

WORLD HERITAGE

SHARING BEST PRACTICES

Jiuzhaigou Valley

Land of Frankincense
Cultural tourism

Cradle of Humankind

Wet Tropics of Queensland
New policies

Medieval City of Rhodes
Adaptive management

Oaxaca and Monte Albán
Community involvement



United Nations
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Cover: Jiuzhaigou Valley Scenic and Historic Interest Area, China

On the eve of the 40th anniversary of the World Heritage Convention, the World Heritage Committee called for a process that would bring forward examples of best practice in site management, in order to recognize and share them with others. Twenty-eight sites submitted examples of management challenges and how they have been successfully dealt with, and a selection committee chose to recognize the Historic Town of Vigan, in the Philippines, for its innovative and practical – that is, easy to adapt – methods for preserving a site while allowing it to flourish.

The sites provided fascinating examples of what creative thinking, policy-making, training and development can accomplish, and we are pleased to present a few of them here.

This issue of *World Heritage* gives some idea of the daunting challenges that confront practically every World Heritage site manager who is determined to ensure the viability of the site entrusted to their care.

Conservation is a complex technical matter that cannot be implemented without taking the context into account. Ownership of the land also raises some problems and calls for a legal framework that fits the situation on the ground. And no site can hope to prosper without the active involvement of the local population. Their interests must be considered and their resources must be protected if the site is to gain their support. Efforts at education concern not only the local population, but also the stakeholders and, obviously, members of staff, particularly those who are there to inform visitors.

In all the cases covered here, education and capacity building have yielded spectacular results.

This is apparent in the articles devoted to a number of sites participating in this endeavour. The interview with Ms Eva Marie S. Medina, Mayor of Vigan, reveals the nature of the many challenges faced and successfully dealt with at this site, hailed as a model of best management practice. The articles on the World Heritage sites of the Land of Frankincense in Oman, Monte Albán in Mexico, Jiuzhaigou Valley in China, Medieval City of Rhodes, Wet Tropics of Australia and Cradle of Humankind in South Africa, while presented with modesty, will reveal something of the scope of their achievements that can be beneficial to a great number of other sites.

The preservation of World Heritage is a profound task that can be complicated by the very factors that make a site unique. Recognizing and sharing these management practices can allow us all to be more efficient and innovative as we protect these valued places.

Kishore Rao
Director of the UNESCO World Heritage Centre



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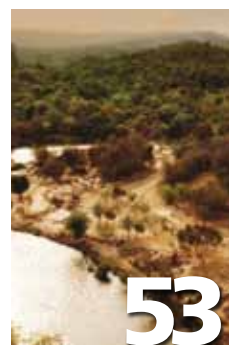
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Contents



In Focus

4

World Heritage: cooperation, communication and capacity building 4

The inscription of a site can result in specific preservation challenges, making skilled and sustainable management practices crucial to protect its Outstanding Universal Value.

Jiuzhaigou Valley

From isolation to 'smart park' 16

Jiuzhaigou Valley has completed the perfect transition from a remote mountain area to a tourist resort.

Wet Tropics of Queensland

Sharing best practices 24

Engagement of local communities is a central goal of the management regime for the Wet Tropics World Heritage property.

Medieval City of Rhodes

From impregnable fortress to living city 30

Rhodes is subject to constant change, making management a continuous adaptation to new practices.

Monte Albán

Mutual understanding and agreements with communities 40

The shared management is based on the balance resulting from good relations between the institution and the community.

Welcome home – we've been awaiting you for 4 million years 46

Management and development of the Cradle of Humankind site is complex and challenging and in constant evolution.

Land of Frankincense 54

The management plan includes excavation, conservation, site management, heritage education, public relations and finances.

Close-Up 62

Recognizing World Heritage best practices in successful and sustainable management

Recognizing and rewarding best practice in World Heritage site management on the occasion of the 40th Anniversary of the World Heritage Convention was called for by the World Heritage Committee at its 35th session.



62

Forum 67

Interview 68

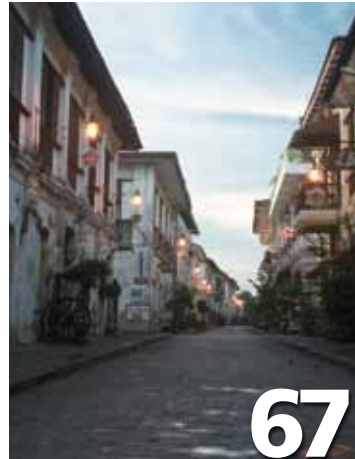
Eva Marie S. Medina
Mayor of Vigan (Philippines).

Advisory Bodies 70

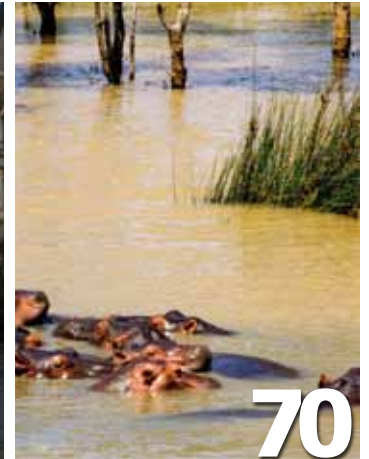
ICCROM: Best practices in capacity building for World Heritage.

Conventions 72

CITES celebrates its 40th anniversary at the 16th meeting of the Conference of the Parties.



67



70

News 77

Preservation 78-83

Earthen architecture in World Heritage; Mission to the Royal Palaces of Abomey; World Heritage and the courts; Mexican waters are a safe refuge for whales; Experts and stakeholders meet at Pompeii; Human Origin Sites in Eurasia and the World Heritage Convention; Nairobi and World Heritage Convention mark start of cooperation in Indian Ocean; Reflection on the modern urban and architectural heritage of the Arab world; Coordination between key stakeholders to save Madagascar's rainforests.



82



82

In Danger 84-85

Action Plan for Mali.

Outreach 86-89

Crown Jewels of the Ocean; Partnering to preserve Dja Faunal Reserve; Young Volunteers: key role in World Heritage and landscape management; Koguryo show in Paris; Patrimonito goes to Lebanon; The Case of the Lost World Heritage, 8th episode.

In Print and Online 92

Calendar 93

Subscription Form 95

Next Issue 97



97



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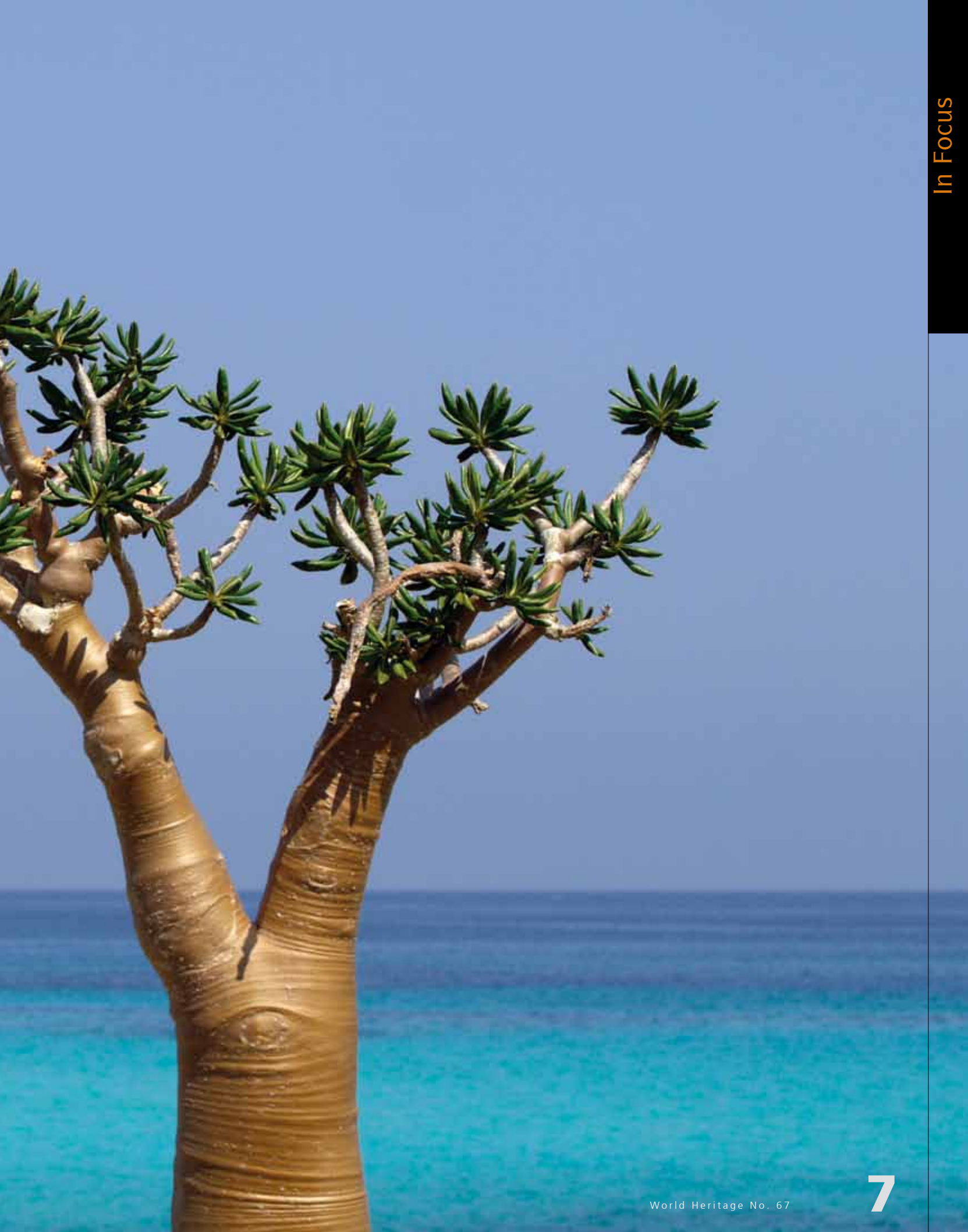
World Heritage: cooperation, communication and capacity building

Claire Cave

Director, World Heritage Management Programme and
World Heritage Conservation Distance Learning, University College Dublin (Ireland)

Socotra Archipelago (Yemen) is one of the forty-six sites of the World Heritage Marine Programme launched in 2005.

© Our Place – The World Heritage Collection



The original intent and purpose of the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage was to create an international instrument for the cooperative and voluntary protection of cultural and natural sites of Outstanding Universal Value. The emphasis is on solidarity, the shared aims and collective responsibility of the international community to protect and conserve heritage for all humanity.

Today, as the pressures of development challenge the integrity of protected areas, monuments and landscapes worldwide, the role of international cooperation in supporting communities and sustainable development as well as conserving heritage is of increasing importance in the sight of the World Heritage Committee, as made clear in a 2011 Committee Decision: 'International cooperation through the World Heritage Convention ensures effective conservation of our common cultural and natural heritage of Outstanding Universal Value, nurtures respect and understanding among the world's communities and cultures, and contributes to their sustainable development'.

If we are to make a reality of the Committee's vision it is crucial that the international community facilitate the exchange of experience and information between States Parties and stakeholders throughout the World Heritage system. With almost 1,000 properties inscribed (745 cultural, 188 natural and 29 mixed), the World Heritage List has grown continually since its inception in 1977. With this growth a pressing need has emerged to support managers and practitioners as

they strive to deal with evolving threats and management challenges in a rapidly changing and globalized world. Many properties face threats from a multitude of complex factors, not least of which are such development projects as transport infrastructure, mining, dams and tourism,

Capacity building

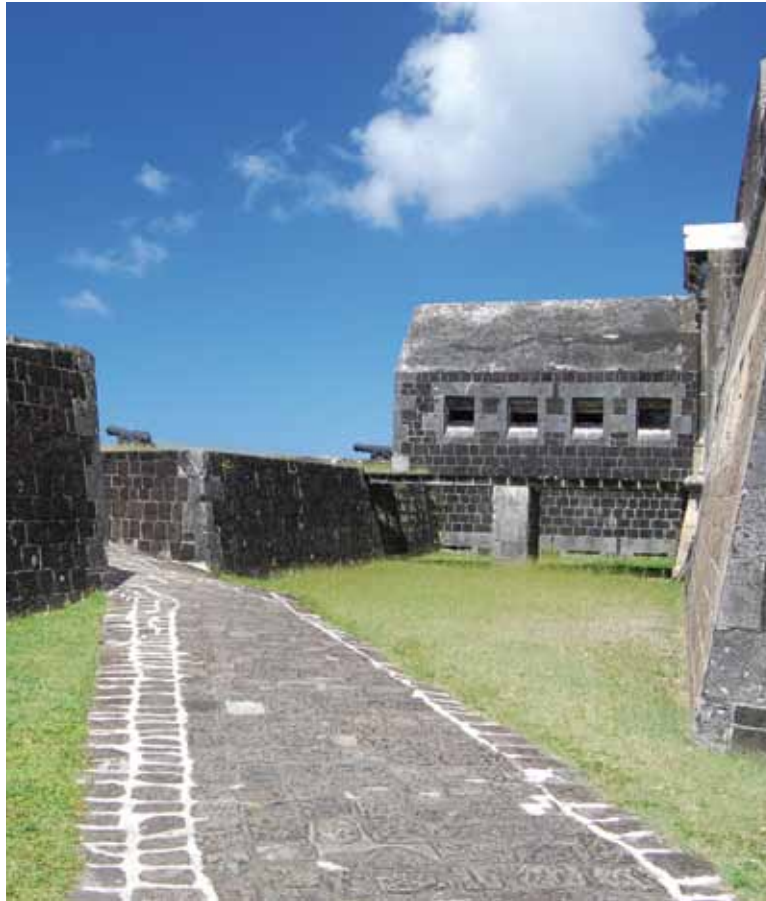
The threats to protected areas and World Heritage properties often reflect States Parties' lack of capacity 'to ensure that effective and active measures are taken for the protection, conservation and presentation' of the cultural and natural heritage at

national and regional levels (Article 5, World Heritage Convention). This insufficiency may be further exacerbated by a lack of participation of the local community in the nomination and management of properties and a failure to address matters of sustainable development and to integrate heritage protection into wider policies and planning, often at the expense of both the community and the World Heritage property. Excluded communities are frequently in conflict with government agencies and management bodies over issues of governance, natural resource use and access which further aggravate any existing threats such as infrastructural development, urbanization and environmental degradation.

The World Heritage Committee has been working to address these challenges, most notably through the application of its Strategic Objectives, the principal tools used to guide the implementation of the Convention. The Strategic Objectives, known as the '5 Cs', highlight the Committee's mission to enhance the role of Communities in the implementation of the Convention

and to increase involvement, awareness and support for World Heritage through Communication, as well as to strengthen the Credibility of the World Heritage List, ensure effective Conservation and promote Capacity building.

Today the 5 Cs are reflected in the World Heritage Capacity Building Strategy, adopted in 2011, a paradigm shift in addressing the

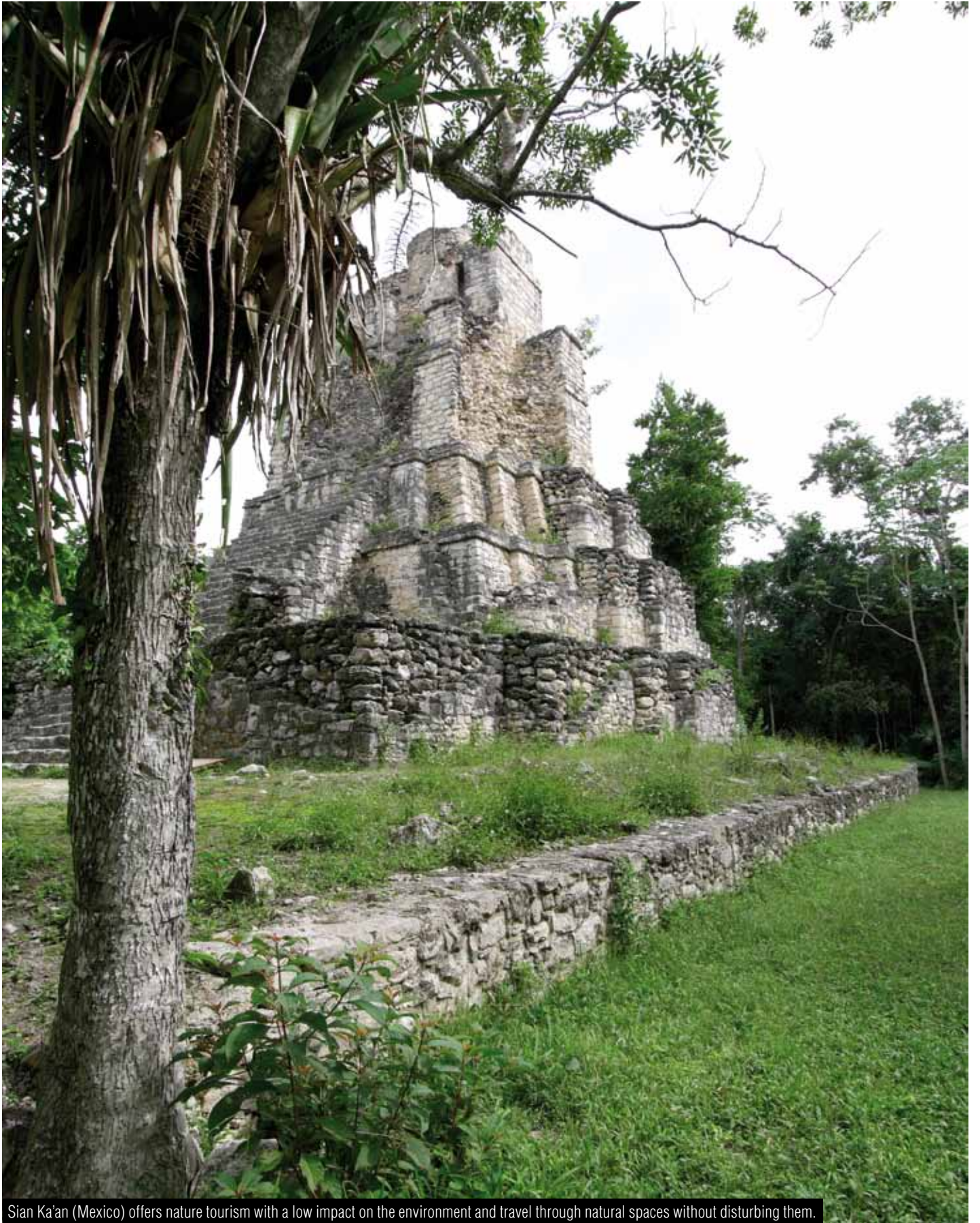


The World Heritage site of Brimstone Hill Fortress National Park (Saint Kitts and Nevis) forms part of the SIDS Capacity Building Programme.

© Jeremy T. Hetzel

With almost 1,000 properties inscribed (745 cultural, 188 natural and 29 mixed), the World Heritage List has grown continually since its inception in 1977.

but also such forms of illegal activities as poaching, logging, encroachment and unpredictable events such as natural disasters, armed conflict and climate change. By sharing best practices in World Heritage management it is possible to improve capacity to ensure effective management and conservation of World Heritage properties.



Sian Ka'an (Mexico) offers nature tourism with a low impact on the environment and travel through natural spaces without disturbing them.

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An innovative strategy to reduce human/wildlife conflicts has been set up at Sundarbans National Park (India).

© Prem Sagar

needs of capacity development for conservation and management of heritage. Where previously education and training strategies were directed at individual professionals and those with direct responsibilities for conservation and management of heritage, now the Capacity Building Strategy aims to address the needs of a much wider audience. This includes organizations and institutions involved in legislation, governance and resource management as well as groups and communities whose well-being and sustainable development are linked to heritage protection.

The document *Presentation and adaptation of the World Heritage strategy for capacity building* states ‘that capacity building – whether of practitioners, institutions or communities and networks – is seen as a form of people-centred change that entails working with groups of individuals to achieve improvements in approaches to managing cultural and natural heritage’ (World Heritage Committee, 2011, p. 4).

Essential to the strategy is the concept of sharing information and best practices, not only among the providers of capacity building but between States Parties, communities and networks in the context of heritage protection. Partners to the strategy are encouraged to develop and share training and communication tools, effective management and conservation tools, resource manuals, thematic studies, mentoring processes and so on, all of which aim to bring the 5 Cs to fulfilment.

The rich diversity of institutions and programmes that have emerged in recent years to support capacity development within World Heritage are among the principal factors responsible for this rapid change in approach to capacity building. Such bodies include UNESCO Category II Centres (C2Cs), university programmes,

training institutes and UNESCO Chairs and UNNITWIN Networks. All these organizations, together with the Advisory Bodies to the World Heritage Committee, aim to encourage cooperation and the transfer of knowledge across borders,



Most people living in the Coffee Cultural Landscape of Colombia are involved in activities linked to coffee.

© Giovanni A. Viscomi

By sharing best practices in World Heritage management it is possible to improve capacity to ensure effective management and conservation of World Heritage properties.

public sectors and disciplines to ensure a mutually beneficial dynamic between heritage and society.

Sharing best practices

The emergence of a shared approach to heritage management and to sharing knowledge and good practices is already evident in such World Heritage activities as regional meetings on Periodic Reporting; the Small Island Developing States (SIDS)

Capacity Building Programme; the marine World Heritage site managers community and the first international conference on best practices in the management of archaeological World Heritage held in 2012.

However, it is important that practical links also be developed between World Heritage capacity development programmes and other international conventions and programmes, particularly where sites have multiple international designations. Working together and sharing best practices could lower costs, favour the sharing of resources and improve sustainable management.

For example, the UNESCO World Heritage Centre has been a founding partner in COMPACT (Community Management of Protected Areas Conservation Project). Launched under the United Nations Development Programme Global Environmental Facility (UNDP-GEF) Small Grants Programme, COMPACT has been working for the past decade with communities neighbouring World Heritage properties in nine countries. The project has produced a participatory model that demonstrates how community-based initiatives can contribute to the successful conservation of biodiversity in protected areas and promote sustainable development and improved livelihoods. A member of the COMPACT

initiative, the Sian Ka’an World Heritage site in Mexico illustrates the benefits of supporting community empowerment and sustainability. A natural property located on the east coast of the Yucatán peninsula, Sian Ka’an was inscribed on the World Heritage List in 1987 for its diversity of ecosystems and its importance for *in situ* conservation of threatened species. COMPACT, employing a themed approach that considers the landscape as a whole, has supported local

initiatives to develop successful fishing co-operatives, an alliance of tour operators, organic certification for local produce and marketing of traditional handicrafts under a common indigenous trademark.

These initiatives have spread across the region, encouraging community collaboration and effective communication with national authorities and international organizations. As a result there is increased local involvement and support for conservation priorities such as the implementation of fishing zones and reforestation programmes. The benefits accrued from meeting the needs of the local and indigenous people through sustainable development have led to improved systems of resource management that are more respectful of natural regeneration needs and ecosystem integrity. Local livelihoods and incomes have also improved due to a combination of cooperative interventions and the adaptation of locally appropriate policies and technology. Where natural resources were previously threatened by disorganization, overharvesting and stakeholder conflicts, now there is some economic and administrative stability due to the collective actions of the community.

Wide dissemination of the success stories of COMPACT should favour community involvement across UNESCO World Heritage properties. Similarly, the value of sharing relevant experiences across international programmes with similar aims and objectives is also of obvious interest. Such programmes include UNESCO's Man and the Biosphere Programme, the UNDP Equator Initiative, as well as Indigenous and Community Conserved Areas (ICCAs) and the Convention on Biological Diversity (CBD) Programme of Work on Protected Areas (PoWPA).

Best practices in sustainable management

While the empowerment and engagement of local communities in

integrated a philosophy of engagement and sustainable development into organizational structures and developed policies that 'give the cultural and natural heritage a function in the life of the community' should be recognized and their successes made widely known (Article 5a, World Heritage Convention).

Often, individual efforts by staff to build relationships with local communities have led to a meaningful participation of the local community with their World Heritage property. At Brú na Bóinne (part of the Archaeological Ensemble of the Bend of the Boyne World Heritage site, inscribed 1993) in Ireland, for example, the manager of the visitor centre encourages community involvement by opening it to serve as a community centre. The centre hosts social events and local celebrations; it exhibits the work of local artists and crafts people as well as supporting heritage studies in the school curriculum and displaying students' projects for the visitors and international community to appreciate. Also, the televised lottery draw to determine who will get the opportunity to view the winter solstice from within the ancient passage tomb of Newgrange has become a community event centred on the local children who pick out the winning tickets. This highlights the importance of the role of the World Heritage

property in the life of the community and in the protection of local heritage values, rather than just facilitating engagement of the community in the activities of the World Heritage property.

Similarly, at Slovenia's Škocjan Caves a local festival that celebrated the caves and karst landscape has been successfully revived to become a joint activity of the park management and the community to promote local heritage and lifestyle and to encourage the use of local resources and



The Škocjan Caves site (Slovenia) is one of the most famous in the world for the study of karstic phenomena.

