WORLD HERITAGE
Challenges for the Millennium

United Nations
Educational, Scientific and
Cultural Organization

World Heritage Convention

WORLD HERITAGE

Challenges
for the Millennium

WORLD HERITAGE
Challenges for the Millennium

United Nations
Educational, Scientific and
Cultural Organization

World Heritage Convention

This work on *World Heritage – Challenges for the Millenium*
was directed by Francesco BANDARIN,
Director, UNESCO World Heritage Centre

The authors are responsible for the choice and the presentation of the facts contained in this publication and for the opinions expressed therein, which are not necessarily those of UNESCO and do not commit the Organization.
The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

The publication of this volume was financed by the Italian Funds-in-Trust.

Published in January 2007
by the UNESCO World Heritage Centre
7 place de Fontenoy
75352 Paris 07 SP, France
Tel : (33) 01 45 68 15 71
fax : (33) 01 45 68 55 70
E-mail : wh-info@unesco.org
http://whc.unesco.org

Graphic design : Jean-Luc Thierry

Front cover : Hagia Sophia, Istanbul (Turkey)
Back cover : Galápagos Islands (Ecuador)

© UNESCO 2007

FOREWORD

Koïchiro MATSUURA
Director-General of UNESCO

In the sixty years since its foundation, UNESCO has developed a body of international standard-setting instruments for the safeguarding of the world's creative diversity. UNESCO's conventions, declarations and recommendations cover all aspects of tangible and intangible cultural heritage: from objects and museums to intellectual property, contemporary cultural expressions and living traditions. They also establish rules aimed at protecting heritage during armed conflict and at fighting the illicit export of cultural property.

Collectively these instruments form a network of legal tools designed to support Member States in their efforts to protect heritage and creativity in all regions of the world. A direct outcome of UNESCO's activities in the field of culture, this network will undoubtedly remain, in the coming decades, the primary reference point for all those concerned with heritage conservation. Moreover, three of these instruments – the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage; the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage; and the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions – constitute a common foundation for the preservation and promotion of that essential component of sustainable development: cultural diversity.

Within this framework, the Convention concerning the Protection of the World Cultural and Natural Heritage, widely known as the World Heritage Convention, is considered one of the most successful international instruments for the conservation of heritage sites. As the only convention in the world encompassing both natural and cultural heritage, it represents a unique and powerful link between the instruments dealing with cultural heritage, and those addressing issues such as natural heritage conservation, biological diversity, endangered and migratory species, wetlands and climate change. The network of 830 sites currently inscribed on the World Heritage List reflects all areas covered by these instruments and has become a crucial testing ground for their implementation and operation.

With the celebration in 2002 of the 30th anniversary of the World Heritage Convention, the World Heritage Committee engaged in a critical reflection on the results it has achieved, as well as on the road ahead. Among their conclusions, the Committee members stressed the need to increase public awareness, involvement and support for World Heritage as the Convention entered its fourth decade.

With these objectives in mind, the World Heritage Centre has produced the present publication, drawing on the invaluable assistance of many experts and partners. It is our hope that this volume will fill the gap between the technical material essential to the implementation of the Convention and the photographic images that have helped to make this instrument so popular. Furthermore, we trust that this publication will become a useful tool for the increasing number of people eager to discover more about the Convention's functioning, its achievements and challenges, and that it will mark another major step in mobilizing support and action in favour of the preservation and protection of our shared World Heritage.

PREFACE

Tumu TE HEUHEU
Chairperson, World Heritage Committee

My term of office as Chairperson of the World Heritage Committee comes at a critical moment in the life of the World Heritage Convention. This Convention is the most important international instrument for both cultural and natural heritage protection. With 183 States Parties and 830 properties in 138 countries its impact is truly global. It can also proclaim some remarkable successes and innovations in the field of safeguarding heritage of outstanding universal value to humankind.

During the first two decades of implementation, the main focus of the Committee's work concerned the establishment of the List and the inclusion of an ever increasing number of State Parties. Then, its focus shifted to the development of a number of key strategic directions, including a more balanced representation of cultures from all regions of the world and types of heritage in the List, in addition to the reinforcement of conservation, capacity-building and awareness-raising efforts.

The strategic directions formulated in the 1990s and refined in the early years of the new millennium as the '4Cs', synthesize the main thrust of this action. Thanks to the collective efforts of generations of enlightened decision-makers, planners, conservators and an ever-increasing circle of actors willing to work with the Committee to protect World Heritage, the World Heritage Convention is today considered to exemplify best practice of the United Nations' efforts to support education, environmental conservation and sustainable development in communities all over the world.

But we cannot rest on our laurels. The World Heritage Convention is a living instrument which must evolve in line with our understanding of heritage and heritage protection. It must also adapt to wider global concerns.

Thus, as the United Nations reform process moves forward, with a focus on the three main axes of humanitarian aid, social and economic development and environmental protection, the World Heritage community must reflect on the contribution that the Convention can make to the reform process. It is both a great opportunity and a challenge. I feel privileged to be Chairperson of the Committee at such an important moment in the life of the Convention and of the United Nations system.

This book is intended to contribute to this reflection. It is addressed to all those who care about and are working with UNESCO to achieve our goal to protect and preserve World Heritage.

PRESENTATION

H.E. Ambassador Giuseppe MOSCATO
Permanent Delegate of Italy to UNESCO

In 2002, the 30th anniversary of the World Heritage Convention was celebrated with a milestone Congress held in Venice. On that important occasion, UNESCO was able to present to the international community the achievements of many decades of activity in the field of heritage protection through the Convention, and to discuss the challenges facing conservation of cultural and natural sites worldwide.

As a firm believer in heritage conservation as a key factor of economic, social and human development, Italy was delighted to be able to provide support to that event, not only through financial and logistical assistance, but also by contributing to the preparation of the workshops and of plenary sessions that examined the different key issues facing the Convention.

A major element of that discussion was the issue of partnerships and public communication: the common understanding that the World Heritage Convention needs to build cooperation with the public and private sectors, and to increase its capacities to communicate with a more diverse public to mobilize greater support for heritage protection.

Since the Venice Congress, much has been done to achieve these goals: new partnerships have been created with governments, foundations and businesses and a new consensus has formed among all sections of society. And yet, communication with the public remains both a challenge and an area of great potential development.

This is why, when UNESCO invited the Italian Government to support the preparation of a publication about the World Heritage Convention, it was accepted with conviction, as a natural development of the initiatives taken at the Venice Congress.

Italy is very proud to support this publication. It is an essential tool for extending the reach of the Convention, particularly among students, the media and the interested reader.

As the Convention grows in importance and complexity, this volume provides the opportunity for many people to be guided through a system of international cooperation for heritage conservation that has achieved important results and will remain in years to come the point of reference for heritage conservation.

Direction
Francesco Bandarin

Editor
Sophia Labadi

Contributors
Clare Bridgewater
Guido Carducci
Henry Cleere
Abdelaziz Daoulatli
Paul Dingwall
Natajaran Ishwaran
Jukka Jokilehto
Elizabeth Khawajkie
Joseph King
Marjaana Kokkonen
Sophia Labadi
William Logan
Sawsan Noweir
Fumiko Ohinata
David Okali
Marc Patry
Jehanne Phares
Marielle Richon
Mechtild Rössler
Joanna Serna-Sullivan
Rieks Smeets
Herman van Hooff
Ron Van Oers
Vesna Vujicic-Lugassy
Tony Weighell
Tomme Young

Indicators, statistics and maps
Lydia Deloumeaux
Mélanie Smuga

ACKNOWLEDGEMENTS

UNESCO expresses its deepest gratitude to the Government of Italy for its substantial financial contribution and generous cooperation provided in the production of this publication.

The World Heritage Centre acknowledges the pertinent comments received at different stages of this project and on different versions of this publication from the following experts:
Giovanni Boccardi, Christina Cameron, Henry Cleere, Veronique Dauge, Guy Debonnet, Regina Durighello, Simon Ellis, Lazare Eloundou, Feng Jing, Alexander Gillespie, Reuben Grima, Karim Hendili, Jukka Jokilehto, Joseph King, Yvette Kaboza, Anne Lemaistre, Christian Manhart, Franca Miglioli, Lynne Patchett, Georgina Peard, Art Pedersen, Adrian Phillips, Kishore Rao, Pedro Rosabal, Mechtild Rössler, Nuria Sanz, David Sheppard, Jim Thorsell, Ron Van Oers, Vesna Vujicic-Lugassy, Salamat Tabbasum, Nathalie Valanchon, Elizabeth Wangari, Gamini Wijesuriya and Jim Williams.

Copy editor: Caroline Lawrence (English)

Translators (English to French): Brigitte Guérin and Geneviève Boisset

Proof-readers: Brigitte Strauss (French) and Pauline Harvey (English)

Coordination (English and French): Barbara Blanchard and Alexandra Capello

ACRONYMS AND ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
ASPnet	Associated Schools Project Network
CBD	Convention on Biological Diversity
CI	Conservation International
CIFOR	Center for International Forestry Research
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CRATerre – ENSAG	Centre International de la Construction en Terre – École Nationale Supérieure d'Architecture de Grenoble
DOCOMOMO	International Working Party for Documentation and Conservation of buildings, sites and neighbourhoods of the Modern Movement
ESA	European Space Agency
FAO	Food and Agriculture Organization of the United Nations
FUUH	Forum UNESCO – University and Heritage
GEF	Global Environment Facility
ICBP	International Council for Bird Preservation
ICCN	Institut Congolais pour la Conservation de la Nature
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICME	International Council on Metals and the Environment
ICMM	International Council on Mining and Metals
ICOM	International Council of Museums
ICOMOS	International Council on Monuments and Sites
IIIC	International Institute of Intellectual Cooperation
IMO	International Museums Office
IOC	Intergovernmental Oceanographic Commission of UNESCO
IPCC	Intergovernmental Panel on Climate Change
ITUC	Integrated Territorial and Urban Conservation
IUCN	World Conservation Union (formerly International Union for Conservation of Nature and Natural Resources)
MAB	UNESCO Man and the Biosphere Programme
OWHC	Organization of World Heritage Cities
PACT	Partnership for Conservation
PICTs	Pacific Island Countries and Territories
SSC	Species Survival Commission
TICCIH	The International Committee for the Conservation of the Industrial Heritage
UIS	UNESCO Institute for Statistics
UNCED	United Nations Conference on Environment and Development
UNCHE	United Nations Conference on the Human Environment
UNDESD	United Nations Decade of Education for Sustainable Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNF	United Nations Foundation
WCMC	World Conservation Monitoring Centre
WCPA	World Commission on Protected Areas
WHC	World Heritage Centre
WNBR	World Network of Biosphere Reserves
WTO	World Tourism Organization
WWF	World Wide Fund for Nature

USER GUIDE

This publication aims to be a key communication tool. It provides a comprehensive overview and analysis of more than three decades of the implementation of the World Heritage Convention and highlights a number of successes and challenges. Despite the sometimes technical information presented, the editors hope that it will be accessible to the general reader as well as university students and researchers, heritage conservation specialists and policy-makers.

It focuses on three major, interwoven and complementary themes: first, an overview of the history of the World Heritage Convention and its implementation by States Parties to the Convention; second, a detailed analysis of the representation of the natural and cultural diversity of the world represented in the World Heritage List and, finally, an investigation into the state of conservation of World Heritage sites.

This work is the result of a major collaborative effort of many leading experts in natural and cultural heritage conservation from a myriad of organizations including UNESCO, ICCROM, ICOMOS and IUCN. Their support has been an essential force behind the identification of key issues and the provision of relevant information.

A user-friendly approach has been adopted to clarify the main issues covered, and complementary information is offered in a variety of illustrative boxes, figures, maps, tables, focus sections and commentaries. A special effort has been made to include as many internet links as possible to simplify research for complementary information. All figures and maps have been produced by the UNESCO Institute for Statistics, based in Montreal (Canada). Not only has this involvement allowed, for the first time, statistical presentations of many aspects of the World Heritage Convention, but it has also ensured high quality statistics and analyses. The statistical work was based on analyses of some results of the first cycle of the Periodic Reporting exercise for all regions but, importantly, also on the analysis of over 2,000 existing State of Conservation reports.

One of the results of this effort has been the identification of the enormous gaps in knowledge of the Convention, and the lack of a system of indicators to effectively monitor the changes affecting World Heritage sites. The results of the data and statistical analyses conducted for this publication could therefore be very useful in the revision of the basic tools of the Periodic Reporting exercise. These could also serve as a basis for a more comprehensive database using all the official documents on World Heritage sites, which would allow more efficient tracking of the impacts and changes to these sites.

CONTENTS

Foreword by Koïchiro MATSUURA 7

Preface by Tumu TE HEUHEU 9

Presentation by H.E. Ambassador Giuseppe MOSCATO 11

Acknowledgements 13

Acronyms and abbreviations 14

User guide 15

Introduction by Francesco BANDARIN 18

1 OVERVIEW OF THE CONVENTION

- Introduction 25
- Genesis of international protection of cultural and natural heritage 26
- Introduction to the World Heritage Convention and its implementation 30
- Inscription of sites on the World Heritage List 35
- Defining outstanding universal value through changing criteria and concepts 39
- Conserving and monitoring World Heritage sites 43
- Financial support and partnerships 47
- World Heritage in Young Hands project 53
- Forum UNESCO – University and Heritage 56
- Capacity-building for World Heritage 58
- Communication and awareness-raising 60

2 WORLD HERITAGE AND OTHER INTERNATIONAL INSTRUMENTS

- Introduction 65
- World Heritage Convention and the Convention for the Protection of Cultural Property in the Event of Armed Conflict (1954) 66
- World Heritage Convention and the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (1970) 69
- World Heritage Convention and intangible cultural heritage 72
- World Heritage Convention and UNESCO Man and the Biosphere (MAB) Programme 75
- World Heritage Convention and four related biodiversity conventions 78

3 THEMATIC PRESENTATIONS

- Introduction 85
- Archaeological sites on the World Heritage List 86
- Focus: Archaeological World Heritage sites in Europe and North America 90
- World Heritage cities 92

- Focus: World Heritage cities in Asia 97
- Focus: World Heritage cities in the Arab States 99
- Monuments and groups of buildings on the World Heritage List 102
- Modern heritage on the World Heritage List 108
- Cultural landscapes on the World Heritage List 112
- Focus: Cultural landscapes and routes in Latin America and the Caribbean 118
- World Heritage forests 120
- Focus: World Heritage forests in Africa 124
- Marine World Heritage sites 127
- Focus: Eastern Tropical Pacific Seascape Project 131
- World Heritage geological and geomorphological sites 133
- Focus: World Heritage geological and fossil sites in Europe and North America 136
- Mountain sites on the World Heritage List 138

4 REGIONAL PRESENTATIONS

- Introduction 143
- World Heritage in Africa 144
- World Heritage in the Arab States 149
- World Heritage in Asia and the Pacific 153
- World Heritage in Latin America and the Caribbean 158
- World Heritage in Europe and North America 162

5 CONSERVATION OF WORLD HERITAGE SITES

- Introduction 167
- Floods – preparation and prediction 168
- Earthquakes – controlling damage 171
- Armed conflicts – preventing and reducing damage 174
- Wildlife – protection against poaching 178
- Mining – protecting World Heritage sites 181
- Development of World Heritage sites – acceptability 184
- Tourism at World Heritage sites – sustainability 187

Conclusions by Francesco BANDARIN 193

List of figures, maps and tables 198

Photographic credits 200

INTRODUCTION: PRESENT AND FUTURE CHALLENGES TO THE WORLD HERITAGE CONVENTION

Francesco BANDARIN
Director, UNESCO World Heritage Centre

REFLECTING ON THE CONVENTION

In 2002, on the occasion of the 30th anniversary of the Convention, the World Heritage Committee reviewed its Strategic Objectives and established, with the Budapest Declaration on World Heritage, four overarching goals: Credibility, Conservation, Capacity-Building and Communication ('4 Cs').[1]

These four goals sum up the challenges ahead: ensuring adequate representation for all types of cultural and natural heritage sites; promoting their effective conservation; raising the level of management and human skills for conservation; and finally informing the public of the achievements and challenges ahead.

These important strategic directions, built on previous long-term orientations and resting on the solid experience gained over thirty years, today constitute UNESCO's main framework of action in the implementation of the World Heritage Convention.

All the main participants in the Convention, starting with the States Parties, have in the past years shaped their plan of activities to respond to this challenge.

In considering the '4 Cs', it is however clear that there is an area where much more should be done: communication. Informing the public is a difficult task, but a necessary one to ensure long-term support for the activities of the Convention.

Awareness of the need to improve communication with the public, students, site managers and all those interested and active in conservation has in recent years prompted a number of initiatives aiming to strengthen web-based tools, relationships with the media, and publications.

1. See the Budapest Declaration on World Heritage, adopted at the 26th session of the World Heritage Committee, (Budapest, Hungary, 2002). In calling for the application of the Convention to 'heritage in all its diversity', the Declaration acknowledges the great strides taken during the previous thirty years to broaden the concept of heritage protection as an 'instrument for the sustainable development of all societies through dialogue and mutual understanding'. The Committee gave renewed importance to strengthening the credibility of the World Heritage List as a representative inventory of heritage of outstanding universal value in all regions of the world, to ensuring 'effective conservation' of listed sites, and to the promotion of capacity-building and communication measures.

This book is part of this communication strategy. Its objective is to present for the first time an overall picture of the nature, functioning, operations and issues of the World Heritage Convention.

Its scope can be summarized in a simple phrase: 'Helping reflection on the present and future challenges to the World Heritage Convention'.

IMPACT OF THE WORLD HERITAGE CONVENTION

The World Heritage Convention has achieved a great deal during the three decades of its existence. Today, it is among the foremost international tools of conservation, and certainly among the best known. Section 1 of this book is a guide to the history of the Convention and its basic functioning: in the evolution of this international tool for conservation lie the reasons for its success, and the nature of the challenges ahead.

The success of the Convention is demonstrated by the almost universal membership (183 out of 191 current Members States of the United Nations are signatories or 'States Parties' to the Convention) and the large number of listed sites under its protection (830 sites in 138 countries as of July 2006). Seldom has an international treaty based on a proactive approach by Member States been more successful.

Beyond these numbers, the World Heritage Convention has been able to achieve an even greater success: it has entered into the hearts and minds of millions of people, providing a tangible demonstration of the power and effectiveness of international cooperation. As a result, its impact has grown over time, inspiring ever greater involvement by governments, communities and individuals, universities, foundations and private sector enterprises.

The key message of the Convention – the need to preserve and transmit cultural and natural heritage of 'outstanding universal value' to future generations – has found an echo in national and international policies worldwide, and has been embodied in institutions, laws and practices that aim to preserve and promote sites for the education and enjoyment of visitors, as well as to give them a role in the lives and economic and social development of their communities.

Despite all this, many problems remain. The overall picture is far from ideal, and sites are threatened. Yet if we measure the work done in the thirty-four years since the World Heritage Convention was adopted, building on previous

decades of UNESCO involvement in the conservation of cultural and natural heritage, the great impact of this tool of international cooperation is resoundingly clear.

Today, the Convention is implemented through an extensive and still expanding system encompassing States Parties at all levels, from national government to site managers, UNESCO, the three Advisory Bodies, ICCROM, ICOMOS and IUCN, as well as many other specialized organizations and institutions worldwide. New actors and partners are continually being brought into the network. Each has an important role to play in shaping policies, advancing methodologies and management practices that need to be integrated in national policies, building capacity and extending the reach and the educational role of cultural and natural heritage. In a sense, this system – the individuals and institutions that are part of it – is the most important result of the Convention. It is they who ensure its presence in today's world and its guarantee for the future.

ROLE OF THE WORLD HERITAGE CONVENTION IN UNESCO AND THE UNITED NATIONS SYSTEM

The World Heritage Convention – while keeping its unique nature – is not the only international tool that UNESCO has made available to support conservation. In fact, since its inception in the aftermath of the Second World War, UNESCO has given life to several conventions in the field of cultural heritage conservation,[2] reflecting the growing concern of the international community for conservation, a concern justified by the threats and destruction – voluntary and involuntary – that have taken place in the past and are witnessed every day. Several other conventions and frameworks have been developed within other initiatives or by other UN organizations for the protection of nature and the environment. Section 2 provides an overview of the relationship between the World Heritage Convention and other international legal tools for cultural and natural heritage conservation.

Indeed, within this system of international law, the World Heritage Convention plays a role of 'keystone', encompassing both cultural and natural heritage. An increasingly important element of the work of UNESCO is that of coordinating its activities with those of other multilateral cultural and environmental agreements and recommendations to ensure greater complementarity and synergy. In recent years, important working relationships have been developed between the secretariats of the other four biodiversity-related conventions.[3]

The World Heritage Convention has also acquired a distinctive role within the broader UN system. Besides ongoing collaboration with other specialized agencies and programmes such as the United Nations Environment Programme (UNEP) or the United Nations Development Programme (UNDP), the World Heritage Centre has been able, thanks to the support of the UN Foundation (UNF), to implement major conservation programmes at natural heritage sites around the world.

Consequently, the World Heritage Convention has become an important tool of the international effort to achieve the Millennium Development Goals set by the United Nations at the beginning of the twenty-first century. In particular, the Convention supports Goal 7: Ensure environmental sustainability, in collaboration with the other UN organizations, governments and non-governmental organizations involved. By protecting some of the most important ecosystems and areas of high biodiversity and providing goods and services to local communities, the Convention can also be a motor of economic development, and therefore contribute to achieving Goal 1: Eradicate extreme poverty and hunger.

ROLE OF THE WORLD HERITAGE CONVENTION IN HERITAGE CONSERVATION DURING AND AFTER CONFLICTS

As part of UNESCO activities in support of heritage conservation during conflicts and in post-conflict situations, the World Heritage Convention has played a significant role in safeguarding sites, as well as in institution-building and training of staff.

World Heritage sites have often been the target of military action, looters and poachers in the lawless situations created by conflict. Whereas other Conventions have the specific task

2. 1954 Convention on the Protection of Cultural Property in the Event of Armed Conflict (Hague Convention), and its Protocols of 1992 and 1999;
1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Cultural Property;
1972 Convention concerning the Protection of the World Cultural and Natural Heritage;
2001 Convention on the Protection of the Underwater Cultural Heritage (not yet in force);
2003 Convention for the Safeguarding of the Intangible Cultural Heritage;
2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions (not yet in force).

3. Convention on Biological Diversity (CBD, 1992);
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 1973);
Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention, 1979);
Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, 1971).

of preventing and limiting damage to cultural and natural heritage in case of conflict, the World Heritage Convention has to deal with the complex tasks of supporting the reconstruction and reorganization of management capacities.

A relevant case has been the World Heritage site of Angkor (Cambodia), simultaneously inscribed on the World Heritage List and the List of World Heritage in Danger in 1992. The site was threatened by looters both during and after the conflict that ravaged the country in the 1970s and 1980s, but gradually returned to normal as a result of a UNESCO-led International Safeguarding Campaign and was taken off the Danger List in 2004. Another, more recent, case is Bamiyan (Afghanistan), which received world attention in 2001 when the Taliban regime announced it would destroy the famous statues of the Buddha. Although the destruction went ahead, the rapid engagement of UNESCO made possible the inscription of the Cultural Landscape and Archaeological Remains of the Bamiyan Valley on the World Heritage List and the Danger List, and thus its protection under the Convention. Many other cultural heritage sites in post-conflict situations, from the Minaret of Jam to the monuments of Herat (Afghanistan), from the sites of Iraq to the heritage of the Palestinian Territories and to the Old City of Mostar (Bosnia and Herzegovina), have been or still are the object of interventions and assistance from the World Heritage Convention.

The Convention has similarly been an instrument of protection for many natural heritage sites in areas of conflict, most prominently in the Democratic Republic of the Congo (DRC), where an important project supported by governments, the UN Foundation and non-governmental organizations active in the country has been under way since 2000. All five World Heritage sites in the DRC, among the most important forest areas in the world and the habitat of many endangered species, have been inscribed on the Danger List. In the past five years, UNESCO has been able to contain – under very difficult conditions – the damage caused by the conflict and support the reorganization of local management capacity.

WORLD HERITAGE CONVENTION AND CURRENT CHALLENGES

Like any system that has achieved significant recognition, the World Heritage Convention is facing many challenges and is continually adjusting its policies and strategies in order to meet those challenges. Let us briefly review their nature.

Improving balance of the World Heritage List

In 1994 the Committee launched a 'Global Strategy for a Balanced, Representative and Credible World Heritage List' to improve the representativity of the World Heritage List. While a number of mechanisms to rebalance the List and fill the gaps have been tried, the process has proved more difficult than expected meeting with limited success.

For at least the past fifteen years the Committee has been concerned about imbalances in the List, which are a result of the relatively long time it has taken some countries to ratify the Convention and the predominance of an essentially Western concept of heritage, focused on monuments.

Recent studies by the Advisory Bodies have shown the extent of the problem. Gaps are particularly evident in cultural heritage sites, where certain categories (such as modern heritage or prehistoric heritage) are clearly under-represented. Similar problems exist for natural heritage sites where the categories of tropical grasslands, lake systems, tundra and polar deserts are not well represented, nor are sites of importance for palaeontology and evolution. Section 3 deals in detail with these issues and presents an overview of the 'thematic' structure of the World Heritage List.

These imbalances, furthermore, have produced a situation in which half of the sites currently on the List are in Europe and North America. Section 4 reviews the implementation of the Convention in the different regions of the world, focusing on achievements as well as the challenges to be met.

The very success of the Convention continues to generate an increasing number of proposals for inscriptions to the List by the States Parties to the Convention. This has created an overload on the work of the Secretariat and of the Advisory Bodies that may – if the trend continues – impose severe stresses on the limited resources available and on the quality of the work.

Streamlining the monitoring process

Effective monitoring of site conservation is the key to maintaining the credibility of the List and ensuring high standards of conservation over time. Today, monitoring is done in two ways: Reactive Monitoring, i.e. the assessment of the state of conservation of sites whenever problems are identified, and Periodic Reporting, i.e. the six-year cyclical review of States Parties' policies and legislation, as well as of the organization, management and conservation of each site in a given region. These two tools perform different, albeit complementary functions: Reactive Monitoring is a policy guidance tool, aimed to provide benchmarks, orientations and deadlines to the actions of the States Parties; Periodic Reporting provides an assessment of national policies and capacities to ensure site conservation. While both systems are necessary to guide decision-making and to establish short- and medium-term strategies, they are expensive and complex. As a result, the Committee is reflecting on the most effective way to proceed. It is increasingly clear, for example, that the Periodic Reporting system needs to be simplified in order to focus atten-

Old Bridge Area of the old City of Mostar (Bosnia and Herzegovina)

tion on critical issues and develop an effective system of indicators that are easy to compile and interpret, to support and guide decision-making. It is also clear that better links between the two monitoring processes are needed to optimize the use of financial and technical resources. Finally, the monitoring system should focus more regularly on the issues most critical to the Convention, such as long-term threats or the loss of outstanding universal value as a effect of natural or human-induced processes, as in the recent cases of the cultural heritage sites of Cologne Cathedral (Germany) and Kathmandu Valley (Nepal), or of the natural heritage site of Garamba National Park (Democratic Republic of the Congo).

Ensuring conservation of sites on the List

This primary task of the Convention, literally its *raison d'être*, is the long-term conservation of the sites inscribed on the List. As more sites are listed, as threats multiply and diversify, as new global processes unfold, ensuring the conservation of hundreds of sites worldwide becomes more and more complex, requiring not only an effective monitoring system and the capacity to identify and prevent threats and impacts, but the definition of clear guidelines for conservation policies for States Parties to adopt.

The challenge is enormous: on the one hand, resources are insufficient to respond adequately to needs; on the other, the very scope of the Convention – conservation of World Heritage sites – is at stake. Section 5 focuses on this fundamental issue, reviewing the main threats to sites and how they can be dealt with.

The unique feature of the World Heritage Convention rests on this mix of policy guidance and technical assistance: two actions that are complementary and converging tools towards the overarching goal of conserving the heritage of humanity.

A special case in conservation is that of natural catastrophes or human-induced disasters. Prevention schemes are urgently needed to limit the impact of disasters and to partner with governmental and non-governmental organizations able to provide responses to crises, as in the case of the Rapid Response Facility recently established by Fauna & Flora International with the support of the UN Foundation and UNESCO, to provide immediate assistance to natural heritage sites.

Removing sites from the Danger List

Sites are inscribed on the List of World Heritage in Danger for a variety of reasons, including natural catastrophes, impact of urbanization and damage arising from conflict. Placing a site on the Danger List is a way of signalling to the international community the gravity of the risks in order to facilitate support and actions to safeguard the site. A primary

objective of the Committee is therefore to provide direct and indirect support to sites on the Danger List, and gradually to re-establish normality. This process has been resoundingly successful in a number of cases – for example at the cultural heritage sites of the Old City of Dubrovnik (Croatia) and of Timbuktu (Mali), or of the natural heritage sites of Iguazu / Iguaçu National Park (Argentina and Brazil) and Yellowstone (United States). However in other cases the situation has been so complex that sites have remained on the Danger List for many years. For example, Royal Palaces of Abomey (Benin) and Chan Chan Archaeological Zone (Peru) have both been on the Danger List for over twenty years.

This shows that removing sites from the Danger List and shortening the time they remain in this condition, by establishing appropriate benchmarks and channelling funds and technical assistance, remains one of the biggest challenges to the World Heritage Convention.

Coping with the increasing need for International Assistance

The support provided by the World Heritage Convention to States Parties and sites is largely based on resources provided by the World Heritage Fund, by UNESCO and by other public and private donors.

The amount of resources available has increased steadily in the past few years, especially for technical assistance projects in natural heritage sites. However, it is clear that the gap between available resources and needs will widen in future, as more sites are listed, as the Convention becomes better known among site managers and States Parties, and as threats increase.

Hence, one of the major issues facing the Committee is how to respond to the challenge and the expectations raised by the success of the Convention.

With almost universal membership of the Convention, the World Heritage Fund has reached its peak, and so compulsory contributions to it will remain stable. At the current level of about US$7 million per biennium, the World Heritage Fund is able to support the internal processes of the Convention (evaluations and monitoring) and respond to a number of requests for International Assistance, education and communication. These resources are complemented by the contributions provided by UNESCO to the Secretariat.

However, as the costs of the internal processes are bound to rise (more evaluations, monitoring and reporting will be needed), the share of International Assistance available in the budget is likely to decrease in future. Therefore the main possibility for providing support and increasing the system's capacity to assist sites lies in the growth of other public and private contributions, and in the development of new forms of fund-raising and financing.

The World Heritage Partnerships for Conservation (PACT) initiative launched in 2002 has explored ways of channelling additional technical and financial support to site conservation. Some of these could in future become important supports to the conservation effort. Examples include:

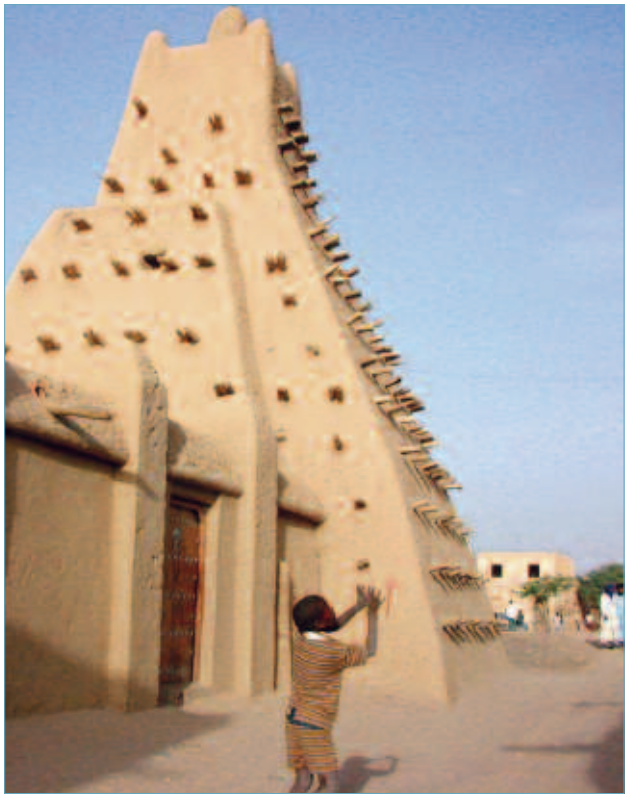
- involvement of the tourism industry in informing the public and in supporting, directly and indirectly, conservation activities;
- increasing role of the Convention in the area of social and ethical investments of banks, insurances and corporations;
- launching of public fund-raising and membership programmes;
- creation of regional or national funds – such as the recently established African World Heritage Fund.

While resources for natural heritage sites have been provided by intergovernmental bodies (such as the Global Environment Facilities administered by UNDP, UNEP and the World Bank) or private foundations, cultural heritage sites have not received similar attention. A broader strategy aimed at international development aid is the only solution to ensure sustainable and adequate resources for the conservation of many cultural sites in developing countries. While past attempts have set the way and the principles of this action front, much still needs to be done.

Fostering training and research

Training of managers and students is among the most important activities of the Convention, and the single most relevant long-term investment. In past decades, largely following the Global Training Strategy, the Committee has invested significant resources in training, resulting in a remarkable improvement of worldwide capacity to manage sites and implement the Convention. Thanks to the support of specialized organizations such as ICCROM and IUCN, and the collaboration of countless institutions, training for cultural and natural heritage conservation today involves thousands of experts and managers, and has significantly expanded knowledge of World Heritage.

Resources for these activities are however too limited and the system can barely cope with the growing demand for training. Specialized training institutions and programmes are urgently needed in different parts of the world to train a new generation of experts on World Heritage issues. So far, results have been encouraging, and a number of specialized programmes and institutions have been set up, such as the training programmes on World Heritage established in Dublin (Ireland), Cottbus (Germany) and Tsukuba (Japan) as well as the *École Africaine du Patrimoine* in Porto Novo (Benin). Furthermore, the existence of a vast international



Timbuktu (Mali)

network, the Forum UNESCO – University and Heritage (FUUH), facilitates exchanges of experience and stimulates new initiatives on a global scale. But, given the growing needs in the fields of heritage management and conservation, it is clear that much still needs to be done, especially in developing countries.

An important programme focusing on educating young people about World Heritage has been developed by UNESCO World Heritage Centre in recent years. Known as World Heritage in Young Hands, it has the potential to become a key element in the shaping of a new generation of supporters and partners of World Heritage.

Extending information on World Heritage

The success of the World Heritage Convention is due in part to the importance that heritage sites have acquired in modern society, particularly for educational purposes and leisure. Many publications, programmes and media chains offer information about the sites, their qualities and the challenges they face. Informing people about the Convention is, however, a very different task, one for which the resources available are, and will almost certainly continue to be, insufficient. Hence the need to establish long-term partnerships with the media and publishers, as well as operators of 'network' industries such as tourism, banking and financial services.

A significant role is also played by the internet: the World Heritage Centre website provides extensive information on the activities supported by the Convention and on the sites, and is a key tool of the policy of dissemination of information that can evolve into a fully-fledged knowledge management strategy.[4]

FUTURE OF THE WORLD HERITAGE CONVENTION: WHAT ARE THE NEW CHALLENGES?

The Preamble of the Convention and the mission statement expressed in Article 5 identify its long-term goals, ranging from the listing of sites of outstanding universal value, to their conservation, to the improvement of management capacities and the enhancement of educational programmes, within a framework of international assistance and cooperation.

The achievement of these goals depends on the effective implementation of the policies of the States Parties and on continuing support from UNESCO, and can only be assessed in the long term.

In fact, it is only today, after over thirty years of implementation, that the World Heritage Committee has been able, at the completion of the first cycle of Periodic Reporting, to conduct a preliminary, and still fragmentary, assessment of the impact of the Convention.

This book presents an overview of these achievements and offers a preliminary outlook on the future as an aid to understanding the complexity of the challenges ahead. The future will certainly bring new issues to the forefront, as new processes and new threats will emerge and have an effect on World Heritage sites. Is the Convention equipped to meet these new challenges? How can the States Parties to the Convention strengthen its force and foster the role and the prestige it has acquired in the past decades? Some of these key questions are discussed in the Conclusions to this work.

4. whc.unesco.org

1 OVERVIEW OF THE CONVENTION

The World Heritage Convention is one of the most successful legal instruments. But why and how was it adopted? What are its modalities of implementation? Can this Convention adapt to changing definitions of heritage? How have the goals and objectives of the World Heritage Committee changed the modalities of implementation of the Convention? Replies to these questions emerge through the history of the Convention and the implementation of the 1992 Overall Goals and Objectives revised into the four Strategic Objectives (also called the '4 Cs') from the 2002 Budapest Declaration. These four objectives are:

1. Strengthen the **CREDIBILITY** of the World Heritage List, as a representative and geographically-balanced testimony of cultural and natural properties of outstanding universal value;
2. Ensure the effective **CONSERVATION** of World Heritage properties;
3. Promote the development of effective **CAPACITY-BUILDING** measures, including assistance for preparing the nomination of properties to the World Heritage List, for the understanding and implementation of the World Heritage Convention and related instruments and;
4. Increase public awareness, involvement and support for World Heritage through **COMMUNICATION**.

GENESIS OF INTERNATIONAL PROTECTION OF CULTURAL AND NATURAL HERITAGE

RISE OF AN INTERNATIONAL CONSCIOUSNESS BEFORE THE SECOND WORLD WAR

The legal framework for the protection of heritage sites began to develop at national level in the nineteenth century. At the same time, initiatives were taken to establish international treaties and conventions as well as societies such as the Society for Preservation of the Wild Fauna and Flora of the Empire, set up in 1903 (later to become Fauna & Flora International).

