1985) as possible World Heritage nominations.

The Australian Capital Territory, Northern Territory and all States except Tasmania now maintain registers for historic places, while both Territories and all States have registers of

Figure 9.3 Cumulative number of places listed in the Register of the National Estate to June 1994



Source: Australian Heritage Commission, in press.

Cultural landscapes

> *The cultural landscape is the 'tapestry in which all other artefacts are embedded and which gives them their sense of place'.*
>
> (Lowenthal, cited by Lennon in press).

'Cultural landscape' is the term applied to those parts of the environment that have been significantly modified by human activity to distinguish them from natural landscapes, where evidence of human intervention is less apparent. They include cultural and natural elements of the ordinary, familiar, everyday landscape. A cultural landscape is therefore an expression of human attitudes, values and interactions with the environment.

The relationship between people and place creates distinct visual and spatial patterns in the landscape additional to those created by biophysical systems. Landscape is seen not only as a natural system but as a cultural artefact, consisting of the tangible remains left on the land by cultures past and present (Blair and Truscott, 1989). Through these tangible remains the landscape carries — more or less visibly — a record of history where memory, symbolism and actual physical vestiges of the past are held. These meanings are at the heart of community attachment to places and to the development of cultural heritage values (Taylor, cited in Lennon, in press).

Much of Australia may be regarded as cultural landscape because of the traditions and practices of indigenous peoples over thousands of years. Immigrants since the first European settlements have added further layers of historical evidence and social significance to the natural landscape.

Some landscapes are less easy to read than others. In many instances, the layers of historical evidence may not be immediately recognisable. For example, it is difficult for non-Aboriginal people to perceive the layers within the landscape significant to Aborigines. In other instances, physical evidence may no longer be present. The historical evidence of the hand-hewn stone of the first roads that wound their way over the Great Dividing Range has been lost as four-lane highways level their way through the landscape.

The Central Victorian Goldfields region is a landscape which can be more easily read (Lennon, in press). Gold rushes from the 1850s had a great impact on this area. However, the landscape tells a more complex story than just that of the gold rushes. Many people left their marks — Aborigines, European explorers, squatters, travellers, road-makers, surveyors, alluvial-gold diggers, company miners, farmers, foresters and town-dwellers. They created impacts and patterns which can still be identified today in a mosaic of public forested areas, cleared land, abandoned mine workings, archaeological sites, buildings, roads and other signs of human interaction with the land. It is through an understanding of the history of occupation of the area that the cultural landscape can be interpreted and the heritage value of the landscape understood.

Conservation of the cultural landscape raises many management issues. The physical land system is constantly in flux. The natural cycle of decay and renewal changes the cultural landscape. New land uses, township expansion, physical decay of surviving elements and tourist developments can all alter the physical evidence of previous activities as well as adding new layers of meaning.

Many people left their marks on the Central Victorian goldfields region. Abandoned mines, such as the Wattle Gully mine at Chewton, tell just part of the story.

Conservation management and the management of change are more complex because of the number of components and their different inherent characteristics. In areas such as the Central Victorian Goldfields, it may be these inherent characteristics that attract more residents, developers and tourists, thus placing more pressure on their survival.

Conservation of the cultural landscape requires a comprehensive understanding of the landscape, not one which is directed towards preserving one aspect of it. The coordination of public and private effort to conserve components of the cultural landscape becomes more difficult. For example, a farmer would be loath to spend resources stabilising mining ruins on his property, while a pensioner in a historic dwelling may not be able to afford the restoration of historical components.

The adoption of heritage terminology that acknowledges the concept of cultural landscapes and their inclusion on the World Heritage List and on the Register of the National Estate are important preliminary steps towards establishing benchmarks to determine how their features are being managed. Presently there are no indicators to assess their state. Suggested measures (Lennon, in press) include:

- number and range of landscapes listed in heritage registers
- number of planning permits issued for new forms of land use
- number of permits issued for re-use of existing cultural elements
- number of building repair orders
- condition of key natural and cultural places
- number of visitors, and the nature and number of visitor facilities

indigenous places. The Commonwealth's Register of the National Estate, which began in 1976, provides the most comprehensive heritage picture. It covers both natural and cultural heritage of all States, Territories and External Territories, and includes places solely on the basis of criteria specified in the *Australian Heritage Commission Act* (see page 9-18). The values of places listed in this Register range from those of recognised international and national significance to those valued by local communities. The places vary enormously in area — a few natural places cover millions of hectares, but most are hundreds or thousands of hectares in size; many listed Aboriginal places cover hundreds of hectares, while most historic buildings occupy much less than one hectare.

In June 1994, 10 772 places were listed in the Register of the National Estate. Of these, 77 per cent were historic and 16 per cent were natural ones. Only seven per cent were places significant to Aborigines and Torres Strait Islanders, but many of those contain hundreds of individual sites. The number of places listed in the Register has grown steadily (see Fig. 9.3) since the 'first generation' at the end of 1980 (Yencken, 1985), and has increased by 61 per cent since 1981. Over this period, natural listings have increased by 67 per cent, historic places by 52 per cent, and the small number of indigenous places by 222 per cent. While listings to the end of 1980 reflected work carried out in previous decades, many since then have been based on new studies.

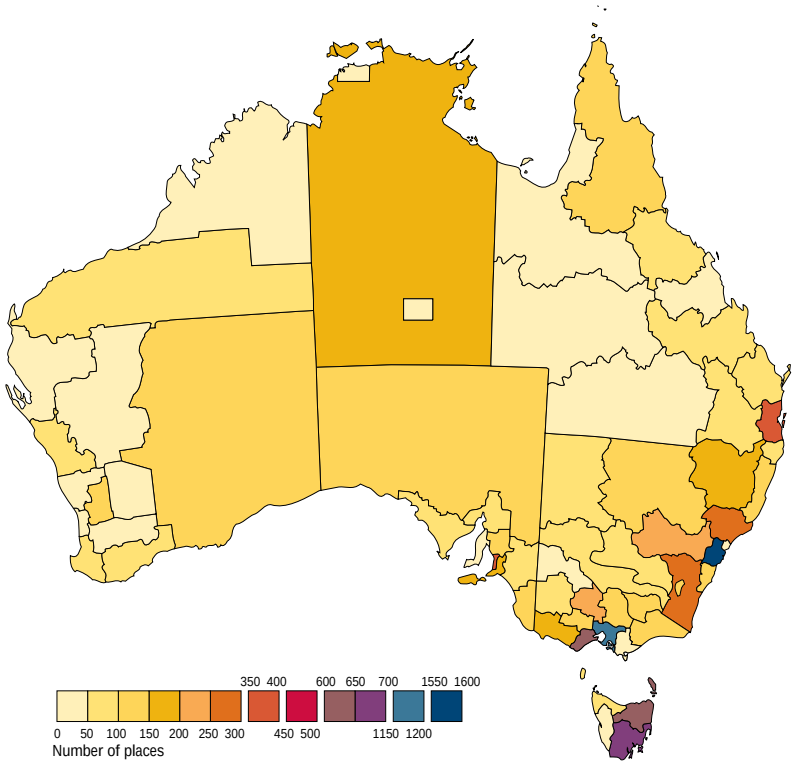
Distribution of places listed in the Register

Listed places occur across Australia (see Fig. 9.4). However, they are concentrated in metropolitan and associated regions, particularly in south-eastern Australia, and distributed sparsely through remote and rural areas (see Fig. 9.5). Considerable regional variation in distribution occurs (see Figs 9.6–9.8), reflecting the predominance of assessment and documentation effort in regions of highest population density, and the high proportion of historic places associated with major cities. Comprehensive knowledge of distribution patterns will only be possible when all Australia has been systematically surveyed. This process is being addressed through a range of studies, especially under the National Estate Grants Program.

Changes in the types of places listed in the Register

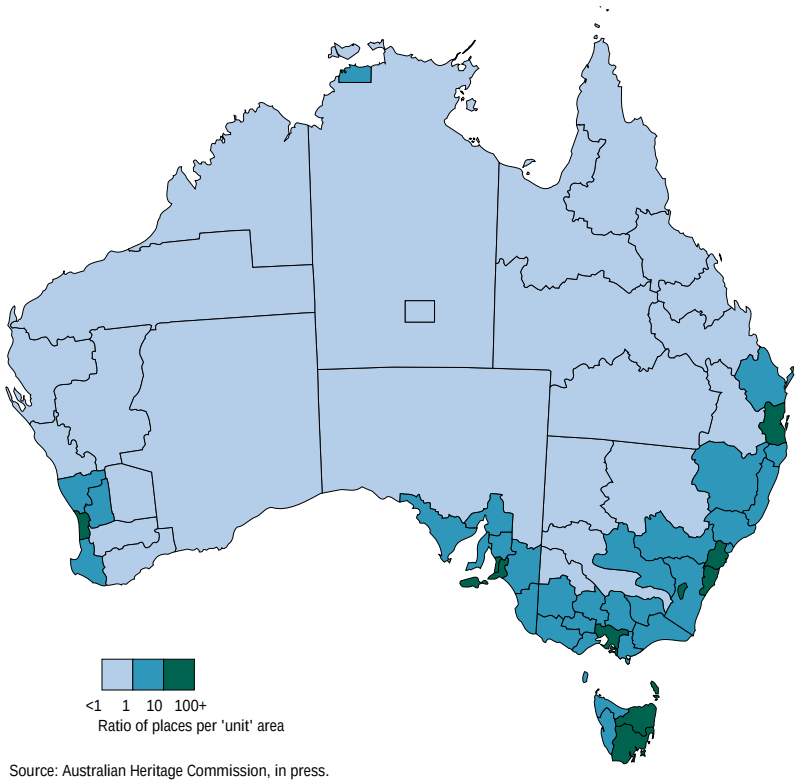
The number of natural places with significant forests, woodlands, wetlands, geological features and habitats of endangered species has substantially increased since 1981 (see Table 9.5). Most natural places listed in the Register are still terrestrial, with only five per cent comprising or including marine areas. Not all ecosystem types are represented, as many of Australia's biogeographic regions (see Chapter 4) contain no or few listed natural places. Listed places cover five per cent or less of the area of about half these regions (Australian Heritage Commission, in press).

Figure 9.4 Number of all places listed in the Register of the National Estate at December 1994 within Australian Government Regions



Source: Australian Heritage Commission, in press.

Figure 9.5 Density of all places listed in the Register of the National Estate at December 1994 within Australian Government Regions

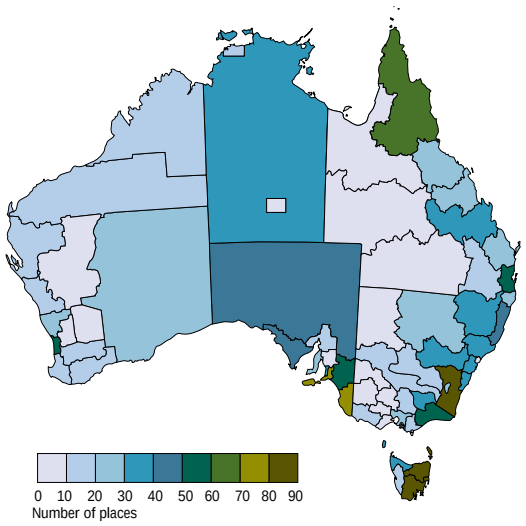


Source: Australian Heritage Commission, in press.

Many biogeographic regions in Australia such as the Kimberley, Western Australia, have few places listed in the Register of the National Estate for their natural heritage values.

Since 1981, listings of historic places related to industrial archaeology, gardens, administrative buildings and commercial buildings have increased substantially (see Table 9.6). However, there are still many themes and types of places that are represented in the Register either poorly or not at all (Domicelj, 1992). These include rural landscapes, transport sites and routes, farm complexes and places for community gathering, leisure and recreation. Places representing the history of multiculturalism and minority groups, including 19th and 20th century sites, post-war immigration and women's sites are also poorly represented. Several factors combine to cause these imbalances: some themes or types are not recognised as heritage and hence are under-studied; survey work is lacking; and appropriate methods of assessment need to be developed.

Figure 9.6 Number of natural places listed in the Register of the National Estate at December 1994 within Australian Government Regions



Source: Australian Heritage Commission, in press.

Table 9.5 Major types of natural places listed in the Register of the National Estate, June 1981 and December 1994

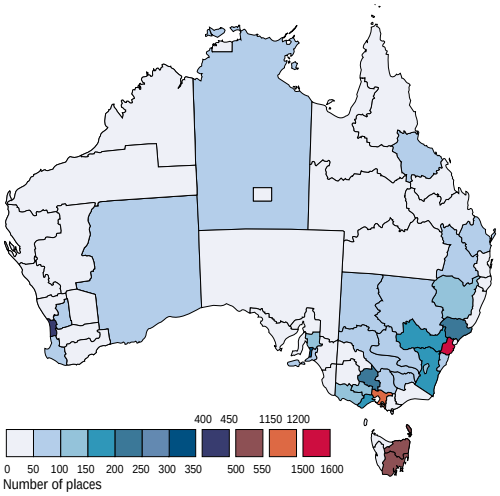
Type of ecosystem/feature present	Number of listed places 1981	1994
Forest	622	784
Woodland	591	690
Shrubland[1]	857	729
Grassland/herbland[1]	522	451
Wetland	164	281
Geological	93	254
Endangered species habitat	184	288
Marine	79	86
Wilderness[2]	72	101
Total number of listed places[3]	1034	1728

Notes:
1. The lower number of places in 1994 is due to different classification of places.
2. See the box on page 9-5
3. Many places contain more than one major ecosystem type/feature.

Source: Yencken, 1985 and Australian Heritage Commission, in press.

Among indigenous places listed in the Register in 1994, the largest groups are art sites, complexes that contain many individual sites, places of spiritual or mythological significance and occupation sites (see Table 9.7). Some sites such as wells and modified trees will always be low in number. However, others, like spiritual/religious and historic contact sites or those of contemporary significance, are under-represented. The current representation reflects the focus of non-indigenous professionals on rock art and archaeological sites and a low level of nominations to the Register from indigenous communities.

Figure 9.7 Number of historic places listed in the Register of the National Estate at December 1994 within Australian Government Regions



Source: Australian Heritage Commission, in press.

The heritage significance of many indigenous places is intimately linked with traditional languages and the knowledge they transmit. Speakers of these languages strongly believe that they are the best vehicle for traditional knowledge (Henderson and Nash, in press). The state of these languages is thus a critical factor relevant to state of knowledge about indigenous places.

