

Rock Art

A cultural
treasure at risk



*How we can protect the
valuable and vulnerable
heritage of rock art*



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The Getty Conservation Institute

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The Getty Conservation Institute works internationally to advance conservation practice in the visual arts broadly interpreted to include objects, collections, architecture, and sites. It serves the conservation community through scientific research, education and training, model field projects, and the broad dissemination of the results of both its own work and the work of others in the field. In all its endeavors, it focuses on the creation and dissemination of knowledge that will benefit professionals and organizations responsible for the conservation of the world's cultural heritage.

Front cover: top left: Rock painting from the Eastern Cape, South Africa (Photo: Nicholas Hall); top right: Rock painting of a giraffe, Limpopo Province, South Africa. (Photo: Janette Deacon); bottom left: Rock painting of Kangaroo, Arnhem Land, Australia (Photo: Nicholas Hall); bottom right: Rock painting of human figure, Arnhem Land, Australia (Photo: Nicholas Hall)



The Getty Conservation Institute



This document is an outcome of the Getty Conservation Institute activities in rock art conservation including the Southern African Rock Art Project and Southern Africa – Australia Rock Art Exchange. The document has resulted from the collective contributions and participation of many rock art conservation experts including rock art traditional owners and local community members living close to rock art in Africa and Australia.

It is hoped that the document will have utility and applicability to everyone with an interest in rock art protection, management and conservation.

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Executive summary

“Rock art is a cultural gift from our ancestors.”

—Kofi Annan

Background to this document

Between 2005 and 2011 the Getty Conservation Institute organized a series of rock art management courses and workshops as part of the Southern African Rock Art Project (SARAP) in collaboration with various southern African organizations. From 2012–2014 the project was extended to include an exchange program between rock art specialists, managers, and custodian communities from southern Africa and Australia. In 2014, a Forum was held in Kakadu National Park between African and Australian rock art colleagues as a culmination of the learning from the SARAP and the African–Australian Exchanges.

This document is the result of the deliberations from this work, including strong input from traditional owners of rock art sites and the participation of the Trust for African Rock Art. All of the experience of the work in Africa and Australia and the knowledge of those who participated in activities widely across both continents is reflected in this document.

While the document in its present form focuses on experience of examples from Africa and Australia, it sets out a vision for the future conservation of rock art which will be relevant to rock art conservation in many regions of the world. The issues it identifies and the foundation principles and actions it proposes are based on internationally recognized and well-founded conservation management principles. It is hoped this document will be widely disseminated, used, critiqued and over time be adapted and improved.

What is rock art and why is it important?

Rock art sites contain some of the world’s greatest works of art, aesthetically powerful and spiritually charged imagery embedded in cultural landscapes. Rock art consists of paintings, drawings, engravings, stencils, prints, bas-relief carvings and figures in rock shelters and caves, on boulders and platforms. Rock art reflects humankind’s rich spiritual and cultural heritage and has great significance to its creators and their descendants. It also has great significance to humanity generally. Its beauty, its symbolism, and its rich narrative means that it is widely appreciated and treasured internationally, regionally, and locally. Its continued existence is important to help global communities recognize and learn about the diverse cultural traditions, their ancient origins and relationships to the landscapes they have inhabited.

A treasure of humanity: The beautiful almost life-sized giraffe petroglyphs in Niger were only documented in 1997. They are believed to be between five thousand and nine thousand years old. Despite its remote location the petroglyphs are under threat from mining and are being damaged by visitors including fragments being stolen. (Photo: Trust for African Rock Art)



Rock art at risk

Rock art is in peril because of development pressures, graffiti/vandalism, poor tourist management and natural impacts. In recent times thousands of sites have been damaged or destroyed on every continent. Human population growth and development and globalization is having significant effects on the culture of traditional owners, site custodians, and local communities whose ancestors created much of the world's rock art and part of whose living culture it remains. The need for rock art conservation and management attracts little recognition and inadequate funding and support. Practice standards are often poor and inconsistent.

Making sure these galleries have curators: valuable works of art are protected in museums and galleries around the world and have highly trained people to care for them. The stunning legacy of rock art deserves greater attention to its curation and the training of people who understand options for rock art management and protection. Indigenous people, local communities, rock art researchers and conservation professionals need to work closely together to share knowledge. (Photo: Samir Patel, *Archaeology Magazine*)



A vision for the future of rock art

Rock art is a highly valuable, but vulnerable heritage of humankind. We need to cherish and protect this cultural gift from our ancestors by ensuring:

- The values of rock art sites are recognized and celebrated locally, regionally, nationally and internationally;
- Traditional owners, custodians and local communities of rock art sites are able to proudly and confidently carry out the responsibilities of site guardianship and stewardship; and
- Indigenous peoples, local communities, governments, researchers, heritage professionals and the broader community work closely together to create more effective ways to conserve, manage and benefit from rock art.

Foundation principles for rock art conservation

The most important principles which set a foundation for rock art conservation:

- Principle 1** Work actively to promote rock art as a valuable heritage for everyone, and allocate sufficient resources specifically to its future care.
- Principle 2** Manage to protect all values
- Principle 3** Preserve and manage rock art as an inherent part of the landscape
- Principle 4** Safeguard cultural rights and practices
- Principle 5** Involve and empower Indigenous owners and local communities in decisions about rock art management and conservation
- Principle 6** Use recognized ethics, protocols and standards for documentation, conservation and interpretation as the basis for management practice
- Principle 7** Give priority to preventive and protective conservation
- Principle 8** Make effective communication and collaboration a central part of management

The four pillars of rock art conservation policy and practice

The foundation principles lead to the four 'pillars' which make for strong rock art policy and conservation when it is applied in practice. These pillars are:

Pillar I. Public and political awareness

There is a need to raise awareness about rock art, the range and severity of threats to it and the need for effective responses to these threats. Public and political awareness of rock art is vital for successful planning and budgeting for conservation and management.

Pillar II. Effective management systems

Systems are required to manage rock art sites and groups of rock art sites in their landscapes. These include identifying the significance of sites, their management needs and the development of strategies for their long-term conservation. A key to the development of such systems is the active involvement of all key stakeholders especially traditional owners, site custodians, and local communities and the allocation of the capable human resources required to look after rock art sites.

Pillar III. Physical and cultural conservation practice

Careful guidance is needed for the work of physically protecting and, if necessary, undertaking conservation work on rock art sites. The same applies to the cultural practices that secure the physical and spiritual integrity of rock art sites. Physical conservation and cultural conservation need to be considered, planned and undertaken in dialogue with each other. In each case, it is important that people with suitable expertise are available, that expert knowledge is respected and that informed decisions are made regarding the physical and cultural benefits and impacts of actions.

Pillar IV. Community involvement and benefits

An important way of conserving and celebrating rock art is through appropriate and well-managed economic, social and cultural development initiatives by and for indigenous, and local and regional communities. Genuine community involvement can result in greater awareness of rock art, increased economic opportunities and higher quality display and interpretation for visitors.

The way forward

There are a number of key actions and initiatives that constitute important next steps in protecting the heritage of rock art for future generations. These are actions and initiatives that governments, professionals, institutions and communities can consider and work out how to best implement in their local area or within their sphere of responsibility. The main actions and initiatives identified in preparing this document that can make a difference are:

1. Improved access to information and advice;
2. Community outreach and awareness programs;
3. Demonstrating best practice;
4. Coordinated training curricula;
5. Effective databases for rock art site information; and
6. Support for local community rock art tourism projects.

The final section of the document provides a ‘call to action’ for anyone who can help. Such ambitious aspirations require many partners and effort at many levels.

The record of climate change and human adaption: Kakadu National Park, a World Heritage site in Australia, contains one of the world’s greatest concentrations of rock art. While around five thousand sites have been recorded, it is believed that there could be 10,000 to 15,000 art sites in total. The paintings throughout the park tell a story of the changing climate, changing species and changing lifestyles of Aboriginal people possibly over a time span from 20,000 year ago to the present. This constitutes one of the longest historical records of any group of people in the world and is truly a treasure of humanity. (Photo: Nicholas Hall)



Introduction

Rock art is “imbued with power from our ancestors and forebears.”

—Kofi Annan

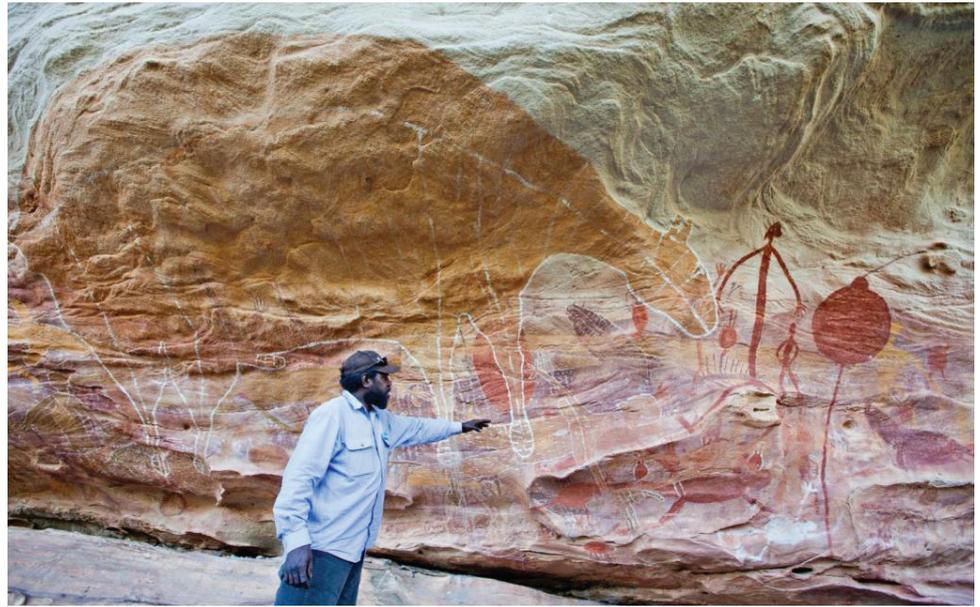
Rock art sites contain some of the world’s greatest works of art, aesthetically powerful and spiritually charged imagery embedded in cultural landscapes. Rock art consists of paintings, drawings, engravings, stencils, prints and bas-relief carvings in rock shelters and caves, on boulders and platforms. The famous, immensely beautiful rock art in the cave sites of Europe such as Lascaux, Chauvet, Niaux and Altamira are well known, but rock art is found in many environments worldwide. In the Americas, rock art is found from the high Arctic to the tip of South America. A large body of rock art sites lies across India, Siberia and parts of China. The rock art of Southeast Asia is not as well-known and is deserving of greater attention (Taçon et al. 2014). Both Australia and southern Africa have at least 100,000 rock art sites each and many new discoveries are made each year. The oldest surviving Australian and African rock art is at least 28,000 years of age (David 2013; Wendt 1976) while in Spain and parts of Southeast Asia there are images closer to 40,000 years old (Aubert et al. 2014; Pike et al. 2013). In France, the famous sites of Lascaux and Chauvet are around 15,000 and 30,000 years old respectively.

In many parts of the Americas, Australia, Africa and Asia rock art continued to be made until very recently and in some places such as Australia’s Kakadu National Park it was made continuously from when humans first arrived on the continent to the present—a remarkable unbroken artistic tradition over tens of thousands of years.

World rock art is an archive of Indigenous arts and history stretching back tens of thousands of years. Rock art also is a major component of world art history. Rock art sites are special, often spectacular places that reflect ancient experience and are a record of complex knowledge and spiritual beliefs for which there may be no other record. Aspects of ceremony, belief and history are recorded in visual form. They are a testament to thousands of years of Indigenous culture and cultural interaction with other peoples, other creatures and the environment. Sites and images have both tangible and intangible values. But as rock art sites are part of landscapes they are not afforded the protection and respect that art has in galleries and museums.

Throughout the world, rock art is the most important visual record of humanity’s ancient past which, if irretrievably damaged, is lost forever. The visual impact of rock art made thousands of years ago is a powerful reminder of the artistic skills and sophistication of the belief systems of our ancient forebears. In most cases, these beliefs are no longer practiced and the art is the only evidence of their existence. Once it is damaged, it cannot be re-created.

Stories on rock: Rock art has been created to tell stories over the course of the development of modern human species. We may not always be able to retell the stories from the creators of the rock art in the past, but the cultural insights we can still gain from this visual legacy are tremendous. (Photo: Cook Shire Council)



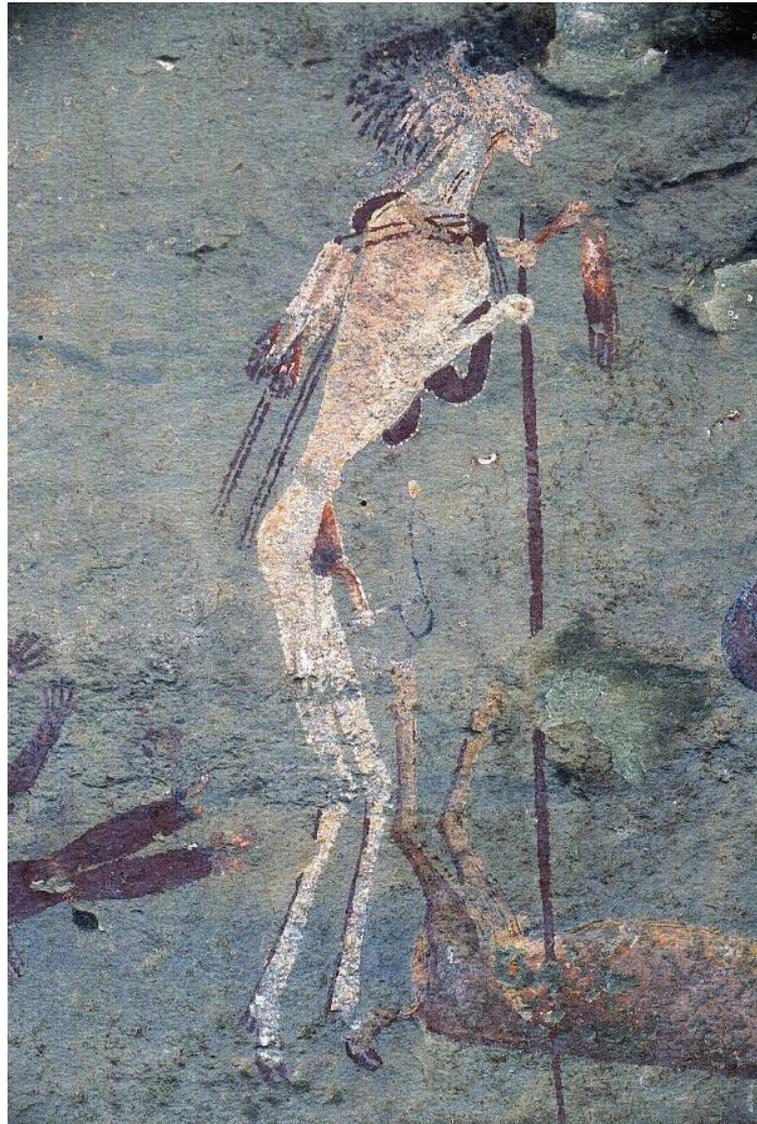
Despite some countries putting effort into research and conservation, all rock art sites are experiencing ongoing and new threats to their survival. Sites are being damaged and destroyed across Australia, southern Africa and many parts of the world at an accelerating and unprecedented rate.

