



## CHAPTER 4

# EARTH'S CULTURAL HERITAGE

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Convention on  
Biological Diversity

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## TITLE PAGE PHOTO

**Protecting nature is part of humanity's cultural heritage.  
Peyto Lake, Banff National Park World Heritage Property,  
Canada**

Source: Graeme L. Worboys

## Introduction

Earth's seven billion people and their forebears have left, and are continuing to leave, a rich legacy of their cultural activities, values and beliefs. This collective cultural heritage goes back hundreds of thousands of years and takes many forms, from an ancient stone flake to the remains of a city, to a song. It has resonance at all scales, from intensely personal, to the crux of a national identity, to an international icon.

The existence of protected areas is a cultural legacy in itself. Gazettement of America's Yellowstone National Park in 1872 formalised recognition of protected areas, but for thousands of years before this, humans protected natural places of high cultural value. Although not consciously identified for what Western science calls their biodiversity, these ancient places demonstrate that protected areas are not just the hallmark of modern society and complex government schemes.

Protected areas frequently encapsulate cultural heritage, be it tangible evidence of past human endeavour, intangible heritage encapsulated within the natural landscape or the cultural practices of people inhabiting protected areas. This is hardly surprising given the history of modern humans is one of a diverse and complex relationship with the natural environment, ranging from deep spiritual connection to wholesale destruction. It would be virtually impossible for a protected area not to include culturally derived phenomena.

The relationship between protected areas, the cultural heritage within them and the peoples to whom they belong has had a long and sometimes troubled history, with early management regimes giving sparse recognition to cultural heritage and at times disadvantaging or dispossessing local communities in their quest to save nature. Global movements to achieve rights and social justice for indigenous people and local communities broadened the meaning of cultural heritage by acknowledging the not always obvious cultural links between humans and nature.

This chapter aims to guide and inspire a land manager in his/her quest to professionally manage all manifestations of cultural heritage within a protected area context. The chapter begins with human evolution and a brief history of humans' interactions with the landscape. The next section discusses the history of ideas concerning cultural heritage, followed by exploration of the diversity of cultural heritage found in protected areas. The material on 'nature as cultural heritage' teases out the complexities of intangible heritage as it relates to place. The concept of 'entangled landscapes'

is introduced as a way of understanding natural and cultural heritage as an integrated system and a basis for holistic management. The concept and practice of cultural heritage management are introduced, and the final section considers whether or not protected area systems are effective in protecting cultural heritage.

## A brief history of humans on Earth: The long view of cultural change and diversity

Without humans there is no culture and therefore no cultural heritage, so we begin with a brief overview of the history of modern humans on Earth. This section draws on scientific inquiry to explain the origin and evolution of modern humans. We recognise and respect, however, the diversity of ways in which different cultures and religions explain the formation of the biophysical world and the humans who inhabit it, including mainstream faiths and indigenous cosmologies.

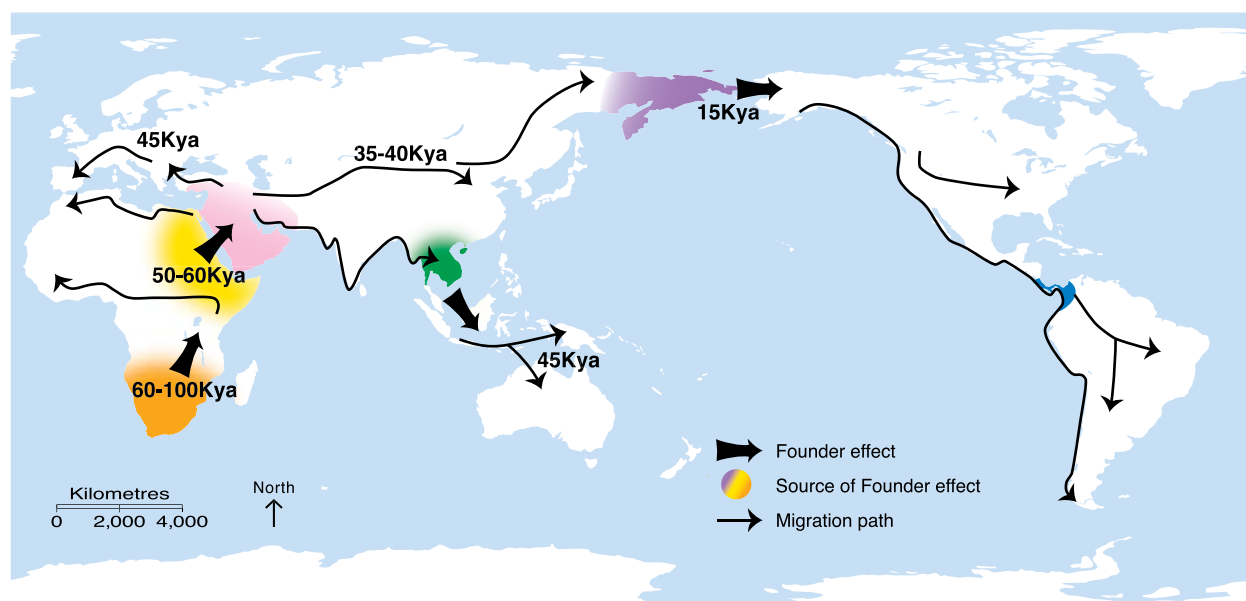
## Out of Africa

From a scientific perspective, the natural environment of Earth has evolved over almost five billion years, creating ecosystems devoid of humans for most of their existence. The first hominans appeared a mere six million years ago, with palaeoanthropological, archaeological and genetic evidence pointing strongly to Africa as the major centre for the origins of both ancient and modern humans, although new technologies and discoveries are constantly challenging theories of human origins. Various hominid species successively rose and interbred or were replaced until anatomically modern humans appeared and began to move out of eastern Africa from 45 000 to 60 000 years ago (Henn et al. 2012).

From Africa, human populations expanded rapidly, fanning out to colonise Eurasia, followed by Australasia and eventually crossing the Bering Strait to the Americas (Figure 4.1). The islands of the oceanic Pacific were the last places on Earth to be colonised, during the great sea voyages of Austronesian-speaking peoples commencing around 4000 years ago, ending with Polynesian settlement of New Zealand and the remote, enigmatic Rapa Nui (Easter Island) (Bellwood 1978; Fischer 2005).

## Ancient beginnings

Human history has been largely concerned with food—its production, acquisition, storage, processing and distribution (Heiser 1973). Humans have been hunters



**Figure 4.1 Origin and dispersal of modern humans**

Source: Adapted from Henn et al. (2012)

and gatherers for most of their history, relying directly on nature as a source of all foods. Hunter-gatherer economies were based on the seasonal availability of plant and animal resources needed for food, medicine, shelter, ceremonial activity and tool-making. They lived in mobile extended family groups, often with complex systems of land ownership and kinship relations, but with few material possessions. Their relationship with nature was close and grounded in spiritual and animistic beliefs. Survival depended on an intimate knowledge and manipulation of the natural world, understood through a cosmological lens. Localised adaptations led to distinctive morphological types, technologies, cultural traditions and languages, and by around 11 000 years ago, hunter-gatherer populations had spread across the Earth. This, the longest era of human history, known as the Stone Age or Palaeolithic, has left a rich archaeological record.

## Agriculture and after

The rise and spread of agriculture were the next major events in human history, often termed the 'Neolithic revolution', although in reality it was a gradual process, with humans actively modifying local ecosystems and manipulating biotic communities long before the manifestation of morphological indicators of both plant and animal domestication (Zeder 2011). Beginning with evidence of crop domestication in the Near East around 11 500 years ago (Zeder 2011), agricultural systems emerged independently across most continents then spread to adjacent regions (Ellis et al. 2013). The drivers for humans to move from hunting and gathering to

agriculture are still debated but were likely to have been population pressure and climate change. Control of water and irrigation was also significant, with both essential for the growth of crops in the dry mountains of the Tigris and Euphrates valleys of the Middle East (Heiser 1973).

Agriculture allowed larger population densities, a more sedentary existence and permanent dwellings. Food surpluses were produced and stored for leaner times and, importantly, could support people not directly involved in food production, leaving them free to develop specialist skills, leading to social diversification. Over time, communities became larger, incorporating chiefdoms and social stratification. More sophisticated systems evolved for storage of food, animal husbandry and genetic manipulation and these, together with trade and exchange networks, fostered larger and ever more permanent settlements.

Some village settlements expanded to form cities—first, in Mesopotamia, in the river valleys of the Tigris and Euphrates, where the main centres of Assyria, Sumer and Babylon were important cultural, political and religious centres of the ancient world, and later, along other major rivers such the Nile, Yangtze and Indus. The cultural significance of many of these early centres of civilisation has been recognised through World Heritage listings (see Case Study 4.1).

Slowly, the great civilisations of the world arose: the Roman and Chinese empires and the beginnings of the British Empire, leaving extensive physical remains and having a profound effect on the environment, and

## Case Study 4.1 The marshlands of Mesopotamia: Iraq's first national park

The Mesopotamian Marshlands of southern Iraq were once the third-largest wetlands in the world, originally extending between 12 000 and 15 000 square kilometres. They were a vital resource for regional fisheries, reeds and other natural resources and the home of the indigenous Ma'dan Marsh Arabs, who are directly linked to ancient Sumeria. They are globally important for large numbers of migrant and wintering birds, and are the native habitat of endemic birds and other valuable wildlife.

The livelihoods of the Ma'dan were compromised by dam building and draining of the wetlands during the regime of Saddam Hussein, but since 2006 there have been concerted efforts to restore water flows to the marshlands. In 2013, the area was declared Iraq's first national park.

The marshlands have been on the World Heritage tentative list since 2003, for both natural and cultural values, and the creation of the national park seeks not only to conserve the natural values but also to demonstrate the critical role of the marshlands and the lifestyles of its Ma'dan people in the development of civilisation (UNESCO 2014a).

on humanity over a large area—for example, intensive cultivation in China and South-East Asia, the profound effect of the Roman Empire on Africa in particular, and the European settlement of the New World.

### Mechanisation and the Industrial Revolution

A period of rapid increase in human populations followed the social and economic upheavals instigated by the Industrial Revolution in Britain in the late 18th century. Mechanisation, which led to improvements in farm technology and increases in food production, spread across Europe and into North America (Szirmai 2009). By 1850, the Earth's population had reached 1.2 billion people.

In the early 21st century, the majority of the world's population are still farmers; a few hunter-gatherers and herders still exist as minority groups in nation-states, and urbanisation is rapid. There are rich countries and desperately poor countries, but regardless, their citizens have created and continue to create a cultural heritage. Whether a nation's cultural heritage is recognised, valued or protected, however, depends on myriad political, social and economic factors. Seven billion humans now occupy most of the planet, the exceptions being the frozen Antarctic and the most northerly parts of the Arctic. The population is continuing to expand at different rates across the world, with a predicted peak of 9.1 billion by 2050.

## Humans, culture and nature

### Human influences on nature

Humans have transformed ecosystems across most of the terrestrial biosphere, causing major global changes in biodiversity, biogeochemistry, geomorphic processes and climate (Ellis et al. 2013). Environmental change is an inevitable consequence of human history and palaeoecological and archaeological evidence present a story of increasing human impact on the environment over time, accelerating in recent millennia (Head 2000).

From the use of fire by hunter-gatherers thousands of years ago in prehistoric Australia to the building of the Three Gorges Dam on the Yangtze River in China, the human legacy has been and continues to be one of environmental modification and impact. In fact, a visibly changed environment is often thought of as a principle hallmark of culture. The first white explorers and settlers in Australia judged Aboriginal people uncivilised, uncultured savages on the basis of (what they thought was) no evidence for cultivation of the soil or other signs of environmental modification (Mulvaney and Kamminga 1999). We know now that Aboriginal fire management has had profound impacts on some Australian ecosystems.