Of the 250 indigenous languages thought to be spoken at the time of European settlement, only 90 are still spoken today (see Fig. 9.9), mainly by people in central-western and northern Australia. Just 34 languages have 200 or more speakers today and many have but a handful of elderly speakers (see Fig. 9.10). Only about 20 traditional languages are being passed on to children who use them as their main language. All of the traditional ones being used as the primary means of communication could be lost within a generation. The associated decline in traditional knowledge is not quantifiable but must be profound.

Table 9.6 Major types of historic places listed in the Register of the National Estate, June 1981 and December 1994

Type of place	Number of listed places 1981	1994
Residential houses	**1867**	**2432**
Administrative buildings	**1180**	**1978**
• government functions, including		
– government buildings (parliaments, customs, town halls etc)		129
– court houses, police stations, prisons		416
– libraries, hospitals, civic structures etc		240
– military barracks, bases, fortifications		122
– scientific research facilities		7
• transport and communications, including		
– rail, road, and air transport places		145
– harbour facilities, ports, piers, docks etc		27
– light stations (water transport)		93
– post offices, telegraph stations etc		173
– bridges		243
– shipwrecks		56
• schools and places of education		327
Commercial buildings	**967**	**1540**
• shops, offices etc		690
• hotels, motels, inns		406
• places of recreation (theatres, halls, race courses etc)		260
• banks and financial institutions		184
Industrial archaeology	**162**	**832**
• primary industry (agricultural, pastoral, processing, forestry etc)		664
• industrial sites and buildings		103
• mines and mineral processing works		65
Religious buildings (churches and other places of religion)	**634**	**696**
Conservation areas, historic towns, precincts & groups	**277**	**387**
• towns, precincts, conservation areas		378
• historic landscapes		9
Gardens (parks and gardens)	**61**	**180**
Monuments and other building types[1]	**193**	**132**
• monuments and memorials		69
• cemeteries and graves		73
Historic sites (historic and miscellaneous places)	**76**	**92**
Total	**5 417**	**8 279**

Note: 1. The lower number of places in 1994 is due to different classification of places

Source: Yencken, 1985 and Australian Heritage Commission, in press.

Rural landscapes and farm complexes, such as Gulf Station, owned by the National Trust of Victoria, are not well represented in the Register of the National Estate.

The historic Alice Springs Telegraph Station played an important role in early telecommunications in Australia. Many Aboriginal people also have a special association with the station due to its subsequent use as an Aboriginal Reserve for many years.

Knowledge of our natural and cultural heritage places has grown steadily since 1981, with a considerable body of it gained through targeted heritage studies carried out by professional experts as well as interested members of the community. However, the Register of the National Estate is still far from comprehensive. Nor is it fully representative of Australia's heritage.

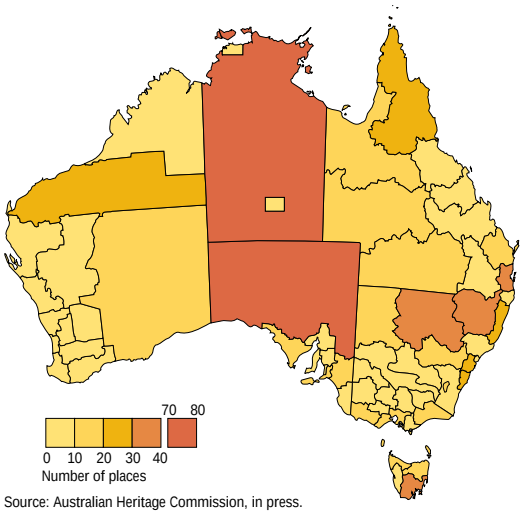
Although the types of places representing our current understanding of heritage are generally known, the total number of eligible places is not. New types of places that should be included are likely to emerge as community values change and concepts of heritage expand.

Table 9.7 Major types of Aboriginal and Torres Strait Islander places listed in the Register of the National Estate, December 1994[1]

Type of place	Number of listed places
Art sites	196
Site complexes	106
Spiritual/mythological sites	83
Occupation sites	82
Shell middens	58
Stone arrangements	53
Historic contact sites	41
Modified trees (scarred and carved)	41
Quarries	34
Burials/cemeteries/graves	29
Grinding grooves	19
Ceremonial sites	18
Fish/eel traps	18
Wells	11
Hunting hides/traps	3
Organic resource areas	1
Total	**793**

Note: 1. Comparable data for 1981 were not available.
Source: Australian Heritage Commission, in press.

Figure 9.8 Number of Aboriginal and Torres Strait Islander places listed in the Register of the National Estate at December 1994 within Australian Governement Regions



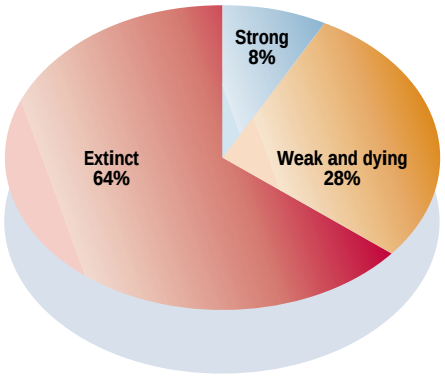
Source: Australian Heritage Commission, in press.

Legislative protection

All Australia's World Heritage properties are protected under international obligations and Commonwealth legislation (see page 9-16) and are managed to protect their identified heritage values. A wide range of administrative and managerial structures are in place to achieve this, although some arrangements have yet to be agreed (see Table 9.4).

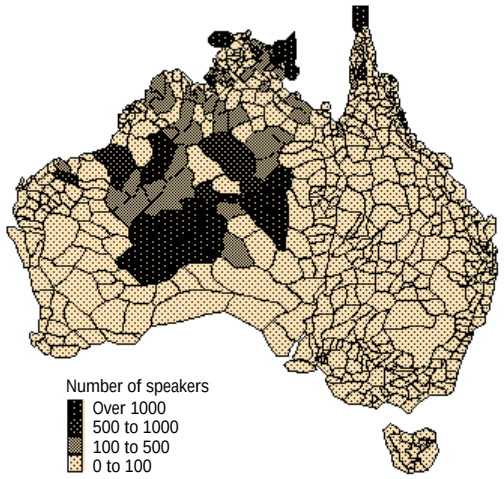
Places listed in the Register of the National Estate receive only a limited measure of protection through the *Australian Heritage Commission Act 1975*. Section 30 of this Act requires Commonwealth bodies to avoid damaging national estate places, unless there is no 'feasible and prudent alternative', and to seek conservation advice from the Australian Heritage Commission. Other bodies make non-statutory requests for advice.

Figure 9.9 Vitality of the original 250 Australian indigenous languages in Australia at the time of the first European contact



Source: Schmidt, as modified by Henderson and Nash, in press.

Figure 9.10 Geographic distribution and numbers of speakers of traditional languages still used as a primary means of communication



Note: The lines represent the boundaries of language areas identified by Tindale in 1974.

Source: Australian Institute of Aboriginal and Torres Strait Islander Studies, in Henderson and Nash, in press.

In the six years for which records are available, the Commission has received few referrals for conservation advice compared with the total number of places listed in the Register (an average of 5.4 per cent) (see Table 9.8). The average number of Section 30 referrals over the same period compared with the number of listed places was only 3.4 percent. There could be many reasons for this. Relatively few places in the Register are owned by the Commonwealth and, because of the nature of the Register, many other listed places are never subject to Commonwealth activities. Some Commonwealth agencies have a poor understanding of their obligations under the *Australian Heritage Commission Act 1975* (Marshall, 1993) and thus may fail to comply with them.

Referring bodies are not obliged to adopt the Commission's advice. However, it appears to have had a positive influence on many Commonwealth decisions, although it has been followed less often for decisions affecting natural heritage places than for cultural places (Marshall, 1993).

All States and Territories have legislative and other provisions to protect natural heritage both inside and outside protected areas. Of the natural places listed in the Register of the National Estate in 1994, about 65 per cent were managed as part of some protected area (Australian Heritage Commission, in press), compared with 87 per cent in 1981 (Yencken, 1985). This difference reflects both the focus of State government agencies nominating parks and reserves for the Register in the 1970s, and the growing body of knowledge since then about the conservation values of land outside protected areas.

Apart from Tasmania, all States and mainland Territories now have heritage legislation applying to historic places (see page 9-37), compared with only three States in 1981. By June 1994, approximately 5500 places (mainly historic) were listed in State and Territory heritage registers (Marshall and Pearson, in press) and hence receive the protection afforded by the Acts. Most States have delegated the responsibility for conservation to local councils through heritage, development or planning legislation (see Table 9.18). As the Acts in Queensland, Australian Capital Territory, Northern Territory, South Australia and Western Australia have been passed or significantly revised since 1990, it is too early to assess their effectiveness, while the older acts in New South Wales and Victoria are being reformed.

About 30 major Acts specifically apply to places and objects significant to indigenous Australians (Ward, 1995). Four Commonwealth and 11 State and Territory Acts (see Table 9.17) provide the main protection, although they vary in their scope and provisions. The legislation has grown from four State and two Commonwealth major Acts in 1981. Indigenous archaeological places receive blanket legislative protection under Acts in all States and Territories — that is, places are

Table 9.8 Referrals for conservation advice on places listed in the Register of the National Estate

	Financial Year					
	88/89	89/90	90/91	91/92	92/93	93/94
Number of places[1] (000s)	9.1	9.6	10.3	10.8	10.9	11.0
Number of referrals						
Section 30 (statutory)[2]	-	*c.* 340	267	354	395	351
Other (non-statutory)[3]	-	*c.* 110	180	218	374	262
Total	*c.* 500	*c.* 450	447	572	769	613
Referral rate[4] (%)						
Section 30 (statutory)[2]	-	4	3	3	4	3
Other (non-statutory)[3]	-	1	2	2	3	2
Total (%)	6	5	4	5	7	6

Notes:
1. Places listed in the Register of the National Estate or on its Interim List.
2. Advice sought by Commonwealth bodies about listed or interim-listed places.
3. Advice sought by Commonwealth bodies about places neither listed nor interim-listed, and advice sought by non-Commonwealth bodies.
4. Number of referrals/number of listed places.

Source: Australian Heritage Commission, in press.

The Richmond main colliery near Newcastle, New South Wales, the largest and most historically significant mine in the South Maitland coalfields, is now part of a historic park. The cooling tower on the left has been restored to resemble its original condition.

protected even where they are unregistered, unrecorded or unknown. Most States now offer legislative protection for sites that are important to contemporary indigenous communities, although some still emphasise archaeological sites. They also provide blanket protection of associated objects, either by specific mention or indirectly by the protection afforded to places. By December 1994, some 85 000 indigenous sites had been recorded across Australia by the relevant government agencies (Ward, in press) — more than twice the number recorded in 1985.

Physical condition

Since 1992, the Commonwealth has provided annual monitoring reports on Australia's World Heritage properties to the World Heritage Committee. However, there is little precise or readily available information on the physical condition of most of Australia's heritage places in general, let alone in relation to their identified heritage values. Information about the state of the natural environment in previous chapters cannot be directly applied for this purpose.

A project is being funded under the 1994–95 National Estate Grants Program to develop and test a pilot method of auditing the condition of listed heritage places. This is intended to provide the framework for a rolling audit program, which will provide this information in the future.

Table 9.9 Heritage assistance provided in 1993–94 under annual funding programs

	Funding level ($ million)
Queensland	0.248
New South Wales	1.923
ACT	0.308
Victoria	0.375
Tasmania	not applicable
Northern Territory	0.130
South Australia	0.300
Western Australia	0.199
Commonwealth	4.440

Source: State data from Marshall and Pearson, in press; Commonwealth data from Australian Heritage Commission, unpublished, 1995.

Conservation practice

Measures such as the extent to which heritage places are managed for conservation goals, the adequacy of assistance programs for them and the level of trained expertise available all provide indirect indicators of their condition.

In 1979, Australia International Council for Monuments and Sites (ICOMOS) adopted a charter for the conservation of places of cultural significance (the Burra Charter). Since the early 1980s this has been widely accepted by governments and conservation practitioners as the standard for conservation philosophy and practice in Australia. Cultural places managed in accord with an approved conservation management plan and with adequate resources could be expected to have a good conservation status.

No natural heritage charter comparable to the Burra Charter yet exists. However, if natural places are managed with adequate resources under approved management plans meeting accepted professional practices for nature conservation, they should also have a good conservation status. Such plans will not, however guarantee the condition of cultural places within natural areas if their management is neglected or a low priority.

Heritage assistance programs

A range of funding programs for heritage conservation and associated works were available in 1994; many for natural places have been described in earlier chapters.

The Commonwealth allocated about $50 million in 1994–95 to manage Australia's 11 World Heritage areas (DEST, 1995). The 1993–94 National Estate Grants Program provided approximately $4.4 million to the States and Territories for the identification, conservation and presentation of national estate places (see Table 9.9). Under current policy, these funds are allocated about equally between natural, historic and indigenous places. Over the same period, $3.5 million was available for mainly historic places under annual assistance programs of the States and Territories (see Table 9.9). In December 1994 more than 30 Commonwealth and State agencies across Australia had the potential to implement specific programs to identify and protect indigenous heritage, but details of funding levels were not readily available (Ward, in press).

Training

Over 80 undergraduate accredited university and TAFE courses on management of natural and cultural heritage were available in 1994 (see Table 9.10). It appears that the total number of courses in management of the built environment had increased slightly since 1981.

Table 9.10 Number of higher education undergraduate courses of study on offer in 1994 for management of heritage places and objects, as outlined in institution handbooks and directories

	TAFE		University		Total	
Type of course	**1981**	**1994**	**1981**	**1994**	**1981**	**1994**
1. Cultural environment management						
(a) Aboriginal and Torres Strait Islander heritage	n/a	7	n/a	8	n/a	15
(b) Cultural heritage		13		13		26
— directly related to conservation	5		4		9	
— indirectly related to conservation	3		10		13	
(c) Materials conservation[1]	n/a	2	n/a	1	n/a	3
2. Natural environment management	n/a	27	n/a	15	n/a	42
Total		**49**		**37**		**86**

Notes:
1. Other courses listed under 1(a) and 1(b) may also include aspects of cultural material conservation.
n/a = not available.

Source: Australian Association of Environmental Education, in press; Yencken, 1985.

Community participation

Many heritage places in Australia are conserved because of community pressure. Community support for and participation in heritage activities are thus important measures of state.

The level of community involvement in environmental and heritage organisations appears to be low. National public attitude surveys in 1991, 1993 and 1994 showed that 0.4 per cent of the population were involved in heritage organisations, 4–6 per cent belonged to an environmental group and 28 per cent donated time or money to protect the environment (Purdie, in press). Comparative data showing trends were not available.