The peace process after the First World War led in 1919 to the establishment in Geneva of the League of Nations, which took key initiatives that were later continued by the United Nations. In 1922, the Council of the League of Nations set up the Intellectual Cooperation Committee, whose purpose was to improve the working conditions of the educated workforce and to build up international relations between teachers, artists, scientists and members of other professions. National committees were established to support these efforts. The Committee had twelve original members (later fifteen), including some of the foremost intellectuals of the time, such as Henri Bergson, Marie Curie and Albert Einstein. Its budget would not allow it to remain in Geneva, but thanks to an offer from France it was re-established in Paris in 1926 as the International Institute of Intellectual Cooperation (IIIC). Despite this change of name, the organization kept the same objectives and function. By 1939, a network of some forty organizations linked the IIIC and various scientific and cultural institutions around the world, exchanging experiences through a number of conferences.

The International Museums Office (IMO) was established in 1926 as part of the IIIC in Paris. Its aim was to 'promote the activities of the museums and public collections of every country by organizing joint work and research to be undertaken in common' (Statutes, Art. 1). It was expected to deal with museums and works of art, buildings of historical and archaeological interest, as well as works of popular art. During its existence, the IMO organized a number of key events that set the scene for the development of an international movement for cultural heritage conservation. This included the Athens Conference of 1931 on the protection

THE SALVAGE OF THE TEMPLES OF ABU SIMBEL

Dismantling and transporting the monuments of Abu Simbel (Egypt) to higher ground.

and conservation of monuments of art and history, which was attended by 118 specialists from twenty-four nations. The *Athens Charter for the Restoration of Historic Monuments* (often referred to as the Athens Charter) is the first truly international statement on the general principles and doctrines relating to the protection of historic monuments. These conclusions were brought to the attention of the League of Nations. Afterwards, an International Commission on Historic Monuments was appointed to deal with conservation education, legal and technical issues, and documentation. Note that, in 1933, the 4th International Congress for Modern Architecture (*Congrés International d'Architecture Moderne*) was also organized in Athens. The conclusions of this congress were later edited by le Corbusier as *La Charte d'Athènes*. The Charters of 1931 and 1933 therefore share the same name, but their focus is rather different: the 1931 Charter deals with conservation and restoration of historic monuments whereas the 1933 Charter deals with urban planning and provides a prescriptive vision of how cities might develop.

In 1937, the IMO collaborated in the organization of an international conference in Cairo on archaeological excavations. The recommendations of this conference were later taken as a basis for the UNESCO Recommendation on International Principles Applicable to Archaeological Excavations (1956). Another task of the IMO was to work on the Convention for the Protection of Cultural Property in the Event of Armed Conflict. This project was taken for approval to the League of Nations, but the ratification process was interrupted due to the Second World War and restarted afterwards (see Section 2).

EMERGENCE OF KEY INTERNATIONAL PARTNERS

UNESCO was instrumental in setting up key organizations that would become the three official Advisory Bodies to the World Heritage Committee:

The **International Union for the Conservation of Nature and Natural Resources (IUCN)** was established in 1948 at a meeting organized by UNESCO and the French Government at Fontainebleau. UNESCO's then Director-General, Sir Julian Huxley, an eminent biologist, took a close interest in nature conservation and was instrumental in setting up IUCN, which now brings together more than 1,000 members, including governmental agencies and non-governmental organizations. In addition it has more than 10,000 individual experts in six commissions and a professional secretariat in some forty offices around the world, with headquarters in Switzerland. It aims to 'influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable' (www.iucn.org).

The decision to found the **International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)** was made at the 9th UNESCO General Conference in New Delhi (India) in 1956. This organization was subsequently established in Rome in 1959. It has a worldwide mandate to promote the conservation of all types of cultural heritage, movable and immovable, with the aim of improving the quality of conservation practices and raising awareness about the importance of preserving cultural heritage. The five statutory functions of ICCROM are: training, cooperation, research, information and awareness (www.iccrom.org).

The **International Council on Monuments and Sites (ICOMOS)**, a non-governmental organization, was established in 1965 following recommendations by UNESCO (1963) and an expert meeting held in Venice in 1964. It is dedicated to the conservation of the world's historic monuments and sites, and provides a forum for professional dialogue and a vehicle for the collection, evaluation and dissemination of information on conservation principles, techniques and policies (www.icomos.org).

Between the two world wars, a number of international actions also took place for the protection of specific aspects of natural heritage. This included the creation of the International Council for Bird Preservation (ICBP), now BirdLife International.[1] In the late 1930s, ICBP had become a major force with a membership involving 135 scientific and hunting associations. In parallel, efforts were also under way to achieve a more holistic and global protection of the environment and natural heritage. An International Office for the Protection of Nature was set up in 1928 as a non-governmental organization, guided by a General Council with members from Europe and the United States, to collect and disseminate educational, scientific and legal information on the environment and natural heritage, but it went out of existence during the Second World War. The period between the two world wars therefore demonstrates the beginning of an international consciousness and movement for the protection of the environment and natural and cultural heritage.

THE VENICE CHARTER (1964): A FUNDAMENTAL DOCUMENT

At the invitation of the Italian Government, the Second International Congress of Architects and Technicians of Historic Monuments met in Venice in May 1964 and produced a document on the fundamental principles of conservation and restoration of the architectural heritage, the International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter). This document was considered necessary to update the 1931 Athens Charter for the Restoration of Historic Monuments. This congress led to the creation of ICOMOS (see box p. 27 on key international partners). The Venice Charter is very important in the implementation of the World Heritage Convention as ICOMOS has recognized it as a fundamental ethical guideline.

http://www.icomos.org/venice_charter.html

1. http://www.birdlife.org/

ORIGINS AND ADOPTION OF THE WORLD HERITAGE CONVENTION (1945-1972)

At the end of the Second World War, representatives of fifty countries met in San Francisco to draw up the Charter of the United Nations, which officially came into existence on 24 October 1945. The various existing organizations were now re-established within this new international framework. The conference for the creation of the United Nations Educational, Scientific and Cultural Organization (UNESCO), set up to continue the work of the International Institute of Intellectual Cooperation, met in London in November 1945. The Constitution of UNESCO, which came into force in November 1946, mandates the Organization to ensure 'the conservation and protection of the world's inheritance of books, works of art and monuments of history and science'.[2] In the early years, various missions were organized to advise Member States on the conservation of heritage sites. Later these developed into international campaigns, of which the first was launched in 1959 on the Nubian monuments of Egypt, threatened by the construction of the Aswan dam.

Among its early tasks, UNESCO also collaborated in the organization of meetings of experts in the preservation of heritage resources. These included a conference on the preservation of monuments held in Venice in 1964, which adopted the International Charter for the Conservation and Restoration of Monuments and Sites, better known as the Venice Charter (see box). It also had an instrumental role in the establishment of international organizations for the conservation of natural and cultural heritage (see box p. 27 on key international partners).

Since 1950, different projects to set up an international system for the protection of cultural property, monuments and sites were discussed within UNESCO. One proposal for an international fund to subsidize the preservation and restoration of historic monuments and art treasures through a 'tourist tax' (US$3 per tourist) was considered unacceptable by several delegations. Potential national and international systems for the protection of cultural heritage were further elaborated in UNESCO expert meetings in the 1960s.

Other proposals were developed in parallel to these efforts by UNESCO. In 1965, the idea of a World Heritage Trust, combining both cultural and natural components, was launched in the United States by a Committee for the Conservation and Development of Natural Resources. In 1966, this idea of a World Heritage Trust was brought to the 9th General Assembly of IUCN. In 1968, Sweden offered to host a United Nations conference on the 'human environment', which

2. http://www.unesco.org/general/eng/infoserv/archives/files_online/AG08LI00001M.pdf

was held in 1972 in Stockholm (see box). This conference was proposed both as a way of discussing the emerging threats to the environment and of agreeing action, including the adoption of legal instruments. Working groups were set up as part of the preparation for the Stockholm Conference and drafts for a potential Convention on the protection of 'World Heritage' were prepared for discussion by IUCN, UNESCO and the United States. Issues discussed by these working groups ranged from the definition of universal value and the categories of heritage to be protected (e.g. how to establish an equitable equilibrium between nature and culture; whether nature and culture should be protected under a single convention or two), to the financial issues (obligatory versus voluntary contribution) and the functioning of this convention (whether it should be administered by UNESCO or another organization). At the 1972 Stockholm Conference, a resolution was adopted stating that a convention on World Heritage should be adopted by the General Conference of UNESCO. The Convention concerning the Protection of the World Cultural and Natural Heritage was adopted on 16 November 1972 by the General Conference of UNESCO after a long discussion – with seventy-five delegations voting in favour, one against, and seventeen abstaining. The World Heritage Convention, as it is generally known, entered into force in December 1975 after Switzerland deposited the 20th instrument of ratification.

UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (STOCKHOLM, 1972)

The Stockholm meeting was the first global conference on the environment and precursor to the United Nations Earth Summit (Rio de Janeiro, Brazil, 1992) and the World Summit on Sustainable Development (Johannesburg, 2002). Acting on a proposal from Sweden, the UN General Assembly in 1968 called for an international conference to examine problems of the human environment that can be best solved through international cooperation and agreements. The creation of the United Nations Environment Programme (UNEP), the call for cooperation to reduce marine pollution, and the establishment of a global monitoring network were among the major outcomes of this conference.

Full text: http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503

FURTHER INFORMATION

Batisse, M. and Bolla, G. 2005. *The Invention of 'World Heritage'*, Paris, Association des Anciens Fonctionnaires de l'UNESCO (AAFU), Club Histoire. (History Papers 2.)

Holdgate, M. 1999. *The Green Web. A Union for World Conservation.* London, IUCN/ Earthscan.

Thorsell, J. 2003. *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance.* Gland, Switzerland/Gatineau, Quebec, IUCN/Parks Canada.

UNESCO. 1972. *Convention Concerning the Protection of the World Cultural and Natural Heritage* adopted by the General Conference at its seventeenth session, Paris, 16 November 1972.

INTRODUCTION TO THE WORLD HERITAGE CONVENTION AND ITS IMPLEMENTATION

A UNIQUE LEGAL INSTRUMENT

The World Heritage Convention is a unique legal instrument, based on the idea that some cultural and natural heritage sites are of universal and exceptional importance and need to be protected as part of the common heritage of humanity. This Convention is also based on the intergenerational principle: governments recognize that they have a duty to protect sites of exceptional value and transmit them to future generations. Central to the World Heritage Convention is the concept of 'outstanding universal value', a characteristic that sites must fulfil to be included on the World Heritage List. Although not explicitly defined in the Convention, outstanding universal value has been clarified through the heritage criteria provided in the *Operational Guidelines for the Implementation of the World Heritage Convention*. These criteria have evolved to correspond better to the evolution of the concept of cultural and natural heritage over the past thirty years (analyses of the evolution of outstanding universal value are given below (pp. 39-42).

One of the most original aspects of the World Heritage Convention is the explicit link between natural and cultural heritage, traditionally considered as separate (defined in Articles 1 and 2, see box). The emblem of the Convention reflects this intimate link between nature and culture (see box).

This Convention and the concept of outstanding universal value do not apply to movable cultural heritage. The artefacts of museums located within the boundaries of World Heritage sites are therefore not protected under the terms of the Convention.

BALANCING BENEFITS AND DUTIES

Inscription on the World Heritage List can bring a number of benefits, having a multiplier effect in bringing financial and technical assistance to World Heritage sites, as occurred for example in the Philippines (see box). This inscription can also increase tourist activities at the site which, if developed in a sustainable manner (that is, in respect for the built and natural environment and with full participation from the local

DEFINITIONS OF CULTURAL AND NATURAL HERITAGE IN THE WORLD HERITAGE CONVENTION

Article 1

For the purposes of this Convention, the following shall be considered as 'cultural heritage':

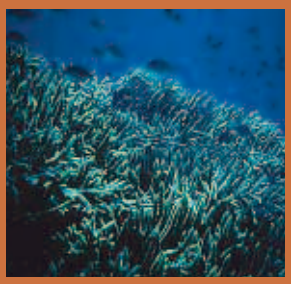
- **monuments:** architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- **groups of buildings:** groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- **sites:** works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view.

Article 2

For the purposes of this Convention, the following shall be considered as 'natural heritage':

- natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;
- natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

UNESCO (1972) C*onvention Concerning the Protection of the World Cultural and Natural Heritage adopted by the General Conference at its 17th session, Paris, 16 November 1972*: http://whc.unesco.org/en/conventiontext/



BENEFITS OF INSCRIPTION: TUBBATAHA REEF MARINE PARK (THE PHILIPPINES)
Tubbataha is one of the last few coral reefs in the Philippines that is relatively intact and harbours an abundant and diverse association of organisms. In one survey alone, more than 300 coral species and at least 379 species of fish were recorded. Since its inclusion on the World Heritage List in 1993 under natural heritage criteria (ii), (iii) and (iv), the protection and management of the site has benefited from funds from Japan, WWF and other organizations.

SIGNIFICANCE OF THE WORLD HERITAGE EMBLEM

At its 2nd session in 1978, the World Heritage Committee adopted the World Heritage emblem, designed by Belgian artist Michel Olyff. While the central square symbolizes the results of human skill and inspiration, the circle celebrates the gifts of nature. The emblem is round, like the world, a symbol of global protection for the heritage of all humankind. The Committee is responsible for determining policy for the use of the emblem and adopted a set of *Guidelines and Principles for the Use of the World Heritage Emblem* in 1998.

http://whc.unesco.org/en/emblem

population), can bring important funds to the site and the local and national economy.

Articles 4, 5 and 6 of the World Heritage Convention clearly indicate that States Parties have the duty to take the appropriate financial, technical, legal and administrative measures to create inventories, to identify their cultural and natural heritage, to take all the essential measures for their protection, conservation and presentation to the public, to facilitate research and study of their heritage and to abstain from taking deliberate measures damaging to their heritage. The Convention also encourages States Parties to involve local communities and citizens in the appreciation and conservation of their heritage. Indeed, States Parties are encouraged to 'adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community' [Article 5(a)]. Thus obligations are imposed that extend beyond the specific sites inscribed on the World Heritage List. These requirements are also completed by the 1972 Recommendation Concerning the Protection, at National Level, of the Cultural and Natural Heritage (see box).

RECOMMENDATION CONCERNING THE PROTECTION, AT NATIONAL LEVEL, OF THE CULTURAL AND NATURAL HERITAGE (UNESCO, 1972)

In 1972, the General Conference of UNESCO adopted, as a complement to the *World Heritage Convention*, *a Recommendation Concerning the Protection, at National Level, of the Cultural and Natural Heritage*, covering sites of lesser importance. This recommendation stresses the importance of conserving not only works of great value, 'but also more modest items that have, with the passage of time, acquired cultural or natural value'. The document insists that the protection and conservation of heritage should be considered as one of the essential aspects of regional development plans, and planning in general, at national, regional or local levels. It also stresses that the general public of the area should be associated with protection and conservation measures and they should be called on for suggestions and help.

http://www.icomos.org/unesco/national72.html

OPERATIONAL GUIDELINES: THE REFERENCE FOR IMPLEMENTING THE CONVENTION

The Operational Guidelines for the Implementation of the World Heritage Convention[3] provide a detailed basis for implementation in the form of flexible working documents that can be revised at any time by the Committee. They have indeed been modified twelve times over the past thirty years. The *Operational Guidelines* set forth the procedure for:

- inscription of sites on the World Heritage List and the List of World Heritage in Danger;
- protection and conservation of World Heritage sites;
- granting of International Assistance under the World Heritage Fund;
- mobilization of national and international support in favour of the Convention.

ACTORS IN THE CONVENTION

The World Heritage Convention is implemented by various actors: the States Parties, the General Assembly, the World Heritage Committee, the Secretariat and the Advisory Bodies.

In order to take part, countries have to ratify the Convention. Once a country has become a State Party to the Convention, it can nominate sites for inclusion on the World Heritage List (see Figure 1).

The General Assembly of States Parties includes all the States Parties to the World Heritage Convention. It meets every two years during the ordinary session of the UNESCO General Conference. During this meeting, the General Assembly elects the World Heritage Committee, examines the accounts of the World Heritage Fund and decides on policy issues.

Article 8.1 of the World Heritage Convention establishes an Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value, called the 'World Heritage Committee', composed of twenty-one members. The Committee meets at least once a year. Election of these members takes place during the General Assembly. Each State Party has one vote and can present itself for election (those that have not paid their mandatory contribution to the World Heritage Fund are not eligible for election). The term of office of Committee members is six years but, in order to ensure equitable representation and rotation, States Parties are invited to consider voluntarily reducing their term of office from six to four years and are discouraged from seeking consecutive terms of office. In recent elections (2003 and 2005), the States Parties have agreed to a voluntary reduction of their terms to four years.

3. http://unesdoc.unesco.org/images/0013/001386/138676e.pdf

FIGURE 1: EVOLUTION OF NUMBER OF STATES PARTIES BY REGION (1973-2006)

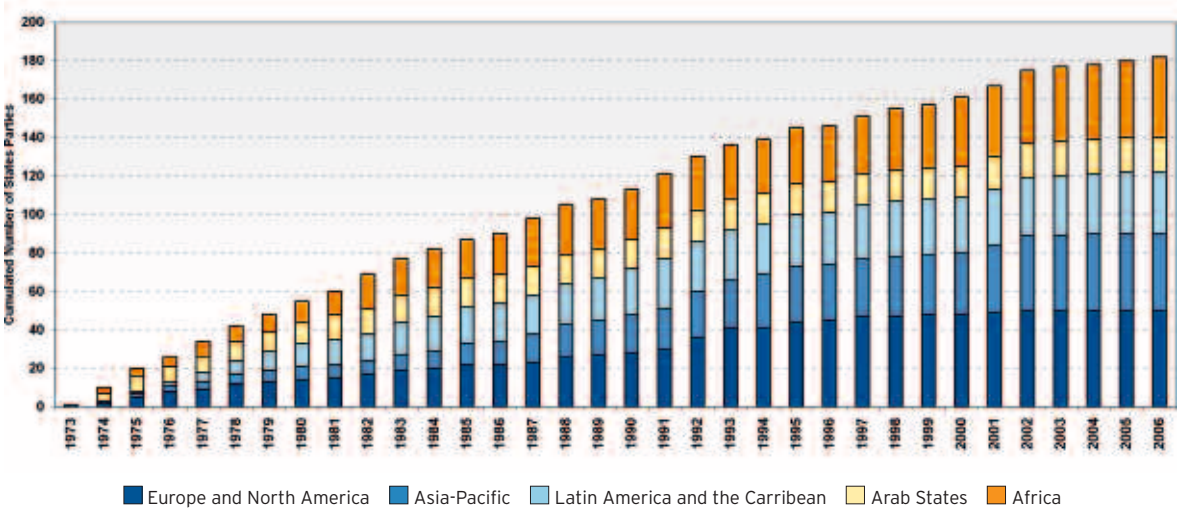


Figure 1 shows the progressive and continuous membership of the World Heritage Convention over the past thirty years. The Convention is the most ratified legal instrument for the protection of natural and cultural heritage. With 182 States Parties as of April 2006, representing 95% of UNESCO Member States, its membership is almost universal.

UIS based on UNESCO/WHC databases

A certain number of seats may also be reserved for States Parties that do not have a site inscribed on the World Heritage List, upon decision of the Committee. The World Heritage Committee establishes a Bureau consisting of a Chairperson, five Vice-Chairpersons and a Rapporteur. The Bureau supports the work of the Committee and meets during Committee sessions as frequently as deemed necessary. The main functions of the Committee are to:

- identify, on the basis of Tentative Lists and nominations submitted by States Parties, cultural and natural sites of outstanding universal value and include them on the World Heritage List;
- examine the state of conservation of these World Heritage sites in liaison with States Parties;
- decide which sites inscribed on the World Heritage List are to be inscribed on, or removed from, the List of World Heritage in Danger;
- decide whether a site should be deleted from the World Heritage List;
- determine how the resources of the World Heritage Fund can be used;
- seek ways to increase the World Heritage Fund;
- review and evaluate periodically the implementation of the Convention; and
- revise and adopt the *Operational Guidelines*.

Article 14.1 of the Convention requests that the World Heritage Committee should be assisted by a Secretariat. From 1975 to 1992 this Secretariat depended on two different UNESCO sectors, the Science Sector (dealing primarily with natural heritage) and the Culture Sector (dealing primarily with cultural heritage). This separation made the implementation of the Convention difficult to coordinate and led to the creation of the World Heritage Centre as the Secretariat of the Committee, with the following roles:

- organize the meetings of the General Assembly and the Committee and implement their decisions and resolutions;
- receive, check the completeness of, and transmit to the relevant Advisory Bodies the nominations to the World Heritage List;
- coordinate studies and activities as part of the Global Strategy for a Representative, Balanced and Credible World Heritage List (henceforth the Global Strategy);
- organize the Periodic Reporting exercise and coordinate the Reactive Monitoring process;
- coordinate International Assistance;
- mobilize extrabudgetary resources for the conservation and management of World Heritage sites;
- assist States Parties in the implementation of the Committee's programmes and projects;
- promote the Convention through the dissemination of information to States Parties, the Advisory Bodies and the general public.

Article 14.2 of the Convention identifies three Advisory Bodies to the Committee which have had close links with UNESCO: ICOMOS, ICCROM and IUCN (see box p. 27). Their essential roles are to:

- advise on the implementation of the World Heritage Convention in their field of expertise;
- assist the Secretariat in the preparation of Committee documentation, the agenda of its meetings and the implementation of Committee decisions;
- assist with the development and implementation of the Global Strategy, Global Training Strategy, Periodic Reporting, and strengthening the effective use of the World Heritage Fund;
- monitor the state of conservation of World Heritage sites and review requests for International Assistance;
- in the case of ICOMOS and IUCN, evaluate sites nominated for inscription on the World Heritage List and present evaluation reports to the Committee; and
- attend meetings of the World Heritage Committee and the Bureau in an advisory capacity.

As indicated in the 2005 version of the *Operational Guidelines*, the Committee may also call on other international and non-governmental organizations with appropriate competence and expertise to assist in the implementation of the Convention.

FURTHER INFORMATION

UNESCO. 2005. *Operational Guidelines for the Implementation of the World Heritage Convention*:
http://whc.unesco.org/en/guidelines/

ICOMOS and the UNESCO World Heritage Convention. 2005. Paris, ICOMOS.
http://www.international.icomos.org/world_heritage/icomoswh_eng.htm

IUCN work on World Heritage. Gland, Switzerland, IUCN-WCPA.
http://www.iucn.org/themes/wcpa/wheritage/wheritageindex.htm

World Heritage Information Kit. 2005. Paris, UNESCO World Heritage Centre.
http://whc.unesco.org/documents/publi_infokit_en.pdf

Pressouyre, L. 1996. *The World Heritage Convention, Twenty Years Later*. Paris, UNESCO.

Hoffman, B. (ed.). 2006. *Art and Cultural Heritage Law for the Twenty-First Century: Policy and Practice*. Cambridge University Press.

INSCRIPTION OF SITES ON THE WORLD HERITAGE LIST

FIRST STAGE: SUBMITTING A TENTATIVE LIST

To be able to nominate a site for inclusion on the World Heritage List, States Parties have first to prepare and submit a Tentative List (see box). Tentative Lists include heritage sites that States Parties plan to nominate in the next five to ten years. Ideally, they should have drawn up complete inventories of their heritage of local, national and international importance, thus providing the basis from which to select sites to include on Tentative Lists.

Tentative Lists are important planning tools. Indeed, they allow the World Heritage Committee and the Advisory Bodies to compare nominated sites with similar ones that might be nominated in future so that they can select only those of outstanding universal value, as well as helping States Parties to identify those sites to be nominated. Importantly, Tentative Lists should be re-examined and resubmitted regularly to take into account results of scientific research as well as new conceptions and understanding of heritage. Paragraph 64 of the 2005 version of the *Operational Guidelines* encourages States Parties to prepare their Tentative Lists with the participation of a wide variety of interested parties (see Figure 2).

OFFICIAL TEXTS ON TENTATIVE LISTS

Article 11.1 of the Convention: 'Every State Party to this Convention shall ... submit to the World Heritage Committee an inventory of property forming part of the cultural and natural heritage' of outstanding universal value.

Chapter II.C. of the *Operational Guidelines* provides detailed information on the preparation of Tentative Lists.

FIGURE 2 : PERCENTAGE OF STATES PARTIES USING PUBLIC PARTICIPATION AND CONSULTATION IN PREPARING TENTATIVE LISTS, EUROPE (2005/2006)

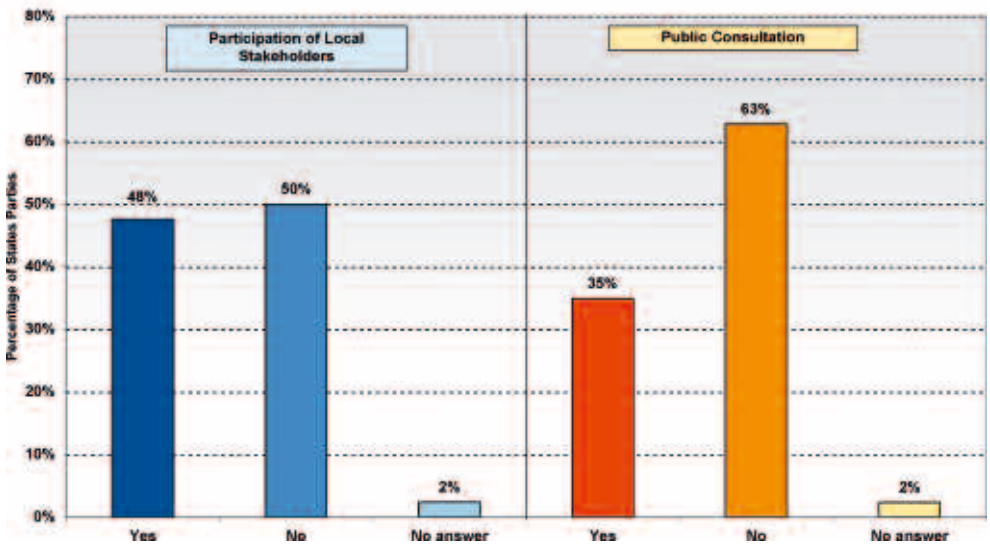
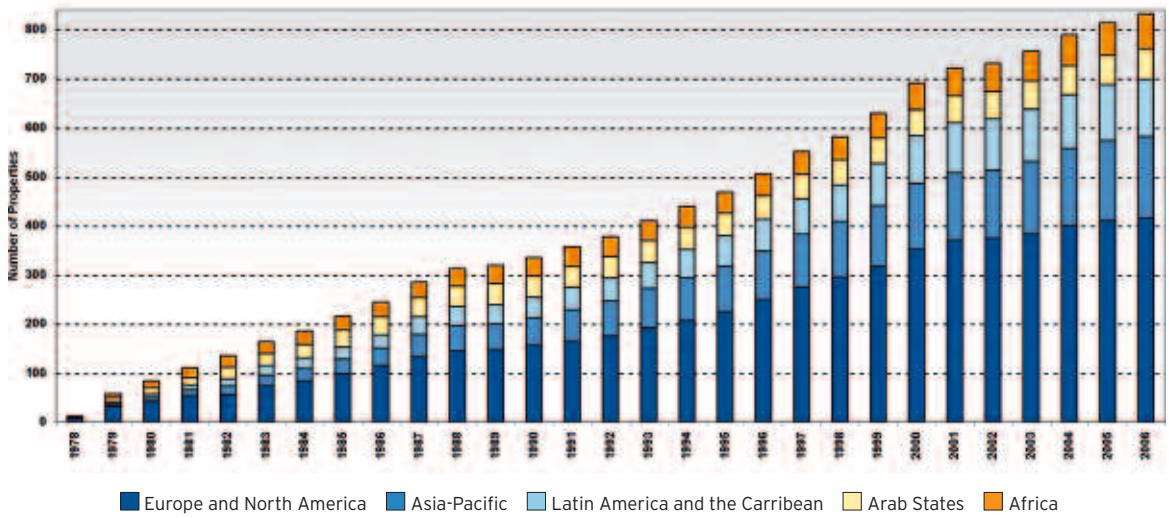


Figure 2, based on the results of European Periodic Reports presented to the Committee in 2006, shows that Tentative Lists tend to be drafted without any public consultation. There may be a need for greater public consultation. This would help communities to feel a shared responsibility for site protection.

UIS based on UNESCO/WHC databases

FIGURE 3 : WORLD HERITAGE SITES BY REGION (1978-2006)

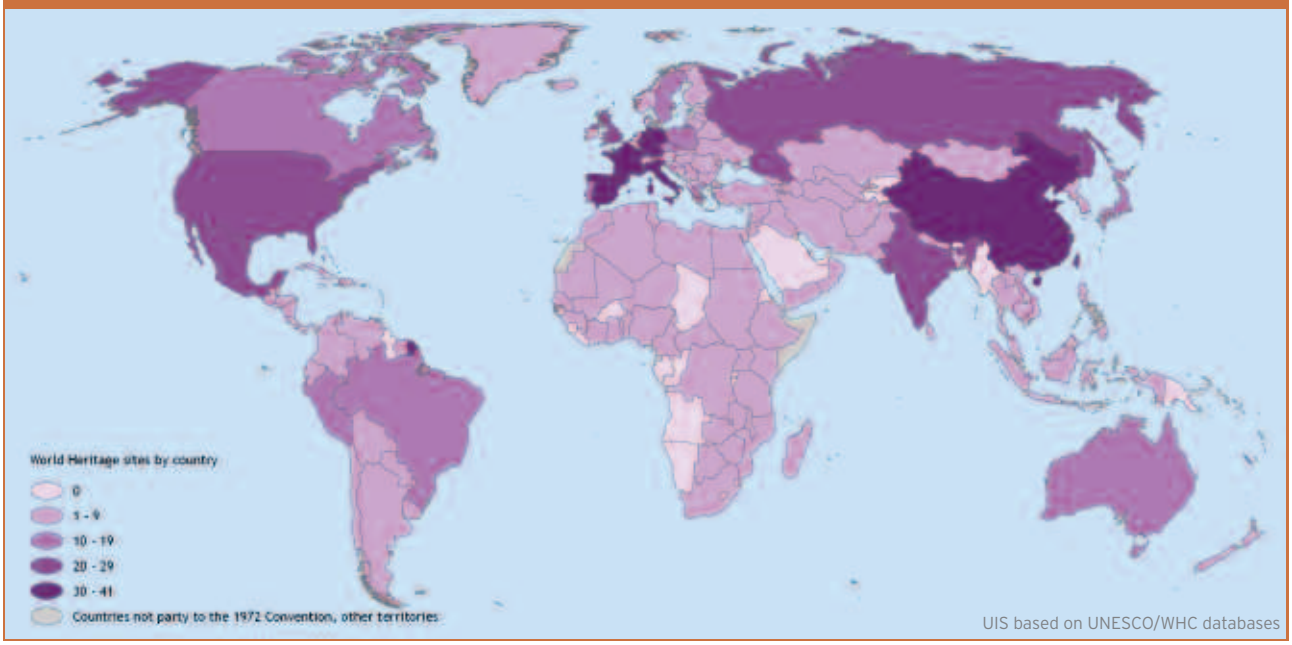


UIS based on UNESCO/WHC databases

Figure 3 shows the success of the World Heritage List, with 830 sites as of July 2006. Figure 4 demonstrates the predominance of cultural over natural and mixed heritage sites: as of 2006, a total of 644 cultural, 162 natural and 24 mixed sites located in 138 States Parties have been listed (70 in Africa, 63 in the Arab States, 167 in Asia and the Pacific, 414 in Europe and North America and 116 in Latin America and the Caribbean). This pattern has been evident since the beginning of the implementation of the World Heritage Convention. In some instances, the annual number of inscribed cultural heritage sites has been five times higher than natural heritage.

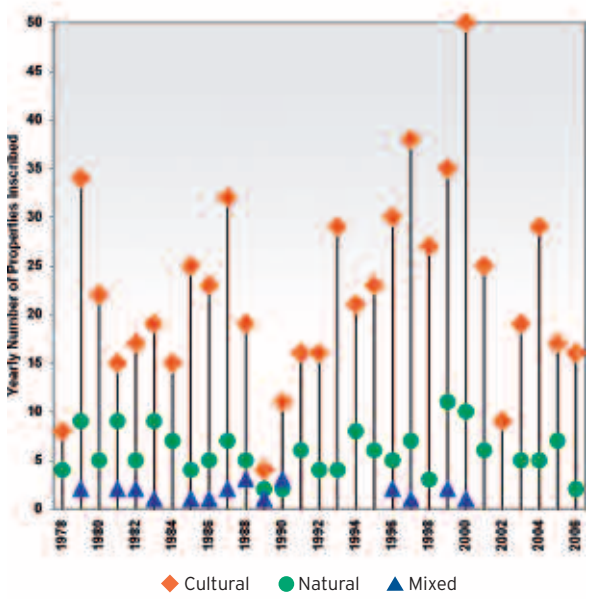
Map 1 shows the concentration of World Heritage sites per country. Five States Parties have thirty or more sites listed: China, France, Germany, Italy and Spain. On the other hand, forty-four States Parties have no sites listed, the majority being in Africa, the Caribbean and the Pacific (see regional presentation, Section 4).

MAP 1: WORLD HERITAGE SITES BY COUNTRY (2006)



UIS based on UNESCO/WHC databases

FIGURE 4 : TYPES OF WORLD HERITAGE SITE BY YEAR OF INSCRIPTION (1978-2006)



UIS based on UNESCO/WHC databases

NOMINATION DOSSIERS: KEY DOCUMENTS FOR INSCRIPTION AND FUTURE MANAGEMENT

Sites inscribed on Tentative Lists can then be nominated for inclusion on the World Heritage List. States Parties can only nominate sites located within their boundaries. Those that extend beyond national borders can be nominated as joint transboundary or transnational nominations by more than one country. Nomination dossiers should contain key information such as clear identification of the site and a Statement of Outstanding Universal Value. This statement should guide the long-term conservation and management of World Heritage sites. Indeed, their protection and management should ensure that the values for which sites have been included on the World Heritage List are maintained. Importantly too, Paragraph 123 of the 2005 *Operational Guidelines* indicates that 'participation of local people in the nomination process is essential to enable them to have a shared responsibility with the State Party' (see box). The nomination dossiers should also explain how sites meet the conditions of authenticity and/or of integrity (p. 41).

Nomination dossiers submitted by States Parties are evaluated independently by ICOMOS for cultural heritage and IUCN for natural heritage sites. A joint evaluation by ICOMOS and IUCN is carried out on mixed sites and some

ENSURING LOCAL COMMUNITY PARTICIPATION IN THE NOMINATION PROCESS

Local populations have been closely involved through meetings, for example in drafting the nomination dossier and management plan for the Tomb of Askia (Mali), inscribed in 2004 under cultural heritage criteria (ii), (iii) and (iv). The different uses of this site, as well as the different values attributed to it by local communities, have been clearly identified in the nomination dossier and management plan. These documents take account of the various ways in which this site is being cared for by these communities. The objectives of the management plan have also been established in close collaboration with the local communities.

http://whc.unesco.org/en/list/1139/

cultural landscapes. ICOMOS and IUCN then make recommendations to the Committee, which takes the final decision on whether a site should be:

- inscribed on the List as cultural heritage, natural heritage or a mixed site;
- not inscribed on the List. In this case, the nomination may not be presented again to the Committee except in exceptional circumstances;
- referred back to the State Party for additional information. This nomination dossier can then be resubmitted to the following Committee session for examination;
- deferred. This may be for in-depth assessment or study or a substantial revision of the dossier. The new dossier will have to be submitted as a new nomination;

The World Heritage Committee can also decide to include a site on both the World Heritage List and the List of World Heritage in Danger (p. 45).

FURTHER INFORMATION

http://whc.unesco.org/en/conventiontext/

Leblanc, F. 1984. An Inside View of the Convention. *Monumentum (Special Issue)*, pp. 17-32.

Vision and Reality - the World Heritage Convention in Action. 2001. *World Conservation*, No. 2.

Thorsell, J. (ed.) 1992. *World Heritage Twenty Years Later*. IUCN in collaboration with the World Heritage Committee. IUCN, Gland and Cambridge.

DEFINING OUTSTANDING UNIVERSAL VALUE THROUGH CHANGING CRITERIA AND CONCEPTS

The cultural and natural heritage criteria help to define 'outstanding universal value' and have been revised over time to adapt to changing interpretations of this concept.

REDUCING THE SCOPE OF CULTURAL HERITAGE CRITERIA (1977–1991)

The 1977 version of the natural heritage criteria did not undergo major changes until 1992, unlike the 1977 version of the cultural heritage criteria, which had a rather wide scope and a number of references to the social and anthropological aspects of sites. In 1980 the six cultural heritage criteria were revised and their scope reduced. This 1980 version of the cultural heritage criteria, which remained almost unchanged until 1992, led to a number of problems. It seemed to privilege sites of architectural and artistic value over those whose significance lay in other, less tangible, heritage values. This in turn meant that the World Heritage system was seen as favouring nominations from Europe at the expense of other parts of the world, such as Africa or Asia and the Pacific, where the significance of places often lay not in monumental structures or artistic arrangements of buildings, parks and gardens, but in the way that their natural features were charged with religious or symbolic meanings and associations.