The environmental impacts from hunter-gatherer societies were benign compared with agricultural development from around 11 500 years ago. As geographer Carl Sauer (1952) says, people prospered by disturbing the natural order. A review of pre-European deforestation in the Pacific pointed to slash-and-burn agriculture being responsible for the evolution of fire climax forests, grassland savannahs, degraded lands and major erosion on many Pacific Islands (Thaman and Clarke 1993). Boyden (2004) has coined the term



‘biohistory’—a biological perspective on human culture as a force in nature—to describe how culture, through people’s behaviour, impacts on other humans and on other living systems. Documenting and understanding the nature of environmental change are a major study on their own (Head 2000).

## Human protection of nature

Environmental disturbance may be the hallmark of human development but so is the setting aside of areas from that disturbance. For thousands of years, pre-industrial indigenous and tribal communities excluded certain places and species on a temporary or permanent basis. Deeply embedded in their cosmologies and world views, such mechanisms include totems, taboos and sacred groves, often with the concept of sacredness underpinning their protection.

Among indigenous populations in Australia and North America, totemism is part of the broader ‘caring for country’ spectrum for helping to conserve certain species and their habitat, for both religious and utilitarian reasons. The term totemism is used to describe the three-way relationship between people, species and the land/sea (Rose 1996). Totems can represent an aspect of the natural world and provide kinship links between people who identify with a particular totem, and to the natural world.

Some raptor species play a significant cultural role in many indigenous societies, due perhaps to their position as top predator, large size and magnificent countenance. The North American bald eagle (*Haliaeetus leucocephalus*) is sacred to some Native American tribes and the white-bellied sea eagle (*H. leucogaster*) is totemic in some Australian Aboriginal communities and for some individuals (Baldwin 2010).

Localised protection systems of pre-industrial societies still exist across the world, but by the late 1800s, more concerted national efforts were needed to save nature. The conservation movement arose in Britain and the United States and spread across the Western world. This process was and is a fundamental and tangible component part of the culture and heritage of modern society, operating at the global level, nationally through formal declarations and also locally.

The long and complex history of humans on Earth has produced a rich legacy of intangible and tangible phenomena commonly described as ‘cultural heritage’. But there have been and continue to be inequalities in its recognition due to historical legacies, ignorance, geopolitics and many other sociocultural factors.

For example, the cultural heritage of genocide is sometimes hidden, or that of a marginalised ethnic group is ignored. What is and what is not cultural heritage have their own history, having been the subject of debates over many decades.

The next section reviews the meaning of cultural heritage and the development of ideas around its construction, as a concept and a reality.

## Defining and understanding cultural heritage: A short history of ideas on cultural heritage

While most of us have some sense of what cultural heritage is, it is a slippery concept. One book read while researching for this chapter claimed that ‘heritage is ubiquitous’ (Harrison 2013:3), while another opined ‘there is no such thing as heritage’ (Smith 2006:11). Yet another said heritage means ‘anything you want’ (Davison 2008:33). Many indigenous languages have no word for heritage as such. Such a diversity of understandings is a challenge for any protected area manager. The two components of cultural heritage are ‘culture’ and ‘heritage’, although the terms are often used interchangeably.

### Culture

Culture denotes an ideational unity—a set of shared meanings, values and representations associated with any society or a discrete group within a society. It suggests a unity that serves to structure human thought and behaviour and put order into sociality (Helliwell and Hindess 1999). Geographer Carl Sauer (1952) pronounced culture in simple terms: as a way of life. As early as 1871 in his influential publication *Primitive Culture*, English anthropologist E. D. Tylor defined culture as ‘that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society’ (Seymour-Smith 1986:60).

### Heritage

Like ‘culture’, the term ‘heritage’ is complex and multi-layered (Davis 2007). It arose from concern over loss of buildings and monuments during war and natural disasters (Smith 2006). Original meanings of heritage were drawn from old ideas of inheritance: the passing

on of property to the next generation (Davison 2008). It is also concerned with memory, reflection and the transmission of culture (Davis 2007). Heritage, therefore, is embedded in a 'past' and 'antiquity', but since heritage is something preserved for posterity, its frame of reference is the future as much as the past (Davison 2008). Lowenthal (2005) argues that each generation of human beings receives communal legacies from two sources: the natural environment and the creations of humans. Many heritage conservation discourses contain statements such as 'the things we want to keep', inclusive of both natural and cultural heritage.

Nevertheless, the term heritage is often used to mean cultural heritage only, with natural heritage existing in a different paradigm, as is reflected in the format of this book. Later in the chapter, we explore how the term 'cultural landscape' acts as a unifying concept for natural and cultural heritage, avoiding the need to create a dichotomy between the two.

## Cultural heritage

What, then, is cultural heritage? Although heritage had its beginnings in 19th-century Europe (Smith 2006), use of the past to construct ideas of individual and group identity has been part of the human condition for much longer. Harvey (2010) notes that heritage has always been with us and every society has a relationship with its past, even those who have chosen to ignore it.

A universal definition of cultural heritage emerged after World War II in the context of recognising the need to protect monuments as part of national identity (Lennon 2006). Since that time, defining a common terminology and scope of heritage has been driven by the UN Educational, Scientific and Cultural Organisation (UNESCO) and the International Council of Monuments and Sites (ICOMOS), which arose from the Venice Charter of 1964 (Ahmad 2006).

Early definitions of cultural heritage were Eurocentric and, due to the influence of architects in the global arena, put emphasis on the built environment (Ahmad 2006). Amid the sweeping social changes of the 1960s and 1970s, indigenous and tribal people's demands for rights over their land and heritage led to the realisation that the definitions excluded and disempowered entire sections of the global community. In 1992 UNESCO's definition was expanded to include cultural landscapes, in recognition of the long history of landscape modification by humans, and in 2003, it was again amended to include intangible heritage. The latter is particularly relevant to societies whose heritage does not lie in buildings but in connections with the natural

landscape, verified through oral traditions handed down over generations. Because meanings and values linked to cultural heritage are embedded in these dynamic and changing social contexts, it has been argued that cultural heritage is a process in itself (Smith 2006).

Some useful definitions of cultural heritage are given below.

Monuments, buildings, landscape, artefacts and object; as well as cultural traditions, music, theatre and dialect; it can be aesthetically pleasing and it can be ugly, unsafe and unprepossessing; it can be tangible—as many of these things are—or intangible. It can also be old, and it can be new. It is something valued by society, by specific groups within society, and by individuals. (Schofield 2008:19)

Cultural heritage is the way we understand the world and the means by which we shape it. It is rooted in our cultural identities and provides a source of wisdom and knowledge to strengthen sustainable development policies and practices. (Bokova 2012:ix).

The modern concept of cultural heritage embraces all the signs that document human activities over time. It relates to the tangible built environment in an ecological context; and requires the reading of layers of evidence present in the environment. It also encompasses the intangible heritage of culture such as language, dance, music, folk ways and craft skills. Intangible heritage is often associated with particular localities, giving meanings and significance to these places. (Lennon 2006:448)

Inclusion of cultural landscapes and intangible heritage in definitions of cultural heritage has had a significant impact on the way protected areas are managed. Cultural heritage is no longer about a disconnected past; instead it is linked to a contemporary society which wants to ensure its heritage is adequately managed and which also holds the information that gives value to that heritage, giving rise to inclusive participatory processes and greater community involvement.

Having traced the development of the meaning of cultural heritage from very narrow (monuments) to very broad (tangible and intangible), we can now explore the diverse expressions of cultural heritage, with an emphasis on the cultural heritage of protected areas.

### Box 4.1 Investigating the archaeological record

Archaeology is the study of the material remains of human history, from the time of our earliest ancestors to now. At its most ancient extremities, archaeology blurs with palaeontology in the study of the fossil remains of early human progenitors and relatives. At its most recent end, archaeology blends with fields such as history, geography and anthropology. The discipline takes a highly forensic approach to its subject matter and works with a great many other disciplines in the natural, physical and social sciences as well as the humanities to draw the most from its data. It can inform us about the whole of human history, and provide detailed information about long-term changes in the Earth's physical and biological environments as well as shifts in human behaviour.

Archaeological investigation often involves systematic and controlled excavation of physical evidence that exists under the ground, as shown in the popular BBC series *Time Team*.

## A diversity of cultural heritage

In this section, recognised experts present a global picture of cultural heritage. We have categorised cultural heritage, but recognise that categories are somewhat artificial, with considerable overlap—for example, a cultural landscape can also be an archaeological site. The ‘types’ of cultural heritage are described in the following sections.

### Tangible heritage: The physical evidence

Tangible heritage can be seen and touched. It can be movable or immovable, occur above or under the ground or in water. Tangible heritage includes the built environment, such as temples and monuments, archaeological sites, movable material and underwater heritage. It includes features of the natural environment such as vistas, waterfalls, rock outcrops, mountains or a specific location of cultural expression, associated with intangible heritage. Cultural landscapes are tangible heritage in that they contain visible modifications to the landscape arising from human endeavour.

## Archaeological heritage

Archaeological sites are the physical remains of past human action and occur everywhere around the world on land and under water. In one sense, all terrestrial landscapes and many underwater landscapes are archaeological landscapes—landscapes that contain evidence of, and may be shaped by, past human action. Archaeology is the study of these remains (Box 4.1).

### Examples of archaeological heritage

There is a huge diversity of archaeological heritage, including within, or as the basis of, protected areas, including:

- ancient hunters’ campsites, stone tools and food remains, such as those found in Uluru-Kata Tjuta National Park in Australia’s outback or the Manú National Park in the jungles of Peru, but also lying unprotected under the M25 motorway around London and among the rice paddies of northern Japan
- entire villages of buildings buried under the ground such as the 8000-year-old early agricultural settlement of World Heritage-listed Çatal Hüyük in Turkey
- World Heritage farming landscapes as different as the Kuk Early Agricultural Landscape in the Papua New Guinea Highlands, dating from the end of the last ice age, and medieval wine estates in Hungary
- the rock-art sites on the World Heritage List, such as the painted Buddhist temples in caves on Central Asia’s Silk Route and the cave paintings in Botswana’s Tsodilo Hills in the Kalahari Desert or Aboriginal art in Kakadu National Park in Australia
- industrial sites of all ages, from Roman goldmines in the World Heritage Las Médulas site in Spain, to 20th-century mines such as the World Heritage Sewell Mining Town in Chile or the ‘city under the city’ revealed every time a new rail tunnel or sewer is dug in many towns and cities
- ‘terraced’ cultural landscapes such as the extensive prehistoric taro and yam gardens in New Caledonia, but also World Heritage places such as the rice terraces of the Philippines and the canals of Venice and Amsterdam
- the surviving remains of any raft, canoe, boat, ship and submarine that has ever sunk anywhere.

Archaeological heritage includes all physical remains of human history, and while this conjures images of the pyramids of Egypt, Machu Picchu in Peru or Chinese imperial graves full of life-sized terracotta warriors, it also includes fossil remains of remote ancestral species



## Case Study 4.2 Archaeological heritage in South Africa's protected areas

Many of South Africa's protected areas contain archaeological sites of immense significance, some being World Heritage properties such as uKhahlamba-Drakensberg World Heritage site in Drakensberg Park in eastern South Africa, which contains around 35 000 paintings in rock overhangs, done by the San (Bushmen) (Verlag Wolfgang Kunth GmbH & Co. 2010).

The Mapungubwe National Park (formerly Vhembe Dongola National Park) encompasses the Mapungubwe Cultural Landscape, the seat of a powerful kingdom from AD 900 and the subject of archaeological investigations since 1933 (Kuman et al. 2005). Among the most significant

archaeological finds are the ruins of the city centres and a rich material culture based on gold. These finds provide evidence of the early smithing of gold in southern Africa and of the extensive wealth and social differentiation of the people of Mapungubwe. Most spectacular among these finds is a gold foil rhinoceros moulded over what was likely a soft core of sculpted wood (UNESCO 2014b).