© Warner Hocker

At Slovenia's Škocjan Caves a local festival has been successfully revived to become a joint activity of the park management and the community.

heritage protection is a vital step in achieving best practices in management, the first challenge for managers is to define who exactly the 'local community' is. As there is no standard definition of local community that can be uniformly applied to the wide diversity of World Heritage properties and equally diverse communities and stakeholders, there can be no common approach to developing participatory structures. Therefore, those States Parties and management bodies that have

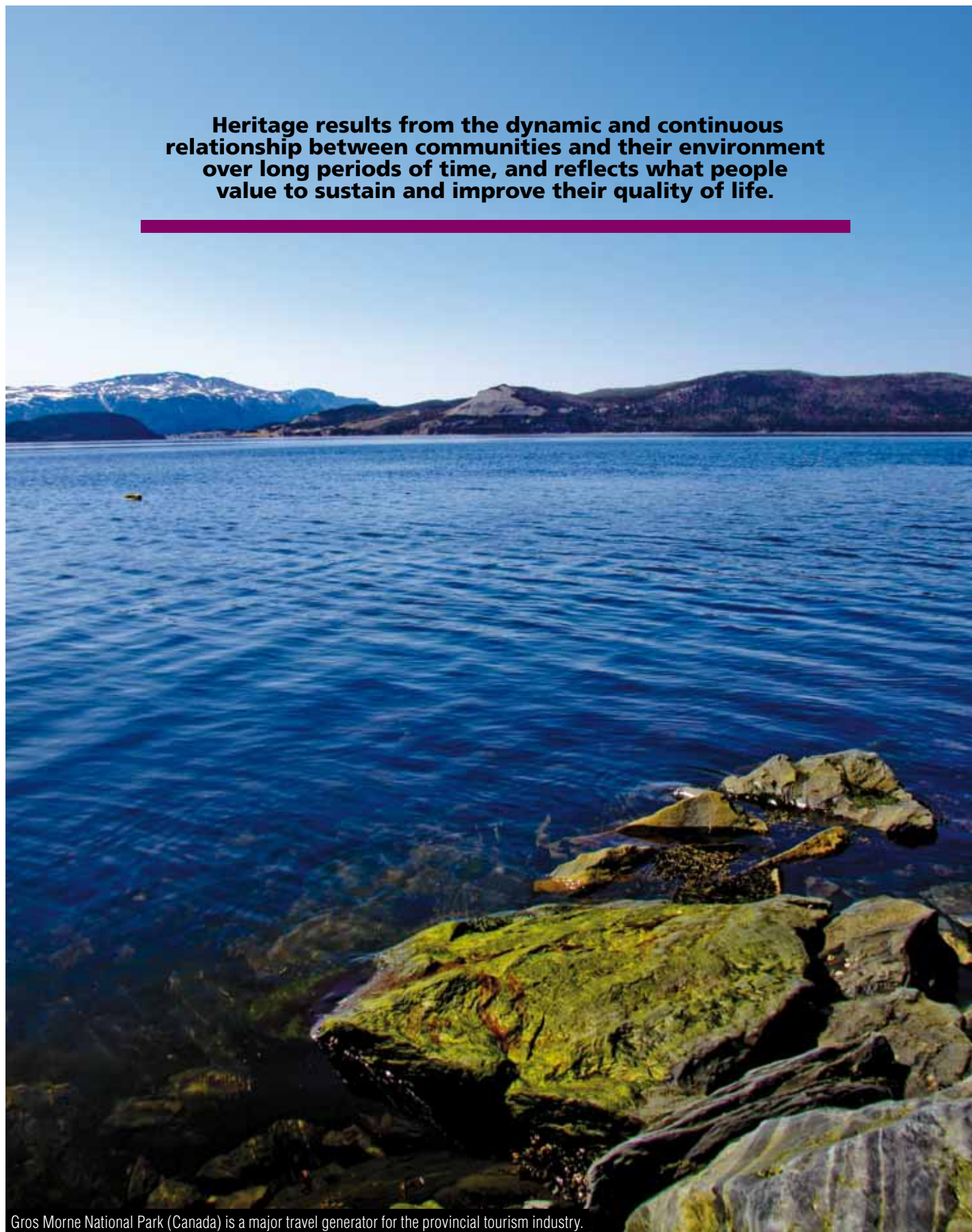
At Brú na Bóinne in Ireland, the manager of the visitor centre encourages community involvement by opening it to serve as a community centre.



At the end of September each year, fifty names are drawn by local schoolchildren, ten names for each morning the chamber of Newgrange (Ireland) is illuminated, two places in the chamber are awarded to each of the lottery winners.

© Chad K

Heritage results from the dynamic and continuous relationship between communities and their environment over long periods of time, and reflects what people value to sustain and improve their quality of life.



Gros Morne National Park (Canada) is a major travel generator for the provincial tourism industry.

© Natalie Lucier

produce. The Outstanding Universal Value of the caves, designated as a natural World Heritage site in 1986, is recognized as an ongoing geological process and scientific research of the exceptional karst features is under way; but it was local knowledge and respect for the caves that contributed to the local communities developing a high awareness of the importance of World Heritage.

At a very early stage in the process the local people were involved in guiding and exploring the caves as well as in carrying out maintenance works and preserving cultural features of the landscape. This engagement and use of local knowledge and customs has ensured the community's sense of ownership of the site and contributed to best practices in sustainable management in which involvement of the local community has led to improvement of the area's water quality and the development of sustainable tourism. The park management grants annual funds to local residents for the renovation of buildings and cultural landscape and the community is involved in training and outreach programmes, as well as in monitoring and education. Communication, cooperation and capacity building shape the strategies for local development and improving quality of life as well as visitors' experience.

The spirit of the Convention

On the occasion of the 40th anniversary of the World Heritage Convention, the Committee decided to develop a 'one-off initiative' to recognize and reward best practices in sustainable and successful World Heritage management.

The aim of the initiative, carried out in 2012, was to document, promote and disseminate successes in protecting and sustainably managing heritage properties of global significance. The rationale of

the project was that the sharing of such information could build a platform for the replication of such initiatives globally, while celebration of the success of management bodies could favour a holistic approach to heritage conservation and sustainable development.



Historic City of Vigan (Philippines) has been awarded for its best practices in management.

©Rodel S. Mallillin

Vigan is the best-preserved example of a planned Spanish colonial town in Asia and prides itself on its participatory approach to conservation as a historic town.

The Historic Town of Vigan (Philippines), inscribed on the World Heritage List in 1999, received the greatest number of votes from the selection panel for its best practices in sustainable management. Established in the 16th century, Vigan is the best-preserved example of a planned Spanish colonial town in Asia and prides itself on its participatory approach to conservation as a historic town. This is evident from the mission statement for the city, 'to conserve our heritage and deliver effective services for an improved

quality of life', formulated in the wake of public hearings and stakeholder workshops organized in 2012.

The remaining submissions to the 'One-off initiative' demonstrated a variety of innovative approaches to the promotion of sustainable management. Examples such as Jiuzhaigou Valley Scenic and Historic Interest Area (China), Wet Tropics of Queensland (Australia) and Land of Frankincense (Oman) are explored further in this issue. Best practices range from the integration of participation within the management's guiding principles such as Parks Canada Community and Stakeholder Working Groups, as evidenced in Gros Morne National Park, to marketing strategies to improve the income of coffee growers in the Coffee Cultural Landscape of Colombia, and an innovative fencing strategy to reduce human/wildlife conflicts at Sundarbans National Park (India).

Fundamental to these successes is the promotion of a management culture in which stakeholders are engaged in protecting the Outstanding Universal Value of a World Heritage property simply because the values associated with it have been communicated to them thanks to a management approach of inclusive participation and shared responsibility for decision-making. As described in the report of the 2012 Ouro Preto

Consultative Meeting on World Heritage and Sustainable Development 'heritage results from the dynamic and continuous relationship between communities and their environment over long periods of time, and reflects what people value to sustain and improve their quality of life.'

To this end it may be time for a sixth 'C', for Cooperation, to reflect the continuation of the spirit of the Convention through empowered communities sharing best practices in sustainable management. ☺



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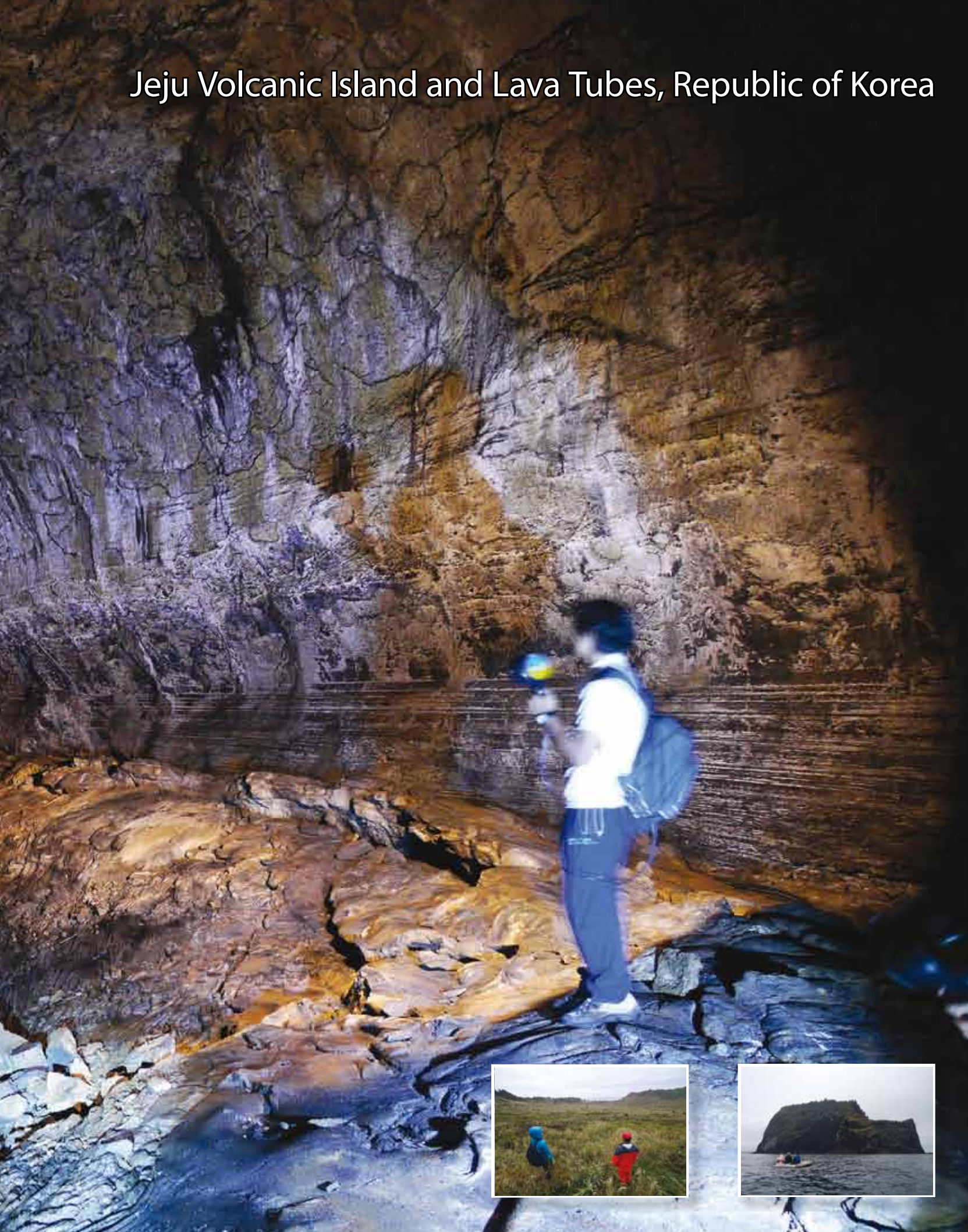
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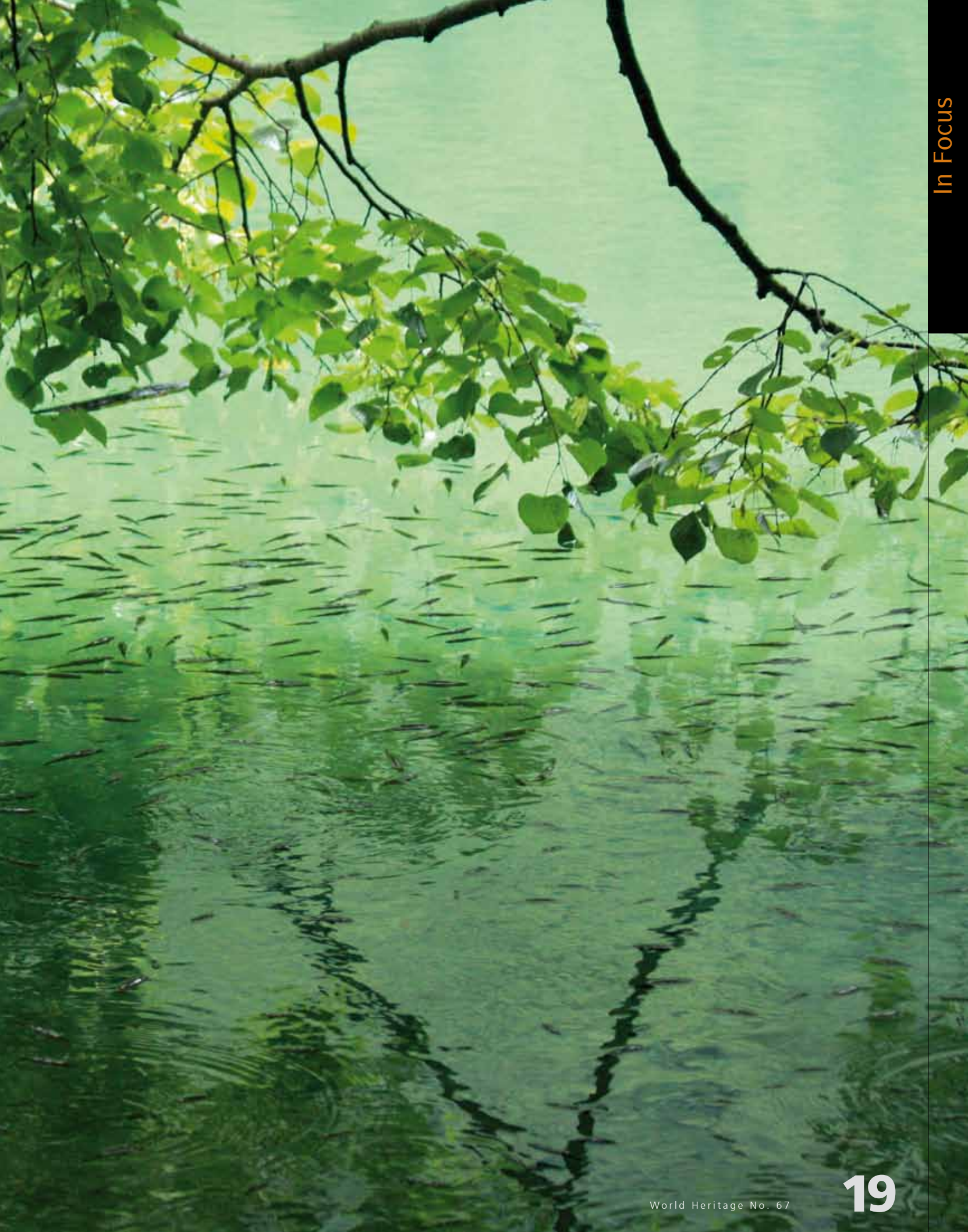
Jiuzhaigou Valley

From isolation to 'smart park'

Du Jie
Science Department, Jiuzhaigou Valley National Park,
Jiuzhaigou County, Aba Prefecture, Sichuan (China)

Jiuzhaigou Valley Scenic and Historic Interest Area (China) was inscribed on the World Heritage List in 1992.

© La Priz





The rapid growth of tourism has brought benefits to the local communities.

© La Priz

Jiuzhaigou Valley, located in the north of Sichuan province in south-western China, is the jewel in the spectacular crown formed by the Min Shan mountain range. Extending over 720 km² (72,000 ha) with a buffer zone of 600 km² (6,000 ha), it is best known for its fabled blue and green lakes, spectacular waterfalls and variety of karstic land forms. Jiuzhaigou Valley Scenic and Historic Interest Area was listed as a UNESCO World Heritage site in 1992 because it meets the demands of inscription criterion (vii) as an area of exceptional natural beauty and aesthetic importance. The site also contains a number of plant and animal species that are globally threatened with extinction. In this regard, it is considered the fifth most important of the thirteen panda reserves in China. Jiuzhaigou Valley, literally 'valley of the nine villages', is also home to over 1,000 Tibetan residents, comprising over 110 families.

For many years, Jiuzhaigou Valley was exceptionally isolated from the outside world. Until 1966, access could only be gained on foot or by horseback. The life of

local Tibetans was focused on farming and animal husbandry. The site was subject to extensive logging from 1966 to 1978. Two Forestry Farms were established, a large volume of timber was removed and roads were built during this period. The State Council approved the establishment of the Nanping Jiuzhaigou Nature Reserve and the management office was built in 1978. The valley became one of China's first national parks in 1982. Two years later, it was officially opened to the public.

Jiuzhaigou Valley has made every effort to attain international standards and has indeed completed the perfect transition from a remote mountain area to a tourist resort, which has greatly promoted regional development and created a model of harmonious and sustainable development for China's World Heritage sites. Since opening in the 1980s, Jiuzhaigou Valley has received a total of over 29.3 million tourists, with an average annual growth rate of 18.89 per cent, thus serving as an important growth factor in China's tourist economy. Despite the development of tourism, the site's World Heritage values are well protected. The giant panda is one of

the most important indicators of this. The numbers of this species had been reduced by logging in the 1970s and the harvesting of bamboo blossoms in the 1980s. On 25 June 2012, staff found fresh giant panda scat while patrolling a remote sector of the national park. This is the second time within ten years that such samples were found in Jiuzhaigou valley. Thanks to monitoring and research, experts have established over the past few years that bamboo in Jiuzhaigou Valley is once more abundant enough to provide a perfect habitat for the giant panda.

Dr Jim Thorsell, a senior IUCN expert, termed Jiuzhaigou Valley 'a model World Heritage site' when he revisited the park in 2011. Irina Bokova, UNESCO Secretary-General, left the following inscription in Jiuzhaigou Valley: 'Let me commend the Chinese authorities for the extraordinary efforts to preserve its biodiversity and authenticity and to pass it to future generations. Thank you and congratulations!'

In terms of sustainable development, some aspects of the site experience deserve to be shared and discussed:



As a national park and a nature reserve, Jiuzhaigou is protected by national and provincial laws and regulations.

© Christopher Augapfel

Jiuzhaigou Valley has greatly promoted regional development and created a model of harmonious and sustainable development for China's World Heritage sites.

Enhanced biodiversity

To protect the environment and the value of the property, an Environmental Protection Department has been set up with seven protection stations, a biodiversity monitoring station and a patrol team. In addition, the park has a fire prevention headquarters and a professional fire department to manage both fire prevention and public awareness. By implementing the Conversion of Cropland to Forest Project, the Natural Forests Protection Project and the Nature Reserve Development Project, forest coverage rate and vegetation coverage rate have reached 63.5 per cent and 85.5 per cent respectively. According to our monitoring data, biodiversity has thus been enhanced. The park also uses new forms of energy, including solar and wind, to reduce energy consumption.

Collaborative research

With a view to developing scientific research and improving park management, a Science Department was established in 1996. Its main job includes the monitoring of local culture, nature resources, water quality, forest pests and diseases, weather and climate. The department is closely involved in collaborative research with both domestic and international universities and institutes. In this respect, the foundation of Jiuzhaigou International Laboratory for Ecology, Environment and Sustainability in 2006 has greatly improved cooperation with the University of Washington, the University of California, Sichuan University and Yosemite National Park. Jiuzhaigou Valley postdoctoral research station was founded in 2009. More recently, the State Ministry of Science and Technology approved the establishment of Jiuzhaigou

Valley, International Ecological Conservation Joint Research Center, which makes it the only state-level international joint research centre of China's national parks. Thanks to these platforms, Jiuzhaigou Valley has become involved in several national scientific projects, including the Key Projects of China's eleventh Five Year Research Program, the National High Technology Research and Development Program of China and similar ventures. Jiuzhaigou Valley is also the first national park in China to have brought digital technology into park management, thus making Jiuzhaigou Valley a 'smart park'.

Standard-setting

Jiuzhaigou Valley was one of China's first national parks to initiate standardized management approved by the National Tourism Administration in 2012. More recently the park administration devised and enforced 47 service standards, 78 management standards and 149 work standards, thanks to which a management and operation model has been established and tourist service, branding and integrated benefit have significantly developed.

Inside and outside

The General Plan for Jiuzhaigou Valley National Park was approved by the national government in 2000. Last year, the General Plan for Jiuzhaigou Valley World Heritage was completed. As a result, construction projects in the park are now strictly managed. In the intervening years the park has achieved a number of firsts in China's national parks, including being first to implement the policy of visiting inside the park and finding accommodation outside, first to use environment-friendly sightseeing buses, first to implement the concepts of the digital park and the smart park, first to establish an International Ecological Conservation Joint Research Center, first to build a visitor centre and a digital information centre and first to use environment-friendly toilets.

Facilities are essential to tourism development. To enhance the visitor experience, the Nuorilang service centre can accommodate over 3,000 tourists for meals, offers forty sightseeing platforms, nineteen rest pavilions, 70 km of boardwalk and 49 km of ecological and user-friendly highway has been rebuilt.

Tourists first

Park rules require management to put tourists first. To keep the park clean and safe, the administration has systems for cleaning, interpretation and emergency response. Information counters and complaint boxes have also been set up to make sure that tourists are well informed and any complaints and suggestions taken into account. Business activities inside the park are carefully monitored to ensure integrity.

Local community

The park administration has developed a set of measures to ensure that the rights of residents are respected and the community is directly involved in tourist activities. For example, a resident management office was established to define policies and provide training courses and a joint company was set up by the park administration and the local community in the 1990s. Priority work opportunities are provided to local residents, many of whom hold a management post within the park administration. Following the policy of 'visiting inside the park and staying outside', family hotels were closed and businesses were encouraged to move



Jiuzhaigou is known mainly for its many multilevel waterfalls and colourful lakes.

© Gill Penney

outside. In this respect, the prefecture government has promised to invest 140 million yuan to support the business-migrating project in 2012.

Competent staff

We believe that qualified staff are of great importance to the park's development. The park administration organizes group training for the staff every year. Learning is encouraged and a number of highly qualified staff members have been enrolled. Eight of these hold a doctorate and twenty-two Master's degrees. Five of the latter studied overseas, and twelve staff members have earned a senior professional title. Using the Jiuzhaigou International Laboratory, the Postdoctoral Research Station and Smart Park Forum as springboards, many eminent researchers, including members of the Chinese Academy of Sciences and fifteen foreign staffers and volunteers, have been recruited and are now involved in the park's research and management activities.

Marketing and branding

The marketing of Jiuzhaigou Valley is based on innovation. We value both domestic and international markets, with special stress on low season and

international marketing. We use such internet features as microblog, Facebook, Twitter and micro movies to enhance both domestic and international marketing, and promote low-season activities with such attractions as the International Ice Waterfall festival. In addition, and with a view to expanding group tourism, we have established a good level of cooperation with such reputed travel agencies as Hanatour of the Republic of Korea and China Youth Travel Service. In addition to sightseeing tours, the park has developed a set of such new tourist products as the Zharu Valley ecotour, Quna'e Valley ecotour and culture tours that appeal to different types of visitor.

After thirty years of exploration and practical experience, Jiuzhaigou Valley has established its own specific mode of protected development and become a model tourism destination emphasizing harmonious interaction with the local community. Jiuzhaigou will continue to adhere to the concept of sustainable development in order to develop as an international ecotourism destination, but also as a destination providing local cultural experience while remaining a best practice World Heritage site. ♻️



70 km of boardwalk allows visitors to discover the Jiuzhaigou Valley.

© Chris Nener

Singapore : The beginnings of a Garden City

Singapore's history dates back as far as the 14th century, whence relics of the ancient kingdom have been discovered in the Singapore River as well as on Government Hill (Fort Canning), where royal kings were buried. The Hill was also where the founder of modern Singapore, Sir Stamford Raffles, made his home at the start of British colonial rule in 1819. Raffles ordered nutmegs to be planted around the hill, which was achieved the same year, but his subsequently developed botanic and economic garden was doomed to failure for lack of official support and by 1829 it had been abandoned. Thirty years later a more viable proposal to establish Botanic Gardens outside the city centre at Tanglin was approved by the authorities, who granted 23 hectares of land to an Agri-Horticultural Society. Contrary to popular belief, this project was unconnected with Raffles' earlier garden, the only link being the nutmegs, whose cultivation had run into serious difficulties. Thus, in 1860, the Society could recruit an able garden designer in Lawrence Niven, a Scottish born and trained plantation manager who had time on his hands following the nutmeg decline.

Niven's brief was to develop the undulating parcel of land, covered largely by secondary vegetation, into a pleasure garden for the Society's subscribers. With convict labour supplied by the government, in less than a decade he transformed the area into an attractive landscape, replete with curving paths, a lake, flower beds and a conserved 6 hectare tract of virgin rainforest, the Gardens' Jungle. He laid out the Gardens in the 'English style' and levelled off the highest point as a band parade area, where moonlit performances were regularly held from c. 1861. So pleased was the Society with his efforts that in 1867 they took out a mortgage to fund the construction of quite a grand, classic black and white bungalow for Niven on a 10 hectare extension of land purchased the previous year. This generous gesture, however, caused the Society to petition the government to take over the Gardens in 1874, as they could not repay the mortgage on the house, known today as Burkill Hall, named after two later Singapore Botanic Gardens (SBG) Directors, Henry and Humphrey Burkill. Rarely has a debt resulted in something so positive, because with the government now in charge the SBG was transformed into a typical colonial establishment, soon directed by a qualified gardener-botanist, James Murton, appointed upon the recommendation of the Royal Botanic Gardens, Kew, UK.