ADOPTION OF THE CATEGORY OF CULTURAL LANDSCAPE (1992)

Article 1 of the World Heritage Convention links the concepts of nature conservation and the preservation of cultural sites. Yet for many years the Convention tended in practice to treat nature and culture as quite separate concepts, and thus failed to realize the potential of an international agreement that linked them. By the 1980s, however, a debate was under way in the World Heritage Committee to recognize and protect landscapes, the product of the interaction between people and nature. It was not until its 16th session (December 1992, Santa Fe, USA), that the Committee adopted three categories of cultural landscape: *clearly defined landscapes, organically evolved landscapes and associative cultural landscapes* (see box). The World Heritage Convention system thus became the first international legal instrument to identify and protect cultural landscapes of outstanding universal value.

In 1992, a number of cultural heritage criteria were modified with the addition of explicit references to cultural landscapes or their characteristics. However, during most of the 1990s, the World Heritage Committee did not widen the scope of criterion (vi) while many associative landscapes could best, and sometimes only, be nominated under this criterion.

CHANGES TO NATURAL HERITAGE CRITERIA (1992)

Natural heritage criteria were the subject of debates during the 1992 World Heritage Committee, based on technical discussions and reflections held at the 1992 IVth IUCN World Parks Congress (Caracas, Venezuela). Some of these criteria were subsequently included in the 1994 version of the *Operational Guidelines*. References to humanity's interaction with nature in natural heritage criterion (ii); to exceptional combinations of natural and cultural elements in natural heritage criterion (iii), were believed to be inconsistent with the legal definition of natural heritage in Article 2 of the World Heritage Convention. Indeed, it is the definition of cultural heritage in Article 1 that refers to these aspects, so these references were removed. Also, until 1992, natural criteria (i) and (ii) both referred to geological processes. In 1992, it was therefore decided to exclude references to geological phenomena and processes from natural criterion (ii), so that only natural heritage criterion (i) should refer to and focus on geological processes. At the same time, references to significant 'ecological processes' were included in natural heritage criterion (ii). Natural criterion (iv) was also revised to place more emphasis on sites of exceptional biodiversity and to reduce emphasis on threatened species.

The 'conditions of integrity' were also revised to correspond to these new natural heritage criteria. According to these revised conditions of integrity, natural sites fulfilling natural heritage criterion (i) 'should contain all or most of the key interrelated and interdependent elements in their natural relationships'; sites fulfilling criterion (ii) 'should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long-term conservation of the ecosystems and the biological diversity they contain'; sites fulfilling criterion (iii) 'should be of outstanding aesthetic value and include areas that are essential for maintaining the beauty of the site'; finally those sites fulfilling criterion (iv) 'should contain habitats for

DEFINING CULTURAL LANDSCAPES

THREE TYPES OF CULTURAL LANDSCAPE WERE ADOPTED IN 1992 BY THE WORLD HERITAGE COMMITTEE AND INTEGRATED INTO THE *OPERATIONAL GUIDELINES*:

CLEARLY DEFINED LANDSCAPES designed and created intentionally by humankind. Such places include gardens and parklands constructed for aesthetic reasons and often associated with monumental buildings and ensembles.
(Aranjuez Cultural Landscape, Spain)

ASSOCIATIVE CULTURAL LANDSCAPES where the outstanding universal value relates to the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence.
(Tongariro National Park, New Zealand)

ORGANICALLY EVOLVED LANDSCAPES. This type of cultural landscape, resulting from an initial social, economic, administrative or religious imperative, has developed in close association with and as a response to its natural environment and reflects the process of evolution. Such places may be divided into:

- ***relict (or fossil)*** landscapes in which an evolutionary process has come to an end but where its significant distinguishing features are still visible in material form.
(Blaenavon Industrial Landscape, United Kingdom of Great Britain and Northern Ireland)

- ***continuing landscapes*** which retain an active social role in contemporary society closely associated with a traditional way of life and in which the evolutionary process is still in progress, exhibiting significant material evidence of its continuing evolution over time.
(Royal Hill of Ambohimanga, Madagascar)

maintaining the most diverse fauna and flora characteristic of the biographic province and ecosystems under consideration'. Furthermore, sites must have adequate long-term legislative, regulatory and institutional protection.

ADOPTION OF THE GLOBAL STRATEGY AND NARA DOCUMENT (1994)

Mounting concerns that the World Heritage List was eurocentric and that regions such as Africa and the Pacific were not adequately represented, thus projecting a very narrow image of cultural heritage that did not represent accurately the diversity of its manifestations, led the World Heritage Committee to adopt a 'Global Strategy' in 1994. As part of this strategy a number of broad themes were defined, which if studied in their broad anthropological context would have the potential to fill the thematic and geographical gaps identified (see box). A methodology was also defined based on the organization of regional meetings and comparative studies on the broad themes. The World Heritage Centre was also requested to encourage governments to ratify the Convention and participate in its implementation, and to establish and harmonize Tentative Lists.

In 1994, several further changes to the cultural criteria were made by the World Heritage Committee to facilitate the nomination of the types of heritage identified by the Global Strategy, including the modification of cultural criterion (i) to remove any bias towards aesthetically pleasing buildings. In cultural criterion (ii), words seeming to privilege dominant cultures were replaced by the term 'interchange of values', emphasizing the fact that cultural influences occur in more than one direction. While the original text of the Global Strategy only referred to cultural heritage, at its 1994 session (Phuket, Thailand) the World Heritage Committee extended it to natural heritage.

In 1992, the World Heritage Committee had recommended a reconsideration of the 'criteria governing authenticity and integrity, with a view to their possible revision'. This recommendation led to a major expert meeting on Authenticity in Relation to the World Heritage Convention, hosted in Nara (Japan) in November 1994. The Nara Document was the key outcome of this meeting. While until then the Operational Guidelines had recognized that authenticity should be judged according to four attributes: design, materials, workmanships or setting, this document indicates that authenticity should be judged within the cultural context to which it belongs and that it could be expressed through a multitude of attributes. The Nara Document is essential for the recognition of some non-European sites that do not necessarily fulfil the previous four attributes of authenticity.

CAIRNS/SUZHOU DECISIONS TO ENSURE GREATER CREDIBILITY OF THE LIST

At its 24th session in 2000 (Cairns, Australia), the Committee adopted a number of measures that could help to achieve a 'balanced, credible and representative' World Heritage List. It decided that, from 2002 onwards, it would only examine one nomination dossier per State Party per year, exclusive of those referred or deferred at previous sessions, up to a limit of thirty. In 2004, at the Suzhou (China) session, the Committee decided that, from 2005 onwards, States Parties could submit up to two complete nominations, provided that at least one concerns a natural heritage site. The Committee will review up to forty-five nominations each year, inclusive of nominations deferred and referred by previous sessions, extensions, transnational nominations and nominations submitted on an emergency basis.

BROAD THEMES OF THE GLOBAL STRATEGY

1. Human coexistence with the land
- movements of people (nomadism, migration)
- settlement
- modes of subsistence
- technological evolution

2. Human beings in society
- human interaction
- cultural coexistence
- spirituality and creative expression

Global Strategy:
http://whc.unesco.org/en/globalstrategy/

UNIFIED SET OF CRITERIA (2005)

Nominated properties shall meet one or more of the following criteria:

(i) represent a masterpiece of human creative genius;

(ii) exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

(v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

(vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

(vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

(viii) be outstanding examples representing major stages of Earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features;

(ix) be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

(x) contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

UNIFICATION OF NATURAL AND CULTURAL HERITAGE CRITERIA (2003)

As a further step towards fulfilling the intention of Article 1 of the World Heritage Convention, the World Heritage Committee decided in 2003 to bring together the two previously separate sets of natural and cultural criteria for the assessment of outstanding universal value (see box). As a result, a single list of ten criteria is now included in the 2005 *Operational Guidelines* (the former natural criteria (i), (ii), (iii) and (iv) becoming respectively criteria (viii), (ix), (vii) and (x). This unified list will come into effect with the nominations of 2007. The integration of natural and cultural criteria had been proposed at an expert meeting convened in 1996 at La Vanoise (France), symbolizing the move towards a more holistic approach to heritage identification and management, and these unified criteria should encourage new nominations from under-represented regions and cultures of places in which natural and cultural values are inextricably linked.

FURTHER INFORMATION

Labadi, S. 2005. A Review of the Global Strategy for a Balanced, Representative and Credible World Heritage List 1994-2004. *Conservation and Management of Archaeological Sites*, No. 7, Vol. 2, pp. 89-102.

Larsen, K. (ed.) 1995. *Nara Conference on Authenticity in Relation to the World Heritage Convention, Nara, Japan, 1-6 November 1994: Proceedings*. Paris, UNESCO

Rössler, M. 1995. UNESCO and Cultural Landscape Protection. In: B. von Droste, H. Plachter and M. Rössler (eds.), *Cultural Landscapes of Universal Value*. New York/Paris, Gustav Fischer/UNESCO, pp. 42-49.

Thorsell, J. 1992. From Strength to Strength: World Heritage in its 20th Year. In: *World Heritage Twenty Years Later*. Papers presented at World Heritage and other workshops, IVth World Congress on National Parks and Protected Areas, Caracas, Venezuela, February 1992. Gland, Switzerland, IUCN.

Brown-Weiss, E. 1989. In *Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity.*

CONSERVING AND MONITORING WORLD HERITAGE SITES

The World Heritage Convention requests States Parties to ensure that World Heritage sites maintain the qualities for which they are inscribed on the List (Articles 4 and 5, see box). There are three main systems for assessing and monitoring the state of conservation of (potential) World Heritage sites: nomination dossiers, State of Conservation reports and Periodic Reports.

KEY DATA ON CONSERVATION REQUESTED IN NOMINATION DOSSIERS

Since 1977, the format of nomination dossiers as set out in the *Operational Guidelines* has required detailed information on the state of conservation of the nominated site and on the appropriate legal, scientific, technical, administrative and financial measures for its protection. However, it is only since 1997 that States Parties have been requested to provide a copy of the management plan as well as information on the factors affecting nominated sites and on existing key indicators for measuring their state of conservation.

REACTIVE MONITORING THROUGH STATE OF CONSERVATION REPORTS

Although there is no specific reference in the Convention to monitoring the state of conservation of World Heritage sites, by 1982 concerns had begun to be expressed on this subject. The Committee recognized that its responsibilities extended beyond the mere listing of sites as it began to receive reports from IUCN in 1984 and from ICOMOS in 1988 about ascertained or potential threats to sites. From 1992, the *Operational Guidelines* indicated that the Committee should review the state of conservation of sites on the List of World Heritage in Danger (see box p. 45) at regular intervals. This review should include such monitoring procedures and expert missions as deemed necessary by the Committee. This definition was extended in the 1995 revised version of the *Operational Guidelines*, which indicated that 'Reactive Monitoring is the reporting by the World Heritage Centre, other sectors of UNESCO and the Advisory Bodies to the Bureau and the Committee on the state of conservation of specific World Heritage properties that are under threat' (Paragraph 68). These reports may relate to alleged problems of protection, management and conservation that have been reported to UNESCO or the Advisory Bodies by the State Party or by independent non-governmental organizations, by individuals or by the media. The Reactive Monitoring process is clearly detailed in Paragraphs 169 to 176 of the 2005 revised *Operational Guidelines*.

As of 2006, a total of 378 World Heritage sites have been the subject of a State of Conservation report (44 in the Arab States, 99 in Asia and the Pacific, 131 in Europe, 49 in Africa and 55 in the Latin America and Caribbean region). Table 1 presents the number of sites that were the object of a State of Conservation report over four periods (see Section 5 for in-depth analyses of all existing State of Conservation reports). The Whale Sanctuary of El Vizcaino (Mexico) is a good example of the importance of Reactive Monitoring (see box p.44).

DEVELOPING A PERIODIC REPORTING SYSTEM

A regular monitoring system is foreseen in Article 29 of the World Heritage Convention. At the request of the Committee in 1993, the Secretariat and the Advisory Bodies developed a concept and framework of systematic monitoring and reporting. The eventual recommendation proved contentious when it was submitted to the Committee as it proposed that independent experts should be involved in monitoring activities. At its 1994 session in Thailand, the Committee reconfirmed the responsibility of States Parties in day-to-day

PROTECTION AND CONSERVATION OF WORLD HERITAGE SITES

Article 4 of the Convention requires each State Party to recognize their duty of ensuring 'the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage' of outstanding universal value situated on its territory. The mechanisms for such actions are defined in Article 5, which recommends, for each State Party, the adoption of a general policy, the establishment of appropriate legal, scientific, technical, administrative and financial measures and services.

Article 29 requires States Parties to submit to the General Conference of UNESCO information on 'the legislative and administrative provisions which they have adopted and other action which they have taken for the application of the Convention, together with details of the experience acquired in this field'.

IMPORTANCE OF REACTIVE MONITORING: WHALE SANCTUARY OF EL VIZCAINO (MEXICO)

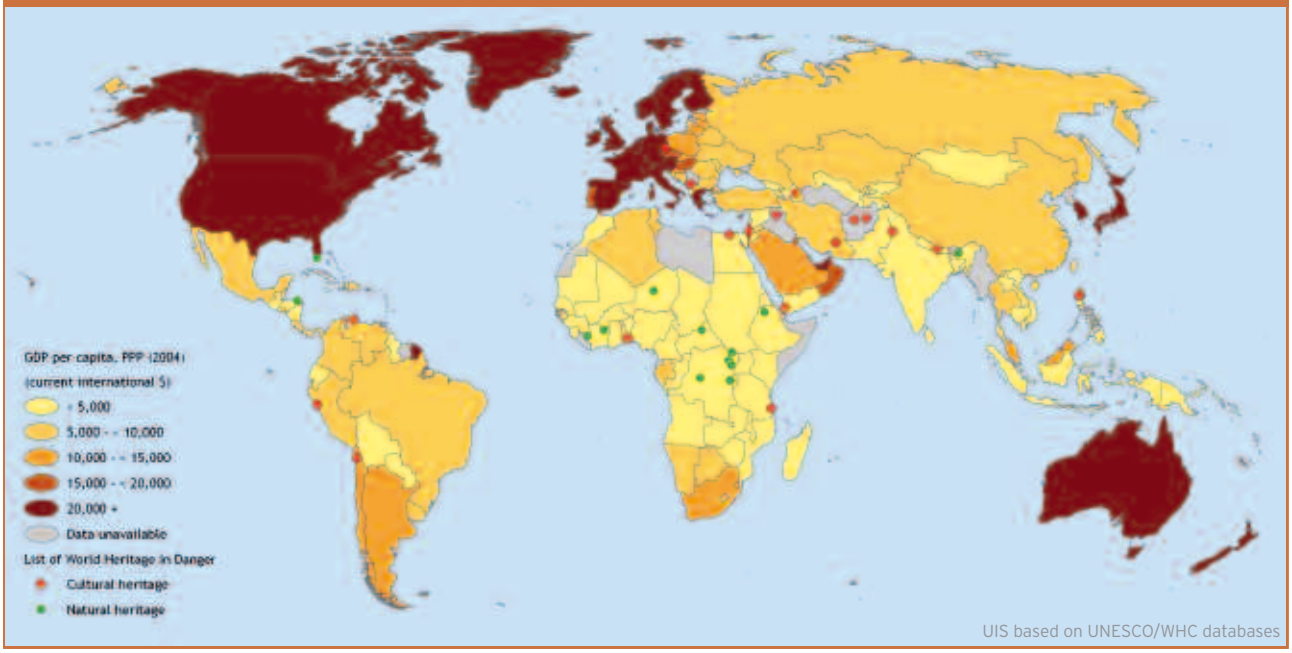
'A proposal for a US$120 million expansion of the industrial salt ponds in the lagoons was brought to the attention of the World Heritage Committee in 1996. By 1998 the proposal had become a major public issue with 1 million protest letters received from the public. Six months after a WHC/IUCN mission to the site and expressions of concern by the World Heritage Committee, the President of Mexico announced that the project would be cancelled. Responsibilities under the WH Convention were cited in his announcement but public pressure also played a major role in the decision' (Thorsell, J. 2003, p. 16).

TABLE 1: STATE OF CONSERVATION REPORTS BY REGION

Period	Africa	Arab States	Asia/Pacific	Europe/ North America	Latin America/ Caribbean
1984-1989	9	5	8	13	8
1990-1994	22	15	22	63	30
1995-2000	32	23	66	54	29
2001-2006	38	26	63	82	33

UIS based on UNESCO/WHC databases

MAP 2: SITES ON LIST OF WORLD HERITAGE IN DANGER (2006) AND GDP PER CAPITA (2004)



UIS based on UNESCO/WHC databases

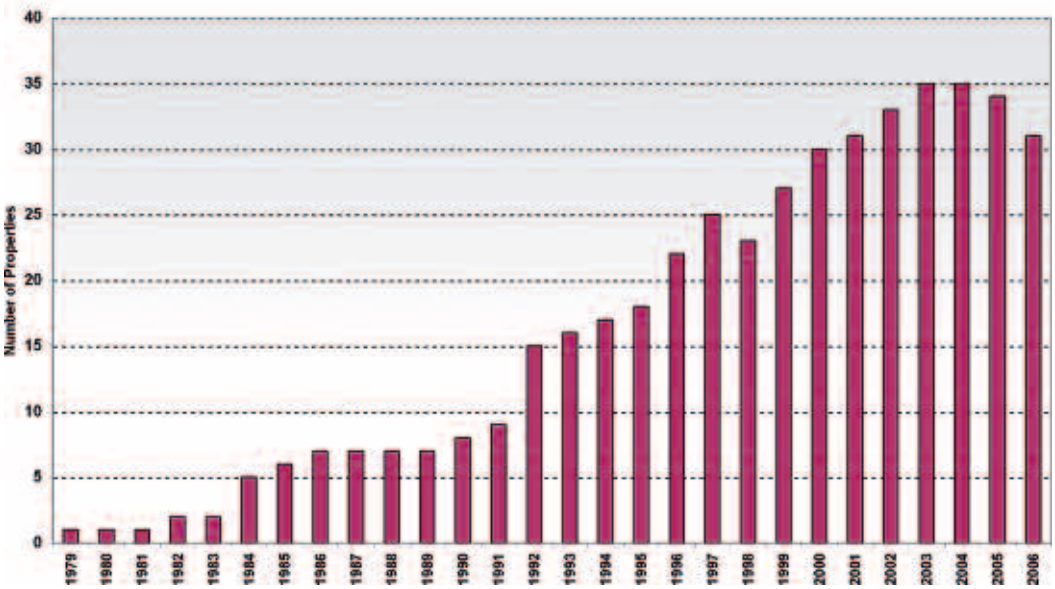
site monitoring and insisted that any involvement of outside agencies could be only at the specific request of, and consultation with, the State Party concerned. In 1998, the Committee adopted the aims, format and timetable for the implementation of Periodic Reporting (see box p. 46).

A regional approach to Periodic Reporting was adopted as a means of promoting collaboration and responding to the specific characteristics of each region. Each State Party was requested to complete two questionnaires, one on general national policies and the other focusing on individual World Heritage sites. A regional report was then examined by the Committee. Table 2 shows that this exercise has not covered all the sites on the World Heritage List. Periodic Reports for the Arab States, for example, concerned only

LIST OF WORLD HERITAGE IN DANGER

The World Heritage Committee can, in accordance with Article 11.4 of the Convention, inscribe a site on the List of World Heritage in Danger if it is threatened by ascertained or potential danger, if major operations are necessary and if assistance has been requested under the Convention. These dangers include the threat of disappearance caused by accelerated deterioration, large-scale development projects; the outbreak or the threat of an armed conflict; calamities and cataclysms, and natural disasters. When deciding to inscribe a site on the Danger List, the Committee seeks, on the one hand, to inform the international community of the real or potential threats to the site and mobilize international aid for it, and, on the other hand, to encourage the State Party where the site is located to take remedial conservation measures. The listing of a site as World Heritage in Danger should in any case not be considered as a sanction, but as a mechanism that triggers international solidarity. The mere prospect of inscribing a site on the Danger List may also encourage States Parties to take urgent conservation measures. From 1977 to 2006, fifty-eight sites have been on the Danger List (Figure 5). Of these, sixteen have been removed from this List and two were removed and then reinscribed. Of the thirty-one sites currently on the Danger List, thirteen are natural heritage and eighteen are cultural heritage. Twelve of these sites are in Africa, seven in Asia and the Pacific, four in the Arab States, four in Latin America and the Caribbean and four in Europe and North America. Nearly one-third have been on the Danger List for more than ten years. Map 2 classifies countries according to their gross domestic product (GDP) per capita based on purchasing power parity (PPP) at current prices for 2004. It shows that a significant number of World Heritage sites on the Danger List are located in countries with a low GDP.

FIGURE 5 : SITES ON LIST OF WORLD HERITAGE IN DANGER (1979-2006)



UIS based on UNESCO/WHC databases

TABLE 2 : REGIONAL ORGANIZATION OF PERIODIC REPORTING

Region	Examination of sites inscribed up to and including	Year of examination by World Heritage Committee
Arab States	1992	December 2000
Africa	1993	December 2001 / July 2002
Asia/Pacific	1994	June-July 2003
Latin America / Caribbean	1995	June-July 2004
Europe	1997	July 2005
North America	1997	July 2006

UIS based on UNESCO/WHC databases

those included up to 1992. This system has some limitations as it makes it very difficult to provide an overall picture of the implementation of the Convention. But, on a positive note, it has provided useful information on States Parties' understanding of the Convention system.

FUTURE OF MONITORING

The first cycle of Periodic Reporting came to an end in 2006. The results have been somewhat uneven and the whole exercise has been the subject of large-scale reviews and reflections by diverse experts. These reviews have highlighted that the Periodic Reports questionnaires were too detailed and that there were inconsistencies between some of the questions. Moreover, the lack of answers to some questions and the different formats used for some questionnaires have strongly limited the relevance of the replies and findings at both intraregional and interregional levels.

On the other hand, this first cycle of Periodic Reporting has raised a number of important issues, including the lack of clear boundaries of the sites inscribed in the early years of the Convention, the lack of justification of their outstanding universal value, or the need to revise the values for which they had been listed. The challenges are now for the World Heritage Committee and the Advisory Bodies to resolve these issues and to revise the questionnaires so that they can provide better quantitative and qualitative assessments of the various changes and impacts to World Heritage sites. Another task is to improve the links between Reactive Monitoring and Periodic Reporting.

PERIODIC REPORTING: FOUR MAIN AIMS

- To assess the application of the Convention by the State Party;
- To assess whether the World Heritage values of the sites inscribed on the List are being maintained over time;
- To provide up-to-date information about World Heritage sites that records their changing circumstances and state of conservation;
- To be a mechanism for regional cooperation and exchange of information and experiences between States Parties concerning the implementation of the Convention and World Heritage conservation.

FURTHER INFORMATION

ICOMOS Canada Bulletin. 1995, Vol. 4. No. 3.

Monitoring World Heritage. 2004. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 10.)

Reflection Year on World Heritage Periodic Reporting. 2005/2006. Paris, UNESCO World Heritage Centre. http://whc.unesco.org/en/reflectionyear/

Thorsell, J. 2003. *World Heritage Convention: Effectiveness 1992-2002 and Lessons for Governance*. Gland, Switzerland/Gatineau, Quebec, IUCN/Parks Canada.

Thorsell, J. and Paine, J. 1995. An IUCN/WCMC Perspective on Safeguarding the Integrity of Natural World Heritage Properties. *ICOMOS Canada Bulletin*, Vol. 4. No. 3.

FINANCIAL SUPPORT AND PARTNERSHIPS

INTERNATIONAL ASSISTANCE AND THE WORLD HERITAGE CONVENTION

Article 13.1 stipulates that 'the World Heritage Committee shall receive and study requests for international assistance formulated by States Parties to this Convention with respect to property forming part of the cultural or natural heritage, situated in their territories, and included or potentially suitable for inclusion in [Tentative Lists and the World Heritage List]. The purpose of such requests may be to secure the protection, conservation, preservation or rehabilitation of such property'.

WORLD HERITAGE FUND AND INTERNATIONAL ASSISTANCE

The Preamble to the World Heritage Convention stresses that collective assistance should be provided to protect cultural and natural heritage sites. For this purpose a Fund for the Protection of the World Cultural and Natural Heritage was established by Articles 15 to 18 of the Convention. Contributions to the Fund are made by States Parties, on a compulsory or voluntary basis. International Assistance is taken from this Fund and is supplementary to the State Party's action in safeguarding World Heritage sites. It supports but in no way replaces State Party involvement (Article 25). The objectives and scopes of International Assistance are spelled out in Article 13.1 (see box). Articles 19 to 26 give directions in determining eligibility, priorities in allocation, and forms of assistance. The *Operational Guidelines* provide further information on the format and procedures for applying for International Assistance.

PROCEDURE AND PARTICIPANTS

Any State Party that has paid its contribution to the World Heritage Fund is entitled to be granted various types of International Assistance (only emergency assistance can be granted when a State Party has outstanding dues). In order to streamline International Assistance, the 2005 version of the *Operational Guidelines* gives priorities to requests from least-developed or low-income countries or those where needs have been previously identified through Reactive Monitoring or Periodic Reporting. In order to link heritage to the larger context of sustainable development, priority is also given to International Assistance that will have a catalytic and multiplier effect – 'seed money' – and promote financial and technical contributions from other sources. Paragraphs 242–46 of the 2005 *Operational Guidelines* detail the procedure for requesting International Assistance. The World Heritage Committee is responsible for examining and granting International Assistance. The Committee determines the World Heritage Fund on a biennial basis (since 2001) and allocates amounts for assistance. The Chairperson, the Committee and the Director of the Centre have the authority to approve requests up to a specific amount. The Advisory Bodies review all assistance (ICCROM and ICOMOS for cultural sites and IUCN for natural sites) and give recommendations. All these procedures are coordinated by the World Heritage Centre.

TYPES OF INTERNATIONAL ASSISTANCE

While the Convention details the various forms of International Assistance, the *Operational Guidelines* define five types of assistance: emergency assistance, preparatory assistance, training and research assistance, technical cooperation, and assistance for education, information and awareness-raising (Paragraph 235).

Emergency assistance is granted to sites that have suffered or are in imminent danger of severe damage due to sudden and unexpected natural or man-made phenomena, as in the case of Rwenzori Mountains National Park (Uganda; see box p. 48).

The purpose of preparatory assistance is to prepare or update Tentative Lists or to organize meetings for their harmonization; to prepare nominations for the World Heritage List; or prepare requests for technical cooperation, including requests relating to the organization of training courses, as for example in Azerbaijan (see box p. 48). With the adoption of the Global Strategy and the move to increased representativity and greater diversity of sites, preparatory assistance has become of key importance.

Technical cooperation covers the provision of experts and/or equipment for the conservation or management of World Heritage sites. It represents the largest share of the International Assistance budget by number of grants as well as by allocation (for example the *Ksour* of Mauritania, see box p. 49). The rule set by the World Heritage Committee for technical cooperation is that two-thirds is allocated to cultural sites and one-third to natural sites.

EMERGENCY ASSISTANCE: RWENZORI MOUNTAINS NATIONAL PARK (UGANDA)

Rwenzori Mountains National Park covers nearly 100,000 hectares in western Uganda and comprises the main part of the Rwenzori mountain chain, which includes Africa's third-highest peak (Mount Margherita: 5,109 m). It was inscribed on the World Heritage List in 1994 under natural heritage criteria (iii) and (iv). An emergency assistance request was approved in 2001 for US$64,500 in order to buy materials for guards, to repair infrastructures damaged by rebel occupation and to build bridges to avoid long detours.

PREPARATORY ASSISTANCE: THE WALLED CITY OF BAKU WITH THE SHIRVANSHAH'S PALACE AND MAIDEN TOWER (AZERBAIJAN)

With the independence of Transcaucasian countries in the early 1990s, new States Parties became signatories to the World Heritage Convention, such as Azerbaijan in 1993. In 1998, US$15,000 were granted to the Azerbaijani authorities to prepare a Tentative List as well as a nomination dossier for The Walled City of Baku with the Shirvanshah's Palace and Maiden Tower. In 2000, Baku became the first Azerbaijani site to be listed, under cultural heritage criterion (iv).

TECHNICAL COOPERATION: ANCIENT *KSOUR* OF OUADANE, CHINGUETTI, TICHITT AND OUALATA (MAURITANIA)

The Ancient *Ksour* of Ouadane, Chinguetti, Tichitt and Oualata site was inscribed on the World Heritage List under cultural heritage criteria (iii), (iv) and (v) in 1996. The socio-cultural and economic transformations of these twelfth- to sixteenth-century trading and religious centres, primarily the exodus of the population, had led to their gradual degradation. The pilot project for the safeguarding of the urban heritage and the revitalization of these *ksour* started in 2001. US$20,000 were granted under technical cooperation to help in the elaboration of preliminary management plans. This fund was used as seed money to mobilize further funding under the World Bank Loan Project for the safeguarding and valorization of the Mauritanian Cultural Heritage.

States Parties may request training and research assistance for the training of specialized staff at all levels in the fields of identification, protection, conservation, presentation and rehabilitation of World Heritage or for studies and scientific research benefiting World Heritage sites, as in the case of Benin (see box). The general rule is that half of this type of assistance is to be dedicated to cultural and half to natural sites.

Assistance for education, information and awareness-raising was introduced as a new category in 1998. This type of assistance can be requested to increase awareness of the Convention, as took place recently in Viet Nam (see box). Printed materials, translations and information kits are a staple of these promotional activities.

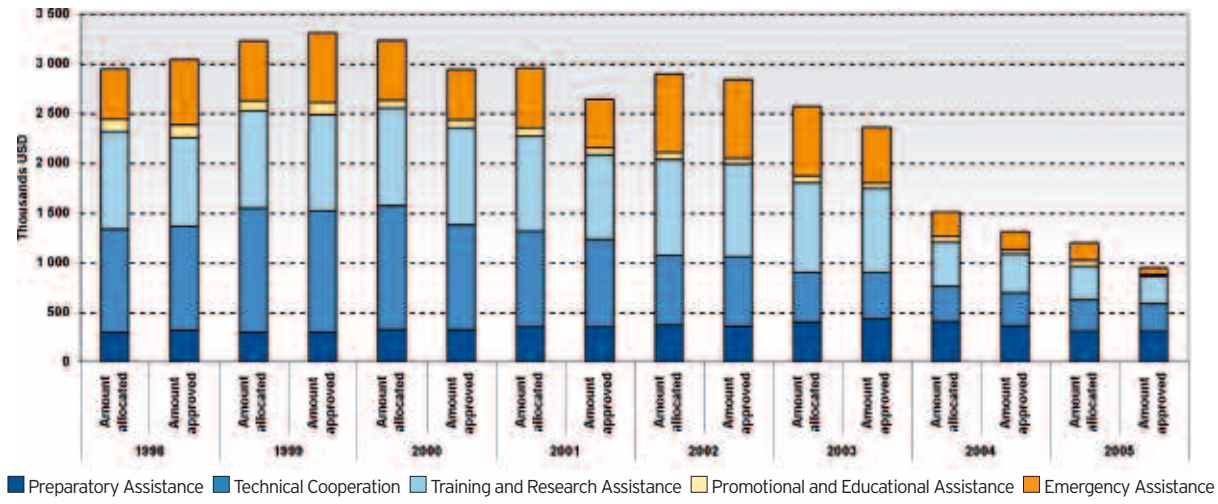
TRAINING AND RESEARCH ASSISTANCE: BENIN

In 2003, the Chairperson approved a US$20,000 training request for Benin to organize the first regional workshop on the management of protected areas in western Africa. This workshop was held in Parakou (Benin), 14-19 April 2003. This request for a regional activity aimed at protecting the fauna in a context of demographic explosion around protected areas, and the need for a community participatory approach, is in line with the Action Plan resulting from the African Periodic Report.

EDUCATION, INFORMATION AND AWARENESS-RAISING: VIET NAM

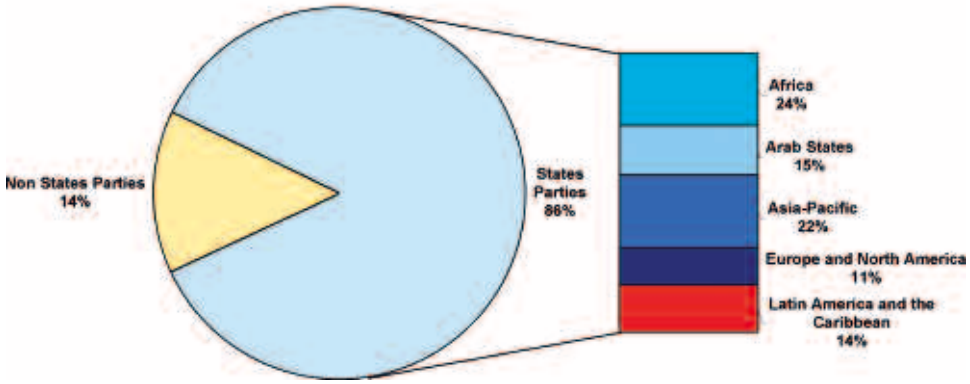
In 2000, US$5,000 were granted to the Viet Nam National Commission for UNESCO to translate, adapt, publish in Vietnamese and distribute the *World Heritage Educational Resource Kit for Teachers*. In 2001, an additional US$5,000 were granted to expand the kit by producing a book on Vietnamese World Heritage sites and introducing these documents in schools. As a consolidation of this action, US$4,800 were granted in 2003 to organize a contest for pupils in twenty-one schools around the country on Vietnamese World Heritage sites and to expand World Heritage education to other schools and to the general public.

FIGURE 6 : DISTRIBUTION OF INTERNATIONAL ASSISTANCE GRANTS, US$ THOUSANDS (1998-2005)



UIS based on UNESCO/WHC databases

FIGURE 7 : DISTRIBUTION OF INTERNATIONAL ASSISTANCE GRANTS, PERCENTAGE BY REGION (1998-2005)



UIS based on UNESCO/WHC databases

EVOLUTION OF INTERNATIONAL ASSISTANCE (1998-2005)

Figure 6 shows the amounts of International Assistance allocated since 1998 by the World Heritage Committee and the amounts approved by the relevant body, clearly indicating the fall in available funding. Preparatory assistance corresponds to one-seventh of the allocated assistance budget, although since 2004 it has been raised to over 25%. Technical cooperation represents about 37% of the total budget, training and research 30%, emergency assistance 19% and education, information and awareness-raising grants 1%.

Figure 7 presents all the requests approved from 1998 to 2005 by region, indicating that Africa has received the largest share of International Assistance with a total of 175 grants (24%). The Asia and Pacific region closely follows with 22% of the value of all approvals, distributed through 197 grants. The Arab States with 119 grants, representing 15% of total International Assistance, are in third place. Latin America and the Caribbean is fourth with 113 grants approved (14%). Europe and North America was attributed the least International Assistance with 111 grants (11%). Non-States parties (mainly ICCROM and IUCN) were granted a greater amount of funds (14%) than the European and North American region, but with fewer approved requests (only seventy-two grants). The grants for these organizations are primarily for training programmes usually organized at regional level, such as AFRICA 2009. Thus a specific amount can be approved for a specific region or organization but spent in a different region.

CURRENT PRIORITIES AND FUTURE AIMS

With the increase in the number of countries signatory to the Convention, and the yearly increase in the number of sites, demand for International Assistance is rising while the World Heritage Fund budget is decreasing. Mobilizing other financial partnerships has therefore become an essential task (see box). Greater monitoring of the impact of International Assistance with the help of performance indicators will also be developed. The World Heritage Committee is also streamlining the types of International Assistance.

MAP 3 : SITES THAT HAVE BENEFITED FROM UN FOUNDATION FUNDS

MOBILIZING FINANCIAL PARTNERSHIPS: AN ESSENTIAL TASK

With the fall in International Assistance, the mobilization of additional funds is essential. Some States Parties provide vital contributions established through bilateral cooperation agreements, including Australia, Belgium, France, Italy, Japan, the Netherlands, New Zealand, Norway, Spain and the United Kingdom. The Italian Funds-in-Trust, for example, has helped to implement the World Heritage Convention by supporting a number of activities, including the financing of World Heritage capacity-building and institutional development in Africa and the Arab States, as well as communication projects such as the 30th anniversary of the World Heritage Convention.

Non-governmental organizations also play a key role in financing some activities. The UN Foundation (UNF) has contributed around US$40 million to World Heritage biodiversity projects since its creation in 1998 (Map 3). The UNF wanted to work on the implementation of the World Heritage Convention as it is a property-specific tool, which means that even limited funding could be spent in a focused way through projects that would target funding in the field. To increase the impact of its funding, the UNF has also leveraged its core funds to establish new partnerships in support of World Heritage sites. Among others, it has supported projects for the Control of Introduced Species in the Galápagos Islands (Ecuador), the protection of World Heritage in the Democratic Republic of the Congo, and the promotion of World Heritage in Madagascar.

FURTHER INFORMATION

Investing in World Heritage: Past Achievements, Future Ambitions. 2002. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 2.)

Information on the Evaluation of the World Heritage Fund's Preparatory Assistance, Technical Cooperation, Training, and Promotional and Educational Activities. 2005. Twenty-ninth session of the World Heritage Committee, Durban, South Africa, 10–17 July. (WHC-05/29.COM/14B.)

Examination of the Recommendations on International Assistance. 2006. Thirtieth session of the World Heritage Committee, Vilnius, Lithuania, 8–16 July. (WHC-06/30.COM/14A.)