Rock art is in peril because of development pressures, graffiti/vandalism, looting, poor tourist management and a range of natural impacts. In recent times hundreds of sites have been damaged or destroyed. Globalization is having increased effects on the culture of traditional owners, site custodians, and local communities whose ancestors created much of the world's rock art and part of whose living culture it remains. Current conservation methods fail because of a lack of a coordinated approach, lack of cultural context, lack of training, minimal research (most of which was undertaken last century) and ill-informed management responses. Research and action that addresses these issues is necessary if we are to preserve our rock art heritage for the future.

Rock art sites are highly significant for Indigenous peoples and local communities in many parts of the world such as Australia and southern Africa and in Australia there are numerous traditional owner groups. But rock art is also an integral part of our shared human past so it is everyone's responsibility to help ensure rock art sites are available for future generations. It is because of the global cultural and historical significance of rock art, as well as the threats to its survival, that this document has been produced.

In summary, rock art is often of the past – it is, with only a few exceptions, no longer being regularly created as part of cultural traditions. With accumulating loss, year by year, the record is disappearing under the impact of population growth, ongoing development and the degradation of the environments in which rock art is found. Rock art is, moreover, part of the valuable archaeological heritage of cultures past. While we often cannot 'read' the art with assured understanding of its meaning, nor meaningfully grasp the beliefs encoded, it is a visual record that represents cultures in many cases long gone and we can learn much from the marks they have left.

Power from the past: The rock paintings found in the Drakensberg in South Africa and Lesotho are detailed, exquisite renderings testament to the great technical skill of the painters. The images embody many of the beliefs of the San people, including, as in this image, the spiritual transformation of ritual specialists or !gi:ten. The man has an animal head and cloven hoofs instead of feet, similar to those of the dead antelope in front of him. He carries a stick that is used during the trance dance, as well as 'fly whisks' made from the tail of an animal such as a hyena or wildebeest that were believed to ward off negative power. While this image is remarkably well preserved, many are suffering from ongoing deterioration (Photo: South African Rock Art Digital Archive (SARADA), Rock Art Research Institute, University of Witwatersrand)



Background to this document

The Getty Conservation Institute (GCI), based in California, has been an active advocate for advances in conservation practice worldwide. The GCI has had a number of programs over the years specifically directed at improving techniques and approaches for the management and conservation of rock art. With the University of Canberra in Australia in 1989, the GCI ran a Graduate Diploma in Rock Art Conservation with a group of fourteen students selected internationally. The GCI has been involved in a number of international rock art projects, including a major project on cave paintings in the Sierra de San Francisco in Baja California, Mexico from 1994–1996.

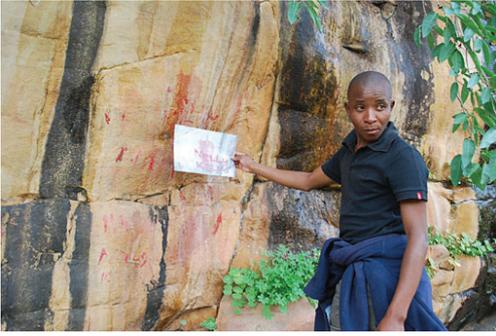
Between 2005 and 2011 the GCI organized annual rock art workshops under the SARAP (Southern African Rock Art Project) banner in South Africa at Mapungubwe and Clanwilliam, in collaboration with various southern African organizations responsible for rock art management and with participants from Tanzania, Malawi, Mozambique, Zambia, Zimbabwe, Botswana, Namibia, Kenya, South Africa and Lesotho.

In 2009, an additional component was added that involved field workshops in Australia in 2012, southern Africa in 2013 and again in Australia in 2014. The idea of this program was to bring together small groups of rock art specialists from countries in southern Africa and Australia, including traditional owners and managers of rock art sites, to discuss problems and challenges to rock art conservation on both continents. The workshops aimed to create a forum to learn from each other and examine work addressing challenges and common problems.

The 2014 Forum, held in Kakadu National Park in the Northern Territory of Australia was intended as the culmination of the learning from the workshops and exchange program and the Getty involvement in rock art conservation practice in both Australia and southern Africa, with input from Argentina as well.

The aim of the Forum was to review the summary experiences of the work to date and focus on forward-looking strategies to address the key issues identified. It brought together an exceptional group of traditional owners, experts and managers directed at achieving these aims. The program included presentations, field inspections, meetings with traditional owners, discussions, and workshopping of key strategies. Participants were tasked with providing key input to the development of a strategic directions paper and to outline practical projects for training and collaboration initiatives.

This document is the result of the 2014 Forum deliberations, including strong input from traditional owners of rock art sites and the participation of the Trust for African Rock Art based in Kenya. All of the collective experience of the work in



Sharing experience:

Participants in GCI workshops in Southern Africa (above left) and Australia (above right) 2006–2012.

Africa and Australia, and the knowledge of those who have participated in a wide range of activities related to rock art across both continents, is reflected here.

It is therefore no accident that this document is well-grounded in both ‘bottom-up’ listening to community and agency perspectives, as well as a thorough knowledge of international best practice in rock art management and conservation. The collective wisdom arises not only out of the experience in southern Africa and Australia but also has worldwide applicability to countries and continents facing similar challenges.

The document sets out a vision for the future as well as providing a distilled set of foundation principles. The main detail of the document sets out what participants identified as the ‘four pillars’ of rock art conservation. This section contains a response to issues that by now have been well documented and considered in the field in both continents. It is hoped that this section can be used to develop programs and influence decision-makers in many forms of practice. The document concludes by providing an aspirational set of actions and initiatives that would make a significant improvement in the way rock art sites are conserved. This is a ‘call to action’ to individuals, groups, organizations and governments to develop new programs and initiatives at whatever level is possible as part of a new movement to safeguard the valuable and vulnerable heritage of rock art.

A vision for the future of rock art

Our inheritance – our responsibility

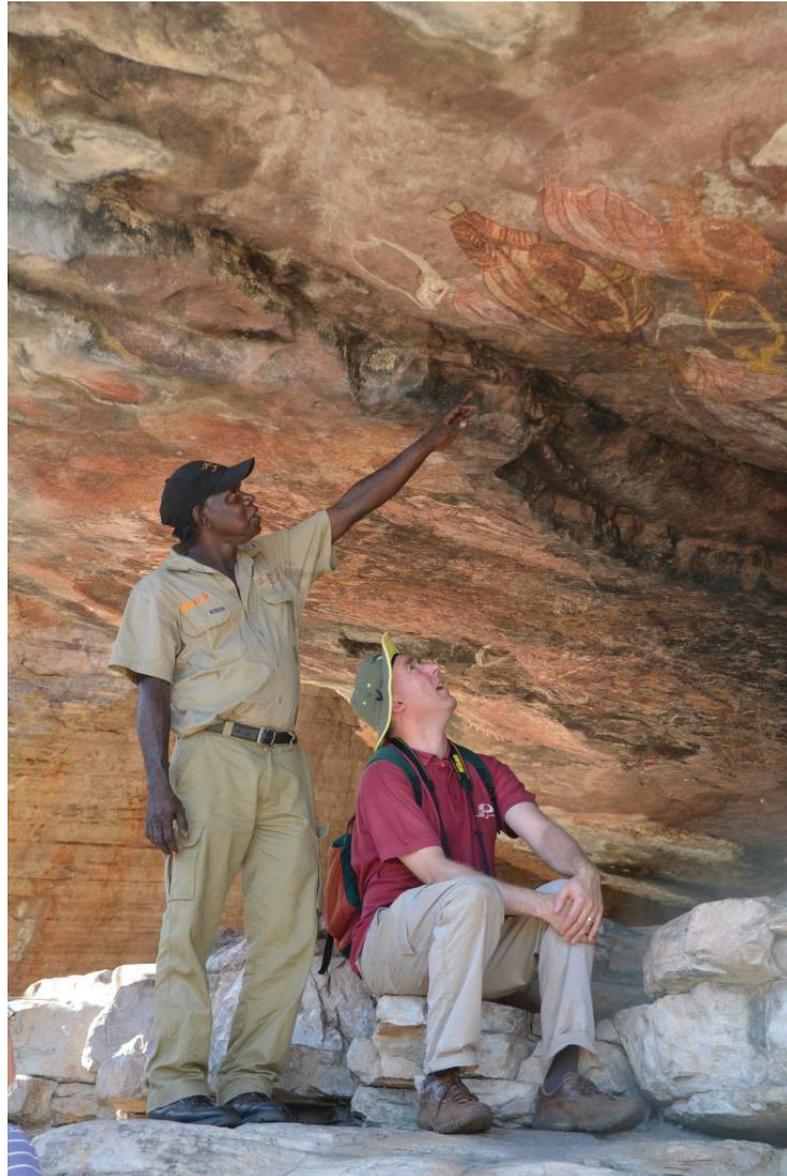
Rock art is a highly valuable, but vulnerable heritage of humankind. We need to cherish and protect this cultural gift from our ancestors by ensuring:

- The values of rock art sites are recognized and celebrated locally, regionally, nationally and internationally;
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- Indigenous peoples, local communities, governments, researchers, heritage professionals and the broader community work closely together to create more effective ways to conserve, manage and benefit from rock art.

Cultural inheritance: Children of traditional owner families are taken on trips back to visit rock art sites in remote country in the Warddeken Indigenous Protected Area in Arnhem Land, Australia. This is part of their cultural education as well as learning how Aboriginal rangers are looking after the country today. (Photo: Courtesy Jenny Hunter)



Working towards the future: Committed and highly experienced rock art owners, local community representatives, researchers and conservation professionals have worked hard to develop this document over many years of field visits and discussions. This on-site discussion between a traditional owner and a rock art researcher on Injalak Hill in Arnhem Land, Australia was the type of collaborative activity that has informed a realistic understanding of the needs of rock art protection and management in different settings and from a range of perspectives. (Photo: Nicholas Hall)



A valuable heritage

Why is rock art important? Why should it be conserved?

Rock art reflects humankind's rich spiritual and cultural heritage

Rock art has great spiritual and social importance to its creators and their descendants. Many paintings and engravings embody spiritual dimensions, portray the spirits of creation, the laws that people live by and the relationship of people to landscapes and environment. Although they may be thousands of years old, paintings and engravings on rock are seen as an important part of the spiritual inheritance and identity of Indigenous people, their descendants and those who are custodians of sites today. The continued existence and conservation of rock art is of crucial importance to recognizing the ancient diversity of cultural traditions of people around the globe and its proper care and recognition is important to the continued viability of these cultures.

A unique record of spiritual traditions: Southern African rock paintings made by ancestors of the San (Bushmen) illustrate different ways in which power is received from the spirit world for healing, rain-making and controlling game animals. We interpret this art with the aid of San ethnography. In this example, the figures that are interpreted as healers wearing cloaks, face their patients and lay hands on them to draw out the arrows of sickness. Above their heads are bows, quivers containing arrows, and tasselled bags containing medicinal plants. The red lines coming from the face of the healer on the far left represent nasal blood that was believed to give the healer additional healing power. (Photo: Janette Deacon)



Rock art is a unique artistic testament embedded in the landscape

Much rock art represents a stunning human artistic achievement which enriches us all and inspires respect, admiration, excitement and awe in those who visit it. The natural landscape setting of rock art enhances its inherent beauty, and rock art in turn brings the landscape to life by deepening its significance.

Art in place: The relief carvings of Birdmen, Tangata Manu, sit atop a cliff on Rapa Nui (Easter Island) overlooking the islets which were a crucial part of the annual Tangata Manu ceremony. The images are intimately tied to their place in the landscape. (Photo: Nicholas Hall)



Rock art is a library in rock

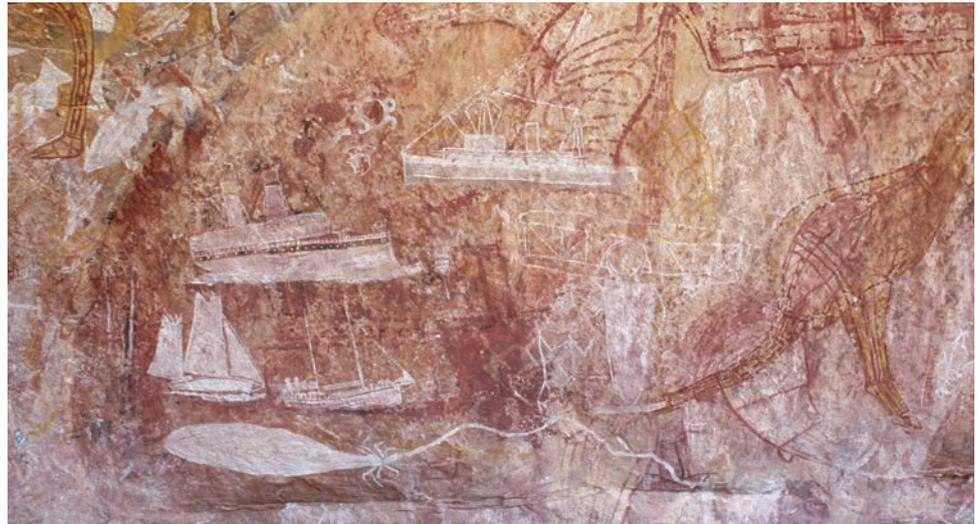
Rock art gives us information about the human past and the richness of human culture which is not available from any other source. It reflects in a very direct way the emergence and flourishing of the human imagination. It provides information about the nexus between human culture and the natural environment. It gives us information about change and development and the varieties of ways in which humans interact with the cosmos and establish their place in it. Rock art of the recent past can give us unique information about the history of a country, region or a group of people.