In Augrabies Falls National Park, there are numerous stone cairns and graves dating back 22 000 years, and the park is increasingly focusing on the cultural heritage of the Nama people (Department of Environmental Affairs and Tourism 2003).

in Africa and Asia; the art, burials, remains of houses and other structures, fireplaces, food remains (for example, bones, scales, seeds, marine shells) and craft and industrial remains (for example, bone, shell, stone, wooden and metal tools, weapons, household items and ornaments, decorative and functional pottery, glass and plastic, and the debris created in manufacturing all these things) left in and around the homes, sacred places and sites of work and leisure of all the people who have ever lived (Case Studies 4.2 and 4.3).

### *Recognising archaeological heritage*

Official recognition and protection of archaeological heritage—as part of humanity's inheritance from its own past—have sometimes been constrained by a lack of appreciation of deep time: the very long-term perspective on human history. The 'city beneath the city' that survives under nearly every modern urban area is a case in point. A great deal of money and effort go into the protection of above-ground architectural heritage; however, the remains of the villages, towns and cities that lie under such architectural monuments and bear witness to the history behind the above-ground heritage frequently receive less attention. Such remains are important to understand and preserve because they can tell us how, when and why modern cities emerged as they did, and so help us understand why things are as they are today.

Another important case is 'the archaeology in wilderness'. Most of the world's archaeological record is faint and unobtrusive; substantial monuments are in fact rare, even though they attract the most attention. There are vast tracts of the Earth that those with a trained eye know to contain physical evidence of past human action but which most people see as devoid of human activity—for example, changed vegetation patterns through long-term deliberate burning, or changed hydrological regimes through long-term water management practices. Lack of recognition of the subtle archaeological evidence



**An international team of archaeologists excavating during the 2012 field season at Çatal Hüyük, Turkey.**

Source: S. Feary

for the immensely long periods of occupation and use by humans contributed to early conservation approaches that denied the history of the people who live or lived in areas proposed as protected areas.

International bodies such as ICOMOS have specialised working groups—for example, the International Scientific Committee for Archaeological Heritage Management (ICAHM)—to promote the recognition of archaeological heritage in all its manifestations.

## Case Study 4.3 Archaeological heritage in Australia's protected areas

Many of Australia's protected areas contain pre-European archaeological sites as well as more recent 'historical' sites. Some of these sites, such as the Aboriginal sites on World Heritage-listed Fraser Island or the Great Barrier Reef, occur in protected areas created on the basis of their 'natural' values, while others, such as in World Heritage properties in south-west Tasmania and Kakadu, the Aboriginal heritage was the major reason for declaration.

Protected as a mixed World Heritage site on the basis of its archaeological sites and natural geological values

is the Willandra Lakes National Park in south-west New South Wales. The national park includes the dramatic Lake Mungo, long dry, but featuring a vast, eroding dune known as the Walls of China, which contains ancient human burials dating back 40 000–50 000 years, along with many other signs of past human activity (Bowler et al. 1970). A series of preserved human footprints has been dated to 20 000 years ago (Webb et al. 2006). The Willandra Lakes area also includes many archaeological heritage sites dating to the historical period following European colonisation.



**Profile of a gopura (entrance building) on the outer wall enclosing Ta Prohm, Angkor, Cambodia**

Source: S. Palu

They are beginning to work closely with the IUCN to develop more integrated approaches to cultural and natural heritage. This is particularly relevant where local landowners' history and heritage consist of unobtrusive archaeological remains that may go unrecognised by decision-makers.

Impressive monumental sites can also overwhelm the rest of the archaeology in the area. The Angkor Archaeological Park, a well-known World Heritage property in Cambodia, is a good example. The problems of preserving such places from both natural deterioration and the impact of intense tourist interest are complex and expensive to mitigate, and can be made more difficult with the ongoing discovery of monumental remains in surrounding areas. It is understandable that, in such cases, there may be less focus on the non-monumental

(archaeological) remains that lie between and under these places. It is not unknown for local people's connections to major sites to be denied, even when the non-monumental evidence shows that it is likely the people in question have always lived in the area and even contributed to the construction of the monument as builders, labourers or suppliers of food and other goods and services to workers. This asserted disconnection between modern populations and the local monumental archaeological record can create friction and lead to significant local resistance to archaeological heritage management efforts.

### Built heritage

Perhaps the most physically obvious types of cultural heritage found in protected areas are buildings or other structures reflecting former or continuing human activities. The range of buildings and other structures that might be found in protected areas is very broad. It includes those associated with:

- residential activities such as huts, more substantial houses, lodges and hotels
- religious activities including shrines, temples and churches
- memorial activities such as individual commemorative structures and cemeteries
- military activities including fortifications
- mining and other extractive industries including headframes, engine houses, mills, workshops, offices, dams, channels, tanks, railways and roads
- a range of industries, from car manufacturing to filmmaking
- farming activities such as shearing sheds, yards, fencing and storage sheds
- forestry activities such as engine houses, mills, workshops, offices, channels, log-hauling equipment and railways
- scientific activities including observatories, telescopes, antennae, offices and workshops





### Mummarley Homestead, Kakadu National Park, Australia

Source: Duncan Marshall

- surveying activities such as trigonometrical stations or cairns
- transport such as roads, railways, culverts, retaining walls and bridges
- tourism including lodges and hotels
- past practices in managing protected areas.

These activities may be of great antiquity, such as those related to the ceremonial centre with temples, palaces and public squares of the Mayan civilisation from the 6th century BC, now located in Tikal National Park in Guatemala (Case Study 4.4). On the other hand, such activities might be of relatively recent origin—for example, Lushan National Park, China, has a rich variety of cultural heritage including villas built by Chinese and foreign visitors in the late 19th and 20th centuries, when the area became a popular resort and was, during the 1930s and 1940s, the official summer capital of the Republic of China. The activities that have resulted in buildings or structures, or that are associated with them, might be continuing or have long since ended.

Buildings or structures can be isolated and individual components or they may be part of a complex. For example, Hortobágy National Park—the Puszta, Hungary, includes as a single structure the Nine Arch Bridge, which is the longest stone bridge in the country. In some cases the complex might be a settlement or town located within the protected area. In other cases, the buildings or structures might be part of a cultural landscape or strongly related to particular natural features. The World Heritage natural and cultural property called the Cliff of Bandiagara, Mali, contains 289 villages and is a vast cultural landscape where local communities have developed over centuries in a close relationship with the exceptional geological and environmental features including sandstone plateaus and cliffs.



### Old Faithful Inn in Yellowstone National Park

Source: Jim Peaco, Wikimedia Commons

### *How buildings and structures become part of protected areas*

Buildings or structures can be part of a traditional landscape that has been under traditional management for centuries. In such a context, they can be part of an organically evolved environment that contains natural and cultural heritage values and is managed in an integrated way. The monasteries built on dramatic rock pinnacles from the 11th century at Meteora in Greece may be considered an example. At this World Heritage-listed property, the monasteries appear to grow out of the top of the large, tall pinnacles, which were imbued with religious meaning, and the monasteries were located in this way to provide places of retreat, meditation and protection.

In other cases, the buildings or structures are not integrated with the environment and, in a sense, may be incidental to the natural environment in which they are located. Kakadu National Park in Australia contains a number of cultural heritage sites associated with the early pastoral use of the area prior to the creation of the park, such as Mummarley Homestead. This cultural heritage is not related to the natural World Heritage values of the park but coexists with them.

Protected area management itself can also result in buildings or structures that have attained heritage value. Old Faithful Inn, dating from 1904, in Yellowstone National Park in the United States, is a hotel for visitors to the park and is such an example. The national park was designated in 1872.

### *Recognising built heritage*

Recognising and understanding the heritage values of buildings or structures in protected areas are often a challenge. The initial focus may be on the protected area status and its natural heritage values. Cultural

## Case Study 4.4 Tikal National Park, Guatemala

This park is one of the most important reserves in Guatemala because of its archaeological and bio-ecological interest. Rivers, lakes, swamps and flooding savannahs are important for biodiversity and for migratory birds. The reserve contains the largest area of tropical rainforest in Guatemala and Central America, with a wide range of unspoilt natural habitats. A large area of the reserve still comprises dense broadleaved forests with more than 300 species of commercially useful trees.

In the heart of the jungle lies one of the major sites of the Mayan civilisation. The ceremonial centre contains temples and palaces, and public squares accessed by ramps. Remains of dwellings can also be found scattered throughout the surrounding countryside. The ruined

city reflects the evolution of Mayan society from hunter-gathering to farming and agriculture. They developed an elaborate religious, artistic and scientific culture which finally collapsed in the late 9th century, but at its height, AD 700–800, the city contained a population of 90 000 Mayan Indians, with over 3000 separate buildings dating from 600 BC to AD 900, including temples, residences, religious monuments often highly decorated with hieroglyphic inscriptions and tombs. Archaeological excavations have yielded evidence for cotton, tobacco, beans, pumpkins, peppers and many fruits of pre-Columbian origin, demonstrating the importance for Mayan culture of domestication of plants (UNESCO 2014c).



### Mayan structures in Tikal National Park

Source: Magnus Manske, Wikimedia Commons

heritage may not be a priority for identification or protection. In such cases, identifying cultural heritage might only arise with the development of holistic heritage management practices, or perhaps as a result of community pressure.

In other situations, cultural heritage is recognised as an integral part of the protected area, to be identified and protected along with the natural heritage values as part of managing all heritage values in the protected area. The Sundarbans National Park in India contains the world's largest mangrove forests and also contains significant built heritage, including ruins of a city built by the Chaand Sandagar merchant community around AD 200–300. During the Mughal Empire from the 16th century, Raja Basand Rai and his nephew took refuge in the city from the advancing armies of Emperor Akbar. They erected buildings which subsequently fell to Portuguese pirates, salt smugglers and dacoits in the 17th century (UNESCO 2014d).

### *Why are buildings and structures important?*

Like any form of cultural heritage, buildings or structures can have important values reflecting stories or themes in human history that should be acknowledged, understood, respected, cherished and interpreted. In some cases, buildings or structures are part of continuing cultural traditions, and protecting this cultural heritage is part of protecting the cultural wellbeing of the associated community. The example noted above of the Cliff of Bandiagara with its hundreds of villages is such a case. In other situations, the cultural heritage is an important relic or evidence of past activity, providing a tangible reminder of a significant aspect of human activity. The physical evidence of the Mayan civilisation in Tikal National Park is a good example. Buildings and structures can also be important for a range of other reasons including their role in economic or social activities such as in farming, transport or tourism. But these are not necessarily heritage values.

### *Connection between buildings/structures and protected areas*

This brief discussion suggests many ways in which buildings and structures can be connected to protected areas. The connections might be very recent or very old, they might be quite limited or extensive geographically, they may have evolved over a long period as part of an organically evolved environment with intimate relationships, or they may be incidental, and the protected area status itself may have generated the connection.

Depending on the historical significance, physical condition of the structure (from a public safety perspective) and (sometimes) the category of protected area, buildings and structures may be recognised and embraced as part of the cultural heritage of the protected area. Conversely, the features may be considered of low or no cultural significance, present a safety hazard or, in



some instances, their presence may be perceived to be inconsistent with nature conservation objectives—for example, in wilderness areas. For example, in the early decades of the NSW National Parks and Wildlife Service, the presence of early to mid 20th-century stockmen's huts in wilderness areas of Kosciuszko National Park posed a management problem because of the logistical difficulties of undertaking regular maintenance in such remote areas. For a while there was a policy of 'manage as a ruin', which meant not undertaking any activity to conserve the building, allowing gradual decay instead, leading ultimately to removal due to public safety risks.

Although 'doing nothing' is an acceptable option under international guidelines such as ICOMOS, in reality it is likely to be unacceptable to historical preservationists and, more importantly, the descendants of the people whose lives were deeply embedded in use of the hut and surrounding landscape for grazing. Researching the history of such buildings in collaboration with relevant families can affirm the cultural significance of such places for their historical as well as their social value and raise their status above that of a ruin—for example, Teddy's Hut in Kosciuszko National Park (Higgins 1988).