Progress Report on World Heritage PACT. 2005. Twenty-ninth session of the World Heritage Committee, Durban, South Africa, 10–17 July. (WHC-05/29.COM/13.)
http://whc.unesco.org/en/partners/

WORLD HERITAGE IN YOUNG HANDS PROJECT

PIONEERING EFFORTS TO BRING WORLD HERITAGE TO THE CLASSROOM (1994-95)

The importance of education in support of World Heritage is spelled out in Article 27.1 of the World Heritage Convention (see box). However, little attention had been given to this vital aspect until 1994 when a special project, Young People's Participation in Promoting and Preserving World Heritage, was launched by the World Heritage Centre and the Associated Schools Project Network (ASPnet), UNESCO Education Sector (see ASPnet box). This programme aimed to invite secondary-school teachers to develop effective ways and means to mobilize their students (aged between 12 and 18) in favour of World Heritage. Objectives were also developed (see box p. 54 on World Heritage in Young Hands project). ASPnet secondary schools in twenty-five countries were invited to assume a pioneering role in taking part. In June 1995, one student and teacher from each of these twenty-five countries attended the first World Heritage Youth Forum in Bergen (Norway). This forum included debates for teachers and students, creative workshops, visits to World Heritage sites, the design of a logo for the project (see box on *Patrimonito*) and a final 'Youth Declaration'. However,

EDUCATION AND THE WORLD HERITAGE CONVENTION

Article 27.1 calls on all States Parties to 'endeavour by all appropriate means, and in particular by educational and information programmes, to strengthen appreciation and respect by their peoples of the cultural and natural heritage [of outstanding universal value]'.

ASPnet

UNESCO launched the Associated Schools Project Network (ASPnet) in 1953 to promote peace and international cooperation through education. As of September 2005, it includes over 7,793 educational institutions in 175 countries.

Associated Schools Project Network: www.unesco.org/education/asp/

BIRTH OF PATRIMONITO

During the first World Heritage Youth Forum in 1995 in Bergen (Norway), students worked on a symbol for the project. By putting a face and body to the World Heritage logo they invented a new character, whom they called *Patrimonito* ('young heritage guardian' in Spanish). Since then, *Patrimonito* has been used on all the material produced as part of the World Heritage in Young Hands project.

OBJECTIVES OF WORLD HERITAGE IN YOUNG HANDS PROJECT

- Introduce World Heritage Education in classroom teaching and in school curricula;
- Involve young people in World Heritage Youth Fora, summer camps and on-site conservation courses;
- Create new information channels to exchange best practices on heritage education through traditional and new information and communication technologies;
- Establish a network of World Heritage schools featuring school links and exchange;
- Promote a new synergy between educators, decision-makers and heritage experts (museum personnel, site managers, conservation specialists, ICOMOS, ICCROM, ICOM and IUCN).

http://whc.unesco.org/en/education/

teachers also commented on the difficulties encountered, such as not having any prior training in World Heritage studies, the lack of educational resource material and little room in the curriculum for including World Heritage.

STRENGTHENING THE PROJECT (1996-2006)

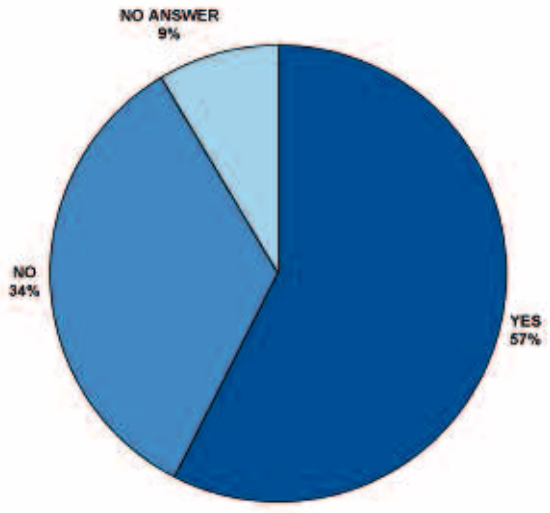
World Heritage Youth Fora

As a result of the successful Bergen Youth Forum, six major youth fora in different regions have been organized. These are important gatherings for teachers and students to exchange experiences, learn about other cultures and be aware of their common and specific cultural roots. For the teachers, it is also an opportunity to debate new educational approaches and establish networks for future development of World Heritage Education activities. Although similar in their structure, each youth forum has its own characteristics and gives the opportunity to present and discuss a specific problem.

World Heritage in Young Hands Educational Resource Kit for Teachers

In 1998, UNESCO published a *World Heritage Educational Resource for Teachers* entitled 'World Heritage in Young Hands' with the support of the Rhone-Poulenc Foundation and the

FIGURE 8 : PERCENTAGE OF STATES PARTIES PARTICIPATING IN WORLD HERITAGE IN YOUNG HANDS PROJECT, LATIN AMERICA AND THE CARIBBEAN (2004)



WORLD HERITAGE IN YOUNG HANDS IN LATIN AMERICA AND THE CARIBBEAN

The Periodic Reports from Latin America and the Caribbean presented to the World Heritage Committee in 2004 demonstrated that over 50% of States Parties from the region have implemented the World Heritage in Young Hands project. Besides taking part in this project, guided school visits were organized to World Heritage sites to sensitize children to the importance of their heritage and the need to protect it. Some States Parties have also raised awareness of the values of national World Heritage sites through publications. These Periodic Reports also show that the World Heritage in Young Hands project should be further developed in this region and adapted to the realities and characteristics of the different countries.

UIS based on UNESCO/WHC databases

Norwegian Agency for Development Cooperation. This kit includes forty user-friendly practical school activities developed by classroom teachers. Since then, it has been used by more than 130 States Parties (as in Latin America and the Caribbean, see box) through their ASPnet schools and has been translated into thirty languages. A second edition in English and French was published in 2002. In addition, over thirty regional, subregional and national teacher-training workshops have been held throughout the world.[4]

Continuing synergy between youth, educators and heritage specialists

A number of significant regional and international events have been held around the world to further dialogue for developing practical ways and means to mobilize young people in support of World Heritage. An International Workshop on World Heritage Education and Young People was held, for example, in 2002 in Treviso (Italy) before the International Conference celebrating the 30th anniversary of the adoption of the World Heritage Convention. At the closing ceremony of this conference the young people presented their creative efforts, including a cartoon of *Patrimonito's Adventures in Havana, Cuba*, thus launching the cartoon series *Patrimonito's World Heritage Adventures*.

FUTURE AIMS AND CHALLENGES

National education authorities will be encouraged to integrate World Heritage across the curriculum by using the World Heritage in Young Hands kit. New educational resource materials geared to elementary schools should also be produced. Finally, the sustained empowerment of young people should be sought by ensuring their inputs to World Heritage Committee meetings and to World Heritage promotional campaigns.

4. http://whc.unesco.org/education/whekit.htm

FURTHER INFORMATION

World Heritage in Young Hands. To Know, Cherish and Act: An Educational Resource Kit for Teachers. 2002. Paris, UNESCO World Heritage Centre.
http://whc.unesco.org/en/educationkit/

Mobilizing Young People for World Heritage. 2003. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 8.)

World Heritage in Young Southeast Asian Hands: Introducing the Arts for Teaching on the Historic Environment. 2004. Bangkok, UNESCO.

FORUM UNESCO – UNIVERSITY AND HERITAGE

ELABORATION OF A UNIVERSITY NETWORK

In 1995, an international network, Forum UNESCO – University and Heritage (FUUH), was created to develop links and synergies between the UNESCO Cultural Heritage Division and universities, considered as key partners in the development of knowledge. An agreement was signed between UNESCO and the Polytechnic University of Valencia (Spain) for the co-management of this network. Its objectives are to disseminate among the academic community issues of concern to UNESCO in the field of heritage conservation and protection, to link heritage professionals to academics and students, to share programmes, activities or exchanges of students and professors and to help create synergies between universities and other interested parties for the benefit of awareness-raising and heritage conservation. In 2002, the management of the network was transferred within UNESCO from the Cultural Heritage Division to the World Heritage Centre, in order to benefit from the dynamics created by the success of the World Heritage Convention. In 2005, a Protocol to the 1995 Agreement was signed with the University to legally define the respective responsibilities of both parties and draw up a thematic and strategic framework for the implementation of this network (see box).

2005 PROTOCOL TO 1995 FUUH AGREEMENT

The Protocol defines three levels of individual membership (academics or researchers, heritage professionals, students above Master's level) and one institutional, effected through the signature by universities of a Memorandum of Understanding (MoU). Each MoU, examined on a case by case basis by the World Heritage Centre, has to detail a four-year commitment and a two-year detailed plan of activities. These activities should correspond with the Committee's concerns and the Centre's expectations based on its daily experience of conservation and monitoring.

FUUH NETWORK IN ACTION

In ten years of existence, the network has counted some 10,000 affiliates from over 400 universities located in 113 countries (Map 4). It has played a key role in allowing contacts between universities and in favouring the creation of additional World Heritage Studies programmes.

Important gaps have been identified in the affiliation to this network (Map 4), due to the Polytechnic University of Valencia's focus on the Ibero-American, Mediterranean and Arab regions, rather than globally. Another reason is the lack of resources to support the participation of academics from developing countries in forum activities.

Ten international seminars have been held since 1995 in all regions except sub-Saharan Africa. Since 2002, these themes have focused on World Heritage issues such as cultural tourism (Irbid and Petra, Jordan, 2002) or cultural landscapes (2005, Newcastle-upon-Tyne, UK). The growing number of abstracts submitted for these seminars (400 in 2005, among which 100 were selected by the Scientific Committee) demonstrates their success. They are indeed an excellent educational tool for the promotion and discussion of the World Heritage Convention within the academic community. Lack of funding has however made it difficult to publish the proceedings rapidly. These seminars have also led to the creation of international research teams to investigate specific themes on World Heritage. The seminar at Newcastle University, for example, led to an international research team investigating cultural landscapes of pain, suffering, death, therapy and reconciliation.

FUUH activities have furthermore generated contacts between universities and associations to develop innovative university teaching programmes on World Heritage. An example is the Share Our Heritages programme, which consists of an exchange of students from eight universities from Australia and Europe between 2005 and 2008. Teaching alternates between theoretical courses given by World Heritage Centre staff and field-intensive training by World Heritage site managers.

MAP 4: COUNTRIES PARTICIPATING IN FORUM UNESCO – UNIVERSITY AND HERITAGE (FUUH)

UIS based on UNESCO/WHC databases

VISION FOR THE FUTURE

The signing of the 2005 Protocol to the 1995 Agreement, clarifying the main legal aspects of the network's functioning, will improve the quality and level of research. The 2005 Newcastle seminar improved the scope of the network among the English-speaking academic community. In the near future, seminars should also take place in a French-speaking country, thus further widening the network, in particular to Africa.

FURTHER INFORMATION

Davison, G. 1998. University and Heritage: an Odd Couple? *Third International Forum UNESCO University and Heritage. Proceedings*, pp. 14-21.

Declarations adopted at Forum UNESCO – University and Heritage (FUUH) seminars.
http://universidadypatrimonio.net/eng/index.html

FUUH Newsletter.
http://universidadypatrimonio.net/eng/index.html

CAPACITY-BUILDING FOR WORLD HERITAGE

FROM THE 1980s TO THE GLOBAL TRAINING STRATEGY FOR CULTURAL AND NATURAL HERITAGE

The World Heritage Convention provides a context for training activities in relation to World Heritage sites (Articles 5(e) and 23, see box). Throughout the 1980s and early 1990s, the World Heritage Committee's strategy was to fund the implementation of individual training courses, although they tended to be on an ad hoc basis rather than as part of larger, integrated training programmes. The Committee also funded a limited number of scholarships for individuals to attend advanced courses such as at the Mweka College of Wildlife Management in the United Republic of Tanzania or the School for Training Wildlife Specialists in Garoua (Cameroon).

TRAINING ACTIVITIES AND THE WORLD HERITAGE CONVENTION

- **Article 5(e)** enjoins States Parties 'to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage [...]'.
- **Article 23** states that the World Heritage Committee 'may also provide International Assistance to national or regional centres for the training of staff and specialists at all levels in the field of identification, protection, conservation, presentation and rehabilitation of the cultural and natural heritage'.

TRIPARTITE FRAMEWORK OF GLOBAL TRAINING STRATEGY

- a **framework of principles** to guide Committee decision-making about establishing or reinforcing appropriate training strategies and programmes at international, regional and national levels;
- a set of **international strategies and programmes,** designed in accord with the above principles, to guide the planning of actions at the international level;
- a set of **regional or subregional training strategies and programmes** designed in accord with the above principles, and in response to the particular circumstances and needs of the region.

In 1994, concerned with this ad hoc approach to training, the Committee asked ICCROM to develop a 'global training strategy' for cultural heritage. The purpose of this strategy was to assist the Committee to ensure optimum use of available resources for training from the World Heritage Fund and complementary extrabudgetary sources, to improve conditions for conservation of World Heritage sites and to strengthen the capacity of those responsible for their use and management. The Global Training Strategy for Cultural Heritage was developed over a period of five years, during which worldwide experts were consulted and preliminary regional analyses and strategies developed. This training strategy, organized around a tripartite framework (see box for details), was approved by the World Heritage Committee in 2000. Following requests by the Committee, ICCROM collaborated with IUCN so that this strategy could be extended to natural heritage. A joint Global Training Strategy for World Cultural and Natural Heritage was then adopted by the Committee in 2001.

IMPLEMENTATION OF THE TRIPARTITE FRAMEWORK

The *framework of principles* (see box) was organized around two sections, the first covering the provision of effective training, and the second effective collaboration among World Heritage partners.

The set of *international strategies and programmes* was developed around three priority areas including training on:

- implementation of the World Heritage Convention;
- management of World Heritage sites;
- scientific, technical and traditional skills for conservation of cultural and natural heritage sites.

In the first area, *implementation* of the Convention, instructor's reference kits were developed by ICCROM in 2003 on nominations and periodic reporting. IUCN has also been developing resource manuals on the nomination and site management processes. Since then, the Advisory Bodies and the World Heritage Centre have agreed to launch a new series of resource manuals to cover the implementation of the Convention. Training workshops have also taken place to improve understanding of this instrument.

In the area of *site management*, IUCN has produced twelve volumes of the World Commission on Protected Areas (WCPA) *Best Practice Protected Area Guidelines Series*, on topics such as sustainable tourism, management planning of protected areas and indigenous people and protected areas.

FRAMEWORK OF PRINCIPLES (EXCERPTS FROM GLOBAL TRAINING STRATEGY)

Principles for effective training for conservation of World Heritage properties

- Training should be understood as the most cost-effective means by which the World Heritage Committee can improve the conservation of World Heritage properties.
- Training in the context of the World Heritage Convention should be understood broadly as any activity aimed to increase the capacity of individuals and institutions involved with the management of places of cultural heritage value.
- Training messages for World Heritage properties should promote international best conservation practice in the field without drawing distinctions between World Heritage properties and other ones.

Principles for effective collaboration of World Heritage partners for training

- The World Heritage Committee, the World Heritage Centre, and the Advisory Bodies should move beyond reactive response to requests for training assistance, to proactive anticipation and planning for meeting training needs.
- The links between various strategic elements of the World Heritage management system (State of Conservation, Periodic Reporting, Global Strategy, etc.) and the provision of technical assistance and training should be clarified and strengthened.
- Collaborative mechanisms and structures between the World Heritage Centre and the Advisory Bodies involving training should be strengthened.

A key IUCN/UNESCO project has also been Enhancing Our Heritage. Operating in ten World Heritage natural sites in Africa, Latin America and South Asia, this project aims to demonstrate how using an assessment, monitoring and reporting framework can enhance effective site management. Management guidelines for cultural heritage sites have also been developed, such as the volume by Feilden and Jokilehto, which has been translated into at least nine languages.[5]

In the area of *Scientific, Technical and Traditional Skills for Conservation of Cultural and Natural Properties*, activities have included regular ICCROM international courses, such as the International Training Course on the Technology of Stone Conservation (Venice, Italy) and the Modern Architecture Conservation Course (Helsinki, Finland), all implemented in partnership with national institutions.

Concerning *regional or subregional training strategies and programmes*, the strongest initiative to date is the AFRICA 2009 programme,[6] which has trained over 150 professionals in sub-Saharan Africa since its inception in 1998 (see presentation on Africa, Section 4, p. 144). The programme has also worked with national heritage organizations to strengthen networking in the region. More recently, a number of other regional and subregional programmes have also begun providing much-needed World Heritage training at all levels, such as the ATHĀR Programme launched in 2004 that focuses on archaeological sites in Jordan, Lebanon and the Syrian Arab Republic.[7] Concerning natural heritage, negotiations are under way with a number of partners for organizing subregional protected area capacity-development projects using World Heritage sites as learning centres for adaptive management.

FUTURE DEVELOPMENTS

While work will continue on international activities, the Global Training Strategy foresees the most important initiatives at regional level. Regional programmes have the potential to respond most closely to specific issues and needs identified in Periodic Reports. It is also more feasible and cost effective to foster regional networks of cooperation, which can then be strengthened at international level.

FURTHER INFORMATION

Feilden, B. and Jokilehto, J. 1998. *Management Guidelines for World Cultural Heritage Sites*, 2nd edn. Rome, ICCROM.

Information Document: ICCROM Progress Report on Development of a Global Training Strategy for Cultural Heritage in the Context of the World Heritage Convention. 1999. Twenty-third session of the World Heritage Committee, Marrakesh, Morocco, 29 November-4 December. (WHC-99/CONF.209/INF.22.)

Information Document: Strategy for Training in the Field of Natural Heritage. 1995. Nineteenth session of the World Heritage Committee, Berlin, Germany, 4-9 December. (WHC-95/CONF.203/INF.11A.)

IUCN-WCPA. Best Practice Protected Area Guidelines Series. Gland, Switzerland, IUCN-WCPA.
http://www.iucn.org/themes/wcpa/pubs/guidelines.htm

5. B. M. Feilden and J. Jokilehto (1998).

6. http://www.africa2009.net/

7. http://www.iccrom.org/eng/prog2006-07_en/08athar_en.shtml

COMMUNICATION AND AWARENESS-RAISING

COMMUNICATION AND THE WORLD HERITAGE CONVENTION

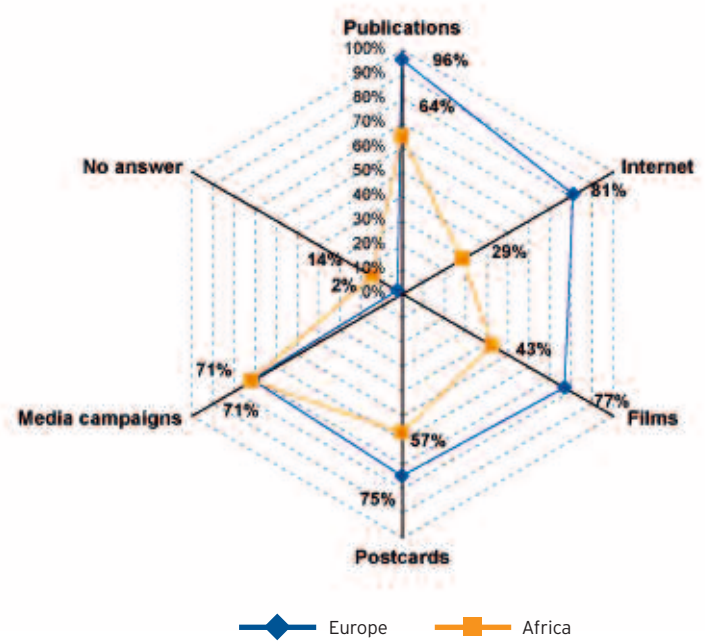
Article 27.2 of the Convention indicates that States Parties 'shall undertake to keep the public broadly informed of the dangers threatening this heritage and of the activities carried on in pursuance of this Convention'.

The complementary nature of conservation and communication is also clearly reflected in Chapter VI of the *Operational Guidelines*.

WORLD HERITAGE COMMUNICATION STRATEGY

Key communication activities took place in the first twenty-five years of implementation of the Convention, including press articles featuring World Heritage and books on specific issues such as cultural landscapes, and exhibitions. However, these tended to be adopted and implemented on a rather ad hoc basis. The Strategic Plan for World Heritage Information, Documentation and Education activities, adopted by the World Heritage Committee at its 1998 session (Kyoto, Japan), has inspired major strategic orientations for awareness-raising work. This strategy addressed two target audiences: first, the States Parties, including government institutions, site authorities, the World Heritage Committee and Permanent Delegations to UNESCO, and second, the international community, including international and national press media, international organizations and institutions, research agencies and development cooperation agencies, all with the aim to influence international public opinion. The new orientation was for documentation and information activities to

FIGURE 9 : PERCENTAGE OF MEDIA FORMATS USED TO PUBLICIZE WORLD HERITAGE, AFRICA (2000) AND EUROPE (2005)



PROMOTIONAL ACTIVITIES. THE EXAMPLES OF AFRICA AND EUROPE

Figure 9 presents the media formats most frequently used to publicize World Heritage sites in two different regions, Africa and Europe, based on the results of Periodic Reports. In both regions, a diversity of media based on oral, visual and written communications are used. The greatest discrepancy is in access to the internet, which is used by 81% of European but only 29% of African States Parties.

UIS based on UNESCO/WHC databases

30TH ANNIVERSARY OF THE WORLD HERITAGE CONVENTION

Over 800 participants met in the Giorgio Cini Foundation in Venice to mark the 30th anniversary of the World Heritage Convention, from 14 to 16 November 2002. Organized with the support of the Italian Government, this international conference was the first to gather civil society, the media, the corporate sector and governments to reflect on World Heritage conservation issues and offer solutions for tomorrow's challenges.

Nine thematic workshops were organized prior to the conference, each focusing on a key theme of the Convention such as site management, legal aspects or education. The common denominator of all these meetings was the recognition given to the importance of international cooperation and partnerships. Participants acknowledged that conservation needs are ever increasing and that these could be more easily met by working with an increasing number of partners. Proceedings of these workshops and the plenary session have been released (http://whc.unesco.org/en/series).

http://whc.unesco.org/en/venice2002/

support each step of the World Heritage conservation process, from ratification, identification of properties for the Tentative List, nomination, inscription, periodic reporting and monitoring, and to address every objective of the *Convention*. This complements promotional activities carried out by the States Parties themselves (see Figure 9 p. 60).

DIVERSIFYING PUBLICATIONS

Since the World Heritage Centre was set up, substantive efforts have been made to develop a wide range of publications, including the main texts collected in the *Basic Texts of the 1972 World Heritage Convention*[8] which assembles in one publication the main key texts of the Convention and is a useful instrument for the day-to-day implementation of the Convention. One of the aims of these information materials is to create a multiplier effect and to provide countries with information that can be translated into their national languages.

Periodicals have also been produced, such as the quarterly review *World Heritage*, published since 1996, which targets a wide public composed of an ever-growing readership of people wishing to learn more about, and get more engaged in, the protection of World Heritage. These periodicals include news items about World Heritage sites and their conservation and aim to inform the wider public about World Heritage issues. The *World Heritage Papers Series*, launched in 2002 and which now has some twenty titles, informs the World Heritage expert community about more specialized topics such as tourism, sustainable urban development or the results of regional Periodic Reports.[9]

UNESCO'S MOST VISITED WEBSITE

The World Heritage Centre's website is the official site of the Secretariat of the World Heritage Convention and the source of the most up-to-date information on this instrument and its implementation. It features sites, projects, meetings and activities, events, new publications, and provides contacts for the many organizations involved in the protection of World Heritage. With over 450,000 visits per month on average in 2005, and over 17,000 visits a day during the annual meeting of the World Heritage Committee when new sites are listed, the World Heritage website receives by far the most visits of any UNESCO site.

PARTNERSHIPS TO PROMOTE WORLD HERITAGE

Following the international conference, World Heritage 2002: Shared Legacy, Common Responsibility (see box p.61 on 30th anniversary), held in Venice (Italy), to commemorate the 30th anniversary of the Convention, steps were taken to increase outreach and broaden the range of partners with the longterm objective of raising funds for World Heritage conservation from the private sector. This initiative is known as the World Heritage PACT (World Heritage partnerships for conservation). One of the principal objectives of PACT is to complement promotional activities undertaken by the World Heritage Centre and reinforce its outreach capacity.

Partnerships with television networks and the written press have been reinforced, special events organized, and numerous workshops with the corporate sector have been held. Many of these partnerships have helped to target public opinion. This, in turn, plays a very important role in defining governmental policies and priorities, thereby generating additional resources for heritage protection programmes. In addition, hundreds of documentaries on individual World Heritage sites have been produced and aired. This has helped greatly to promote the World Heritage Convention. These films are also aired in schools and contribute largely towards raising the level of awareness of young people about the importance of safeguarding heritage. Other partnerships with the press generate strong campaigns in support of World Heritage.

Such communication efforts have an undeniable multiplier effect and help to develop new partnerships, promotional opportunities, ultimately resulting in increased funding for conservation projects.

FUTURE AIMS

The challenge of communicating effectively with limited resources is ever more present as the demand for a broad range of information, from general to technical, increases. In future, the World Heritage Centre will continue to improve existing systems and communication methods. Additional efforts will be made to develop a strong network of partners and to reach out to new constituencies by offering diverse services such as electronic newsletters, membership and online donation schemes, and other participatory activities and interactive multimedia options, thus ensuring a wide multiplier effect.

8. http://unesdoc.unesco.org/images/0013/001398/139839e.pdf

9. http://whc.unesco.org/en/series/

FURTHER INFORMATION

World Heritage Documentation, Information and Education Activities. 1998. Twenty-second session of the World Heritage Committee, Kyoto, Japan, 30 November–5 December. (WHC-98/CONF.203/15)

Progress Report on the Preparation of the 30th Anniversary of the World Heritage Convention. 2002. Twenty-sixth session of the World Heritage Committee, Budapest, Hungary, 24–29 June. (WHC-02/CONF.202/4.)

World Heritage 2002. Shared Legacy, Common Responsibility. 2003. Proceedings of International Congress organized by UNESCO World Heritage Centre and Regional Bureau for Science in Europe (ROSTE) with the support of the Italian Government on the occasion of the 30th anniversary of the World Heritage Convention, Cini Foundation, Island of San Giorgio Maggiore, Venice, Italy, 14–16 November 2002. Paris, UNESCO World Heritage Centre.

http://whc.unesco.org/en/partners

http;//whc.unesco.org/en/publications

WORLD HERITAGE AND OTHER INTERNATIONAL INSTRUMENTS

Can relationships and synergies be drawn between the World Heritage Convention and other cultural and biodiversity conventions? Indeed, legal texts are generally specific to their subject, their needs and nature.

This section highlights, first, similarities and possible relationships between the 1972 World Heritage Convention and other UNESCO conventions on heritage protection: the 1954 Convention for the Protection of Cultural Property in the Event of Armed Conflict, the 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, the 2001 Convention on the Protection of the Underwater Cultural Heritage, the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage, and the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions.

Second, the similarities and relationships between the World Heritage Convention and UNESCO's Man and the Biosphere Programme (MAB) and the following four biodiversity conventions: the Convention on Biological Diversity (CBD), the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS) are presented.

WORLD HERITAGE CONVENTION AND THE CONVENTION FOR THE PROTECTION OF CULTURAL PROPERTY IN THE EVENT OF ARMED CONFLICT (1954)

Although its application in the cases of armed conflicts is not excluded, the 1972 Convention does not establish measures specifically designed for the protection of (cultural and natural) heritage in these situations. Hence the importance of the UNESCO Convention for the Protection of Cultural Property in the Event of Armed Conflict adopted at The Hague (Netherlands) in 1954 (hereafter the 1954 Convention), which only applies during armed conflict and occupation.

BASICS OF THE 1954 CONVENTION AND ITS 1954 PROTOCOL

The 1954 Convention has been ratified by 115 States as of June 2006. A State Party to the 1972 Convention would benefit from the protection granted under the 1954 Convention only if it is party to the 1954 Convention (and so is the other state involved in the conflict) or to one or both of its two Protocols, and if the heritage at stake falls within the definition adopted by the 1954 Convention. The 1954 Convention has adopted a broad definition of war that includes any armed conflict which may arise between two or more States Parties, even if the state of war is not recognized by one or more of them, as well as all cases of partial or total occupation of the territory of a State Party, even if the occupation meets with no armed resistance. Furthermore, this Convention defines cultural property as movable or immovable property of 'great importance to the cultural heritage of every people'.

Under the 1954 Convention, States Parties undertake primarily to take appropriate measures to prepare in time of peace for the safeguarding of cultural property situated within their own territory against the foreseeable effects of an armed conflict. They also undertake to refrain from using cultural property and its immediate surroundings for purposes likely to expose it to destruction or damage in the event of armed conflict. This obligation may be waived only in cases of imperative military necessity.

The First Protocol ensures a duty to return cultural property illicitly exported from an occupied territory. It is currently (June 2006) in force in ninety-three States Parties. This Protocol is important as the 1972 Convention does not entail any direct mechanism to ensure international restitution of illicitly removed (and then exported) cultural property.

SIMILARITIES BETWEEN THE WORLD HERITAGE CONVENTION AND THE SECOND PROTOCOL (1999)

A second Protocol to the 1954 Convention was adopted in 1999 to cover, among other factors, the increasing number of non-international conflicts and reinforce the protection of cultural sites through a narrowing of the military necessity waiver. This Protocol, which entered into force in March 2004, was ratified by forty States Parties as at June 2006. A number of features are similar to those provided under the World Heritage Convention. A Committee for the Protection of Cultural Property in the Event of Armed Conflict, composed of twelve parties, meets yearly in ordinary session and in extraordinary session whenever deemed necessary. This Protocol also establishes a fund of voluntary contributions to assist states in the protection of cultural heritage. The committee determines the use of this fund. Like the 1972 Convention, this Protocol also establishes a list, called the List of Cultural Property under Enhanced Protection. Cultural property may be placed under this protection if it is, for example, of the greatest importance for humanity, protected by adequate domestic legal and administrative measures and not used for military purposes. Under the Second Protocol, the committee is responsible for granting, suspending or cancelling enhanced protection for cultural property and for establishing, maintaining and promoting the List.

However, while the 1972 Convention and the Second Protocol share some similarities, each instrument operates in conformity with its own scope and provisions. Indeed, a World Heritage site would still need to comply with the requirements of the 1999 Protocol to be included on the List of Cultural Property under Enhanced Protection and to benefit also from protection under the Second Protocol.

Leaving international law aside, other useful measures to ensure protection of cultural property in the event of armed conflict also exist at domestic level and include training of military personnel and inventorying and locating cultural property. Experience has shown that protection in case of armed conflict is often most effective if substantial preparatory work and measures have been undertaken early enough in peacetime.

UNESCO DECLARATION CONCERNING THE INTENTIONAL DESTRUCTION OF CULTURAL HERITAGE (2003)

Following the intentional destruction of the Buddhas of Bamiyan (Afghanistan), in 2003 the General Conference of UNESCO adopted a Declaration Concerning the Intentional Destruction of Cultural Heritage. This Declaration encourages states to become signatories to the 1954 Convention. It also requests them to 'take all appropriate measures to prevent, avoid, stop and suppress acts of intentional destruction of cultural heritage, wherever such heritage is located', in peacetime or in the event of armed conflict. Article VI stresses in particular that 'a State that intentionally destroys or intentionally fails to take appropriate measures to prohibit, prevent, stop, and punish any intentional destruction of cultural heritage of great importance for humanity, whether or not it is inscribed on a list maintained by UNESCO or another international organization, bears the responsibility for such destruction, to the extent provided for by international law'.

http://www.unesco.org/culture/laws/intentional/declare.pdf

FURTHER INFORMATION

Boylan, P. 1993. *Review of the Convention for the Protection of Cultural Property in the Event of Armed Conflict (The Hague Convention of 1954)*. Paris, UNESCO.

Carducci, G. 2000. L'obligation de restitution des biens culturels et des objets d'art en cas de conflit armé: droit coutumier et droit conventionnel avant et après la Convention de La Haye de 1954. L'importance du facteur temporel dans les rapports entre les traités et la coutume. *Revue générale de droit international public*, No. 2, pp. 289–357.

Clément, É. 1994. Some Recent Practical Experience in the Implementation of the 1954 Hague Convention. *International Journal of Cultural Property*, Vol. 3, No. 1, pp. 11-25.

Hladik, J. 2004. The UNESCO Declaration Concerning the Intentional Destruction of Cultural Heritage. In *Art, Antiquity and Law*, Vol. IX, Issue III, June.

WORLD HERITAGE CONVENTION AND THE CONVENTION ON THE MEANS OF PROHIBITING AND PREVENTING THE ILLICIT IMPORT, EXPORT AND TRANSFER OF OWNERSHIP OF CULTURAL PROPERTY (1970)

ILLICIT TRAFFICKING AND WORLD HERITAGE SITES

While the World Heritage Convention concerns immovable heritage, the issue of illicit trafficking of movable heritage can also affect sites protected under this legal instrument (e.g. Angkor in Cambodia or Chan Chan Archaeological Zone in Peru). The issue was taken up at the 21st session of the World Heritage Committee, held in Naples (Italy) in December 1997. The report of that session shows clear understanding and awareness of some of the reasons that make looting at World Heritage sites particularly attractive:

'While illicit traffic is a problem on non-world heritage sites as well, inscription on the World Heritage List can make a site more vulnerable. Firstly, it advertises the importance of the site. Secondly, it exposes it to many more visitors, among whom it is easy for thieves to conceal themselves. Thirdly, it popularizes the culture concerned, so that objects become fashionable and therefore more easily marketable and at higher prices than ones from lesser known cultural areas, thus attracting criminal activities'.[1]

1970 AND 1972 CONVENTIONS: COMPLEMENTARY INSTRUMENTS

The 1972 Convention does not entail any direct mechanism to ensure international restitution of illicitly removed and then exported cultural objects stolen from World Heritage sites. Only indirectly some provisions of the 1972 Convention may contribute to facilitating such restitutions, either through international cooperation between States Parties, or the reference to the need to preserve the 'heritage of mankind as a whole'. This reference is by nature not directly and automatically legally effective at domestic level and relies more on the goodwill of the state in facilitating return of stolen property than on clear legal obligations having a predictable outcome. States Parties to the 1972 Convention should therefore also ratify the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (hereafter the 1970 Convention). This Convention as at June 2006 had been signed by 110 countries. Its definition of movable cultural heritage is rather wide and includes products of archaeological excavations (both regular and clandestine), antiquities, rare manuscripts and other important documents, archives, rare collections and specimens of flora and fauna, as well as objects of palaeontological interest. The 1970 Convention entails several preventive measures such as inventorying, drafting legislation, export certificates, etc. to be taken by States Parties, as well as some restitution mechanisms. The latter feature is innovative as, unlike the uncertainties of private and public (customary) international law for international claims for restitution of stolen cultural material where no specific treaty applies, the 1970 Convention ensures a duty to return inventoried stolen cultural property under certain conditions and through diplomatic channels (Article 7).

A State Party to the 1972 Convention does not automatically benefit from restitution of stolen cultural property

UNIDROIT CONVENTION ON STOLEN OR ILLEGALLY EXPORTED CULTURAL OBJECTS (1995)

The UNIDROIT Convention adopted in June 1995 is complementary to the 1970 Convention. This Convention establishes uniform law among States Parties with regard to restitution claims of stolen and/or illicitly exported cultural objects, allowing private individuals to bring claims for the return of stolen cultural property.

http://www.unidroit.org/english/conventions/1995culturalproperty/1995culturalproperty-e.htm

1. World Heritage and the Prevention of Illicit Traffic of Cultural Property.

CAMBODIA AND THE FIGHT AGAINST ILLICIT TRAFFIC

As a signatory of the 1970 Convention, Cambodia asked UNESCO to help combat illicit traffic from the beginning of the 1990s. UNESCO helped to prepare legislation for the protection of cultural property, which was adopted in 1996. Information sessions and practical training were also organized for Angkor Heritage Police. UNESCO also supported the publication in 1993 (reprinted in 1997) of a booklet prepared by ICOM and the École Française d'Extrême Orient, which contains photographs and descriptions of 100 missing Khmer artefacts, nineteen of which have since been found. UNESCO also assisted the Cambodian Government in its relations with other States Parties to the 1970 Convention and in preparing official requests to possessors of stolen objects with a view to their restitution. In 1999, bilateral agreements were also signed with countries not party to the 1970 Convention, such as Thailand.

from World Heritage sites under the 1970 Convention. A state will only benefit if both it and the requested state (where restitution is sought) are party to the Convention and if the heritage at stake falls within the definition adopted by the Convention. The example of Cambodia (see box) demonstrates the important role of the 1970 Convention and UNESCO in the protection of heritage, be it within a World Heritage site or not. In order to further protect movable property, States Parties are also encouraged to ratify the UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects (Rome, 1995, see box p. 69), which complements the 1970 Convention, as well as the First Protocol to The Hague Convention. These two Conventions are complementary, working from different perspectives. States Parties are also encouraged to ratify the UNESCO Convention on the Protection of the Underwater Cultural Heritage (2001, see box).

At national level, several preventive measures are also essential, such as strengthening legislation, using object ID, and cataloguing and photographing collections, to facilitate dissemination of relevant material to identify stolen and/or illicitly exported objects.

UNESCO CONVENTION ON THE PROTECTION OF THE UNDERWATER CULTURAL HERITAGE (2001)

While cultural heritage on land has in recent decades increasingly benefited from national and international protection, underwater cultural heritage has until the adoption of the Convention on the Protection of the Underwater Cultural Heritage in 2001 lacked sufficient protection by international law as well as by most national legislations. However, the need for efficient protection and for this convention has become increasingly evident, since growing technical progress has led to an unprecedented accessibility of the seabed and the cultural heritage located thereon, leaving the way open to looting and destruction. This convention represents the response of the international community to this looting and destruction and answers the need for a comprehensive high standard of protection for underwater cultural heritage.

http://www.unesco.org/culture/laws/underwater/html_eng/convention.shtml

FURTHER INFORMATION

Carducci, G. 1997. *La restitution internationale des biens culturels et des objets d'art - Droit commun, directive CEE, Conventions de l'UNESCO et de l'UNIDROIT*. Paris, LGDJ Librairie Juridique de Référence.