Kew Gardens, a UNESCO World Heritage site since 2003, was the hub of the British colonial system of botanic gardens and stations, which grew in number from 8 to more than 100 during Queen Victoria's reign. Kew ensured that its sister gardens around the empire kept high curatorial standards – they were supplied with plants of economic value to test, charged to report on their successes and failures and, most importantly, staffed with qualified and usually Kew-trained managers.

Murton arrived with new plants and began labelling the collections, commencing SBG's finest piece of landscape, Palm Valley. He started a small herbarium, while exploring beyond the island for new plant resources. Once the Gardens' 33 hectares of land had been filled, he



The 1850s gazebo juxtaposed with modern Zimbabwean sculpture.

was given an additional 41 hectares to the north for Economic Gardens, in 1879. Over the next 40 years Murton and his successors at SBG, Superintendent Cantley and Directors Ridley and Burkill, began to fundamentally transform the agro-economy of the Straits Settlements and beyond. There were introductions of and/or experimentation with new varieties of coffee, Pará rubber from Brazil (via Kew), gutta-percha and white gutta (for coating undersea cables), African oil palm, various sugar- or starch-producing crops, pineapple, medicinal plants (e.g. ipecacuanha against dysentery), plantation timber trees and trees for planting along streets, in parks and to reinforce local natural forest reserves. Several of these early introductions persist in the Gardens today and are amongst 34 officially designated Heritage Trees, which feature both exceptionally large and rare specimens. Also added in 1882 was the Plant House for holding public flower shows and Ridley Hall for the herbarium & library, then in 1910, Corner House, later used as the Assistant Director's residence.

The most remarkable of the new crops was undoubtedly rubber, which, from Ridley's first success in persuading a Straits' planter in 1895 that investment was worthwhile, grew into a regional industry supplying half the world's demand by 1920. Ridley was much more than just a persuasive Gardens' Director – he was also very practically minded, devising improved methods that revolutionized the extraction of rubber latex across the region. Like his predecessors he was an avid collector of plant specimens and is credited with describing 1,000 species new to science. One of his interests was in common with those who came before and after his tenure – orchids. In 1893, he named the hybrid Vanda 'Miss Joachim', since 1981 the Republic's national flower, and thereby started an interest in orchid hybrids that continues to this day.



Ridley with Rubber Tree.



Swan Lake, 1866.



View of Palm Valley, begun 1879.



The *Cyrtophyllum fragrans* (Tembusu) is thought to antedate the foundation of SBG.



Holttum Hall, 1921.



The 1930 Bandstand on Lawrence Niven's 1860 parade ground

The development of orchid hybrids was, however, held back for technical reasons until another SBG Director, Eric Holttum, appeared on the scene. Holttum was first and foremost a botanical scientist, but had a strong interest in horticulture, which he promoted. In 1928, he set up a laboratory above his office, now called Holttum Hall, to demonstrate how orchid seeds could be raised in sterile glass flasks with artificial media, soon revolutionizing the breeding of hybrids and founding a new regional horticultural industry, for which South-East Asia is justly famed. Holttum also added various buildings and structures to SBG's landscape, the most famous of which is the Bandstand, erected upon Niven's parade ground in 1930. Holttum Hall will house SBG's Heritage Museum later this year.

During the Second World War SBG was largely protected by the occupying Japanese forces, being mindful of its cultural and scientific importance. An interesting artefact from this period (1942–45) is two flights of brick steps that lead down to the Plant House, made by Australian PoWs during the occupation. Eight of the PoWs paid a return visit to SBG in 1995 upon the 50th anniversary of the cessation of hostilities to view their work, the bricks being marked by crudely embossed arrow signs,

Singapore's 'City in a Garden' vision has its roots firmly embedded in SBG

most likely placed to indicate 'detained by the authorities'. After the war the Gardens struggled as qualified horticulturists were in short supply, but by a decade later recovery had occurred and in 1956 the first 'VIP Orchid Naming' took place, a tradition that continues to this day. Lady Anne Black, the colonial governor's wife, was the first recipient followed by more than 190 international heads of state similarly honoured with new orchid hybrids exclusively bearing their names. Today a selection of these can be seen in the National Orchid Garden beside Burkill Hall.

Late in 1959, SBG's hundredth anniversary year, the Gardens took on a new role as the venue for promoting racial cohesion and the development of a distinct national culture as the island manoeuvred towards independence from colonial rule. Over three months a series of cultural events were held, the first opened by then Prime Minister Lee Kuan Yew, who addressed an audience of 22,000, including the words "Here, under open skies, Malays, Chinese, Indians will, I hope, discover the materials for a national art and national culture". The following decade saw the start of the Singapore

'greening' movement, which celebrates its 50th anniversary this year. Singapore's 'City in a Garden' vision has its roots firmly embedded in SBG, since it was the Gardens that initially held the expertise and plant materials to carry it forward. Burkill Hall, the Director's residence until 1969, became a School of Ornamental Horticulture, whilst the Gardens otherwise contributed many new trees and shrubs for planting all over the island – a repeat of its work in the 1880s.

"Here, under open skies, Malays, Chinese, Indians will, I hope, discover the materials for a national art and national culture"

From the 1990s, preservation of the Gardens' heritage landscape, including the planting of trees to screen off the external high-rise cityscape, was accompanied by many new visitor-focused and educational developments. Regular festivals on plant-related topics and the inclusion of the Jacob Ballas Children's and National Orchid Gardens as out-of-classroom excursions in the National Curriculum have helped engage both international tourists and local communities, driving SBG's visitorship towards 4.5 million annually. For a densely populated country of only 713.4 km², to prioritize the protection of SBG's 74-hectare tract of historic greenery, which includes a small section of primary rainforest, reflects a determined commitment to ensure this is a site that will be the focus of national pride for future generations.

Nigel Taylor, PhD, is Director of the Singapore Botanic Gardens



www.sbg.org.sg

Wet Tropics of Queensland

Sharing best practices

Andrew Maclean
Wet Tropics Management Authority, Cairns (Australia)

Wet Tropics of Queensland (Australia) were inscribed on the World Heritage List in 1988.

© Our Place – The World Heritage Collection



The Wet Tropics of Queensland is one of nineteen Australian World Heritage properties. Extending some 450 km along the north-eastern coast of the Australian continent, adjacent to the Great Barrier Reef, the property was inscribed on the World Heritage List in 1988, meeting all four of the natural World Heritage criteria.

Rainforests of Gondwana

The Wet Tropics rainforests are recognized for their outstanding natural beauty, their remote ancestry and many unique plants and animals.

The 894,420 ha World Heritage property is a region of extraordinary biodiversity, an amazing living museum. Comprising only 0.12 per cent of the Australian continent, it supports over 2,800 vascular plant species of which over 700 are endemic to the area, as well as 40 per cent of Australia's bird species; 30 per cent of its mammal species and 60 per cent of its butterfly species.

The Wet Tropics rainforests are descended from the rainforests of Gondwana, which flourished there hundreds of millions of years ago. Although much of the Australian continent has dried since the breakup of the Gondwana supercontinent, regular rain and a humid, tropical climate along the north-east coast allowed pockets of Gondwana rainforest to persist.

The Wet Tropics is home to the Rainforest Aboriginal people who have inhabited its ancient forests for thousands of years and continue to live in accordance with their rich cultural and spiritual connection to the land. The ecosystems of the Wet Tropics region have evolved over aeons through active Aboriginal interaction with the land and management of its resources. Although not listed for its cultural values, these are nevertheless a profoundly important feature of the Wet Tropics landscape. The recent recognition of the indigenous cultural values of the Wet Tropics World Heritage property and their inscription on Australia's National Heritage List caused much celebration.

Management institutions

In view of Australia's federal system of government, management of World Heritage properties requires close cooperation between the national and



Wet Tropics of Queensland covers 894,420 ha and features an impressive biodiversity.

© Kyle Taylor

state governments. In the case of the Wet Tropics of Queensland, the two levels of government agreed to establish the Wet Tropics Management Authority in order to make sure that Australia's obligations under the World Heritage Convention are met. The authority, jointly accountable to the two governments and reporting independently each year to the Australian and Queensland parliaments, is governed by a Board of Directors nominated by the two governments for expertise in various aspects of World Heritage management. Day to day on-site management of the Wet Tropics landscape remains the responsibility of the various land managers within the World Heritage property. The authority also has planning, communication and coordinating roles.

As a small agency, the Wet Tropics Management Authority exerts influence

through partnerships. Key partners are regional and community catchment management organizations, local government, land managers, the Queensland and Australian land and environment management agencies, non-governmental organizations (NGOs) and the tourism industry.

Conservation and protection

Prior to its inscription on the World Heritage List, the rainforests of the Wet Tropics were extensively harvested for timber. Listing led to the immediate and complete prohibition of logging. With the cessation of this major disturbance, current threats to the forests of the World Heritage property remain fragmentation, pest and weed invasion, impacts of infrastructure and climate change.



The ecosystems of the Wet Tropics region have evolved over aeons through active Aboriginal interaction with the land and management of its resources.

The State of Queensland passed the Wet Tropics World Heritage Protection and Management Act 1993 to underpin the integrated conservation and management of the area. This provided for the statutory Wet Tropics Plan 1998 that regulates use and development within the property. The Management Plan establishes a zoning system and controls all activities that may have more than a minor or inconsequential impact on the World Heritage property. This ensures that such activities as the construction of roads, powerlines, pipelines and dwellings are all

subject to regulatory oversight by the Wet Tropics Management Authority. Although it is rarely necessary to apply them, there are strong penalties for offences against the Act.

Backed by this regulatory framework, the authority works closely with infrastructure agencies to develop innovative approaches to design and construction conceived to accommodate essential infrastructure while minimizing impacts. This work has led to the establishment of codes of practice for the water industry, road maintenance and electricity supply.

Strategic planning to mobilize action and coordination among partners complements the regulatory regime. For example, the Wet Tropics of Queensland provided the focus for the Wet Tropics Conservation Strategy (available online at www.wettropics.gov.au, along with most other documents referred to) developed for the property and its surrounding bioregion. The conservation strategy emerged from a partnership between numerous government and community organizations and remains influential in the setting of priorities and the allocation of resources.

At the national scale, Australia's Environment Protection and Biodiversity Conservation Act 1999 provides an additional layer of protection for the Wet Tropics World Heritage Area (along with all other World Heritage properties in Australia). Any action that may have a significant effect on its values both within and without the property will be subject to the assessment and permitting provisions of the Act.

Further legislation complements the protection and management regime established under State and Commonwealth legislation. The Far North Queensland Regional Plan 2030 made under the Queensland Sustainable Planning Act 2009 explicitly recognizes the values of the Wet Tropics World Heritage area and contains provisions that contribute to protection and conservation through sympathetic local government planning and development control mechanisms.

Working with communities

Engagement of local communities is a central goal of the management regime for the Wet Tropics World Heritage property. The Wet Tropics Management Authority is a regionally based statutory authority with a board of directors drawn largely from the local community. This ensures that the authority maintains close and extensive networks within the community.

The authority supports a community consultative committee (CCC) comprising stakeholders drawn from a wide cross-section of community interests, including indigenous representatives. The CCC advises the authority on issues of concern to the community and the CCC chairperson attends board meetings as an observer, thus ensuring a direct line of communication.



The Wet Tropics is a Gondwana rainforest relict.

© Certified Su



The World Heritage site stretches along the north-eastern coast of Australia for some 450 km.

© Kyle Taylor

Very high priority is given to ensuring that Rainforest Aboriginal people have a direct voice in the management of their traditional lands. A variety of engagement methods have been used adapting to the shifting needs of the Aboriginal community, their cultural priorities and capacity. The authority is currently supporting Aboriginal people in the establishment of an independent entity called the Rainforest Aboriginal People's Alliance (RAPA). RAPA represents a further step towards self-determination for the Aboriginal community.

The particular importance of engagement with the environmental NGO sector prompted the authority to establish a Conservation Sector Liaison Group. Chaired by a senior representative of the sector, regular meetings with authority staff and reports to the board ensure that issues are identified early and the authority remains well connected with the voluntary environment sector. In a similar vein, the authority supports a tourism industry network through which it aims to maintain a direct relationship with all parts of this important regional industry.

Promoting Wet Tropics themes in schools is an important contributor to the World Heritage Convention goal of transmission to future generations.

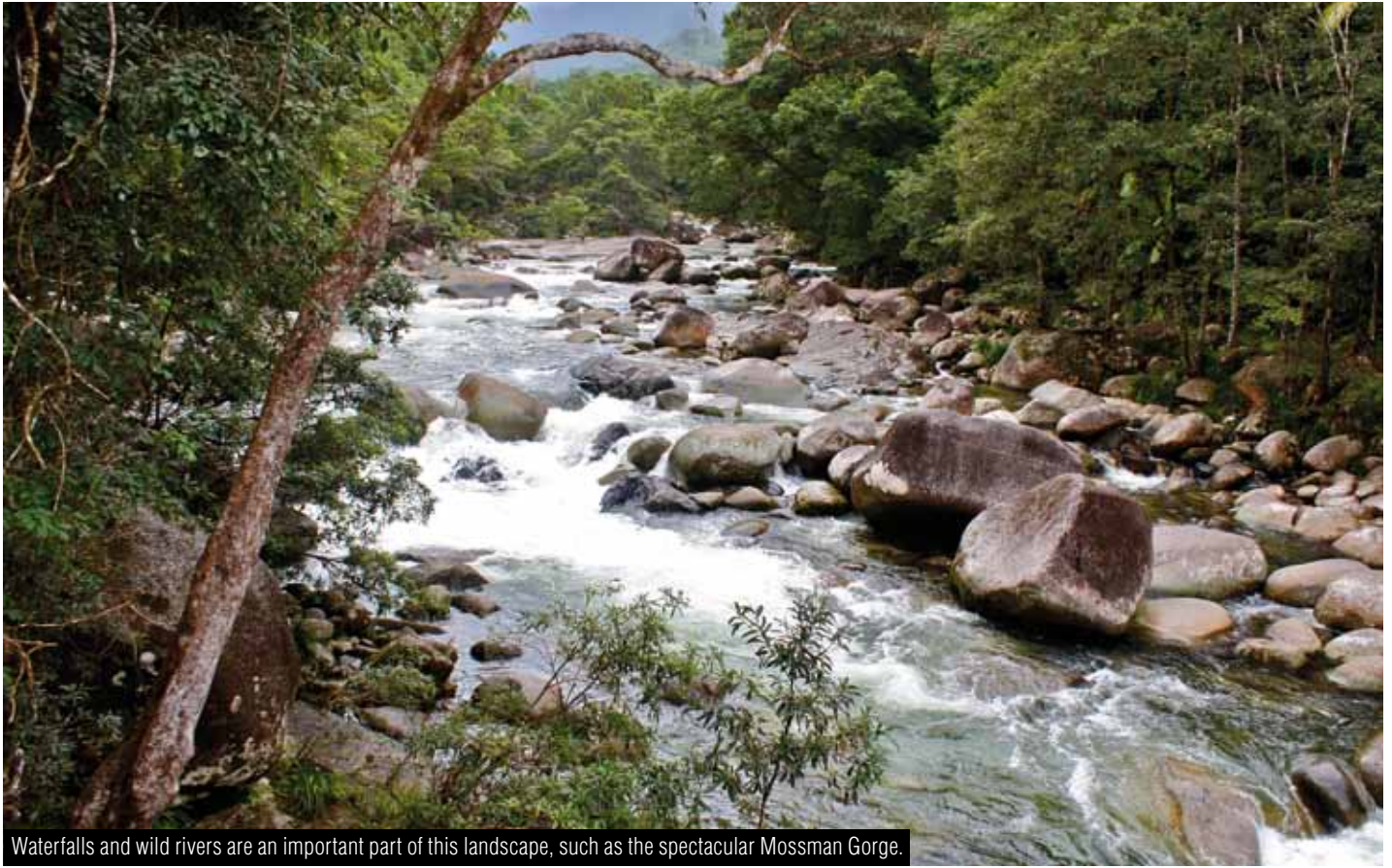
In combination, these and other measures have helped to keep the Wet Tropics community well informed of the Outstanding Universal Value of the World Heritage property and give it direct access to decision-making and opportunities to contribute to conservation. Independent community surveys of attitudes to the Wet Tropics of Queensland property indicate a very high level of support for its World Heritage status.

Education and research

Promoting Wet Tropics themes in schools is an important contributor to the World Heritage Convention goal of transmission to future generations. The Wet Tropics Management Authority has developed a package of curriculum materials to assist teachers in the delivery of Wet Tropics

themed teaching in schools. Available either online or as a DVD, *Rainforest Explorer* is a popular and effective resource for teachers and students.

The Wet Tropics Management Authority maintains close links with the research community through the support of a scientific advisory committee. Committee members are leading rainforest scientists who help to ensure that management staff in all agencies are continually exposed to up-to-date research relevant to the property. The committee also helps to co-opt the skills and knowledge of the research community. With the support of the scientific advisory committee, the authority has completed the *Wet Tropics Research Strategy* that aims to guide research effort and facilitate knowledge transfer.



Waterfalls and wild rivers are an important part of this landscape, such as the spectacular Mossman Gorge.

© Kyle Taylor

The management system established for the Wet Tropics of Queensland is an enduring success.

Tourism

The Wet Tropics of Queensland, along with the adjacent Great Barrier Reef, represents the major draw for the large tourism industry in tropical North Queensland. The Wet Tropics Management Authority works in close partnership with the tourism industry to offer visitors to the region a high-quality experience, so that their visit enhances their understanding of the values of the Wet Tropics and tourism operations pose minimal risk to these values.

The framework for tourism in the World Heritage property is established in the *Nature Based Tourism Strategy*. Developed in close consultation with the tourism industry and relevant government agencies, this strategy maps out a sustainable future for the industry in the property.

The regional tourism industry recognizes the importance of its reputation for quality

and sustainable practice. A high proportion of operators have secured certification for their operations through the national environmental accreditation organization, Ecotourism Australia. The authority aims to promote high standards in the commercial tour guide industry. In partnership with the Queensland Tourism Industry Council, it has developed a training curriculum specifically for the Wet Tropics and is supporting the development of a tour guide network to build and maintain the quality of interpretation and presentation of the World Heritage property.

An exciting new development that will assist Rainforest Aboriginal people to gain economic benefit from the World Heritage property is under way at Mossman Gorge. This is the most heavily visited site in the Wet Tropics with more than half a million visitors each year. Changes to access will allow the Eastern Kuku Yalanji peoples to

charge and retain an access fee and provide cultural and environmental interpretation at the site. The new arrangements will also assist in managing visitor pressure, reducing impacts on the Outstanding Universal Value of the property.

Keys to success

The management system established for the Wet Tropics of Queensland is an enduring success. In place for over twenty years, the system has helped to align and coordinate the interests of the Australian national and Queensland state governments. It has promoted high standards of environmental management performance while providing for essential community infrastructure. It has built partnerships between government agencies, communities and industries and mobilized support for conservation programmes. Most importantly, the management system has built and celebrated strong connections between the World Heritage property, its management agencies and its communities, building understanding, confidence and trust. 🌿

Medieval City of Rhodes

From impregnable fortress to living city

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Medieval City of Rhodes (Greece) was inscribed on the World Heritage List in 1988.

© Ilin Wu





The Marine Gate was the main entrance to the town from the harbour.

© Medieval City of Rhodes



The monuments illustrates the fusion of Western and Eastern cultures.

© Medieval City of Rhodes

Rhodes is the main island of the Dodecanese region and due to its strategic geographical position, the city of Rhodes has remained an important

port from antiquity to the present day. During the Hellenistic period Rhodes was one of the most beautiful and best-organized cities, with an impressive orthogonal grid plan reflecting the ideas of the ancient Greek town planner and philosopher Hippodamus. From the 14th to the beginning of the 16th century the island was occupied by the Order of St John of Jerusalem (Knights Hospitallers). For two centuries the multinational character of the Knights Hospitallers encouraged financial, political and cultural contacts between the city and both West and East and Rhodes flourished. The city was finally conquered by the Ottoman Turks in 1522, after a siege of several months.

The fortified city covers an area of 35 ha, while the perimeter of the walls is about 3.5 km. The 7th-century fortifications were expanded and reinforced during both the Byzantine and the Hospitaller era; they were also repaired and slightly modified by the Ottoman Turks (1522–1911). Gates

Due to its strategic geographical position, the city of Rhodes has remained an important port from antiquity to the present day.

were opened along the walls, protected by outworks and moats and reinforced by towers and bastions.

The monuments preserved within the walls today are the material evidence of all historical periods and reflect the fusion of Western and Eastern cultures. Visitors can discover the Palace of the Grand Masters (Castello), archaeological sites dating back to the classical period brought to light by excavations, churches of the Byzantine or the Hospitaller period, Ottoman mosques, and a synagogue. Although drastic interventions were undertaken under Italian period (1912–43) in the spirit of the time, the result remains impressive and fascinating.

The Medieval City of Rhodes was inscribed on the World Heritage List in 1988. The buffer zone outside the city was defined in the 1920s and consists of verdant parks and the sea, which mark the limits of the protected area of the fortified medieval complex.

The property is fully protected by an up-to-date institutional and legal framework (Archaeological Law on the protection of Antiquities and Cultural Heritage in general), but also by the city's listing as an archaeological site in 2009 and the promulgation of several ministerial decrees on land use). Furthermore, a presidential decree is being prepared by the Municipality of Rhodes in cooperation with the regional service responsible for the property, the 4th Ephorate of Byzantine Antiquities, which will define specific regulations for building and use of land within the limits of the cultural property. Funding for the management and preservation of the Medieval City of Rhodes comes from the national budget and European Union programmes.

Long before the medieval city's inscription on the World Heritage List, however, the 4th Ephorate had pointed out the city's unique character and specific needs.



The fortifications of Rhodes exerted an influence throughout the eastern Mediterranean basin at the end of the Middle Ages.

© Medieval City of Rhodes

A collaborative venture

Realizing that the management of a medieval city which is still inhabited could not be implemented without the active participation of the local community, the 4th Ephorate initiated a collaborative venture with the Municipality of Rhodes in 1985. This pioneering project was supervised by the late Elias Kollias, a generous, innovative and dedicated archaeologist who was at the time director of the 4th Ephorate. A committee, including representatives from all interested parties, defined the objectives of the project; the elaboration of all the necessary studies and the organization and supervision of works undertaken was entrusted to the newly created Office of the Medieval City of Rhodes. Moreover, since 1998 the Credit Management Fund for the Execution of Archaeological Projects, operating under the supervision of the then Ministry of Culture (now the General Secretariat of Culture of the Ministry of Education and Religious Affairs, Culture and Sports), also contributes to the work undertaken by the local Ephorate.

In this framework restoration projects were implemented, notably at the hospice of St Catherine, which was awarded

The most important achievement has been the restoration of the city's massive fortifications, a unique example of military architecture.

the European Union Prize for Cultural Heritage (Europa Nostra Awards) in 1997, the Monastery of St George at the Gothic Church of Santa Maria del Borgo, the large monumental complex which includes the archaeological site of the Order of the Knights of St John and the Mosque of Süleyman the Magnificent, the mosques of Mehmet Aga, Sintrivan and Hamza Bey, the Church of St Catherine (Ilk Mihrab) and the complex of urban residences in which it is included, and the house of Prince Djem. The projects on the Süleyman mosque, Santa Maria del Borgo and the Orthodox Monastery of St George (Hourmali) were awarded a special mention from Europa Nostra as exemplary restorations of monuments of different religions in 2006. At the present stage, the Inn of Spain is being restored.

However, the most important achievement has been the restoration of the city's

massive fortifications, a unique example of military architecture. The fortifications presented serious conservation problems, due to erosion and to bombing by the Allies during the Second World War. The large-scale restoration project managed to contain further deterioration while several parts of the fortifications acquired a new use, including the bastion of Auvergne, which is now used for a variety of cultural functions. Finally, the transformation of the moat was a truly impressive project. Initially a rather neglected area, it was turned into an attractive archaeological as well as recreational site open to the public.

In addition to the restorations, the recently refurbished Museum of Rhodes provides material evidence for the historic and cultural profile of the island, throughout the centuries; the premises of the former Knights' Hospital are now the museum's main building while the



The Street of the Knights.

© Medieval City of Rhodes

Epigraphic and Prehistoric museums have been installed in medieval buildings that bear architectural witness to the Ottoman as well as the Italian era. The gardens surrounding the buildings, in the heart of the medieval city, are now open to the public and a valuable addition to the property's assets.

Note that the venture aims not only to restore the monuments but also to improve living standards, thus providing the inhabitants with a motive to carry on living in the medieval city. In this context, a series of infrastructure works have been undertaken (including drainage and electricity networks, pioneering projects for waste management, and non-polluting means of transport, traffic and parking arrangements); a municipal health centre, a crèche, a centre for old people and a citizen information office are now operational and over twenty-five ruined properties owned by the Greek state were restored and rented to poor residents.

Tourism development and overexploitation of the area, combined with the tendency to change land uses, require vigilance and strategic planning, in order to reduce pressure and impact.