## Movable heritage

Movable heritage is a vital component of cultural heritage at local, national and global scales. Movable heritage refers to cultural objects that can be taken away from their original context and, as such, they often exist as collections in museums or in private hands (Box 4.2). Movable heritage is often archaeological in nature. Grave goods associated with a double human burial discovered in southern New South Wales, Australia, in 1992 and dated to 7000 years BP included a necklace made from more than 300 kangaroo teeth, each containing a drilled hole, presumably originally strung together with string (Feary 1993). Such items are priceless at all levels.

## Threats to movable heritage

Because of its transportability, movable heritage is particularly vulnerable to illicit trafficking between and within countries and to being stolen during war (Figure 4.2). Since adoption of the 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, UNESCO has had many successes in the return of stolen movable heritage to its rightful country. The International Council of Museums (ICOM) maintains Red Lists of countries and regions that classify endangered categories of archaeological objects or works of art in the most vulnerable areas of the world, in order to prevent them being sold or illegally exported.

### Box 4.2 Defining movable heritage

Movable heritage became a separate category of cultural property/heritage, with the following definition adopted by UNESCO in 1978:

[M]ovable cultural property shall be taken to mean all movable objects which are the expression and testimony of human creation or of the evolution of nature and which are of archaeological, historical, artistic, scientific or technical value and interest, including items in the following categories:

- products of archaeological exploration and excavations conducted on land and under water;
- antiquities such as tools, pottery, inscriptions, coins, seals, jewellery, weapons and funerary remains, including mummies;
- items resulting from the dismemberment of historical monuments;
- material of anthropological and ethnological interest;
- items relating to history, including the history of science and technology and military and social history, to the life of peoples and national leaders, thinkers, scientists and artists and to events of national importance;
- items of artistic interest, such as: paintings and drawings, produced entirely by hand on any support and in any material (excluding industrial designs and manufactured articles decorated by hand); original prints, and posters and photographs, as the media for original creativity; original artistic assemblages and montages in any material; works of statuary art and sculpture in any material; works of applied art in such materials as glass, ceramics, metal, wood, etc.;
- manuscripts and incunabula, codices, books, documents or publications of special interest;
- items of numismatic (medals and coins) and philatelic interest;
- archives, including textual records, maps and other cartographic materials, photographs, cinematographic films, sound recordings and machine-readable records;
- items of furniture, tapestries, carpets, dress and musical instruments; and
- zoological, botanical and geological specimens.

Source: Jokilehto (2005:27)

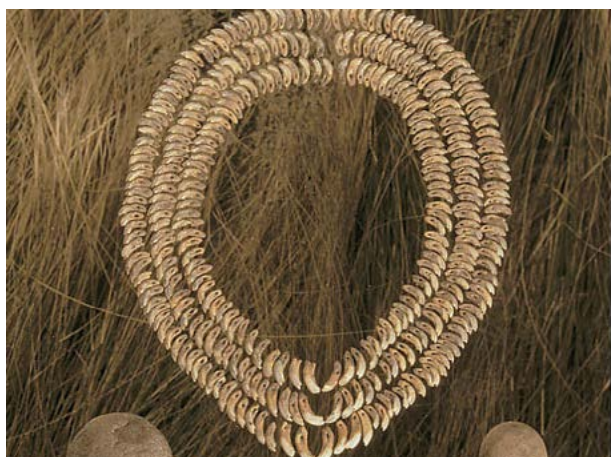
Movable heritage can include human skeletal remains taken from burial sites in the past and sent to museums within and outside their country of origin, as well as culturally significant animals.



## Case Study 4.5 Protecting traditional transhumance practices

The Laponian World Heritage Area in Sweden is a vast Arctic landscape that encompasses four national parks and two nature reserves. It is the home of the Saami or Lapp people, the only formally recognised indigenous people of Scandinavia. It is the largest area in the world (and one of the last) with an ancestral way of life based on the seasonal movement of livestock. Every summer,

the Saami lead their huge herds of reindeer towards the mountains after spending winter in the coniferous forests to the east. The area has outstanding universal value for its natural heritage and has been occupied continuously by the Saami people for 7000 years.



**Rare kangaroo-tooth necklace from an Aboriginal site, southern New South Wales, Australia**

Source: NSW Office of Environment and Heritage

### *Repatriation of human skeletal remains*

During the late 19th and early 20th centuries in Australia, anthropologists and colonial officials made extensive collections of the ancestral skeletal remains of Aboriginal Australians to satisfy scientific curiosity about different cultures, and notions of racial superiority fuelled by social Darwinism. Thousands of remains ended up in private collections, museums and scientific institutions across the world as well as in Australia's major natural history museums. Repatriation of these ancestral remains is an important element of the reconciliation process in Australia, and from the 1960s Aboriginal people have agitated for the return of the remains of their ancestors so they can be reburied on their country.

Because of the high degree of Aboriginal involvement in national park management in Australia, it is not uncommon for remains to be repatriated within a national park. For example, in September 2005, the NSW Government declared seven new sites within parks and reserves for the reburial of Aboriginal remains, giving them extra protection under the New South Wales *National Parks and Wildlife Act 1974* (Truscott 2006).

### *Herding and transhumance*

Transhumance is an ancient practice whereby herders move seasonally with their animals to find water and pasture. Accessible land for the seasonal movement of herds and

## 1500 paintings seized by Nazis found

A private stash of 1500 paintings seized by the Nazis, including works by Pablo Picasso and Henri Matisse, has been found in Germany. Customs investigators found the missing art more than two years ago in the dusty, rubbish-filled Munich apartment of an 80-year-old man, but this was not disclosed at the time, news magazine *Focus* reported. The Nazis seized vast hoards of fine art during their 12 years in power and some of it remains missing. While some items were destroyed in bombing raids, it has always been suspected many items are in private hands. *Focus* estimated the stash was worth €1 billion (\$1.45 billion). The art once belonged to Jewish collectors, who were forced to sell it for a pittance before the Holocaust, or it was confiscated by Nazi censors from galleries because it was allegedly "degenerate". Under German law, most art acquisitions made under Nazi duress have to be reversed and the heirs of the original owners can reclaim the art.

**Figure 4.2 Returning stolen movable heritage**

Source: *Sydney Morning Herald*, 5 November 2013.

the availability of suitable land and water for grazing are vital to the maintenance of the cultural traditions of herders. Examples include the cattle of the Maasai in Kenya and the reindeer herds of the Saami people of the Arctic region (Case Study 4.5). Some protected areas, such as the World Heritage-listed Arctic Laponian Area in northern Sweden, are helping to preserve the cultural traditions of transhumance (Verlag Wolfgang Kunth GmbH & Co. 2010:15). Culturally significant plants and animals are discussed later in this chapter.

### *Underwater heritage*

The UNESCO Convention on the Protection of the Underwater Cultural Heritage defines underwater cultural heritage as all traces of human existence having a cultural, historical or archaeological character that have been partially or totally underwater, periodically or continuously, for at least 100 years (UNESCO 2001). The convention has been ratified by 20 countries.

## Case Study 4.6 Excavation and museum display: The *Mary Rose*

The *Mary Rose*, Henry VIII's prestigious battleship, was built in Portsmouth, England, in 1509. On 19 July 1545, she sank during battle with a French invasion force in the confined waters of the Solent. The circumstances of the disaster are unclear although she heeled over unexpectedly and sank quickly. Of the 700 men on board, fewer than 40 survived (McKee 1982). The wreck of the ship quickly settled into the soft mud of the Solent and silt piled up inside her. The *Mary Rose*'s partly intact hull, with its precious contents, remained relatively undisturbed until 1971 when the largest

underwater archaeological excavation yet to be mounted in Britain began. The wet silt that wrapped the *Mary Rose* protected many of the organic materials that are usually the first to disappear. Thousands of finds were recorded and conserved, and loose timbers and internal structures were carefully surveyed, dismantled and stored for later reconstruction. On 11 October 1982, the empty hull was raised and sprayed with soluble wax polyethylene glycol to preserve it and a museum was built to house the objects (Throckmorton 1987).

## Case Study 4.7 Port of Caesarea, Caesarea National Park, Israel

The ancient port of Caesarea was a harbour built by King Herod, and was the largest port in the Roman Empire built to honour Herod's patron, Caesar Augustus, in 10 BC. Caesarea was the first large-scale artificial harbour in history and one of the most impressive harbours of its time. Thousands of men were recruited to build the port over 12 years, among them divers who descended by holding their breath or possibly in a diving bell. To build the port, Roman engineers invented a type of cement known as *pozzolana*, consisting of the volcanic powder deposited around Mount Vesuvius mixed with lime and rubble hardened in water. This hydraulic concrete was imported to Caesarea and used to fill wooden frames that were then lowered into the water to lay the foundations for the port. The harbour,

however, started sinking soon after completion and by the 6th century AD it was unusable.

Over the past three decades the site has been excavated by a team from the University of Haifa and has become one of the world's first underwater museums. The submerged port was declared a national park in 1952 and is a popular destination for divers. Divers can now tour the signposted remains of the magnificent harbour, including a Roman shipwreck, a ruined lighthouse, an ancient breakwater, the port's original foundations, anchors and pedestals. They are given a waterproof map that describes in detail each of the numbered sites along the way. One of the trails is accessible to snorkellers (Old Caesarea Diving Centre 2014).

Human evolution has involved a close relationship with the marine environment, with a long history of living close to the shoreline. As a consequence, much of humanity's development took place on areas now submerged due to sea-level rises since the end of the last ice age. Hence the richness of the world's underwater cultural heritage is often underestimated because it is not easily visible and requires specialist techniques for its documentation and assessment. The ocean offers excellent conditions for preservation, and many shipwrecks and ruins of cities and buildings underwater are better preserved than similar sites on land. The water has protected underwater heritage for centuries but the capacity to understand and document is relatively recent, due to improvements in diving technologies. This has made it more accessible but also increasingly vulnerable to being damaged and pilfered.

Underwater cultural heritage is enormously varied and rich. It is estimated that more than three million shipwrecks are scattered on the ocean floors of the planet. Notable vessels include ships of the Spanish Armada,

the *Titanic* and ships of Columbus, Kublai Khan's sunken fleet and Dutch wrecks including the Batavia off the west coast of Australia. Shipwrecks can provide precious historical information. They can be seen as a time capsule, providing a snapshot of life on board at the time of sinking. Wrecks are also an indicator of trade and cultural exchange between people (UNESCO 2001). Many other types of underwater sites have been located, including the ruins of the Alexandria lighthouse and Cleopatra's palace (Egypt), part of ancient Carthage (Tunisia) and Jamaica's Port Royal, destroyed by an earthquake in 1692. Underwater cultural heritage also includes entire landscapes and rock-art caves now at the bottom of the sea (Intergovernmental Oceanographic Commission 2014).

Underwater heritage exists within protected areas, including marine protected areas and terrestrial protected areas with a marine component, such as coastal and island protected areas; however, many countries have yet to undertake full inventories of the cultural heritage of their marine protected areas.

### Submerged prehistoric sites

A very wide range of archaeological material apart from shipwrecks may be found underwater, but it is only within the past decade that there has been clear recognition of how important the missing data are from sites covered by sea-level rises. This drowned landscape preserves valuable sedimentary archives of long-term environmental and climatic changes, and an increasing number of archaeological remains have been found documenting human response and adaptation to rapidly changing environments.

With the intensification of commercial activity on the seabed and improved research technology, the quantity of evidence is increasing rapidly (Case Study 4.6). So too are the threats of destruction. In response, the European Commission has initiated the Submerged Prehistoric Archaeology and Landscapes of the Continental Shelf (Splashcos) Project. Splashcos is a four-year (2009–13) research network funded by the European Commission. Its aim is to bring together archaeologists, marine geoscientists, heritage agencies, and commercial and industrial organisations interested in researching, managing and preserving the archaeological and palaeoclimatic information locked up on the drowned prehistoric landscapes of the European continental shelf, and to disseminate that knowledge to a wider audience (Splashcos 2014).