Dauge, V. 1997. Post-War Recovery in Cambodia. *Museum Management and Curatorship*, Vol. 16, No. 2, pp. 164-72.

World Heritage and the Prevention of Illicit Traffic of Cultural Property. 1997. Twenty-first session of the World Heritage Committee, Naples, Italy, 1-6 December. (WHC-97/CONF.208/15.)

UNIDROIT Convention on the International Return of Stolen or Illegally Exported Cultural Objects. In *Art, Antiquity and Law*, Vol. 4, Issue 2.

Valentin, P. 1999. The UNIDROIT Convention on the International Return of Stolen or Illegally Exported Cultural Objcets. In *Arts, Antiquity and Law*, Vol. 4, Issue 2.

WORLD HERITAGE CONVENTION AND INTANGIBLE CULTURAL HERITAGE

MASTERPIECES OF THE ORAL AND INTANGIBLE HERITAGE OF HUMANITY (1999)

The Proclamation of Masterpieces of the Oral and Intangible Heritage of Humanity (Masterpieces programme), an international distinction created by UNESCO in November 1999, is an essential link in the chain of legal instruments and programmes that has led to the adoption of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage (hereafter the 2003 Convention) – see box for previous UNESCO initiatives for safeguarding this type of heritage. The success of the World Heritage Convention largely inspired the conception and implementation of the Masterpieces programme as an instrument for raising awareness of the importance of the oral and intangible heritage and the need to safeguard it.

Correspondences can indeed be found between the requirements for World Heritage listing and those for the proclamation of Masterpieces. Similarly to the requirements of the World Heritage Convention, the Masterpieces programme requires potential Masterpieces to be of outstanding value. Criteria have also been adopted for the Masterpieces programme. The first criterion for both the 1972 Convention and the Masterpieces programme refers to a 'masterpiece of human creative genius'. Similarities can also be found between World Heritage cultural heritage criterion (iii) and Masterpiece criterion (v) which requires the property or manifestation to be a unique testimony to a cultural tradition. Finally, World Heritage cultural heritage criterion (v) and Masterpiece criterion (vi) refer to the vulnerability and risk of disappearance of a property or manifestation.

A new element in the Masterpieces programme, which is not found in the 1972 Convention, is the central role given to local communities and groups of tradition-bearers. The importance of intangible cultural heritage for the identity of communities is thereby acknowledged. The programme also requires that candidature files be submitted to UNESCO with the agreement of the communities of tradition-bearers concerned and that action plans be judged, among other factors, on the benefits that will be brought to the community.

The first nineteen Masterpieces were proclaimed in May 2001, the second Proclamation in November 2003 declared a further twenty-eight, and the third and last Proclamation in November 2005 announced another forty-three. As indicated in the 2003 Convention, no further proclamations of Masterpieces will be made after its entry into force. Article 31.1 of this Convention stipulates that the Masterpieces that had been proclaimed before its entry into force would then be incorporated in the Representative List of the Intangible Cultural Heritage of Humanity.

UNESCO RECOMMENDATION ON THE SAFEGUARDING OF TRADITIONAL CULTURE AND FOLKLORE (1989)

Since the early 1970s, UNESCO has been playing an increasingly active role in the protection of Intangible Cultural Heritage, initially called 'folklore' or 'non-physical heritage'. One of the early standard-setting endeavours was the adoption of the 1989 Recommendation on the Safeguarding of Traditional Culture and Folklore. This recommendation defined traditional culture and folklore widely, and included language, literature, music, dance, games, mythology, rituals, customs, handicrafts and other arts, without advocating any hierarchy among or within forms of folklore. It failed to fully meet the expected results. One reason was its non-binding character, another the absence of a fund or another regular source from which the proposed national measures such as identification, preservation, dissemination and protection might have been financially supported.

http://unesdoc.unesco.org/images/0008/000846/084696e.pdf#page=242

2003 INTANGIBLE CULTURAL HERITAGE CONVENTION: A MILESTONE

In 2001, the General Conference decided to regulate the protection of traditional culture and folklore through an international Convention. The Convention for the Safeguarding of the Intangible Cultural Heritage was adopted in October 2003 and entered into force on 20 April 2006. To quote H.E. Mr Mohammed Bedjaoui, then Ambassador of Algeria, who presided over the sessions of the intergovernmental meeting that prepared the first draft of the 2003 Convention, 'we arrived at a custom-made instrument […], an instrument

RICE TERRACES OF THE PHILIPPINE CORDILLERAS: INTERDEPENDENCE BETWEEN TANGIBLE AND INTANGIBLE HERITAGE

The Rice Terraces of the Philippine Cordilleras World Heritage site was inscribed in 1995 under cultural heritage criteria (iii), (iv) and (v) and subsequently included on the List of World Heritage in Danger in 2001. The Hudhud Chants of the Ifugao people who work on these terraces were proclaimed a Masterpiece of the Oral and Intangible Heritage of Humanity in 2001. The Terraces and the Hudhud Chants, which are sung during the sowing season and the rice harvest, are intimately related and present a unique interdependence of a World Heritage site and a Masterpiece. The knowledge and skills handed down from generation to generation together with a delicate social balance have helped to create a landscape and musical and other cultural traditions that testify to the harmony between people and their environment. Both the terraces and the chants are endangered; local experts and practitioners claim that coordinated protection action is required and that neither the terraces nor the chants can be safeguarded in isolation.

DEFINING INTANGIBLE CULTURAL HERITAGE

Article 2 of the 2003 Convention states that intangible cultural heritage is manifested in the following domains, among others:

- oral traditions and expressions including languages as a vehicle of the intangible cultural heritage;
- performing arts (such as traditional music, dance and theatre);
- social practices, rituals and festive events;
- knowledge and practices concerning nature and the universe;
- traditional craftsmanship.

The Convention further defines intangible cultural heritage as:

- being transmitted from generation to generation;
- being constantly recreated by communities and groups, in response to their environment, their interaction with nature, and their history;
- providing communities and groups with a sense of identity and continuity;
- promoting respect for cultural diversity and human creativity;
- being compatible with international human rights instruments;
- complying with the requirements of mutual respect among communities.

as removed as necessary from the Convention of 1972, but also as close as would permit this convention-model'.[2]

These two Conventions share a number of similarities. Following the 1972 model, the 2003 Convention has two organs, a General Assembly of States Parties (which held its first session in June 2006) and an Intergovernmental Committee, a fund and a system of two lists, the Representative List of the Intangible Cultural Heritage of Humanity and the List of Intangible Cultural Heritage in Need of Urgent Safeguarding. A site can be inscribed on the World Heritage List and its intangible dimensions and manifestations on the Representative List of the Intangible Cultural Heritage of Humanity (see box for definitions).

These two Conventions nonetheless differ in a number of ways. The 2003 Convention aims to safeguard heritage that is living, in constant evolution and human-borne. The safeguarding of intangible heritage mainly depends on the protection and revitalization of the various human circumstances that facilitate its continued enactment and development, and its transmission to subsequent generations. This differs from protection measures for tangible heritage, which often aim at preserving a specific state of conservation of a site.

In the 2003 Convention, the role assigned to communities and groups of tradition-bearers is much more considerable than in the text of the 1972 Convention. Another important difference between these two Conventions concerns

2. *Museum International* (2004).

UNESCO CONVENTION ON THE PROTECTION AND PROMOTION OF THE DIVERSITY OF CULTURAL EXPRESSIONS (2005)

On 20 October 2005, the General Conference of UNESCO approved (148 votes for, two against, four abstentions) the Convention on the Protection and Promotion of the Diversity of Cultural Expressions, an international normative instrument that will enter into force on 18 March 2007, three months after its ratification by thirty States. It reinforces the idea included in the UNESCO Universal Declaration on Cultural Diversity, unanimously adopted in 2001, that cultural diversity must be considered as a 'common heritage of humanity', and its 'defence as an ethical imperative, inseparable from respect for human dignity'. In 2003, Member States requested the Organization to pursue its normative action to defend human creativity, a vital component of the Declaration, as explained in Articles 8 and 11.

The Convention seeks to reaffirm the links between culture, development and dialogue and to create an innovative platform for international cultural cooperation. To this end it reaffirms the sovereign right of states to elaborate cultural policies with a view 'to protect and promote the diversity of cultural expressions' and 'to create the conditions for cultures to flourish and to freely interact in a mutually beneficial manner' (Article 1). The concern to ensure coherence between the Convention and other existing international instruments guided states to include a clause (Article 20) aimed at ensuring a relationship of 'mutual supportiveness, complementarity and non-subordination' between these instruments. At the same time, 'nothing in the present Convention shall be interpreted as modifying rights and obligations of the Parties under any other treaties to which they are parties'.

Text of the Convention:
http://unesdoc.unesco.org/images/0014/001429/142919e.pdf

Website: http://portal.unesco.org/culture/en/ev.php-URL_ID=11281&URL_DO=DO_TOPIC&URL_SECTION=201.html

the question of outstanding value versus representativity. As elements of the intangible cultural heritage are relevant for the sense of identity and continuity of groups and communities, the 2003 Convention should not aim to create a hierarchy among such elements. Consequently the criterion of outstanding (universal) value for selecting elements to be listed was rejected, so as not to create hierarchies. The list established by Article 16 of the 2003 Convention was consequently called the Representative List of the Intangible Cultural Heritage of Humanity, thinking of representativity for the creativity of humanity, for the intangible heritage of specific communities and groups and for domains and subdomains of intangible cultural heritage.

FURTHER INFORMATION

Intangible Heritage. 2004. *Museum International*, No. 221/222.

Co-operation and Coordination between UNESCO Conventions Concerning Heritage. 2004. Seventh extraordinary session of the World Heritage Committee, Paris, France, 6-11 December. (WHC-04/7 EXT.COM/9.)

Kurin, R. 2001. Preserving the Magic. *UNESCO Courier*, September. http://www.unesco.org/courier/2001_09/uk/culture.htm

Seitel, P. (ed.) 2001. *Safeguarding Traditional Cultures: A Global Assessment*. Washington: Smithsonian Institution, Center for Folklore and Cultural Heritage.

Rössler, M. 2003.: Enhancing Global Heritage Conservation: Links between the Tangible and Intangible. *World Heritage Review*, No. 32, pp. 64-67.

Intangible Heritage.
http://portal.unesco.org/culture/en/ev.php-URL_ID=2225&URL_DO=DO_TOPIC&URL_SECTION=201.html

WORLD HERITAGE CONVENTION AND UNESCO MAN AND THE BIOSPHERE (MAB) PROGRAMME

MAP 5 : BIOSPHERE RESERVES THAT ARE WHOLLY OR PARTIALLY WORLD HERITAGE SITES (2005)

Map 5 indicates that seventy-two Biosphere Reserves are wholly or partially World Heritage sites, reinforcing the possibility of developing synergies between these two programmes at site level.

RELATIONSHIP FROM 1970 TO 1992

In 1968, UNESCO convened an intergovernmental Biosphere Conference to discuss the scientific base for the rational use and conservation of biosphere resources. As a follow-up to this conference, the Man and the Biosphere (MAB) Programme was launched in 1970, from which the World Network of Biosphere Reserves subsequently grew (see box p. 76).

In 1971, René Maheu, the then Director-General of UNESCO, addressing the first session of the International Coordinating Council (ICC) of MAB, stressed that this programme should focus 'on the general study of the structure and functioning of the biosphere and its ecological regions, on the systematic observation of the changes brought about by man in the biosphere and its resources, on the study of the overall effects of these changes upon the human species itself and on the education and information to be provided on these subjects'.

The MAB Programme and the 1972 Convention share a number of convergences of vision. These two instruments can be seen to belong to a wider international movement of the 1970s, epitomized by the 1972 Stockholm Conference on the Human Environment. Both the MAB Programme and the 1972 Convention have been conceived as interdisciplinary and both give a significant place to the importance of science (see, for example, Articles 1 and 2 of the 1972 Convention) in the selection of sites to be protected. Until the World Heritage Centre was set up in 1992, the UNESCO Natural Sciences Sector's Division of Ecological Sciences, which coordinated the MAB Programme, was also responsible for the implementation of the natural heritage part of the 1972 Convention. This helped to create synergies between these two programmes. Sian Ka'an (Mexico) provides an example of the possible synergies created through listing as both a World Heritage site and a Biosphere Reserve (see box p. 76).

HOW A BIOSPHERE RESERVE IS DESIGNATED

Nominations for Biosphere Reserves submitted to UNESCO by national governments are assessed by an intergovernmental council, which determines whether they meet agreed criteria and a minimum set of conditions. If a proposed Biosphere Reserve does comply it is admitted to the worldwide network.

Biosphere Reserves have three main interrelated functions:
- biodiversity conservation;
- sustainable socio-economic development that respects the traditions of local communities;
- logistic support as a site for research, monitoring, training and education.

In order to fulfil these three functions, Biospheres Reserves are organized around three zones: a core area where protective measures are the most restrictive; a buffer zone where activities such as tourism or education must be compatible with the conservation objectives of the core area; and a transition area that forms the outer part of the reserve and where resources are being exploited in a sustainable manner.

http://www.unesco.org/mab/faq_br.shtml

SYNERGIES BETWEEN WORLD HERITAGE SITES AND BIOSPHERE RESERVES

It is often advantageous for a site to have both World Heritage and Biosphere Reserve status (often the core area of a Biosphere Reserve is a World Heritage site). Sian Ka'an (Mexico) was for example accepted as a Biosphere Reserve in 1987 and inscribed the same year on the World Heritage List under natural heritage criteria (iii) and (iv). It forms an extensive barrier reef system and includes a full range of ecosystems. It also provides habitat for a whole range of plants and animals, some of which are endemic to the site.

Through this dual protection the following achievements have been possible:
- control of immoderate tree felling
- reduction in commercial hunting and indiscriminate use of forest products in the core area of the Biosphere Reserve
- employment of local inhabitants in sustainable tourism projects and in the conservation of the site species.

FROM 1992 TO DATE: MAJOR RETHINK OF MAB AND IMPACT ON WORLD HERITAGE

The 1992 United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro (Brazil) popularized the concept of sustainable development and raised the environmental dimensions of international diplomatic negotiations to hitherto unforeseen levels. This Conference had an important impact on the MAB Programme, which underwent a major rethink in 1995 with the Seville Strategy[3] and the Statutory Framework for the World Network of Biosphere Reserves (WNBR).[4] Biosphere Reserves were increasingly transformed into large landscape units where conservation and development were balanced through participatory learning and management, research, capacity-building and awareness-raising. Increasingly, more and more people view Biosphere Reserves as laboratories for learning sustainable development practices.

The WNBR Statutory Framework also introduced a periodic review that encouraged the UNESCO Member States to review Biosphere Reserve designations dating back to the 1970s and 1980s, in the light of new reflections on the concept of Biosphere Reserves. Periodic review of these early Biosphere Reserve designations led many countries to revise site boundaries, zoning schemes and many other features that were incompletely understood in the early days of MAB. This thorough review could serve as a model to be translated and applied to World Heritage sites nominated in the 1970s and 1980s.

CONCLUSION

With the growth of both the World Heritage List and Biosphere Reserves, opportunities for cross-sectoral collaboration abound. For example, as World Heritage cities constitute the largest category of cultural sites, they could become important for the future work of MAB's urban ecology programme with regard to climate change, urban biodiversity and other relevant themes. Biodiversity in cultural landscapes may not be of outstanding universal value from the Convention's point of view; but they and Biosphere Reserves may provide ideal locations for research into cultural and biodiversity interactions under MAB. Using these sites to generate information and data to document experience and best practices on sustainable development could be a UNESCO-wide mission during the United Nations Decade of Education for Sustainable Development (UNDESD), launched in 2005 under the leadership of UNESCO. There are no better places for the UN family of organizations to test ways and means of attaining Millennium Development Goals and other global priorities during UNDESD.

3. http://www.unesco.org/mab/BRs/pdf/Strategy.pdf
4. http://www.unesco.org/mab/wnbrs.shtml; http://www.unesco.org/mab/doc/statframe.pdf

FURTHER INFORMATION

Biosphere Reserve: On-ground Testing for Sustainable Development. 2002. Paris, UNESCO.

Biosphere Reserves Benefits and Opportunities. 2005. Paris, UNESCO-MAB.

Bridgewater, P. 1999. World Heritage and Biosphere Reserves. Two Sides of the Same Coin. *World Heritage*, No. 13, pp. 40-49.

Hadley, M. (ed.). 2002. *Biosphere Reserves. Special Places for People and Nature.* Paris, UNESCO.

People, Biodiversity and Ecology. http://www.unesco.org/mab/index.shtml

WORLD HERITAGE CONVENTION AND FOUR RELATED BIODIVERSITY CONVENTIONS

MAP 6: RAMSAR SITES THAT ARE WHOLLY OR PARTIALLY WORLD HERITAGE SITES (2005)

The World Heritage Convention is part of an international suite of conventions for the conservation and long-term sustainability of 'biological diversity'. This term is generally defined as 'the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems' (Article 2, Convention on Biological Diversity). Because of their close relationships, this publication focuses on the World Heritage Convention and the following other biodiversity conventions: Convention on Biological Diversity (CBD), Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and Convention on the Conservation of Migratory Species of Wild Animals (CMS).

CONVENTION ON BIOLOGICAL DIVERSITY (RIO, 1992)

Negotiated under the auspices of UNEP, the CBD was opened for signature at the June 1992 UNCED and entered into force on 29 December 1993. As of October 2005, 188 countries had become Parties to it, making it the most ratified Convention on environmental protection. Prior to the negotiation of this instrument, the term 'biological diversity' had never been used legislatively. The three objectives of the CBD are

- the conservation of biodiversity;
- the sustainable use of components of biodiversity; and
- the equitable sharing of benefits derived from genetic resources.

This Convention recommends contracting parties, among other things, to:

- establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;
- promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;
- rehabilitate and restore degraded ecosystems and promote the recovery of threatened species;
- prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;

- subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.

Another important purpose of the CBD is to provide a framework and a set of principles that can, if properly used by the parties to the various international and other conservation agreements, provide an enhanced basis for interconvention synergies. These instruments include:

- *Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats or Species*;
- *Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities*;
- *CBD Guidelines on Biodiversity and Tourism Development* (see box).

Seven thematic work programmes have also been developed as part of the implementation of the Convention on Biological Diversity.[5] Relationships can be found with the World Heritage Convention, which has launched programmes on some of these themes including marine and coastal biodiversity and forest biodiversity. These thematic world programmes developed under the CBD are essential as they provide a general framework and basic principles to guide future work, set out key issues for consideration and identify potential outputs.

CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITAT (RAMSAR)

The oldest of the major conservation conventions since it was signed in 1971 (entered into force in 1975), the Ramsar Convention has gone through major evolutions, has long transcended its original focus on 'wetlands as waterfowl habitats', and is now a major force in the promotion of conservation and wise use of all types of wetlands.[6]

Like the World Heritage Convention, the Ramsar Convention operates through a list of sites, and contracting parties have similar duties, i.e. general overseeing of listed areas so that their overall ecological character is conserved. As indicated by Map 6, thirty-three Ramsar sites are wholly or partially World Heritage sites, reinforcing the possibility of coordination at both site and strategic levels (see box p. 80 on Spain's Doñana National Park for an example of coordination at site level). As with the World Heritage Convention, Ramsar sites are selected through a system of criteria aiming, among other factors, to identify sites that are rare or unique and that support vulnerable or endangered species. The Montreux Record, established in 1990, is also similar to the List of World Heritage in Danger. It is a register of wetland sites on the List of Wetlands of International Importance where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference. The Montreux Record is used to identify priority sites for positive national and international conservation attention.

There are nonetheless a number of notable differences between the World Heritage Convention and the Ramsar Convention, such as the way in which countries become parties to Ramsar. A country becomes a Contracting Party to the

CBD GUIDELINES ON BIODIVERSITY AND TOURISM DEVELOPMENT

This document provides guidelines to assist signatories to the Convention on Biological Diversity, public authorities and any other interested parties, to apply the provisions of the Convention to activities relating to sustainable tourism development in vulnerable terrestrial, marine and coastal ecosystems and habitats of major importance for biological diversity and protected areas. The guidelines are therefore essential for the protection of a number of World Heritage sites. The main goals are established to maximize the positive benefits of tourism to biodiversity, ecosystems, economic and social development, and of biodiversity to tourism, while minimizing negative social and environmental impacts from tourism. Specific guidelines are provided on legislation, impact assessment for sustainable tourism development, impact management and mitigation, and monitoring and reporting. In relation to World Heritage in particular, the guidelines advise governments to adopt measures to ensure that such sites are accorded appropriate legal recognition and government assistance at national level.

http://www.biodiv.org/programmes/socio-eco/tourism/guidelines.asp

5. http://www.biodiv.org/default.shtml
6. http://www.ramsar.org/

PROTECTION OF DOÑANA NATIONAL PARK (SPAIN), A WETLAND OF KEY IMPORTANCE

Doñana National Park was recognized as a UNESCO Biosphere Reserve in 1980, and in 1982 as an internationally important wetland under the Ramsar Convention. It was subsequently inscribed on the World Heritage List under natural heritage criteria (ii), (iii) and (iv) in 1994. It is notable for the great diversity of its biotopes, especially lagoons, marshlands, fixed and mobile dunes, scrub woodland and maquis. It is home to five threatened bird species and is an important resting site for migratory birds. Unfortunately, in 1998 a supporting wall of a reservoir containing the waste products of a mine burst, releasing 5 million m^3 of toxic mud and acidic water onto the surrounding landscape. The toxic waste entered the Guadiamar River, which feeds the swamps of the Guadalquivir situated within Doñana National Park and the Natural Park surrounding the site. The fact that this site is also a World Heritage site, a UNESCO Biosphere Reserve and on the Ramsar List has allowed a more holistic approach to its safeguarding. UNESCO and the Ramsar Secretariat have closely collaborated, taking part in a number of joint missions and sharing information.

Ramsar Convention by taking two steps: accession to the Convention and listing at least one 'wetland of international importance'. This listing process is purely unilateral and any area that a country so designates is added to the Ramsar List.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF FAUNA AND FLORA (CITES)

CITES was adopted in 1973 and entered into force in 1975.[7] The Convention focuses on 'international trade' in endangered and threatened species, and in hunting trophies and products consisting of the meat, bone, skin, eggs, branches, leaves, seeds and other component parts of these species. Under CITES, 'trade' is defined as virtually every type of transport or movement of any specimen or part that crosses national jurisdictional boundaries, or is obtained in the high seas and landed in the fishermen's home country. Operationally, species of concern are listed in three regularly revised Appendices, depending on whether they:

- are thought to be in danger of extinction and therefore virtually non-tradable (Appendix I species);
- appear to require the imposition of trade controls (including quotas), as a means of ensuring that the global population is used sustainably and that its status does not deteriorate (Appendix II species); or
- are locally protected by a country that seeks the help of trading partners in support of those protections (Appendix III species).

The decision to list a species must occur in the CITES Conference of Parties, based on a very detailed set of listing criteria, which consider among other factors the conditions of the species in the wild, including, particularly, the size and health of its necessary habitat areas and of other species on which it depends. Although the World Heritage Convention does not protect species per se, there are nonetheless synergies between these two legal instruments. Indeed, a number of World Heritage sites shelter species belonging to these three categories. CITES can be an effective tool in the protection of the values for which sites have been included on the World Heritage List (see box).

7. http://www.cites.org/eng/disc/text.shtml

IMPORTANCE OF CITES FOR WORLD HERITAGE: SELOUS GAME RESERVE (UNITED REPUBLIC OF TANZANIA)

Selous Game Reserve was inscribed on the World Heritage List in 1982 under natural heritage criteria (ii) and (iv) for, among other things, its fauna, which includes large numbers of the African elephant *Loxodonta africana*. These elephants are included within the CITES Appendix 1 species. According to UNEP-WCMC, the population of elephants has been decreasing in the past twenty years, demonstrating the importance of protecting them as well as the values for which Selous Game Reserve was listed. At the 10th meeting of the Conference of the Parties to CITES in 1997, an unprecedented resolution was passed for a monitoring system to be put in place across the entire range of both African and Asian elephants. This system was intended to assist dialogue and facilitate decision-making by the Conference of the Parties regarding the protected status of elephants by providing reliable information. A system entitled Monitoring Illegal Killing of Elephants (MIKE) was subsequently adopted, designed to use state-of-the-art monitoring techniques and data management to monitor elephant population trends and the illegal killing of elephants.

MAP 7 : PARTIES TO 1972 WORLD HERITAGE CONVENTION AND 1983 CONVENTION ON MIGRATORY SPECIES (2005)

IMPORTANCE OF THE CONVENTION ON MIGRATORY SPECIES FOR WORLD HERITAGE: KEOLADEO NATIONAL PARK (INDIA)

Keoladeo National Park was inscribed on the World Heritage List in 1985 under natural heritage criterion (iv). This is one of the major wintering areas for large numbers of aquatic birds from Afghanistan, China, Siberia and Turkmenistan. Some 364 species of bird, including the rare Siberian crane, have been recorded in the park. According to UNEP-WCMC, the Siberian cranes in this park are almost extinct (in 1997, three were spotted). The Siberian Crane Memorandum of Understanding developed under CMS auspices (signed in 1993 and revised in 1999) is therefore important for the safeguarding of this species and for the outstanding universal value for which the site was listed. The aims of this memorandum are to provide strict protection for Siberian cranes and identify and conserve the wetland habitats essential for their survival; to reduce mortality in the remaining populations of cranes by providing strict protection, to protect and manage their habitats and enhance cooperation among the states on their migration routes and with other concerned agencies.

CONVENTION ON MIGRATORY SPECIES (CMS) (BONN, 1979)

Since the entry into force of the Convention on Migratory Species in 1983, its membership has grown steadily to include ninety-two contracting parties as of 1 August 2005 (Map 7). Like CITES, CMS focuses on the listing of particular species (or groups of species), in this case focusing on those that are both 'migratory' and 'endangered'. Under the CMS, the term 'migratory' is defined by geopolitical rather than scientific criteria. A species is considered migratory if it follows some life pattern under which it crosses national boundaries and not if it crosses different national ecosystems.

Migratory species threatened with extinction are listed in Appendix I of the Convention. CMS Parties strive towards strictly protecting these animals, conserving or restoring the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them. Migratory species that need or would significantly benefit from international cooperation are listed in Appendix II of the Convention. International cooperation is essential for the well-being of these migratory species. They are dependent on a number of geographically disparate habitat areas and their existence may be threatened by any break in their habitat chain. Therefore the conditions of migratory species can often be an indicator of a breakdown in conservation efforts, and provide a strong incentive for international collaboration.[8]

The Convention on Migratory Species is important among the biodiversity conventions in its specific goal of fostering regional action and agreements among its parties. This ranges from fully binding 'hard-law' agreements to non-binding Memorandums of Understanding. The example of the Memorandum of Understanding for the conservation of the Siberian crane (see box) demonstrates the importance of the CMS for the enhanced protection of the values of World Heritage sites.

FUTURE COLLABORATION

Cooperation among the five global biodiversity instruments is an evolving process. While each convention is a fully autonomous agreement, their overlapping coverage offers more potential for synergy than for discord. Increasingly, for example, national governments nominate the same wetland sites for listing under both Ramsar and the World Heritage Convention, allowing them to use the specialized guidance of the Ramsar Convention on critical scientific issues of wetlands conservation, while maximizing the conservation and international awareness relating to the area through the World Heritage Convention.

The Centre cooperates closely with the Biodiversity Liaison Group (BLG), which is comprised of the Heads of the Secretariats of the Convention on Biological Diversity (CBD), the Ramsar Convention, the Convention on Migratory Species (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). A primary function of the BLG is to ensure coordination among the biodiversity related Conventions, and a copy of the BLG joint statement to the Millennium Summit in September 2005 on the importance of biological diversity in the achievement of all the Millennium Development Goals is attached at annex I of document WHC-06/30.COM/6.

Most importantly, the five instruments (and others) are seriously engaged in developing harmonized reporting requirements and other measures designed to enable synergies in national implementation.

8. http://www.cms.int/

FURTHER INFORMATION

Bodansky, D. 1995. International Law and the Protection of Biological Diversity. *Vanderbilt Journal of Transnational Law*, Vol. 28, No. 4, pp. 623–34.

Convention on Migratory Species brochure. Bonn, Germany, UNEP–CMS Secretariat.
http://www.cms.int/pdf/en/CMS_Brochure_en.pdf

McNeely, J. 1999. Convention on Biological Diversity: a Solid Foundation for Effective Action. *Environmental Conservation*, Vol. 26, No. 4, pp. 250–51.

The Ramsar Convention Manual: A Guide to the Convention on Wetlands (Ramsar, Iran, 1971). 2004. Gland, Switzerland, Ramsar Convention Secretariat.

Wijnstekers, W. 2005. *The Evolution of CITES*, 8th edn. Ebooks writer.

World Heritage wetlands. 1996. *World Heritage*, No. 1, pp. 40–49.

Conserving Cultural and Biological Diversity: The Role of Sacred Natural Sites and Cultural Landscapes. Proceedings of the International Symposium, Tokyo 30 May to 2 June 2005. UNESCO, Paris, 2006.
http://unesdoc.unesco.org/images/0014/001478/147863e.pdf

Convention on Biological Diversity.
http://www.biodiv.org/default.shtml

Convention on Wetlands of International importance especially as Waterfowl Habitat (Ramsar).
http://www.ramsar.org/

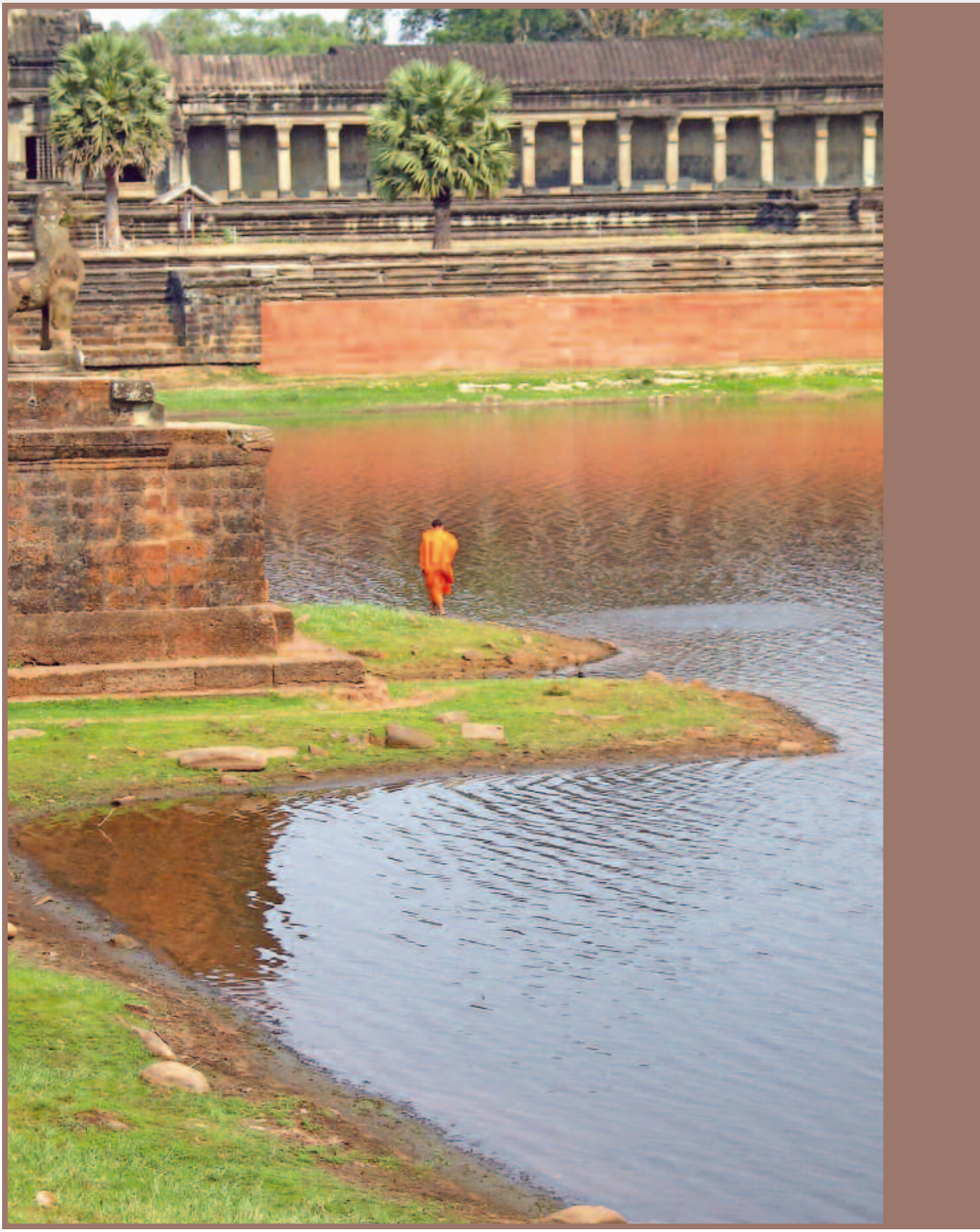
Convention on International Trade in Endangered Species of Fauna and Flaura (CITES).
http://www.cites.org/

Convention on Migratory Species (CMS).
http://www.cms.int/

Biodiversity Liaison Group (BLG).
http://whc.unesco.org/en/partners/271

Joint Web Site of Biodiversity Related Conventions.
http://www.biodiv.org/cooperation/joint.shtml

Report of the World Heritage Centre on its activities and on the implementation of the Decisions of the World Heritage Committee. Thirtieth Session of the World Heritage Committee, Vilnius, Lithuania. 8-16 July 2006. (WHC-06/30.COM/6.)
http://whc.unesco.org/archive/2006/whc06-30com-06e.pdf



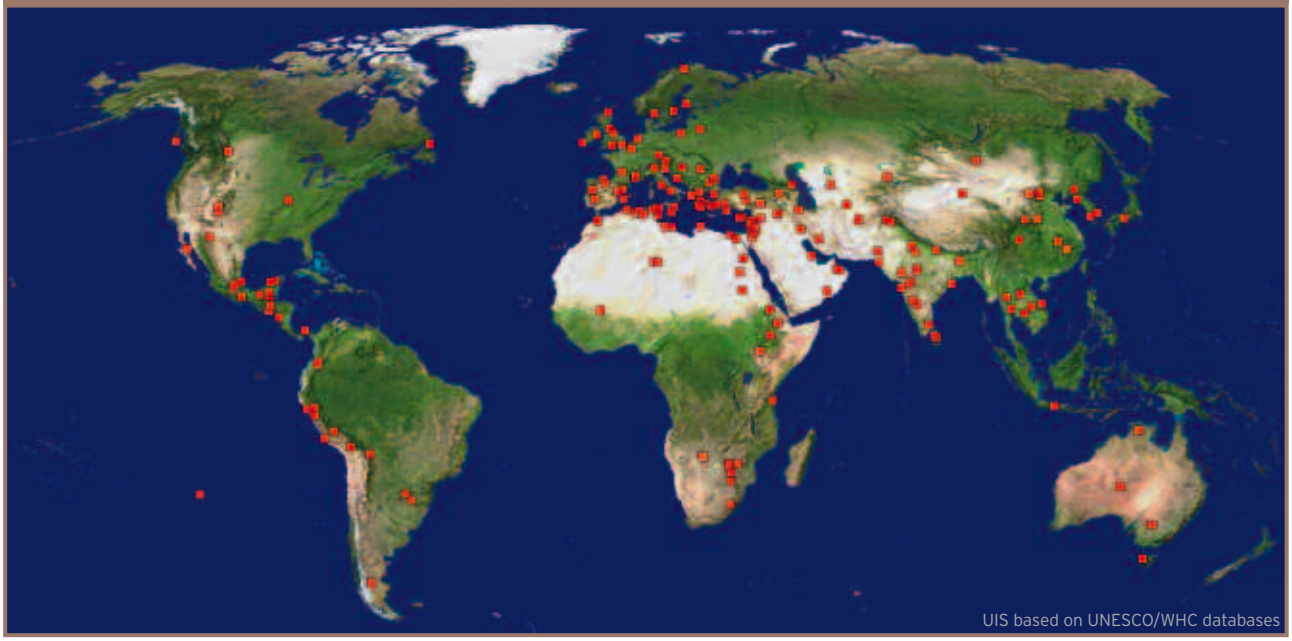
THEMATIC PRESENTATIONS

Categorizing the World Heritage List is a difficult and subjective endeavour that has been the subject of many debates. Indeed, sites can belong to a diversity of categories. The historic centre of Rome, for example, may be considered a city centre but also an archaeological site. Experts who took part in existing IUCN and ICOMOS thematic analyses categorized sites for this section to assure greater homogeneity between the different existing thematic analyses. Considering the diversity of sites on the World Heritage List, this categorization does not aim to be exhaustive. The heritage themes were selected to reflect, at the same time, the categorization of the World Heritage List drawn up by ICOMOS and IUCN as well as the major World Heritage programmes (Modern Heritage, Cities, Marine and Forest). These categorizations are accompanied by an analysis of the use of criteria for listing sites, which highlights the effect that changes in the wording of criteria have had on specific categories.

Illustrations are given in this and the following section on the implementation of the concept of outstanding universal value.