Tourism development

Managing tourism in the city of Rhodes is a difficult task. Tourism development and overexploitation of the area, combined with the tendency to change land uses, require vigilance and strategic planning, in order to reduce pressure and impact. Measures taken to deflect the growing tourist pressure include the compilation of an inventory of properties and their uses, which will facilitate the control of commercial activities (e.g. control of tourist services and their geographical restriction to the commercial zone of the settlement), traffic control within the medieval settlement, the creation of parking areas outside the city walls and the extension of opening hours of

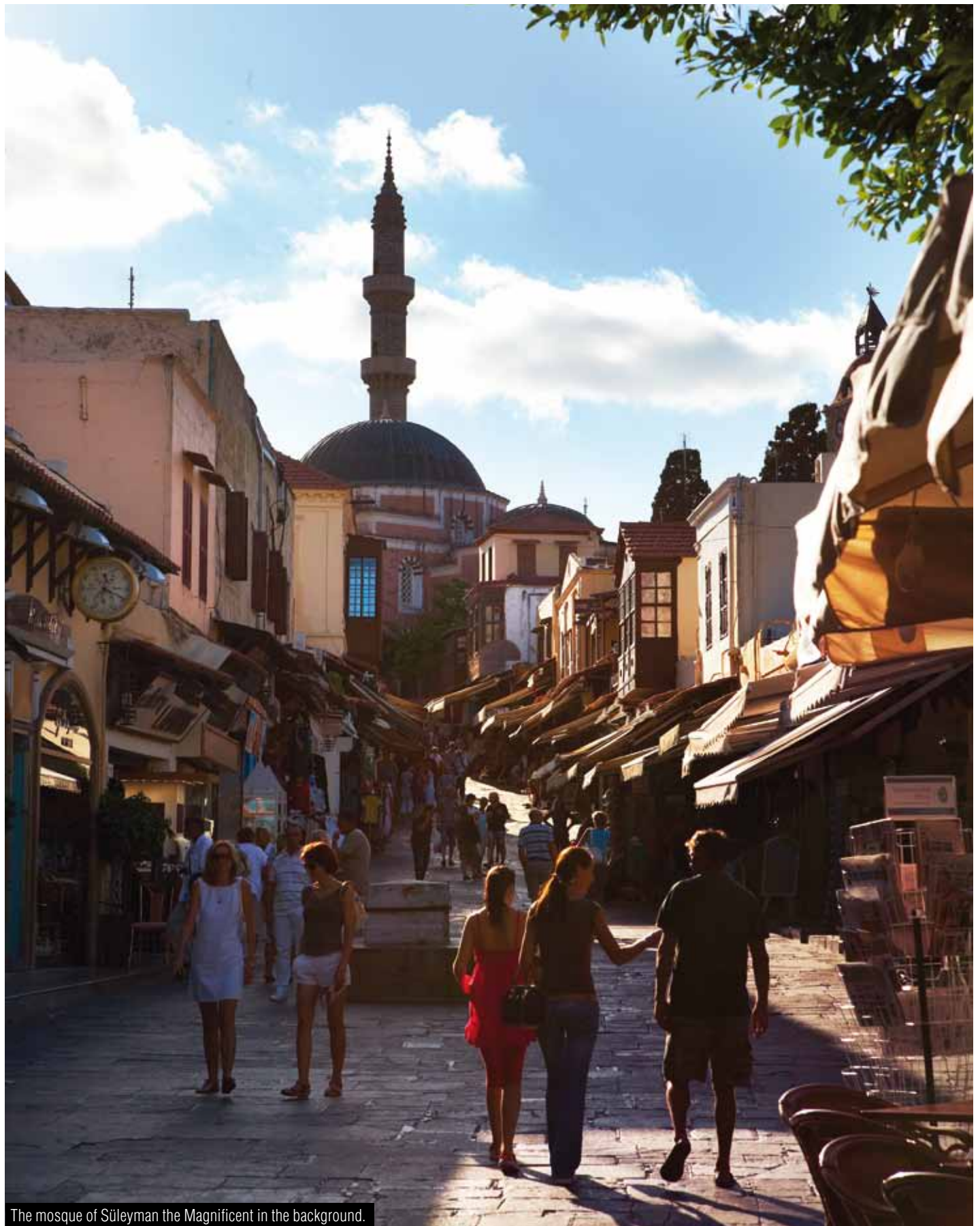
museums and archaeological sites in order to avoid overcrowding.

The continuous and thorough monitoring carried out by the 4th Ephorate of Byzantine Antiquities ensures the preservation of the authenticity and integrity of the cultural property. Conservation work makes use of the original building materials while taking into account every historical and architectural piece of evidence that can contribute to the 'faithful' restoration of the monumental complex. Attention is also being paid to the preservation of the urban plan of the medieval city, as well as to the historic layers of the property, which bear witness to its living and perpetually evolving character.



Aerial view of Rhodes.

© Medieval City of Rhodes



The mosque of Süleyman the Magnificent in the background.

© Medieval City of Rhodes



Palace of the Grand Masters.

© Medieval City of Rhodes

Capacity building is being pursued through the education and training of technical and scientific personnel, either by apprenticeships or seminars and educational programmes. Moreover, the 4th Ephorate offers guidance and expertise to property owners and professionals (architects and engineers) concerning the effective protection and preservation of the site.

Raising awareness concerning the protection and maintenance of the monumental complex is focused on the following points: the promotion and presentation of the archaeological activities in the local press and other media, the organization of cultural and artistic events open to a wider public, participation in cultural and scientific symposia and seminars at the local level, participation in working groups that deal with issues of common interest and the elaboration of educational programmes (Rhodes, the impregnable city; Nine archaeological riddles in need of solutions, etc.). In addition, the website of

the cultural property, info-kiosks and the posting of informative signs in the vicinity of crucial landmarks of the settlement are available to the public.

The participation of the Ephorate in national or international conferences (e.g. 7th International Symposium of the Organization of World Heritage Cities in 2003, the International conference on fifteen years of conservation works in the medieval city of Rhodes) provides tangible proof of the systematic study and documentation of the city.

Moreover, the local Ephorate collaborates with universities and other organizations in research programmes, on such topics as methods of conservation and protection of limestone; the EU TOSQA project designed to protect the historic centres of some 'at risk' cities from the effects of earthquakes and the RECITE/REBUILD Network Programme on renewable energies for building in European historic centres; publication of the volume *Archeologia & Ambiente*

Naturale, Prospettive di cooperazione tra le autonomie locali nel sud dell'Europa in cooperation with other European regions; and EUROMOL (professional training courses on the techniques of restoration of European windmills).

Like every active settlement, the city of Rhodes is subject to constant change, making management a continuous adaptation to new practices. The medieval city is a crossroads of civilizations whose influence was felt throughout the eastern Mediterranean basin during the Middle Ages. It is also a place where present and future meet. Our task is to maintain the values that earned the property a place on the World Heritage map. 🌐

The authors would like to thank the director of the 4th Ephorate, Ms M. Michailidou, and archaeologist A. M. Kasdagli for providing information and photographs (from the Ephorate archives) of the latest restoration works on the property.

ARMENIA

LAND OF STONES



Noravank Monastery

One of the masterpieces of Armenian architecture Noravank Monastery was founded in the year 1205. The ensemble stands amidst the bizarre-shaped precipitous red cliffs. Built in place of an ancient cloister, it grew in the reign of Prince Orbelian of Syunik. In the 13th - 14th centuries, the monastery became a residence of Syunik's bishops and, consequently, a major religious and, later, cultural centre of Armenia closely connected with many of the local seats of learning, primarily with Gladzor's famed university and library.

Here are the most beautiful cross-stones and reliefs of the remarkably talented architect, sculptor and miniature painter Momik.

Gladzor University



Not far from Noravank stood one of the biggest academic centres of medieval Armenia Gladzor University. Set up in the second half of the 13th century on the basis of a monastery, the academy had a very high reputation in the world. It was not a monastery in the ordinary sense of the word, but a true university, and many people from different parts of Armenia, even from far-away Cilicia, came to Gladzor to study or to perfect their knowledge. The university had its own Charter. It used to award academic degrees and had a practice of defending master's theses. Subjects such as theology, philosophy, mythology, bibliography, grammar, oratory, logics, geometry and many others were taught at the university. Gladzor was also a cultural centre with its own manuscript tradition and school of book illumination.

Amberd



Amberd "fortress in the clouds" is a fortress complex with a church built in the 11th - 13th centuries on the slopes of Mt. Aragats at 2,300 metres above sea level. Like most other fortresses in Armenia, Amberd is built on a promontory hanging over the valleys of the rivers and thus protected on the three sides by a natural barrier.

Cupola's hall type church crowned by an umbrella shaped cupola has a simple and expressive exterior architecture and was built in 1026 by Prince Vahram Pahlavuni.



Sevan

Austere and majestic is the beauty of Sevan, which is a huge mountain lake lying at 1,905 m above sea level, is the largest in the Caucasus region and one of the largest freshwater high-altitude lakes in the world. Lake Sevan is rich in flora and fauna and especially famed for trout. Its shores have been declared a national park, and the state attends to the conservation of its natural beauty and to its animal and plant life. On the island with the same name, in AD 874 Princess Miriam founded Sevanavank monastery, which was an important spiritual centre, housing many monks for several hundred years.



Areni

In the Vayots Dzor Province of Armenia is located Areni village, which is best known for its wine production, being the world's oldest winery. The oldest complete wine production facility ever found dates back to roughly 4100 BC — 1,000 years before the earliest comparable find. Areni is also notable for an ancient leather shoe, which was found by archaeologists from Armenia, the United States and Ireland in the same mysterious Armenian cave complex in 2010.



Akhtala

Akhtala is a 10th century fortified Armenian Apostolic Church monastery. The fortress, which was almost certainly built on top of Bronze and Iron Age foundations, played a major role in protecting the north-western regions of the state, and is among the most well preserved of all in modern Armenia. Akhtala is famous for its highly artistic, breathtaking frescoes, which cover the internal walls, the partitions, and the bearings of the building.



Monte Albán

Mutual understanding and agreements with communities

Nelly M. Robles García
National Archaeology Coordinator of the National Institute of Anthropology and History

Historic Centre of Oaxaca and Archaeological Site of Monte Albán (Mexico) was inscribed on the World Heritage List in 1987.

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Monte Albán is situated on a mountain 400 m above the Oaxaca Valley.

© Alex Polezhaev



View of the architectural structures of Monte Albán.

© Instituto Nacional de Antropología e Historia (INAH)

The Archaeological Site of Monte Albán, inscribed on the UNESCO World Heritage List on 11 December 1987 along with the Historic Centre of Oaxaca, is among the first Mexican heritage sites.

Oaxaca, the religious, political and economic capital of the Zapotec civilization, lies on the outskirts of the modern city of Oaxaca in the region of the Valles Centrales (Central Valleys) in southern Mexico. It was founded around 500 BC, and abandoned towards AD 850. It thus thrived for thirteen centuries and was one of the oldest and longest-living pre-Hispanic cities on the American continent.

The terraces, dams, canals, pyramids and artificial mounds of Monte Albán were literally carved out of the mountain and are the symbols of a sacred topography. The nearby city of Oaxaca, which is built on a grid pattern, is a good example of Spanish colonial town planning.

Various archaeological research projects have revealed its regional, political and economic influence, covering a vast area of what is now the territory of Oaxaca and its

extensive relations with other major cities such as Teotihuacán.

Its conservation, as with all other archaeological sites in Mexico, is the responsibility of the federal government agency Instituto Nacional de Antropología e Historia (National Institute of Anthropology and History) and this article focuses on the complex relations with the surrounding communities and the manner in which matters were resolved.

Buffer zone

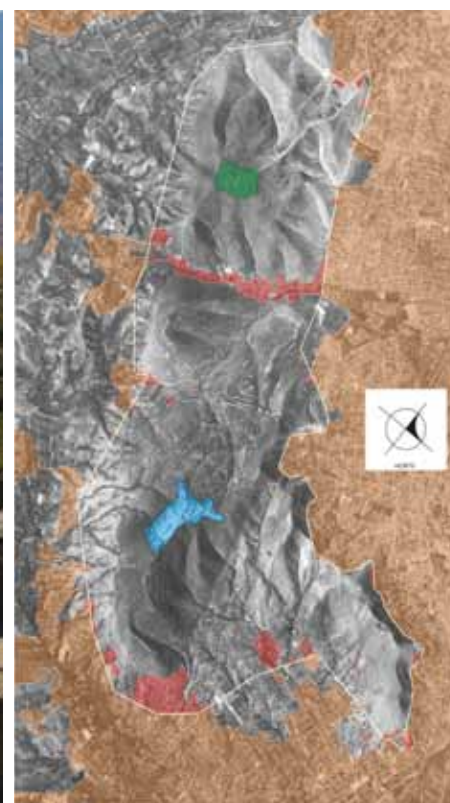
Even before Monte Albán was inscribed on the World Heritage List, one of the major challenges for its management and conservation was the potential incursion of irregular settlements in the buffer zone, aggravated by the complexity of types of land tenancy and the profile of the numerous surrounding communities.

Paradoxically, uncontrolled growth of the city of Oaxaca – part of the World Heritage site – is the greatest threat to Monte Albán's integrity, because the distance between the city and the archaeological zone is barely 6 km.

In the surrounding territorial fringe and within the archaeological zone, land tenancy is essentially social, being composed of *ejido* (communal land used for agriculture) and community lands, a scheme characteristic of Mexico's post-revolutionary period for lands destined to be used for production and community developments.

These agro-social centres are the collective heritage of the communities and represent the deepest identity values of the rural populations in central and southern Mexico. Their destinies are consequently the subject of extensive discussion and give rise to constant situations of conflict between agrarian centres and between them and governments, private interests, individuals, families and communities.

Against the background of this complex social issue, in 1997 the Programme for Management of the Buffer Zone was added to the management plan drawn up for the Monte Albán archaeological zone and became one of its main pillars. This programme provides ad hoc management for the territory occupied by the World Heritage site, aligning the importance of the central zone with the heritage zone.



Area open to the public
Group of monuments of Atzompa
© SCT, 2001

The programme comprises a variety of management strategies that include both supervision and joint action with the surrounding communities to prevent and, as the case may be, halt incursions resulting from the uncontrolled growth of the suburbs of the city of Oaxaca in the direction of the buffer zone's borders. In the light of scarce or non-existent municipal involvement (Monte Albán is surrounded by four other towns) and, accordingly, the absence of effective urban development plans designed to control anarchic growth within their territories, the management plan for the archaeological zone developed this ongoing programme, which is based on traditional practices of monitoring and collective adoption of agreements. This has made it possible to adapt this practice as a tool for interaction with the communities in defence of the buffer zone, to prevent the subdivisions and occupation of lands, which in most cases arises either from the clandestine sale of land by private individuals or corrupt *ejido* and communal leaders and incursion by political groups.

The programme comprises a variety of management strategies that include both supervision and joint action with the surrounding communities.

Social landscape

The Programme for Management of the Buffer Zone is based on characterization of communities viewed as heterogeneous population units within which different special interest groups co-exist, all of which have specific ways of operating with a view to furthering such interests. This characterization is well represented in specialized literature, which has been hugely enriched over the years by the ongoing study of Oaxaca as an entity of high anthropological interest.

In the specific case of the Monte Albán programme, each town, organization, agricultural centre, colony, etc. (all of them stakeholders) has different ways of operating, both in respect to the site and to the concept of World Heritage. Their identification has been achieved on the basis of interdisciplinary work, which shows a dynamic vision of their situation.

In this context, it has been crucial to identify historical concepts, theories and studies, projecting each case appropriately. In order to reflect the social complexity surrounding Monte Albán and other World Heritage sites, the term 'social landscape' is used to describe the stakeholders and their communication and modes of organization around cultural and natural heritage represented by the sites. In this way the appropriate type of relationship, agreement and management may be offered to each group or individual. Needless to say, this information is essentially based on day-to-day reviews in the field, and on industrious and respectful social research within each community, so that it is under this heading that anthropological, ethnographic, economic and sociological research must take place if the best decisions are to be made with regard to the social aspects of site management.



East Residence and ball game in the Atzompa Ensemble.

© Instituto Nacional de Antropología e Historia (INAH)

Once this ‘universe’ has been understood, it becomes possible to work out successful practices of mutual support for the conservation of a site’s remains. Rescue, salvage and other archaeological working modes supported by communities under a *tequio* (unpaid community work scheme in Oaxaca), are evidence of today’s acceptance of official management of the archaeological zone and its policies for buffer zone protection. Throughout this effort, the communities have participated directly in processes to recover their heritage (tours, digs and restoration), and through information supplied by archaeologists awareness has been raised in the different population centres in order to restrict land use and allow sustainable development of conservation plans for the site, research, education and public visits.

The Atzompa Heritage Ensemble project was launched in 2006, with academic goals focused on elucidating its role as an urban component of the city of Monte Albán.

Shared management and mutual benefits

The Atzompa Heritage Ensemble project was launched in 2006, with academic goals focused on understanding the development of the settlement and above all elucidating its role as an urban component of the city of Monte Albán, bearing in mind that Atzompa is an urban enclave of the Monte Albán III B-IV (650 BC–AD 850) period.

However, this project has special significance as a conservation strategy, given that it started out as a management exercise with two priorities:

- To show how valuation of heritage archaeology can have a direct effect on public respect for heritage areas, discouraging uses that are incompatible with conservation (e.g. subdivision for housing, pasturing, timber extraction for firewood). In other words, the strategy ‘to defend archaeology by showing archaeology’ was developed.
- To demonstrate how exposure of the archaeological zone and its appropriate management could translate into direct benefits for community development. This meant turning theory into practice, and moving from the surrounding territory to the heritage zone.



Terraces, pyramids and artificial mounds of Monte Albán were literally carved out of the mountain and are the symbols of a sacred topography.

© Antti T. Nissinen

Because this community is one of Oaxaca's producers of handmade pottery, Atzompa essentially depends on its offering to tourism, as its products are highly coveted for decoration around Mexico and beyond. Accordingly, a partial management plan was devised to allow a physical link to Monte Albán and Atzompa, driving visitors directly to the archaeological zone and its community museum, and from there to the town where traditional handicrafts have been produced for centuries as a cottage industry. So every visitor to the archaeological zone must necessarily pass through the community, where the handicrafts and services provided by the craft workers are exhibited. Jobs generated over the six-year period of the project went only to workers from Atzompa. More than 100 families have benefited annually from

the wages paid for their support of the archaeological work.

Since this Monte Albán sector was officially opened to the public in October 2012, management of the archaeological site has been shared, given that in accordance with several agreements, the Community Museum is now exclusively managed by a committee designated by the people, while the heritage zone depends directly on management of Monte Albán, thus ensuring professional care and consistency with plans, projects and programmes designed for end-to-end management of the World Heritage site.

This shared management scheme, mainly based on the balance resulting from good relations between the institution and the community, has become possible thanks to a significant change in the official paradigm traditionally implemented in Mexico in

caring for heritage sites. This refers to a limited reading of the legislation under which Mexico's archaeological heritage is conserved, researched and publicized, the 1972 Federal Archaeological, Artistic and Historic Monuments and Zones Act, in which only the terms relating to official management of these cultural resources had so far been applied.

However, the same Act also lays down the relevant principles that allow agreements such as those established in Atzompa, which have led the community to perceive this undertaking as an auspicious move towards positive relations between government and the community, and thus beneficial to the overall conservation of the archaeological zone and economic development favouring descendants of the ancestral cultures embodied in Monte Albán. ☉

Welcome home – we've been awaiting you for 4 million years

Shamilla Chettiar
Programme Manager: Research and Planning
Cradle of Humankind World Heritage Site Management Authority

Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai, and Environs (South Africa) were inscribed on the World Heritage List in 1999.

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Sterkfontein Dam, Sterkfontein Dam nature reserve.

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The South African Cradle of Humankind World Heritage Site (COH WHS) is the popular name for the Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai, and Environs, inscribed on the World Heritage List in 1999 as a serial site which, together with the Makapan Valley and Taung Skull Fossil Site (inscribed in 2005) form the Fossil Hominid sites of South Africa. Collectively these sites, the home to such famous fossils as Mrs Ples, Little Foot and Karabo, have produced abundant scientific information on the evolution of modern humans over the past 3.5 million years at least. They contain within their deposits all the key interrelated and interdependent elements in their palaeontological relationships. Alongside and predating the hominid period of occupation is a sequence of fossil mammals, micro-mammals and invertebrates which provide a window onto faunal evolution, palaeobiology and palaeoecology stretching back into the Pliocene. This record has come to play a crucial role in furthering our understanding

The Cradle of Humankind, a cultural landscape formed by a sensitive dolomitic karst system, contains rare Bankenveld grasslands and several Red-listed and medicinal plant species.

of human evolution and the appearance of modern human behaviour. This article deals exclusively with development and management practices relating to the COH site.

The Cradle of Humankind, a cultural landscape formed by a sensitive dolomitic karst system, contains rare Bankenveld grasslands and several Red-listed and medicinal plant species. The site covers an area of 52,000 ha, all on private land. It has fourteen excavated fossil sites (only two are open to the public) and over 200 unexplored caves. It is anticipated that this site will continue to yield many significant fossil finds in the future. Its success can be directly attributed to the high degree of political support provided by the State Party and to a supportive legislative environment, as well as to a commitment to partnerships,

notably between the government and the University of the Witwatersrand, private landowners, scientists and various organs of state, as well as an extensive master plan which has been progressively and systematically implemented.

The model for development of the site was designed to leverage private sector investment through state investment in strategic economic infrastructure. In the development of the Maropeng and Sterkfontein Interpretation Centre Complex (ICC), 1,200 temporary and 600 permanent jobs were created. Although a causal link is difficult to establish, since the listing of the COH as a World Heritage site government investment in the area has seen a growth in tourism products from 69 in 1999 to 401 in 2012. Tourism has created 6,008 jobs in the COH area in 2012. This number is expected

to grow to 6,447 by 2015. 110 jobs have been created directly by the Maropeng and Sterkfontein ICC. In 2008 constant figures in the Regional Gross Domestic Product forecasts for the COH indicate an annual increase in tourism turnover from 819 million rand in 2012 to 895 million rand in 2015 (R834 m in 2013; R859 m in 2014). The impact of total tourism expenditure in 2012 according to GDPR is R682 million increasing to R745 million in 2015. The COH is making a real contribution to job creation and economic growth.

Science alone does not create a destination and there is a clear and targeted marketing and communications strategy for the COH. A significant volume of other marketing and public relations have contributed to the current evolution of the site. There is targeted attendance at international and domestic tourism exhibitions. The exhibition at the 7th Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change in December 2011 drew crowds of visitors. When such tangible benefits arising out of World Heritage status can be demonstrated, public support and ownership for the site can be secured.

Evolution of the COH

The COH was inscribed in 1999 together with Robben Island and iSimangaliso Wetland Park as South Africa’s first three World Heritage sites and the site managers entered uncharted territory. This brought out their pioneering spirit, for it was clear from the outset that in addition to ‘protecting and preserving the site on behalf of future generations worldwide’, developments on the COH sites would also have to focus on job creation and economic growth. Phases of development in the COH WHS are outlined on the chart (right) which demonstrates that, in fourteen short years, the COH has had many achievements to celebrate.

The COH is fortunate to enjoy high levels of political support and adequate budget allocations and it operates within an environment that has clear legal protection mechanisms. South Africa also has exceptional legislation including the World Heritage Convention Act, Act 49 of 1999, which provides the legal framework for the management of World Heritage sites.



Entrance to the Sterkfontein cave.

© Meraj Chhaya



In Focus Cradle of Humankind

Other key pieces of legislation relevant to management of the COH are the National Environmental Management Act 107 of 1998, the National Environmental Management: Protected Areas Act 57 of 2003, the Biodiversity Act 10 of 2004 and the National Heritage Resources Act 25 of 1999. Since 2009 the COH has received permission to pursue development activity in the area as an independent regulatory authority. Such permission is independent of that issued by the Environmental Authority and Local Authorities and has provided an additional layer of protection for the site. However, capacity for compliance and enforcement remains a challenge. Cooperative governance relationships have been worked out and are invaluable in managing the site holistically.

Success can be attributed to two other factors. Firstly, the COH has been successful in protecting, preserving, interpreting and promoting the Outstanding Universal Value of the property primarily because an extensive master planning exercise was undertaken shortly after listing.

The power of such planning cannot be overemphasized. This particular plan

took two years to develop and involved extensive public participation. The plan provided a detailed blueprint and has allowed for progressive implementation of integrated conservation and environmental management, tourism and infrastructure development, marketing, monitoring and evaluation, management information systems, a management model, and socio-economic impact and financial modelling.