A record of times past:

Alongside thousands of human hand stencils, the stencil images found in Carnarvon Gorge, Queensland, Australia, contain a remarkable record of the objects once used by Aboriginal people in the area. The sites contain stencils of animal feet that also uniquely show what animals were living in the area and what people may have been catching and eating. (Photo: Nicholas Hall)



History book on stone: At many locations rock art provides insight into the recent contact history of indigenous peoples. One of the most remarkable sites in Australia is Djulirri, in the Wellington Range of northwest Arnhem Land. This site has dozens of contact period images that illustrate encounters between the local Aboriginal communities with Macassans from Southeast Asia and Europeans over hundreds of years. For traditional owner Ronald Lamilami the site, with over three thousand paintings and stencils, is his people's 'library' where their history has been recorded visually. (Photo: Paul Taçon)



Ancient human history: This small painting, found on separate slabs of rock, was unearthed in an excavation in Apollo 11 rock shelter, Namibia in 1969 and 1971. Radiocarbon dating showed the paintings to be around 27,500 years old. This places the southern African painting tradition in the same general time period as the relatively well-dated parietal paintings in France and Spain (32,000 years BP). (Photo: National Museum, Windhoek, Namibia)



Subtle artistic skill: In the interior of South Africa and Namibia are found the so-called 'fine line' tradition of rock engravings, characterized by a high degree of artistic skill in outlining the image of an animal with a single line. They are believed to date up to five thousand years old. These engravings are particularly vulnerable to damage by people who try to 'improve' the outlines or add their own version. (Photo: Janette Deacon)



A vulnerable heritage

Australian and African rock art, like that of most countries, faces a wide range of natural and human threats (Darvill and Fernandes 2014; Gillespie 1983b; Lambert 2007; Loubser 2006; Marshall and Taçon 2014; Rosenfeld 1985; Taçon and Marshall 2014; Mazel 1982; Thorn and Brunet 1995; Whitley 2000; Zhang 2014). Natural threats, such as rock weathering, water damage on surfaces, changes in exposure to sunlight, vegetation, damage by animals such as termites, birds and mud wasps that build nests over rock art panels, and other forces are difficult, if not impossible, to fully protect against.

Rock art was made by people in the past for many reasons, sometimes as an immediate teaching tool and in other cases as a long term mark in the landscape attesting to individual and group relationships to particular places. In active cultural traditions, rock art sites have continued to be used and renewed in order to maintain these relationships, in the process reaffirming people's identity. Changing populations over time and the drastic effects of colonization have meant that the connection of descendant communities to rock art often does not continue or at least is severely disrupted. The practice of making rock art and the cultural renewal of sites through ongoing cultural traditions rarely happens today, making these practices immensely important where they do survive.

Indigenous people, local communities and researchers in Australia, Africa and many other parts of the world are very concerned about rock art sites and how best to deal with the deterioration of sites that they observe. Natural causes of deterioration such as ongoing rock weathering, water, and biological growth can be difficult to control in the natural setting where rock art sites are found, but the impacts brought on by humans are something that can be directly addressed. There is particular concern about impacts such as economic development, feral animals, road dust, looting, graffiti and vandalism which seem to be increasing at a rapid pace (Marshall and Taçon 2014). Although in most places legislation is in place making it an offence to damage or disturb a rock art site, legislation on its own has not stopped a rise in direct damage to sites from human activity. Human-related impacts often need to be controlled through a range of management strategies that have to be implemented in collaboration with others over time and with conviction. Help to develop and implement management strategies is often lacking.

Rock art is particularly under threat where there is a local, regional or national push for economic development, especially mining, water supply, agriculture or tourism, all of which will have impacts on landscapes and cultural heritage more generally. Similarly, urban and industrial development has also long impacted on rock art sites and continues at a quickening pace. These are common concerns threatening rock art in Australia, Africa and in many other places around the world.

Another major threat to rock art in many regions is a lack of concern from local, regional and national governments. Unlike threatened flora and fauna, vulnerable rock art is rarely seen as a priority. Furthermore, rock art conservation and management has often developed in a somewhat reactionary way with methods and techniques often changing as a result of the emergence of issues affecting sites. These include:

- the arrival of unexpected visitors to sites (including tourists, not from authorized sources, who are now exploring and searching for sites with GPS locations shared online);
- the identification and assessment of conservation issues relating to natural impacts and the subsequent development of techniques to deal with them; and
- the identification, assessment and emergence of mitigation strategies for human impacts (from mining, road creation and industrial development to tourism and the ability to manage numbers so as to minimize impact on sites) (Marshall and Taçon 2014; Zarandona 2011).

Natural weathering: Rock art is found on natural rock surfaces which continue to weather and deteriorate. The loss of some rock art over time is inevitable, however what is important is that we are caring for as many sites as we can and are documenting as much as possible as a record for future generations. (Photo: Nicholas Hall)



Dust: Many rock art sites, like this one at Laura in north Queensland, Australia, suffer from airborne dust settling on the surface. Over time dust particles can become bonded to the surface obscuring the art. Dust can be a natural phenomenon, but dust from roads, mines and foot traffic can cause additional damage to rock art sites. (Photo: Nicholas Hall)



Water: Water running over the rock surface, and moving within the rock is one of the main natural agents of rock art deterioration. In some areas, silicone driplines have been used to divert water away from paintings, such as this example at Mt Grenfell in New South Wales, Australia. Driplines however can disrupt the natural ecology of a rock surface and can increase other problems of rock weathering and make the surface more attractive to insects and birds who can build nests of mud over the art. Generally, the benefits of their use have to be carefully evaluated prior to installing and they have to be maintained to remain effective. (Photo: Ian Garling)

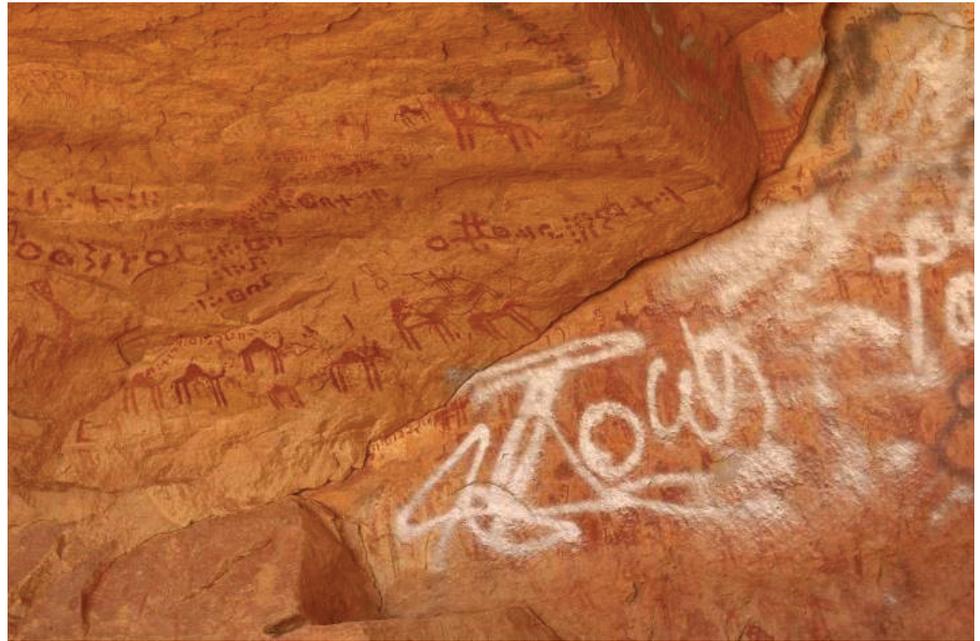


Damage that can't be undone:

At Kisii, Kenya, petroglyphs are found on soapstone which is highly prized as a local resource for carving. Unfortunately quarrying of the stone for local artisan and industrial use has destroyed significant parts of the rock art sites there. Resource extraction is a threat to rock art in many countries, particularly where rock art sites have not been officially recorded. (Photo: Trust for African Rock Art)



Graffiti: Unfortunately graffiti is a problem at rock art sites in many parts of the world. It does not just affect sites close to urban areas, but can also be found in remote places as well. This site in Libya was vandalized in 2009 reportedly by a former Libyan employee of a foreign tour company who sprayed over several paintings in anger after he had been fired. In some cases unsupervised children and youth from communities living near rock art sites have been responsible for graffiti where the awareness of the value of rock art is low. (Photo: Reuters)



Then and now: At Painted Rock on the Corrizo Plain of California, rock art panels of the Chumash people have been heavily damaged by graffiti, people removing the painted surface, chalking over the designs and shooting at the paintings. The top photo shows the main panel at the site in 1929 and below the same panel in 2014. Unfortunately, human damage to rock art at many sites continues today. The Getty Conservation Institute was involved in a project undertaken in conjunction with Chumash representatives and the Bureau of Land Management to restore panels suffering from decades of accumulated graffiti. (Photos: David Stillman)



The experience in Australia and southern Africa is that there is a lack of concerted approaches to rock art conservation. There has been little funding dedicated to the problem, an absence of training available for rock art conservation and management, and a failure to review and monitor past conservation efforts or existing rock art sites open to tourist access. There has been a lack of government leadership to demonstrate what good quality management should look like that includes a strong cultural context and interpretation and a proactive response to sustainable development in areas where there is a rich rock art heritage.

Rock art is vulnerable to natural impacts and human-related impacts in the following ways:

Natural impacts	Human-related impacts
<p>Rock weathering: Collapse of rock surfaces containing rock art, deterioration of stone through cracking, exfoliation and weakening of internal stone structure.</p>	<p>Impacts from economic development: Including mining, water supply, roads, housing and industry directly destroying sites and causing indirect impacts from associated activities.</p>
<p>Water: The main agent in rock weathering causing damaging wetting and drying cycles, affecting salt composition of stone, direct stone erosion and pigment loss from water flow as well as humidity affecting microclimate in closed caves.</p>	<p>Graffiti, vandalism, looting and theft: Direct damage to rock art and rock surfaces at sites from graffiti produced by tourists or unsupervised local community members particularly children, attempted removal of rock art panels and actual theft of rock art panels and other cultural material (such as artefacts or skeletal material) from rock art sites.</p>
<p>Dust and mineral accretions: Dust particles settling on and bonding with rock surface obscuring rock art, salt deposits and other mineral deposits which can obscure art.</p>	<p>Other visitor impacts: Stone and deposit erosion from foot traffic, dust from foot and vehicle movement, people accessing areas not suitable for visitors, rubbish, crowding, noise pollution, poorly planned and placed visitor access and infrastructure.</p>
<p>Vegetation growth: Trees, shrubs and vines growing on or near rock surfaces causing root damage, rubbing surfaces and creating increased fuel for fires and lichen and algae growing on rocks.</p>	<p>Damage from feral and domestic animals and plants: Animals such as cattle, pigs and goats causing direct impact on rock art surfaces and archaeological deposits, weed invasion into rock art sites, including weeds introduced by foot and vehicle traffic. Weeds, especially grasses, causing increased risk of damage from fire.</p>
<p>Animal impacts: Insects (such as termites and wasps) and birds building mud nests and mammals living in, digging at and rubbing against rock art.</p>	<p>Social impacts on rock art custodians: Lack of recognition of traditional custodial roles, traditional cultural activity being discouraged or displaced, interpretation which misrepresents cultural information and connections, misuse of indigenous intellectual property.</p>
<p>Major environmental events: Damage to rock art sites from fire, flood, storms and earthquakes, including increased risk of these events associated with changes in climate.</p>	<p>Poorly undertaken research, site protection and conservation: Unauthorized research activities or excavation, poor documentation (of on-site activities, locations and methods used), poor quality attempts at site protection and graffiti removal and inappropriate materials used (such as concrete).</p>

Foundation principles for protecting and preserving rock art

The following principles provide the foundations for good practice in rock art protection and preservation programs and projects:

Principle 1 Work actively to promote rock art as a valuable heritage for everyone, and allocate sufficient resources specifically to its future care

Concerted advocacy is required to increase awareness of the importance of rock art and the need for its conservation within local communities, governments and amongst decision-makers. Creating a clear and persuasive case will help ensure resources are made available to protect rock art and allow the community to continue to appreciate and enjoy this important part of cultural heritage.

Protecting what is valuable:

Many rock art sites have a wide range of values. Eagles Reach, in Wollemi National Park, New South Wales, Australia, for instance, has several. It is very important to the Aboriginal people of southeast Australia because there is a rare drawing of the Eagle Ancestor and many other important mythical beings and animals of the region. It is an aesthetically powerful site that also has great scientific value because of the range of rare imagery and excellent preservation. It has great spiritual and historic values and also sits in a remarkable but rugged landscape context. Because of this, tourism will not be developed for Eagles Reach and its exact location is protected. However, the Aboriginal community has granted virtual access through publications, media reports and web sites (Photo: Paul Taçon)



Principle 2 Manage to protect all values

Rock art has a rich range of cultural values for different people. It has social and spiritual value relevant to traditional owners, site custodians, and /or local communities. It has aesthetic value to a wide range of people in the community. It has historic and information value, with the ability to give researchers and the community important information about the human past, and the natural environment. Efforts to conserve rock art in the past have often focused on the protection of a particular value, leading to neglect of other values, or in some cases their diminution.

Protection of the intangible heritage associated with rock art sites (such as stories, songs, dances and cultural practices) needs to receive adequate attention alongside the protection of sites themselves. All the values of a rock art site need to be identified and incorporated into management programs, and any conflict between them resolved.