### In situ conservation

Underwater cultural heritage is fascinating due to the mystery of its location underwater and its historical context. Some recent initiatives have allowed visitors *in situ* experiences, while at the same time ensuring the protection of the original site (Case Study 4.7).

### Intangible heritage

Recognition that cultural heritage is not only tangible but also intangible has come rather late in the world of heritage protection. Nonetheless, since its adoption in 2003, the Convention for the Safeguarding of the Intangible Cultural Heritage has experienced rapid ratification, by more than 150 state parties in less than 10 years. The convention is now the main international framework for considering intangible heritage.

The definition of intangible heritage under the convention is:

[T]he practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (UNESCO 2003:2)

Intangible cultural heritage is expressed through:

- oral traditions and expressions, including language
- performing arts
- social practices, rituals and festive events
- knowledge and practices concerning nature and the universe (including ethnobotanical knowledge)
- traditional craftsmanship (UNESCO 2003).

UNESCO has recently added traditional Japanese *washoku* cooking methods, Korean *kimchi*-making and China's use of the abacus to its 'intangible cultural heritage' list.

Much of this intangible heritage relates to place—for example, the locations where resources were collected for traditional crafts or food, places of ritual, social or ceremonial activity or where people followed a traditional route to a particular location or conducted a specific activity. Continued connections with these places can be important for the cultural identity of a diverse array of communities, from indigenous peoples to picnickers.

Identifying and protecting intangible heritage in the context of protected areas can be complex and challenging. Intangible heritage exists intellectually within a social group and helps to bind that group, and is almost always held orally, at community, family and individual levels. Effective processes for consulting with knowledge-holders is therefore essential if the information is to be incorporated into protected area management—for example, in the development of a plan of management (see Chapter 13). Safeguarding measures for ensuring the viability of intangible cultural heritage often include transforming oral information into written records. In the process of transforming this information, due consideration must be given to confidentiality of culturally sensitive information and intellectual property rights.



In the section below, we identify and discuss aspects of nature associated with, and deriving meaning from, intangible heritage. Intangible heritage is often tied to a tangible place—a rock, mountain, vista or particular location—but the human connections with it are intangible: a belief, custom, storyline or deep emotion. While this interdependence of tangible and intangible may seem to be conceptually challenging, its practical application is not necessarily so. This section identifies several categories of linked tangible and intangible heritage and while the categories are not mutually exclusive, they are a useful tool to guide managers in recognition of intangible heritage.



**Women from the Pacific Island of Tikopia, Eleventh Festival of Pacific Arts, Honiara, Solomon Islands**

Source: S. Feary

### Nature as cultural heritage

‘[F]or the southern Kalahari San, each tree and many other physical sites are part of their intangible heritage as their history is associated with these sites through stories, names and songs’ (South African San Institute 2014).

### Sacred places

Sacred places can refer to both natural and built environments, but in this section we focus on sacred natural places. A sacred natural site is a natural feature or a large area of land or water having special spiritual

or religious significance to peoples and communities (Oviedo and Jeanrenaud 2007; Wild and McLeod 2008) (Case Study 4.8).

Almost any natural feature or combination of natural features can have sacred values, including:

- geological features: rocks, caves, cliffs, knolls, hills and mountains
- water features: springs, wells, ponds, lakes, streams, rivers, coastal waters and glaciers
- tree features: individual trees or plants, parts of trees, groves and forests
- grasslands: meadows
- landscapes: whole landscapes or elements of them such as valleys and mountains.

Sacred natural sites are sometimes combined with human-made features, and the ‘nature’ element of sacred natural sites can be at risk of being subsumed by the constructed element. Even in traditions where nature is more clearly part of the religious ethic there has been a favouring of the human-constructed element. An example of this is the ‘Hinduisation’ or ‘Buddhisiation’ of sacred natural sites of indigenous religions where the temple of a god replaces the original natural feature, as if the indigenous deity or numina is ‘tamed’ (Studley 2010).

For many indigenous peoples and some religions, all of nature and indeed the whole planet are considered sacred. Nature is valued in a general sense as the ‘clothing’ of the sacred place. There is not necessarily a conservation motive in the scientific sense, although a recent review of more than 100 studies throughout Africa and Asia presents strong evidence that many sacred natural sites have great importance to biodiversity conservation (Dudley et al. 2010).

Sacred natural sites are found in almost every country and can be considered a universal phenomenon. In some countries they are very common and vary considerably in their specific details. Many are ancient and can be considered ‘ancestral protected areas’, while others are of more recent origin. Like any cultural phenomenon, they are not static and some are still being created. Many are, however, being lost and there are areas of very rapid decline. In Yunnan Province in south-western China, the holy hills of the Xishuangbanna Dai Autonomous Prefecture have been subjected to unprecedented logging of 90 per cent of their sacred forests (Shengii 2010).

The meanings behind sacred natural sites and their cultural associations are invisible and unknown until the stories and beliefs associated with these places are told.

## Case Study 4.8 Mount Kailas: A sacred mountain

Mount Kailas in Tibet is the most sacred mountain in the world for up to a billion people in Asia. This famed snow-shrouded holy peak, situated to the north of the Himalayan barrier in western Tibet, is one of the most revered pilgrimage sites for Hindus, Buddhists, Jains and Bonpos (pre-Buddhists) and draws pilgrims from India, Nepal,

Mongolia, Tibet, Japan, China, South-East Asia and other parts of the world. At the slopes of Kailas, a stream is said to pour into Lake Manasarovar and from this lake flow four of Asia's great rivers: the Indus, the Brahmaputra, the Karnali and the Sutlej. It is the most sacred lake in the world for most Hindus.



**Mt Kailas, Tibet**

Source: © Edwin Bernbaum

Thus they are indivisible from traditional knowledge and therefore from the peoples who hold that knowledge. In the past two decades, the conservation movement has been engaging much more in valuable dialogue with the guardians of sacred natural sites, some of whom are themselves interested in gaining a better understanding of the natural sciences as a basis for conservation management of the site.

### **Social places**

For the purposes of this book, social places are distinguished from sacred places, although the boundaries are fuzzy. Whereas knowledge of sacred places is often privileged and passed on to selected individuals through ritualised behaviour, social places hold collective meaning for a community (Case Study 4.9) or a nation: a strong emotional attachment arising from historical or religious use or a particular event associated with that location or natural feature. People across the world intellectually or

physically create their own social places, including non-indigenous communities in settler societies, minority ethnic groups and transnational groups such as refugees fleeing to Australia from war-torn countries of the Middle East.

Protected areas are social places in themselves, either in their entirety or in relation to places or features within protected areas. Formal protected areas and the use of science to determine their location, size and management regimes are as much part of the cultural heritage of contemporary society as are the sacred groves and taboo sites of indigenous and tribal societies; they just come about by a different pathway. The protected area system, as well as being a political response to the ongoing and increasing impacts of humans on the environment, also reflects societies' emotional attachment to the natural environment (Box 4.3).

That some places are important to a community for social (as opposed to utilitarian) reasons became apparent during debates in the 1980s on sustainable development leading to the 'triple bottom line' approach to development, with 'social' factors being given equal weighting to 'environmental' and 'economic' factors (WCED 1987). The sustainable development discourse emerged from the bitter clashes over forest logging and its impacts on poor people in developing countries, going on to have far-reaching consequences for community involvement in natural resource management, including protected area management.

Johnston (1992) ascribes the following attributes to social places:

- spiritual and traditional connections to past and present (sacred places)
- tie the past affectionately to the present, but may blot out events for which we have no affection—for example, the Holocaust, genocide in colonial history, slavery
- reference point for a community's identity or sense of self—but not necessarily inclusive of all the community
- visible in daily workings of a community, but can also include places with no visible character



## Case Study 4.9 The role of protected areas in the lives of recent migrants

While globalisation and air transport give people choices to move all over the world, citizens of countries experiencing war may have little choice but to flee to a country that will accept them as refugees. A recent study of new migrants to Sydney, Australia's largest city, demonstrates the important role protected areas play in stabilising the lives of displaced and traumatised peoples.

Byrne and Goodall (2013) have shown that the practice of place-making—the way inhabitants of an area work to make spaces habitable by imprinting them with the patterns of their own local lives—is particularly significant for migrants. Through their interviews and observations of recent migrants from Vietnam and the Middle East using Georges River National Park, in Sydney, the researchers found that picnicking in the national park close to their suburb enabled migrants to maintain and extend social ties and contacts at the same time as they acquainted themselves with the Australian natural environment. The picnics tended to be held at specific, chosen locations in the park and as these areas became more familiar they constituted a foothold for recent migrants in the park environment. These picnics are less about ethnicity and more about homesickness, shared identity and a shared experience of being outsiders in a new city (Byrne and Goodall 2013).

National parks are attractive to recent migrants partly because they constitute space that is not 'fixed' or 'constrained' in the same way as built urban space. Protected areas such as national parks are relatively unstructured and unsupervised spaces that are far more open and unconstrained than most of the built public spaces of cities. In the course of the picnics, associations are created between a locale and the social experiences people have there. The activity at a locale, especially if it is repeated regularly over time, creates a 'cultural place out of a natural space'. The bonds formed with the natural environment play a role in the settlement of migrants in unfamiliar lands. They also evoke memories of activities in the home country and a kind of cross-border social connectivity termed 'transnationalism'. Thus, certain villages in countries like Lebanon and China are now more intimately connected to suburbs in Sydney than they are to other population centres in Lebanon and China.

Development of a sense of ownership of protected area space, via place-making, is fundamental to the development of a sense of responsibility for that space. Recognition by protected area managers of migrant place-making will enhance the sense of responsibility by these visitors, who represent a growing proportion of the constituency national parks rely on for support.

- provide a community function that develops into a deeper attachment beyond utility, which could be physical or associated with a place
- shape community behaviour and attitudes
- accessible to the public, repeated use and ongoing connection
- where people meet and gather as a community.

People's social attachment to the natural world is the basis of much of the conflict and debate over protected area management, particularly in relation to access and resource use. Promotion of protected areas for their recreation opportunities requires management responses to ensure against potential environmental degradation and, in some cases, this means exclusion of certain human activities (Chapter 23).

Despite sound justification for such exclusion, when visitors are no longer able to camp where they have for generations, when pastoralists can no longer graze their cattle or when people can no longer collect firewood or fish, the ensuing sadness and anger are a reflection of their social attachments to the places and things they hold dear.

### **Culturally significant animals and plants**

Human history is characterised by the nature of its relationships with plants and other animals, and in this sense, all plants and animals are culturally significant (Willow 2011). Many species of plants and animals and their genetic signatures have special cultural significance to different cultures across the world—for example,

in medicine, religious and ritual behaviour and in ceremonial life. The relationship between humans and plants/animals is particularly prevalent in animistic or indigenous religions in which plants and animals can be 'spirit beings', imbued with spiritual meaning that connects people with nature, and is the basis of the world view of many indigenous cultures across the world.

A cultural species is one for which there are deeply held cultural values associated with the species. Some animals are deeply sacred and never consumed, such as cows in Hinduism; others have both a ritual and a utilitarian function, such as pigs in Melanesia and the Maasai's cattle in Kenya, while others assume a special status through human sentiments, such as the quasi-spiritual attachment Western society has developed for cetaceans through the 'new age' movement (Case Study 4.10). Such attachments are positive in that they engender public support for protection of the species—unfortunately not extending to other, less charismatic creatures such as the legless lizards of Australia (*Aprasia* sp.) or southern bluefin tuna (*Thunnus* sp.) that are equally in need of conservation.

Many plant species are also culturally significant. Yams (*Dioscorea* sp.), wild and cultivated, are one of the most important food crops in Pacific cultures, with great utilitarian as well as symbolic significance. Yams are used extensively in religious ceremonies and some varieties are credited with magical properties. Events in the yam agricultural cycle are widely celebrated (Alexander and Coursey 1969).