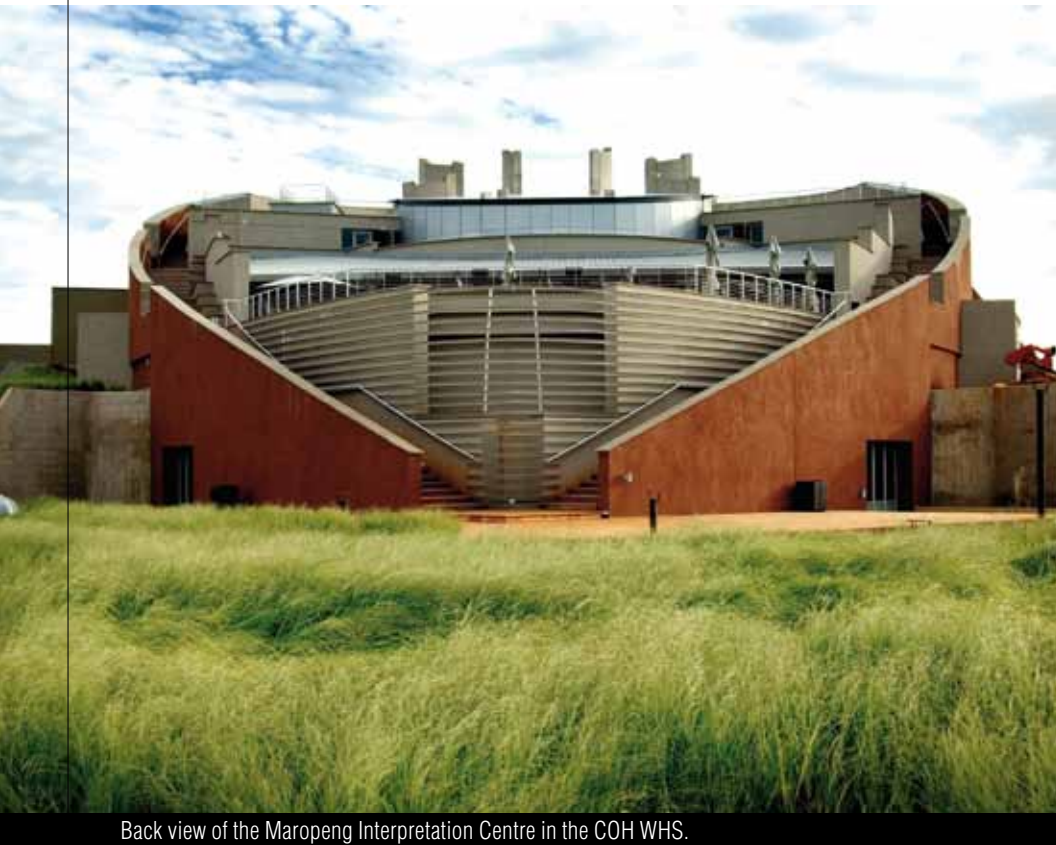
The most challenging aspect has been that all the individual sites composing the property are privately owned and any work undertaken needs to be negotiated and carefully managed. The watchword through the master planning exercise was 'balance'. The vision derived from this exercise remains relevant today: 'to achieve an acceptable balance in the World Heritage site between the conservation of cultural and natural resources, access, education, and scientific research, the interests of those

living and working in the area, and its use for the economic and social benefit of the population at large, within the framework of the World Heritage Convention'.

Secondly and more importantly, it was clear that the COH team by itself would not be able to achieve all the goals set out in the master plan. Indeed, the COH has demonstrated the value of building relationships and partnerships, and from the outset there has been a deliberate attempt to create strategic relationships and partnerships in order to ensure that this site is protected for future generations.

Partnerships with the University of the Witwatersrand, landowners, scientists, communities and other organs of state have made successful management of the site possible. The fact that the site was not directly responsible for managing scientific research but rather had the overall responsibility for development and

The most challenging aspect has been that all the individual sites composing the property are privately owned and any work undertaken needs to be negotiated and carefully managed.



Back view of the Maropeng Interpretation Centre in the COH WHS.

© Gauteng Tourism Authority



Front view of the Maropeng Interpretation Centre.

© Gauteng Tourism Authority

management turned out to be enormously valuable. Most of the work done for the COH has been underpinned by extensive public participation. It is always a challenge to balance competing agendas and whereas the systems put in place to build consensus and partnership might not always be perfect, the team's commitment to improvement has kept us motivated.

In order to share the Cradle of Humankind World Heritage Site with the public, the Maropeng (the name means 'the place where we once lived') and Sterkfontein Caves Interpretation Centre Complex was developed through a public-private partnership (PPP) model, with the University of the Witwatersrand, government and the private sector as key partners. Government investment in this totalled R163 million, and the PPP model enabled the government to transfer

significant risk to a private partner. In the instance of Maropeng and Sterkfontein, the 'design, build, operate' model was used. Both visitor centres were opened in 2005 and Maropeng won awards for the design of the building before it had even been completed. In 2012, Maropeng and Sterkfontein collectively hosted just over 220,000 visitors. Visitor numbers continue to grow year after year and the ICC serves as a key tourism attraction within the area. Investment in the ICC infrastructure naturally required further investment in road and signage infrastructure in the area.

In order to protect and preserve the site, the initial focus has been on the development of fossil site management plans and landowner agreements for each of the fourteen excavated fossil sites. During the review and updating of the Integrated Management Plan in 2009, it

became evident that development pressure, primarily from the surrounding urban areas, necessitated a new approach towards the management of privately owned property. In an attempt to better manage the development pressures, a detailed Environmental Management Framework (EMF) for the area was also completed. This framework will serve as the basis for all development application decisions made by the various levels (or tiers) of government, each with its own mandate regarding land use management. The EMF provides a clear guideline on what types of development are allowed in different sensitivity zones. As the authorities within the COH have different decision-making needs, data access had to be guaranteed in order to ensure support for and application of the geographic information system (GIS) tool. Sensitivity maps were prepared to provide a spatial representation of the possible desired state of the COH and proposed buffer zone. These maps, which comprise several spatial layers, have a hierarchy of importance based on their sensitivity, to cultural heritage, water, biodiversity and visual aspects.

In order to share the Cradle of Humankind World Heritage Site with the public, the Maropeng and Sterkfontein Caves Interpretation Centre Complex was developed through a public-private partnership (PPP) model.



Professor Ron Clarke and Little Foot.

© Gauteng Tourism Authority



The Sterkfontein landscape comprises a number of fossil-bearing cave deposits which are considered to be of Outstanding Universal Value.

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Over the next few years, through an extensive public participation process, the EMF will also form the basis of site-specific regulations. The diagrams below visually represent the concept of GIS layering in order to confirm the boundary and buffer zones.

Management of the surface and groundwater in the COH is crucial to protecting and preserving the sensitive karst system. The COH site is located downstream from some of the disused gold mines of the Witwatersrand, which decant 15,000 m³ of acidic water rich in iron or other minerals (Acid Mine Drainage, or AMD) into the adjacent environment every day. Some of this water flows into the do-

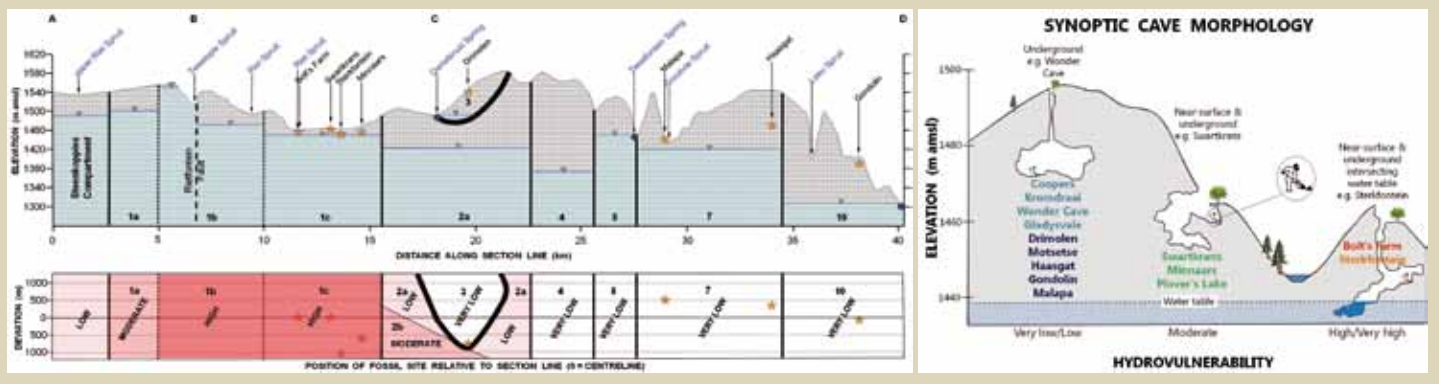
lomite karst, which is comparable to a big sponge, and absorbs the water. A detailed surface and groundwater study has been concluded to understand sources of contamination and a detailed monitoring plan is currently being implemented. In addition to the water-related data, this study has provided the team with a hydrovulnerability status for each of the fourteen excavated sites as illustrated. In short, the vulnerability of a fossil site is affected by two factors, proximity to sources of acid mine drainage, and proximity to the groundwater table.

Only Bolt's Farm, one of the fourteen fossil sites, ranks as very high vulnerability

as it meets both criteria. Sterkfontein rates equally high but only as a precautionary measure as it is close to the groundwater table, although the water table would need to rise 20 m in order to reach the height of the lowest fossil find. If this were to be the case the entire valley would be flooded, a highly unlikely event. The next step is to develop a risk management strategy.

The story of the management and development of the COH has turned out to be as complex and challenging as the story that the site tells about the journey of humankind and, similarly, its evolution is far from complete. ☺

Geographic information system (GIS)





The undulating landscape comprises dolomitic limestone ridges with rocky outcrops and valley grasslands, wooded along watercourses and in areas of natural springs.

© Gauteng Tourism Authority

Land of Frankincense

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Land of Frankincense (Oman) was inscribed on the World Heritage List in 2000.

© Office of the advisor for culture to Sultan Qaboos bin Saïd





The archaeological park Al-Balid, Salalah.

© Editions Gelbart

Frankincense, a resin drawn from the *Boswellia sacra* tree, is still used in certain ceremonies of the Christian Church. But long before the dawn of Christianity, the Greeks and Romans used it in their sacred ceremonies. In all likelihood, its use reaches back to Neolithic times as in the Dhofar region of Oman – the ‘Land of Frankincense’.

The ‘Frankincense Trail’, which includes four sites covering different time/space aspects, was inscribed on the World Heritage List at the World Heritage Committee’s 24th session in 2000. Five years later it was renamed ‘Land of Frankincense’. The oldest of these four sites is the desert settlement of Shisr, which dates back to the Neolithic and was a way station and watering point on the ancient camel route to the Mediterranean by way of the great desert of Rub al-Khali (Empty Quarter).

The next oldest (2nd century BC) is the sea-trading settlement of Khor Rori. It is well sheltered from the Indian Ocean winds and lies in the vicinity of an Arcadian sweet water outlet (*khōr*) which flows down from the mountains that lie some 35 km to the east of the modern city of Salalah.

The most recent site is Al-Balid, a deserted port town dating back to the 7th–8th centuries AD whence Omani sailors, carried by the monsoon winds, sailed to China and back every year, circumnavigating India and making their way through the Strait of Malacca, with great shiploads of spices, silk and porcelain.

The valley of Wadi Dawkah lies in the mountains about 30 km north of Salalah, not far from the Salalah–Muscat road. An abundance of frankincense trees grows there. Frankincense, the resin, is still harvested there and in other *wadis* of the region in summer. Ever since the Stone Age, frankincense, the ‘gold’ of Arabia, was considered a merchandise of great value. Indeed, it was one of the gifts brought to Nazareth by the Magi, along with gold and myrrh.

All four sites have this common relationship to frankincense, from Wadi Dawkah where the resin was harvested by the local population, to the sea ports of Khor Rori and Al-Balid, and finally along the trade routes through the Rub al-Khali desert to Shisr. Frankincense was until quite recently among the major sources of income for the local population. Today it has become a symbol of the Sultanate of Oman.

The importance of southern Oman has rested, from time immemorial, on the frankincense trade. The Egyptians, Greeks and Romans knew all about frankincense. The famous *Periplus Maris Erythraei*, a sailors’ and traders’ handbook written by an anonymous Roman author of the second century AD, mentions many sites along the southern Arabian coast which served as trading stations on the monsoon sea routes. Indeed, these were already known in the third millennium BC.

Potential for tourism

In 1993, the Omani Government asked UNESCO for advice to further develop cultural tourism in the Dhofar region of southern Oman to provide future potential for national and private income.

UNESCO consultants suggested that three archaeological sites be developed for cultural tourism: the coastal city ruins Al-Balid, Khor Rori and the desert site of Shisr. In 1994 Al-Balid was selected for the development of an archaeological park, the first of its kind on the Arabian Peninsula. With the financial support of Germany, the programme was launched the same year under the supervision and execution of RWTH Aachen University. Shortly



The frankincense resin was harvested by the local population.

© Chris Price

Frankincense was until quite recently among the major sources of income for the local population. Today it has become a symbol of the Sultanate of Oman.

thereafter, the Italian University of Pisa began excavations at Khor Rori.

Three years later a first application was made to inscribe the Frankincense Trail on the World Heritage List. Meanwhile a fourth natural site had been added to the three cultural sites: Wadi Dawkah, not far from the city of Salalah, where numerous frankincense trees grew. In parallel, a systematic management concept was drawn up to deal with all four sites.

Southern Oman has two tourist seasons: during the winter with a moderate Mediterranean climate and during the monsoon season between July and September, when the normal temperature of over 45 °C drops to 28 °C along the coast due to the cooling effect of the deeper ice-cold waters of the ocean stirred up by the monsoon winds. This leads to the formation of dark, cloudy skies from the condensation of moist air. While the former season is loved by international tourists, the latter is preferred by national and interregional tourists.

Management strategy

The archaeological park at Al-Balid was ready to receive its first tourists as soon as it was inscribed on the World Heritage List in 2000. From the early 1990s the government's intention had been to coordinate different aspects of cultural management with the nomination of these sites. Besides the development of cultural tourism as an additional economic component for the future, the enhancement of education, the support for national identity and the increased employment opportunities were essential factors of the programme. This was reflected in the project management plan comprising the management of excavation, conservation, site management, heritage education, public relations and finances.

The management strategy consisted of a central structure at the office of H.M. the Sultan's Advisor for Cultural Affairs with offices in Muscat and Al-Balid. A research centre with stores and laboratories was set

up close to the World Heritage property for the experts who were dealing with all four sites. Outside the archaeological area and separated from it by a khor, the entrance was planned with a site museum, cafeteria, large parking space, offices and information services. These facilities still serve as the management centre for all the sites, of which Shisr is the most remote (some 100 km away in the vicinity of the Rub al-Khali desert).

Layout of Al-Balid archaeological park

The 'backbone' of Al-Balid is a 2 km path winding over the archaeological sector of the 64 ha site, protecting it through a geotextile separation layer and allowing visitors to enjoy controlled access to the site. The excavation strategy, specially developed for the archaeological park, is a 'horizontal' one. As 95 per cent of the site was unexcavated, it was decided to select special buildings along the path to be excavated and to identify the city wall, giving visitors an idea of the city's considerable size. Such buildings as small mosques and houses were only excavated along the edges leaving their middle sections untouched. As a conservation



The archaeological parks are well integrated into regional tourism management.

© Editions Gelbart

measure, 'windows' or trenches 2 m wide were opened every 20 m in the city wall to avoid fully exposing it. Only few deep soundings were made. With this strategy sufficient buildings could be exposed in the short time given for the development of the park (five years) to allow visitors to form an idea of the setting in the past. Similar excavations are being made in order to provide visitors with further information.

Mission and vision

The mission was defined in accordance with ICOMOS and UNESCO guidelines to provide information about the past by means of excavation sites accessible to the public and to ensure the conservation of physical remains in an archaeological park.

The idea was to use cultural tourism to establish a sustainable platform for human interaction, protection of cultural remains, capacity building for human resources and an increase in local income.

This can only be achieved through successful management and sustainable development.

Today the Land of Frankincense may be considered an excellent example of individual archaeological parks, well integrated into regional tourism management.

A model for community engagement

The protection of Oman's rich cultural heritage is crucial to the country's future development. The World Heritage sites naturally play an important part in this so capacity building and the development of human resources became a priority. Today the Land of Frankincense may be considered an excellent example of individual archaeological parks, well integrated into regional tourism management and with a good conservation strategy for the protection of the sites' Outstanding Universal Value. A further primary aim was to create job opportunities for young Omani academics and experts. Before the establishment of the parks, there was little employment for young archaeologists, whereas today over forty young people are

employed in the programme and income from the parks covers the cost.

The Land of Frankincense project has become a model for other archaeological parks now being planned in Oman. It clearly shows that cultural heritage can serve not only as 'passive knowledge', but can also play an active part in educating people, creating jobs for young academics and increasing the income for the entire area through carefully controlled cultural tourism. These parks may also serve as a model for others.

As mentioned, the model has been developed to ensure the involvement of local stakeholders. Most of the young experts come from the neighbourhood. Local merchants normally selling frankincense and incense in the bazaar can now sell their goods in the public entrance area whenever



The port of Sumhuram in Khor Rori was a fortified trading town in antiquity.

© Drew Gardner

Local people often use the site paths for recreational walks. They now identify with the sites and take pride in their past, of which they are increasingly aware.

tourist ships dock in Salalah harbour and visitors are expected. Local people often use the site paths for recreational walks. They now identify with the sites and take pride in their past, of which they are increasingly aware.

Legal protection

The Land of Frankincense sites are legally protected by Royal Decree (16/2001) which defines the buffer zones for the four sites. Moreover, the office of H.M. the Sultan's Adviser for Cultural Affairs has its own Application Form for Archaeological Research in these four sites. A special security force watches the sites 24 hours a day and the sites are fully fenced and illuminated throughout the night when they are closed. The boundary of Wadi Dawkah (cultural landscape) is marked by

low concrete poles set at 50 m intervals. The other sites are fenced with protective hedges and flowers.

The relevant regional and municipal authorities are aware of the expanse of the property and the sites' buffer zones. They consult with the office of H.M. the Sultan's Adviser for Cultural Affairs on any project likely to impinge upon or adversely impact the sites before any action is taken.

Self-financing for sustainable development

In addition to 'self-financing' through entrance fees and other means, the Oman Government provides the sites with a budget to cover conservation, maintenance, security for sites and facilities, training and management, according to its obligations. A special tourist tax is under consideration

to cover additional expenditure for further cultural tourism projects. In addition, the government takes advantage of the development of the sites at both the academic and social level, and implements the financial control methods and regulations in force in the country. The annual government budget for the Land of Frankincense sites amounts to US\$2.8 million. In 2012 there were almost 100,000 visitors.

In a first phase (1995–2000) foreign universities (RWTH Aachen, later the University of Pisa), were the primary actors. Foreign experts trained young Omanis in 'learning by doing'. Cooperation with the national Sultan Qaboos University allowed excavation training for young Omani archaeologists. The University of Pisa is working in Khor Rori to this day.

An international advisory board helped in setting the appropriate goals, but management is now exclusively in local hands, monitored through the office of H.M. the Sultan's Adviser for Cultural Affairs. Regular on-site training for the management and technical sectors is being pursued.

The current priority is to further develop a model of self-financing that will ensure long-term sustainable management and have a positive impact on the site's Outstanding Universal Value. This also means that tourism will have to be controlled. In the parks, visitors, under the supervision of security personnel, are not allowed to leave the walkway. Along with financial sustainability, the continuing training of local experts is part of the programme. Increased identification of the local population with the sites (partly through increased income resulting from the sale of frankincense) ensures appropriate protection. The long-term outlook is a well-protected Outstanding Universal Value based on local human resources generating their own income through wise cultural management, together with a new identification with the cultural values embodied in frankincense.

Transmitting knowledge and values

For Oman, it is of the utmost importance that the country's long and rich history is transmitted to the people. An archaeological park is the best means of achieving this. Various educational tools have been developed: at Al-Balid and Khor Rori there are site museums with a cross-historical approach, at Al-Balid there is a marine museum exhibiting models of old Omani boats, lecture rooms, a video projection room and a bookshop. The sites themselves are well equipped with information boards in Arabic and English. There is a plan to train young Omani women to help out with children in the museums (painting, clay modelling, etc.). Site guides are also to be trained.

The country's cultural and geographical setting is highly diverse and, together with its exceptional year-round climate, offers opportunities for unique tourism. The Governorate of Dhofar is a key element in this diversity. The authorities have launched a tourism development programme for the Governorate of which the Land of Frankincense site is a focal point. This naturally requires permanent maintenance and care. Information is available to visitors at the access points to the two main sites, Al-Balid and Khor Rori. The museum provides an introduction to both the Land of Frankincense World Heritage site and the prehistory and history of Oman, as does



Frankincense trees in the valley of Wadi Dawkah.

© Darren L. Wickham

For Oman, it is of the utmost importance that the country's long and rich history is transmitted to the people.

the archaeological gallery in Khor Rori. Information panels are installed at the sites for visitors and tourists.

The archaeological park as a tool for best practice

Parks having been established within the property, over 100,000 visitors per year prove the success of the undertaking. They have also provided employment for over forty young people. The parks were conceived in view of a dynamic development which means that they will be never 'finished'. Careful excavation is part of the visitor programme and it helps understanding of how such a park is developing and also how complex archaeology (and conservation) can be.

The parks allow visitors to enjoy a healthy walk and natural beauty while absorbing

archaeological and cultural information; in accordance with the Latin saying *docet et delectat*, it teaches and gives delight. Meanwhile, young experts are educated and trained to run the projects. The archaeological park is an optimal tool to control and guide tourism and to protect the Outstanding Universal Value of a World Heritage site. With the prospect of several archaeological parks, new job opportunities are given to trainees in the field of cultural management, archaeology and conservation. Such being the case, this model should be repeated not only in Oman but also in other parts of the world. Since 2012 a national ICOMOS committee has been established in Oman to further professionalize cultural management for the benefit of the country and its people. 🌐



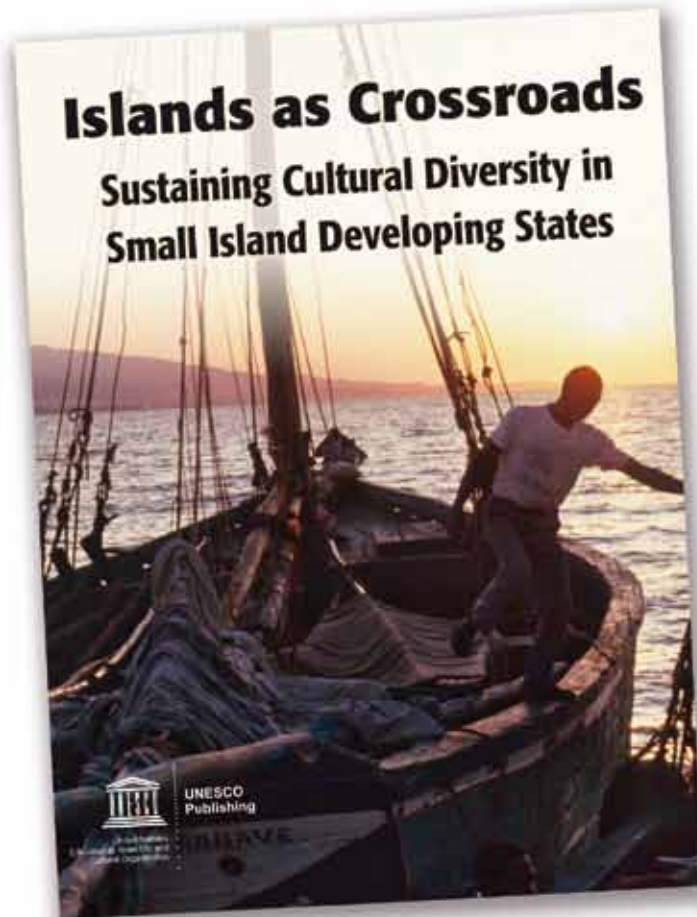
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Recognizing World Heritage best practices in successful and sustainable management

Carol Westrik
World Heritage Consultant

Big and Little Collapse Dolines (Velika in Mala dolina) with the village of Škocjan, Škocjan Caves (Slovenia).

© Borut Lozej, archive Škocjan Caves Park





Historic Monuments of Ancient Kyoto (Kyoto, Uji and Otsu Cities) (Japan).

© Kanegen

During the 35th session of the World Heritage Committee in 2011 (Paris), the Committee asked the World Heritage Centre, with the support of the Advisory Bodies, to develop and further explore ways of recognizing and rewarding best practices through a one-off initiative at the closing event of the 40th anniversary of the World Heritage Convention (November 2012, Japan).

The anniversary provided an excellent opportunity to take stock of the achievements and challenges of the Convention to date. It was also a good moment to raise awareness concerning the aims and workings of the Convention to both the professionals involved and the wider public.

From the initial idea of creating a biennial Prize for Excellence in World Heritage Site Management, the World Heritage Committee moved to a decision to establish the one-off initiative to recognize best practices in World Heritage site management. This initiative should contribute towards the gathering and dissemination of best

The World Heritage Committee decided to establish a one-off initiative to recognize best practices in 2012.

practices, the recognition of which will hopefully encourage and stimulate other sites. It was therefore important that management best practices could be applied all over the world, in other words that they should be practical and inexpensive.

This was the first time that all States Parties to the World Heritage Convention were asked to participate in such an initiative. In order to be able to compare the submissions, it was important to develop objective and consistent criteria regardless of the type of heritage, large or small, natural or cultural, in the North, East, South or West. Submissions therefore had to have overall good performance and clearly demonstrate successful and sustainable management which



Le Morne Cultural Landscape (Mauritius).


© Marco Botti

This was the first time that all States Parties to the World Heritage Convention were asked to participate in such an initiative.

had been tried, tested and applied in different situations and in a wider context. A selection committee composed of representatives of the Advisory Bodies, the UNESCO Regional Groups and the World Heritage Centre was established specifically for this initiative.

Twenty-eight submissions, eight natural and twenty cultural, were received from twenty-three States Parties representing all UNESCO regions. Examples are Škocjan Caves (Slovenia), Gros Morne National Park (Canada), Historic Monuments of Ancient Kyoto (Kyoto, Uji and Otsu Cities) (Japan), Le Morne Cultural Landscape (Mauritius) and the Coffee Cultural Landscape of Colombia. A number of examples are presented in more detail in this issue.