Proud to share the heritage of rock art: Working in Kakadu National Park, Manbiyarra Nyayinggul has traditional responsibilities to look after rock art sites in the area of his clan. He also works as a guide to interpret sites to the public. (Photo: Kakadu National Park)

Principle 3 Preserve and manage rock art as an inherent part of landscape

All rock art sites exist in and form an integral part of the wider landscape. This landscape is inseparable from the essential meaning and value of the art. Rock art sites need to be conserved and managed within their landscape, and conservation of the associated landscape itself is essential for the conservation of the site.

Principle 4 Safeguard cultural rights and practices

Rock art sites usually have particular meanings, associations and cultural practices for traditional owners, site custodians and local communities. These often constitute a traditional management system which is the best safeguard for the site and greatly enhances its value and meaning (Ndoro 2006). These traditional management systems and the recognition of the intangible heritage associated with rock art sites have sometimes been neglected in the past.

Traditional owners, site custodians and local communities may have responsibilities for rock art sites that include regulating access to and use of the images and knowledge associated with rock art. The intellectual and cultural property rights to rock art, the role of cultural practices and customs and the operation of traditional management systems all need to be recognized and actively supported.

Principle 5 Involve and empower Indigenous owners and local communities in decisions about rock art management and conservation

Government professionals and decision-makers have an important role to play in the conserving of heritage such as rock art but, essentially, the ongoing care and concern of relevant traditional owners, site custodians, and local communities is critical for ensuring proper respect for rock art and its long-term conservation.

Changing behavior through awareness: Rock engravings on private farms in southern Africa have been permanently damaged over the past century or more by visitors. The scratches over the human figures on this rock were already there when the rock was photographed in the first decade of the twentieth century. With increased awareness of the value of the rock art, this type of destruction has been supplanted by names and dates. Fortunately, most of the recent graffiti is confined to boulders without ancient rock engravings, but vigilance is needed to reduce the impact of this type of vandalism. (Photo: Janette Deacon)



Principle 6 Use recognized ethics, protocols and standards for documentation, conservation and interpretation as the basis for management practice

Rock art deserves the highest standards of care and curation, in accordance with established best practice. Undervaluing of rock art, lack of resources and lack of awareness of practice elsewhere sometimes results in to poor quality conservation outcomes.

The Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter) is a principal guiding document for conservation practice that is a useful benchmark for how work at rock art sites can be undertaken.

Principle 7 Give priority to preventive and protective conservation

Preventive and protective conservation measures should always be attended to before and in preference to works which result in a lasting physical change to a site. In many cases, simple preventive and protective measures (such as low-key and low-impact maintenance for fire protection and feral animal and insect pest control, monitoring for and then modifying visitor behavior and effective interpretation) can prevent damage to rock art and will minimise the necessity for other more risky, costly and permanent interventions at a later date.

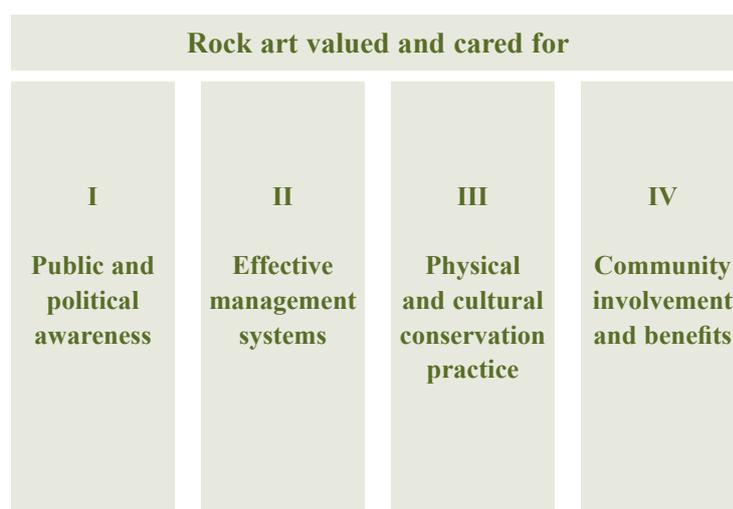
Principle 8 Make effective communication and collaboration a central part of management

To ensure long term care and appreciation of rock art, it is important to develop a sense of collaboration with stakeholders, to communicate all the values which rock art has, and to devise means for ongoing collaboration and communication such as working groups, advisory groups or forums.

The four pillars of rock art conservation policy and practice

The foundation principles lead to the four ‘pillars’ which make for strong rock art conservation in practice. This section of the document sets out these four important areas of practice, citing a vision for what each aims to achieve, a summary of the key issues for each, a set of principles to guide practice at a more specific level and an outline of what needs to be done to improve policy and practice.

The four pillars of rock art conservation policy and practice are:



PILLAR I: PUBLIC AND POLITICAL AWARENESS

This pillar of rock art conservation covers the need to raise awareness about the significance of rock art, the range and severity of threats to it and the need for effective responses to these threats. Public and political awareness of rock art is vital for successful planning and budgeting for conservation and management.

Vision

The vision is to have:

- rock art widely valued as a unique cultural treasure and recognized as an integral part of cultural identities and a unifying global inheritance that links humanity to our environment;
- rock art recognized and understood by decision-makers to be a diminishing and threatened treasure that requires on-going commitment and responsibility from all levels of government to protect and maintain it; and
- an informed and educated public that is concerned, engaged, and involved with rock art, and is willing to promote awareness of it and the threats it faces.

Issues

A range of issues and concerns affects the awareness of rock art and its protection needs:

- Although rock art is an immensely valuable cultural asset it is often not understood, respected or valued by the general public. There is a poor level of support for its recognition, conservation, protection and celebration from governments, decision makers and the general community, compared with support for other types of cultural heritage;
- Damage to sites and lack of respect for and appreciation of them is often the result of ignorance or in some cases racism. This is the result of a lack of education and good interpretation;
- Rock art has numerous and diverse cultural values and it is an integral part of the landscape in which it exists. The variety of values and this essential integration with the landscape are not always appreciated and articulated in conservation and interpretation strategies; and
- Attempts to reach a wider public through museums, exhibitions, books, tourism products, radio interviews and websites have not yet significantly raised public awareness.

Principles for practice

The following principles should be used to guide public and political awareness programs:

Build respect by encouraging understanding

Rock art is not always respected and efforts need to be made to build respect through developing understanding in a way that is targeted and relevant to the groups that need to be reached. Understanding is in turn encouraged by providing high quality information about the cultural significance of rock art. Information about the legal protection for rock art will also assist to build recognition that sites are valuable, hopefully encouraging more respectful behavior.

Build awareness in people that matter

Awareness programs should strive to open new ways to educate and engage the general public, but especially the younger generation and politicians. Links between groups interested in rock art and those that have responsibilities to protect it should be encouraged and supported.

Integrate values

The significance of rock art relates to the content depicted and the cultural context in which the art was made. It also relates to the natural environment in which the art is found. Raising awareness should emphasise the need to safeguard both rock art sites and their setting.

Involve

The views of cultural custodians (whether traditional owners, traditional groups or local communities) should be included in rock art awareness strategies that may affect their rock art.

Generate support

Public and political awareness activities should seek support from potential partners, collaborators and enablers, including encouraging both private sector and government financial support.

Ensure representation with integrity

Awareness programs should portray rock art sites not only as open air museums but also recognize their contemporary cultural values. All partners and collaborators disseminating information about rock art to the public should be aware of agreed standards for ethical practices, intellectual copyright and protocols for best practice in rock art presentation and marketing.

Involve: In 2007, the Western Cape Branch of the South African Archaeological Society invited about thirty members to volunteer their services for the eastern Cederberg Rock Art Group (eCRAG). Farm owners offered free accommodation to members in return for a record of sites and a management plan for the rock art on their property. In the last seven years, the number of sites for the eastern Cederberg and adjoining areas in the official SAHRIS database has increased from twenty-five to over 400, and seven management plans have been completed, printed and delivered to the property owners. Over time, volunteers have become skilled in identifying sites, assessing their value and contributing to knowledge about the quality and quantity of rock art in the region. In addition to site recording, the volunteers have assisted with graffiti removal, for example in this rock shelter in the Cederberg Wilderness, one of the provincial nature reserves included in the Cape Floral Region World Heritage Site. In the photo at top, volunteers have been trained by experts to use a rolling poultice technique to carefully remove charcoal graffiti (Photo: Janette Deacon)

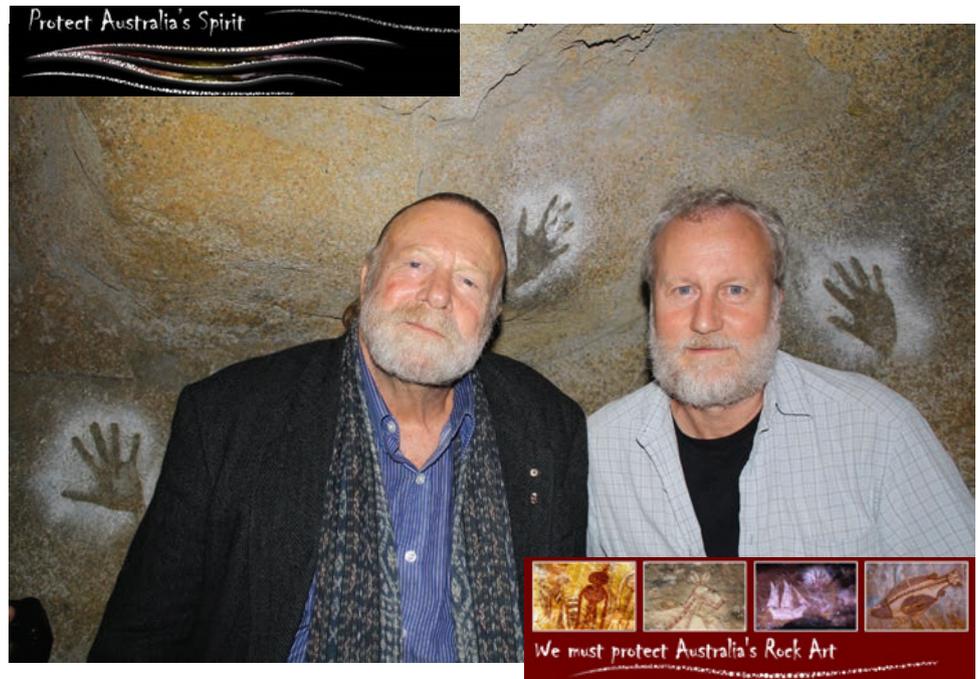


What needs to be done

Targeted education and advocacy programs

1. Raise levels of stakeholder and public understanding by developing education and advocacy campaigns through appropriate media which are carefully designed to reach the target groups. Considerations for developing these programs include:
 - Concentrate programs on young people, those with political power or cultural influence and those living in close proximity to rock art sites;
 - Include information about the global significance of rock art as an ancient expression of culture and beliefs, and as a valuable and vulnerable resource. Portray rock art as equal in value to other major art traditions of the world;
 - Promote public recognition of the living connections between sites, local communities and traditional ownership that enrich the understanding and value of rock art;
 - Increase awareness regarding the legal and ethical responsibility of government and land owners towards rock art protection and conservation;
 - Ensure that media strategies designed for rock art promotion present an integrated and complete picture of the values of rock art;
 - Collaborate with traditional owners and neighboring communities to record, share and raise awareness of the issues and needs of rock art conservation at a local level.

Public campaigns: On May 30, 2011, Griffith University's Professor Paul Taçon (right) launched the Protect Australia's Spirit campaign with well-known Australian actor Jack Thompson (left). The project has two objectives: first to raise awareness about the importance of and threats to Australia's unique rock art through an extensive media campaign; and secondly to encourage financial support from philanthropists, business leaders and government to help establish and implement Australia's first national rock art strategy in collaboration with Indigenous communities. (Photo: Ross Woodward)
www.protectaustraliasspirit.com.au



Communicate and collaborate

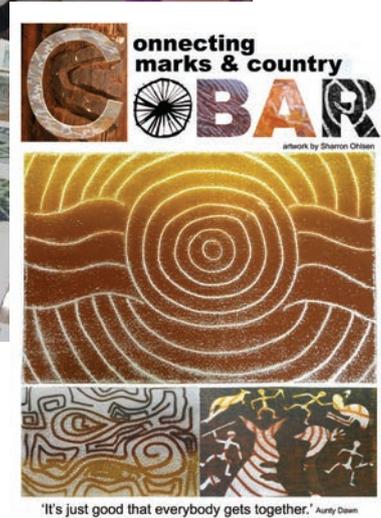
2. Develop communication strategies to improve outcomes and if necessary, develop a coordinated media and marketing campaign that includes radio, TV, print media, traditional and social media, and an interactive website.
3. Develop partnerships with and involvement of different sectors of society to allow powerful links between traditional owners, descendants of the artists, neighboring communities, researchers, managers, government departments, tourism bodies, non-government organizations and potential funders and combine and pool resources for wider public awareness of the value and vulnerability of rock art.
4. Collaborate specifically with local communities and direct a fair proportion of any income generated from awareness-raising, funding and promotion activities to communities to use in conservation and management activities. In conjunction with the community, develop protocols for ethical practices, intellectual copyright and protocols relating to presentation and marketing.

Develop innovative awareness-raising activities

5. Increase awareness of the existence of rock art and its importance by engaging suitable audiences in particular activities. Options include:
 - Raising international awareness by approaching appropriate global organizations to declare an International Rock Art Day with associated festivals and activities;
 - Develop a rock art community festival and fund-raising activity that can be held simultaneously across the world;
 - Encourage rock art managers, researchers and NGOs (non-governmental organizations) to engage with their local politicians, ministers and officials (local, state, provincial, national) to raise awareness of rock art values, needs and threats;
 - Approach major high profile businesses to raise funds for an NGO that will support initiatives for rock art protection as a part of their community engagement;
 - Invite famous people, well-respected experts in rock art, artists, politicians, sport stars and celebrities to be patrons or champions for international and national rock art;
 - Encourage volunteer members of the public and traditional owners to become actively involved in rock art conservation and management so that they are fully aware of the rock art in their area;
 - Encourage professional and academic meetings to include rock art presentations on conservation and management;
 - h. Develop connections between contemporary artists' organizations and rock art that could lead to joint exhibitions and projects;
 - i. Encourage Indigenous communities to participate in special activities relating to rock art as part of their cultural celebrations;
 - j. Encourage the use of performance (theatre, dance, etc.) to tell the story of rock art as well as those stories encapsulated in rock art, including government-sponsored events, and approach festival organizers to include rock art in their themes; and
 - k. Develop and promote museum and art gallery based exhibitions as well as portable and travelling exhibitions of rock art.