### Box 4.3 Wilderness: Places of high social value

Wilderness (IUCN Category Ib) is land least modified by humans when compared with other IUCN categories (see Chapters 2 and 8). Arguably, wilderness is the most 'socially constructed' of all protected areas, and in recent years, one of the most controversial. Many people have derided wilderness for putting humans outside nature and effectively negating cultures whose religions and world views are deeply embedded in the natural environment. It is also enigmatic insofar as wilderness areas have been declared over tracts of land that contain subtle, or even obvious, evidence of the hand of humans, from Aboriginal rock paintings to historical mining sites, bridle paths, huts and timber harvesting.

The United States was the first country to legally define and designate wilderness areas, reflecting a metamorphosis in American attitudes to 'wild places'—from something to be feared to something to be revered. One settler in the early 1600s stated that '[w]ilderness is a dark and dismal place where all manner of wild beasts dash about uncooked' (Wilderness.net 2014). In settler societies such as Australia and North America, the struggle to clear and cultivate natural lands was a way of civilising wild places. In contrast with this utilitarian ideal, three centuries later, an American author stated that wilderness 'is the ultimate source of health—terrestrial and human' (Wilderness.net 2014). Subsequently, countries around the world have protected areas modelled after the American *Wilderness Act* of 1964.

Wilderness means different things to different people. Influential 18th-century writer and literary critic Samuel Johnson described wilderness as 'a tract of solitude and savageness' (Ransom 1991:19). It is also described in terms of national identity:

[T]he land that was—wild land beyond the frontier ... land that shaped the growth of our nation and the character of its people. Wilderness is the land that is—rare, wild places where one can retreat from civilization, reconnect with the Earth, and find healing, meaning and significance. (Wilderness.net 2014)

There are also the urban equivalents: 'tame' wildernesses, such as nature strips or large city parks (Ransom 1991:18).

Regardless of how 'wild' they really are, wilderness areas contribute to the social health and wellbeing of humans, at least in the Western world. The benefits wilderness areas provide are as diverse as the areas themselves and are highly valued. Wilderness continues to be contested ground in debates around the nature–culture divide, but that it has become a deeply spiritual place for hardy bushwalkers, artists and poets coping with an urbanised Western world cannot be denied.



**Chimney at the abandoned Tolwong copper mine, Ettrema wilderness, Morton National Park, Australia**

Source: S. Feary

## Case Study 4.10 Interactions between humans and dolphins

Dolphins are wild marine mammals with which many humans form strong emotional attachments. There are numerous books and websites advocating the strong, almost spiritual affinity between humans and dolphins, including stories of dolphins saving people from drowning or protecting them from harm at sea—for example, a surfer being saved from a shark attack by dolphins in Monterey Bay, California. Some believe that dolphins often

serve as our guides and protectors and are nurturers and healers, producing feelings of peace, harmony or overall acceptance and wellbeing (Psychic Universe 2014). In Western Australia, thousands of humans flock to the World Heritage-listed Shark Bay Marine Park Area to visit Monkey Mia, one of the few places where it is possible to ‘commune’ with quasi-tame dolphins in their natural environment.

## Case Study 4.11 Protecting traditional breeds of cattle

Traditional forms of land use are still practised in Hortobágy National Park—the Puszta, in eastern Hungary. The present landscape has been shaped by a shepherding culture evolved over many centuries, resulting in unique styles of clothing, architecture and tending of animal species. Animals being grazed on this vast grassland plain, the largest in Europe, include the historical domestic cattle breed ‘Hungarian grey’ (*Bos primigenius taurus Hungaricus*), once threatened with extinction. The most imposing of all Hungary’s farm animals, the breed played a significant role in Hungarian agriculture from the Middle Ages until the beginning of the 20th century. It was bred as

beef cattle that could be driven to the markets of Western countries but was also used for draught. Their presence in Hortobágy National Park maintains the cultural landscape, preserves a gene bank and ensures preservation of the traditional knowledge associated with its husbandry (Puszta.com 2014). In 1993 the Hungarian Puszta was listed as a World Heritage cultural landscape shaped by a pastoral human society, preserving intact and visible the evidence of its traditional use over more than two millennia and representing the harmonious interaction between human beings and nature (UNESCO 2014e).

Protected areas, particularly those with lived-in landscapes, have a very important role to play in conserving agrobiodiversity (Amend et al. 2008). There are a number of ways that protected areas can safeguard culturally significant domesticated fauna and flora including

- protection of archaeological and historical evidence for the significance of the species—for example, paintings, sculptures and figurines depicting the nature of the human–animal relationship
- protection of the species and its genetic formula, including historical domestic breeds threatened with extinction (Case Studies 4.11 and 4.12)
- protection of the traditional knowledge (intangible heritage) that gives cultural meaning to the species. For generations, herdsman and nomads have used their cultural and technical knowledge to actively manipulate species to increase production but it is only now being recognised. Indigenous breeding knowledge is made up of various concepts and practices used by livestock breeders to influence the genetic composition of their herds (Köhler-Rollefson 2014).

### Beautiful places

There is more than a passing connection between beauty or aesthetic appeal and protected areas: ‘aesthetic experience of nature has been and continues to be a vitally important factor in the protection and preservation of natural environments [and] this relationship between aesthetic appreciation and environmentalism has a long and interesting history’ (Carlson 2010:290).

Beauty is that combination of qualities that pleases the aesthetic senses of human beings, particularly the visual senses. Providing opportunities for people to experience picturesque and scenic places drove the earliest national park proclamations, and protection of Yosemite Valley in the mid 19th century was based primarily on scenic value, with similar examples found across the world (Mitchell 2013). Protection of aesthetic quality is often an objective for a protected area—for example, it is a primary objective for some of China’s national parks (Wang et al. 2012).

Loss and degradation of landscape beauty became of increasing concern to many countries in the mid 20th century (Selman and Swanwick 2010). In recognition



## Case Study 4.12 Protecting potato varieties

In the Peruvian highlands, six communities of the Quechua people have established el Parque de la Papa to conserve 1200 potato varieties occurring in more than 8500 hectares of communal land as well as natural ecosystems of the Andes. This is the pilot project for the Ruta Sagrada del Condor-Wiracocha network of protected landscapes

based on traditional agriculture across seven countries, from Venezuela to Chile, covering the pre-Hispanic Andean region (Sarmiento et al. 2005).



**Women selling their potatoes at market, Peru, South America**

Source: S. Feary

of the close relationship between aesthetic appeal and landscape attributes, the 1972 World Heritage Convention defined 'natural heritage' as follows:

- natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view
- natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty (UNESCO 1972).

Criterion (vii) for natural heritage in the current World Heritage Convention operational guidelines recognises beautiful places as containing 'superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance' (UNESCO 2013:21). Thus, problematically, the convention and Criterion (vii) both view the beauty and aesthetic value of places as intrinsic or inherent qualities of the natural world. In contrast, social scientists view the aesthetic appeal of landscapes as a subjective human sensory experience (Mitchell 2013). The idea of beauty and aesthetics is best recognised as a combination of natural features and human perception (Case Study 4.13).

Aesthetic qualities or values are not confined to the visual senses. The Australian ICOMOS Committee defines aesthetic value as human sensory responses to such attributes as form, colour, scale, texture and materials, as well as smells and sounds associated with the place and its use (Australia ICOMOS 2000). This meaning is intended to refer to both the built environment and natural areas. People often have visceral responses (that is, give meaning) to being in places of outstanding beauty and aesthetic appeal, demonstrating the strong psychological element to aesthetic appeal.

A recent IUCN review of the application of World Heritage List Criterion (vii) notes that there are currently 133 properties inscribed on the list on the basis of Criterion (vii), the majority of which occur within protected areas (Mitchell 2013). The review identified inconsistencies in application of the criterion over time and discussed the challenges of finding methodologies for objective evaluation of 'exceptional natural beauty and aesthetic importance'.

In the evaluation of Mount Sanqingshan National Park, in China, the IUCN determined that the property met Criterion (vii) because the 'remarkable granite rock formations combined with diverse forest, near and

## Case Study 4.13 Monarch Butterfly Reserve, Mexico

In 2008, the Monarch Butterfly Biosphere Reserve in Mexico was inscribed on the World Heritage List under Criterion (vii)—aesthetic value. It is a conservation area and World Heritage site within the wintering grounds of most of the monarch butterflies that migrate from east of the Rocky Mountains for up to 4000 kilometres south to central Mexico. The IUCN's evaluation considered that the overwintering concentration of the monarch butterfly (*Danaus plexippus*)

is a superlative natural phenomenon in the meaning of Criterion (vii). The monarch butterfly migration is considered the classic example of two-way insect migration, involves millions of individuals and is as long as or longer than the distance covered by any other insect migration. Of many insect migrations, none compares with that of the monarch butterfly in terms of length, regularity, singularity and visibility on site (Mitchell 2013).

distant vistas, and striking meteorological effects to create a landscape of exceptional scenic quality [and that] the most notable aspect is the concentration of fantastically shaped pillars and peaks' (Mitchell 2013:20).

Aesthetics is a complex topic and we touch on some of the more relevant aspects including familiarity, accessibility, knowledge and wellbeing. Familiarity refers to the attachments and connections that people develop for landscapes and the sense of loss that can ensue from changes to familiar landscapes (Itami 1993). For example, the new glacier skywalk in Jasper National Park is a stunning piece of architecture, but it is controversial because it confronts the senses of those who yearn for naturalness in a national park.

A deep affection for landscapes can arise from knowledge of the place (Itami 1993). Increasing people's knowledge of the landscape through education can increase the value they place on the landscape. Hence the importance and popularity of nature-based television documentaries and protected area field education programs during school holidays.

There is an extensive body of literature that demonstrates the positive benefits to humans that arise out of contact with natural settings, exemplified in the 'Healthy Parks, Healthy People' philosophies being embraced by many protected area agencies across the world. A sense of wellbeing can be understood within the meaning of aesthetics. For example, taking troubled youth 'out bush' is a therapeutic technique that has been shown to provide benefits. In Australia, the 1991 Royal Commission of Inquiry into Aboriginal Deaths in Custody recommended programs for getting Aboriginal people back on country through involvement in land management to assist in improving health and cultural wellbeing (Government of Australia and Johnston 1991). This was an important driver for development of national park co-management arrangements in many Australian States and Territories.

## Entangled landscapes of nature and culture (biocultural/cultural landscapes)

### Nature and culture as coevolved

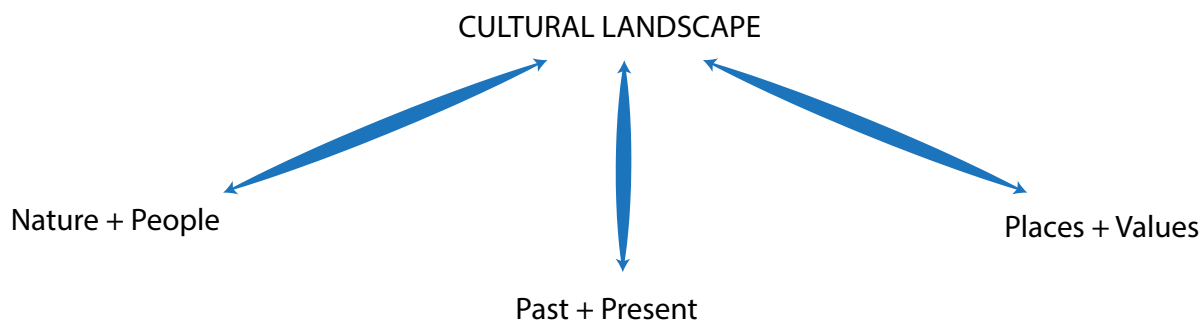
Earlier we discussed how the idea of heritage originated in Western knowledge systems—a scheme that has a long history of viewing nature and culture as separate parts of the same landscape. This separation is embedded, for example, in the *Operational Guidelines for the Implementation of the World Heritage Convention* (UNESCO 2013), which recognise sites as natural, cultural or mixed. The history of protected areas, again originating as a Western concept, also has a long history of conceptualising nature and culture as separate. This separation is hard to maintain when we examine closely the real world of people's lives and their engagement with and 'being in' the environment.