The Historic Town of Vigan (Philippines) obtained the highest level of support as it was considered that good management practice has been achieved with relatively limited resources, which should make it adaptable to all countries; the local community was well integrated in many aspects of the sustainable conservation and management of the property; and an interesting multifaceted approach to the protection of the site has been developed (see interview with Mayor Medina on page 68).

The results of the initiative will be presented to the World Heritage Committee during the upcoming session (16–27 June 2013, Cambodia). It is hoped that this first World Heritage-led initiative will establish regular recognition and exchanges of best practices for the benefit of the sites and their conservation. Such a development would moreover be consistent with the capacity building strategy adopted by the World Heritage Committee in 2011, and would be an integral part of the implementation of the Strategic Action Plan and Vision for the future of the Convention, adopted by the 18th General Assembly of States Parties to the World Heritage Convention. 



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Forum

The Historic Town of Vigan (Philippines), inscribed on the World Heritage List in 1999, has been recognized as a model of best practices in World Heritage site management, on the occasion of the 40th anniversary of the World Heritage Convention. The distinction has been officially announced and a certificate was presented to the Mayor of Vigan, Ms Eva Marie S. Medina, during the closing event of the 40th anniversary celebrations in Kyoto, Japan, on 8 November 2012.

See page **68**

Interview Page **68**

Advisory Bodies Page **70**

Conventions Page **72**

Historic Town of Vigan (Philippines).

© Hub Hayag

Interview with Mayor Eva Marie S. Medina, Vigan (Philippines)

Mayor Medina has held office since 1995. The Historic Town of Vigan was inscribed on the World Heritage List in 1999, and in 2012 was selected among twenty-eight candidates for Model of Best Practices in World Heritage Site Management.

World Heritage:

As mayor, why do you think it important to invest in heritage preservation in your city? How do you see the links between conserving urban heritage and sustainable development?

Eva Marie S. Medina: As a result of a multisectoral consultation, everyone was in agreement that our rich history, culture and traditions, both tangible and intangible, are our most precious assets. This prompted us to elaborate the Vigan Heritage Conservation Program as a tool for development. We invested in this programme as a parallel instrument for the provision of government services alongside heritage conservation, resulting in such undertakings as poverty alleviation, job creation, livelihoods and environmental protection, while ensuring the sustenance of the core values and traditions that have allowed the Bigueños (our people) to survive and flourish through the centuries.

I see the link between the conservation of urban heritage and sustainable development as a very powerful instrument of progress for our city and for the improvement of the lives of our people. We painstakingly established the connection between the needs and aspirations of the present generation and the various conservation efforts embarked on by the city government. This led to the ready cooperation and programme ownership of the stakeholders, which allowed us to improve capabilities and revenues for the city government and the people, thus assuring sustainability.

WH: Vigan is not just a World Heritage site, it is also a very lively city, which raises an important question: how can the need for change in the way people live in their city – a rapidly evolving socio-economic environment – be reconciled with the need to preserve the specific character and values of Vigan, which led to its inscription in the first place?

EMSM: Reconciling the need for change and making way for modernization without sacrificing heritage preservation seemed to be impossible at first.

We enacted local legislation and created special bodies to ensure appropriate physical interventions within the city. Meanwhile, we had to bear in mind that heritage is part of our daily lives. We used lessons from the past to guide us in the city's growth. Vigan was a centre of commerce during the colonial period. Today, with the regular influx of tourists, it has become a trading town. Goods from other localities are sold here, bringing vibrancy to the city. The Vigan experience shows that what is important is not change but how we can adapt and use the wisdom of history to move our city on to the future.



Mayor Eva Marie S. Medina, Vigan (Philippines).

© City of Vigan

WH: What are the main challenges you have identified in this respect, and what strategies have you developed to address them?

EMSM: We encountered a low level of cultural awareness or even indifference among stakeholders, which required us to change the mindset of the people and instil pride in their city.

An extensive information and education campaign through television, radio and print media was launched to inform the community about history, traditions, arts, culture, ancestral buildings, local industries and other aspects of our heritage. This was intended to fortify a sense of identity and pride. Workbooks, colouring and activity books on Vigan's heritage were distributed to schoolchildren. To provide ready access to information on the historic town, a website, a newsletter and radio broadcasts were developed, along with the TVigan cable station. We revitalized existing organizations and encouraged the creation of new ones to transform our community. After eliciting community involvement and putting in place local protective measures, Vigan was inscribed on the UNESCO World Heritage List on 2 December 1999.

We carried out cultural mapping of our tangible and intangible cultural properties, thus strengthening our capabilities to conserve them. As a result Buridek, the Vigan Children's Museum, was established. Cultural mapping also paved the way for the Vigan Heritage River Cruise that highlights the historic role of the Mestizo River. Training for government personnel and stakeholders on cultural appreciation and disaster preparedness were among other initiatives.

The absence of heritage legislation also prompted the institutionalization of local protective measures such as a Conservation Code, an ordinance defining the boundaries of the

protected historic district specifying the core and buffer zones, and an ordinance providing a yearly allocation of 1 per cent of Vigan's income for arts, culture and tourism.

An executive order created a multisectoral Vigan Conservation Council to promote the involvement of local stakeholders. This council serves as a clearing house for all applications for building permits or house restorations within the historic district. In addition a Homeowners' Preservation Manual was drafted and the Save Vigan Ancestral Homeowners Association Inc. founded.

The business climate was not favourable at the outset. Traditional industries were threatened and on the verge of extinction. This was tackled by the development of Vigan as a tourist destination where tourism programmes were designed to enrich and conserve the people's core values and traditions, as well as to sustain livelihood and employment for the Bigueños.

The creation of such events as the Vigan City Fiesta and Longganisa Festival in January; the Semana Santa; Viva Vigan Binatbatan Festival of the Arts in May; the World Heritage Cities Solidarity Cultural Festival in September; the Raniag Vigan Twilight Festival in October; Lantern and Torch Parade; Artes ita Pascua and Artes ita Semana Santa feature various arts training programmes and the production of a zarzuela, *Babae ng Digmaan* (Women of War), about how our city was saved from the destruction of the Second World War.

Networking was developed with local and international non-governmental organizations, agencies and local government units for partnerships in heritage conservation and development (UNESCO, Agencia Espanola de Cooperacion Internacional, University of Santo Tomas, University of Northern Philippines), as well as sisterhood agreements with Makati City, Barra de Navidad, Mexico, Honolulu and Hawaii. The Vigan Skills Training Institute aims to improve employment opportunities.

The Escuela Taller, a school for traditional skills, was set up to enable our crafts people to become restoration workers, not only for Vigan but for other protected sites, and other skills such as loom-weaving and jar-making have been integrated into the curriculum of our three national high schools.

New destinations within the city were established to create business opportunities and the public market, which had been burned down, was reconstructed. The new City Investment Incentives Code reinforced the favourable business climate. Public utility vehicles were equipped with a centralized bus and jeepney terminal and streetscapes were planned to improve visual appeal as well as the safety of visitors and residents.

The local government's resources were too limited to allow the effective delivery of basic services. And yet a popular movement led to the restoration of Vigan's status as a city by congress. In the plebiscite of 22 January 2001, An Act Validating and Recognizing the Creation of the City Of Vigan by the Royal Decree Of September 7, 1758 Issued By King Fernando VI Of Spain was ratified by an overwhelming 93 per cent affirmative votes by the people of Vigan. Moreover, systematic 'housekeeping' to instill a results-based performance culture was implemented within the local government unit.

It would not have been possible to take on the task of preserving our city without a community effort. It was important to include

multiple sectors of our society in this endeavour, and to make our constituents realize that our cultural heritage should not be alien to them, that it is theirs to own and protect. They came to realize that they themselves are the beneficiaries of these efforts, all of which depend on good governance and effective fiscal management.

WH: What are your objectives for the future of Vigan?

EMSM: To develop Vigan as a habitable Heritage City of choice where residents and tourists alike relish the city's socio-economic gains and cultural wealth, and to conserve our heritage and deliver effective services to improve the quality of lives of our people.

WH: Last November in Kyoto, at the closing celebrations of the 40th Anniversary of the World Heritage Convention, Vigan was recognized for its best practice in successful and sustainable management of a World Heritage site, achieving a balance between conservation and sustainable development. How could your experience benefit other cities sharing similar conditions and challenges?

EMSM: We humbly offer the Vigan Heritage Conservation Program as model or guide to other cities a similar situation to ours. We invite site managers to visit Vigan in order to benefit from the learning experiences on Heritage Conservation as a Tool for Development. Our experience should serve as an inspiration to others, especially to small cities like our own. It takes good governance, strong political will and community participation to sustain development. Also worthy of mention is the fact that prior to Vigan's inscription on the World Heritage List in 1999, the percentage of poverty incidence was pegged at 40.5 per cent. Today with the multisectoral interventions it has significantly gone down to 12 per cent.

This programme is composed of three main components: a Certified Heritage Conservation Specialist Course for teachers, city engineers and practising architects; the Escuela Taller, which offers technical training in traditional building restoration as well as masonry, electrical, metalwork, carpentry and finishings; and the Vigan Conservation Complex to be established in 2013, which will house an arts and crafts training centre, museum, document repository, conservation materials depot, conservation laboratory, and product development and research centre with bed and breakfast facility – in short a comprehensive showcase of our city's heritage conservation efforts.

Thanks to all these initiatives, Vigan has won a regional award as the Hall of Fame Awardee – Best Performing Local Government Unit in Region I. National awards include the Consistent Regional Outstanding Winner in Nutrition; Hall of Fame Awardee – Most Child Friendly Component City in the Philippines; and National Winner of the first Gawad Pamana ng Lahi (Filipino Legacy Award), the most prestigious citation for excellence in governance.

None of this has, however, managed to drown the silence and elegance of the past. It is precisely this ability to cope with the needs of the present within bounds set by its centuries-old legacy that makes Vigan a living city. It has opened itself to change but has not sacrificed the precious wealth of its heritage. ☺

Best practices in capacity building for World Heritage



Joseph King, International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), www.iccrom.org

ICCRUM, in partnership with IUCN, ICOMOS and the World Heritage Centre, undertook to create a new World Heritage Capacity Building Strategy which was adopted by the World Heritage Committee in 2011. While there had been a training strategy in place for cultural heritage since 2000 and for cultural and natural heritage since 2001, this new strategy seeks to widen the scope and context of capacity building to include new target audiences and new kinds of activities over and above traditional classroom training.

Current needs demonstrate that the audience for capacity building for World Heritage conservation and management activities is wide, diverse and growing. Creating and strengthening capacities of institutions and networks that link the heritage sector to wider communities is as much a priority as the training of individual practitioners. This will lead to stronger organizational frameworks and links between heritage and the wider environment, enabling individuals, including those outside heritage-related professions, to take more effective action.

Activities foreseen by the strategy to improve capacity for the conservation and management of World Heritage properties include the development of resource materials such as guidance documents, communication tools, good practice case studies and e-learning modules; the strengthening of networks for heritage conservation; the development of capacity building strategies at national and regional levels; and the development and implementation of courses, workshops and seminars.

Some activities are already under way thanks to a generous contribution from the Government of Switzerland. These include workshops to strengthen the networks of Advisory Bodies in the various regions of the world, the production of resource materials, and the publication of a capacity building newsletter.



iSimangaliso Wetland Park (South Africa).

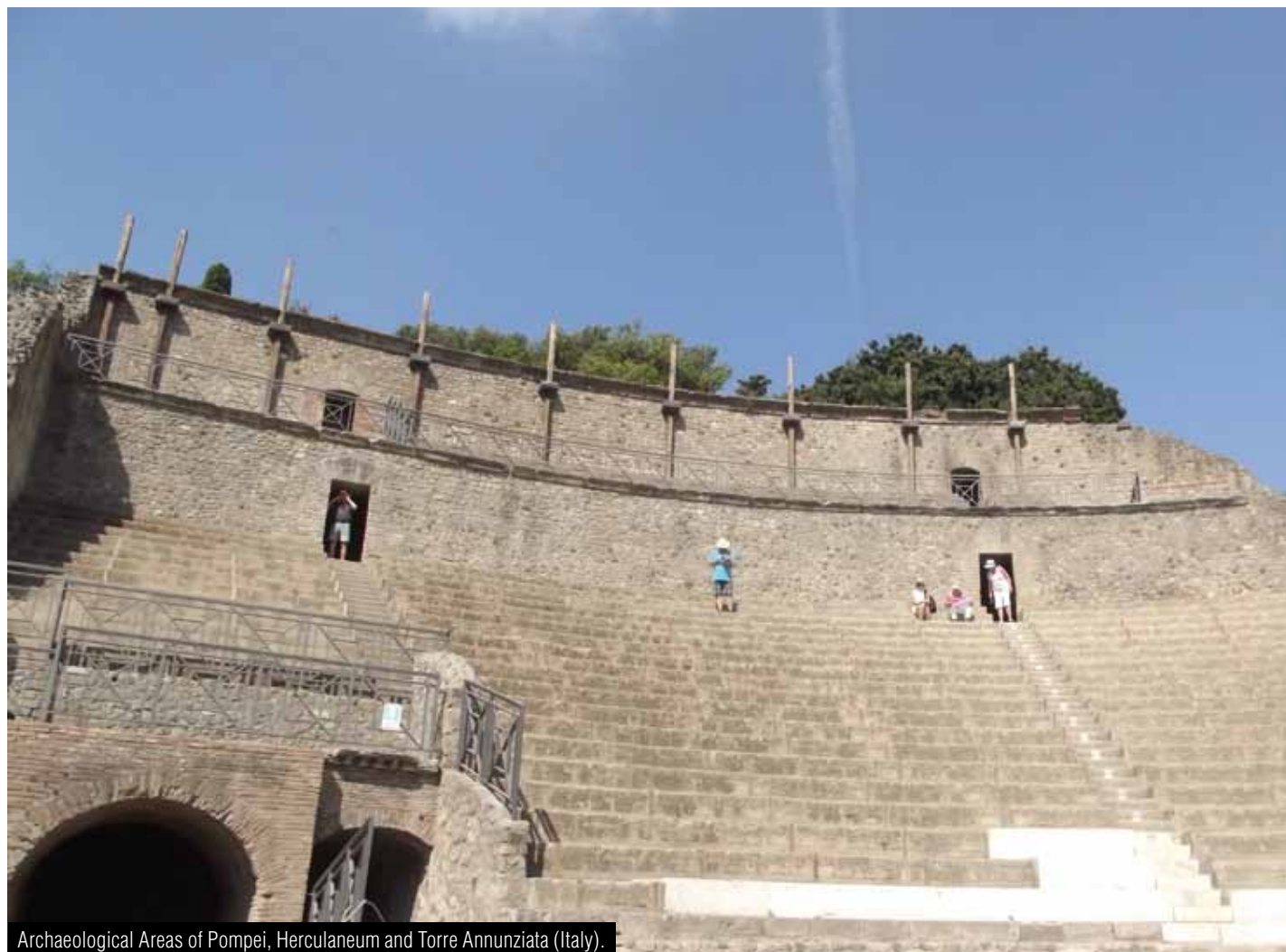
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One example of capacity building is the twinning programme that connected representatives from World Heritage properties in Norway and South Africa.

Some innovative capacity building activities have also been carried out within the framework of the 40th anniversary of the World Heritage Convention. One example is the twinning programme that connected representatives from World Heritage properties in Norway and South Africa. A first exchange including site visits took place in South Africa in January 2012, bringing together both site managers and youth from both countries. Discussions centred on conservation issues including ensuring local benefits from World Heritage listing. The conversation continued via internet, and a return visit took place in May 2012 and was connected to an international conference on Living with World Heritage, hosted by the Government of Norway.

Another example of an innovative capacity building initiative is the recently concluded project to recognize

Best Practices in World Heritage Site Management. This initiative, requested by the World Heritage Committee, and also carried out as a 40th anniversary activity, solicited applications from World Heritage properties which had demonstrated new and creative ways of managing their sites. The winner, the Historic Town of Vigan in the Philippines, demonstrated best practices including cultural mapping, the development of a homeowner's manual, the incorporation of information about the property in educational activities, and the promotion of both tangible and intangible heritage in promotional activities. This initiative can be seen as capacity building in that it provided incentives for States Parties and the management teams at individual properties to reflect on their management practices and explicitly explore strengths and weaknesses. In addition, the property



Archaeological Areas of Pompei, Herculaneum and Torre Annunziata (Italy).

© Elliot Brown

In 2012, ICCROM carried out its biennial eight-week course on the Conservation of Built Heritage in collaboration with the World Heritage Centre and the Herculaneum Conservation Project.

honoured (as well as others proposed) can serve as a positive case study for those interesting in learning from these sites.

The focus on new target audiences and innovative activities does not mean that ICCROM has abandoned its traditional role in training professionals. In 2012, ICCROM carried out its biennial eight week course on the Conservation of Built Heritage. In collaboration with the World Heritage Centre and the Herculaneum Conservation Project, the last week of the course was dedicated to a special module on World Heritage and Sustainable Development.

This special module introduced concepts of economic, environmental and social sustainability and explored the link between heritage conservation and sustainable development. At a time when ideas about what constitutes heritage are expanding, heritage sites around the world are coming under increased pressures due to diminishing economic resources, changing environmental conditions, and more frequent social conflicts and tension.

The sustainable development theme of the special module was particularly pertinent and timely as 2012 marked both the 20th

anniversary of the Rio Conference and the 40th anniversary of the World Heritage Convention. The module provided participants with a theoretical base linking heritage and sustainable development, and then looked at the archaeological site of Herculaneum, which is part of the serial World Heritage property inscribed as Archaeological Areas of Pompei, Herculaneum and Torre Annunziata (Italy, 1997). Twenty-two participants of diverse backgrounds (architects, archaeologists, engineers, planners, etc.) representing twenty-two countries participated in the course.

ICCROM will continue to work with its partners on the development and implementation of a range of capacity building activities. As the need is great, however, it will become necessary to create new partnerships and to develop ways of reaching ever-larger audiences. ICCROM looks forward to working towards meeting this important challenge.

CITES celebrates its 40th anniversary at the 16th meeting of the Conference of the Parties

Guy Debonnet
Chief, Special Projects Unit, UNESCO World Heritage Centre

The 16th meeting of the Conference of the Parties (COP16) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) took place in Bangkok (Thailand) from 3 to 14 March 2013, celebrating the 40th anniversary of the Convention. The meeting attracted some 2,500 attendees, including 1,150 delegates from 170 Party States and several observer States, close to 200 international and non-governmental organizations, and over 400 media organizations. The CITES Convention was adopted on 3 March 1973, just a few months after the World Heritage Convention, with the aim of ensuring that international trade in specimens of wild animals and plants does not threaten their survival.

As a convention dealing with the protection and the sustainable, legal use of close to 35,000 animal and plant species, CITES is extremely relevant for the 132 World Heritage sites listed under criterion (x) specifically because they harbour important and significant natural habitats for *in situ* conservation of biological diversity, including threatened species. Several of these sites protect some of the most important remaining populations of species listed in CITES Appendix I, which includes species threatened with extinction and for which commercial international trade is generally prohibited. COP16 brought a range of additional species under CITES controls. It adopted historic provisions to refine scientific standards for determining the sustainability of trade, regulate trade in marine species harvested in international waters, and take into account the impact of CITES decisions on the livelihoods of rural communities. Recognizing the seriousness of the global illegal trade in wildlife, the Parties also discussed extensively how to improve law enforcement and compliance with the Convention. Some of the key



The CITES Convention was adopted in 1973 with the aim of ensuring that international trade in specimens of wild animals and plants does not threaten their survival.

decisions of COP16 which are particularly relevant for World Heritage sites are presented here, and more information can be found at <http://www.cites.org/>.

The CITES Secretariat, in cooperation with the United Nations Environment Programme, the International Union for Conservation of Nature and TRAFFIC, the wildlife trade monitoring network, released a new report on the current African elephant crisis (http://www.cites.org/common/resources/pub/Elephants_in_the_dust.pdf), which presents the most recent African elephant population status information (collected by IUCN) and the latest analyses of trends in African elephant poaching and illegal trade in ivory. Data on the illegal killing of African elephants were gathered under the CITES-led programme Monitoring the Illegal Killing of Elephants (MIKE). Since 2002, MIKE has been monitoring the proportion of illegally killed elephants across fifty protected areas in twenty-nine African countries where elephants occur. Fourteen of these MIKE sites are also World Heritage properties. Data on illegal trade in ivory were compiled

through the Elephant Trade Information System, managed by TRAFFIC. The report shows a clear upward trend in both poaching of African elephants and illicit ivory trade since 2007. In 2011, poaching in Africa's MIKE sites reached their highest levels since 2002, with 7.4 per cent of their elephants illegally killed. Elephants are now killed faster than they can breed in much of their range, and if the current trend continues poaching will lead to significant population declines across Africa. The trend is most worrying in Central Africa, where in 2011

nine out of ten elephant carcasses found were reported as having been killed illegally. Central African MIKE sites include the five World Heritage sites of the Democratic Republic of the Congo, all inscribed on the List of World Heritage in Danger, but also the Ecosystem and Relict Cultural Landscape of Lopé-Okanda (Gabon) and Sangha Trinational (Cameroon, Central African Republic and Congo), the latter inscribed in 2012. In Eastern Africa, poaching pressure is increasing rapidly as well, with many reports of illegal killings documented from Selous Game Reserve World Heritage site (United Republic of Tanzania), which harbours the largest elephant population in the region. In West Africa, populations were already small and fragmented and several populations are now reduced to near extinction, including those in the World Heritage sites of Niokolo-Koba National Park (Senegal) and Comoé National Park (Côte d'Ivoire). The situation is less dramatic in Southern Africa, where well over half of remaining African elephants occur, but also here data suggest an increasing trend in poaching.

In view of this alarming situation, a number of decisions were taken at COP16 to take immediate on-the-ground actions. These focus on the thirty countries most involved in or affected by the illegal killing of elephants and the illegal trade in ivory. As an example, forensic techniques and DNA profiling are to be applied to thoroughly investigate illegal ivory trade circuits. Additionally, the general CITES provisions and regulations for trading in elephant products were thoroughly revised, modernized and strengthened.

Similar to the upsurge in elephant poaching, the illegal killing of rhinoceroses for their horn increased dramatically in Africa in recent years. It is feared that the rare Asian rhinoceros species may come under similar pressure. Several World Heritage sites are among the last strongholds for the remaining rhinos, including: Ujung Kulon National Park (Indonesia), where the last forty-four Javan rhinoceroses in the world survive; and Kaziranga National Park (India), home to the largest remaining population of the Indian rhinoceros. Garamba National Park in the Democratic Republic of the Congo held the last population of the northern white rhinoceros but unfortunately the park was hit by severe poaching and the last individual was sighted in 2007 (infographic on the status of endangered rhinos in World Heritage sites: <http://visual.ly/last-rhinos-find-refuge-world-heritage-sites>). COP16 requested that all Parties prosecute members of organized groups implicated in rhinoceros-related crimes, applying legislation with penalties that could act as an effective deterrent. Countries were also asked to consider stricter domestic measures to regulate the re-export of rhino horn products, and to develop and implement demand-reduction strategies to reduce the illegal movement and consumption of rhino horn products.

The meeting further decided that international trade in a range of rosewoods and ebonies from Asia, Central America and Madagascar will now be regulated by the Convention. In particular, all rosewood species from Madagascar were moved from Appendix III to Appendix II, which means that from now on rosewood timber will have to be traded with CITES permits and evidence will have to be provided that it was harvested sustainably and legally. Illegal logging of



Symposium on combating wildlife crime.

© CITES Secretariat

Similar to the upsurge in elephant poaching, the illegal killing of rhinoceroses for their horn increased dramatically in Africa in recent years.

rosewood in the Masoala and Marojejy National Parks, which are part of Madagascar's Rainforests of the Atsinanana World Heritage site, led to this site being inscribed on the List of World Heritage in Danger in 2010. The World Heritage Committee requested Madagascar to propose at COP16 the inclusion of all Malagasy rosewood species in CITES Appendix II as a means of addressing the illegal trade issue. (See also the article on page 83.)

In another landmark decision, the Parties agreed to include five commercially valuable shark species which are harvested in huge numbers for their fins, as well all manta ray species as in Appendix II. Illegal shark fishing is a threat to most of the marine World Heritage sites and the decision is a milestone in the involvement of CITES in marine species.

John E. Scanlon, CITES Secretary-General, concluded that the Conference was a significant step in the conservation of the world's wildlife: 'It takes enormous effort to negotiate treaties and then make them work. The international community has today

decided to make best use of this pragmatic and effective agreement to help it along the path to sustainability in our oceans and forests. Unprecedented levels of international cooperation to combat serious wildlife crime have seen past differences set aside to stop the poaching of elephants and rhinoceroses for their ivory and horn. These international commitments will now be translated into national action, with the CITES Standing Committee reviewing progress between now and the next meeting in 2016.'

Kishore Rao, Director of the World Heritage Centre, welcomed the encouraging results of COP16: 'Over the past year, the World Heritage Centre engaged discussions with the CITES Secretariat on how to increase cooperation to address common objectives related to the protection and conservation of endangered species and the World Heritage sites which protect their habitat. COP16 is presenting a number of opportunities for concrete joint activities between the Centre, the CITES secretariat and the States Parties of both our Conventions to make this happen.'