Utilizing rock art heritage:

In 2009, a creative project was developed in New South Wales, Australia by Outback Arts Incorporated called 'Connecting Marks & Country'. The project involved artists spending four weeks each in a number of country towns. Participants were introduced to images from archives of local rock art and other traditional forms of artistic expression relevant to the specific location. The workshop program helped descendants of local Aboriginal people to connect to their cultural traditions and become familiar with examples of local art from the past that many were unaware of. Artworks were created which celebrated these new found connections. (Photos courtesy of Outback Arts Inc.)

**Taking rock art to a wider**

public: Rock art does not normally belong in museums, however sometimes painted or engraved stones that have been collected in the past are a part of museum collections. This practice is no longer permitted, but the Iziko South African Museum in Cape Town has a number of very significant stones collected in the early twentieth century, including one containing the image that was chosen to be on the new South African Coat of Arms. In 2001, these stones were included in a new permanent exhibition of southern African rock art called 'YQe: The Power of Rock Art'. The name was chosen by a group of elders who still spoke a Bushman language. At the entrance to the exhibition is a video loop showing San descendants talking about what rock art means to them. The spiritual significance of the rock art is emphasized by the continuous screening of a San healing dance in a film made in the 1990s. (Photos: Nicholas Hall)



PILLAR II: EFFECTIVE MANAGEMENT SYSTEMS

This pillar of rock art conservation outlines the components that are required for effective programs to manage rock art sites and groups of rock art sites in landscapes. Systems are required to manage rock art sites that include attention to components such as significance assessment, identification of issues and threats, and the development of strategies for long-term conservation, including the recording, monitoring and maintenance of rock art sites, as well as the capable human resources necessary to look after them.

Vision:

The vision is to have:

- Support for traditional methods of managing rock art to ensure ongoing cultural practices and protocols are recognized, respected and maintained;
- Recognition of rock art as a valuable cultural asset by management authorities and other organizations that can support management programs;
- Human and financial resources budgeted for and allocated to develop and implement rock art management programs to enable such programs to be sustainable over the long term in the same way as similar programs are in place for management of natural resources;
- Comprehensive identification of the human interests associated with rock art sites, commencing with traditional owners and local communities and extending to others with various clarified interests;
- Management programs including ongoing recording programs to locate, identify and document rock art sites, their cultural significance and management needs;
- Mechanisms for monitoring and maintenance of sites included in all management systems;
- Conservation management plans in place for all major rock art sites and complexes prior to decisions being made about development, intervention or public display;
- Training programs for traditional owners, local communities and site managers to enable best practice conservation and management approaches to be implemented and to encourage western and non-western conservation methods to work in harmony;
- Communication between different people and groups involved in site management which is ongoing, respectful and effective in resolving issues and finding solutions; and
- Comprehensive management programs which can be evaluated for their effectiveness in conserving and caring for all aspects of the cultural significance of rock art sites.

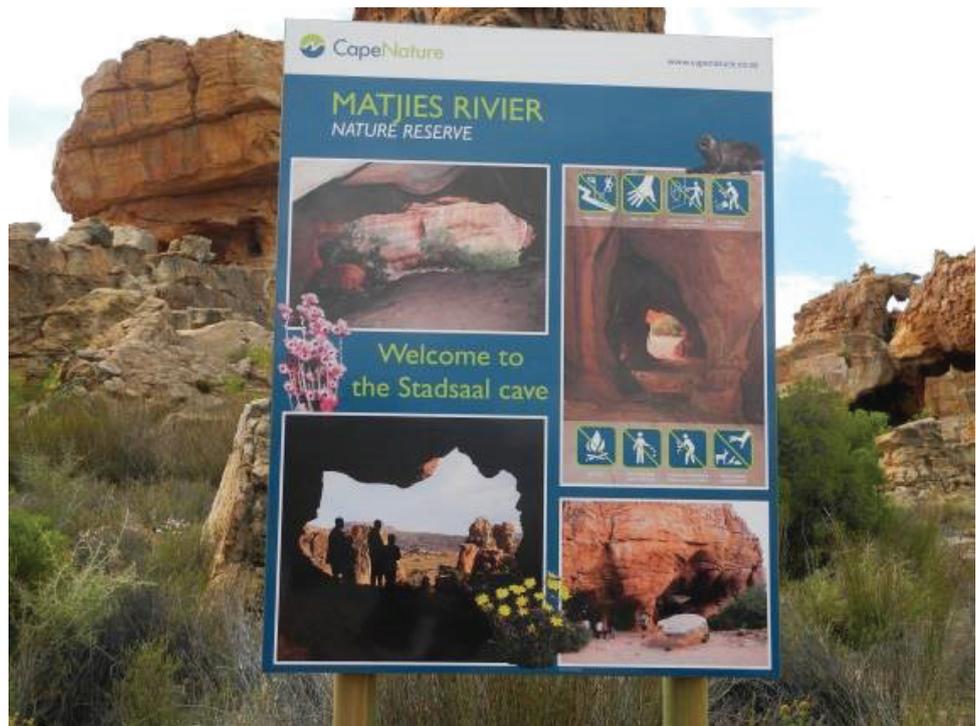
Issues

A range of issues and concerns currently impede the development of effective rock art management systems:

- Much rock art around the world remains unknown, unrecorded or very poorly recorded;
- Traditional management systems which see rock art as an integral aspect of traditional culture are under threat and there is often a lack of integration between traditional management practices and western management systems, causing misunderstanding and damage both to communities and to rock art;

Re-appraising management:

CapeNature is a land management agency that looks after nature reserves in the Western Cape of South Africa. The Cederberg mountains contain a wealth of rock art sites, including Stadsaal Cave with its well-known elephant paintings. Over many years, and with minimal resources, CapeNature has worked to reduce uncontrolled visitors, minimize graffiti and present the site more effectively. Visitors are now required to obtain a permit to visit the site which provides a code to a padlock on a gate. (Photo: Rika du Plessis)



- Traditional owners and local communities are sometimes excluded from heritage management planning and decision making relating to their sites and traditional and local communities often do not have the skill, resources, assistance or legislative support to effectively manage their rock art or to display and celebrate it if that is their wish;
- Rock art sites located within reserves and protected areas have the best chance in the long-term of being preserved in their natural setting, to be interpreted as part of a landscape and to benefit from an existing legal protection framework. Yet rock art sites in reserves and protected areas are often undervalued and their management needs often not adequately represented in programs which focus by and large on the conservation of natural values or where there is inadequate integration of natural and cultural values in management. More specifically, land managers sometimes lack understanding of rock art management principles and practices and need training and skills development;
- Many areas containing rock art lie outside reserves and protected areas and there may be no management agency responsible for their care. In both developed and developing countries, there is often a lack of mechanisms to support traditional owners, local communities or even government agencies to develop and oversee rock art management activities;
- Documentation and data storage systems for information about rock art sites are often ad hoc, insecure, are not designed according to suitable data management standards and lack culturally-appropriate access protocols;
- There is a lack of benchmark methods and standards for management programs that can be applied internationally and used as the basis for training programs and developing local management systems;

- There is a lack of research programs aimed at improving practice in rock art management, particularly issues relating to visitor management and human behavior, including the ongoing community use of sites. Qualitative and quantitative social science research is particularly needed into the prevalence of graffiti and the effectiveness of related management control strategies. Rock art sites are often the focus of visitor interest and economic activity which means they can have very complex physical and social issues that can be difficult to manage. The special needs of such rock art sites require careful planning and specialist assistance from social scientists as well as physical scientists, yet resources are often not allocated to prepare management or conservation plans;
- Due to the lack of development of more effective rock art management standards and methods at a national and international level, rock art managers are often isolated and have to operate without access to advice, support and mentoring; and
- There is a lack of national and international organizations that champion the need for rock art management and conservation, or provide training to support the development of skilled practitioners to assist traditional owners, local communities and management agencies.

Thoughtful site management and development:

Buildings at the Twyfelfontein rock art World Heritage Site in Namibia have been designed to leave the smallest footprint possible. No cement or concrete has been used. Walls are constructed from gabions (wire baskets filled with stones) and the roofing is made from recycled steel drums. Solar power is used for computers and lighting. Gabions have also been used for paths and seating along the guided route. Elevated platforms enable visitors to look down on rock engravings without standing on the surrounding rocks. (Photos: Janette Deacon)



Principles for practice

The following principles should be used to guide the development of management systems and programs for rock art sites:

Manage to protect all values

The aim of any management system for a rock art site or site complex is to conserve all the cultural values of the site or area in an integrated way and in the long-term. The success of a management program can be judged by the extent to which this is achieved.

Recognize and respect traditional management methods

Traditional owners, site custodians and local communities may have particular meanings, associations and cultural practices for rock art sites that constitute a traditional management system. Such management systems should be recognized and supported. Management programs should maintain, facilitate and celebrate stories, songs, dance, ceremonies and other cultural practices that may be an essential part of conservation. Management may need to create dialogue about conservation options in a way which supports the roles of site custodians.

Manage sites in their landscape setting

All rock art sites exist in a cultural and landscape context, the conservation of which is essential to the sites' value and significance.

Ensure that the necessary range of skills, and associated research is part of the management process

The management of rock art sites encompasses a range of skills and expertise. People skilled in customary management systems, land managers, archaeologists, conservators, and behavioral scientists skilled in visitor behavior research may all have a place in the management of a particular site, and sound research by experts should precede management action.

Recognize relationships of people to places

Management of rock art sites requires recognition of the roles and responsibilities and associations various people and groups of people have for and with places. These may include relationships to specific sites or the landscapes in which they are located. Learning about, acknowledging and respecting these relationships is important, as are mechanisms to involve different stakeholders in management and to resolve differences of opinion.

Document sites according to recognized standards and protocols

Documentation of rock art sites should be undertaken with reference to recognized national and international standards for recording, storing and accessing data on sites. Digital archives must include appropriate access protocols and arrangements for traditional owners and site custodians.

Document management programs in the form of a management plan

A plan should be produced which presents the rationale for decision-making which clarifies management responsibilities and the resources required. It also should assist in scheduling activities. A management plan should be developed and presented in a way that is appropriate to the key people involved in site management. It should be a living document that can be changed as situations change.

Training a management team:

Uluru – Kata Tjuta National Park, is included on the World Heritage List as a cultural landscape. Over a period of more than ten years, the National Park, has developed a rock art management program including a database to document sites and record monitoring and conservation information. Over time there has needed to be a sequence of training programs to keep a skilled team operating as staff change and younger Anangu (local Aboriginal people) start working in the National Park. (Photo: Nicholas Hall)

*Record management actions as part of a site's history*

The management and conservation work undertaken at sites should be documented as part of the site's history. Records of archaeological work, site visits, site assessments, conservation work and maintenance activities should be stored in a central location under suitable archival conditions.

Monitor for changes in site conditions

Monitoring of rock art sites is necessary to detect changes that may warrant a management response. Monitoring can be general (inspecting a range of conditions at a site) or specific (monitoring for measurable change in a feature or characteristic). Monitoring should be purposeful, repeatable and appropriate to the resources and skills of the people undertaking site monitoring activities.

Provide public access sites with a heightened level of management attention

Sites at risk from damage resulting in direct or indirect impacts from visitors should be monitored with greater frequency than other sites. Monitoring should include a means of recording or establishing the number of people visiting a site over time and specific monitoring for graffiti and other impacts such as erosion. Any impacts on the cultural use of sites by traditional owners or the local community should also be monitored.

Practice regular maintenance to keep a site healthy

If a site is obviously cared for by the people responsible for its management, visitors are more likely to treat it with respect. Regular maintenance can involve activities such as removing weeds, controlling erosion, removing rubbish, repairing infrastructure as well as keeping signs clean and in good condition. Natural impacts such as vegetation growth, insect and animal damage can also be treated in a program of regular maintenance if carefully undertaken. Traditional cultural activities can also be a part of a program, such as maintaining songs or stories associated with places.

Technology assisting

monitoring: Technology changes and new methods of capturing, presenting and storing valuable rock art data are always becoming available. The University of KwaZulu-Natal (UKZN) in conjunction with Amafa, the KwaZulu-Natal provincial heritage resources authority in South Africa are using state-of-the-art technology to create the first digitized archive of every known San rock art site in the Drakensberg mountains. This is done using digital photography, 360° digital video, GPS plotting of each site, and GIS mapping. All known sites (some not visited since the 1970s) are being re-documented with Amafa Heritage rangers and their condition re-assessed, to provide an accurate and up-to-date archive. (Photo: Amafa)

**What needs to be done**

Develop an international best practice management model

1. To address a lack of resources for and consistency in conservation and management methodology, there is a need to develop an international best practice model for rock art management. A specific international project should be established to develop a baseline methodology that provides guidelines on components for effective management programs of rock art sites. The model should be based around the following key components:
 - Identify and recognise interested and affected stakeholders;
 - Collect and review knowledge and documented information about sites;
 - Research and document the cultural significance of sites and their landscape setting;
 - Research, analyze and assess the physical condition of the site, its social and management context as well as threats to the natural and cultural values;
 - Identify opportunities for enhancing the site's values and interpretation;
 - Develop objectives, strategies and action plans which protect the values and address the identified issues;
 - Develop a management program including actions with responsibilities and timeframes;
 - Monitor progress on implementing management plans and report on progress to others;
 - Evaluate the program at key stages and revise as necessary.

Demonstrate best practice management approaches

2. The application of best practice management approaches should be illustrated through a selection of international demonstration sites reflecting a range of management contexts. Details of the implementation of management methods at these demonstration sites should be documented and made available as a learning resource.

Database to assist effective management:

Kakadu National Park holds one of the world's greatest concentrations of rock art. Over five thousand sites have been recorded and it is thought there could be 10–15,000 art sites in total. The park has developed a database that acts as an archive of recordings, but is also a work-planning and recording tool and stores information on condition, conservation works and traditional cultural knowledge associated with the site. The work of entering and up-keeping data is large, but the database provides a tool to better manage priorities and make information more accessible to field staff. (Photo: Nicholas Hall)



Encourage, sponsor and develop appropriate research programs aimed at better management of rock art

3. The effective management of rock art sites will need long-term investigation in a range of disciplines and considerable cross-disciplinary efforts. Research programs should be fostered by national and international research institutes through individual and collaborative activities.
4. A collective focus on research program progress as well as attention to gaps and priorities should be achieved through appropriate research network opportunities and national and international forums such as meetings and conferences.