Separation of nature from culture is a distinctive feature of Western thinking and is not how many other cultures conceptualise the world. For example, for contemporary Australian Aboriginal people the concept of 'caring for country' is a complex notion related to personal and group belonging and to maintaining and looking after the ecological and spiritual wellbeing of the land and of oneself. Equally, the traditional Chinese view of nature emphasises harmony and 'oneness with nature', in which nature and people form a cosmological whole (Han 2012:92–3). Aside from the strong influence of indigenous and Eastern world views, an approach to breaking down the division of nature/culture in Western thinking has been to adopt a concept of cultural landscape.

### What is a cultural landscape?

The term cultural landscape has its origins in Western knowledge systems. Landscape, in this context, means land shaped by its people, their institutions and customs (Tuan 2002). Culture means people's 'way of life', thus cultural landscape, in general terms, means 'those areas which clearly represent or reflect the patterns of settlement or use of the landscape over a long time, as well as the evolution of cultural values, norms and attitudes toward the land' (Context et al. 2002:9).





**Figure 4.3 Elements of a cultural landscape**

Source: Phillips (2002)

The idea of cultural landscapes, which emerged from within the field of geography in the late 19th century, is defined by UNESCO as the combined works of nature and humankind. Thus, the cultural landscape concept emphasises the landscape-scale of history and the process of connectivity between people and places. It recognises the present landscape as the product of long-term and complex entanglements between people and the environment, and challenges the nature–culture dichotomy. A way of representing the idea of cultural landscape is illustrated in Figure 4.3.

### Examples of cultural landscapes

The idea of cultural landscapes emphasises the coevolution and entanglement of geographical areas, biophysical processes and human presence. So in one sense the whole of the Earth is a cultural landscape because either humans have been present or human presence has affected ecosystems. Some pasts may have ‘touched the landscape only lightly’—for example, parts of the Amazon Basin, the boreal forests of Canada, Antarctica or the deep ocean floors—while some places of historical activity are marked by imposing built structures (for example, the pyramids of Egypt) or are commemorated for their association with important events or people (for example, Nelson Mandela’s association with Robben Island, South Africa).

In practice, the idea of cultural landscapes is applied to specific parts of the planet for the purpose of identifying, evaluating, managing and celebrating important heritage values. The World Heritage List currently recognises 82 properties as cultural landscapes. Three examples from the diverse range of cultural landscape are the following.

- **Tongariro National Park (New Zealand):** The first World Heritage-listed cultural landscape, the volcanic Mount Tongariro plays a fundamental role through oral tradition in defining and confirming the cultural identity of the Ngati Tuwharetoa *iwi*; and the natural

beauty of Tongariro is the spiritual and historical centre of Maori culture (Lennon 2006).

- **Chief Roi Mata’s Domain (Vanuatu):** Landscapes and waterscapes associated with the life and death of the last paramount chief of Vanuatu in the early 17th century (Galla 2012).
- **Agave Landscape and Ancient Industrial Facilities of Tequila (Mexico):** Part of an expansive landscape of blue agave, shaped by the culture of the plant used since the 16th century to produce tequila spirit and for at least 2000 years to make fermented drinks and cloth. The property also contains agricultural terraces, housing, temples, ceremonial mounds and ball courts associated with Teuchitlan culture (UNESCO 2014f).

In applying the idea of cultural landscape in World Heritage listing, UNESCO adopts three categories: ‘designed landscapes’—landscapes that are designed and intentionally created such as gardens and parklands; ‘organically evolved landscapes’—large areas resulting from social, economic, administrative and/or religious activities over time, including agricultural landscapes; and ‘associative landscapes’—locations with powerful religious, artistic or cultural associations (UNESCO World Heritage Centre 2011:Annex 3).

In the United States, large-scale regional landscapes of national importance are designated as National Heritage Areas (Mitchell and Melnick 2012). These are cultural landscapes where history and heritage intersect with everyday places where people live and work. They can be described, for example, as ‘lived-in landscapes’ and include industrial landscapes—for example, Blackstone River Valley National Heritage Corridor and Augusta Canal.

## Applying cultural landscapes in protected area management

The idea of cultural landscapes offers a conceptual tool that can be applied in protected area management to work towards the integration of natural, cultural, tangible and intangible heritage, and biological and cultural diversity. In order to achieve such integration, it is necessary for protected area staff trained in the Western traditions of environmental sciences, as well as those trained in the humanities/social sciences, to be able to break free of disciplinary boundaries in order to recognise the socio-natural construction of landscape. This can be a challenging task, but in recent decades, the idea of cultural landscape has been widely applied in the field of protected area management (Buggey 1999; Lennon 2006; Brown 2010). Previously, cultural heritage sites tended to be seen as isolated points or pathways set in a natural landscape—the ‘dots on the landscape’ approach. They may be subject to legislation and regulation separate from that for the natural environment.

A cultural landscape approach offers an opportunity to integrate natural and cultural heritage conservation by seeing culture and nature as interconnected dimensions of the same space. As we have seen above, this is because ‘[a] cultural landscape perspective explicitly recognises the history of a place and its cultural traditions in addition to its ecological value ... A landscape perspective also recognises the continuity between the past and with people living and working on the land today’ (Mitchell and Buggey 2001:19).

One approach to recognising cultural landscapes in protected areas is to apply general principles. For example, in New South Wales, Australia, applying a cultural landscape approach to the management of protected areas uses a number of general principles:

- landscape is a living entity, and is the product of change, dynamic patterns and evolving inter-relationships between past ecosystems, history and cultures
- the interactions between people and landscape are complex, multi-layered and are distinctive to each different space and time
- multiple engagement and dialogue, where all people’s values are noted and respected, are characteristic of a cultural landscape mentality
- all parts of Australia’s landscape have community connection and associated values and meanings
- a key element of cultural landscapes is the continuity of past and present (Brown 2010, 2012).

A key emphasis of this cultural landscape approach is the need to integrate people’s stories, memories and aspirations continually into management processes—that is, to recognise that the cultural values of landscapes are inextricably bound up with the lived experiences, identities and connections of past and present individuals and communities as well as with ecology, hydrology and geodiversity. Active management programs need to take into account the spiritual and symbolic meanings that people ascribe to protected area landscapes as well as the written history and physical evidence. Furthermore, protected area managers need to understand how these meanings support community identity, wellbeing and human rights. By understanding, respecting and acknowledging people’s attachments to and feelings for landscapes, park managers can help ensure there is long-term community support for protected areas.

It can be useful to identify selected parts of protected areas as cultural landscapes for the purpose of management. Specific management objectives will determine where this can be an effective conservation approach (Case Study 4.14).

## Introducing cultural heritage management

Previous sections in this chapter have described cultural heritage—the tangible and intangible evidence for human presence on Earth—and its intersections with protected areas. This section examines how a society comes to value its heritage, and the translation of those values into management and conservation of cultural heritage. Global agencies concerned with management and protection of cultural heritage include UNESCO, the International Council for Monuments and Sites (ICOMOS), the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and the International Council of Museums (ICOM).

The Venice Charter of 1974 for the Conservation and Restoration of Monuments and Sites was the first to develop a code of professional standards that continues to provide an international framework for the preservation and restoration of ancient buildings. Numerous UNESCO conventions have since recognised intangible heritage and cultural landscapes as cultural heritage. The processes, practices and policies laid out by these and other agencies for managing and protecting cultural heritage have been shaped by transformations in the meaning of cultural heritage, which has in turn responded to social changes across the globe, particularly recognition of social values.

## Case Study 4.14 Forest as historic artefact: The cultural landscape of Washpool National Park, Australia

Washpool National Park comprises a landscape of diverse forest types on the Great Dividing Range in eastern Australia. In 2007 a study was undertaken to investigate the extent to which the forests are a product of cumulative transformation through seasonal grazing and forestry operations—that is, a cultural landscape. The ‘forest as historic artefact’ study endeavoured to integrate information derived from both historical and ecological sources. The historical methods involved a literature review of the history of the landscape and the field study involved field-based discussions with current and former land-users, which provided invaluable understandings of vegetation-based evidence of past and current land-use and land management practices. The ecological methods utilised for the study involved a literature review of the ecology of the landscape as well as a field-recording program. The field study examined 12 sample plots and two examples illustrate the field process and results.

A field sample plot was located in the former Curramore State Forest, an area that has never been logged and was leased for cattle grazing by the Sloman family from the early years of the 20th century to the 1990s. Seasonal (winter) grazing in the local dry open forest involved regular (spring) low-intensity burning to encourage understorey regrowth. Two features of the vegetation structure were recognised that result from high-frequency fire regimes and grazing pressure on vegetation. First, the firing regime and seasonal grazing changed the species composition and structure of the forest understorey and increased the density of naturally occurring grass species. Second, there has been a reduction in the regeneration capacity of canopy trees leading to long-term change in vegetation structure.

A second field sample plot (Coombadja Creek) was located in an area of dry sclerophyll forest that was selectively logged in the late 1960s. Material evidence of logging includes multiple cut tree stumps, reject saw logs on the heavily overgrown track, a log loading ramp, log loading area and evidence of tree damage caused by forestry machinery. A key feature of the local vegetation subject to logging is, not surprisingly, reduced density of old-growth trees, reflecting the resource focus on saw log production.

Disentangling disturbance evidencing past and present activity from ecosystem processes within a forested landscape is a complex task. Nevertheless, a cultural landscape approach is useful in conceptualising forested landscapes as continually transforming as a result of complex interactions between ecological processes and human activities. Each historical activity not only adds a new and distinct layer, but also influences the trajectory of later forest regeneration and transformation processes.

The implication for forest management is not that forested landscapes should or can be ‘frozen’ in time such that markers of historical activity are conserved, but rather that documenting and understanding ecosystems and past/present human land use are an essential part of conservation. Such an approach does not undermine an aim of optimum biodiversity and ecosystem health and resilience, but does challenge park management to be clear concerning what it is that is being conserved. It assists with the management of a complex system (see Chapter 10).

Sources: Adapted from Dean-Jones and Brown (2012); Brown (2012)

Contemporary cultural heritage management is a multidimensional and pluralistic process and there is a vast literature on the subject. Put briefly, cultural heritage management is a rational process for deciding whether and why a cultural phenomenon is worth protecting and the form of that protection. The process is shown in Box 4.4.

### Using values as a basis for management

The steps in Box 4.4 are a clear indication that ‘value’ provides the motivation for protection of cultural heritage and the direction for its management (as it does for natural heritage). In this context, value refers to the quality and character of a phenomenon (Mason 2008). It is self-evident that no society makes an effort to conserve what it does not value (Mason 2008).

Values are socially constructed, determined by a range of social and cultural factors. What is valued by one section of society may not be valued by another, or may be valued for a different reason, or one generation may

value it but it may not be valued by the next generation (Lockwood 2006; Chapter 6). Values are dynamic and frequently contested, so the process of assigning values to something must be rigorous, transparent and objective. Many different sets of criteria exist for evaluating and articulating cultural heritage values. The Australian Burra Charter, an Australian adaptation of ICOMOS, identifies five cultural values, as shown in Table 4.1. The table also includes a classification of protected area values.



Table 4.1 Cultural and protected area values

Cultural value type	Description
Aesthetic value	Sensory perception such as form, scale, colour, texture and material of the fabric or the smells and sounds associated with the place and its use
Historic value	A place has influenced, or has been influenced by, a historic figure, event, phase or activity; site of an important event
Scientific/research value	Importance of the data; rarity, representativeness, degree to which the place may contribute further substantial information
Social value	Qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group
Spiritual value	Used to capture the attachment between humans and the natural environment/place, being more specific than social or aesthetic value
Protected area value type	Description
Intrinsic values	Fauna, flora, ecosystems, landscapes and seascapes
Off-site goods and services	Life support; water and air quality; fishery and agriculture protection; protection of human settlements
On-site goods and services	Animal and plant products; recreation and tourism; historic sites and artefacts; scientific knowledge, research and education; representations
Community value (non-material)	Culture, identity, spiritual meaning, social wellbeing; bequest for future generations
Individual value/experiential values (non-material)	Satisfaction (existence and experiential), physical and mental health, spiritual wellbeing

Sources: Australia ICOMOS (2000); Lockwood (2006).