National Trusts, nature conservation bodies and other community organisations, and individuals have actively nominated places to the Register of the National Estate since its inception (see Table 9.11). From January 1991 to December 1994 these groups comprised over 65 per cent of the nominators who were submitting nominations for the first time. Private or government heritage professionals comprised 21 per cent and local governments 15 per cent. Nominations from community groups and individuals comprised 46 per cent of all nominations received over the four years; most were for historic places (Australian Heritage Commission, in press). National Trusts contributed more nominations than any other nominator group over this period: three-quarters were for historic places, one-fifth for natural places and the remainder for places with indigenous significance.

The number of objections to the inclusion of places in heritage registers provides an inverse measure of community support. For interim listings in the Register of the National Estate (see

Table 9.11 Major types of nominators submitting nominations for the Register of the National Estate 1991–94

Nominator group	Number of nominators from 1976 to January 1991	Number of nominators from 1976 to December 1994	Number of nominators submitting nominations 1991–1994: who had also submitted prior to 1991	Number of nominators submitting nominations 1991–1994: submitting for the first time from 1991 to 1994	Number of nominations submitted 1991–1994
Commonwealth Government	18	19	-	1	1
Commonwealth & State Government	-	1	-	1	63
State Government	56	65	6	9	135
Local Government	149	177	8	28	160
Australian Heritage Commission consultants	58	76	4	18	217
Professional bodies	36	47	-	11	97
National Trusts	14	15	6	1	273
Other community organisations	335	412	2	77	137
Private nominators (individuals)	242	288	6	46	166
Totals	**908**	**1100**	**32**	**192**	**1249**

Source: Australian Heritage Commission 1995.

Table 9.12 Level of objections for interim listings in the Register of the National Estate

Years of gazettal	Number of gazettals	No. of places interim-listed	Places for which objections received	
			Number	Per cent
1977–1978	5	6200	539	8.7
1979–1980	5	680	76	11.2
1981–1982	3	472	97	20.6
1983–1984	4	244	37	15.2
1985–1986	4	770	171	22.2
1987–1988	2	414	64	15.5
1989–1990	5	776	113	14.6
1991–1992	5	631	72	11.4
1993–1994	2	155	22	14.2
Total	**35**	**10 342**	**1 191**	**11.5**

Source: Australian Heritage Commission, in press.

Table 9.12), the two-year objection rate has dropped from its peak of 22% in 1985–1986 to only 14 per cent in 1993–1994. Although objections were often related to the concept of heritage listing, many objectors misunderstood its implications.

In 1994–95, 320 community groups applied for approximately $10 million to carry out heritage identification, conservation and education projects under the National Estate Grants Program. This represented 36 per cent of all funds applied for (Australian Heritage Commission, in press). Community groups submitted 26 per cent of all applications relating to natural places, 39 per cent for historic places and 51 per cent for indigenous places.

State of heritage objects

To discuss the state of Australia's heritage objects is a new initiative in state of environment reporting. Measures relevant to the state of objects are similar to those for places, although it is harder to apply some concepts.

Article 10 of the Burra Charter espouses the principle that objects of cultural significance should not be removed from their original locations unless it is the only way of ensuring their protection and preservation. This stresses the importance of connection with place (see the box on page 9-7). Documentation of objects removed to collections is probably as important as conservation of their physical state: poor physical condition and lack of adequate documentation greatly diminish their heritage value.

This section includes information relevant to living collections of plants and animals in botanical gardens and zoological gardens, and to collections in major museums. Collections located in overseas institutions are not included, although they contain many significant items. Australian university collections, which were the subject of a major study still in progress at the time of preparing this chapter (see page 9-44), are not included either.

Knowledge

The Distributed National Collection (see the box on page 9-14) includes many significant large collections (Anderson, 1991). However, the total number of specimens in a collection is not necessarily a measure of the state of knowledge in the same way as the size of heritage registers. The size of a collection may be more relevant as an indirect measure of physical condition — the greater the number of items, the greater the resources required for their curation and preservation. For living collections, absolute numbers may be relevant for captive breeding programs of endangered species, especially if associated with re-introductions to natural habitat.

Representativeness of collections is relevant to the state of knowledge as it is for places. For example, every species of Australia's biota should be represented in the Distributed National Collection at least once, to provide reference material for taxonomic identification and hence assessment of Australia's biodiversity. Cultural collections should be representative of both Australia's indigenous and non-indigenous communities and history.

For all objects, the level of documentation associated with them is also a significant aspect of the state of knowledge. An object with a richly documented social or natural history may be priceless. Without it, it may be nearly worthless.

Biological collections

Excluding university collections, Australian museums and herbaria held almost 40 million preserved specimens of 'natural' objects in 1991 (see Table 9.13). The number of living specimens in major botanic gardens and zoos was in the order of tens of thousands, but the proportion of native species in all these collections remains unknown.

As well as the eight major gardens (see Table 9.13), at least 100 other local and regional botanic gardens and arboreta existed in 1994 (Fagg and Wilson, 1994). In 57 per cent of these, at least half of the living collections were native species, while 30 per cent grew only natives. In most of the major gardens, less than 40 per cent of the living collections were native plants. In 1993, 61 per cent of the 234 native plant species endangered nationally were cultivated in botanical gardens, compared with only 32 per cent of 203 species in 1984 (Boden, in press).

Some 13 of Australia's major zoos specialise in native fauna (see Table 9.13). In recent years they have tended to hold fewer species with larger numbers of individuals (including small potential breeding populations) rather than single specimens (Boden, in press). By December 1994, Australian zoos participating in the Australasian Species Management Program had captive breeding populations of 12 of the 75 native vertebrate species listed as endangered under the *Endangered Species Protection Act 1992*. Captive-breeding populations of at least a further eight endangered species occurred at zoos or other institutions as part of local programs (unpublished data, Australian Nature Conservation Agency, 1995).

The size of collections in major State and Commonwealth herbaria in 1991 had almost doubled since 1974 (see Table 9.13). The distribution of specimens did not reflect the number of species thought to occur in nature, with some groups, such as fungi, being grossly under-represented. The number of non-fossil fauna specimens in major State and Commonwealth museums or equivalent institutions also approximately doubled between 1974 and 1991. The representation of specimens across taxonomic groups reflected ease of capture rather than the number of species in nature (Richardson and McKenzie, 1992).

Cultural collections

In 1991, the major museums collectively held about 5.5 million items in the fields of science and technology, anthropology, archaeology and history (see Table 9.14). No comparative data for the previous two decades are available. Aboriginal and Torres Strait Islander ethnographic collections, which constituted slightly less than half of the anthropological collections, were not fully representative, as they predominantly related to male cultural artefacts. This was probably because of the circumstances of their collection by male researchers (Anderson, in press) and the durability of many of the items involved.

Of the 1.39 million historical artefacts held in museums, only about 200 000 may be relevant to historic places in Australia — a small number to reflect the material culture produced by 200 years of colonial and post-colonial peace-time activities (see Table 9.14). Many of these collections often have a technological bias, and the experience of women, migrants and working-class people is seriously under-represented (Anderson, 1991). The role of collections in local museums throughout Australia is crucial, given the paucity of history collections in the major museums (Anderson, 1993).

Legislative protection

Objects are covered by State and Commonwealth legislation, although the extent of protection varies with the type of object, and most Acts are designed to protect objects *in situ*.

All States and the two Territories now have legislation (compared with only three States in 1981) to protect indigenous objects associated with archaeological sites or places of religious or other significance (see page 9-25). The blanket protection provided to places affords a high level of legislative protection for those *in situ*, although the actual effectiveness of the protection is not known. In Queensland, New South Wales and the Northern Territory, the heritage Acts relating to historic places (see page 9-25) also cover associated objects, while the Australian Capital Territory has a separate Act to protect all cultural objects. In 1981 only New South Wales had such legislation.

The *Australian Heritage Commission Act 1975* does not specifically cover objects, although the heritage

Table 9.13 Summary of living and material biological collections in major State- and Commonwealth-funded institutions

Type of object	Date	No. of Taxa	No. of specimens
Living collections — plants[a] (1994, information from 8 botanic gardens)			
Total	1994	*c.* 33 400[1]	Unknown[2]
Living collections — animals[b] (1992, information from 13 zoos)			
Total	1992	Unknown[2,3]	20 400
— vertebrate			83%
— invertebrates			17%
Material collections — plants[c] (1991, information from 13 herbaria)			
Total	1991	Unknown[2,3]	5 020 000
— vascular[4]			87%
— non-vascular[5]			13%
Total	1974	Unknown[2]	2 562 000
Total	1965	Unknown[2]	1 954 000
Material collections — animals[c] (1991, information from 9 museums/institutions)			
Total	1991	Unknown[2,3]	33 700 000
• palaeontological			13%
• modern (non-fossil) fauna			
— vertebrates			5%
— invertebrates			82%
Total modern (non-fossil) fauna	1974	Unknown[2]	14 600 000
— vertebrates			6%
— invertebrates			94%
Total plant and animal material	1991/1992	Unknown	**38 740 400**

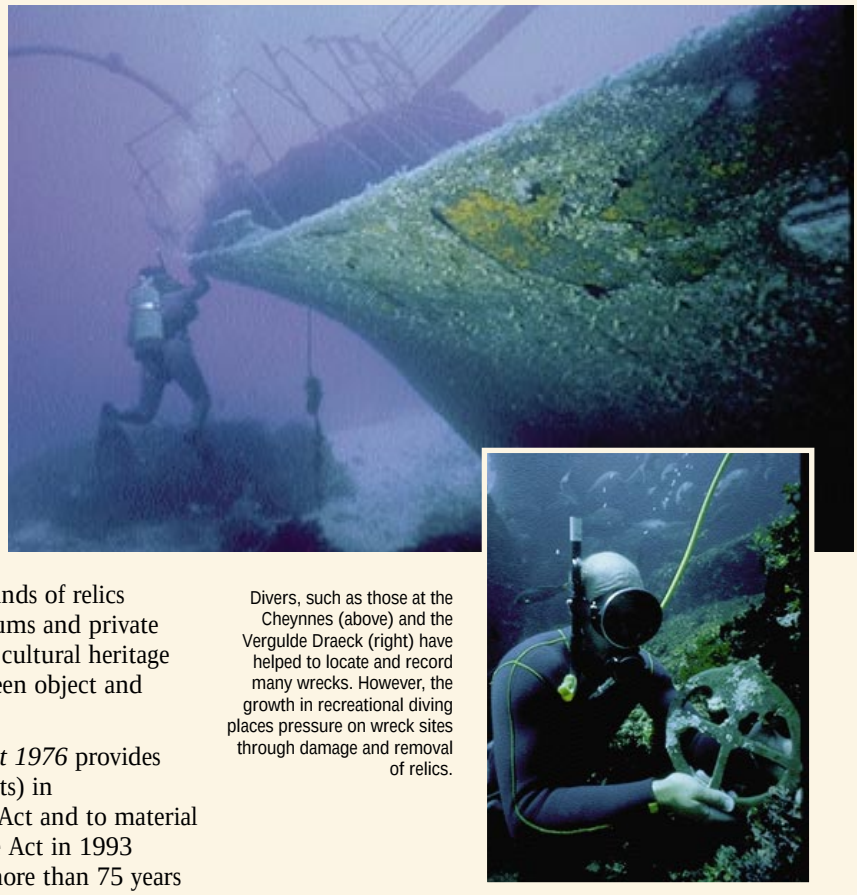
Notes:
1. Includes native and exotic species but not cultivars; relative proportions variable.
2. Figures not determined; presence and/or accessibility of data not known.
3. Includes native and exotic species; relative proportions unknown.
4. Vascular plants include angiosperms, gymnosperms and pteridophytes.
5. Non-vascular plants include bryophytes, lichens, algae and fungi.

Source: **a**–Boden, in press; **b**–Olney and Ellis, 1992; **c**–Richardson and McKenzie, 1992.

The Leadbeater's possum, *Gymnobelideus leadbeateri*, is an endangered species in Australia. Breeding programs at zoos are an important way of ensuring the survival of the species.

Shipwrecks — part of Australia's underwater cultural heritage

Throughout Australia's history, the sea and inland waters have played a vital role in communications and transport. Aboriginal settlers, who came at least 50 000 years ago, used the coasts and inland rivers intensively. After 1788, European settlers relied on shipping networks (long-distance, local and riverine). Australia's underwater heritage includes ships lost on these voyages. They and their contents are archaeological time capsules, providing incomparable information about the past. Many wrecks have also become significant habitats for marine biota.



Divers, such as those at the Cheynnes (above) and the Vergulde Draeck (right) have helped to locate and record many wrecks. However, the growth in recreational diving places pressure on wreck sites through damage and removal of relics.

More than 5000 shipwrecks in Australian waters have been recorded, although only about 15 per cent of these had been located by 1994, compared with about 10 per cent in 1975 (Pigott, 1975). Thousands of relics removed from wreck sites are now in museums and private collections. They are also part of Australia's cultural heritage and demonstrate aspects of the nexus between object and place.

The Commonwealth *Historic Shipwrecks Act 1976* provides protection to sites (wrecks and their contents) in Commonwealth waters declared under the Act and to material removed from them. An amendment to the Act in 1993 provided blanket protection to all wrecks more than 75 years old. As a result, the number of sites protected under the Act rose from about 150 in 1992 to more than 5000 in early 1995. In 1993, an amnesty for people holding relics from wrecks resulted in more than 3000 registrations of material over a 12-month period.

Shipwrecks located in State waters also receive some form of protection under State legislation, except in Tasmania. However, these Acts (with two exceptions) do not align with the amended Commonwealth Act in providing blanket protection for wrecks over 75 years old. Legislative mechanisms range from 50-year blanket heritage protection (New South Wales) to a situation where individual sites need to be declared (South Australia). Queensland legislation contains no precedent for the declaration of the sites.

The Commonwealth Shipwrecks Program sponsors major activities, which are implemented through State and Territory agencies under cooperative funding arrangements. An Australian Shipwrecks Database has been established, guidelines developed for shipwreck management and public access and a national research plan instigated to develop research priorities and facilitate exchange of information.

Although they are protected by legislation, wreck sites continue to be destroyed. Development activities such as dredging, cable-laying, development of marinas, reclamation, seismic testing and resource extraction can all affect them. The diving community has helped locate and record many wrecks, and have been major lobbyists for their protection. However, the dramatic increase in the numbers of recreational divers has also placed stress on wreck sites through anchor damage and unlawful interference and removal of relics.

Relics removed from wreck sites, whether illegally or through approved archaeological surveys and excavations, quickly deteriorate unless subject to correct conservation measures.