ARCHAEOLOGICAL SITES ON THE WORLD HERITAGE LIST

MAP 8: ARCHAEOLOGICAL SITES ON WORLD HERITAGE LIST (2005)



CURRENT SITUATION

From the outset, archaeological heritage has featured prominently on the World Heritage List, a presence that has been strengthened over the years to reach 201 archaeological sites today (2005) (Map 8 and Figure 10).

The World Heritage List contains important fossil hominid sites. In Africa these include the Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai, and Environs (South Africa), the Lower Valley of the Awash and Lower Valley of the Omo (Ethiopia) where the discovery of many fossils, especially *Homo gracilis*, has been of fundamental importance in the study of human evolution; and in Asia the Peking Man Site at Zhoukoudian (China) and the Sangiran Early Man Site (Indonesia).

Rock-art sites are represented in most regions. Recognizing the importance of their rock-art, cultural heritage conservation authorities in Southern African countries, coordinated informally through the Southern African Rock-Art Project (SARAP), have collaborated since 1996 in identifying and nominating a representative sample of rock-art in the region for the World Heritage List. These concerted efforts have led to the inscription of Tsodilo (Botswana), uKhahlamba / Drakensberg Park (South Africa) and Matobo Hills (Zimbabwe).

Tassili n'Ajjer (Algeria) (see box p. 87) and the Rock-Art Sites of Tadrart Acacus (Libyan Arab Jamahiriya) feature among the rock-art sites in the Arab States. Kakadu National Park illustrates the long tradition of Australian rock-art. Among the rock-art sites of Latin America are the exceptional assemblages of cave art Cueva de las Manos, Río Pinturas (Argentina) and the Rock Paintings of the Sierra de San Francisco (Mexico).

Of the great riverine civilizations, most of the best known sites in Egypt, such as Memphis and its Necropolis – the Pyramid Fields from Giza to Dahshur, Ancient Thebes with its Necropolis, and the Nubian Monuments from Abu Simbel to Philae, have been on the World Heritage List since 1979. However, in the same region, Mesopotamia is currently represented by only Ashur (Qal'at Sherqat) (see box p. 152) and Hatra, both in Iraq. Moving to Asia, the Archaeological Ruins at Moenjodaro (Pakistan) represent the Indus civilization.

The classical civilization is well represented across North Africa from Timgad (Algeria), the Archaeological Site of Leptis Magna (Libyan Arab Jamahiriya), the Archaeological Site of Volubilis (Morocco), the Site of Carthage (Tunisia), to the Archaeological Site of Troy (Turkey).

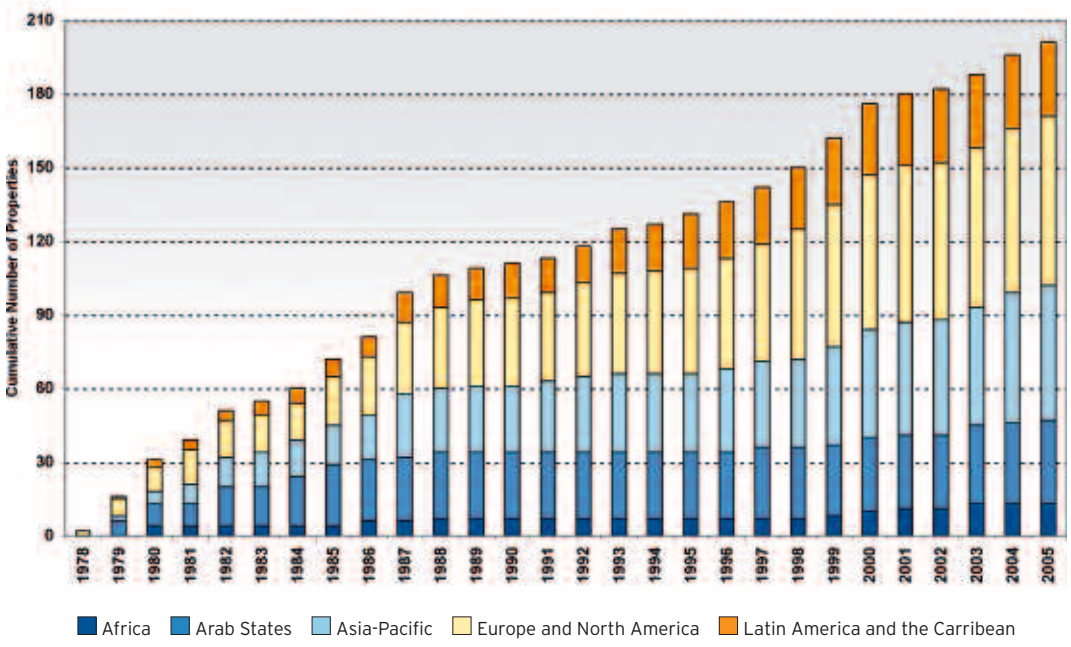
The different Andean civilizations are also well represented, including the Historic Sanctuary of Machu Picchu (Peru), the Inca town unknown to the Spanish conquerors,

OUTSTANDING UNIVERSAL VALUE OF TASSILI N'AJJER (ALGERIA)

This site, on a high plateau in the south-west of the Algerian Sahara, is of outstanding scenic interest, with its eroded sandstones forming what are called 'forests of rock'. It contains the most important groupings of prehistoric cave art in the world, dating from 6000 BCE to the first centuries of the present era.

Tassili n'Ajjer was included as a mixed site on the World Heritage List in 1982, under natural heritage criterion (ii) because the rock art is an exceptional example of the interaction between humanity and the environment. For its exceptional natural beauty, the site also fulfilled natural heritage criterion (iii). It also met cultural heritage criterion (i) because the rock paintings are among the most important of the prehistoric period and represent a unique artistic achievement, and cultural heritage criterion (iii) because it is a unique testimony to a vanished civilization.

FIGURE 10 : WORLD HERITAGE ARCHAEOLOGICAL SITES BY REGION (1978-2005)



UIS based on UNESCO/WHC databases

MOGAO CAVES (CHINA)

Mogao Caves are situated near the ancient town of Dunhuang, on the Silk Road, at the crossroads of trade as well as religious, cultural and intellectual influences. The majority of the cells and temples date from the fifth to the fourteenth centuries and include approximatively 45,000 m² of wall paintings and over 2,400 polychromed sculptures. This site was listed in 1987 under all six cultural criteria. Mogao Caves, an outstanding example of a Buddhist rock art sanctuary and traditional monastic settlement, played a decisive role in artistic exchanges between China, Central Asia and India. They bear witness to the power of the spiritual beliefs that travelled the Silk Road and produced the remarkable Buddhist murals and sculpture that adorn the site. Under a collaborative agreement with China's State Administration of Cultural Heritage, the Getty Conservation Institute has been working with the Dunhuang Academy since 1989 on conservation at these grottoes.

FURTHER ANALYSIS OF ARCHAEOLOGICAL SITES

FIGURE 11 : CRITERIA USED FOR INSCRIPTION OF ARCHAEOLOGICAL SITES BY REGION (1978-1993)

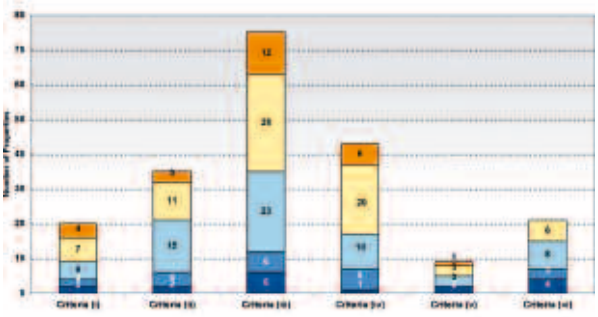
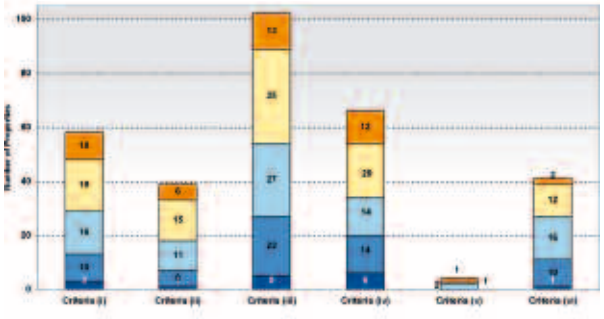


FIGURE 12 : CRITERIA USED FOR INSCRIPTION OF ARCHAEOLOGICAL SITES BY REGION (1994-2005)



Africa Arab States Asia-Pacific Europe and North America Latin America and the Carribean

UIS based on UNESCO/WHC databases

Figures 11 and 12 show that one of the most important decreases for the two periods analysed concerns the use of cultural heritage criterion (i) for the listing of archaeological World Heritage sites. Whereas almost half of the archaeological sites met this criterion from 1979 to 1993, only a quarter met it from 1994 to 2005. This might be due to a more stringent use of criterion (i) since the 1990s. Criterion (iii) is the most often used, a trend that increased in the period 1994-2005 with 99% of all archaeological sites fulfilling this criterion. In 1994 cultural heritage criterion (iii) was revised so that it encompasses not only civilizations that have disappeared but also living ones. Whether this trend indicates that archaeological sites inscribed in the last decade tend to be living ones remains to be demonstrated. The relative importance in the use of cultural heritage criterion (iv), which a little over 50% of all archaeological sites met for the two periods considered, shows the importance of the architectural dimension and significance of archaeological remains.

or the famous Mayan sites in Central America and Mexico, such as Tikal National Park (Guatemala), the Maya Site of Copan (Honduras) and the Pre-Hispanic City of Chichen Itza (Mexico).

Many of the most famous and iconic archaeological properties in Asia have also been included, such as Angkor (Cambodia), China's Great Wall, Mausoleum of the First Qin Emperor with its terracotta army, and Mogao Caves (see box), the Ajanta and Ellora Caves (India) and Vat Phou and Associated Ancient Settlements (Lao People's Democratic Republic). The three great ancient cities of the Sri Lanka's cultural triangle (Anuradhapura, Polonnaruwa and Sigiriya) were also all inscribed in 1982.

A number of those archaeological sites are still inhabited and/or play central religious, social and cultural roles. This is the case of Australia's Kakadu National Park, for example, which has been inhabited continuously for more than 40,000 years. The cave paintings, rock carvings and archaeological sites record the skills and way of life of the region's inhabitants, from the hunter-gatherers of prehistoric times to the Aboriginal people still living there. Another example from the Asia-Pacific region is the Sacred City of Anuradhapura (Sri Lanka), a key religious site included on the World Heritage List in 1982 under cultural heritage criteria (ii), (iii) and (vi), the latter because this site is one of the principal shrines of Buddhism. A cutting from the Bodhi (fig) tree under which the Buddha found Enlightenment, brought there in the third century BC, has flourished and today the tree spreads over the centre of the site from a sanctuary near the 'Brazen Palace'. The relics of Siddharta Gautama have, moreover, shaped the religious topography of Anuradhapura, where the Dagaba Thuparama was built by King Tissa in the third century to house the clavicle of the Buddha, an important religious relic presented by Emperor Ashoka.

SUGGESTION FOR ADDITIONAL ARCHAEOLOGICAL SITES

Archaeological heritage is already well represented. However, according to ICOMOS,[1] a number of gaps still exist in the representation of this category on the World Heritage List, such as fossil and rock-art sites. ICOMOS is currently developing guidelines to help States Parties in the selection and nomination of rock-art sites (see box). This project demonstrates the importance of the development of holistic strategies for guiding States Parties in the selection of archaeological sites of potential outstanding universal value.

ICOMOS GUIDELINES AND ACTION PLAN FOR ROCK-ART SITES OF WORLD HERITAGE VALUE

ICOMOS has noted that nominations of rock-art sites have increased in recent years. However, a number of these nominations reveal a lack of basic information and a general need for a more consistent approach to identifying, evaluating and managing these sites. ICOMOS has therefore developed an Action Plan in 2005 to provide guidelines for rock-art nominations, with comparative frameworks accorded to precise geographical areas. Thematic regional workshops are also being organized to provide training for 'focal points' in each region in order to improve the management and preventive conservation of rock-art sites.

FURTHER INFORMATION

Deacon, J. 2002. *Southern African Rock-Art Sites*. Southern African Rock Art Project (SARAP)/ICOMOS.
http://www.icomos.org/studies/sarockart.htm

Gamble, C. and Stringer, C. 1997. *Potential Fossil Hominid Sites for Inscription on the World Heritage List. A Comparative Study*. Paris, ICOMOS.
http://www.icomos.org/studies/hominid.htm

ICOMOS. 2005. *The World Heritage List: Filling the Gaps – An Action Plan for the Future*. Paris, ICOMOS.
http://www.international.icomos.org/world_heritage/whlgaps.htm

Wijesuriya, G. 2003. The Life of the Buddha Through World Heritage Sites. *World Heritage*, No. 33, pp. 4-19.

Caribbean Archaeology and World Heritage Convention. 2005. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 14.)

1. http://whc.unesco.org/en/cairns/

FOCUS: ARCHAEOLOGICAL WORLD HERITAGE SITES IN EUROPE AND NORTH AMERICA

CURRENT SITUATION

The overwhelming majority of archaeological World Heritage sites are located in Europe and North America. Indeed, this region counts 69 of the 201 archaeological sites identified in this publication and covers not only a long time span but also a great diversity of sites. Prehistoric sites are well represented with fossil hominid sites, primarily located in western Europe, such as the Archaeological Site of Atapuerca (Spain), which provides a rich fossil record of the earliest human beings in Europe from almost 1 million years ago to the present era and helps to provide some information about the physical nature and way of life of early *Homo sapiens* communities in Europe. Other prehistoric sites include the Iron Age site of Hallstatt-Dachstein Salzkammergut Cultural Landscape (Austria), the Neolithic Flint Mines at Spiennes (Mons, Belgium; see box), the Megalithic Temples of Malta showing the traditions of temple building, the subterranean stone necropolis of Hal Saflieni Hypogeum (Malta) and the stone circles of Stonehenge, Avebury and Associated Sites (United Kingdom).

European rock-art sites are relatively well represented on the World Heritage List, including the Decorated Grottoes of the Vézère Valley (France), Rock Drawings in Valcamonica (Italy), Rock Drawings of Alta (Norway), Prehistoric Rock-Art Sites in the Côa Valley (Portugal), Altamira Cave (Spain) and Rock Carvings in Tanum (Sweden). These rock-art sites, which are concentrated in northern and western Europe, include drawings and engravings as well as animal or human depictions and geometric patterns from different ages.

The classical Mediterranean civilizations are the most comprehensively represented of all categories of archaeological heritage. These include Butrint (Albania); the Roman Theatre and its Surroundings and the 'Triumphal Arch' of Orange, and the Roman and Romanesque Monuments of Arles (France); Frontiers of the Roman Empire (Germany and United Kingdom), an example of a transnational site; the Acropolis, Archaeological Site of Delphi, and Delos (Greece); the Archaeological Area and the Patriarchal Basilica of Aquileia, and the Archaeological Areas of Pompei, Herculaneum, and Torre Annunziata (Italy); the Old Town of Segovia and its Aqueduct, and the Archaeological Ensemble of Mérida (Spain); and the Archaeological Site of Troy (Turkey).

Important pre-Columbian settlements in North America include Cahokia Mounds State Historic Site (see box) as well as the Pueblo sites of Chaco Culture and Mesa Verde National Park (United States).

CHARACTERISTICS OF EUROPEAN ARCHAEOLOGICAL HERITAGE AND CHALLENGES OF CONSERVATION

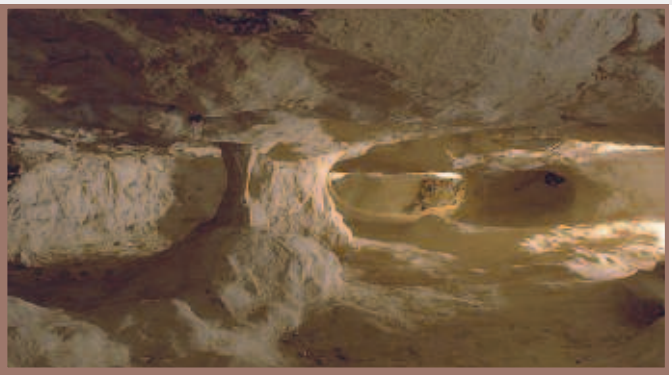
The European archaeological heritage currently inscribed on the World Heritage List is mainly concentrated in northern and western Europe with a strong accent on the Mediterranean basin. However, this trend seems to be slowly changing in recent years, and countries in other parts of Europe have revised or are in the process of revising their Tentative Lists to include archaeological heritage sites.

Furthermore, archaeological heritage for inscription on the World Heritage List is confined to immovable entities. In other words, movable archaeological artefacts, which often provide vital information about nominated sites, fall outside the scope of the Convention. For example, the World

VALLETTA CONVENTION (1992)

The European Convention on the Protection of the Archaeological Heritage (Revised) was signed in Valletta (Malta) in January 1992 and replaced the 1969 European Convention on the Protection of the Archaeological Heritage. It came into force on 25 May 1995. It contains provisions for the identification and protection of archaeological heritage. This text also makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. It contains information on the use of metal detectors and the prevention of illicit circulation of archaeological objects as well as providing guidelines on the conduct of excavations and on the dissemination and publication of findings. Finally, the Convention constitutes an institutional framework for pan-European cooperation on the archaeological heritage, entailing a systematic exchange of experience and experts among different states.

NEOLITHIC FLINT MINES AT SPIENNES (MONS) (BELGIUM)



The Neolithic Flint Mines at Spiennes, covering more than 100 hectares, are the largest and earliest concentration of ancient mines in Europe. This site was inscribed under cultural heritage criterion (i) because these mines provide exceptional testimony to early human inventiveness and application; under criterion (iii) as the arrival of Neolithic cultures marked a major milestone in human cultural and technological development, which is vividly illustrated by the vast complex of ancient flint mines; and under cultural criterion (iv) as the Spiennes mines are outstanding examples of the Neolithic mining of flint, which marked a seminal stage of human technological and cultural progress.

CAHOKIA MOUNDS STATE HISTORIC SITE (UNITED STATES)

Cahokia was occupied primarily during the Mississippian period (800–1400), when it covered nearly 1,600 hectares and included some 120 mounds. It is a striking example of a complex chiefdom society, with many satellite mound centres and numerous outlying hamlets and villages. The mounds are made entirely of earth and most show evidence of several construction stages.

This site was inscribed on the World Heritage List in 1982 under cultural heritage criteria (iii) because it is the most comprehensive affirmation of the pre-Columbian civilization in the Mississippi region and bears unique testimony to a civilization that has disappeared; and under cultural heritage criterion (iv) because it is an early and eminent example of pre-urban structuring, which provides an opportunity to study a type of social organization on which written sources are silent.

Heritage Committee during its 28th session in 2004 (Suzhou, China) decided not to include the archaeological museums of the Etruscan Necropolises of Cerveteri and Tarquinia (Italy), while fully recognizing the value of the collections for the understanding of these two necropolises. The paradox is that while it is difficult to assess the outstanding universal value of unexcavated parts of sites and those with low visual presence, as soon as artefacts are unearthed they are not subject to safeguarding under the World Heritage Convention. In this regard, it is necessary to work together with other international instruments for safeguarding archaeological heritage, such as the 1970 Convention (Section 2, p. 69-71) or the European Convention on the Protection of the Archaeological Heritage (Valletta Convention, 1992; see box).

FURTHER INFORMATION

Decisions Adopted at the 28th Session of the World Heritage Committee (Suzhou, 2004). WHC-04/28.COM/26

Guzzo, P. G. 1997. Pompeii and Herculaneum. *World Heritage*, No. 7, pp. 6-15.

Council of Europe (1992) *The European Convention on the Protection of the Archaeological Heritage (Revised)* open for signature by the Member States of the Council of Europe and the other States party to the European Cultural Convention, Valletta (Malta), 16 January 1992. http://www.coe.int/t/e/cultural_co-operation/heritage/archaeology/2Convention.asp

WORLD HERITAGE CITIES

MAP 9 : WORLD HERITAGE CITIES (2005)

UIS based on UNESCO/WHC databases

WORLD HERITAGE CITIES: EVOLUTION

In the early years of the implementation of the World Heritage Convention, a primarily monumental and aesthetic approach was taken as regards identification, nomination and inscription of cultural sites, including cities, on the World Heritage List. Cities that tended to have strong 'picturesque' dimensions were selected for nomination and listing during the early years. Examples of this type of urban heritage include the Historic Centre of the Town of Olinda (Brazil; see box p. 94), the Historic District of Québec (Canada), the Old City of Dubrovnik (Croatia; see box), and the City of Bath (United Kingdom).

Since the mid-1990s, the implementation of the Global Strategy has led to some changes in the types of city nominated for and inscribed on the World Heritage List. First, more emphasis was put on context and (natural) setting of urban heritage, the city and its territorial dimension. Second, more value was placed on other important aspects of urban heritage, such as the social and cultural processes that shaped – and are still shaping – the city. Outstanding examples are the Stone Town of Zanzibar (United Republic of Tanzania) (see box p. 94) and the Historic Centre of Macao (China). Macao, inscribed on the World Heritage List in 2005, testifies to values other than architectural and aesthetic, including the association with a variety of cultural, spiritual, scientific and technical influences between the Western and Chinese civilizations.

WORLD HERITAGE CITIES PROGRAMME: FRAMEWORK FOR URBAN CONSERVATION

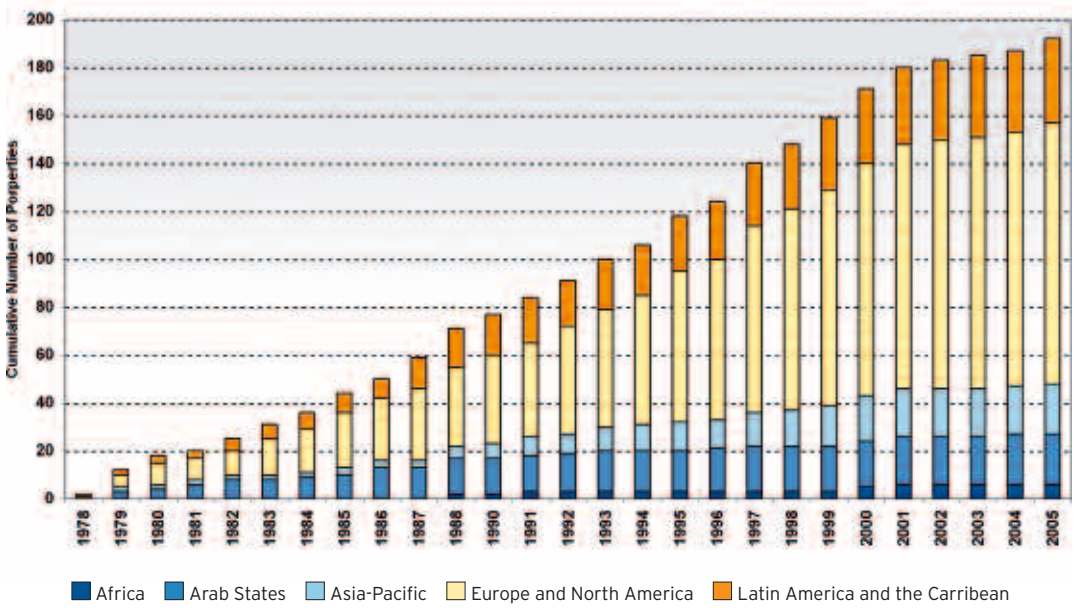
The World Heritage Cities Programme was adopted by the Committee in 2001.[2] As cities have a constant need for upgrading or further development of infrastructure, housing and services, the programme aims to address the permanent challenge of how to accommodate the need for modernization and investment in historic cities without compromising their character. To facilitate protection and management of World Heritage cities, the programme is two-pronged: first, the development of a theoretical framework for urban heritage conservation (see box p. 95) and second the provision of technical assistance to States Parties for the implementation of new approaches and schemes.

2. http://whc.unesco.org/en/cities/

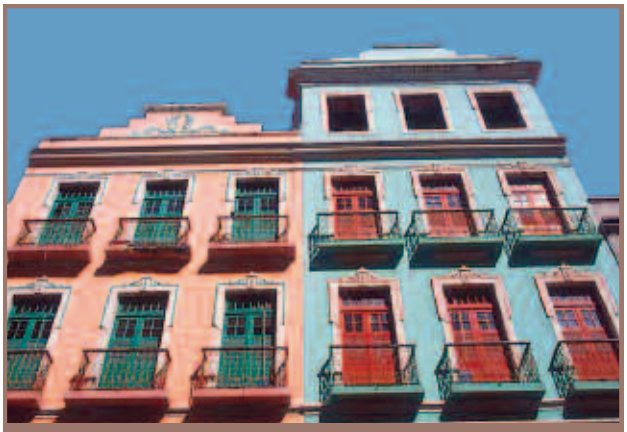
OLD CITY OF DUBROVNIK (CROATIA)

The Old City of Dubrovnik, inscribed on the World Heritage List in 1979, is a finely preserved harmonious ensemble of historic buildings that have gained it the name 'Pearl of the Adriatic'. Its reputation as an important merchant town in the Mediterranean Basin dates from the thirteenth century. In the following centuries its most important edifices, such as churches, monasteries and palaces, were erected in the prevalent styles of the day, including Gothic, Renaissance and Baroque. Its dramatic position as a fortified city with harbour on a little promontory of the Dalmatian coast was the reason for its inclusion on the World Heritage List under criterion (i); its history as an important Mediterranean sea power under criterion (iii); and its fine collection of beautiful public and private buildings under criterion (iv). It may be considered a 'classic' example of a World Heritage city.

FIGURE 13 : WORLD HERITAGE CITIES BY REGION (1978-2005)



UIS based on UNESCO/WHC databases



HISTORIC CENTRE OF THE TOWN OF OLINDA (BRAZIL)

This site, inscribed in 1982, has an important picturesque value, with over twenty Baroque churches and monasteries on rolling hills, with backdrops of swaying palms and deep blue seas, which reinforces the ensemble value (criterion iv). With a history closely linked to the Brazilian sugar industry, Olinda was the formal town where the Portuguese sugar barons had their lavish residences (criterion ii), while port facilities and related informal activities were located further away in the smaller town of Recife. Its charm is derived to a large extent from the harmony between built and non-built spaces, i.e. the churches and convents and their gardens, and the coastal location.

STONE TOWN OF ZANZIBAR (UNITED REPUBLIC OF TANZANIA)

This port city, a fine example of the Swahili coastal trading towns of East Africa, has cultural elements from Africa, the Arab region, Europe and India. It was inscribed in 2000 under cultural heritage criterion (ii) because it is an outstanding material manifestation of cultural fusion and harmonization. It also fulfilled criterion (iii) as for many centuries there was intense seaborne trading activity between Asia and Africa, and this is illustrated in an exceptional manner by the architecture and urban structure of the Stone Town; as well as criterion (vi) because of its great symbolic importance in the suppression of slavery.

FURTHER ANALYSIS OF THE CHARACTERISTICS OF WORLD HERITAGE CITIES

FIGURE 14 : CRITERIA USED FOR INSCRIPTION OF WORLD HERITAGE CITIES BY REGION (1978–1993)

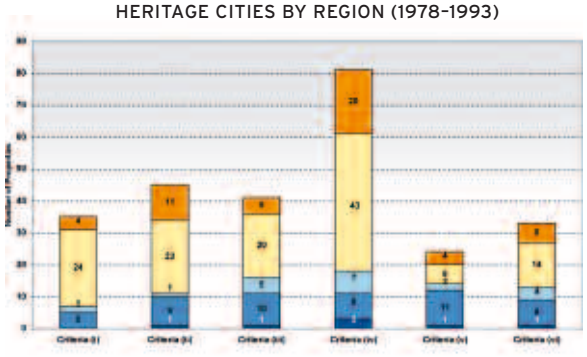
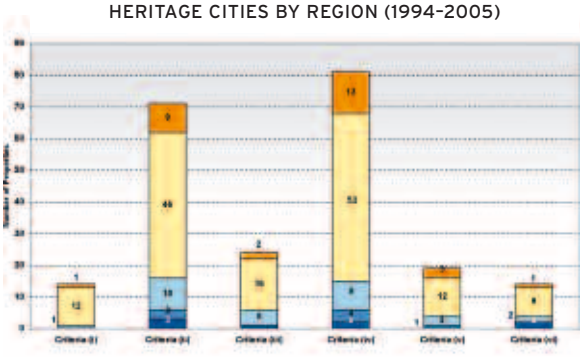


FIGURE 15 : CRITERIA USED FOR INSCRIPTION OF WORLD HERITAGE CITIES BY REGION (1994–2005)



Africa Arab States Asia-Pacific Europe and North America Latin America and the Carribean

UIS based on UNESCO/WHC databases

Figures 14 and 15 show that one of the most important decreases for the two periods analysed concerns cultural heritage criterion (i). Whereas over a third of the World Heritage cities were included under criterion (i) during the period 1979–1993, less than a fifth of them – most of which are located in Europe – have met it during the last decade. This same trend was observed for archaeological sites. Criterion (iv) is the most often used for the two periods, even more so in the last decade when it has been used for the inscription of 88% of cities. This demonstrates that the revision of the wording of this criterion in 1994 to include references to more than one stage in history has favoured this category of heritage. Indeed, cities have often been continuously occupied for a long period and provide testimony to different periods of history. The increase in the use of cultural heritage criterion (ii) is also notable for the last decade, indicating that cities exhibit important interchanges of human values.

THEORETICAL FRAMEWORK FOR URBAN HERITAGE CONSERVATION: VIENNA MEMORANDUM (2005)

At its 27th session (Paris, 2003) the World Heritage Committee requested its Secretariat to organize an international symposium on the subject of high-rise constructions and contemporary architectural interventions in historic cities and urban landscapes of heritage value. The symposium took place in Vienna (Austria) in May 2005, hosted by the Austrian Government and co-organized by the City of Vienna and ICOMOS. The Vienna Memorandum on World Heritage and Contemporary Architecture – Managing the Historic Urban Landscape was an important outcome of this meeting that was welcomed by the World Heritage Committee at its 29th session (Durban, South Africa, 2005).

This Memorandum stresses the importance of taking into careful consideration the urban context and continuity in planning new developments, against 'iconic' architecture based on design models not related to the specific tradition of a place.

The Memorandum stresses that the central challenge of contemporary architecture in the historic urban landscape is to respond to development dynamics in order to facilitate socio-economic changes and growth, on the one hand, while simultaneously respecting the inherited townscape and its landscape setting on the other.

Decision-making for interventions and contemporary architecture in a historic urban landscape demands careful consideration, a culturally and historically sensitive approach, consultation with interested parties and expert know-how. Such a process allows for adequate and proper action for individual cases, examining the spatial context between old and new, while respecting the authenticity and integrity of historic fabric and building stock.

http://whc.unesco.org/uploads/activities/documents/activity-48-3.doc
http://whc.unesco.org/events/112

The theoretical framework relates to the challenges posed by urban heritage conservation. Other than initiating research on this subject, in particular under cooperation schemes with universities, this programme includes organizing international seminars and conferences to debate specific themes and trends, and drawing up or updating international standards, such as the May 2005 Vienna Conference on World Heritage and Contemporary Architecture. The document issued by the Conference, the Vienna Memorandum, is a useful, albeit incomplete tool to define new directions in urban conservation. For this reason, the World Heritage Centre, at the request of the Committee, has prepared a programme of activities that should lead, in 2009, to the drafting of a new set of Recommendations to be proposed to the General Conference of UNESCO.

The provision of technical assistance to States Parties for the implementation of new approaches and schemes focuses on those cases that have been discussed by the World Heritage Committee, and/or those that require urgent attention. Selection of cases in different regions of the world allow for a broad spectrum of current urban conservation challenges to be addressed in different social, cultural and economic contexts, all under the umbrella of the World Heritage Convention. To the maximum extent possible, results and good practices will be published and disseminated to the relevant interested parties and the general public. This technical cooperation includes, for example, the project to revitalize the Historic Centre of the Town of Olinda as a strategic partnership established between Delft University of Technology (the Netherlands) and the World Heritage Centre in 2003. The central idea was to revitalize the local arts and crafts industry and develop tourism to generate income for local inhabitants, as well as revenue for investments through restoration and redevelopment of the cultural assets of Olinda (churches and convents, botanical garden, residential houses, public squares and beach front).

An important component of the World Heritage Cities Programme includes partnership arrangements, both for developing the theoretical framework and for implementation in the field. One such example is the partnership between the World Heritage Centre and the Organization of World Heritage Cities (OWHC), which was signed in February 2002. The OWHC was actively involved in the drafting of the Vienna Memorandum, while both organizations have been full partners in international conferences, such as the 8th OWHC World Congress that took place in Peru in September 2005. Other than sharing the burden of finances and organization, an added value is the outreach of the debate to, for example, the Mayors of World Heritage Cities, who can directly start to implement any approved guidelines.

FURTHER INFORMATION

Adoption of a Declaration on the Conservation of Historic Urban Landscapes. Vienna Memorandum on 'World Heritage and Contemporary Architecture – Managing the Historic Urban Landscape' and Decision 29 COM 5D. 2005. Fifteenth General Assembly of States Parties to the World Heritage Convention, Paris, UNESCO Headquarters, 10-11 October. (WHC-05/15.GA/INF.7.)

Karume, S. 2002. Zanzibar Stone Town. The Ultimate Expression of Swahili Civilization. *World Heritage*, No. 25, pp. 24-33.

Partnerships for World Heritage Cities: Culture as a Vector for Sustainable Urban Development. 2004. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 9.)

Rodwell, D. 2005. City of Bath. *World Heritage*, No. 41, pp. 42-51.

Bandarin, F. 2006. Towards a new Standard Setting Instrument for Managing the Historic Urban Landscape. *Conservation in changing societies. Heritage and Development*. In: Teresa Patricio, Koen Van Balen and Krista De Jonge (eds). EAAE Transactions on Architectural Education No.31, pp. 27-36. Leuven.

Heritage and the Conservation of the Historic Urban Landscape. Proceedings of the Round Table organized by the Canada Research Chair on Built Heritage, Montreal 9 March 2006; Faculty of Design, University of Montreal (English/French) http://www.patrimoinebati.umontreal.ca/pdf/proces_verbaux.pdf

Van Oers, R. Preventing the Goose with the Golden Eggs from Catching Bird Flu - UNESCO's Efforts in Safeguarding the Historic Urban Landscape. *Cities Between Integration and Disintegration. Opportunities and Challenges*. In: Zeynep Merey Enlil and Paolo La Greca (eds). ISoCaRP Review 02: September 2006, pp. 10-27.

FOCUS: WORLD HERITAGE CITIES IN ASIA

DIVERSITY OF WORLD HERITAGE CITIES IN ASIA

World Heritage cities in Asia represent a diversity of urban developments. They can reflect one major period in the history of the city, such as the Timurid period in the Historic Centre of Shakhrisyabz (Uzbekistan), or different stages in urban development, such as Taxila (Pakistan). They can also reflect the evolution of town planning over the centuries in Imperial China, as in the Ancient City of Ping Yao (see box).

Some of these cities are examples of the interaction between European and traditional architecture, as in the Historic Town of Vigan (Philippines), a showcase of Spanish colonial town planning. The preserved townscape of Luang Prabang (Lao People's Democratic Republic, see box p. 98) reveals the great fusion between European urban and Lao traditional fabric. The Old Town of Galle (Sri Lanka) shows the same interaction, especially in the city's fortifications. Other historic cities were major trading posts along the Silk Roads, such as Bukhara and Samarkand (Uzbekistan) (see box). Both Bukhara and Samarkand include major *madrasas* and mosques but only Bukhara has kept its medieval urban fabric. Hoi An Ancient Town (Viet Nam) is another well-known south-east Asian trading port.

ANCIENT CITY OF PING YAO (CHINA)

The Ancient City of Ping Yao was inscribed on the World Heritage List in 1997, under cultural heritage criteria (ii), (iii) and (iv), as an outstanding example of a Han Chinese city of the Ming and Qing Dynasties (14th–20th centuries) that has retained all its features to an exceptional degree. It offers a remarkably complete picture of cultural, social, economic and religious development during one of the most seminal periods of Chinese history.

SAMARKAND – CROSSROADS OF CULTURES (UZBEKISTAN)

Located at the crossroads of the great trade routes, most importantly the Silk Roads that traversed Central Asia, Samarkand has a multi-millennial history. Founded in the seventh century BC as ancient Afrasiab, the city had its most significant development in the Timurid period in the fourteenth and fifteenth centuries AD. The existing remains include the Registan Mosque and *madrasas*, the Bibi-Khanum Mosque, the Shakhi-Zinda compound and the Gur-Emir ensemble, as well as Ulugh-Beg's Observatory.

The site was inscribed on the World Heritage List in 2001 under cultural heritage criterion (i) because the architecture and townscape of Samarkand are masterpieces of Islamic cultural creativity, under criterion (ii) because it has played a seminal role in the development of Islamic architecture over the entire region, from the Mediterranean to the Indian subcontinent; and under criterion (iv) because it illustrates in its art, architecture and urban structure the most important stages of Central Asian cultural and political history from the thirteenth century to the present day.

TOWN OF LUANG PRABANG (LAO PEOPLE'S DEMOCRATIC REPUBLIC)

Luang Prabang is an outstanding example of the fusion of traditional architecture and Lao urban structures with those built by the European colonial authorities in the nineteenth and twentieth centuries. It was inscribed on the World Heritage List under cultural criteria (ii), (iv) and (v). Since 1996 decentralized cooperation has been established between the local authorities of Chinon in France and those of Luang Prabang, which has been successful in developing the legal tools and management framework for adequately managing the site.

Three guiding principles were fundamental to the work between Chinon and Luang Prabang:

- adopting an integrated development approach based on a common vision;
- developing local institutional capabilities;
- ensuring the participation of the local population in the projects.