PARTNERING TO PRESERVE A GLOBAL LEGACY

Strategic Partnership with the UNESCO World Heritage Centre

Under our global initiative programme, Panasonic aims to be the No. 1 Green Innovation company in the electronics industry by our centennial year in 2018. Among our multi-faceted company-wide activities and efforts toward that end, one of the most significant is our strategic partnership agreement with the UNESCO World Heritage Centre signed in May 2011. Recognised by the World Heritage Committee as possessing outstanding universal value, these natural and cultural sites represent our irreplaceable heritage which must be preserved. Leveraging Panasonic's visual technologies and global reach, this strategic partnership aims to help raise awareness of the importance of heritage and environmental preservation especially among the youth of our world.

Development of Worldwide Communication

Panasonic is working to develop its global communications, both to emphasize the importance of and build interest in protecting UNESCO World Heritage sites, and to also raise awareness of the thinking behind Panasonic's environmental innovation. Panasonic is making its efforts known worldwide through a combination of television commercials and print media campaigns. The celebrated Soprano Sarah Brightman appears in these campaigns in her role as a UNESCO Artist for Peace.

<http://www.panasonic.net/promotion/worldheritage/>



Sole Sponsorship of "The World Heritage Special" TV programme



Specially edited 60-minute stories about various World Heritage sites were created and aired on the National Geographic Channel. Titles include "Ancient Megastructures of Machu Picchu", "The Secret of Taj Mahal" and "Mega Waterfalls of Brazil/Argentina". These TV programmes have been seen in many different countries and were the first exclusively sponsored global programmes for Panasonic as well as for the National Geographic Channel.

<http://www.panasonic.net/promotion/worldheritage/program/>





United Nations
Educational, Scientific and
Cultural Organization



World
Heritage

Panasonic supports
sustainable development
through UNESCO World Heritage
conservation and education

Global Environmental Youth Education Programme

Panasonic has been conducting a number of environmental educational activities aimed at children. Every year, thousands of children from all over the world send their own unique ideas about how to best preserve the earth's natural resources. The 2012 Eco Picture Diary Contest ceremony was held in November in Kyoto coinciding with the closing ceremony of the 40th anniversary of the World Heritage Convention. It was extensively covered by local and global media. The ceremony was attended by Irina Bokova, Director-General of UNESCO, and UNESCO's Artists for Peace, Countess Setsuko Klossowska de Rola and Sarah Brightman, who were on the panel of judges. Over 300,000 entries have been received and winners were invited to the ceremony from all over the world.

pks.panasonic.co.jp/global/ecorelay



Panasonic UNESCO World Heritage Calendar

The cooperation between Panasonic and the UNESCO World Heritage Centre started in 1995 with The World Heritage Calendar. In addition to the large wall-hanging version, a smaller version of the same calendar has been produced as an educational tool and given to UNESCO associated schools worldwide. Responding to the wishes of UNESCO to make the calendar available to a much wider audience, Panasonic has, since 2008, featured a downloadable version of the calendar that can be enjoyed on PCs as wallpaper. Users can take the Calendar wherever they go with the World Heritage Calendar application.

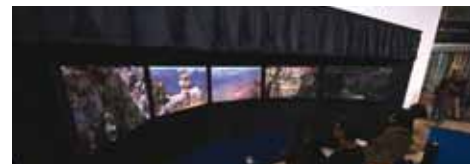
http://panasonic.net/UNESCO_worldheritage_calendar/2013/en/index.html



Development of The World Heritage 3D Dive Experience

The more people experience the magnificence of World Heritage sites, the greater the interest in preserving them. Panasonic, in partnership with the UNESCO World Heritage Centre, created the 3D Dive Experience at UNESCO Paris headquarters using a multi-screen panoramic 3D display system. Visitors immerse themselves in the outstanding life-like 3D images of heritage sites. The 3D Dive was also installed at the final event commemorating the 40th anniversary of the UNESCO World Heritage Convention in Kyoto in November 2012.

ch.panasonic.net/special/worldheritage



Cultural heritage of Montenegro

Interweaving the East and West, through tangible and intangible culture, Montenegro offers an extraordinary cultural diversity.

With the contrasting scenery of imposing mountains with their rich archaic formations on one side, and the expressiveness of the cultural levels of the old towns situated along the Montenegrin coast, the area has a special appeal to many travel writers and enthusiastic visitors.

Montenegro has been a home for many peoples and cultures from pagan to Christian and Islamic, all of which have left deep traces, both in the architecture and buildings of the country and also in its objects of tangible culture and spiritual creativity.

This wide range of cultural heritage reveals an abundance of archaeological sites, towns, fortresses, caravan roads, bridges, churches and medieval monasteries, convents, mosques and traditional rural entities.

Aware of the importance of the old urban entities and their spiritual, historical and cultural value, and of the fact that they are representative examples of cultural heritage, the old towns of Cetinje, Herceg Novi, Budva, St. Stefan, Bar, and Ulcinj stand out with their unique and distinct characteristics of the cultural and historical treasures of Montenegro. This heritage was recognized by UNESCO, thirty years ago when the Kotor area was inscribed on the World Heritage List, as one of the most valuable pearls of world heritage.

Lidija Ljesar,
conservator/restorer,
Deputy Minister for Cultural Heritage



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United Nations
Educational, Scientific and
Cultural Organization



Natural and Culturo-Historical
Region of Kotor
Inscribed on the World Heritage
List in 1979

www.mku.gov.me/en/ministry



Budva.



Cetinje.



Ulcinj.



Kotor.



Old Town Bar.



Herceg Novi.



St. Stefan.

News

During the recent 7th Conference of the Parties for the Nairobi Convention (December 2012, Maputo, Mozambique), dedicated to Partnering for a Healthy Western Indian Ocean, important discussions were held on the potential for new Marine World Heritage sites in the region.

See page **82**

Preservation Page **78**

In Danger Page **84**

Outreach Page **86**

Island of Mozambique (Mozambique).

© Sliig Nygaard

Earthen architecture in World Heritage

An international colloquium on the conservation of earthen architecture at World Heritage sites was held at UNESCO Headquarters on 17 and 18 December 2012, within the framework of the World Heritage Earthen Architecture Programme (WHEAP), and in partnership with the International Center for Earthen Architecture's National School of Architecture (CRATERRE-ENSAG) in Grenoble (France).

The colloquium, which brought together 240 participants, including experts, professionals and students, offered a critical look at the progress and achievements of the ten-year WHEAP programme (2007–17) at its midpoint and presented the diversity of earthen architecture on the World Heritage List.

'It is my hope that this meeting will provide guidance for World Heritage earthen architecture and the sustainable development of its communities around the world,' said Francesco Bandarin, UNESCO Assistant Director for Culture, during his opening speech.

Lazare Eloundou, Head of the World Heritage Centre's Africa Unit, emphasized: 'It is important to find a common position on how to go about the future of earthen architecture on the World Heritage List because it is part of the intangible heritage,

part of cultures' belief systems and part of the way people built their environments.' He noted that 'this is a very fragile material so it is important to discuss an integrated approach on how to deal with conservation because this material continues to be used even today in modern construction.'

The colloquium focused on research, methods and practices relating to earthen architecture, capacity building and awareness-raising, as well as outreach programmes both at local level and on a large scale. Experts generally emphasized the importance of earthen architecture in development issues.

Forty experts from all regions and from institutions such as the Aga Khan Trust for Culture, the World Monuments Fund and the Getty Conservation Institute gave presentations. Site managers played an important role in the panel presentations, which allowed specific field experience to be put forward.

Two exhibitions, *Twenty Years of Contribution to World Heritage*, and *Women Builders of Africa: Perspectives in Burkina Faso and Niger*, organized by CRATERRE-ENSAG and Bâtir et Développer, a women's association dedicated to heritage preservation, showcased the progress achieved since the WHEAP programme's inception in 2007.

The two days of exchange concluded by an appeal by the Scientific Committee of the colloquium, which highlighted the singular nature of World Heritage earthen architecture and emphasized the need to develop specific guidelines for the conservation and promotion of this type of heritage.

Mission to the Royal Palaces of Abomey



Royal Palaces of Abomey (Benin).
© CRATERRE, T. Joffroy

A reactive monitoring mission to the Royal Palaces of Abomey, which included representatives from the World Heritage Centre, ICOMOS and ICCROM, was in Benin from 3 to 7 December 2012 to evaluate the state of the property as well as areas for urgent, short- and long-term action.

The mission examined the impact of the January 2012 fire at the Royal Palace of Houegbadja and evaluated the site's overall risk preparedness measures, as a fire had also broken out in 2009. The team pointed out the need to develop a conservation policy and financing plan for the restoration of the burned buildings. The group also noted the urgent need to assemble documentation on past and current interventions at the site, which was severely lacking. A month-long workshop, organized by the African World Heritage Fund and the École du Patrimoine Africain, was held at the site in March and April 2013 and was able to assist the State Party – together with ten other World Heritage sites – in developing their Disaster Risk Management Plan.

In close consultation with the site manager and the National Department for Cultural Heritage, the mission advised on the management and conservation plan, as well as a plan for sustainable tourism. The national authorities were urged to include broad and close consultations with all stakeholders, especially local authorities and the royal families, in the evaluation and renewal of the management plan as well as in the development of a tourism plan and subsequent financing and fundraising activities for the site.



Opening of the International Colloquium on Conservation of World Heritage Earthen Architecture.

© UNESCO

World Heritage and the courts

A groundbreaking ruling in November 2012 by the Constitutional Court of Ecuador has given additional strength to the World Heritage Convention as a legal instrument of practical application in courtrooms, whose provisions are interpreted in accordance with constitutional and national legal standards. The decision has given normative strength to the Convention that not all environmental treaties enjoy.

The 2012 decision by the Constitutional Court of Ecuador states that the Galápagos special legal regime complies with Ecuadorian constitutional standards of environmental protection. The court also states that the Galápagos legal regime complies with standards set by *nature rights*, a new approach adopted by the Ecuadorian Constitution since 2008. The court indicated that the state has a 'dual responsibility ... to protect the integrity and the biodiversity' of the ecosystems of the Galápagos Islands, which 'in the case of the Islands, [is] not only of national but also of

international scope'. The court further refers to World Heritage inscription as being of *great value*, since it provides, among other considerations, a background to implement the special legal regime in the province of Galápagos.

It is clear that, in this case, the protection of natural heritage was primarily guided by the Ecuadorian constitutional duty to protect the country's natural heritage, as well as the Ecuadorian legal tradition of environmental protection. But it is also clear that the protection of the world's natural heritage has been assumed with due normative relevance.

This ruling of the Constitutional Court of Ecuador is now part of an emerging jurisprudence on world natural heritage issues which includes a 1985 Australian High Court decision stating that the World Heritage Convention had set real, specific and binding obligations on Australia as a State Party to the Convention.

As public concern over environmental legal issues grows worldwide, the 2012 decision by the Constitutional Court of Ecuador may well anticipate a new central role for the World Heritage Convention in the courtrooms.

Mexican waters are a safe refuge for whales

The Mexican Commission of Natural Protected Areas has declared the Whale Sanctuary of El Vizcaino World Heritage site a safe refuge for several species of whale. According to a survey carried out by the Commission in February 2013, up to 1,700 grey whales were counted at the site, with figures rising.

Grey whales migrate each winter from their feeding grounds in the Arctic to the warm Mexican waters of the lagoons of El Vizcaino Sanctuary in order to mate. Females give birth in these waters before returning to the Arctic in March and April. The closed, shallow, hypersaline waters of the lagoons are an optimum habitat for the protection and shelter of newborn calves, which weigh between 500 kg and 750 kg at birth.

Around 12,000 tourists travel each year to the site to whale-watch in both the Ojo de Liebre and the San Ignacio lagoons. Whale-watching is a remarkable experience, often crowned by the close approach of a calf to the tourist boats to play and interact with visitors. In this safe environment mothers and calves prove to be very friendly. Tourism activity is operated by small local companies who care for and protect both whales and visitors.

The Mexican Government guarantees protection to all cetaceans in Mexican waters through a long-term conservation policy. The Whale Sanctuary of El Vizcaino is part of the much larger El Vizcaino Biosphere Reserve, Mexico's largest protected area, and the UNESCO-MAB Biosphere Reserve, an area of more than 25,000 km² which includes a very diverse array of ecosystems. Mexico has been part of international initiatives for whale protection since 1933.



Galápagos Islands (Ecuador).

© Christopher Dorobek

Experts and stakeholders meet at Pompei

The first expert/stakeholder meeting was held in Pompei (Italy) on 17 November 2012 within the framework of the project: Towards a governance system for coordinating the updating and the implementation of the Management Plan of the Archaeological Areas of Pompei, Herculaneum and Torre Annunziata. The meeting addressed public use and disaster risk management issues, as well as the regulation and control of development in the vicinity of the property.

Local, national and international experts in the field of archaeology, sustainable tourism, economics of culture, management, conservation, disaster risk management, as well as national and local authorities, local stakeholders and site managers, the Italian Ministry of Cultural

Heritage and Activities and experts from ICCROM, ICOMOS and UNESCO were among some fifty participants.

A workshop on Heritage and Conservation considered suggestions for the best way to conserve the context of the site, including a large buffer zone and a regional landscape plan. This workshop suggested that conservation needed to be linked to greater integration with local communities.

A second workshop on Disaster Risk Management (DRM) insisted that a chain of decisions and interventions must be established involving agencies responsible for DRM, including linkage with DRM systems for the Vesuvian area. It also called for the safeguarding of cultural heritage within the broader Vesuvian risk management plan.

The main threats to the sites that this workshop identified included earthquakes, volcano eruption, an obsolete hydrogeological drainage system, mass tourism, heavy rain and climate change.

A third workshop on Public Use suggested that efforts made at Herculaneum to involve community stakeholders should be extended to Pompei. The workshop noted that the site has good interpretation/communication material for visitors, but that these could be improved. It also emphasized that local efforts are often hindered by the lack of a good, functioning infrastructure at regional level.

Finally, a fourth workshop on Governance, Institutional and Organizational Settings suggested that the three-year plan for spending 105 million euros under the Grande Progetto Pompei should be accompanied by a longer-term plan of perhaps five years as a transition period to a new form of stability. After that, it was suggested, a new institutional design could be activated which would provide flexibility with greater autonomy to Pompei. The workshop also called for the overcoming of institutional fragmentation. A broader approach to capacity building was also suggested.



Archaeological Areas of Pompei, Herculaneum and Torre Annunziata (Italy).

© Carlo Mirante

Human Origin Sites in Eurasia and the World Heritage Convention

Within the framework of the World Heritage Centre Thematic Programme, Human Evolution: Adaptations, Dispersals and Social Developments (HEADS), the University of Tübingen (Germany) and the World Heritage Centre invited a group of twenty-eight national and international experts, site managers, members of the scientific committee of the HEADS Programme, representatives of ICOMOS and national representatives from fourteen countries to participate in an international meeting of experts on Human Origin Sites in Eurasia and the World Heritage Convention at the University of Tübingen. The meeting, held from 25 February to 1 March 2013, discussed the recognition, conservation and research of human evolution-related sites in Eurasia.

This was an important step in strengthening national and regional cooperation and capacities in support of the future protection and sustainability

of these sites. In line with activities of the HEADS Action Plan, the meeting also offered a regional platform to evaluate current methodologies for establishing the Outstanding Universal Value of related sites for potential future inscription on the World Heritage List. It also developed guidelines on applied research, for conservation of caves in particular.

A series of multilateral working groups focused on a number of complementary themes: the identification of human evolution narratives for establishing a site's value; the interpretation of the criteria of the World Heritage Convention within the framework of the tenets of the HEADS Thematic Programme and the role of criterion (viii); interdisciplinary approaches for conservation, curation and research; viability of serial nomination in the context of the current state of research on Neanderthals and approaches to research in karstic archaeological landscapes, including ethics, techniques and documentation of finds.

Over several days the working groups heard presentations by invited guests. They also visited cave sites in the Swabian Jura of the Ach and Lone Valleys. The visits included the sites of Hohle Fels and the Archaeopark at Vogelherd, where some of the earliest evidence for music (in the form of ivory and bird bone flutes) and figurative

art (including mammoths, horses and, most recently, a female figurine) are to be found in Eurasia.

This multidisciplinary approach to the meeting resulted in a series of outcomes that take into account the exceptional nature of human evolution, and cave sites in particular, when defining a site. This approach also helps to determine the best way to identify and preserve a site's value, while at the same time acknowledging, and attempting to ameliorate, the tension between the ethics of site protection and the advancement of scientific knowledge of our shared human origins. To this end, and in the light of the implementation of the HEADS Thematic Programme for World Heritage, practical techniques for documentation and conservation were shared, the latest research and theoretical approaches to the Eurasian archaeological record were discussed, and several avenues for interdisciplinary cooperation through all the stages of site research – from discovery to analysis to the permanent curation of excavated artefacts and their attendant records – were established.

The meeting was largely financed by the University of Tübingen, the German state of Baden-Württemberg and the extra-budgetary Spanish Funds-in-Trust for World Heritage.



Nairobi and World Heritage Convention mark start of cooperation in Indian Ocean

The Parties to the Nairobi Convention have encouraged its Secretariat, the World Heritage Convention and other parties to work together to assess the possibility of new marine World Heritage sites in the Western Indian Ocean and build capacity in the region in order to carry out the identification and nomination process. During the 7th Conference of the Parties for the Nairobi Convention, Partnering for a Healthy Western Indian Ocean, held in December 2012 in Maputo (Mozambique), discussions centred on the potential for new marine World Heritage sites.

The talks followed presentation of the outcomes of the recent initial assessment of marine sites in the Western Indian Ocean undertaken by the World Heritage Centre and CORDIO East Africa, which

has identified a number of sites that could meet the natural criteria for World Heritage nomination. The potential sites include the Mozambique Channel and the Mascarene Plateau, both of which are transboundary sites in the Nairobi Convention area. The assessment provides initial guidance for States Parties in identifying priority sites for designation under the World Heritage Convention.

Calling the decisions taken by the Parties to the Convention an encouraging step forward, David Obura, lead expert on the regional study, noted that 'governments are acutely aware of the challenges to establishing new World Heritage sites'. He noted that one of the challenges for the future will be 'to build a stronger foundation for managing large marine areas and dealing with the large-scale threats that affect these areas'.

The Nairobi Convention came into force in 1996 and provides a mechanism for regional cooperation, coordination and collaborative actions towards marine conservation in the Indian Ocean, and enables the Contracting Parties to harness resources and expertise from a wide range of stakeholders and interest groups towards solving interlinked problems of the coastal and marine environment.

Reflection on the modern urban and architectural heritage of the Arab world

An expert meeting, held at UNESCO headquarters on 19 and 20 December 2012, decided to launch a thematic programme on the safeguarding of the modern and architectural heritage of the Arab world, aimed at revealing, safeguarding and promoting the modern heritage produced by local as well as Western architects and urban planners in the 19th and 20th centuries.

The group stressed the importance of the rich, plural and diverse modern heritage of the Arab States. Participants raised the question of the relation between modernity and tradition, as well as questions regarding the future of this heritage.

The meeting suggested that a network relating to the heritage of the 19th and 20th centuries be created in order to gather and share experiences across the Arab world. The development of a series of communication tools was recommended, as well as the involvement of universities



Island of Mozambique.

© Stig Nygaard



Rabat, Modern Capital and Historic City: a Shared Heritage (Morocco).

© YoTut

and the establishment of training sessions and conferences. Participants also called for an award to be launched in this area of expertise and a database set up.

The reflection on the modern urban and architectural heritage of the Arab world has its roots in the desire to make this part of the region's history better known, accepted and protected. Nominating properties that represent this heritage could be one of the tools towards this protection for future generations. The Arab States, through their second cycle of Periodic Reporting (2008–10), developed a Regional Programme (2012–16), which invites the States Parties to review their Tentative Lists in order to include new types of cultural and natural sites. Subsequent meetings expressed an interest in urban and architectural heritage considered as modern.

While some Arab States have begun considering the heritage stemming from the colonial period as an important part of their identity, only one of the sixty-seven cultural World Heritage sites of the region, Rabat, Modern Capital and Historic City: a Shared Heritage (Morocco), specifically deals with the themes of colonial and modern heritage. The modern urban and architectural heritage of the Arab world is absent from its Tentative Lists.

A follow-up expert meeting is to be held in Rabat on 27–28 May 2013.



Coordination between key stakeholders to save Madagascar's rainforests

Illegal logging for rosewood in the forests of Marojejy and Masoala National Parks, two of the six parks that make up the Rainforests of the Atsinanana World Heritage site in Madagascar, led to its inscription on the List of World Heritage in Danger in 2010. The site had achieved World Heritage status in 2007 because of its unique biodiversity and ecosystems including some of the world's most unique species – the lemurs. Rosewood is a much sought-after precious wood, in particular for the Asian market.

Although the Malagasy authorities have passed the necessary laws and regulations in an effort to protect the species, loopholes allowed the export of huge volumes of rosewood in 2008 to 2010, to a large extent logged illegally inside the World Heritage site and other forest protected areas

Since the Danger listing of the site, the World Heritage Centre has been working with the Ministry of Environment and Forest as well as Madagascar National Parks and a range of conservation NGOs to address the issue. Thanks to the elaborate network of

government and non-government contacts the Centre had developed over the years by coordinating projects in the country, it was able to work closely with key stakeholders there and submitted a successful project proposal to the Government of Norway. This three-year, US\$1 million project, set to begin in mid-2013, will focus on monitoring the site against illegal logging while also helping local communities to derive greater benefits from living near the site. In cooperation with the UNDP's Small Grants Programme, the UNESCO project will allow communities to propose small projects designed to improve food security and sustainable productive activities.

The World Heritage Centre has also been in contact with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which decided at its recent meeting (COP16) to restrict the international trade in rosewood from Madagascar (see page 72), and has also been providing input to the World Bank in its nationwide effort to better understand the illegal logging trade and devise ways by which the very large inventory of cut logs should be dealt with.

The conservation challenges in the Rainforests of the Atsinanana World Heritage site are rooted in much larger, national and international phenomena. Tackling them effectively requires coordination between key stakeholders. The World Heritage Convention is an excellent platform to bring many of them together.



Marojejy National Park (Madagascar).

© Frank Vassen

Action Plan for Mali

An Action Plan for the Rehabilitation of Cultural Heritage and the Safeguarding of Ancient Manuscripts in Mali, estimated at some US\$11 million, was approved on 18 February 2013 at an international expert meeting at UNESCO Headquarters in Paris, organized by UNESCO and France.

The Action Plan will aid in rehabilitating cultural heritage damaged during the conflict in northern Mali. It will also take measures to protect the ancient manuscripts kept in the region. In addition the plan will enable the provision of training activities so as to re-establish appropriate conditions for the conservation and management of cultural heritage, including manuscripts and intangible heritage.

The day-long meeting featured the participation of African and French decision-makers, including the ministers of culture of Mali and France. It was opened by UNESCO Director-General Irina Bokova, who reiterated the Organization's commitment to work for cultural preservation in Mali. 'When a World Heritage site is destroyed because of stupidity and violence, the whole of humanity feels it has been deprived of part of itself, that it has been injured,' she said.

The World Heritage Committee, at the request of the Government of Mali, inscribed the World Heritage properties of Timbuktu and the Tomb of Askia on the List of World Heritage in Danger on 28 June 2012 at its 36th session in St Petersburg (Russian Federation). Since May 2012 cultural heritage and expression in northern Mali, notably in Timbuktu and Gao, have been the subject of recurrent attacks and have suffered heavy damage. Eleven of the sixteen tombs of the property of Timbuktu were destroyed. In Timbuktu repeated attacks targeted the two mausoleums of Djingareyber Mosque, the largest mosque in the city, and the El Farouk monument. The Tomb of Askia in Gao is also at high risk. Some 2,000–3,000 manuscripts have been burned and concerns remain regarding high risks of illicit trafficking of an estimated 300,000 others.



Tomb of Askia.

© Jean-Francois Loiseau

Timbuktu was inscribed on the World Heritage List in 1988. Home of the prestigious Koranic Sankore University and other madrasas, Timbuktu was an intellectual and spiritual capital and a centre for the propagation of Islam throughout Africa in the 15th and 16th centuries. Its three great mosques, Djingareyber, Sankore and Sidi Yahia, recall Timbuktu's golden age. The Tomb of Askia was inscribed on the World Heritage List in 2004. The dramatic 17 m pyramidal tomb was built by Askia Mohamed, the Emperor of Songhai, in 1495 in his capital Gao. It bears testimony to the power and riches of the empire that flourished in the 15th and 16th centuries through its control of

the trans-Saharan trade, notably in salt and gold. It is also a fine example of the monumental mud-building traditions of the West African Sahel.

The Action Plan to rehabilitate and safeguard this heritage concerns both World Heritage sites and cultural heritage properties protected under national legislation. Assessment missions are to be carried out to the sites to determine the extent of the damage and priority emergency measures to be undertaken. Under the plan a rehabilitation and reconstruction strategy will be clearly elaborated.

Measures will also be taken for the sustainable protection of manuscripts,



Timbuktu.

© Jurgen

including adequate temporary safeguarding and the rehabilitation of buildings housing private libraries. Manuscripts are to be digitized under the plan and training is to be carried out on their conservation.

The plan also calls for the preparation and training of cultural heritage professionals and the sensitizing of local communities. Imams and the association of masons and the managers of manuscripts, mausoleums and other cultural sites will be provided with means to coordinate efficiently the rehabilitation and reconstruction works in Timbuktu and Gao.

The plan has also taken up the fight against illicit trafficking of cultural objects with projected training workshops and the

strengthening of cooperation between police, customs and cultural heritage protection services. Bilateral agreements with Mali's partner countries on the reciprocal protection and restitution of stolen and illegally exported cultural property are to be established, as well as the transmission to INTERPOL of information regarding Malian stolen cultural objects.