The public is increasingly demanding the underwater interpretation of wreck sites, museum exhibitions of relics from them, publications and community involvement in restoration projects. Such activities are all important means of promoting awareness about wrecks and the need for their conservation.

Australia has high international standing in shipwreck investigation, management and protection, and in 1991 was selected to host and chair the ICOMOS Scientific Committee on Underwater Cultural Heritage. Limitations in shipwreck heritage conservation arise from differences between Commonwealth and State protective legislation, the general lack of enforcement of infringements under the Acts, the level of resources required for monitoring wrecks and collating data on both wrecks and relics and the inadequate coordination of research. Despite the excellent training available, there are still too few marine archaeologists and conservators to meet these demands.

The pressures affecting shipwrecks reflect both their multi-jurisdictional administration and the diverse values they hold for the community, complicated by the underwater environment in which they are located. No comprehensive national picture of the state of wrecks in Australian waters and associated relics was possible from data available at the end of 1994.

Source: Kenderdine, in press.

Table 9.14 Summary of cultural collections in major State- and Commonwealth-funded museums in 1991

Type of objects	Numbers of items (approx.)	Proportion of items well documented	Notes
Major government funded institutions (information from 18 museums)			
Science and technology	*c.* 67 000	Variable (0–70%)	
Anthropology/ archaeology[1] (total)	4 055 000	Mostly poor (0–70%) Many archaeological site collections await processing	Includes *c.* three million unaccessioned archaeological specimens which are bulk site collections
— anthropological[2]	*c.* 524 000		
— ethnographic[3]	*c.* 251 000		
History	*c.* 1 391 000	Variable, often poor (0-100%)	Only *c.* 200 000 are not part of the Australian War Memorial or philatelic and numismatic collections
Total for major museums	*c.* 5 513 000		
Local history museums (information from *c.* 1800 museums)			
Predominantly history, but also includes technology	*c.* 1 800 000	Unknown	

Notes:
1. Archaeological collections relate predominantly to items from Australia
2. Anthropological collections include non-Australian items
3. Ethnographic collections relate just to Australia

Source: Anderson, 1991; tables I and II.

significance of places may be related to their contents. Objects thus indirectly receive a measure of protection through the listing of places in the Register of the National Estate. To date, heritage collections have generally received little attention in the Register. Of the 91 museums listed by December 1994, none had their collections considered a part of their heritage significance (Australian Heritage Commission, in press). The Register recognised the heritage value of living collections of plants and/or animals for about half of the listed botanic gardens and zoos, but did not include any of the museums with collections of major national significance (Anderson, 1991).

Two separate Commonwealth Acts — the *Historic Shipwrecks Act 1976* and the *Protection of Moveable Cultural Heritage Act 1986* — now cover objects of cultural significance. The latter is designed to control export of significant cultural objects no longer *in situ*. Under the Act, Aboriginal secret/sacred objects and scientific Type Specimens are prohibited from export. Separate legislation covers the export of living flora and fauna (see Chapter 4).

The *Historic Shipwrecks Act* covers both shipwrecks and their contents (see the box opposite). Five States (South Australia, New South Wales, Western Australia, Victoria and Queensland) and the Northern Territory have complementary legislation; four of these Acts were passed in 1981 or later (Kenderdine, in press). They are all designed to prevent the removal of objects from wreck sites. The legislative provisions and their implementation appear to provide shipwreck material with a level of protection superior to that for any other type of non-indigenous cultural object *in situ*.

Physical condition and conservation practice

In 1991, about nine per cent of all herbarium specimens still needed to be incorporated into the collections (Richardson and McKenzie, 1992). Computerised databases contained about 21 per cent of vascular plants and seven per cent of non-vascular plants, and covered 19 per cent of all collections. Museums had not yet processed about 33 per cent of all non-fossil fauna specimens. Computer databases included eight per cent of the total modern (non-fossil) fauna collections, which comprised 88 per cent of modern vertebrate collections, but less than 5 per cent of invertebrates. No data were available on the physical condition of the natural history collections, but the reduced level of curatorial and support services for both herbaria and museums in 1991 (see page 9-15) suggests that their collections may be at risk of deteriorating.

The level of documentation on cultural collections in museums varied in 1991 but was less than 10 per cent for a number of institutions (Anderson 1991, in press). A high proportion of specimens of all fields awaited accession. Only a small proportion of artefact collections in some major museums had even been assessed by conservators, and less than 10 per cent had ever been treated. It is highly probable that the physical condition of many artefacts is continuing to deteriorate, despite the conservation crisis identified in the 1975 Pigott and 1987 CRASTE reports. The condition of collections in local museums is likely to be poor as these collections are usually displayed for too long, often in unsuitable physical environments, and the museums generally lack access to curatorial and conservator expertise (Anderson, in press).

Tourism and the environment

Australia's natural and cultural heritage underpins tourism — one of our fastest-growing and most economically significant industries. In 1994–95 international tourism to Australia generated export earnings of $12 billion, accounting for 12 per cent of our total export earnings. More than 3.3 million visitors came here in 1994, three times the number of a decade ago. If growth projections are realised, the tourism industry is expected to generate between $15 and $21 billion (at 1992 prices) annually in export earnings by the year 2000.

Heritage buildings, such as the store at Tilba Tilba, New South Wales, are often used to promote tourism. Their historic context in the landscape may be diminished or lost through the use of unsympathetic signs.

Pressure

Growing interest in and promotion of cultural and natural heritage tourism has increased the number of tourists, particularly to major attractions such as World Heritage areas (see page 9-16).

Tourism exerts both positive and negative pressures (see Table 9.15). It may create an increased awareness and appreciation of Australia's natural and cultural heritage and hence a greater desire for its protection. However, tourism can have negative impacts on both the physical and the non-physical heritage. Physical pressures range from the impact on the landscape of roads, signs and other facilities to wilful acts of vandalism. For community groups, such pressures can also be an assault on the cultural significance of sites. Intrusion on privacy, pressures to conform to stereotypes and payment for 'performances' endanger the cultural integrity of indigenous and non-indigenous communities and reduce the cultural significance of sites. Demands for 'authenticity' that do not recognise the dynamic and evolving nature of indigenous culture and its present relevance turn that culture into a commodity.

Tourism entices more people to become involved because it generates income for a range of ancillary services, such as accommodation and travel. The economic incentive exerts a pressure for natural resource managers to 'open up' their protected areas for tourism, for increased promotion of cultural heritage sites and for provision of tourist services.

Expenditure for tourism contributes to the management costs of sites, creating a further economic pressure in the form of the user-pays principle. However, the percentage of management budget derived from user fees varies significantly. For example, in 1991–92, 64 per cent of the management budget for Uluru was derived from user fees, nine per cent for Kakadu National Park and less than five per cent for the Great Barrier Reef, Wet Tropics and Tasmanian Wilderness World Heritage areas (Driml and Common, 1995). In 1995, rates of cost recovery were estimated to be 57 per cent at Uluru–Kata Tjuta, 30 per cent at Kakadu, 31 per cent for the Great Barrier Reef and 10 per cent for the Tasmanian Wilderness Area (DEST unpublished data, 1995). Figures available from the National Trust of South Australia indicate that, in 1992, entry fees generated less than 20 per cent of the management and maintenance budgets for their properties.

Table 9.15 Pressures created by tourism on natural and cultural heritage

Negative	Positive
Pressures on place	
• disruption of ecosystems	• revegetation programs
• pollution	• protection of wildlife
• waste disposal problems	• development and implementation of management plans based on zoning
• graffiti and vandalism	
• collection of souvenirs	
Pressures on values and meanings	
• overcrowding/over-pricing of host community facilities	• sharing and increased understanding of other cultures
• invasion of privacy	• renewed cultural activity
• privatisation of public space	• stimulus to art and craft activities
• loss of access to traditional land	• promotion of the conservation ethic
• debasement, commodification and exploitation of culture	• re-invigoration of communities with a knowledge of traditional skills and values
• rapid changes in traditional lifestyle	

Source: Hyde, in press.

State

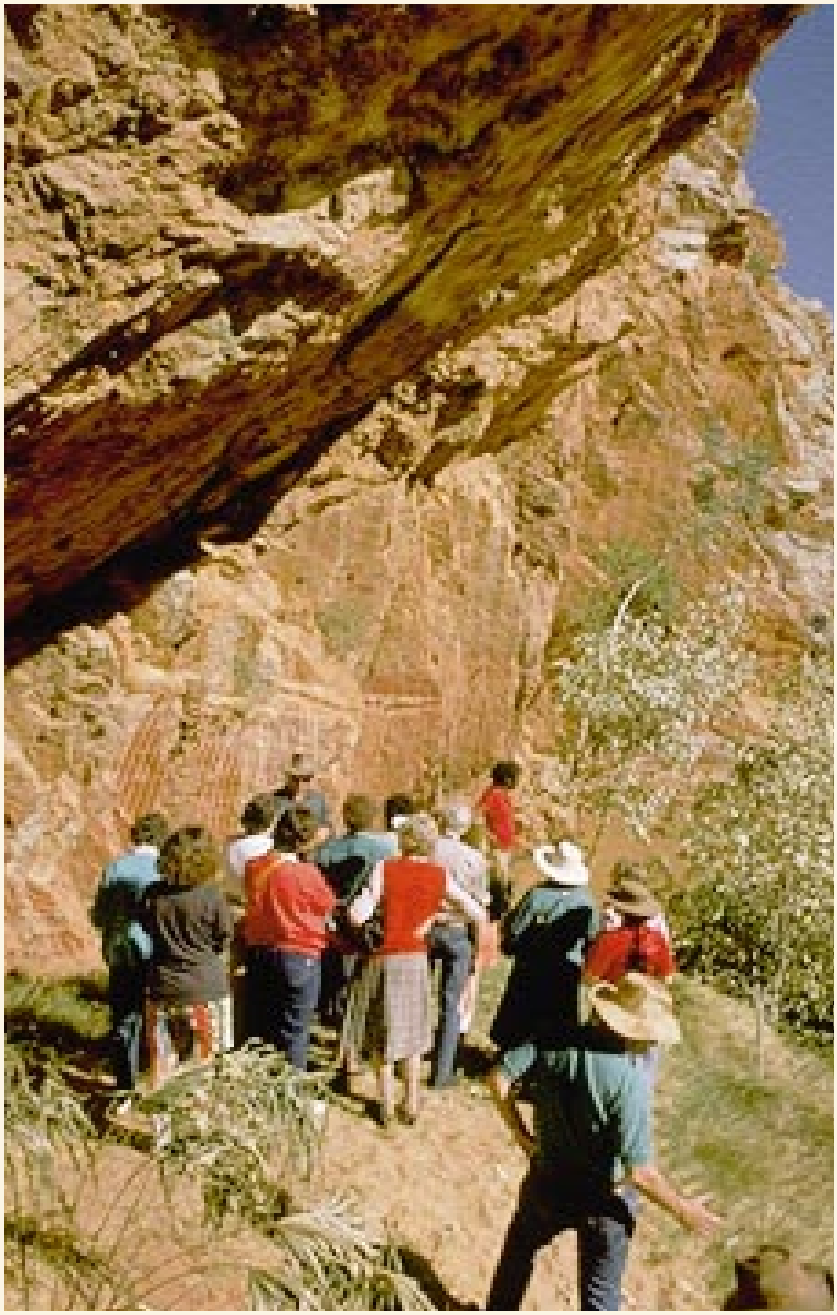
Apart from economic data on tourism expenditure and gross visitor rates, there are virtually no data to measure either positive or negative impacts of increasing tourism on either natural or cultural heritage sites in Australia (Hyde, in press). Impacts at major tourist destinations are usually managed through plans of management that describe the biological and cultural values of areas and detail strategies for ensuring their protection. Zoning systems are often used to regulate levels of use. While various codes of practice have been developed for tour operators and tourists, Australia does not have a national system of accreditation or regulation. Although the concept of carrying capacity is being debated within the industry, it has rarely been applied to establish any limits to visitor numbers, even in terms of measuring environmental degradation. No one has carried out comprehensive surveys to measure the extent to which tourism may generate either positive or negative attitudes among the host population, in terms of access to and affordability of resources and facilities.

Response

The growing demand for tourism based on Australia's natural and cultural heritage has resulted in a rapid increase in the number of ecotourist operators and accommodation establishments. It appears that few of these businesses contribute to the maintenance of the natural environments they utilise (Hyde, in press). The industry, in partnership with the Australian Conservation Foundation and the Commonwealth Department of Tourism, is addressing the need for a national accreditation system for ecotourism operators.

The Commonwealth and all State and Territory governments developed ecotourism strategies or draft discussion papers in 1994, and most are preparing cultural tourism strategies. The Commonwealth committed $10 million over four years to implement its 1994 National Ecotourism Strategy. Since being established in 1991, its Department of Tourism has initiated programs for Forest Ecotourism, Sites of National Tourism Significance and Regional Tourism Development, and has developed a National Rural Tourism Strategy.

In 1994 the Aboriginal and Torres Strait Islander Commission released draft tourism industry and cultural industry strategies to address the specific needs of indigenous communities. These highlight the urgency of giving indigenous people an effective role in decisions about training, delivery of products and services, determination of tourist markets and marketing material and the control of cultural material and its presentation.



Indigenous communities have shown an increasing desire to control their own tourism enterprises. Tourists inspect Aboriginal rock art with the traditional owners, at Udnirr Ingita, Northern Territory (above).

Prognosis

While cultural tourism can have many positive benefits, these will only occur where communities can control its nature. Indigenous communities, in particular, have shown an increasing desire to control their own tourism enterprises as a way of maintaining cultural integrity and ensuring that they share in the economic, social and cultural benefits of the industry. Given the projected exponential growth of tourism in Australia, more sophisticated quantitative and qualitative data on its effect on the natural and cultural environment are needed, in terms both of their capacity to provide sustainable recreational and economic value and to protect their intrinsic values.

Response

Australia's heritage has received increased recognition over the last decade. The 1988 Bicentennial in particular provided a focus for domestic and international attention on the natural and cultural environments, highlighting awareness of cultural identity and inadvertently raising the profile of Aboriginal culture and history.

The importance of protecting our heritage assets — places, objects and associated meanings — has also received more widespread acknowledgement. This has been due to factors such as government and industry recognising the economic importance of heritage through tourism; better understanding by society of the central role of Aboriginal and Torres Strait Islander heritage as part of global moves towards social justice for indigenous peoples; and communities responding to changes in their physical surroundings that affect their sense of place.