Promote and seek adoption of best practice approaches

5. Examples of best practice illustrating a range of management approaches, programs and responses should be promoted through online resource facilities to be a resource for communities, managers, teachers and researchers.
6. The best practice management model should be presented at appropriate international forums and adoption sought from agencies and organizations at international, national, regional and local levels.

Provide training in rock art site management

7. A basic course in rock art management reflecting a core curriculum of the best practice management model needs to be made available in countries with a significant rock art heritage.
8. The curriculum of courses for rock art management developed in different parts of the world should be shared through a web resource to help managers source or design better training programs.

Building local capacity

and awareness: The African Conservation Trust (ACT) has been working in the Mnweni and Amazizi areas of KwaZulu-Natal in South Africa in conjunction with the provincial heritage authority Amafa to train local groups to monitor the rock art and conduct cultural heritage awareness programs in sixteen local schools. Two rock art monitoring groups, each consisting of ten people, have been trained in the monitoring of rock art sites. The rock art monitoring groups have monitored 128 sites and documented twenty previously unrecorded sites. The same groups have been trained to conduct the cultural heritage programs in local schools. (Photos: African Conservation Trust)



PILLAR III: PHYSICAL AND CULTURAL CONSERVATION PRACTICE

This pillar of rock art conservation covers the detailed work undertaken at and for rock art sites to ensure their physical protection and, if necessary, conservation. It also covers the cultural practices that secure the physical and spiritual integrity of rock art sites. An important aspect of this pillar is to emphasise that physical conservation and cultural conservation need to be considered, planned and undertaken in dialogue with each other. In each case, it is important that people with suitable expertise are available, that expert knowledge (cultural and scientific) is respected and that informed decisions are made regarding the physical and cultural benefits and impacts of actions. A record of all interventions is necessary and must be kept for future reference.

Vision

The vision is to have:

- Rock art conservation protocols and practices available to support the custodial roles of traditional owners, local communities and responsible management agencies to look after rock art sites;
- People suitably trained in technical aspects of rock art conservation who have a knowledge of international standards and practices;
- A system whereby technical advice and support can be effectively accessed by those responsible for sites;
- The capacity to enable quick and effective response to urgent conservation threats, vandalism and natural disasters; and
- Ongoing research into rock art conservation issues and techniques which can inform future practice.

Issues

A range of issues and concerns are impeding the conservation practice that applies to rock art:

- There has in the past been a focus on simple or 'quick fix' methods for protecting rock art, however practice has shown that conservation treatments such as chemical consolidation, protective screens and other highly invasive measures can lead to greater impact on sites than if they had been left alone. Sometimes in the past, not enough attention has been given to preventive conservation measures and the careful consideration and analysis of options as a first step prior to decisions being made on conservation actions that may make a permanent change at sites;
- There is a lack of formal training in rock art conservation and of trained conservators with experience in rock art conservation to assist traditional owners, local communities and management agencies;
- Lack of access to expertise and advice on technical aspects of rock art conservation has led to poor practice which affects the integrity and research potential of sites. This includes use of inappropriate materials and methods which causes lasting damage to sites. People have been unaware that contamination from consolidation chemicals and solvents used in cleaning and graffiti removal may make future dating unreliable or impossible;



Graffiti removal: In Red Rock Canyon in Nevada in November 2010, panels with rock art estimated to be up to 1,000 years old were sprayed with graffiti. Funds for the graffiti removal were raised by the Red Rock Canyon Interpretive Association, the Friends of Red Rock Canyon and the Bureau of Land Management. The removal was undertaken in May 2011 by Jannie Loubser, a trained rock art conservator. Graffiti removal can be a complex conservation process and should only be attempted by qualified or highly experienced practitioners. In August 2011, a 17-year-old youth was tracked down, arrested and charged over the Red Rock Canyon incident, receiving a sentence of nine months in jail and an order to pay \$23,775 in restitution for the cost of the graffiti removal. (Photos: Las Vegas Review Journal)

- It can be difficult for young conservators and other specialists to gain adequate and sustained experience in technical aspects of rock art conservation. Mentoring and apprentice arrangements are not as available as they are in other areas of materials conservation and archaeology for example;
- There are few opportunities for people with training and experience in technical aspects of rock art conservation around the world to meet and develop stronger networks to help develop and promote better practice;
- There is a lack of clear documentation protocols and standards that can enable conservation treatments to be monitored over time and to assist in evaluating the long-term effects of conservation actions;
- Research into rock art conservation methods remains sporadic and lacks a long-term strategic focus to assist rock art conservation practice to advance in a logical, constructive progression;
- There is a lack of clear procedures to assist in the protection of rock art sites under threat in emergency situations, including flooding, fire, earthquake, war;
- In some cases, the economic or cultural practices of local communities can cause impacts on rock art sites. These impacts may result from a lack of awareness about the effects they are having on the condition of rock art. Dialogue about conservation is needed to help resolve complicated issues of local custom in this regard; and
- In general, there is a lack of peer-review processes for rock art conservation proposals and treatment programs. This is in part due to the lack of structures for networking and communication between conservation professionals and the lack of suitably qualified rock art conservators.

Principles for practice

The following principles should be used to guide conservation practice at rock art sites:

Respect cultural practices

Conservation approaches respect local cultural forms of conservation practice and create dialogue about conservation options to support the roles of site custodians. Maintaining, facilitating and celebrating stories, songs, dance, ceremonies and other cultural practices may be an essential part of conservation.

Utilize knowledge

Rock art conservation should utilise all the knowledge available to help make decisions about the future of sites.

Involve custodians

Proposals for conservation work, conservation treatments and their evaluation and review should fundamentally involve site custodians to ensure conservation is planned correctly, is consistent with the values of the site/s and that conservation works are implemented, monitored, recorded and reviewed considering custodial perspectives.

Recognize expertise

The expertise required to undertake conservation work should be recognized at an individual, group and organizational level. The conservation conditions at sites can be extremely complex and people with suitable training, experience and expertise should be utilized to assess sites and undertake treatments according to established international conservation standards.

Cultural conservation: In some areas, Indigenous peoples are still practicing the art of painting on rock. In the Kimberley region of northwest Australia, it is a cultural practice to attend to the spirits that are present at places and this may mean sometimes repainting existing images. Here Donny Woolagoodja of the Worrorra language group is re-painting a Wandjina figure in a manner passed down to him from his father. Whether local communities have an active rock art tradition or not, there may be a range of cultural practices which are considered a means of culturally maintaining the significance of rock art sites. These traditional methods should be recognized and respected as an integral part of an overall conservation approach to rock art. (Photo: courtesy of Donny Woolagoodja and Wandjina Tours)

*Recognize that different levels of complexity need different levels of practice*

Training in rock art conservation practices should involve a recognition of skills and knowledge levels for various levels of complexity of work. Training for people to undertake site monitoring and maintenance activity should be distinguished from the technical skills of approaches which require knowledge of materials science and an ability to understand the complex physical macro and micro processes operating at rock art sites. All training should include an emphasis on recognizing limits of skills and the need to seek suitable expertise to assist where the required skills are not available locally. Training programs should be designed according to recognized best practice with reference to international standards and practices.

Ensure skilled and sufficient human resources

All rock art conservation programs need to have a specific position responsible for overseeing the implementation of programs and providing necessary reports on progress to traditional owners, local communities and organization decision-makers. All rock art programs should have some means of gaining access to advice and expertise if required. Networks of professional support, reference groups and peer review of conservation approaches are an important part of best practice conservation approaches. Attracting further support for funding greater human resources necessary for conservation programs will always be a challenge. Clearly establishing the values of a body of rock art and summarizing the threats it faces helps to build a case for the human resources that are required to support conservation programs.

Recognize the appropriate conservation context

Rock art is not isolated in time or space. Rock art is an inherent part of the landscape in which it is found and conservation practice needs to recognize its setting within a contemporary cultural landscape. Rock art conservation should be planned and undertaken as part of and within a broader conservation plan, management plan or strategy.

Begin with a condition assessment and analysis

Conservation practice should include an observation and assessment of the condition of sites, an analysis of the impacts and the associated processes involved and a summary of the threats to the values.

When in doubt, leave it alone

Rock art may have existed in its environmental context for hundreds or thousands of years. The micro-environmental conditions of natural rock surfaces can be very complex. Unless there is a comprehensive understanding of the materials, agents and processes involved in rock art deterioration or damage it is preferable to not interfere. Misguided and unskilled conservation efforts can cause more harm than good. Sometimes it is best to do nothing.

Take a cautious approach

Rock art conservation should endeavor to do 'as much as necessary, but as little as possible' in line with recognized conservation guidelines such as The Burra Charter of Australia ICOMOS. This applies to any physical conservation work, but it is also an important principle for all activities. Approaches and projects which are cautious, simple and specific to a problem that has been identified are likely to be the most effective and sustainable.

The need for trained rock art conservators: In this photo, Claire Dean from the USA cleans an accumulation of avian guano over a painting at Hunters Cave in South Africa. There is a lack of trained conservation professionals with experience in the unique environmental conditions and technical issues of rock art. (Photo: Janette Deacon)



Ensure documentation and archiving

All aspects of rock art conservation need to be well documented to ensure suitable records are available for the future. All conservation actions should be documented before, during and after works are undertaken. Records of conservation actions should be included in a report and incorporated into archival record keeping systems to ensure they are accessible in the future.

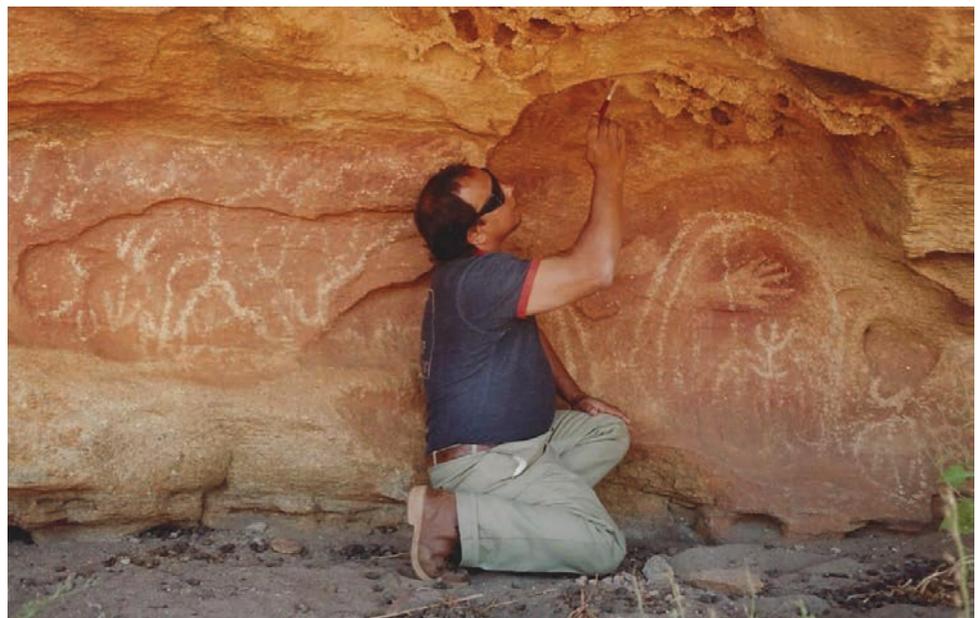
Make monitoring a rule

Conservation actions themselves need to be monitored in order to assess their effectiveness. Simple methods of monitoring what is done should be established when planning and undertaking conservation work.

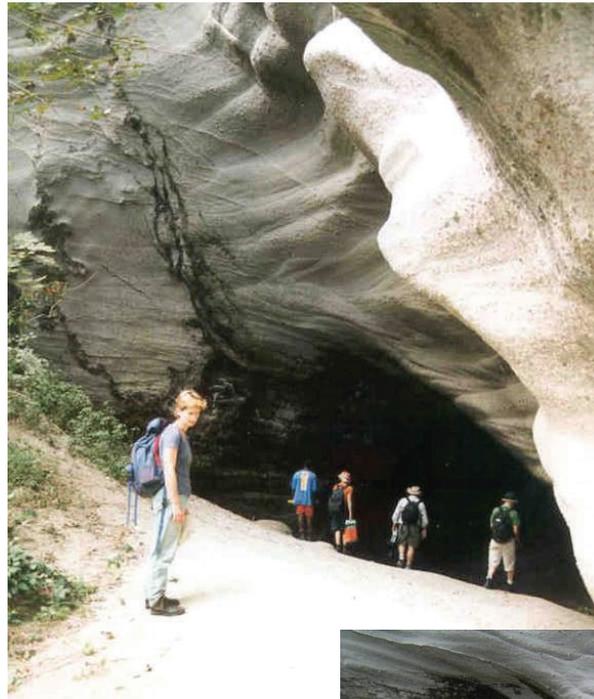
Painstaking work: Conservation work being undertaken on a petroglyph panel by conservators from the Vancouver Museum. This panel from the Fraser River in British Columbia, Canada, was suffering from overgrowth of mosses and lichen and the work was undertaken in cooperation with Stswecem'c Xgat'tem First Nation elders. Cleaning of both painted and engraved rock art panels is usually technically possible, but there needs to be careful assessment of the cultural and technical merits of such conservation work to establish whether such treatment is an appropriate option. (Photo: Joan Seidl)



Preventive conservation: It is important to undertake basic maintenance programs at important sites as a form of preventive conservation. Indigenous heritage officers, rangers and local community members can be trained to carefully undertake minimal impact maintenance activities, such as reducing vegetation that is a fire risk. In this photo, Brian Blurton from the Western Australian Museum is carefully removing mud nests from birds that were threatening to extend over the rock art panels. Experience has shown that removing some nests, but not all is enough to deter the incremental expansion of bird nests. It is important in any maintenance activity that people are trained to be aware of the limits of their expertise. (Photo: Nicholas Hall)



Disaster risk: Rock art sites can be subject to serious damage from environmental events such as earthquakes, fires and floods. Feles Cave is a large natural cavern in volcanic tuff located within the Chief Roi Matas Domain World Heritage Area in Vanuatu. The cave contains rock art and a possible image of Chief Roi Mata himself. The cavern suffered a major collapse around its entrance in an earthquake in January 2002 (photo centre). Further damage was suffered to the cave surrounds in 2012 (lower) indicating the area remains unstable. For significant rock art sites in areas where there is a predictable risk of such environmental events, an emergency response strategy is advisable. At Feles Cave, specific monitoring points had been established prior to 2002 and these were re-examined to verify that the rock art survived intact. An assessment of the structural integrity of the cave was also sought from a geologist. This led to changes in the conditions under which people can enter the cave, including for tours that visit the site. (Photos: Nicholas Hall)



What needs to be done*Training*

1. Develop a standard curriculum framework to be shared internationally covering:
 - The role of values and cultural practices in rock art conservation;
 - Fundamentals of rock weathering;
 - Condition assessment and methods of recording of conservation impacts and processes;
 - Integrated conservation strategies and sustainable implementation programs;
 - Site monitoring methods;
 - Site maintenance practices for application by field staff;
 - Graffiti recording, removal and emergency response strategies;
 - Advanced conservation treatment methods, approaches and practices; and
 - Documentation and data management for rock art conservation programs.
2. Use the standardized curriculum framework to develop locally appropriate training modules and hold training courses which encourage regional, national and international participation to promote broader learning, exchange and application of rock art conservation techniques.
3. Develop rock art conservation training modules which are designed for incorporation into other professional or workplace training programs for archaeologists, heritage practitioners, natural resource management and other relevant sectors.