UNESCO, in collaboration with the National Directorate of Cultural Heritage in Mali and the International Centre for Earthen Architecture (CRATERE), has produced two publications on the cultural heritage of Timbuktu, Gao and Kidal. The first is an illustrated map with detailed

texts in A3 and poster versions. The second is a brochure entitled "Heritage Passport". Available in French, the two documents provide detailed information on the location and importance of cultural sites in the northern region. They were developed to raise awareness among the armed forces, NGOs, the international community and local communities about the importance of safeguarding these heritage sites.

A special fund has been created for the safeguarding of Mali's World Heritage sites. For more information, or to make a donation, see <http://whc.unesco.org/en/news/913>.

Crown Jewels of the Ocean

International film stars Clive Owen and Jacques Perrin gave their support to Marine World Heritage: The Crown Jewels of the Ocean, on 7 February 2013 at a special event dedicated to marine site preservation at UNESCO Headquarters in Paris. A short film on marine sites, narrated by Mr Perrin, was also shown.

The event presented a ten-year strategy to protect the marine World Heritage sites, supported by the Government of Flanders (Belgium), and celebrated the achievements of the innovative Tides of Time partnership established in 2010 between the World Heritage Centre, leading Swiss fine watchmakers Jaeger-LeCoultre, and the *International Herald Tribune* newspaper, for the benefit of marine World Heritage preservation.

UNESCO Director-General Irina Bokova opened the event. 'Covering a fourth of all Marine Protected Areas [the forty-six marine World Heritage sites] are uniquely positioned to spearhead advances in marine management and contribute to enhancing the sustainability of the ocean, which is UNESCO's objective,' she said.

Mr Perrin also gave a keynote address about marine heritage and the important issues at stake. Other speakers during the evening included Jérôme Lambert, CEO Jaeger-LeCoultre; Stephen Dunbar-Johnson, publisher of the *International Herald Tribune*; Nic Vandermarliere, representative of Flanders to UNESCO; and Clive Owen.

UNESCO's World Heritage Marine Programme is seeking to make these sites drivers for change in ocean conservation globally. Much remains to be done to bring up to speed the capacities of site managers and to ensure that the wide range of ocean ecosystems is fully represented on the World Heritage List. The Marine Programme is one of the priority programmes for the World Heritage Committee.

The Government of Flanders and the Tides of Time partnership have provided more than US\$3 million since 2008 to help states and site managers face the growing challenges of pollution, largely posed by coastal development, habitat destruction and maritime transport. This work is coordinated by the World Heritage Centre.

The event was followed by an evening cocktail held at the Jaeger-LeCoultre boutique on Place Vendôme in Paris, bringing together UNESCO's current and potential new private sector partners

Partnering to preserve Dja Faunal Reserve

For the first time UNESCO and Switzerland's Fondation Franz Weber signed a five-year agreement in January 2013, to reinforce support for the Rapid Response Facility (RRF), and to develop a new project for the sustainable preservation of Dja Faunal Reserve (Cameroon).

The partnership will reinforce the ability of the RRF to respond to serious risks to World Heritage sites. The main objective of the Dja Faunal Reserve preservation project is to improve the site's state of conservation, and to preserve its biodiversity through encouraging the involvement of local communities, the Baka people, in the management of the property. Another objective of this action is to improve the living conditions of the Baka.

Inscribed on the World Heritage List in 1987, Dja Faunal Reserve is one of the largest rainforests in Africa, with 90 per cent of its area left undisturbed. It contains 107 mammal species, five of which are threatened.

RRF, set up in 2006, is a small grants programme jointly operated by the World Heritage Centre and Fauna & Flora International which aims to protect natural World Heritage sites in times of crisis by providing financial resources quickly and flexibly to address emergencies affecting sites and surrounding areas.

World Heritage partnerships with the private sector aim to raise awareness, mobilize funds, and allow the implementation of activities for the conservation of World Heritage sites.

The Fondation Franz Weber manages the Fazao-Malfakassa National Park in Togo, and also participates in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) conferences.



From left: Clive Owen; Jérôme Lambert, CEO Jaeger-LeCoultre; UNESCO Director-General Irina Bokova; Jacques Perrin; Stephen Dunbar-Johnson, publisher of the *International Herald Tribune*; Nic Vandermarliere, representative of Flanders to UNESCO.

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Young Volunteers: key role in World Heritage and landscape management

An international conference was held from 4 to 12 December in San Cristobal de las Casas (Mexico), as the closing event of the World Heritage Volunteers (WHV) 2012 campaign for the 40th anniversary of the World Heritage Convention. Fifty projects at forty World Heritage sites in twenty-five countries, involving thirty-five youth organizations and some 800 volunteers, took part in the 2012 campaign.

Among the highlights of the conference was the recognition of the project WHV-Wachau Cultural Landscape in Austria as the best work camp of 2012. One of the aims of the World Heritage management organization, Arbeitskreis Wachau, is to preserve dry and half-dry

grasslands within the 60 ha site. Young volunteers participated in the WHV work camp, organized by the Austrian Youth Alpine Association and the Service Civil International – Austria. The project activities included workshops and sessions on World Heritage. The youth volunteers worked with shovels, rakes, pickaxes, saws, petrol grass trimmers, loopers and tarpaulins to maintain the grasslands and terraces. They cut, mowed, raked and removed stones and invasive trees such as black locust (*Robinia pseudoacacia*). They also replaced invasive alien plants with native trees (*Populus nigra*) in the flood plain forest along the Danube to maintain the Wachau World Heritage Trail paths. Between 9 and 11 hectares of dry grassland areas were preserved with an estimated labour productivity range of 70,000–90,000 euros. The farmers cultivating properties at the site have been able to benefit from the volunteers' work.

At the December conference the UNESCO World Heritage Education Programme and the Coordinating Committee for International Voluntary Service (CCIVS)

announced some fifty new projects as part of the World Heritage Volunteers campaign for 2013: Património Voluntary Action: Inspiring Change. This year's set of projects was chosen from almost 100 proposals representing sixty-seven organizations. Profiles of each project are now available on the World Heritage Centre website.

The WHV aims at sensitizing international and local volunteers as well as concerned authorities to World Heritage issues and increasing the contribution of youth and voluntary service organizations to World Heritage promotion and preservation. It also hopes to contribute to the development of non-formal education tools to strengthen the sense of ownership of our common heritage. Another aim of the WHV campaign is to strengthen further synergies between local youth organizations and the local community, site management and national as well as local authorities. Each new project has been organized in immediate connection with a site inscribed on the World Heritage List or on the State Party's Tentative List.



Participants at the closing event of the World Heritage Volunteers 2012 in San Cristobal (Mexico).

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Koguryo show in Paris

A photographic exhibition, The Preservation of the World Heritage Site of the Koguryo Tombs and Mural Paintings of the Democratic People's Republic of Korea, 2001-2012, was held at UNESCO's Paris Headquarters from 12 to 26 October 2012.

This exhibition highlighted the historical significance of the Koguryo kingdom and its rich cultural heritage with a display of photographs of the wall-painting masterpieces representative of Koguryo. The photography also showed the history of the decade-long conservation efforts carried out by UNESCO and the Democratic People's Republic of Korea (DPRK).

This programme has introduced international standards of conservation for

cultural heritage and reinforced national capacity in the field of conservation in the DPRK. In 2008 full-scale conservation work was begun on the Susan-ri Tomb, whose mural paintings are considered to be among the most important and finest from the era of the Koguryo kingdom.

The Complex of Koguryo Tombs located in Pyongyang, inscribed on the World Heritage List in 2004, represents an outstanding form of artistic expression, and the common heritage of the Korean people. UNESCO, by highlighting the importance of shared common heritage through the conservation project, has been playing a major role in promoting dialogue and reconciliation in the region.

This exhibition was made possible thanks to the Cultural Heritage Administration of the Republic of Korea through the UNESCO Funds-in-Trust Project.

Patrimonito goes to Lebanon

Episode 10 of Patrimonito's World Heritage Adventures cartoon series was produced and released in December 2012. *Patrimonito in Lebanon: Sustainable Development for the Site of Ouadi Qadisha and the Forest of the Cedars of God* is now also available online (<http://whc.unesco.org/en/patrimonito/>).

The new episode emphasizes the importance of protecting this World Heritage site through a commitment to sustainable development. It was based on the storyboard created by the 15-year-old author Nour Al Hoda-Fakih, from Al-Kawthar High School in Lebanon, who was selected from among the entries of the Patrimonito International Storyboard Competition in 2011.

Within the framework of the UNESCO World Heritage Education Programme, the activity provided an incredible opportunity for young people to develop their skills. Those who participated in the competition proposed solutions to problems and sharpened their communication skills as they tried to raise awareness of heritage issues.

The Patrimonito series, launched in 2002, invites young people to convey the message of World Heritage preservation to their peers by creating storyboards in which they introduce a site, describe the threats it is facing and find solutions to preserve it.



Conservation on the west wall of the mural paintings in the Susan-ri Tomb (Republic of Korea).

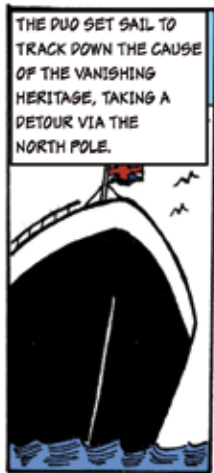
© UNESCO/DPRK national conservation team



The Case of the Lost World Heritage, 8th episode

A series of World Heritage comic strips featuring Rattus Holmes and Dr Felis Watson, the famous pet detectives of Sherlock Holmes and Dr Watson, will soon be published. The sleuths save the World Heritage sites from evil Moriarty, who plans to steal them for an interplanetary theme park. They are part of a series co-published by UNESCO and Edge Group, UK, which includes other adventures of Holmes and Watson in *Rattus Holmes in the Case of the Spoilports* (about doping in sports) and *Rattus Holmes and the Case of the World Water Crisis*. It will also be available on the World Heritage Centre website <http://whc.unesco.org>. For more information about Edge Group and their work, write to edgesword@yahoo.com.

The story continues in the next issue of *World Heritage*...



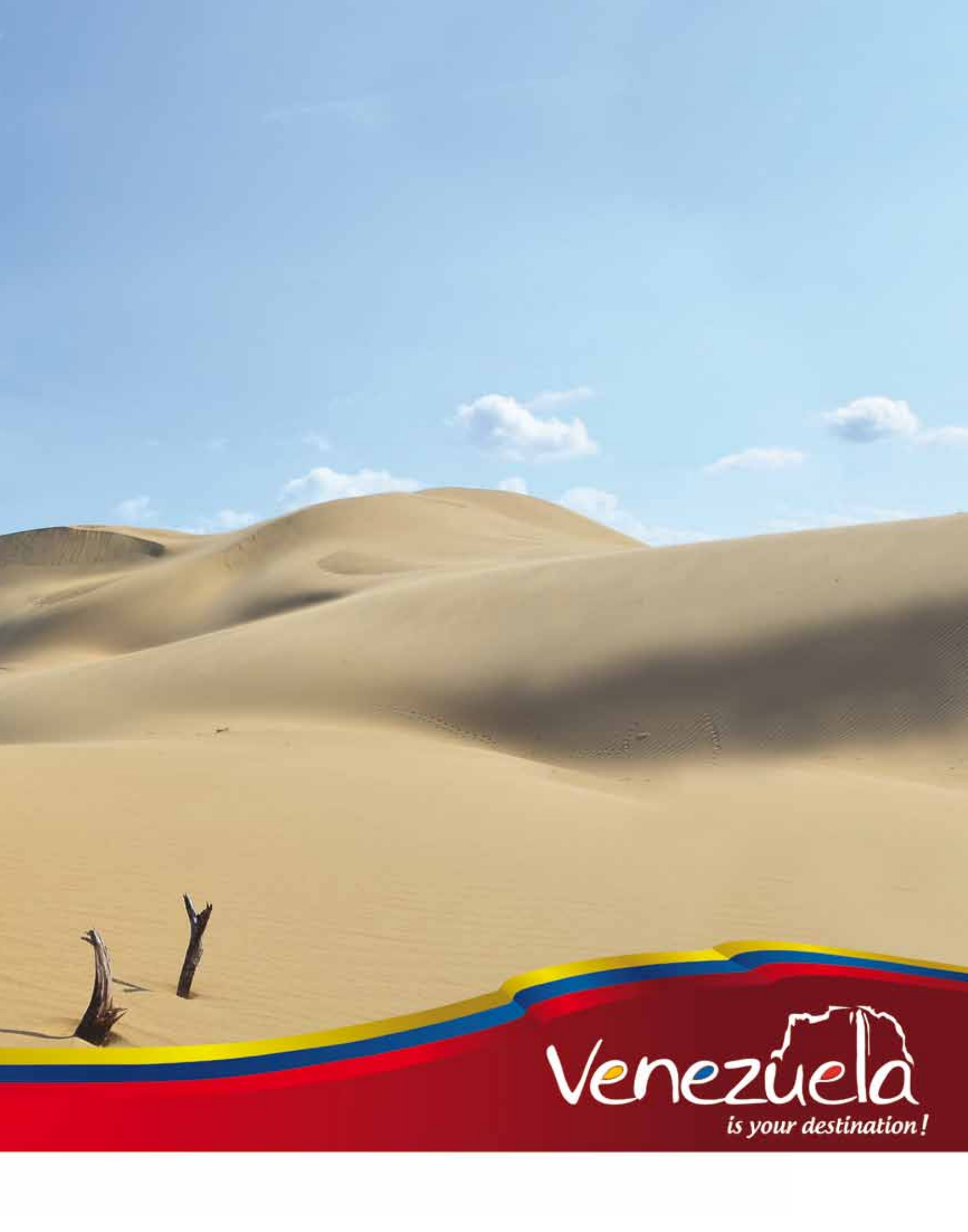


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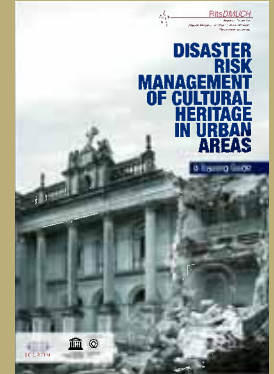
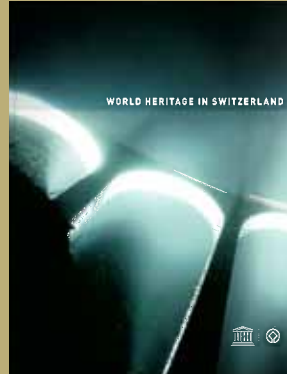
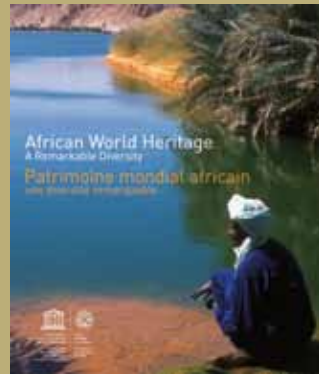


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Archaeological Sites: Conservation and Management

Edited by Sharon Sullivan and Richard Mackay
 Getty Publications
 University of Chicago Press
 or Orca Book Services
 English only
<http://www.getty.edu/publications/>

Part of the Getty Conservation Institute's Readings in Conservation series, this volume features more than seventy texts that have made important contributions to the understanding of the conservation and management of archaeological sites, addressing key issues from both historical and contemporary perspectives. The readings cover a broad spectrum of site types, geographical locations, cultural contexts, and methodological approaches and techniques. They range chronologically from early 18th-century memoirs and late 19th- and early 20th-century writings by pioneers such as Heinrich Schliemann and Sir Arthur Evans to a thorough representation of recent scholarship. The volume is divided into five parts, focusing on historical methods, concepts and issues; conserving archaeological resources; physical conservation of archaeological sites; cultural values of archaeological sites; and site management.

World Heritage in Switzerland

Swiss Commission for UNESCO
 Available in English, French, German and Italian
<http://www.bundespublikationen.admin.ch>

This large-format work pays tribute to the World Heritage sites of Switzerland, with detailed descriptive texts and superb photographs. The eleven Swiss sites are illustrated, including the Benedictine Convent of St John at Müstair, the Rhaetian Railway in the Albula/Bernin Landscapes, and the Old City of Berne, drawing attention to their Outstanding Universal Value and the importance of protecting them.

African World Heritage, A Remarkable Diversity

Edited by Lazare Eloundou and Ishanlosen Odiaua
 Published by UNESCO, Government of Switzerland and African World Heritage Fund
 English and French in one volume
<http://publishing.unesco.org>

The World Heritage Convention provides an international platform for safeguarding cultural and natural heritage, and a showcase for the diversity of African heritage. There are currently forty-seven cultural, thirty-five natural and four mixed properties in the region, representing 9 per cent of the current total of 962 World Heritage sites. Although the region remains under-represented, almost all African countries have adopted the World Heritage Convention and there are various levels of implementation. This richly illustrated publication provides an overview of World Heritage sites in Africa, with a chapter dedicated to the sites in each country. From vast deserts and forests with a variety of rare wildlife, to traces of past civilizations demonstrating human evolution and mastery of difficult terrain, the region is a rich depository of natural and cultural history. The extent of this diversity reminds us of our common responsibility for safeguarding it for present and future generations, while even more remains to be discovered.

Disaster Risk Management of Cultural Heritage in Urban Areas: A Training Guide

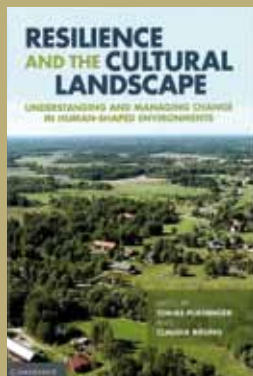
Research Center for Disaster Mitigation of Urban Cultural Heritage, Ritsumeikan University, Japan
 English only
 For more information write to: g.boccardi@unesco.org

Large-scale disasters across the globe have caused enormous loss of life and property, and affected widespread damage to the cultural heritage of towns and cities. This training guide was compiled by the Cultural Heritage and Risk Management Project of Ritsumeikan University's Research Center for Disaster Mitigation of Urban Cultural Heritage (RitsDMUCH), following the successful results of its International Training course, held annually since 2006. This training guide, produced with the support of the UNESCO World Heritage Centre and ICCROM, provides a detailed framework for institutions, governments and non-governmental organizations to carry out their own training and capacity building exercises for professionals, administrators and policy-makers. The guide builds upon three closely interlinked components: disaster risk management, cultural heritage management and urban planning and development. It addresses the general principles of disaster risk management for cultural heritage, and also provides focused learning for participants to deal with various challenges related to disaster risk management in their local context.

Resilience and the Cultural Landscape: Understanding and Managing Change in Human-shaped Environments

Edited by Tobias Plieninger and Claudia Bieling
 Cambridge University Press
 English only
<http://www.cambridge.org>

All over the world, efforts are being made to preserve landscapes facing fundamental change as a consequence of widespread agricultural intensification, land abandonment and urbanization. The 'cultural landscape' and 'resilience' approaches have, until now, been viewed largely as distinct frameworks for understanding the effects of these dynamics and the ways in which they might be adapted or managed. This book brings together these two perspectives, providing new insights into the social-ecological resilience of cultural landscapes by coming to terms with, and challenging, the concepts of driving forces, thresholds, adaptive cycles and adaptive management. By linking these research communities, this book develops a new perspective on landscape changes. Based on firm conceptual contributions and rich case studies from Europe, the Americas and Australia, including references to World Heritage, it will appeal to anyone interested in analysing and managing change in human-shaped environments in the context of sustainability.



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2nd South East Europe (SEE) World Heritage Youth Forum.

Gamzigrad, Serbia.
Information: c.quin@unesco.org

2 to 4 May

International Conference: 'Landscape & Imagination. Towards a new baseline for education in a changing world'.

Paris, France.
Information: landscapeandimagination@uniscap.eu

19 to 23 May

High-level panel session on World Heritage and Resilience (in the context of the UN-ISDR Global Platform on Disaster Risk Reduction).

Geneva, Switzerland.
Information: g.boccardi@unesco.org

9 to 16 June

Cambodia World Heritage Youth Forum in conjunction with the 37th session of the World Heritage Committee.

Siem Reap, Cambodia.
Information: c.quin@unesco.org

12 to 20 June

5th World Heritage Youth Forum in Spain (held in Spanish). Theme: World Heritage and Intangible Heritage.

Madrid, Spain.
Information: c.quin@unesco.org

17 to 27 June

37th session of the World Heritage Committee.

Phnom Penh, Cambodia.
Information: r.veillon@unesco.org

7 to 21 September

8th International Training Course on Disaster Risk Management of Cultural Heritage.

Kyoto, Japan.
Information: dmuchitc@st.ritsumei.ac.jp



May the forts be with you!

Oman's cultural heritage takes many forms, none more imposing than magnificent towering forts and castles. For centuries, these were the focus of government, communities, trade and power. Their masterful design included water and ventilation systems to make life comfortable year-round and offer many surprises for any intruder.

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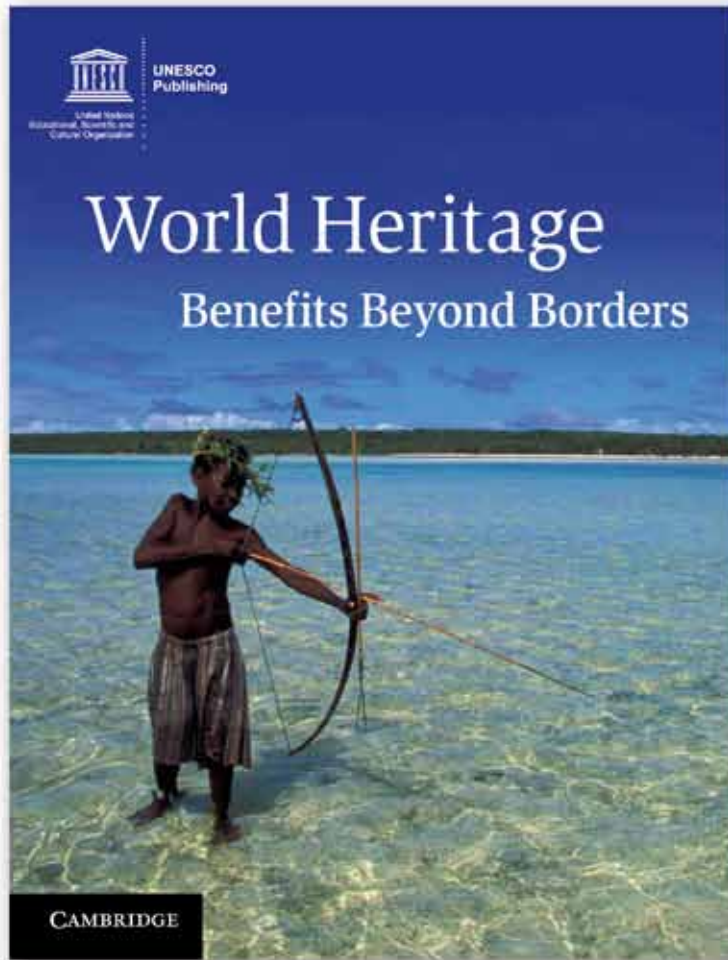
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Angkor.

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Special Issue: World Heritage in Cambodia

The 37th session of the World Heritage Committee will be held from 16 to 27 June 2013 in Phnom Penh (Cambodia). This issue will be dedicated to the country's World Heritage sites: Angkor, one of the most important archaeological sites in South-East Asia, and the Temple of Preah Vihear, dedicated to Shiva and dating back to the first half of the 11th century AD.

The intangible heritage of Cambodia, the Royal Ballet and Sbek Thom, Khmer shadow theatre, the Tonle Sap Biosphere Reserve and the Tuol Sleng Genocide Museum Archive, inscribed on the Memory of the World register, will also feature. There will be a message from UNESCO Director-General Irina Bokova and an interview with H.E. Mr Sok An, Deputy Prime Minister of Cambodia and Chair of the World Heritage Committee. 



Temple of Preah Vihear.

© Lawrence Murray

Azerbaijan Land of Fire



Baku, Atashgah

Since ancient times fire was considered sacred and fire worship has been always protected in Azerbaijan. The word Azerbaijan itself consists of two parts: "Azer" meaning fire and "baijan" meaning protector so Azerbaijan means the land of protecting fire.

One of the ancient symbols denoting Azerbaijan as a land of fire is "Atashgah" temple. The historical roots of the monument take us back to when the initial statehood of Azerbaijan was created and the ruling religion was Zoroastrianism. "Atashgah" temple, which was first developed in the 2nd and 3rd centuries in Surakhani settlement, on the Absheron peninsula, 30 kilometres from the centre of Baku, was built by people who believed in the Zoroastrian religion where the natural gas glowed on-site through eternal inextinguishable flames. Zoroastrians considered fire as sacred and prayed to it in order to be protected from disaster and tyranny and to live in happiness and peace.

The second period of the temple's development was from the 16th to the 17th centuries. As Azerbaijan was on the Great Silk Way, broad trade and cultural relations were established with other countries in this period. A lot of pilgrims came here and as the number of Zoroastrians and fire-worshippers was increased, the temple was restored. The whole building which is reminiscent of a caravanserai has a closed pentagonal form and consists of 24 cells and a central altar.

One of the symbols of contemporary Baku, the Flame Towers built in a shape of three tongues of flame, remind everyone that this country is the Land of Fire where hot-tempered and hospitable people live.