Over the last 10 years, schools have included more subjects with an emphasis on heritage. In 1989–90 (the most recent national data available), their environmental education curricula offered a wide range of relevant topics which covered Aboriginal and Torres Strait Islander studies, Australian studies, beliefs, the environment, Australian history and multi-cultural matters (Australian Association for Environmental Education, in press). However, these studies were not generally part of the basic curriculum in schools and, while they were well represented at primary school level, few Year 12 courses encompassed issues relevant to Australia's heritage. The number and variety of specialised tertiary courses associated with cultural heritage has also increased significantly, with 65 courses on offer in 1994 (see Table 9.16). The 1987 CRASTE report highlighted a need for cultural relevance in all areas of study and professional training.


Wallsend mines coal heritag
to save business future
By SALLY CROXTON
Civic Reporter
Heritage advisor sought
Tax incentives restore our pas
King Islanders win the fight to see their light
Old creche facade saved from demolition
By STEVEN WILSON
Heritage is about everyone
Man, 67, among 17 logging arrests

Over the last decade, many schools have included subjects with an emphasis on heritage, particularly at primary level.

Many sectors of the Australian community have responded to the state of Australia's heritage. However, places have generally received more attention than objects, reflecting their links with the quality of our environment. Objects are rarely perceived as being part of 'the environment', probably because of their less obvious link with the quality of our surroundings.

Governments have initiated a range of responses to protect places, but only indigenous objects appear to have received the same level of attention. Community groups have continued to promote Australia's natural and cultural heritage and its conservation through lectures, walks, publications and other activities. Some corporations and industry groups have also made significant contributions to improve the state of our heritage.

The following pages concentrate on those responses for which qualitative information relevant to natural and cultural heritage across Australia was available. Inappropriate responses also affect the state of heritage and act as pressures on top of those described already.

Table 9.16 Numbers of award courses on offer in 1994 related specifically to Australian cultural heritage, as outlined in institution handbooks and directories

Type of course	TAFE	University undergraduate	University postgraduate	Total
Aboriginal studies (general)[1]	1	15	16[2]	32
Australian studies	-	29	-	29
Applied history	-	2	2	4
Total	1	46	18	65

Notes:
1. Includes language/linguistic studies
2. Includes two courses on Aboriginal Affairs Administration

Source: Australian Association of Environmental Education, in press.

Responses — heritage places

Since the 1981 review of the state of our heritage places (Yencken, 1985), Australia has made substantial progress in the standards of documentation, and methods of evaluating and implementing systematic heritage surveys. More professionals are involved in heritage identification, evaluation and conservation. For example, in 1994, there were 203 heritage professionals in Australia ICOMOS (Marshall and Pearson, in press).
A major advance in consistent and creditable evaluation occurred in 1986, when the Australian Heritage Commission adopted specific assessment criteria. These criteria (see the box on page 9-18) were included in the 1990 amendments to the Australian Heritage Commission Act and provided the basis for subsequent State and Territory heritage legislation.

Protests by environmentalists (left) and the logging community (above) about harvesting old growth forests for woodchip export typify conflicting community views over resource use.

Non-government responses

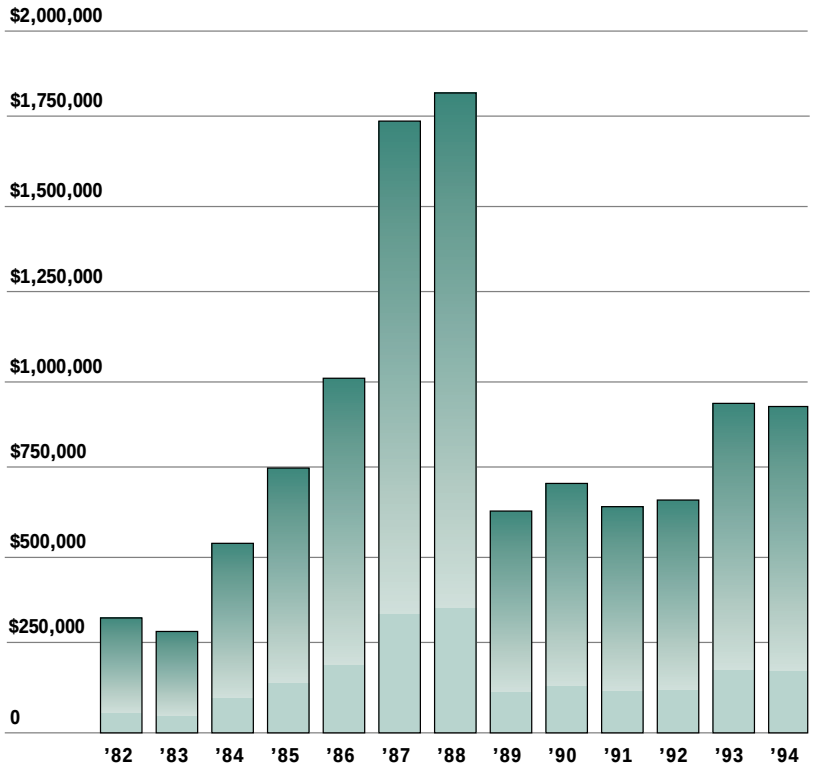
Community groups have frequently responded to perceived threats to Australia's natural heritage and places of cultural significance with organised protests and demonstrations. Issues such as World Heritage listing (Reid, 1995), mining in national parks and timber harvesting for woodchips in national estate areas (Toyne, 1994) have all prompted actions that epitomise disputes about resource use in heritage areas. Parties from opposite perspectives promote very different views in such campaigns and aim for very different outcomes.

People in the community express their concern for the protection of heritage places by joining interest groups, such as national heritage or conservation organisations, residents' action groups and local history societies. These groups also provide a focus for community involvement in other activities, including oral history projects, legislative and planning processes, ethical investment schemes and educational activities to help maintain and enrich community heritage (Blair, 1994).

The National Trusts have continued to play a significant role in promoting heritage and its protection, and government funding to them has increased in recognition of their role. Heritage Week, which was initiated by the Trusts in 1980, is now a major event in all States and Territories. Donations to the Trusts are also increasing again (see Fig. 9.11), although the level is still far short of that reached during the Bicentennial.

Other non-government, non-profit organisations continue to receive community support through membership and donations.

Figure 9.11 Community and industry donations to the National Trust from 1982 to 1994 (a total of $11,008,879 was donated over this period)



Source: National Trust Annual Reports.

For example, the Victorian Conservation Trust has used community donations to acquire 100 properties since 1972. The State government has added more than 40 of these to conservation reserves or other protected lands. Over the last seven years the Trust has used a revolving fund to buy properties then resell them with a protective conservation covenant. The Australian Bush Heritage Fund was set up in 1990 to purchase private land of outstanding conservation value and by mid 1995 it had purchased four blocks.

A number of corporations have policies to manage, conserve and promote their own heritage assets. Others provide sponsorship funding to a range of heritage projects such as the restoration of heritage buildings, the upgrade of facilities at botanic gardens and zoos and research programs. The 1988 Bicentennial provided an important focus for industry support of heritage.

Professional bodies such as the Australian National Committee for the International Council for

Table 9.17 Summary of main State and Territory heritage acts for conserving indigenous places

	Qld	NSW	ACT	Vic	Tas	NT	SA	WA
Date Act(s) passed	1988	1974 (amended 1984,1992)	1991; 1991	1972 (amended 1973, 1980 1984) Commonwealth Act 1987	1975	1989;1991	1988	1972 (amended 1980)
Consultation with indigenous communities?	To some extent	To some extent	Yes	To some extent (1972 Act) Yes (1987 Act)	To some extent	Yes (1989 Act) To some extent (1991 Act)	Yes	Yes
Advisory Committee requires indigenous representatives?	No	Yes	Yes	Yes (1972 Act only)	No	Yes (1989 Act only)	Yes	Yes
Interests of indigenous people protected?	No	No	Potential	Yes (1987 Act only)	No	Yes (1989 Act only)	Yes	Yes
Provisions of Acts for places								
Main type of place covered? (Significant places include archaeological sites, religious sites, etc.)	Significant places	Significant places	Significant places	Archaeo-logical sites (1972 Act) Significant places (1987 Act)	Archaeo-logical sites	Sacred sites (1989 Act) Archaeo-logical sites (1991 Act)	Significant places	Significant places
Blanket protection provided for archaeological places[1]?	Yes	Yes	Yes	Yes (1972 Act only)	Yes	Yes (both Acts)	Yes	Yes
Sites register required?	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Able to declare protected areas?	Yes	Yes	Potential	Yes (1972 Act)	Yes	Yes (1989 Act)	Yes	Yes
Destruction of places an offence?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Penalties (High: $10 000 or more; Low: less than $10 000)	High	High	High	Low (1972 Act) High (1987 Act)	Low	High	High	Low
Provisions of Acts for objects								
Objects covered?	Yes	Yes	Yes	Yes	Yes	Yes (1991 Act)	Yes	Yes
Objects register required?	Yes	No	Yes	Yes	No	No	Yes	Yes
Destruction of objects an offence?	Yes	Yes	Yes	Yes	Yes	Yes (1991 Act)	Potential	Potential
Provisions of Acts for human remains								
Human remains covered?	Yes	Yes	Yes	Yes	Yes	Yes (1991 Act)	Yes	Yes

Note:
1. Other types of significant places must first be identified to receive legislative protection.

Source: Ward, in press.

Monuments and Sites (Australia ICOMOS) have continued to play an important role in raising the standards of heritage identification and protection. In order to increase the accessibility of the Burra Charter adopted by ICOMOS in 1979, an illustrated version was published in 1992 and distributed to all local governments. Australia ICOMOS has continued to influence concepts of cultural significance, assessment methodologies and conservation principles and practices across Australia as well as internationally.

Government heritage legislation and policies

Significant progress has been made in the legislative protection of heritage, with many Acts now addressing major deficiencies identified in 1981 (Yencken, 1985).

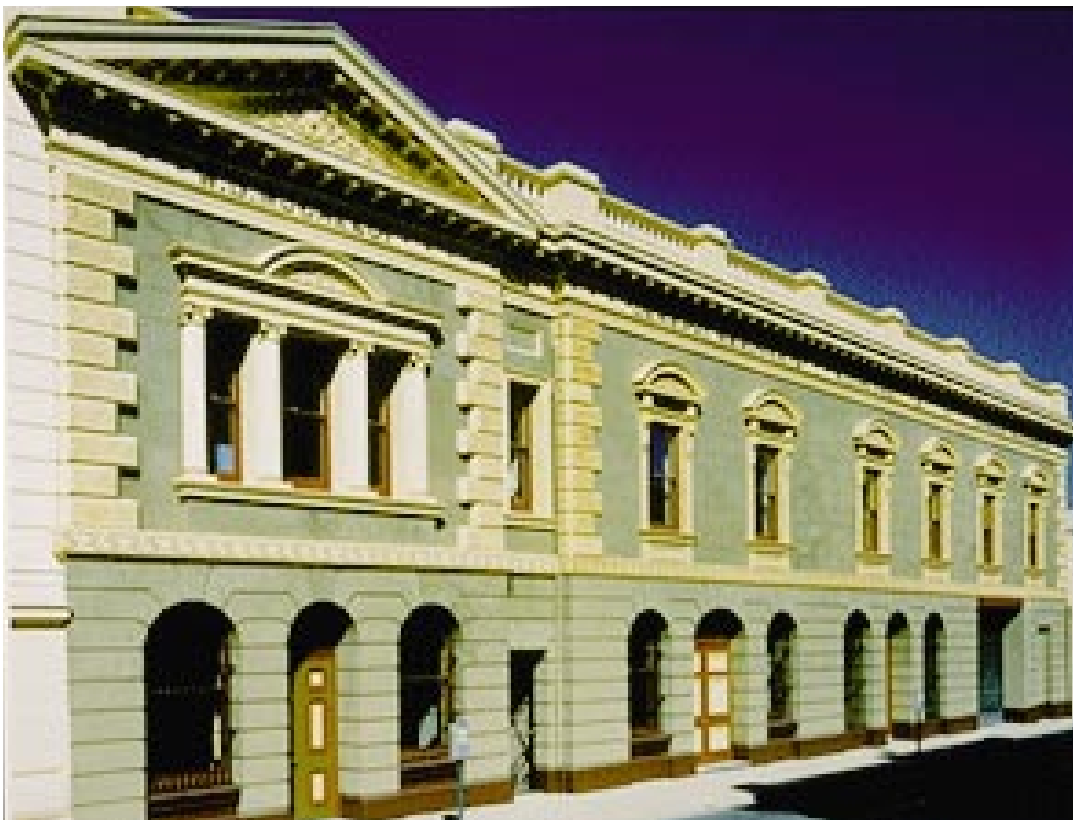
Governments have passed seven indigenous heritage Acts since 1987 (see Table 9.17). In general, these Acts have increased the focus on protection of places and objects significant to contemporary indigenous communities, although

Table 9.18 Summary of State and Territory heritage acts for conserving historic places

	Qld	NSW	ACT	Vic	Tas	NT	SA	WA
Date Heritage Act passed	1992	1977	1991	1981 (under review)	(Provisional Bill 1994)	1991	1993	1990 (under review)
Date of any previous Act	1990	-	-	1974	-	-	1978	-
Appointment of staff included under Act?	No	No	No	Yes	(No)	No	No	Yes
Identification & evaluation provisions of Acts								
Assessment criteria included?	Yes	No[1]	Yes	No[1]	(Yes)	Yes	Yes	Yes
Assessment criteria compatible with National Estate criteria	Yes	Yes[1]	Yes	Scope more limited	(Yes)	Yes	Yes	Yes
Heritage Register required?	Yes	Yes[2]	Yes	Yes	(Yes)	Yes	Yes	Yes
Composition of Heritage Council	Interest groups and experts	Largely experts	Largely experts	Largely experts	(Experts and interest groups)	Largely experts	Experts	Largely experts
Who makes final listing decisions?	Heritage Council	Minister	Legislative Assembly	Governor in Council	(Council)	Minister	Heritage Council, but Minister may direct removals	Minister (private places); Heritage Council (crown places)
Conservation provisions of Acts								
Conservation management plan required?	No	No	No	No	(No)	Yes	No	No
Provision for conservation order or equivalent?	Yes	Yes	No	Yes	(Yes)	Yes	Yes	Yes
Provision for heritage agreements?	Yes	No	Yes (only for Aboriginal places)	No	(Yes)	Yes	Yes	Yes
Permit/approval required for developments affecting any place on the register?	Yes	Yes	Yes (for a 'controlled activity')	Yes	(Yes)	Yes	Yes (under the *Development Act 1993*)	No[3]
Financial penalties	up to $1 million	up to $20 000	up to $20 000	up to $150 000	(Yes)	up to $200 000	up to $60 000	up to $10 000 plus daily penalties
Powers of local government under heritage or planning Acts								
Powers delegated for identification and/or conservation?	Yes, for development application approvals	Yes	Not applicable	Yes	Yes for, development approvals only	No	Yes (identification and conservation)	Yes
Maintain some type of register for historic places?	Yes	Yes	Not applicable	Yes	Provision, but no obligation	No	Yes	Yes

Notes:
1. Non-statutory criteria have been implemented in NSW and Victoria
2. NSW list is restricted to places with Permanent Conservation Orders
3. Advice of the Heritage Council must be sought

Source: data from James, 1993.