### Box 4.4 Assessing cultural significance: Steps in the process

1. Recognise the existence of the cultural phenomenon.

Note: not all protected area staff are formally trained to be able to recognise tangible or intangible cultural heritage.

2. Record and document the evidence—physical, written and oral.

Note: This often generates an inventory or a database. There can be issues around the 'ownership' of such databases and who controls their use.

3. Decide what is important about the place/feature and assign it to one or more categories. These categories are sometimes termed 'values'. An object, place or a cultural practice is assessed as having one or more defined values. To be recognised in protected area management, these values need to be connected with place, which could be an entire protected area, a specific location or a linear pathway.

Note: Values can be in conflict, interdependent or overlapping. Values are sometimes equated with significance. In this book, significance describes the degree to which a heritage phenomenon possesses the defined values (Lennon 2006:450).

4. Assessment of the significance of the cultural heritage phenomenon against a set of criteria as determined by relevant legislation or official guidance material: this determines the degree to which that value is expressed. Assessment of cultural significance is often conducted at several scales: international, national, regional and local.

Note: The final assessment integrates significance levels against all criteria although it may be predetermined that one criterion will be given greater emphasis—for example, social significance may be more important than historical significance.

5. Deciding on the most appropriate management approach, depending on the cultural significance but also cognisant of other factors such as financial requirements, political imperatives and broader protected area directions and priorities.

Note: This may include preparing a conservation or management plan for the cultural phenomenon.

6. Developing and implementing a program for managing/protecting the value and/or place, including a reporting and monitoring component.

Table 4.2 indicates connections between cultural values and protected area values (highlighted). Individual values (protected area) can be equated with aesthetic and spiritual values (cultural) in the broadest meaning of the term, in that they both refer to personal sensory experiences, while community value (protected area) and social value (cultural) are also roughly equivalent. The protected area definition of ‘on-site goods and services’ includes scientific and historical values and alludes to social values (education and recreation). On-site goods and services have cultural value to the people who rely on them for their livelihoods. Off-site goods and services (protected area) include protection of human settlements, which is a social value, and ecosystem services are cultural insofar as they are critical to human life.

The remaining protected area value, intrinsic value, confers a value to the natural environment for what it is, independent of human attitudes or judgments, giving it a right to exist for itself (Nash 1989). Whether or not cultural heritage is likewise intrinsically valuable continues to be a source of academic debate. Some argue that heritage exists mainly in the context of the rise of cultural heritage management in the Western world in the late 20th century. It is defined with reference to social action that selectively commodifies and emphasises particular places as important (Harrison et al. 2008).

Randell Mason (2008) offers another view, arguing that typologies of heritage values should consider the notion of authenticity, which presumes that historic value is inherent in some truly old and therefore authentic material (insofar as it has witness to history and carries the authority of that witness). Similarly, Jane Lennon (2006) ascribes inherent/intrinsic values to accumulated historical character and material properties of historic heritage, illustrating historical testimonies and associated cultural values. Byrne (2008) also points out that much of the heritage discourse on intrinsic values has paid

insufficient attention to the fact that a large proportion of the world’s population believes that many heritage places are inherently sacred. It could be argued that intangible heritage is intrinsically valuable because there are no other ways of assessing it. If, for example, a person states that a place is sacred, can that be reliably and fairly assessed without questioning the very basis of that person’s identity? A protected area manager can find this challenging, particularly when information about intangible heritage cannot be divulged.

## Who assigns values?

Who is best placed to assign value and conduct significance assessment of cultural heritage? This is where the differences between tangible and intangible heritage become most apparent. Identification and assessment of most tangible heritage (archaeological, historic and maritime sites and movable heritage) rely on the testimonies of heritage experts from a range of professions and disciplines, such as archaeology, maritime archaeology, architecture, geography (physical and human), history and museology. Thus, an extensive worldwide heritage industry and its practitioners have ‘owned’ cultural heritage management for many decades.

In contrast, recognising and understanding intangible heritage require involvement of and dialogue with holders of the cultural information: local communities who live in or around the park, or park visitors and users. Participatory processes for involvement of knowledge-holders—often local indigenous or tribal communities—must be used in protected area management to ensure that intangible heritage is respected and that its physical manifestations are protected (see Chapter 22).

**Table 4.2 Comparing cultural and protected area values**

Protected area values						
		Intrinsic	On-site	Off-site	Community	Individual
Cultural values	Aesthetic					
	Historic					
	Scientific					
	Social					
	Spiritual					

## Connections between culture, heritage and protected areas

The extent to which culture and heritage benefit from the existence of protected areas is influenced by commonality and/or compatibility of the goals of cultural heritage and protected area management. Table 4.2 indicates some level of synergy in the values of the two systems and this provides a strong foundation for the managerial and operational capacity for achieving the goals of cultural heritage management in a protected area context.

At another level, protected areas have a unique capacity to protect cultural heritage. For the most part they have been set aside, as biodiversity and heritage conservation refuges, from the ravages of major developments or industrial-scale resource exploitation. These remnants of past landscapes come with their cultural elements—the intangible and tangible cultural heritage—relatively intact. The extent to which the cultural heritage is given priority by managers, however, depends on four important considerations.

## Protected area category

The IUCN's protected area categories, from Category I to Category VI (see Chapters 2 and 8), reflect a gradation of human intervention in the protected area, in both character and management (see Figure 2.1) (Dudley 2008). Category I (including wilderness) gives the least emphasis to humans, while Category V (protected landscape/seascape) and Category VI (protected area with sustainable use of natural resources) explicitly recognise human modifications to landscape character and/or human communities living in the protected area.

All categories recognise cultural heritage, particularly when the concept of cultural landscapes is applied. Category VI can allocate *high* priority to intangible cultural heritage, because human communities are often continuing their cultural traditions in the protected area and have primary responsibility for its management, as they do for Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs).

Other management arrangements, such as joint management of a national park, can also enhance appreciation of cultural heritage (see Chapter 7). In Australia, the 55 Aboriginal-owned and managed Indigenous Protected Areas (2014) are in several IUCN categories (Hill et al. 2011).

## Protected area legislation may narrowly define cultural heritage as tangible heritage

This is particularly relevant in the Western world and reflects a hangover from early definitions of cultural heritage. There is, however, sound evidence to demonstrate that protected areas may not achieve their goal of protecting nature without the support of citizens—often gained only by recognising the intangible cultural heritage encapsulated within the protected areas. For example, research into sustainable management of resources in the ecologically rich Mount Elgon region of Kenya has demonstrated that social unrest, environmental damage and wildlife poaching escalated until the central government recognised the critical importance of the national park for local livelihoods and also appreciated that local communities had managed resources sustainably for thousands of years prior to British colonisation (Gatunda 2002).

As with many other countries, in China, the national park system has both social and ecological goals, measured by its capacity to reduce poverty, promote long-term rehabilitation of wildlife habitats and protect Chinese culture and biodiversity (Wang et al. 2012).

## Staff may need training in managing cultural heritage

Some protected area staff (and natural resource management staff more generally) may have limited training, skills or qualifications in cultural heritage management or social science, or an unrealistic understanding of what the job really entails:

Young natural resources or environmental managers are usually attracted to their professions to be outdoors, away from the maddening crowd and its socio political problems, working with physical and biological resources. Yet these new foresters, wildlife biologists, or ecologists often find themselves immersed in less tangible, more ambiguous social value issues as much as the natural resources they love and want to manage (e.g., owls vs. jobs vs. biological diversity values). This is especially true of those professionals employed by public agencies. Many young natural resource graduates are disappointed and frustrated to discover that being an effective professional and public servant is ultimately a social endeavour (Kennedy and Thomas 1995:311)



To effectively manage cultural heritage, a protected area manager needs to know how to build a team which can recognise and protect an archaeological site, stabilise a historic building, document a cultural landscape, collect oral history information and understand community connections to place.

## **Perceptions of cultural heritage management as being too difficult, less important than natural heritage or even an impediment to protecting biodiversity**

Staff untrained in or with no experience of cultural heritage management may find it overwhelming. Those with no interest may think it unimportant and in some cases outside the responsibilities of protected areas. This is more likely to occur among Western-trained staff, as indicated by this comment on the NSW National Parks and Wildlife Service in Australia: ‘The Service has been through several phases of embracing or reluctantly accepting its role as historic site manager, a role it appears to feel sits uneasily with its nature conservation role’ (Pearson and Sullivan 1995:60).

We conclude this section by noting that community social values are not always harmonious with nature conservation. Cultural heritage can involve practices and traditions inconsistent with protection of biodiversity, such as killing animals for traditional medicine, overzealous hazard reduction burning, hunting endangered species for food or recreational overuse.

## **Conclusion**

This chapter has looked at cultural heritage through a lens of the relationship of people with the natural environment and with each other, in space and over time. We have shown that the cultural legacies of these relationships are interesting and diverse phenomena with both tangible and intangible dimensions. Cultural heritage is about the past but also connects humans with the present and envisages a future. It is the crux of identity; it can be uncomfortable, contested or divisive, but protected area managers will ignore it at their peril.

The concept and practice of protected area management are themselves cultural heritage, being the tangible expressions of societally generated beliefs and values about the natural world that have existed for thousands of years. Indigenous people’s spiritual associations with

the natural world were the foundation for the earliest forms of locally based environmental protection and remain pertinent in many parts of the world. Modern protected area management is guided by global systems manifested through the regulations of nation-states. Recognition of cultural heritage, especially intangible cultural heritage and social value, has been a major driver of substantive changes in protected area management philosophy and practice, placing it firmly in the arena of rights and social justice. Early definitions of cultural heritage were confined to monuments and sites, privileging rich countries and certain professions. The broadening to embrace intangible heritage and cultural landscapes increased understanding of the spiritual and social values of protected areas and gave some power back to the owners of that heritage.

We have shown that throughout the world protected areas have deep cultural values, to the extent that many are seen as flagships of nationality and often the cornerstone of national tourist industries. Protected areas and cultural heritage are not only compatible; they are also inexorably interconnected. Failure to comprehend the importance of cultural heritage to people is likely to result in a failure to meet biodiversity objectives due to lack of community support. Just as cultural heritage cannot be separated from the people who value it, neither can protected areas exist in isolation from and without the support of the broader community.

What are the benefits of protected areas for protecting cultural heritage? Protected areas endeavour to protect nature and natural processes in a world where development and change continue to encroach on the natural environment. At a global scale in 2014, protected areas are only 15.4 per cent of the Earth’s terrestrial surface—a precious phenomenon. They are highly valued by humans, not only for their biodiversity, but also for the intangible and tangible cultural heritage they envelop, which may otherwise be destroyed by development. Being able to leave tangible cultural heritage within its landscape setting is much better than collecting it and putting it somewhere else, as is the ability to leave large cultural landscapes or places of spiritual value. It is virtually impossible to do this anywhere else. Protected areas are critical for the conservation of cultural heritage.



The outstanding Australian Aboriginal art work on public display at the Anbangbang rock shelter gallery, Kakadu National Park, a natural and cultural World Heritage property. The paintings include Namarrgon the lightning man (upper far right) who wears his lightning around him and it connects his arms, leg and head. The stone axes that may be seen on his knees and elbows create the thunder.

Source: Graeme L. Worboys



The Banff Park Museum is located centrally in the historic Banff National Park of Canada, a World Heritage property. Refurbished in 1985, the museum faithfully retains the products and style of interpretation displays developed in and around 1914. The building was constructed in 1903, and its presence and displays reflect the energy and commitment of Norman Bethune Sanson, the Museum's curator from 1896 to 1932.

Source: Graeme L. Worboys



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