Implementation of these principles has included the reinforcement of national and local institutional capabilities. One of the major achievements has been the Heritage House, a community advisory service offering free technical assistance to citizens in drawing up renovation plans. Through the Heritage House, all construction permits are evaluated to ensure that they do not violate the historic area; training courses for local experts are run and, more generally, awareness of heritage values is promoted. The programme has also tried to open up new paths of cooperation and to mobilize support from extrabudgetary funding sources or partners, mainly from the European Union, under Asia-Urbs projects.

Some of these cities are also important social and religious centres. This is the case for example, of the Historic Monuments of Ancient Nara (Japan), which contain exceptional Buddhist temples and Shinto shrines, and the Sacred City of Kandy (Sri Lanka), the location of the Temple of the Tooth Relic (the sacred tooth of the Buddha), a famous pilgrimage site.

PROGRAMME FOR THE SAFEGUARDING AND DEVELOPMENT OF WORLD HERITAGE CITIES

The United Nations Conference on Human Settlements (Habitat II), held in Istanbul (Turkey) in June 1996, strongly criticized the unsustainable urban model prevalent on all continents.[3] Participants from across civil society urged that cities must focus on improving the quality of life, by providing 'adequate shelter for all' and 'sustainable human settlements development in an urbanizing world'. Developed in 1996, the Programme for the Safeguarding and Development of World Heritage Cities in Asia was one of UNESCO's responses to 'humanize the city'. In 2001, the World Heritage Committee adopted the Cities Programme, presented above, of which the Asian Programme became part.

Because of the economic boom in Asian societies that has brought unprecedented rural exodus, Asian cities are faced with formidable challenges: urban sprawl extending the city boundaries, widening of roads and construction of new infrastructures erasing the traditional urban morphology, demolition of traditional houses to make way for multistorey buildings to accommodate the demographic pressure of the rural exodus, and expanding poverty and insecurity. Within this programme, pilot projects were conducted in World Heritage sites such as Luang Prabang (see box), where the issue of long-term financial involvement was solved through a decentralized cooperation framework between European and Asian local authorities.

3. http://www.un.org/Conferences/habitat/

FURTHER INFORMATION

Otsuka, K. 2003. Historic Monuments of Ancient Nara. *World Heritage*, No. 30, pp. 36-47.

Rotgé, V. 2004. The Role of Culture-Focused Projects in a Decentralized Co-operation Programme – the European Union Asia Urbs Programme. In: *Partnerships for World Heritage Cities: Culture as a Vector for Sustainable Urban Development*. Paris, UNESCO World Heritage Centre, pp. 64-66. (World Heritage Paper No. 9.)

Wada, Y. 2004. Harmonious Collaboration Between Development and Preservation – Ajanta and Ellora Project (India). In: *Partnerships for World Heritage Cities*, op. cit., pp. 80-82.

Yang, M. 2004. Protecting the Urban Morphology of Asian Cities. In: *Partnerships for World Heritage Cities*, op. cit., pp. 30-33.

FOCUS: WORLD HERITAGE CITIES IN THE ARAB STATES

CURRENT SITUATION

Historic cities in the Arab States reflect the complex and rich history of this region, which has been occupied and inhabited by various civilizations. Some World Heritage cities such as Bosra, Tunis and Alger conserve important remains that predate the Arab conquest. The urban pattern of Damascus and Aleppo is the result of the transformation of the former Roman grid. Other cities developed following the Arab conquest, such as Fez (Morocco), Kairouan (Tunisia; see box), Islamic Cairo (Egypt) and the Old City of Sana'a (Yemen) (see box p. 101), with their mosques, hammams, *madrasas*, fountains and houses of great architectural importance.

Some historic cities also developed because they were located on a trade or pilgrimage route; others represented very important religious centres, such as the Historic Town of Zabid (Yemen). The Old Town of Ghadamès (Libyan Arab Jamahiriya) and the Old Walled City of Shibam (Yemen) illustrate the importance of commercial exchanges in this region. Each of these cities has a unique urban structure. Shibam, for example, located on the frankincense route, is one of the oldest and best examples of urban planning based on the principle of vertical construction. Its impressive tower-like structures rising out of the cliff have given the city its nickname of 'Manhattan of the desert'. Other cities are also testimony to the maritime commercial activities of the region,

KAIROUAN (TUNISIA)

Founded in 670, Kairouan flourished under the Aghlabid dynasty in the ninth century. Despite the transfer of the political capital to Tunis in the twelfth century, Kairouan remained the Maghreb's principal holy city. It was included on the World Heritage List in 1988 under cultural heritage criteria (i), (ii), (iii), (v) and (vi). It was inscribed under cultural criterion (i) because the Great Mosque, rebuilt in the ninth century, is one of the major monuments of Islam but also a universal architectural masterpiece; under criterion (ii) because the Great Mosque served as a model for other Maghreban mosques, particularly for its decorative motifs; under criterion (iii) because the Great Mosque, the Mosque of the Three Doors and the basin of the Aghlabides bear exceptional witness to a civilization of the first centuries of the Hegira; under criterion (v) as its traditional architecture, which has become vulnerable through the impact of socio-economic changes, constitutes a valuable heritage which must be protected in its entirety and finally under criterion (vi) as it is one of the holy cities and spiritual capitals of Islam.

PORTUGUESE CITY OF MAZAGAN (EL JADIDA) (MOROCCO)

The Portuguese fortification of Mazagan, now part of the city of El Jadida, 90 km south-west of Casablanca, was built as a fortified colony on the Atlantic coast in the early sixteenth century. It was taken over by the Moroccans in 1769. The fortification with its bastions and ramparts is an early example of Renaissance military design. This site was included on the World Heritage List in 2004 under cultural heritage criteria (ii) and (iv). Mazagan fulfils criterion (ii) because it is an outstanding example of the interchange of influences between European and Moroccan cultures, and one of the early settlements of the Portuguese explorers in west Africa, on the route to India. These influences are well reflected in architecture, technology and town planning. It meets criterion (iv) as the fortified city is an outstanding and early example of the realization of Renaissance ideals integrated with Portuguese construction technology.

such as the three fortified Moroccan seaports of the Medina of Tétouan (formerly known as Titawin), that of Essaouira (formerly Mogador) and the Portuguese City of Mazagan (El Jadida) (see box) that has been recently inscribed on the World Heritage List. These three cities are important and complex testimonies of the interaction between the European and Moroccan cultures; Tétouan reflecting the interaction with Andalousian culture, Essaouira with French military architecture and Mazagan with Portuguese influences and culture.

CONSERVATION ISSUES AND PROSPECTS

Cities in the Arab States are suffering from numerous problems, including rapid development and a rise in the number of inhabitants. In some cases, these issues have affected the historic fabric of the city centres through heavy interventions such as substitution of the old buildings with new ones, demolition of the walls surrounding the ancient centres or densification of the urban pattern through construction inside the traditional open spaces (courtyards and gardens). Some sites also suffer from increasing numbers of tourists, often leading to greater pollution and erosion of pathways, floor surfaces and walls as well as invasive tourism-

CONSERVATION AND REHABILITATION PLAN FOR SANA'A (YEMEN)

Sana'a became a major centre for the propagation of Islam in the seventh and eighth centuries. This religious and political heritage can be seen in the 103 mosques, 14 hammams and over 8,000 houses, all built before the eleventh century. The town's many-storeyed tower-houses built from baked bricks, traditionally produced with a mixture of earth and dung add to the beauty of the site. The Old City of Sana'a was inscribed on the World Heritage List in 1986 under cultural heritage criterion (iv) because it offers an outstanding example of a homogeneous architectural ensemble, whose design and detail translate an organization of space characteristic of the early centuries of Islam which has been respected over time; under criterion (v) as the houses of Sana'a, some of which have become vulnerable as a result of contemporary social changes, are an outstanding example of a unique, traditional human settlement; and finally under criterion (vi) as it is directly and tangibly associated with the history of the spread of Islam in the early years of the Hegira.

The World Heritage Centre is providing assistance to the local authorities for the safeguarding of this important heritage, with funding from international cooperation (Italy and the Netherlands). The work already undertaken includes the preparation of a digitized map of the Old City of Sana'a, the training of specialists in survey activity and GIS technology, and the detailed inventory of all built structures and open spaces. The inventory was the first step in the preparation of the Conservation and Rehabilitation Plan. A local Conservation Unit, with the support of international experts, has been set up to prepare and manage the plan, which will serve as a regulatory framework and provide guidelines for any future intervention in the city.

related facilities, including on-site parking and souvenir shops, hotels, roads and airports.

The World Heritage Centre has provided technical cooperation to help safeguard the urban heritage in several cases, with expert missions to assess the state of conservation of the sites, identification of the most sensitive areas, evaluation of new interventions and advice on the legal and institutional framework for the protection of the historic cities. A number of specific projects have been implemented in the region, as in the case of Sana'a (see box).

FURTHER INFORMATION

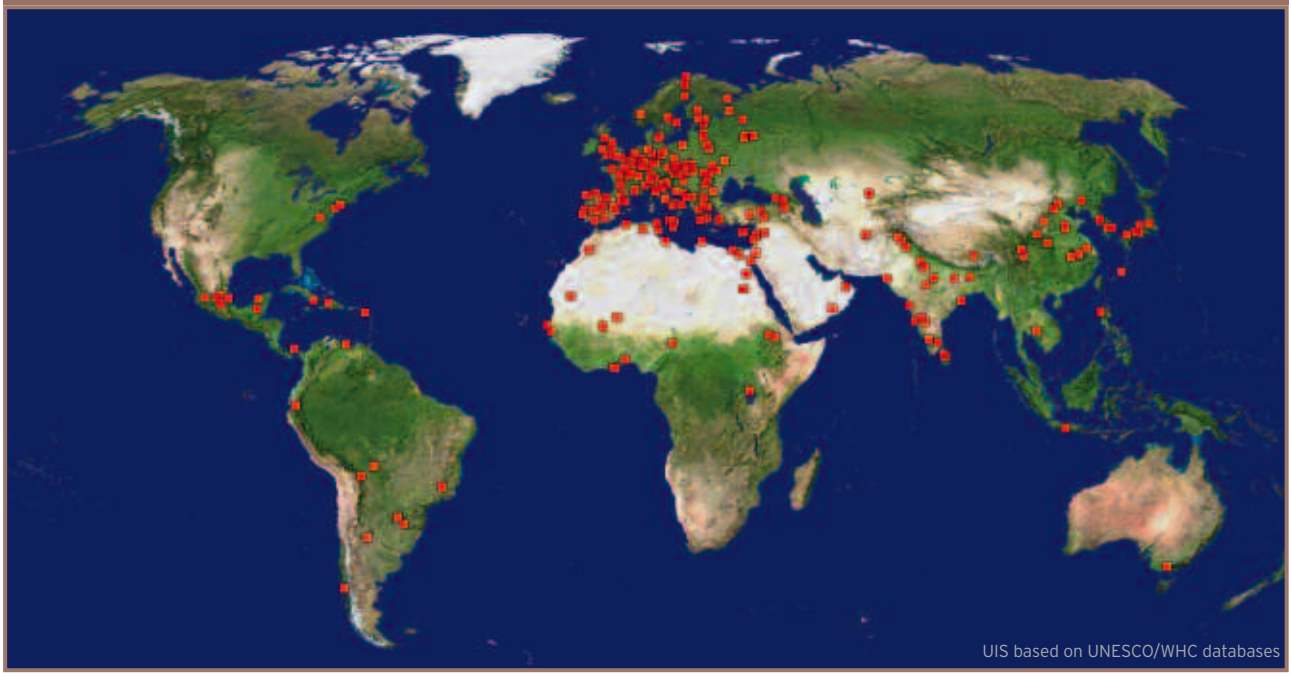
Abdulac, S. 2003. The Kasbah of Algiers. *World Heritage*, No. 32, pp. 36-47.

Noweir, S. and Volait, M. 1984. Le Caire. *Bulletin d'Informations Architecturales*, No. 89.

Pharès, J. 2004. Inscription of Byblos on the World Heritage List, an Asset for Urban Centrality of Jbeil City (Lebanon). In: *Partnerships for World Heritage Cities: Culture as a Vector for Sustainable Urban Development*. Paris, UNESCO World Heritage Centre, pp. 47-50. (World Heritage Paper No. 9.)

MONUMENTS AND GROUPS OF BUILDINGS ON THE WORLD HERITAGE LIST

MAP 10: WORLD HERITAGE MONUMENTS AND GROUPS OF BUILDINGS (2005)



UIS based on UNESCO/WHC databases

This chapter focuses on monuments and groups of buildings in both urban and non-urban environments and completes the preceding chapters on cities (for location and numerical evolution see Map 10 and Figure 16).

CURRENT SITUATION

The urban and non-urban monuments and groups of buildings on the World Heritage List are extremely diverse. Monastic communities, for the most part associated with Christianity, are predominant in Europe and Latin America. These include, for example, the Caucasian group of Haghpat, Sanahin, Geghard (Armenia), Bagrati, Gelati (Georgia), Reichenau (Germany), and Mount Athos and Meteora (Greece). The Latin American monastic sites are for the most part associated with the evangelization of the New World. Jesuit missions are well represented by the *estancias* in the province of Córdoba (Argentina), those in the Guaraní that span the modern frontier between Argentina and Brazil, and the Chiquitos missions in Bolivia. The work in the early sixteenth century by other orders (Augustinians, Dominicans and Franciscans) on the slopes of Popocatepetl and the Sierra Gorda region is illustrated by two serial nominations from Mexico. Finally, there are several serial nominations of historic Christian parish churches, some in small settlements and others in more isolated locations. These include the vernacular Churches of Chiloé (Chile; see box) and the Rock-Hewn Churches, Lalibela (Ethiopia).

Urban and non-urban monuments and groups of buildings illustrating a specific religion are all the more important in India as they highlight the diversity of religions. Such monuments include the Taj Mahal, a jewel of Muslim art (see box p. 104); the Sun Temple, Konorak, one of India's most famous Brahman sanctuaries; and the Churches and Convents of Goa, which illustrate the evangelization of Asia. Other key religious monuments in Asia include the Historic Ensemble of the Potala Palace, Lhasa, which symbolizes Tibetan Buddhism and its central role in the traditional administration of Tibet.

This category also contains military and defensive sites, such as those forts concerned with the control of the slave trade on the coast of Ghana (see box p. 104) or the Fortifications on the Caribbean Side of Panama: Portobelo-San Lorenzo (Panama) that form part of the defense system built

CHURCHES OF CHILOÉ (CHILE)

The Churches of Chiloé were inscribed on the World Heritage List in 2000 under cultural criteria (ii) and (iii). Criterion (ii) was used because the sixteen churches of Chiloé represent outstanding examples of the successful cultural cross-fertilization of European and indigenous cultural traditions that produced a unique form of wooden architecture in Latin America. This site also fulfilled criterion (iii) as the *mestizo* culture resulting from Jesuit missionary activities in the seventeenth and eighteenth centuries has survived intact in the Chiloé archipelago, and achieves its highest expression in these wooden churches. The churches are also important as the material expression *par excellence* of the entire culture of the archipelago, due to their close identification with the local communities.

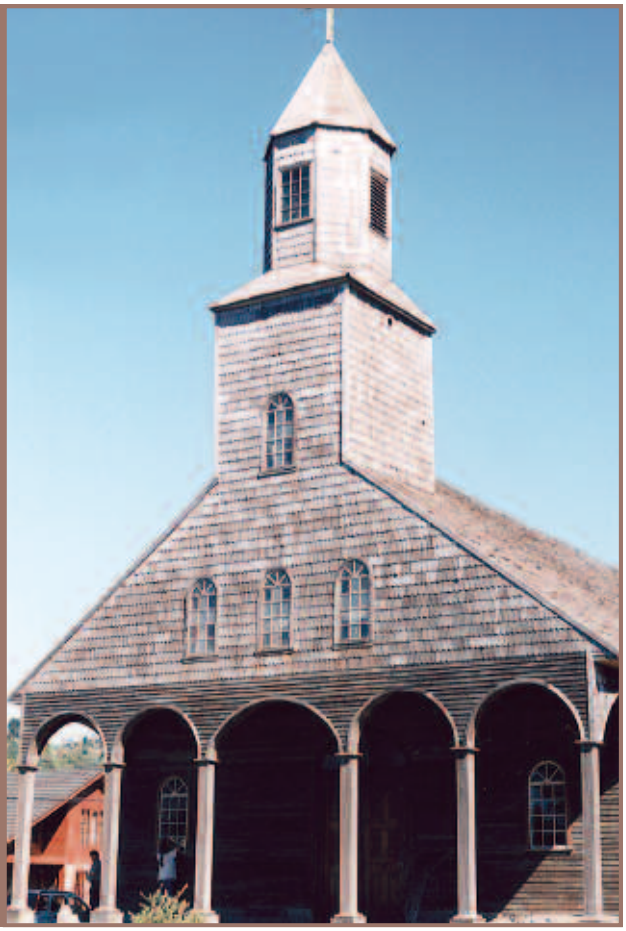
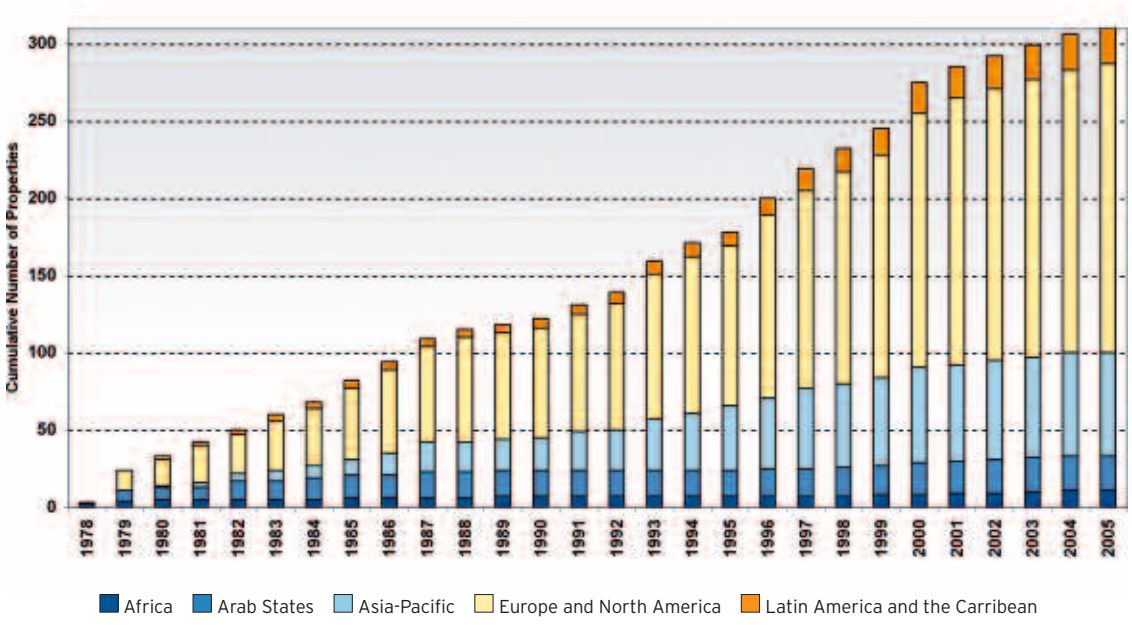


FIGURE 16 : WORLD HERITAGE MONUMENTS AND GROUPS OF BUILDINGS BY REGION (1978-2005)



UIS based on UNESCO/WHC databases

TAJ MAHAL (INDIA)

The Taj Mahal was inscribed on the World Heritage List in 1983 under cultural heritage criterion (i). An immense mausoleum of white marble, built in Agra between 1631 and 1648 by order of the Mughal emperor Shah Jahan in memory of his favourite wife, the Taj Mahal is the jewel of Muslim art in India and one of the universally admired masterpieces of the world's heritage.

FORTS AND CASTLES, VOLTA, GREATER ACCRA, CENTRAL AND WESTERN REGIONS (GHANA)

The remains of fortified trading-posts, erected between 1482 and 1786, can still be seen along the coast of Ghana between Keta and Beyin. In particular these defensive forces played an important role in the shaping of Ghana's history and that of the world. Although the forts and castles were originally built for the gold trade, later, in the eighteenth century, they played an important role in the slave trade, and therefore in the history of the Americas. This site constitutes a monument not only to the evils of the slave trade but also to nearly four centuries of precolonial afro-european commerce. For this reason, it was inscribed on the World Heritage List under cultural heritage criterion (vi) in 1979.

by the Spanish Crown to protect transatlantic trade. Political and military dominations and struggles saw the construction of important military and defensive sites in many parts of the world. Those on the World Heritage List include the Gusuku Sites and Related Properties of the Kingdom of Ryukyu (Japan), Bahla Fort (Oman) and Rohtas Fort (Pakistan). A number of European military and defensive sites have also been listed, such as the Gardens and Castle at Kromeriz and Lytomyšl Castle (Czech Republic), Castel del Monte (Italy), Castle of the Teutonic Order in Malbork (Poland), and Castles and Town Walls of King Edward in Gwynedd (United Kingdom).

A number of palaces and great houses also fall into this category, including the great seventeenth- and eighteenth-century royal palaces built by European rulers anxious to demonstrate their wealth and power, such as Schönbrunn (Austria) and Drottningholm (Sweden) and the residence of Blenheim Palace (United Kingdom), built between 1705 and 1722. Outstanding examples outside Europe include the Royal Palaces of Abomey (Benin; see box), the Summer Palace and the Mountain Resort of Chengde (China).

Vernacular villages began to be inscribed on the World Heritage List in the 1990s. They include the Central European villages of Holašovice Historical Village Reservation (Czech Republic) and Vlkolinec (Slovakia), along with the Church Village of Gammelstad, Luleå (Sweden; see box p. 106). Examples from East Asia include the Ancient Villages in Southern Anhui – Xidi and Hongcun (China) and Historic Villages of Shirakawa-go and Gokayama (Japan). Sukur Cultural Landscape (Nigeria), which has preserved a unique way of life and governance for more than a millennium, is a remarkable example in Africa.

Since the 1990s, industrial heritage sites dating from both before and after the Industrial Revolution (eighteenth and nineteenth centuries) have been increasingly listed. The inscription of these sites is very important as they tend to disappear due to their fragility, development or globalization. Examples include the Verla Groundwood and Board Mill (Finland) and the Engelsberg Ironworks (Sweden), a rare survival of the traditional *bruk* (forest industrial settlement), as well as the 'company towns' of Crespi d'Adda (Italy; see box p.106)

ROYAL PALACES OF ABOMEY (BENIN)

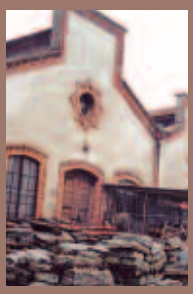
The Royal Palaces of Abomey were included on the World Heritage List under cultural heritage criteria (iii) and (iv) in 1985. From 1625 to 1900, twelve kings succeeded one another at the head of the powerful Kingdom of Abomey. With the exception of King Akaba, who had his own separate enclosure, they all had their palaces built within the same cob-wall area, in keeping with previous palaces as regards the use of space and materials. The Royal Palaces of Abomey are a unique reminder of this vanished kingdom. The site was inscribed simultaneously on the List of the World Heritage in Danger in 1985. A tornado struck Abomey on 15 March 1984. According to a report at the time, the royal enclosure and museums (particularly the Guezo Portico, the Assins Room, King Glèlè's Tomb and Jewel Room) suffered extensive damage. Since then, several conservation and restoration programmes have been undertaken at the site, a body of archives organized on the architecture of this and related sites in Benin, and conservation plans drafted.

CHURCH VILLAGE OF GAMMELSTAD, LULEÅ (SWEDEN)

Gammelstad, at the head of the Gulf of Bothnia in Sweden, is the best-preserved example of a 'church village', a unique kind of village formerly found throughout northern Scandinavia. The 424 wooden houses, huddled round the early fifteenth-century stone church, were used only on Sundays and at religious festivals to house worshippers from the surrounding countryside who could not return home the same day because of the distance and the difficult travelling conditions.
The ensemble was inscribed on the World Heritage List in 1996 on the basis of cultural criteria (ii), (iv) and (v). Indeed, this site admirably illustrates the adaptation of conventional urban design to the special geographic and climatic conditions of a hostile natural environment. This type of ensemble, shaped by people's religious and social need (rather than by economic forces), has almost disappeared. The custom of staying close to the church has created a way of life and a style of building whose main features have been preserved unchanged for 400 years.

CRESPI D'ADDA (ITALY)

Crespi d'Adda in Capriate San Gervasio, Lombardy, is an outstanding example of the nineteenth- and early twentieth-century 'company towns' built in Europe and north America by enlightened industrialists to meet workers' needs. It was inscribed on the World Heritage List in 1995 under cultural criteria (iv) and (v). It is outstanding for its completeness, for the minimal level of change that it has undergone over the past 120 years and, in particular, for the high quality of its layout and architecture. It is still partly used for industrial purposes, although changing economic and social conditions now threaten its survival.



and New Lanark (United Kingdom). The comparative and thematic studies undertaken by ICOMOS with the advice of TICCIH (see box) have helped States Parties in the selection of relevant industrial heritage sites to be nominated for inscription on the World Heritage List.

SUGGESTIONS FOR ADDITIONAL MONUMENTS AND ENSEMBLES

The 2004 ICOMOS report, *The World Heritage List: Filling the Gaps – an Action Plan for the Future,* identified a number of areas of human achievement that it considered to be under-represented on the List.[4] The report recognized the over-representation of monuments and sites associated with the Christian religion. The over-representation of Christian

4. http://whc.unesco.org/en/cairns/

monuments had already been stressed in the discussions relating to the Global Strategy but has continued in recent years. This ICOMOS report underlines the need for increased representation of the heritage of other world religions such as Buddhism, Hinduism, Islam and Judaism. It also calls for thematic studies to be carried out on the monuments of these religions. The report notes, however, that the Tentative Lists may in the medium term fill some of these gaps. Indeed, as of 2002, Buddhist sites were well represented on the Tentative Lists of India or Nepal.

Another important area for urgent consideration is that of vernacular villages. The ICOMOS analysis noted the lack of vernacular buildings and settlement both on the World Heritage List and Tentative Lists. Considering this identified gap, it may be that thematic studies will be conducted on this subject by ICOMOS.

FURTHER ANALYSIS OF WORLD HERITAGE MONUMENTS AND GROUPS OF BUILDINGS

FIGURE 17 : CRITERIA USED FOR INSCRIPTION OF MONUMENTS AND GROUPS OF BUILDINGS BY REGION (1978-1993)

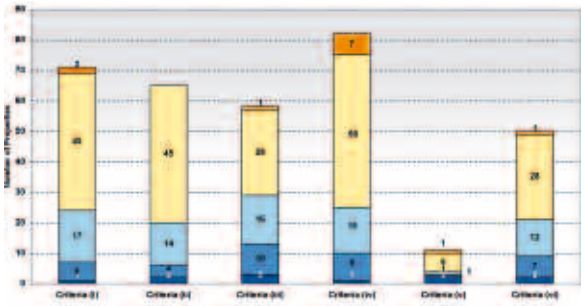
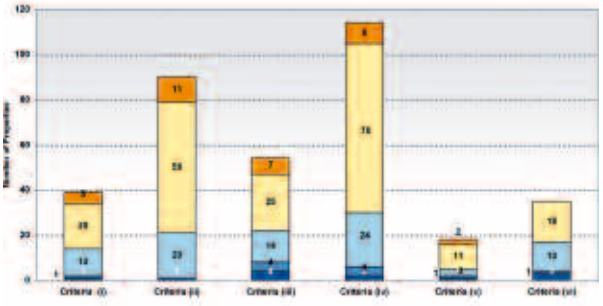


FIGURE 18 : CRITERIA USED FOR INSCRIPTION OF MONUMENTS AND GROUPS OF BUILDINGS BY REGION (1994-2005)



Africa | Arab States | Asia-Pacific | Europe and North America | Latin America and the Carribean

UIS based on UNESCO/WHC databases

Figures 17 and 18 show that one of the most important decreases for the two periods analysed concerns the use of cultural heritage criterion (i). This is the same trend as observed for archaeological sites and cities. Criterion (iv) is most often used for the inscription of monuments and groups of buildings for the two periods considered. After 1994, more than 85% of this category of site met criterion (iv), perhaps unsurprisingly as it seems to be the most suitable for this type of heritage.

TICCIH

TICCIH (The International Committee for the Conservation of the Industrial Heritage) is an international organization founded in 1978 and responsible for promoting the preservation, conservation, investigation, documentation, research and interpretation of industrial heritage. TICCIH is the ICOMOS adviser on industrial heritage and as such has taken part in a number of thematic and comparative studies on canal monuments, bridges and company towns.

FURTHER INFORMATION

Comparative and Thematic Studies Undertaken by ICOMOS and TICCIH on Industrial Heritage.
http://www.icomos.org/studies/

Hirsch, B. 1997. Lalibela. *World Heritage*, No. 4, pp. 68-77.

ICOMOS. 2005. *The World Heritage List: Filling the Gaps - An Action Plan for the Future*. Paris, ICOMOS.
http://www.international.icomos.org/world_heritage/whlgaps.htm

Sustersic, D. 2002. The Jesuit Block and Estancias of Córdoba. *World Heritage*, No. 27, pp. 52-63.

MODERN HERITAGE ON THE WORLD HERITAGE LIST

MAP 11: MODERN HERITAGE ON THE WORLD HERITAGE LIST (2005)

SITUATION IN 2001

The discussions on the Global Strategy have stressed that modern heritage was under-represented and that efforts should be made to increase inscriptions on the World Heritage List. Despite this emphasis, at the end of 2000 only thirteen sites were listed, located in two regions: western Europe and Latin America. Some of these sites illustrate the Bauhaus movement (Bauhaus and its Sites in Weimar and Dessau (Germany) and Catalan Art Nouveau, such as the works of Antoni Gaudí and of Lluís Domènech i Montaner with the Palau de la Música Catalana and Hospital de Sant Pau, Barcelona (Spain; see box).

A number of reasons explain this lack of inscriptions on the World Heritage List, including the exclusion of modern heritage from some legislation on archaeological and cultural heritage, making its conservation difficult. Some governments and the civil society are also not always aware of the value of modern heritage, which is too often perceived as having no historical, aesthetic or anthropological values and therefore is not deemed worthy of preservation. The materials used for a number of these buildings have also in some cases not withstood the passing of time, making them difficult to preserve.

EFFORTS TO FILL THE GAP

At the beginning of 2001 the World Heritage Centre, ICOMOS and DOCOMOMO International (see box p. 110) launched a joint programme for the identification, documentation, conservation and promotion of the built heritage of the nineteenth and twentieth centuries – the Modern Heritage Programme.[5] With financial support from the Government of the Netherlands, this programme focuses on raising awareness of the heritage of the modern era. It has been implemented through five regional meetings organized between 2002 and 2005.

These meetings helped to define modern heritage at regional level. Some of them, such as the first Regional Meeting on Modern Heritage for Latin America (Mexico, December 2002) called for additional efforts to encourage States Parties to include modern heritage in their Tentative Lists.

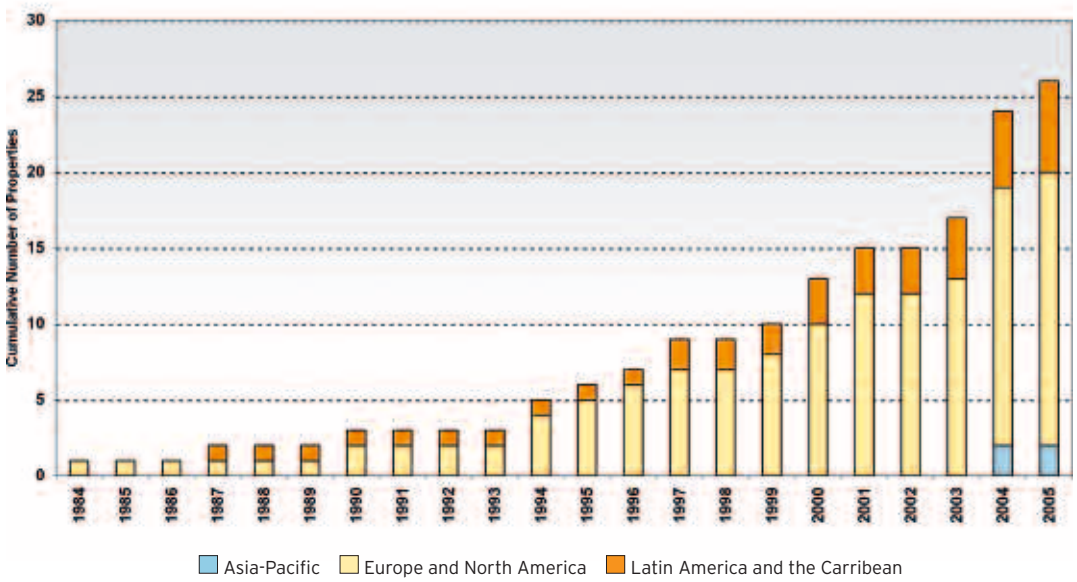
The second Regional Meeting on Modern Heritage for Asia-Pacific (India, February 2003) also discussed the identification and management of significant urban and vernacular areas, and the involvement and empowerment of the population in the preservation process. Regarding the

5. http://whc.unesco.org/en/modernheritage/

PALAU DE LA MÚSICA CATALANA AND HOSPITAL DE SANT PAU, BARCELONA (SPAIN)

These are two of the finest contributions to Barcelona's architecture by the Catalan Art Nouveau architect Lluís Domènech i Montaner. The Palau de la Música Catalana is an exuberant steel-framed structure full of light and space, decorated by many of the leading designers of the day. The Palau was the most important source of an architectural concept of great future relevance: the reticulated metallic structure, free floor space, and non-load-bearing outer walls like continuous curtains of glass. From a historiographical point of view, the Hospital de Sant Pau is of immense importance because it is the largest hospital complex in Modernist style. It is audacious in its design and ornament, while simultaneously entirely adapted to the needs of patients. Despite being a centre of activity, it retains all its original elements virtually unchanged. The site was inscribed on the World Heritage List in 1997 on the basis of cultural criteria (i), (ii) and (iv).

FIGURE 19 : MODERN HERITAGE SITES ON THE LIST BY REGION (1984-2005)



UIS based on UNESCO/WHC databases

DOCOMOMO

DOCOMOMO (International Working Party for Documentation and Conservation of buildings, sites and neighbourhoods of the Modern Movement) is a non-profit organization founded in 1988. DOCOMOMO'S mission is:

- to act as a watchdog when important Modern Movement buildings anywhere are under threat;
- to exchange ideas relating to conservation technology, history and education;
- to foster interest in the ideas and heritage of the Modern Movement;
- to elicit responsibility towards this recent architectural inheritance.

With forty-five working parties and more than 2,000 members, DOCOMOMO has established itself as one of the main players in the field of modern heritage conservation and in its theorization. DOCOMOMO International organizes biannual international conferences, technical seminars, publishes the proceedings of these conferences and seminars and organizes campaigns to safeguard important modern movement buildings.

http://www.docomomo.com

state of conservation of modern heritage sites in this region, defining and preserving the authenticity and integrity of living places remains a challenge, taking the need for socio-economic adaptation and ongoing maintenance into account.

The third Regional Meeting on Modern Heritage, for sub-Saharan Africa (Eritrea, March 2004) discussed for example whether modern heritage means exclusively colonial heritage or includes vernacular heritage as well. Participants tried to determine what period covers Africa's modern heritage and to what extent history and identity are linked to modern heritage on the continent.

During the fourth Regional Meeting on Modern Heritage for North America (United States, November 2004) experts discussed canonical and iconic North American architecture and debated internationalization versus the importance of local context, of local meaning versus landmarks of architectural history.

During the fifth and last Regional Meeting on Modern Heritage (Egypt, March 2005) experts recognized that emphasis and efforts are almost all on traditional monuments and sites of the ancient periods. Modern heritage is very poorly recognized, and is under severe threat of neglect and destruction.

Specific follow-up proposals were also made during these regional meetings. In Latin America, for example, the production of a reference document on modernity, modernization and the different expressions of modern heritage for Latin America and the Caribbean was proposed as a tool to help promote better understanding, identification, protection and listing of this heritage. This meeting also recommended the development of a set of indicators for the monitoring of, and continued focus on, monuments, buildings, urban complexes, industrial or engineering works, sites and cultural landscapes of modern heritage from the nineteenth and twentieth centuries. The meeting in Africa concluded that a network of African experts in modern heritage should be created, which should interact with similar networks in other regions.

Besides these regional meetings, specialized expert meetings relating to modern heritage sites have been organized on the valorization, conservation and revitalization of the Historic Quarter of the Seaport City of Valparaíso, Chile (7–11 October 2002) (see box); and La Plata, Argentina (17–19 March 2004).

PRELIMINARY RESULTS AND PROSPECTS

Since 2001, the number of modern heritage sites on the World Heritage List has almost doubled from thirteen to twenty-three. With the inscription of Valparaíso in 2003, the Government of Chile has made good use of insights produced during the specialized meeting, as well as from the overall

HISTORIC QUARTER OF THE SEAPORT CITY OF VALPARAÍSO (CHILE)

This site was inscribed on the World Heritage List in 2003 under cultural heritage criterion (iii), not because of its monumental architecture or formal design principles employed in town planning – on the contrary. While Valparaíso indeed boasts ensemble value, this is the product of rather random processes relating to the dynamics of great port cities. With a permanent influx of immigrants from all parts of the world, which very often constitute a non-permanent residential population, on the move when their situation improves, Valparaíso grew – and stagnated – with the fortunes of its port activities. With the exception of its humble beginnings as a Spanish colonial town in the sixteenth century, the town was never part of a formal planning scheme and related architectural styles. It is therefore all the more remarkable that over centuries an urban landscape developed, with a vernacular architecture covering some forty-three hills that is very homogeneous in its use of modest building schemes and materials relating to the industrial era.

framework offered by the Modern Heritage Programme. 2004 in particular was a 'good year' for modern heritage, with the listing of seven sites including the Royal Exhibition Building and Carlton Gardens (Australia) and the Luis Barragán House and Studio (Mexico).