The historic Moore's building in Fremantle, Western Australia, was restored by the Fremantle City Council and serves as a model for the adaptive re-use of heritage structures.

in Tasmania the current Act is still based on archaeological value and hence does not recognise historic or contemporary significance. The more recent Acts provide stronger avenues for community consultation and increased involvement of indigenous people in developing and implementing protection measures. Only the South Australian one gives indigenous people control in its implementation. Five States now have major penalties for damaging indigenous places. However, some States such as South Australia (Ward, in press) have not provided adequate resources to implement the legislation effectively.

Three States and both Territories have passed heritage legislation to identify and protect historic places since 1990 (see Table 9.18). Tasmania introduced a draft Bill in 1994. The Acts in the Australian Capital Territory and Northern Territory also cover natural and indigenous places. Each of these Acts requires the compilation of State heritage registers (although ministers rather than appointed councils make the final listing decisions in several States). They all used the 1990 national estate criteria as their basis, and thus compatible concepts of significance now apply across Australia for historic places; all include penalties for damaging historic places; and all except the Australian Capital Territory provide for conservation orders (see Table 9.18). All except Western Australia require approvals for activities affecting listed places.

The passing of the new Acts for historic places has generated some confusion in the community about listings and their implications. However, their common basis has greatly increased the potential for coordination between governments. In May 1992, heritage ministers across Australia agreed to a program of national coordination of documentation, assessment, listing and provision of conservation advice for historic places. This has been advanced through meetings of officials from the Commonwealth and all States and Territories and of the heads of heritage authorities. Pilot programs are in place for joint heritage assessments and listings and cooperative information-gathering. The various agencies have agreed on standard information requirements and begun work on linking Commonwealth and State heritage databases.

Since 1989, the Commonwealth government has increased its focus on environmental issues and State/Commonwealth relationships. The 1992 InterGovernmental Agreement on the Environment (see Chapter 2) contained specific schedules to improve intergovernmental arrangements about World Heritage and the National Estate.

The Commonwealth government statements: 'One Nation' (1992), Statement on the Environment (1989, 1992) and National Forest Policy Statement (1992) all contained specific initiatives directed at Australia's natural heritage. Some have also helped to identify and protect cultural places. Relevant initiatives have included: the development of a national protected area system, comprehensive regional assessments in forests, identification of significant marine areas through Ocean Rescue 2000, identification and management of wild rivers, completion of national coverage for the National Wilderness Inventory and conservation of sites of national tourism significance. It is too early to assess the effectiveness of these programs nationally in terms of heritage conservation.

The 'One Nation' (1992), 'Distinctly Australian' (1993) and 'Creative Nation' (1994) statements contained specific initiatives to protect Australia's cultural heritage. The 'Creative Nation' statement listed preserving Australia's heritage as one of five principal roles of the Commonwealth Government in cultural development. The policy announced a Committee of Review to examine the management of Commonwealth-owned heritage properties and to provide for better conservation. The work of this Committee will be crucial to developing a model of best practice for the conservation of government-owned heritage across Australia.

Most State and Territory governments have been promoting heritage conservation at the local government level. They have supported the placement of heritage advisers and increased the extent to which local governments must include heritage considerations in their planning (Marshall and Pearson, in press). The involvement of the latter in heritage identification and conservation appears to have grown in some States. Local governments in some areas have also promoted good conservation and adaptive re-use of their heritage resources and used them to promote local and regional tourism.

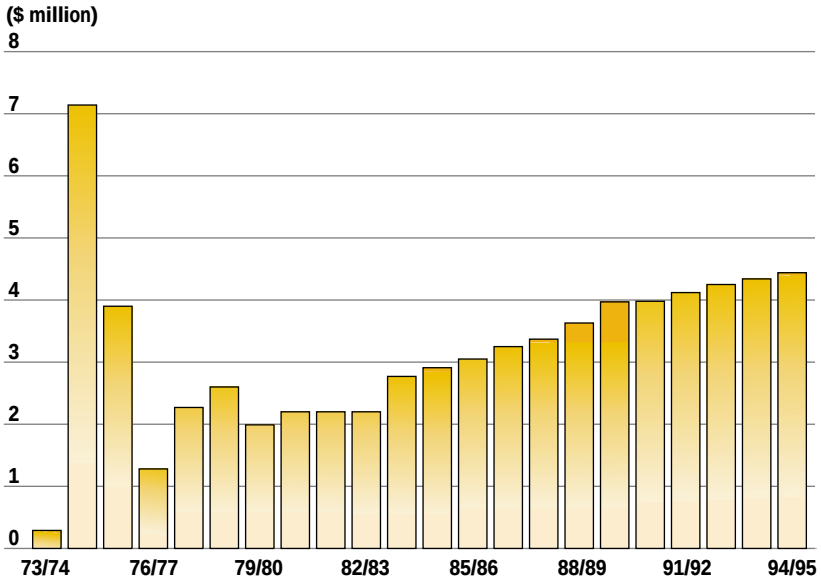
Funding for conservation

The Commonwealth government introduced the National Estate Grants Program in 1973–74 to provide assistance to the States. The program has remained a significant funding source to help identify and conserve natural and cultural heritage places across Australia (see Figure 9.12). However, its effectiveness is limited as funding has not kept pace with the 61 per cent increase in the number of places eligible for assistance since 1981. All the States and Territories with heritage legislation for historic places have introduced programs to assist their conservation, although the annual level of funding is often low (see Table 9.9).

The Commonwealth government initiated a Heritage Properties Restoration Program from 'One Nation' and the Tax Incentive for Heritage Conservation scheme from 'Distinctly Australian' in response to the high costs of maintaining heritage buildings. The move followed lobbying over a number of years by many groups (Yencken, 1985). The government passed legislation to allow implementation of the tax incentive in 1994. In its first round of operation, 53 of the 91 applications received were approved within the $1.9 million cap on tax rebates. The one-off nature of programs such as the Heritage Properties Restoration Program reduces their effectiveness in conserving Australia's built heritage. It is too early to assess whether the cap on tax rebates will limit the effectiveness of the Tax Incentive program. The current rebate level will remain in place until 1996–97, when it will be reviewed.

The Australian Institute of Aboriginal and Torres Strait Islander Studies has provided special-purpose grants for rock art conservation annually since 1987. The government also provided funding in 'Creative Nation' to establish a Cultural Heritage Protection Program that recognises the special importance of Aboriginal rock art and increases the involvement of indigenous people in management decisions. Increased funding was also provided for rock art research, conservation and management. A pilot workshop for rock art management was held in 1994 to test resource materials developed under the program.

Figure 9.12 Annual funding to the States and Territories under the National Estate Grants Program



Note: Increase in the level of funding from 1980 largely reflects adjustments for inflation.

Source: Unpublished data — Australian Heritage Commission, June 1995.

Many heritage buildings need considerable resources for their restoration. The original Cordillo Downs woolshed, South Australia, (left) was restored (below) with financial assistance from the Heritage Properties Restoration Program.

Indigenous heritage

Philosophies and attitudes to indigenous heritage values and the involvement of indigenous people in cultural heritage management, have changed markedly since 1984. Land rights Acts passed by Commonwealth and State governments have facilitated significant change in heritage policy and administration through bodies such as local and regional land councils. Legislation passed in the last eight years (see page 9-36) has increased avenues for indigenous communities to participate in heritage management. Bodies such as the Council for Aboriginal Reconciliation and the Aboriginal and Torres Strait Islander Commission have produced major reports, with recommendations directly relevant to indigenous cultural heritage identification and management. Some local governments identify Aboriginal sites as part of their routine work and promote Aboriginal heritage (Galla, 1993).

The number of technical and professional indigenous staff employed permanently by State and Territory agencies concerned with indigenous heritage has increased, except in one department where the number dropped (Ward, in press). In 1985, each of the 11 major government departments employed an average of 3.8 indigenous people in the relevant sections, representing 25 per cent of those sections' permanent staff. Comparable figures in 1994 were 5.3 indigenous people, representing 30 per cent of the permanent staff. Given the special needs of indigenous heritage, this proportion is still relatively low. Further improvement will probably depend, at least in part, on increased training of indigenous people (Galla, 1993).

More indigenous people have been appointed to policy and decision-making bodies in the area of indigenous heritage since 1985, and many new advisory bodies have been set up (Ward, in press) reflecting changing public attitudes and political will. However, the level of recognition of Aboriginal concerns about custodianship of their heritage and the formal mechanisms provided for achieving this varies between States. Sometimes Aboriginal people may also be reluctant to be involved in European-style advisory bodies.

Over the last decade, government departments and tertiary institutions appear to have provided more training for indigenous people. The number of heritage officers employed and sponsored in their training — often at a tertiary level — by indigenous communities has also increased. Programs such as the Contract Employment Program for Aboriginals in Natural and Cultural Resource Management, which annually receives around $3.8 million and provides opportunities for training through employment for about 1300 indigenous people.

More and more indigenous communities have been applying for funds under the National Estate Grants Program to document sites significant to them. Indigenous communities comprised 51 per cent of all applications for projects applying to Aboriginal and Torres Strait Islander places in 1994–95 (Australian Heritage Commission, in press).

Attitudes to indigenous languages and cultures among non-indigenous people have changed over the last decade. More people recognise the uniqueness of Aboriginal culture and accept it as part of Australia's cultural heritage. A variety of community responses reflect these changes (Henderson and Nash, in press). They include the growth in Aboriginal cultural tourism and the inclusion of more information about the indigenous history and significance of places in interpretive material in parks and in tourist literature. People have become more interested in learning about Aboriginal language and culture, as seen by the growing number of general and educational publications about these subjects. The community is increasingly recognising the wish of indigenous people to be known by their local title — Anangu, Yolngu, Koorie, Nyoongar, Murri and Nunga — rather than 'Aboriginal'. The appropriateness of using their own names for places of special significance to indigenous people is also gaining support, although some name changes have been controversial and have been overturned by authorities.

Retaining indigenous cultural knowledge

The 1994 'Creative Nation' statement recognised the importance of preserving and protecting intangible cultural heritage, particularly that of indigenous Australians. It expressed full support for 'indigenous people in their efforts to retain their material, intellectual and spiritual heritage' and included initiatives to increase their access to material such as oral histories, genealogical data and languages.

The loss of traditional indigenous languages (see page 9-23) has prompted a range of responses. From 1987–88 to 1994–95 Commonwealth funds for indigenous language-related research increased six-fold. The number of Regional Aboriginal Language Centres has increased, and a Federation of Aboriginal and Torres Strait Islander Languages was established in 1992. The Australian Bicentennial Authority provided one-off funding for the development and publication of documents such as a national dictionary of Aboriginal languages — 'Macquarie Aboriginal Words: a Dictionary of Words from Australian Aboriginal and Torres Strait Islander Languages' — and the AIATSIS 'Encyclopaedia of Aboriginal Australia'.

In the 1993–95 triennium, the Commonwealth government allocated specific funding for indigenous languages in the education system. It has been developing a national approach to such courses at the senior secondary level since 1992, and courses are expected to be offered in six places in 1995. The number of bilingual and other indigenous language education programs in schools has increased, as has the number of general market publications with a significant proportion of indigenous language text.

Professional groups have played an important role in identifying Australia's heritage. The Geological Society of Australia identified many geological sites such as Piersons Point foreshore geological monument, Blackmans Bay, Tasmania (below). The Institution of Engineers carried out a national survey of bridges, including unusual ones such as the Adelaide River railway bridge, Northern Territory (left).

After many decades of neglect, the crisis for indigenous languages is now more widely recognised. It is, however, too early to assess how effective the response of recent years will be for maintaining these languages in the long term.

Imbalances in heritage registers

A 1991–92 review of historic places in the Register of the National Estate (Domicelj, 1992) identified a wide range of themes not represented, involving many different types of places. Many of these were subsequently given priority for identification in the National Estate Grants Program. This has assisted in some areas (for example, war memorials, gardens and some types of industrial heritage), but much work remains to redress imbalances. In 1993 national heritage officials began a study to develop a framework of principal Australian historic themes with the aim of providing added focus for future systematic survey work. The framework has been tested in part of the Murray–Darling Basin.

The emphasis on systematic heritage studies has increased in the National Estate Grants Program. In 1994–95, 60 per cent of all applications for heritage identification were for this type of work — 46 per cent of natural projects were for regional studies and 42 per cent of historic projects were for thematic studies (Australian Heritage Commission, in press).

To help redress the under-representation of migrant places in heritage registers, a guide book has been developed (Armstrong, 1994) to assist communities from migrant backgrounds nominate places significant to them. Considerable work has also been carried out to develop appropriate methods for assessing social value (Blair, 1994), with recent regional heritage studies including strong community involvement (see the box on page 9-13).

Some industry and related professional groups have also taken an active part in heritage identification over the last decade. For example, the Institution of Engineers has carried out studies of significant bridges, the Victorian Chamber of Mines and Small Miners and Prospectors Association have been involved in studies of historic mining sites in Victoria and the Geological Society of Australia has continued a nation-wide program of identifying sites of geological significance.

Responses — heritage objects

Despite the fact that objects have a lower profile than places as part of natural and cultural heritage, there have been significant positive responses to assist their protection, largely by governments. Professional bodies such as the former Museums Association of Australia and the Australian Institute for the Conservation of Cultural Material have played important roles in raising standards and providing services. Progress has been made in some areas since the 1975 Pigott and 1987 CRASTE reports, although many pressures remain.

Commonwealth government initiatives

Following recommendations in the Pigott report, the Commonwealth passed the *Historic Shipwrecks Act* in 1976 and the *Protection of Moveable Cultural Heritage Act* in 1986. The latter guards against export of important items of our portable heritage to ensure they remain part of Australia's natural or cultural environments. These include Aboriginal secret/sacred objects, scientific Type specimens, fossils and geological specimens.