Provide mentoring opportunities

4. It can be difficult to gain direct experience in applied rock art conservation techniques. In undertaking conservation works and programs, effort should be made to facilitate mentoring opportunities for younger people to learn one-on-one from experienced rock art conservation practitioners during actual work programs. Where possible, interregional and international opportunities for mentoring should be encouraged.

Prioritize preventive conservation

5. Passing on to younger generations the knowledge of how to care for rock art sites is of fundamental importance to sustainable conservation and cultural processes. Traditional methods of cultural transmission should be encouraged through active programs of caring for local sites by children and youth under the supervision of local custodians.
6. Specific education programs should be developed in local communities living close to rock art sites. This is especially necessary where graffiti or site damage by local children has been a problem. Schools programs and junior ranger programs in protected areas can include specific components on rock art sites and their conservation. Rock art sites are powerful tools for education and children can also contribute to rock art conservation programs.

Develop conservation research programs and ensure the sharing of knowledge about rock art conservation issues, practices and techniques

7. Create a web resource for rock art conservation publications and reports as a support for practice and to build a searchable online library of free materials on specific rock art conservation topics.

8. Establish national points of contact for rock art conservation to assist traditional owners, local communities and responsible organizations to find suitable expertise and information.
9. Create reference groups and supportive peer review systems for rock art conservation programs.
10. Support meetings of trained and experienced rock art conservators to assess achievements in rock art conservation techniques, identify research gaps and address future priorities and opportunities for research and collaboration.
11. Develop an international collective perspective on technical aspects of rock art conservation and priorities requiring research attention through international collaboration and support from organizations with an interest in rock art conservation.
12. Target aspects of conservation practice that lack a suitable research base, for example better understanding of the motivation for graffiti/defacement and the effectiveness of management responses.
13. Promote key demonstration sites or projects which clearly illustrate to others how cross-disciplinary research perspectives can assist in addressing challenges facing rock art conservation practice, including across physical and social sciences and traditional knowledge in partnership with Indigenous people and local communities.

Mobilize and organise human resources for rock art conservation

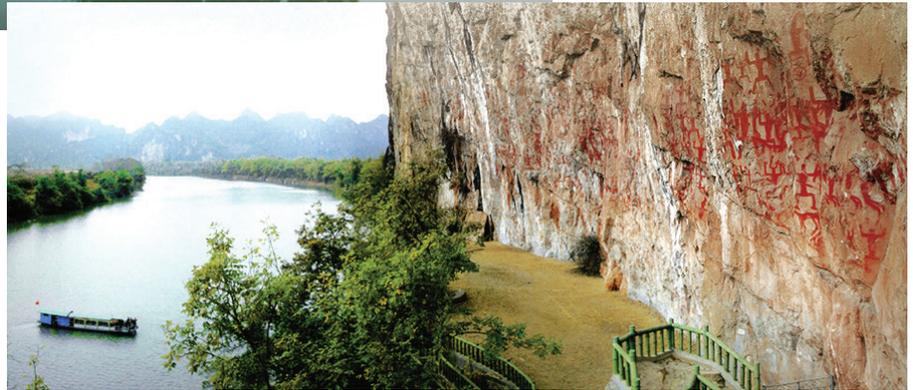
14. To build skills and create greater effectiveness, regional and national rock art work teams should be established to enable support to be delivered to traditional owners, local communities and shared between organizations and responsible agencies. If at all possible, teams should be constituted in such a way that they can be used for rapid response if required.
15. Develop mechanisms that facilitate appropriate volunteer involvement and professional pro-bono contributions to rock art conservation programs to maximize effectiveness where suitable funds are limited or non-existent.

Management response: At Uluru - Kata Tjuta National Park in October 1996, there was a major graffiti incident in one of the small caves adjacent to the main walking track around the base of the rock. Traditional owners requested that the site be closed to visitors and the site was restored. (Photos: Uluru – Kata Tjuta National Park)

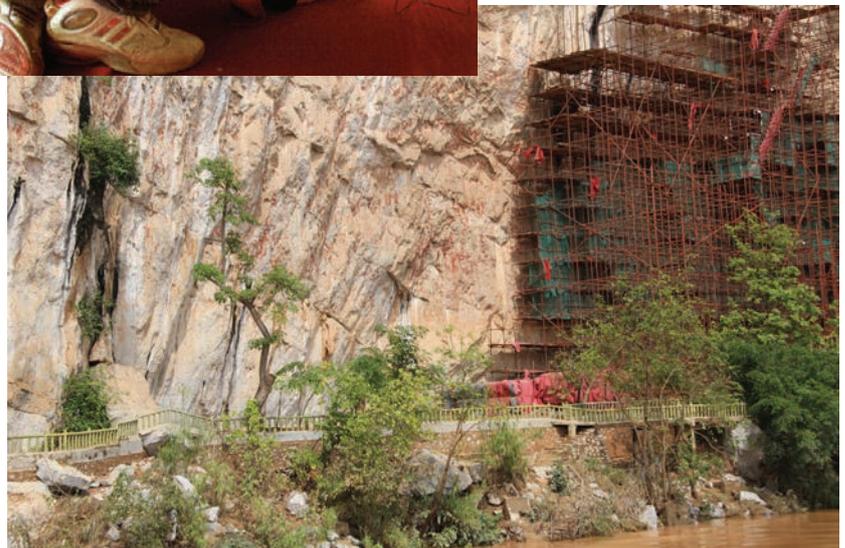


Investing in conservation:

Some of the most dramatic rock art sites in China are the Huashan paintings, located on a series of cliff faces along sweeping bends of the Mingjiang River in the Guangxi Zhuang Autonomous Region, in the southwest of the country. (Photos: Bradshaw Foundation).



Since 2012 the Guangxi government has funded sixteen rock art research projects including three charged by the Guangxi Museum of Minorities and costing 230 million yuan (about 46 million US dollars). In 2012, legislation was passed for the preservation of Guangxi rock art and seventy million yuan (about 14 million US dollars) has been spent on the protection of Huashan rock art, including over four years of on-site conservation at Huashan after experimentation in 2009 with grout-like material for bonding fracturing pieces of the painted rock surface, cracks and cavities. (Photos: Bradshaw Foundation, right and Paul Taçon lower right)



Difficult choices for

conservation: The Bangudae Petroglyphs near Ulsan City in South Korea are located on the upper reaches of the large Sayeon dam built in the 1965. The site was not located until 1970 with information about the site only publicly made available in 1984. The petroglyph panel is now recognized as highly significant. Unfortunately, the main panel is seasonally flooded as the dam water rises and falls. Extensive studies on the weathering of the panel have been undertaken and options for protection of the panel widely canvassed.

The dam provides water to the growing metropolis of Ulsan City, and while many involved, including the Government of the Republic of Korea, would like to see the water level of the dam permanently reduced, necessary alternative water supply projects will take at least ten years to come online. In the meantime, the Cultural Heritage Administration of Korea is considering and testing options, including installing a temporary barrier to protect the petroglyphs from periodic inundation. Called a 'variable temporary water protection facility', the structure would rise and fall with the seasonal water levels and is being designed to be completely removable once the dam water levels are reduced.

While such a dramatic physical intervention could only be considered a last resort, the expense and technical expertise required to plan and implement such a conservation approach indicates how seriously the Government of Korea takes the significance of the site and its conservation. (Photos: Ulsan Petroglyph Museum)



PILLAR IV: COMMUNITY INVOLVEMENT AND BENEFITS

This pillar of rock art conservation emphasizes the need to encourage appropriate and well-managed economic, social and cultural development initiatives by and for indigenous, local and regional communities. Genuine community involvement can result in greater awareness of rock art, increased economic opportunities and higher quality display and interpretation for visitors.

Vision

The vision is to have:

- Economic, social and cultural initiatives which use rock art heritage approved by or in partnership with traditional owners or local communities while returning a fair benefit to them;
- Tourism to rock art sites which is fairly negotiated, carefully planned and undertaken in partnership with traditional owners and local communities;
- Traditional owners and local communities who benefit from rock art realize the value of the sites in a contemporary world and in turn become stronger protectors of their heritage; and
- Recognition of the cultural and economic value of rock art sites considered prior to decisions being made about economic development that might impact the capacity of indigenous people and local communities to gain benefit from rock art sites.

Issues

A range of issues and concerns currently prevent traditional owners and local communities from making better use of the cultural and economic assets of rock art sites:

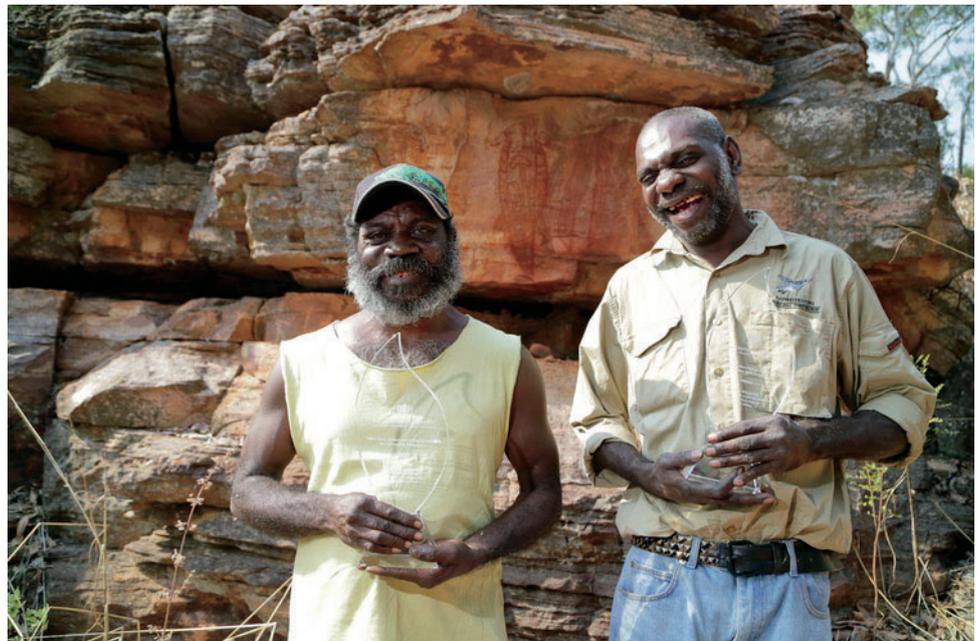
- Rock art sites can be seen as simply curios from the past, but their value as cultural assets underpinning contemporary cultural identity and expression in addition to their value as economic assets, is poorly recognized. In order to benefit from an asset it is necessary to have the capacity to manage it in a way in which the benefit can be realized by activities which produce value for the group or community. Many traditional owners and local communities lack the skills and expertise to translate the cultural and economic value of rock art for use within current market systems;
- Rock art sites continue to be destroyed or threatened by economic activity (such as mining, agriculture and infrastructure development) before their economic contribution and social values are fully considered;
- Rock art sites make captivating attractions for visitors and are sought out by the tourism industry for its own benefit. This interest brings much pressure on both sites and communities, resulting in impacts from visitors and in all too frequent incidences of graffiti, vandalism and theft. Unfortunately, where sites are put at risk due to visitor access and tourism there is rarely adequate protection in the form of prior planning for visitor management or effective monitoring of visitor impacts;
- Access to sites for visitors and the tourism industry has not always been negotiated properly with traditional owners and local communities. This means that sites are visited by people when it is not culturally or environmentally appropriate and where there is inadequate recognition of and benefit for traditional owners and local communities;

State of the art

interpretation: Located near Ulsan City in South Korea, the highly significant Bangudae petroglyph site is registered as a National Treasure and has international significance as one of the oldest depictions of humans whaling possibly as old as 7,000 BP. The rock art panels are difficult to view at close range and a state of the art museum has been built at an appropriate distance from the site. High quality interpretation of the site is achieved using video replicas, interactive digital video screens and contemporary artworks. (Photos: Ulsan Petroglyph Museum above and Nicholas Hall right)

**Recognizing inspiring**

leadership: Jeffrey Lee (left), A Djok senior traditional owner and Stewart Gangale (right) on behalf of Yvonne Margarula receive Environmental Awards for their commitment to protecting their country and many rock art sites from uranium mining. Jeffrey Lee has been a lifelong advocate of the importance of protecting rock art. Despite the potential of receiving hundreds of millions of dollars of royalties from a uranium mine on his clan's land, Jeffrey made the decision to have the land included in Kakadu National Park. This monumental decision was a gift to the nation and to the world. His actions have been a source of inspiration for people from around the world and led to him receiving a key national award, Member of the Order of Australia (AM) in January 2012 (Photo: Dominic O'Brien)