The Cultural Ministers' Council and the Council of Australian Museum Associations established a Heritage Collections Working Group in 1990, as part of the National Cultural Framework, in part to define the nature and extent of Australia's heritage collections. The Group adopted the notion of the Distributed National Collection (see the box on page 9-14), and made recommendations towards remedying its existing biases. It was replaced by the Heritage Collections Committee in

Indigenous Australians: protecting their own cultural heritage

The archaeological record demonstrates the great antiquity and continuity of indigenous societies in Australia. Just as they adapted to often dramatic changes in the natural environment over thousands of years, more recently they have had to adjust to massive changes in the social and physical environments brought about since European colonisation. While indigenous people today may not live as their ancestors did, the continuation of many cultural traditions highlight a culture and heritage extending back over vast periods of time.

Indigenous communities feel growing concern to preserve this heritage and the knowledge and values that give it meaning. They are also concerned that they have largely been denied their responsibility of protecting and managing indigenous heritage places and objects. Addressing this need requires attention not only to the responses of governmental agencies, but also to the impediments facing indigenous communities themselves as they attempt to implement their concerns and gain a voice in formal heritage management.

Alf Neal, an elder of the Kuku Djungan tribe working with a botanist to extract a pollen core from a lake at Ngarrabullgan in North Queensland in order to investigate changes in the environment and in patterns of Aboriginal land use over time.

Pressure

Many indigenous people remain isolated from their ancestral lands, within which country, places and objects of significance to them are located. The dominant cultures in wider society and the homogenised culture represented by the international media continue to impinge on indigenous languages and cultural understandings.

The decline of languages and the diminishing numbers of people actively using many of the surviving languages (see Figures 9.9 and 9.10) jeopardise the transmission of knowledge and cultural practices related to indigenous places and objects. The same occurs if indigenous people do not have ready access to the results of archaeological and anthropological research and other relevant studies (Henderson and Nash, in press).

Museums in Australia and overseas contain vast collections of indigenous artefacts and human remains, but it is difficult, if not impossible, for most indigenous people to reach them. While many collections were made with the authority and guidance of local indigenous people, many others were acquired and retained without authority from traditional custodians. Numbers of items were collected, stored and/or displayed in ways inconsistent with indigenous beliefs.

State and Commonwealth agencies responsible for indigenous affairs, museums, heritage agencies and other departments administer about 30 separate Acts specifically relating to indigenous places and objects (Ward, in press). These Acts are often not implemented effectively because of inadequate resources or the use of procedures that are not necessarily compatible with indigenous cultural values and practices. This is exacerbated by a failure to involve indigenous people effectively in administration and management. For the most part, governments still need to develop legislation to protect the traditional knowledge, intellectual property and the integrity of indigenous cultural information.

Many areas in Australia protected for their natural heritage values contain places significant to indigenous people but the management and conservation requirements of the indigenous cultural heritage are generally neglected or given a low priority. Indigenous people have a majority role in management decisions in a few protected areas, but no involvement in many other places.

Because they have little control over matters concerning them, including their own heritage, indigenous people sometimes choose not to have places, objects, traditions and cultural property controlled, or listed in heritage registers, by Commonwealth and State authorities.

State

The cultural context in which places and objects significant to indigenous people are managed may sometimes be a more significant measure of state than their physical condition. Many of the objects removed from their original physical location are stored, conserved or presented in inappropriate cultural contexts, while the management regimes of many protected natural areas do not adequately address the need for culturally appropriate management of significant places.

Response

Over the last decade indigenous people have increased their demands to be more equitably involved in formulating heritage policy and identifying, protecting, managing and repatriating their own heritage. Governments have responded to these demands in a number of significant ways.

The passage of the Commonwealth *Native Title Act 1993* recognising indigenous rights and interests in land was a landmark. It signalled the end of the *terra nullius* concept denying the land tenure of indigenous people in Australia.

Establishment of the Aboriginal and Torres Strait Islander Commission in 1990 gave responsibility for both policy and administration in indigenous affairs, including heritage and cultural concerns, to a structure over which indigenous people exercise control.

The Commonwealth passed the *Aboriginal and Torres Strait Islander Heritage Act* in 1984 to address inadequacies in existing State and Territory legislation for the protection of indigenous sites and artefacts, particularly those of contemporary significance. Sixteen declarations have been made since the Act was passed, nine of them in 1993–94 — three for the protection of significant objects, and six for the protection of significant places.

A number of States have reviewed legislation affording protection of indigenous places over the last decade and passed new Acts that increase the involvement of indigenous people. Over this period, the number of policy-making and high-level advisory bodies related to indigenous heritage has also increased, with an increased proportion of indigenous people appointed to them (Ward, in press). The granting of land rights has allowed indigenous people to re-assert control over places and objects located in many areas.

Prognosis

Increasingly, people are realising and accepting the relationship of indigenous peoples with the physical landscape, and the importance of their intangible cultural heritage. Protection of indigenous culture and its heritage requires that places and objects be protected in a culturally appropriate manner and that traditional languages and cultural traditions be maintained with continuity in their use. The last decade has seen significant improvements in some of these areas. However, indigenous communities do not have sufficient control to protect this critical aspect of Australia's heritage in the long term.

1993–94 as an initiative under the 'Distinctly Australian' (1993) and 'Creative Nation' (1994) cultural statements. The committee was given seed funding to develop and implement collection, organisation, preservation and communication strategies for the Distributed National Collection. Although funding this Committee was seen as a major Commonwealth government role in cultural heritage, ongoing funds were not specifically allocated in the 1993 and 1994 statements.

These recent cultural statements included other initiatives relating to heritage objects, although total funding for material cultural heritage was comparatively low due to the predominant focus of the statements on the performing arts and associated cultural activities. 'Distinctly Australian' included a Bequests Program to encourage private owners to donate significant cultural items to museums. Like the Tax Rebates scheme for heritage buildings, tax concessions under the Bequests Program will be capped (at $2m per annum), which may inhibit its effectiveness. The government passed legislation to implement the scheme at the end of 1994 and was developing the necessary regulations in early 1995. Other initiatives announced in 'Creative Nation' included the development of information networks on collections, national conservation standards and assistance from national institutions to individuals and communities to preserve and present material of cultural significance in their original locations or regions. However, none of these received specific funding allocations in the statement.

Over the last decade the Commonwealth government has supported the return of significant cultural objects to indigenous control. The Aboriginal and Torres Strait Islander Commission implemented a national Heritage Program in 1993–94 for indigenous communities to establish keeping places. It has also provided funds for the return to Australia of human remains from overseas institutions — although State agencies have often experienced subsequent difficulties in returning them to relevant custodians. A major program for the return of indigenous cultural property from institutions in Australia and overseas was announced in 'Distinctly Australian', with the return of human remains a priority. The initiative included a consultative framework and pilot programs to facilitate a primary role for indigenous people in the protection, safe keeping and return of significant cultural property.

The return of cultural items is very complex. For example, in many cases it is

Many botanical gardens in Australia, such as the Kings Park garden in Perth, Western Australia, have programs to cultivate endangered species of native plants.

difficult to identify custodians, while objects considered 'ordinary' at the time of collection may have taken on greater cultural significance to contemporary indigenous Australians. Some projects result in more objects being deposited in museum custody for safe keeping. These, and related issues such as the impact that return programs may have on scientific research, are the subject of continuing debate.

Coordinating living collections

Collections of living plants and animals have not received the same level of support in government policies as material collections. Major zoos in Australia and New Zealand established the Australasian Species Management Program, which was incorporated in 1992, to promote regional cooperation in the management of species in captivity for conservation purposes. The program publishes an annual summary of species management and recommendations for planning collections. The Australian Network for Plant Conservation, established in 1991, includes a range of corporate bodies, organisations, individual members and international associates in its membership. Its aims include helping species recover in their natural habitats and cultivating endangered species as an 'insurance' against extinction in the wild. In 1993, the Network published a list of endangered Australian plants in cultivation.

In 1989, the heads of botanic gardens formed a council to help coordinate activities between their institutions. In 1994 it compiled the first list of all plants in cultivation in major Australian botanic gardens. This provides an aid for cooperation in developing collections and helps reduce pressures on wild populations by minimising the duplication of collecting activity.

The conservation activities of major Australian botanic gardens and zoos are based on recently adopted international conservation strategies, themselves based on the principles of the World Conservation Strategy. The strategies aim at achieving sustainable use of natural resources and biodiversity, and include a focus on captive breeding populations. About 44 per cent of all botanic gardens/arboreta recorded in Australia in 1994 were engaged on some type of program relating to threatened native Australian plants (Boden, in press).

Reviews of the collections

Since 1991, Australian museums have undertaken major surveys of their collections for the Heritage Collections Working Group (Anderson, 1991, 1992, 1993), partly to determine their state (including size, characteristics and conservation conditions). This work provides the most up-to-date picture of historical, archaeological and anthropological collections in Australia. The survey of herbarium collections and museum faunal collections undertaken in 1991 by the Australian Biological Resources Study (Richardson and McKenzie, 1992) similarly provides the most recent overview of these collections.

In 1994 a University Museums Review Committee was established, covering collections held in Australia's universities, including natural history items. The review was due for completion in the first half of 1995. The Commonwealth is funding a national inventory of secret/sacred indigenous objects held in museum collections, which is being implemented with advice from Museums Australia and in liaison with all relevant Aboriginal Land Councils.

Cultural collections: access and conservation

Museums have changed markedly in the two decades since the Pigott report. For example, all State and Federal museums now employ conservators for their collections (Anderson, in press). However, few specific undergraduate university and TAFE courses are available to train graduates for this specialist work (see Table 9.10), and the number of conservators is still small compared to the need (Anderson, in press). Regional and community museums face even greater difficulties in obtaining advice on conservation of collections.

Providing more resources to establish interlinked, readily accessible databases has helped to unlock the combined wealth of information contained in natural history collections throughout the country. The State and Commonwealth governments are funding these initiatives. In an attempt to increase access to collections without risk to their preservation, major museums are now investigating computer interactive programs. A working group established by the Heritage Collections Committee made substantial progress in this area during 1994 (Anderson, in press).

Redressing the imbalance of cultural collections

Museums increasingly have recognised the imbalances in their collections, and are changing

the direction of their collecting programs to make them more representative of the whole Australian community (Galla, 1993). From the early 1980s, State museums progressively established sections specifically to collect historical material, which often focused on documenting the less-privileged in society (Anderson, in press). Museums have also become increasingly aware of their social roles and are more open to community participation. Initiatives include cooperative collecting ventures resulting in collections of specific relevance to the cultural traditions and contemporary practice of a range of ethnic and interest groups. Western Australia has established a Multicultural Heritage Task Force to encourage individuals and groups to care for their own cultural heritage, in their homes, in cultural centres, or in the State museum if desired.

Neither of the Commonwealth cultural statements (see page 9-43) provided secure funding for the proposed National Museum of Australia, the establishment of which was recommended in the Pigott report. With its proposed integrated approach to the environment, history and human settlement, such a museum would greatly assist in redressing many of the known gaps in the Distributed National Collection, and provide a holistic view that integrates the social values and meanings of objects.

Return of indigenous cultural property by museums

In 1993, the Council of Australian Museums Associations produced a policy document recognising the need for museums to broaden their roles. It urged increasing Aboriginal participation in collecting, keeping and researching indigenous artefacts and human remains. The policy advocates support for the establishment of indigenous community museums and keeping places, and for the loan of cultural material from their collections to such centres. The major museums are concerned to discuss with relevant indigenous groups the return of material in their collections. Many now have special areas for the care of restricted (secret/sacred) material, employ Aboriginal staff and liaison officers and provide special training for Aboriginal staff members.

Context of collections

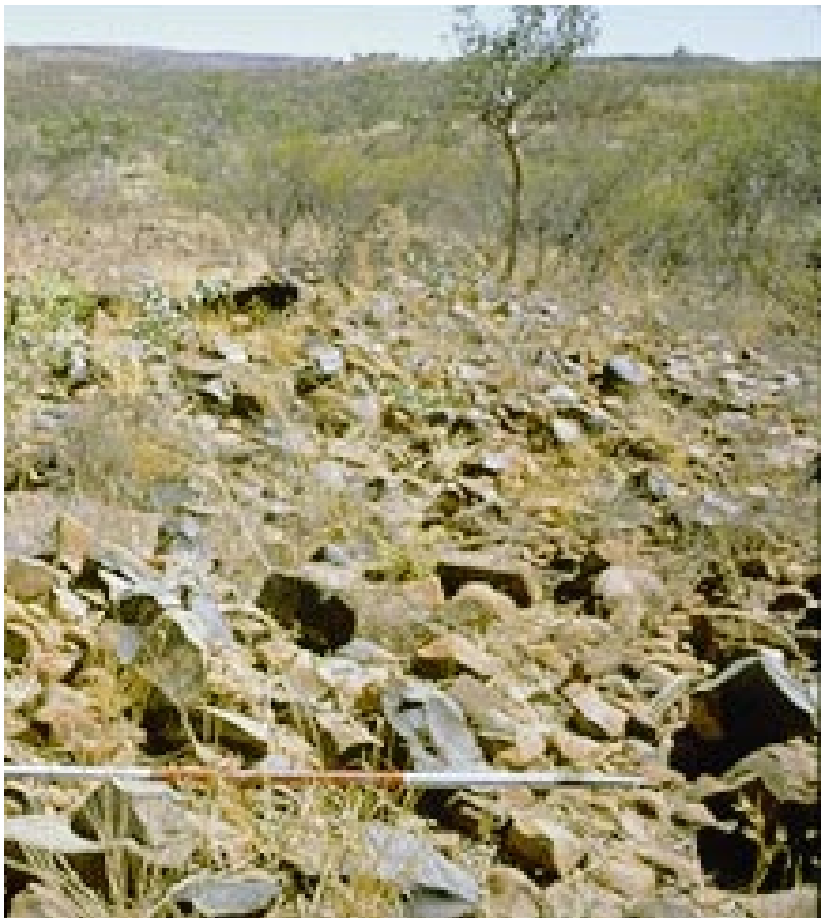
The desirability of preserving objects *in situ*, if at all feasible, is now generally accepted so that the original physical context is retained with all that it has to tell us. Many museums now conduct extensive research, including oral history, in the course of their collecting and exhibiting activities. These activities have been particularly significant where there has been no prospect of preserving objects on site; at least their cultural context has been carefully recorded. Some institutions have specific oral history programs. Much information obtained through oral history programs about non-indigenous objects and places is likely to be as an adjunct to other activities rather than by specific design (McCarthy *et al.*, in press).