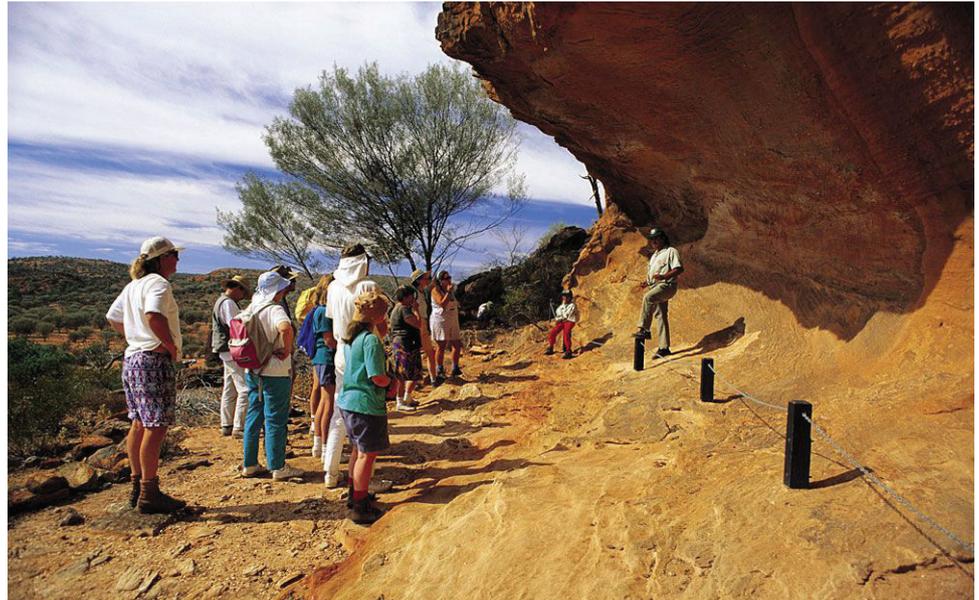
Principles for practice

The following principles should be used to guide community development initiatives and business at rock art sites:

Recognition for values and benefits of rock art

Where rock art sites are proposed to be impacted by development activity their long term cultural and economic value and potential benefits of sites must be considered in making land use decisions at a local, regional and national level.

Building local skills: Face-to-face interpretation is by far the most effective way to develop appreciation of rock art. At Mutawintji National Park in Western New South Wales, Australia, local Aboriginal people are employed both as rangers and as specialist guides. This creates valuable employment in a remote area and helps develop life and communication skills which enable Aboriginal people to move into other employment opportunities. (Photo: New South Wales National Parks and Wildlife Service)



Community engagement in development initiatives and opportunities

Traditional owners and local communities must be engaged in development initiatives from the earliest possible stage. Initiatives should start small and grow based on experience and opportunity.

Fair trade for rock art

Where there is tourism to rock art sites, or imagery from rock art is used for other purposes, (particularly commercial uses), there should be adequate recognition and benefit provided for both the traditional owners and custodians of that heritage and for the ongoing management and maintenance programs for the art.

Realistic expectations for tourism

Tourism businesses taking people to rock art sites rarely make a great deal of money. It can be challenging to attract customers, benefits may accrue slowly and not everyone can always be directly involved. Community expectations should be encouraged to be modest, for development to proceed step-by-step and for development issues to be realistically and fully discussed in community forums.

Train and develop skills and experience

Training and skill development programs should assist local communities to gain greater benefit from rock art sites in a way that minimizes impacts and maximizes sustainable outcomes for development.

Ensure tourism benefits community and conservation

Profits made from all tourism businesses that use rock art sites should include a component that is directed to support conservation and management activities, including the maintenance of associated intangible heritage.

What needs to be done*Education, training and building local capacity*

1. Awareness and knowledge about the values of rock art and the need for its protection and preservation needs to start at the local level to develop a strong sense of stewardship and to ensure that younger generations appreciate its importance in cultural inheritance, identity and creative stimulus. Successful projects at the local level need to be shared regionally, nationally, and internationally to encourage others.
2. Awareness and knowledge about the values of rock art and the opportunities its protection provides for the future need to be directed specifically at local leaders and decision-makers to ensure communities are well informed about rock art and the role it can play in community cultural and economic development.
3. Training and capacity building for local people to act as guides to sites is needed. The high-quality accredited training programs developed and run in southern Africa can act as a model to be adapted and made more widely available.
4. Training and capacity-building in rock art management and conservation need to be provided to local people working as rangers, guards, and site custodians.
5. Training and capacity-building programs for communities wanting to develop tourism initiatives or businesses should be available. The participatory approaches used to support traditional owners and local community tourism businesses in Australia can act as a model to be adapted and made more widely available.

Provision of access to expertise and advice

6. Contact points for local communities wanting assistance to develop tourism businesses or help with other development issues relating to rock art should be identified and promoted. People with experience in assisting communities in appropriate tourism and development at rock art sites should be found through such access points.
7. Free external advice and assistance in the form of volunteer placements and professional pro-bono services should be sought through volunteer organizations or directly with relevant professionals as a form of community service assistance. This can be especially useful for legal services (including to protect intellectual property), accounting, design, website support, and marketing and communications. Means to link local communities with these services need to be improved.
8. Providers of government services should recognize that local communities get frustrated with different sources of advice that are often highly compartmentalized and are not able to offer suitable pathways to facilitate progress for development projects. Avenues for facilitation and mentoring over longer timeframes are needed to assist communities to progress through the many challenges which inhibit and in many cases prevent economic development.

Develop and instill policies and guidelines to assist local community development

9. Policies, protocols, and guidelines that direct efforts to use rock art heritage for economic and cultural development should be available through local, regional and national agencies responsible for cultural heritage protection and land management. This includes making sure that anyone who wants to develop tourism or other projects using or affecting rock art does so by following correct procedures.

Using new technology wisely:

Technology is always creating new opportunities to build awareness of rock art and make greater use of research efforts for public education. The Rock Art Mobile Project (RAMP) was undertaken by the International Centre for Cultural and Heritage Studies, at Newcastle University in the United Kingdom in 2010/11. The project brings this information directly to mobile phones in the Northumberland countryside. RAMP focuses on three key rock art areas carefully chosen on the strength and diversity of their rock art, their accessibility and, crucially, their ability to withstand visitor numbers. The system brings together photographs, diagrams and information from research databases with commentaries about rock art from various visitors and includes downloadable maps and audio tracks. The system was extensively tested with users and has the ability to collect information on how users are accessing the information as well as generate 'visitor book' style feedback from visitors. (Photos: Newcastle University)





Community benefit: Members of the community at Makgabeng in Limpopo Province, South Africa, are establishing a community-based project that includes taking visitors to rock art sites. In 2013, the community welcomed Australian visitors to their village. Women prepared traditional foods for the visitors to sample. Songs were sung and the making of fire with two sticks was demonstrated. Trained guides conducted tours to one of the rock painting sites and explained its historical significance. Paintings of trains (above) recall the journey that village men made in the early 20th century to work on the mines, or when taken to jail in Pretoria. (Photos: Nicholas Hall)



The way forward

Key actions and initiatives that would assist in protecting the heritage of rock art for future generations are presented below. This section is a ‘call to action’ for anyone who can help. Such ambitious aspirations require many partners and effort at many levels. Whether you are a concerned community member, someone with particular responsibility for rock art, a management agency or someone capable of making bold decisions, rock art needs your support and action. We ask you to consider how you can help, and to use this document to influence others. In preparing this document we are thinking globally, but we need you to act locally!

The actions and initiatives that will make a difference to help protect the valuable and vulnerable heritage of rock art are:

1. Improved access to information and advice

Key initiatives include:

- A public access web resource for rock art managers and management and conservation practitioners with open access to relevant advice, documents and links;
- Information provided specifically for Indigenous groups and local communities associated with rock art;
- An associated open access online journal;
- An online discussion forum for rock art managers and management and conservation practitioners;
- A concise field handbook on key conservation issues and approaches with guidance on decision-making in the field and assessing skills for undertaking different types of work; and
- A key publication presenting models and detailed case studies of best practice approaches. This would be in the form of both print and digital outputs with an editorial committee with recognized expertise.

2. Community outreach and awareness programs

Key initiatives include:

- Develop rock art teaching resources for primary and high school;
- Preventive conservation program for local community to value and respect rock art;
- Travelling photo exhibition to be displayed in embassies and other venues; and
- A documentary film program to present rock art to schools and other audiences.

3. Demonstrating best practice

Key initiatives include:

- Demonstrating principles and methodologies in practice with selected case studies and demonstration sites, commencing in Africa and Australia and expanding to include other locations as resources allow;
- Research projects in and between universities to support methodological development and best practice applications; and
- Demonstration of community-based initiatives such as Makgabeng (South Africa) and Wellington Range (Australia).

Local care: Where possible it is best to empower local people to be the custodians and stewards of local rock art sites. They have the capacity to keep an eye on sites in a way which remote management agencies cannot. At Soddo in Ethiopia, local landowners have passed on the tradition of looking after petroglyphs found on low sandstone platforms on their land, even as it is passed between different owners. (Photo: Trust for African Rock Art)



4. Coordinated training curriculum

Key initiatives include:

- An accredited training course curriculum developed for different levels of practice and presented as modules that can be taught in different locations internationally;
- Specialist workshops in: 1) Rock art recording; 2) Preventive conservation; 3) Management planning for rock art; 4) Rock art guiding; 5) Site monitoring and maintenance practice; 6) Graffiti management and removal; 7) Materials conservation practice and rock art; and 8) Participatory planning for sustainable tourism at rock art sites; and
- Key linkages between universities to provide training courses according to curriculum.

5. Effective databases for rock art site information

Key initiatives include:

- An international meeting on digital archives and data management for rock art;
- Unified criteria and standards for digital databases for rock art, including protocols for protection of intellectual property and access;
- Enhance the utility of data management systems for management and conservation documentation; and
- Develop a shared regional approach to field recording and data management as a key demonstration project utilizing Western Arnhem Land paired with a project location in Africa.

6. Support for local community rock art tourism projects

Key initiatives include:

- Making widely available a participatory planning tool for appropriate tourism development at rock art sites;
- Expand the application of the tourist guide training programs developed in Africa to Australia and elsewhere;
- Develop and promote a set of ethical principles for tourism at rock art sites; and
- Establish partnerships with tour operators offering rock art products to implement ethical principles.

7. Special project

Key initiatives include:

- Hold an international meeting specifically focusing on technical aspects of rock art conservation, access to expertise, and training of future specialists;
- Prepare a model framework for rock art monitoring and management systems including guidelines for management agencies and local communities;
- Undertake assessments of the way that rock art management plans have (or have not) been implemented and publish the results;
- Evaluate rock art sites open to the public against a range of criteria for suitable management systems and publish the results;
- Investigate the establishment of an NGO in the Asia-Pacific region to support rock art conservation practice, training, and community development benefitting from the experience of the Trust for African Rock Art (TARA).

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Online information links

The following are online links which provide a range of information about rock art and rock art management and conservation:

The Getty Conservation Institute
<http://www.getty.edu/conservation/>

UNESCO World Heritage Centre – Rock art
<http://whc.unesco.org/en/rockart/>

Trust for African Rock Art
<http://africanrockart.org/>

International Federation of Rock Art Organizations
<http://www.ifrao.com/ifrao/>

Australian Rock Art Research Association
<http://www.ifrao.com/>

Kimberley Foundation Australia
<http://www.kimberleyfoundation.org.au/>

The Bradshaw Foundation, United Kingdom
<http://www.bradshawfoundation.com>

Rock Art Research Institute, University of Witwatersrand
<http://www.wits.ac.za/rockart/>

Place, Evolution and Rock Art Heritage Unit (PERAHU), Griffith University
<http://www.griffith.edu.au/humanities-languages/school-humanities/research/perahu>

Centre for Rock Art Research and Management, University of Western Australia
<http://www.uwa.edu.au/rock-art>

Rock Art Research Centre, Australian National University
<http://rsh.anu.edu.au/rockart/>

University of California Los Angeles Rock Art Archive
<http://www.ioa.ucla.edu/resources/cotsen-labs-archives/rock-art-archive/>

Te Ana (Ngāi Tahu) Rock Art Centre (New Zealand)
<http://www.teana.co.nz/>

Contact organizations

If you would like to talk to people about this document and can offer help or advice on its proposals for action, please contact the following organizations:

The Getty Conservation Institute

1200 Getty Center Drive
Suite 200, Los Angeles, California 90049-1684
Phone: (310) 440 6204
Web: www.getty.edu/conservation

Africa

The Trust for African Rock Art

PO Box 24122
Karen, Nairobi
00502 KENYA
Phone: (+254)203884467
Email: tara@africanrockart.org
Web: <http://africanrockart.org>

Rock Art Research Institute, University of Witwatersrand

School of Geography, Archaeology and Environmental Studies
Origins Centre
University of the Witwatersrand
P.Bag 3 Wits 2050
Johannesburg, South Africa
Web: www.rockart.wits.ac.za

Australia

National Museum of Australia

GPO Box 1901
CANBERRA ACT 2601, Australia
Phone: +61 (0)2 6208 5000
Email information@nma.gov.au
Web: <http://www.nma.gov.au>

Griffith University Place, Evolution and Rock Art Heritage Unit (PERAHU)

School of Humanities
Gold Coast campus, Griffith University 4222 Australia
Phone: +61 (0)7 5552 9074
Email: p.tacon@griffith.edu.au
Web: www.griffith.edu.au/humanities-languages/school-humanities/research/perahu

*“Out of our ancestors’ hands,
into our hands
and on to the hands of future generations”*

—Natasha Nadji,
Bunitj Clan spokesperson, Arnhem Land, Australia.



Carrying it on: In Arnhem Land in the Northern Territory of Australia, Manbiyarra Nayinggul is taking on the responsibility of looking after the lands of his clan, a role passed down through his family. This includes caring for many important rock art sites. Manbiyarra takes this role very seriously and says that if the paintings fade, it is like his culture fading too. This site is known as 'old man's hand' from the image depicted on the wall from his grandfather. The work of caring for rock art must be passed on to new generations so the value of rock art sites can be kept alive. (Photo: Nicholas Hall)



The Getty Conservation Institute