Future and synthesis

> *'Which are the places that our children's children will thank us for conserving? Conversely, which places will we be condemned for ignoring?'*
>
> (Dovey, in Blair, 1994)

Community attitude surveys show the present generation realises an obligation to protect things for future generations (Purdie, in press). Places and objects, and the meanings associated with them, are an integral part of Australia's natural and cultural heritage. Previously, heritage objects were not perceived as part of the environment despite their intrinsic heritage value and close links with place. Their inclusion in this report reflects their importance in that respect. In a society endeavouring to achieve the sustainable use of its resources, knowledge about the state of all our heritage resources is essential to help guide decisions about their sustainable use and to help determine those places and objects that should be saved for our children's children.

This chapter has reviewed the state of Australia's natural and cultural heritage, and where possible identified trends over the last one to two decades. State has been assessed in terms of knowledge, legal provisions, physical condition, conservation and community involvement, using a range of possible indicators (see Table 9.19). Major pressures currently affecting heritage and a range of responses to its state since the mid 1970s and early 1980s are also outlined. Table 9.20 summarises major findings.



A superficial glance at this Aboriginal stone quarry at Lake Moondarra, Queensland, might suggest only a scatter of naturally broken rock. Closer examination reveals an irreplaceable technological record of quarrying and the controlled shaping of stone through a series of steps to form an important tool — the hatchet head.

What is the state of Australia's natural and cultural heritage?

Thousands of places across the country, including 11 World Heritage properties, and millions of objects located in public and private collections have been identified as part of our heritage. The size of heritage registers and collections has grown considerably over the last one to two decades and continues to expand.

Current World Heritage listings do not reflect the mixture of natural and cultural heritage values in the Australian landscape. The Register of the National Estate, similarly is not fully comprehensive nor fully representative of our heritage places; it contains major geographic and thematic gaps. This situation is more serious in State and Territory registers of historic places, the majority of which post-date 1989. Records of Aboriginal and Torres Strait Islander places maintained under State and Territory indigenous heritage legislation also do not fully cover some types of places. No quantifiable national data exist to provide a broad assessment of the physical state of Australia's heritage places.

Table 9.19 Indicators considered in this chapter relevant to the state of heritage nationally and the adequacy of relevant data

	Indicators	Adequacy of data for indicator[1] Places	Objects
State of knowledge	• number and type of heritage places listed in registers or heritage objects in collections	A	D
	• number and 'strength' of traditional indigenous languages	A	A
State of legislative protection	• number of international heritage conventions ratified by Australia	A	A
	• number and nature of relevant Commonwealth, State and Territory Acts	A	A
	• number of places/objects protected under relevant Acts	A	?
	• number of decisions under specific protective provisions of relevant Acts	?	?
	• level of statutory referrals from Commonwealth agencies for conservation advice about heritage places	A	Not applicable
State of physical condition	• condition of the 'fabric' of places/objects	D	D
State of conservation practice	• number managed under agreed management plans and with appropriate resources	D	D
	• level of financial assistance available	B (historic) D (indigenous)	?
	• size of the 'pool' of heritage professionals available	D	D
State of community participation	• level of involvement in relevant non government organisations	D	Not considered
	• level of involvement in heritage identification, evaluation and conservation	C–D	Not considered
	• objections to listings in heritage registers	C	Not applicable

Note:
1. A = Excellent; B = Good; C = Fair; D = Poor; ? = Uncertain (information not able to be obtained for this report). Indicators for which data were inadequate or uncertain will need to be addressed in future reports.

Heritage collections are widely dispersed, with a large proportion housed in local museums. The number of objects in these has never been quantified exactly, and the most recent information indicates that the collections are not representative. For example, specimens relating to Australia's natural environment far exceed those representing human occupation, while fewer artefacts relate to non-indigenous history than to indigenous heritage. No one knows in detail the physical condition of the majority of material collections, nor the state of those collections at greatest risk. However, in view of limited conservation resources, the physical condition of many is likely to be deteriorating.

Legislative protection of indigenous and historic places has improved over the last decade through enactment of new State and Territory heritage laws. Many of these have also increased the legislative protection of objects. A range of indigenous places receives blanket legislative protection in all States and Territories, although many historic places have no formal protection under these laws and hence are potentially at risk. Some natural heritage places have received increased protection through Commonwealth, State and Territory laws. Commonwealth legislation now also protects classes of heritage objects from export.

The state of conservation practice has improved through the adoption of more targeted evaluation and management principles, improved standards of assessment and documentation, increasing numbers of heritage professionals and the availability of more heritage assistance programs. While some people oppose heritage listings, many individuals and community groups actively work to assist the conservation of Australia's heritage. However, the community does not have sufficient access to conservation and curation services, training and resources to implement the conservation measures necessary to ensure the protection of the heritage in its care.

Data availability

Reporting on the state of Australia's heritage has been hampered by major gaps in knowledge, with only poor data available for many of the indicators (see Table 9.19). The state of knowledge about material collections is particularly poor — it is not possible to compare collections accurately between many institutions because of poor documentation and the absence of national registers. This makes it difficult to assess the physical condition of objects, establish priority conservation needs against available resources nationally or address gaps in the collections. No national programs are currently in place to monitor the physical condition of Australia's heritage places or objects.

Similar data deficiencies hampered reporting on pressures and responses (see Table 9.20). Generally,

no national, quantifiable data were available on the magnitude, extent or relative importance of pressures on natural and cultural heritage places — even for major pressures. Where data were sought (Hyde, in press; Marshall and Pearson, in press; Ward, in press) relevant information was not readily available or was not of a uniform standard across the States and Territories. It was not possible to assess the level of resources available for identifying and protecting heritage places and objects in many instances, the distribution of resources between different areas of need, the participation and success rates of applicant groups or the degree of duplication or overlap in programs. The data gaps could not be attributed just to the short time available for collating information for this chapter. The inadequacy of existing data greatly increases the difficulty of assessing the effectiveness of responses in conserving heritage resources.

Aboriginal and Torres Strait Islander heritage

One of the major changes in public attitudes about heritage over the last one to two decades has been the increased recognition of, and importance placed on, the heritage of indigenous Australians. This has been manifest at the government level, for example, by support for the return of indigenous cultural material to custodians despite the complexities involved.

Although many changes have occurred since European settlement, the Australian landmass and its surrounding seas remain a significant cultural landscape for indigenous communities, whose visible expression of culture has become a strong focus for cultural tourism. Many non-indigenous Australians still lack an understanding of the importance of indigenous languages and cultures although education about them has increased at primary schools and tertiary institutions, and through popular publications.

Loss of traditional languages, low levels of involvement of indigenous peoples in the management of their heritage, and tourism are major pressures adversely affecting indigenous heritage. Programs designed to assist the maintenance of indigenous languages and cultures have increased, but these may not be sufficient to prevent the loss within a generation of many of the 90 traditional languages spoken today.

Over the last decade, more indigenous people have become involved in 'heritage areas' as administrative, technical and field staff in a range of organisations, and as members of the advisory bodies, boards of trustees, policy-making groups or executives of these institutions. However, the current levels and organisational infrastructures are still far from sufficient to ensure that the identification and management of indigenous places and objects are culturally appropriate. The potential positive impacts of tourism bypass many indigenous communities, which rarely have a strong role in its development.

This floating gold dredge at Maldon, Victoria is an important element in the cultural landscapes of the Central Victorian Goldfields.

Linking heritage

The strong links between places, objects and associated meanings are not reflected in current institutional approaches to heritage identification and protection. Most oral history programs for example, conducted by major institutions, such as libraries, are poorly integrated with identification and documentation projects of heritage agencies or museums. Policies and programs for heritage places are rarely linked with those for material objects and hence do not encourage a balanced approach to heritage conservation. Similarly, while there are moves towards better integration in some areas, natural and cultural heritage are handled separately in much government legislation, administration and policy. This hinders rather than helps decision making intended to achieve the sustainable use of natural and cultural heritage resources. Developing and applying the concept of cultural landscapes to heritage management should help integration.

No national heritage conservation strategy exists to link places, objects and the values people attach to them, conceptually or in terms of policy. Such a strategy would facilitate the cooperation of governments, industry, business, voluntary groups and the community in developing agreed goals for heritage conservation and development. It would also expedite the electronic databasing and national linkages of heritage registers and collections essential to establish a national perspective. Such a broad view provides the necessary basis for management decisions on the sustainable use of heritage resources.

Linking governments

The Commonwealth, Territories and all States have enacted heritage laws covering indigenous places and objects. All except Tasmania also have laws for historic places. This highlights the importance of coordinated identification and conservation strategies within and between the different levels of government to eliminate duplication or neglect of key areas.

Our cultural resource is complex and rich and has many links with natural resources. A variety of agencies are responsible for cultural and natural

Table 9.20 Summary

Element of the Environment/ Pressure	Effect on state	Information availability	Response	Effectiveness of response
World Heritage places Focus on natural heritage values; opposition to listings; growth of tourism	7 properties listed for natural values, 4 for natural and cultural values	Data on impact of tourism poor	Lobbying to change cultural criteria; legislation to protect properties; IGAE used as framework for nominations and management	Uluru inscribed as cultural landscape; some nominations and management arrangements still being negotiated
Historic places **– metropolitan areas** Increased demolition, reuse, loss of context through development, rezoning etc	Large numbers of places recognised but still major imbalances in heritage registers; effects on physical condition can be positive or negative	No national data on magnitude and effect of pressures; no national data on condition of places	Heritage legislation enacted now in all except one state; review of Commomwealth heritage buildings; community protests to conserve places; targetted studies to address gaps; special assistance programs for conservation	Too early to assess effectiveness of legislative protection or review; condition of places receiving assistance improved; many places still require conservation
– rural areas Neglect through lack of identification or reduced rural economies	Fewer places recognised as heritage; many not receiving legislative protection and not eligible for heritage assistance	No national data on magnitude and effect of pressures; no national data on condition of places		
Indigenous places Insufficient management and administrative role for indigenous people; legislative focus on archaeological sites; cultural insensitivity; loss of traditional indigenous languages	Management of many places inappropriate; cultural values of places adversely affected; loss of traditional knowledge about places	Often poor but variable	Increased legislative protection; increased numbers of indigenous people in relevant government agencies and on boards; change in community attitudes; language maintenance programs	Not all types of places protected in some states; employment levels of indigenous people still low; too early to assess effectiveness of language programs
Natural places (see also previous chapters) Conflicting land uses; resource use in heritage areas; urban growth	Many places not managed appropriately for their values	National data lacking on magnitude of pressures, impact on heritage registers and condition of places	Targetted heritage studies; community protests for threatened places	Many places not conserved
Natural and cultural places generally Inadequate community involvement in heritage studies; lack of recognition of cultural values in natural areas; insufficient heritage assistance; insufficient heritage professionals; tourism	Imbalances in heritage registers; many places not managed appropriately for their values; inadequate conservation	National data lacking on magnitude of pressures, impact on heritage registers and condition of places	Community protests for threatened places; targetted heritage studies; development of new evaluation methods; heritage assistance programs; increase in tertiary training courses; development of government tourism strategies; tourism codes of practice	Improved documentation of places and integration of natural and cultural values; some places conserved but others still need assistance; too early to assess effectiveness of tourism responses
Objects *in situ* Inappropriate removal from original context; destruction of surroundings; tourism	Loss of context and knowledge; physical destruction of items	No national data on number, type or physical condition of heritage objects, nor on magnitude of pressures	Burra Charter promotes retention of objects *in situ*; legislation passed to protect indigenous objects in many states, to protect objects associated with shipwrecks, and to control export of objects; changed policies in some museums	Uncertain; no data available to assess effectiveness of many responses
Material collections (natural and cultural objects) Inadequate national co-ordination; biases in collecting policies of institutions; inadequate conservation facilities and expertise; inadequate documentation; lack of classification systems and standard nomenclature for cultural items	Major imbalances in collections; physical condition of many collections probably deteriorating	Poor national, quantifiable data on number, type and physical condition of objects, and on magnitude of pressures	Reviews of collections; legislation to control export of objects; national co-ordinating bodies established; government policies established but often lack specific funding for implementation; more conservation staff employed; changes in collecting policies	Some major pressures identified in 1974 still apply; too early to assess effectiveness of recent responses or no data available to assess adequately

Table 9.20 Summary (continued)

Element of the Environment/ Pressure	Effect on state	Information availability	Response	Effectiveness of response
Collections of Indigenous items Indigenous communities requesting relevant items to be returned to custodians; many indigenous communities lack conservation facilities, expertise and access to management advice	Returned objects located in appropriate cultural context but physical condition often at risk	Lack of information in many areas.	Government policies and funding programs to assist return of items and establishment of keeping places; changed museum policies; museums employing more indigenous people in relevant areas	Too early to assess effectiveness.
Living collections (biological) Inadequate national coordination	Imbalances in collections	National data on endangered species most readily available	Co-ordinating bodies established and implementing specific programs for endangered species; adoption of conservation strategies	Too early to assess effectiveness.

heritage in most States and Territories. Planning for integrated management needs to be undertaken at the regional level rather than at just the State or local government levels to achieve sustainable use of these resources. Although local governments have an increasing role in conserving historic places in most States, many currently appear to lack the necessary skills and resources to do this effectively.

Effective coordination between and within governments is essential to ensure that heritage values are considered in the early stages of government policies and program development. This is equally necessary in metropolitan, rural and remote regions. Documented heritage resources are concentrated in urban regions, and thus more places are affected by government programs. In rural areas, fewer opportunities may exist to retain places valued by the community. Remote regions may contain many natural and cultural heritage resources, but these are not generally recognised or valued as heritage and remain poorly documented.

Heritage week activities, such as the open day at Blundell's Cottage, Canberra, provide an opportunity for the community to enjoy and learn about their heritage.

Community involvement in heritage identification

Community involvement has increased over the past few years but remains limited among the general population. The heritage of groups of non-English-speaking background and places of social value to the wider community are not well represented in heritage registers. Oral history appears to be a neglected tool in heritage identification, although it is a significant means of documenting social value. Community-based heritage studies and provision of training and resources for local people in areas such as oral history research are not yet common.
While identification of places significant to the community remains inadequate and management decisions take poor account of social value, community opposition to the destruction of heritage places will continue to frustrate decision-makers and development bodies alike.
Heritage registers and collections will continue to fail to reflect the historical and ongoing cultural development of the nation, and the natural and cultural heritage of all Australians.

The future

Despite numerous positive responses to assist the identification, documentation and conservation of Australia's heritage, it is too early to assess the effectiveness of many initiatives. National agreement is needed about which indicators are the most useful for measuring the state of our heritage resources before evaluating such initiatives.
The technical reports compiled for this chapter will offer a firm basis for such discussion. The chapter itself should act as a catalyst for the recognition and sustainable use of natural and cultural heritage as part of Australia's environment.

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