Currently in the process of nomination is the work of the architect Le Corbusier, an initiative of France in cooperation with other States Parties where his works are located. Further activities for modern heritage nominations are under way by Australia (Sydney Opera House), while possibilities for the Panama Canal (Panama) and Shanghai Bund (China) are under discussion by national experts and government officials. These efforts need however to be sustained in the long term with further awareness-raising work on the importance of conserving modern heritage sites.

FURTHER INFORMATION

Cunningham, A. (ed.) 1998. *Modern Movement Heritage*. Paris, DOCOMOMO.

Identification and Documentation of Modern Heritage. 2003. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 5.)

Jokilehto, J. 2002. Great Sites of Modern Architecture. *World Heritage*, No. 25, pp. 4-21.

Regional Meetings on Modern Heritage. Paris, UNESCO World Heritage Centre.
http://whc.unesco.org/en/modernheritagemeetings

Sharp, D. and Cooke, C. (eds.) 2000. *The Modern Movement in Architecture. Selections from the DOCOMOMO Registers*. Rotterdam, 010 Publishers.

CULTURAL LANDSCAPES ON THE WORLD HERITAGE LIST

MAP 12: CULTURAL LANDSCAPES ON THE WORLD HERITAGE LIST (2005)

CURRENT SITUATION

The concept of cultural landscape, epitomizing the outstanding interaction between people and their environment, was adopted in 1992 (see definition, p. 118). As of 2005, fifty-three cultural landscapes had been included on the World Heritage List (Map 12, Figure 20). From the start of the implementation of this concept, differences between regions have emerged. Indeed, associative cultural landscapes have tended to be more applicable to non-European contexts with important indigenous characteristics. This includes the first two sites listed as cultural landcapes: Uluṟu-Kata-Tjuṯa National Park (Australia; see box) and Tongariro National Park (New Zealand). However, this category has not been as popular as other categories of cultural landscape.

Designed landscapes have only been inscribed in the European region and represent sites such as gardens and parks that were already inscribed on the World Heritage List prior to 1992. Designed landscapes listed include Aranjuez Cultural Landscape (Spain; see box p. 114) and Lednice-Valtice Cultural Landscape (Czech Republic).

The most frequently nominated type is the continuing landscape (organically evolved landscapes), and most nominations are European, such as Hallstatt-Dachstein Salzkammergut Cultural Landscape (Austria), the Loire Valley between Sully-sur-Loire and Chalonnes (France; see box p. 114) and the Alto Douro Wine Region (Portugal). The main reason for this is the growing awareness on the part of the European heritage institutions and agencies of this category of heritage. Furthermore, recent changes in national and regional legislation and regulations, such as the European Landscape Convention adopted by the Council of Europe (Florence, 2000; see box p. 115) and the Pan-European Biological and Landscape Diversity Strategy (1995), have paved the way for a number of nominations from this region.

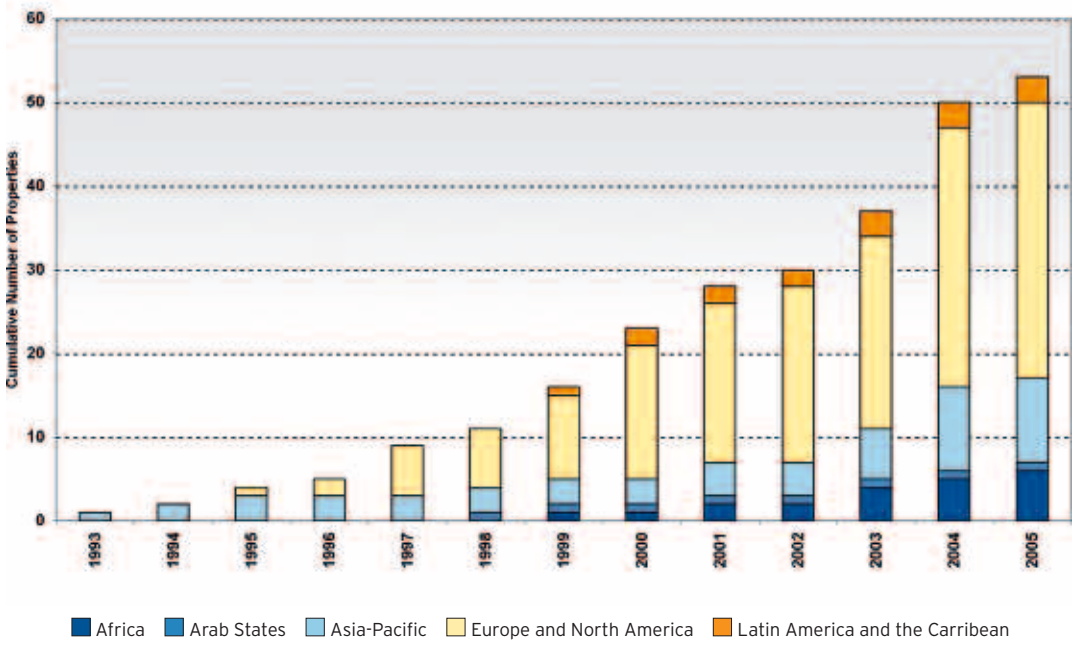
Concerning fossil or relict landscapes (a subcategory of organically evolved landscapes), hardly any have been nominated, and those that have been nominated have caused long debates at World Heritage Committee meetings. This is the case of St Kilda (see box p. 115), for example, a natural heritage site in the United Kingdom, which was specifically renominated as a fossil cultural landscape where the continuing evolution stopped on one single day with the migration of the population from the island.

At least ten of these cultural landscapes were already recognized as national parks or designated areas before their inscription as World Heritage cultural landscapes. Thus a high proportion of cultural landscapes have important

ULURU-KATA TJUTA NATIONAL PARK (AUSTRALIA)

Originally nominated under both natural and cultural heritage criteria, Uluru was added to the World Heritage List in 1987 under natural heritage criteria (ii) and (iii) only, because the monoliths are exceptional examples of tectonic and geomorphic processes and because of the exceptional natural beauty of the site. Following the adoption of the cultural landscape categories, it was renominated and inscribed in 1994 under natural criteria (ii) and (iii) as well as cultural criteria (v) and (vi), as an outstanding illustration of successful human adaptation over many millennia to the exigencies of a hostile arid environment and because the monoliths form an integral part of the traditional belief system of the Anangu, one of the oldest human societies in the world.

FIGURE 20 : WORLD HERITAGE CULTURAL LANDSCAPES BY REGION (1993-2005)



UIS based on UNESCO/WHC databases

LOIRE VALLEY BETWEEN SULLY-SUR-LOIRE AND CHALONNES (FRANCE)

This site was inscribed in 2000 under cultural heritage criteria (i), (ii) and (iv). It fulfils criterion (i) because of the quality of its architectural heritage, in its historic towns such as Blois, Chinon, Orléans, Saumur and Tours, but in particular in its world-famous castles, such as the Château de Chambord. It also meets criterion (ii) as an outstanding cultural landscape along a major river, which bears witness to an interchange of human values and to a harmonious development of interactions between people and their environment over two millennia. Finally, it meets criterion (iv) as the landscape of the Loire Valley, and more particularly its many cultural monuments, illustrates to an exceptional degree the ideals of the Renaissance and the Age of the Enlightenment in Western European thought and design.

ARANJUEZ CULTURAL LANDSCAPE (SPAIN)

Aranjuez Cultural Landscape was inscribed on the World Heritage List in 2001 under cultural heritage criteria (ii) and (iv). It is an entity of complex relationships: between nature and human activity, between sinuous watercourses and geometric landscape design, between the rural and the urban, between forest landscape and the delicately modulated architecture of its palatial buildings. Three hundred years of royal attention to the development and care of this landscape have seen it express an evolution of concepts, from humanism and political centralization to characteristics such as those found in its eighteenth-century French-style Baroque garden, to the urban lifestyle that developed alongside the sciences of plant acclimatization and stockbreeding during the Age of Enlightenment.

natural values. The presence of water and mountains is also often a characteristic of cultural landscapes. Water, for example, is presented for transport and leisure or to provide the power for industrial heritage sites. However, no World Heritage cultural landscape has yet been included where water has been significant in a spiritual, religious or sacred sense.

The listing of cultural landscapes should be considered as a landmark. The category of associative cultural landscape has been particularly crucial in the recognition of intangible values and the heritage of local communities and indigenous people. In 1992 their cultural heritage received worldwide recognition for the first time under an international legal instrument. This symbolizes the acceptance and integration of communities and their relationship to the environment, even if such landscapes are linked to powerful religious, artistic or cultural associations of the natural elements rather than material cultural evidence.

Furthermore, unique land-use systems testifying to the continued work of people over centuries to adapt the natural environment have been recognized for enhancing biological diversity. The building techniques, vernacular

EUROPEAN LANDSCAPE CONVENTION (2000)

The European Landscape Convention may be regarded as complementary to the World Heritage Convention. However, each convention has its distinctive features. Indeed, the Council of Europe's convention covers all landscapes, even those that are not of outstanding universal value. Furthermore, the aim of this European convention is not to draw up a list of assets of exceptional universal value, but to introduce protection, management and planning rules for all landscapes based on a set of principles.

http://www.coe.int/t/e/Cultural_Co-operation/Environment/Landscape/

ST KILDA (UNITED KINGDOM)

This site was initially inscribed on the World Heritage List for its outstanding natural features and wildlife in 1986 under natural heritage criteria (iii) and (iv). In 2004, in addition to these two criteria, it was inscribed under natural heritage criterion (ii) because it is unique in the very high bird densities that occur in a relatively small area conditioned by the complex and different ecological niches existing at the site. In 2005, the site was extended to cover its cultural value, thus becoming a mixed site. It is now considered to fulfil cultural heritage criteria (iii) and criterion (v) as it bears the evidence of more than 2,000 years of human occupation in the extreme conditions prevalent in the Hebrides. Human vestiges include built structures and field systems, the cleits and the traditional Highland stone houses. They feature the vulnerable remains of a subsistence economy based on the products of birds, agriculture and sheep farming.

FURTHER ANALYSIS OF CULTURAL LANDSCAPES ON THE WORLD HERITAGE LIST

FIGURE 21: CRITERIA USED FOR INSCRIPTION OF CULTURAL LANDSCAPES BY REGION (1993–2005)

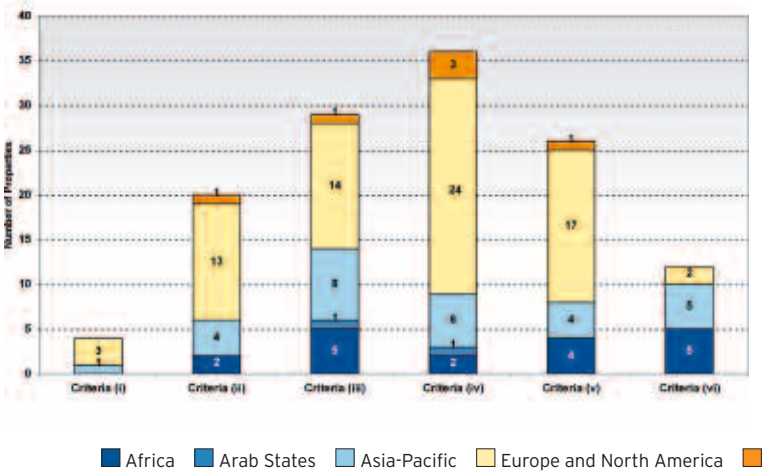


Figure 21 indicates that cultural heritage criterion (iv) has been most used for the inscription of cultural landscapes on the World Heritage List. This new type of World Heritage site, in its first decade of inclusion on the List, adheres to a commonly used criterion for conventional sites.[6]

UIS based on UNESCO/WHC databases

architecture and ingenious schemes of these systems have also received attention, as they often relate to complex social and contractual arrangements. This is the case, for example, of the irrigation systems in the steep terrain of the Philippine Cordilleras (see p. 31), which also show the interdependence of people in the cultural landscape. Indeed, if the physical or the social structure collapses, the whole landscape and ecological system is threatened. The category of continuing cultural landscapes, and specifically agricultural landscapes, has great potential in many regions of the world but needs to be backed up by global and regional thematic studies to provide a sound framework for nominations. This also calls for a broader cooperation with other organizations and agencies, such as the United Nations Food and Agriculture Organization (FAO).

The introduction of cultural landscapes into the World Heritage arena has also made the conservation community aware that heritage sites are not isolated islands, but that they have to be understood in relation to ecological systems and cultural linkages, beyond single monuments and strict nature reserves. The concept is therefore paradigmatic for the evolution of protected area thinking and heritage conservation as a whole, as demonstrated at the IUCN Vth World Parks Congress in 2003.

6. See Fowler (2003).

GAPS AND PROBLEMS

The geographically unbalanced representation of cultural landscapes on the World Heritage List (with thirty-three in Europe against twenty in the rest of the world) is striking. While the first inscriptions of cultural landscapes were from non-European countries, recent inscriptions were from Europe.

A number of other problems have arisen. Although regional expert meetings have been organized on cultural landscapes, such as the Expert Group on Cultural Landscapes (France, 1992), the Expert Meeting on Vineyard Cultural Landscapes (Tokaj, Hungary, 2001) or the Expert Meeting on Desert Cultural Landscapes and Oasis Systems (Egypt, September 2001), thematic studies are lacking. This has led to problems, including the lack of a framework for guiding the Committee in its decision-making. This might also have led to the refusal by the World Heritage Committee to inscribe some sites as cultural landscapes.

It also seems that, in some instances, the World Heritage Committee has interpreted this concept of cultural landscape rather narrowly. Indeed, in a number of cases, the Committee has accepted only cultural landscapes that epitomize the 'positive' interaction between people and the environment but has not recognized the destructive impact that human interventions can have on the landscape. This interpretation also concerns other types of site, such as the archaeological site of Las Médulas (Spain), which was inscribed in

1997 under cultural heritage criteria (i) to (iv) as an outstanding example of Roman technology but without taking account of its devastated mining landscape.

According to Fowler, a number of sites that fulfil the definition of a cultural landscape have been nominated and/or inscribed on the World Heritage List under another category. He lists seventy-seven World Heritage sites that could be considered as cultural landscapes: 'the cultural landscape category, far from being a liberating mechanism, has actually been avoided.[…] Perhaps this reluctance to use this category has something to do with a perception that it is more challenging to put together a successful World Heritage cultural landscape nomination dossier than one for an ordinary cultural or natural site'.[7]

FUTURE PROSPECTS

In 2005 a new series of cultural landscape expert meetings was organized in regions under-represented on the World Heritage List, such as the Caribbean and sub-Saharan Africa. These meetings aimed to help further raise awareness of this concept of cultural landscape and encourage new nominations of this category.

Regional studies of cultural landscapes should be launched to complete these expert meetings. Such studies could focus on industrial landscapes, urban landscapes or landscapes of ideas.

One of the most important challenges is for future World Heritage cultural landscapes to be better used as a tool for regional development and poverty eradication.

7. Fowler, op. cit., p.22

FURTHER INFORMATION

Cultural Landscapes: the Challenges of Conservation. 2003. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 7.)

Fowler, P. J. 2003. *World Heritage Cultural Landscapes 1992-2002*. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 6.)

IUCN Vth World Parks Congress.
http://www.iucn.org/themes/wcpa/wpc2003/index.htm

Reports of Expert Meetings on Cultural Landscapes.
http://whc.unesco.org/en/culturallandscape/#3

von Droste, B., Plachter, H. and Rössler, M. (eds.) 1995. *Cultural Landscapes of Universal Value. Components of a Global Strategy*. Stuttgart, New York/Paris, Gustav Fischer Verlag/UNESCO.

FOCUS: CULTURAL LANDSCAPES AND ROUTES IN LATIN AMERICA AND THE CARIBBEAN

CURRENT SITUATION

By 2005, only three sites in Latin America and the Caribbean had been inscribed as cultural landscapes on the World Heritage List: Quebrada de Humahuaca (Argentina, 2003; see box), Viñales Valley (Cuba, 1999), and the Archaeological Landscape of the First Coffee Plantations in the south-east of Cuba (2000).

Considering the diversity of cultural and natural heritage sites that characterizes Latin America and the Caribbean, it is evident that this cultural landscape category is poorly represented in the region. With the main purpose of identifying potential cases in the framework of the Global Strategy, a number of regional thematic expert meetings on cultural landscapes have been organized during the past five years, including a Regional Thematic Meeting on Cultural Landscapes in the Andes (Arequipa and Chivay, Peru, May 1998), Cultural Landscapes in Central America (San José de Costa Rica, September 2000) and Cultural Landscapes in the Caribbean: Identification and Safeguarding Strategies (Santiago de Cuba, 7–10 November 2005). Cultural landscapes proposals were also discussed at several meetings held in the Caribbean region on the role of archaeology to define the outstanding universal value of sites, including a seminar on the Identification of Archaeological Sites of the Caribbean likely to be nominated for inscription on the World Heritage List, held at Fort-de-France (Martinique) in September 2004. During these meetings, it was recognized that the category of designed cultural landscape had less significance in the region than in other regions such as Europe; and that research on this category was needed to assess its relevance within the Latin American and Caribbean context. The fossil or relict landscape (organically developed cultural landscape) is a category which is well-identified within the South American context, relating to tangible evidence of the pre-Hispanic historical processes unregistered by written sources, which were abruptly interrupted in the sixteenth century. The category of associative cultural landscape, although not yet well developed in Latin America and the Caribbean, is of crucial importance in the recovery of intangible values and in the recognition, in particular, of the identities of ethnic minorities for whom they generate the ideas of 'ownership', profound roots and self-esteem.

QUEBRADA DE HUMAHUACA (ARGENTINA)

Quebrada de Humahuaca was inscribed on the World Heritage List in 2003 under cultural heritage criteria (ii), (iv) and (v): criterion (ii) because the Quebrada de Humahuaca valley has been used over the past 10,000 years as a crucial passage for the transport of people and ideas from the high Andean lands to the plains; criteria (iv) and (v) because the valley reflects the way its strategic position has engendered settlement, agriculture and trade. Its distinctive pre-Hispanic and pre-Incan settlements, as a group with their associated field systems, form a dramatic addition to the landscape, which is certainly outstanding.

QHAPAQ ÑAN (MAIN ANDEAN ROAD) PROJECT: CULTURAL LANDSCAPES WITHIN A CULTURAL ROUTE

For more than two years, following the requests of the States Parties concerned, the World Heritage Centre has been helping in the pioneer project of preparing the transnational nomination dossier of the Qhapaq Ñan (Main Andean Road) for inscription on the World Heritage List. The Qhapaq Ñan, which ran along the peaks of the Andes between present-day Argentina, Bolivia, Chile, Colombia, Ecuador and Peru, was the backbone of the Inca Empire (fifteenth and sixteenth centuries). It has been defined as a cultural route that encompasses diverse types of heritage, including cultural landscapes. An estimated 6,000 km long, the Qhapaq Ñan linked up a coordinated network of trails and infrastructure constructed over more than 2,000 years of pre-Inca Andean cultures. The whole network of roads, over 23,000 km in all, connected various production, administration and ceremonial centres. Its roads are a unique manifestation of the Incas' power to organize a territory, and they functioned as a key instrument for the physical and political unification of the empire. The Qhapaq Ñan was also a communication route that allowed the diffusion and development of the regional culture and the appropriation of common cultural values.

The World Heritage Centre has worked in close cooperation with interdisciplinary national and subregional scientific committees involving historians, archaeologists, anthropologists and ethnologists to define a methodological framework for this nomination. Implementation of this framework has included the inventory of all the different types of cultural landscape within this route. The framework has also recognized the key role played by the communities living along the Qhapaq Ñan because they are the leading players and guarantors of the conservation of this heritage, as well as the principal participants in its living culture. These local communities, whose age-old intangible heritage such as languages, customs and traditions are an essential element of the Andean cultural system, are key players in the nomination and management of this cultural heritage and therefore have been actively involved in it.

A number of main ideas and concepts have also been defined to guide the development of the nomination dossier. These concern the central importance of the Andean world vision: conception of the Andean time-space continuum and the associated categories of ritualized collective memory; the productive, political, religious and ontological organization of the road's cultural landscapes and the way in which communities think about their socio-cultural contemporary cultural life.

FURTHER INFORMATION

Barreda, E. M. (ed.) 1998. *Paisajes Culturales en Los Andes. Memoria Narrativa, Casos de Estudio, Conclusiones y Recomendaciones de la Reunión de Expertos*, Arequipa and Chivay, Peru.

Rìos, M., Rössler, M. and Lepeigné-Cobo, A. M. (eds.) 2000. *Paisajes Culturales en Mesoamérica. Reunión de Expertos* (27-30 September 2000), Memoria. Paris, UNESCO.

Sanz, N. 2004. Quapaq Ñan - Camino Principal Andino y el proceso de su candidature como Bien susceptible de ser inscrito en la Lista de Patrimonio Mundial. *Tejiendo los lazos de un legado. Qhapaq Ñan, Camino Principal Andino: hacia la nominación de un patrimonio común, rico y diverso, de valor universal.* Lima, UNESCO Peru.

Cameron, C. and Rössler, M. Global Strategy: Canals and Cultural Routes. In: *The World Heritage Newsletter*, No. 8, June 1995, pp.11-13.

Millennium Ecosystem Assessment. Ecosystem Studies: Ecosystem Science and Management. Island Press: 2005. Chapter 17 Cultural and Amenities Services. pp. 457-474. http://www.millenniumassessment.org/en/

Landscape Linkages Beyond Boundaries? In: *World Heritage at the Vth IUCN World Parks Congress. Durban South Africa, 8-17 September 2003.* 2005. Paris, UNESCO World Heritage Centre (World Heritage Paper No.16, pp. 23-26).

Jing, F. and van Oers, R. October 2004. *UNESCO Missions to Chinese Section of the Silk Road. A Systematic Approach towards World Heritage Nomination.* Paris, UNESCO World Heritage Centre.

The World Heritage PACT. Partnerships for conservation. We invite you to preserve World Heritage. 2002. *PACT Brochure.* Paris, UNESCO World Heritage Centre.

WORLD HERITAGE FORESTS

MAP 13: FOREST SITES ON WORLD HERITAGE LIST (2005)

IMPORTANCE AND DEFINITION OF A FOREST

Forests are key terrestrial ecosystems. Compared with other ecosystems, they tend to contain higher concentrations of biodiversity, particularly tropical and subtropical forests. They furthermore play an essential role in preventing erosion and desertification. Moreover, they usually represent a great store of potential wealth for people seeking fuel, building materials, food, medicines, arable land or other subsistence or culturally important products such as feathers, skins, flowers and ivory. For this reason, a great deal of international effort has been focused on forest conservation and sustainable forestry, with initiatives such as the United Nations Forum on Forests,[8] IUCN Forest Conservation Programme[9] and the Forest Biodiversity Programme of the Convention on Biological Diversity.[10] For its part, the World Heritage Committee agreed at its 25th session in 2001 (Helsinki, Finland) that forests warranted a specific focus, approving the creation of a World Heritage Forest Programme.[11]

8. http://www.un.org/esa/forests/
9. http://www.iucn.org/themes/fcp/
10. http://www.biodiv.org/programmes/areas/forest/default.asp
11. http://whc.unesco.org/en/forests/

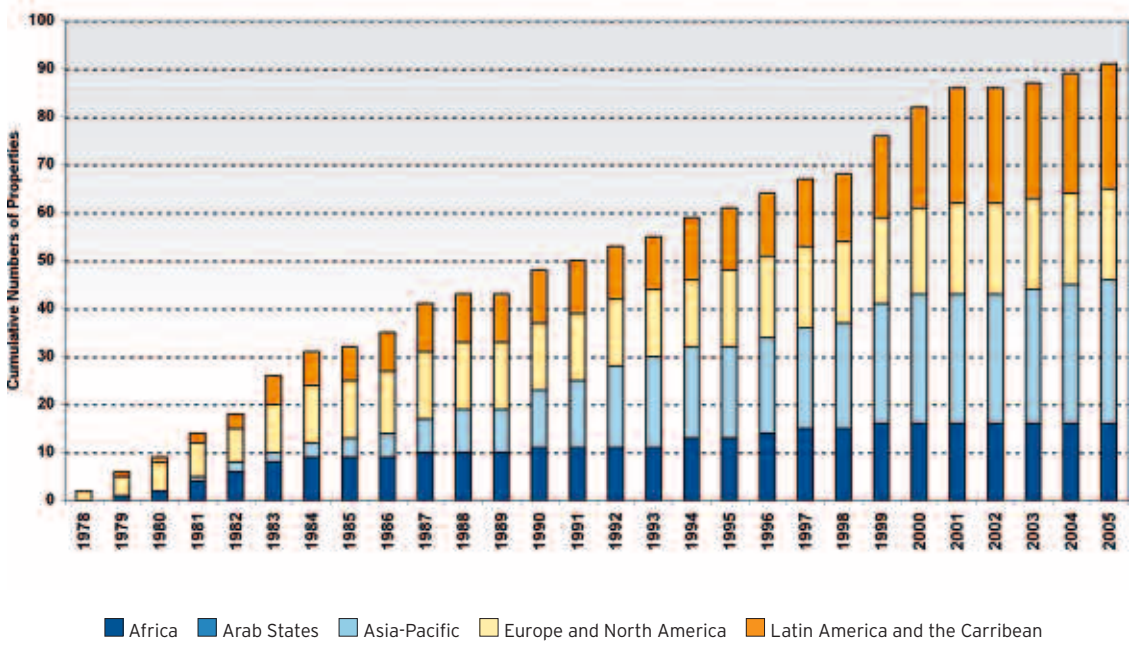
WORLD HERITAGE FORESTS OVER THE YEARS

Comparing World Heritage forests coverage in 1997[12] with that for 2005 provides some information on changes in forest representation (Figure 23).

There were sixty-three World Heritage forest sites in 1997. An additional twenty-six have been inscribed since (as of 2005 there were hence eighty-nine World Heritage forest sites), most of them (twenty-two) in the tropical biome (see Map 13, Figure 22). An example of a World Heritage tropical biome forest is the Tropical Rainforest Heritage of Sumatra (Indonesia, inscribed in 2004), important for its very diverse habitat and exceptional biodiversity. An example from the subtropical biome is Central Eastern Rainforest Reserves (Australia), which is of international significance for its high number of rare and threatened rainforest species and its geological features. Yosemite National Park (United States) is an example of a temperate forest that harbours a grand collection of waterfalls, meadows and forests with groves of giant sequoias. The Virgin Komi Forests (Russian Federation), the largest virgin forest in Europe, is an example of a boreal forest.

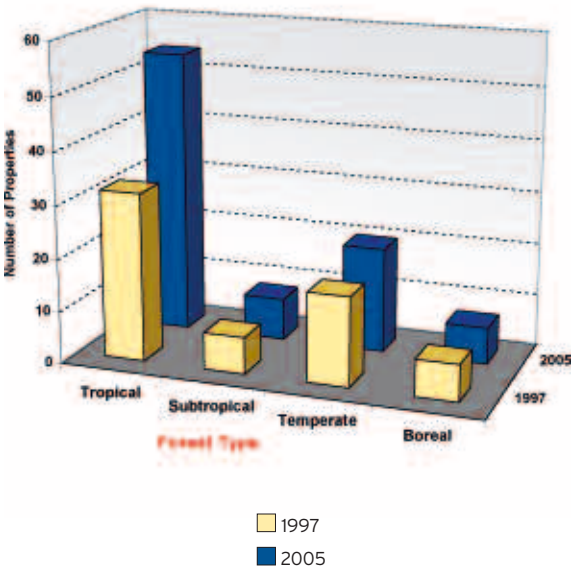
12. Figures for 1997 are provided in Thorsell and Sigaty, (1997).

FIGURE 22 : WORLD HERITAGE FOREST SITES BY REGION (1978-2005)



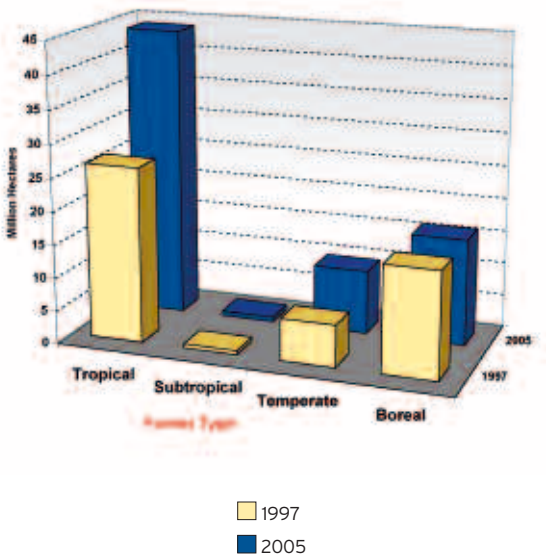
UIS based on UNESCO/WHC databases

FIGURE 23 : WORLD HERITAGE FOREST SITES BY TYPE (1997-2005)



UNESCO/WHC

FIGURE 24 : TOTAL SURFACE AREA OF FOREST SITES BY TYPE (1997-2005)



UNESCO/WHC

Figure 24 shows that the area covered by the eighty-nine World Heritage forest sites increased from 53.6 million hectares in 1997 to nearly 74.4 million hectares in 2005 (approximately 1.5 times the area of France), an increase of nearly 37%. These forests account for approximately 1.8% of the global forest cover. They also account for approximately 18% of the surface area of all protected forests of the world. Very little subtropical forest currently benefits from World Heritage status – less than 740,000 hectares (e.g. a little less than the French island of Corsica). Boreal forests are the least well represented forest biome on the World Heritage List, even though the total extent of such World Heritage forests is second only to that of forests in the tropical biome.

SUGGESTIONS FOR ADDITIONAL NOMINATIONS OF FOREST SITES TO THE WORLD HERITAGE LIST

In their assessment, Thorsell and Sigaty propose a list of twenty-five protected forests that could merit consideration for World Heritage nomination. The Berastagi World Heritage Forests meeting (see box) developed a further list focusing exclusively on sixty-three tropical forests of high biodiversity that could merit consideration. In both cases, the methodology used to arrive at such conclusions was the consolidation of the collective knowledge of those participating in the exercise. Nine of the sites identified in these two reports are now inscribed on the World Heritage List (see box) and others are being nominated. Given the large number of sites warranting further consideration, it is noteworthy that relatively few of these have been promoted by States Parties as potential World Heritage sites. This may be explained by lack of awareness of the existence of these studies by national selectors of sites for World Heritage listing, despite their availability on the IUCN and World Heritage Centre websites.

The 2004 IUCN Strategy Paper, *The World Heritage List: Future Priorities for a Credible and Complete List of Natural and Mixed Sites*,[13] provides a further basis for future nominations. It is based on a UNEP–WCMC study, also 2004, involving an exercise in which existing World Heritage sites were cross-referenced against a variety of global classification schemes, including categorization of ecosystems and habitat types and identification of biodiversity hotspots. The paper attempts

BERASTAGI WORLD HERITAGE FORESTS MEETING (1998)

In 1998, UNESCO, the Center for International Forestry Research (CIFOR) and the Government of Indonesia sponsored a meeting entitled World Heritage Forests – the World Heritage Convention as a Mechanism for Conservation of Tropical Forest Biodiversity, held at Berastagi (Indonesia). Among their achievements, the participants made a number of recommendations. In particular, they urged the World Heritage Committee to consider issues relevant to tropical forest protection such as inherent conflicts between traditional conservation strategies that tend to exclude people from certain areas, and newer attitudes that seek to accommodate human needs as well as environmental objectives. The group pledged to make safeguarding the rich variety of species and ecosystems in World Heritage tropical forests a top priority for international conservation efforts.

Outputs of the World Heritage Forests meeting in Berastagi:
http://whc.unesco.org/en/events/103/

SITES IDENTIFIED BY THORSELL/SIGATY AND AT BERASTAGI THAT ARE NOW WORLD HERITAGE

1. East Rennell (Solomon Islands)
2. Central Amazon Conservation Complex (Brazil)
3. Tropical Rainforest Heritage of Sumatra (Indonesia)
4. Gunung Mulu National Park (Malaysia)
5. Kinabalu Park (Malaysia)
6. Greater St Lucia Wetland Park (South Africa)
7. Lorentz National Park (Indonesia)
8. Noel Kempff Mercado National Park (Bolivia)
9. Area de Conservación Guanacaste (Costa Rica)

13. http://www.iucn.org/THEMES/WCPA/pubs/pdfs/heritage/whlistfuturepriorities.pdf

to highlight the areas that contain exceptional biotic values and have little existing World Heritage coverage. While it concludes that humid tropical forests and tropical dry forests are already well represented on the World Heritage List, it also stresses that there are some notable gaps in representation including:

- Madagascar moist forests;
- forests in southern Chile and southern Argentina;
- dry and moist forests in New Caledonia (French territory in the Pacific);
- Western Ghats forests (India).

Nomination work is now under way for the Madagascar moist forests, the Western Ghats and for a large site in southern Chile.

2005 NANCY MEETING: MANAGING FORESTS WITHIN THEIR BROADER ENVIRONMENT

Recognizing the narrowing scope for future World Heritage Forest inscriptions, the World Heritage Centre organized a three-day meeting of international experts and interested parties in Nancy (France) in 2005. This meeting was planned as a follow-up to the Berastagi meeting (it was known as Berastagi+7). However, it sought to shift the debate to the management of existing World Heritage forest sites within their wider, interconnected environment. It was recognized that many serious threats to World Heritage forests originate within the broader environment, such as expansion of the agricultural frontier, increased poaching, unsustainable visitation and the loss of ecological connectivity.

The Nancy meeting produced a series of recommendations as well as a Statement (see box) focusing on using the World Heritage Convention as a tool to encourage the consideration of interactions between forest sites and their wider environments and areas of ecological dependence, during the nomination process for inscription on the World Heritage List and its long-term conservation. This meeting also recognized that earlier inscriptions of World Heritage forest sites may need to be redefined to take better account of their wider ecological and landscape environment and connectivity.

NANCY MEETING STATEMENT (2005)

A Statement was adopted during the Nancy meeting, highlighting that greater emphasis should be placed on consolidating and improving the management of existing World Heritage sites. It stresses that States Parties must adopt and apply to the management of World Heritage:

1. a broad, landscape approach (while bolstering conservation and management of core areas), and
2. best management practices to serve as models for other protected areas.

The Statement also reaffirms the importance of involving all interested parties living and working in and around forest sites. It stresses the importance of taking account and conserving the full range of sustainable uses and values relating to forests and their wider environments, and of protecting the forests' underlying ecological health.

Also highlighted was the importance of developing capacity to manage World Heritage forests effectively through the development of networks among regional and national training and research institutions.

FURTHER INFORMATION

CIFOR. 1999. *World Heritage Forests.* The World Heritage Convention as a Mechanism for Conserving Tropical Forest Biodiversity, Workshop Proceedings. Jakarta: CIFOR Centre for International Forestry Research.

IUCN. 2004. *The World Heritage List: Future Priorities for a Credible and Complete List of Natural and Mixed Sites.* Gland, Switzerland, IUCN.
http://www.iucn.org/themes/wcpa/pubs/pdfs/heritage/whlistfuturepriorities.pdf

Magin, C and Chape, S. 2004. A Review of the World Heritage Network; Biogeography, Habitats and Biodiversity. Cambridge, UK/Gland, Switzerland, UNEP-WCMC/IUCN.
www.unep-wcmc.org/protected_areas/world_heritage/Introduction_WHN.pdf

Thorsell, J. and Sigaty, T. 1997. *A Global Overview of Forest Protected Areas on the World Heritage List.* Gland, Switzerland/Cambridge, UK, IUCN/UNEP-WCMC.
http://www.iucn.org/themes/wcpa/pubs/pdfs/heritage/wh_forests.pdf

FOCUS: WORLD HERITAGE FORESTS IN AFRICA

According to FAO, Africa's forest cover is estimated at 650 million hectares, constituting 17% of the world's forests.[14] The major forest types from Africa are dry tropical forests in east and southern Africa, moist tropical forests in west and central Africa, and mangroves in the coastal zones. A total of sixteen forest sites in Africa have been inscribed on the World Heritage List.

DJA FAUNAL RESERVE (CAMEROON)

One of the first rainforests in Africa on the World Heritage List, Dja Faunal Reserve was inscribed in 1987 under natural heritage criterion (ii) because it is an outstanding example of biological evolution. The primary forest within the reserve is notable for its species diversity and its exceptionally pristine condition. It also met natural criterion (iv) because of its habitat of rare and endangered species, several which are found in the Dja, including two species of crocodile, chimpanzees and lowland gorillas.

FAUNA AND FLORA OF AFRICAN WORLD HERITAGE FORESTS

Tropical forests in Africa on the World Heritage List are surprisingly diverse. Moist tropical forests include rainforests such as those in Dja Faunal Reserve (Cameroon) (see box) and Kahuzi-Biega National Park (Democratic Republic of the Congo). This broad category also includes other types of vegetation. Virunga National Park (Democratic Republic of the Congo), for example, has a complex variety of habitat and vegetation types including bamboo, heath and alpine forests in the mountains, and wooded savannas. Bwindi Impenetrable National Park (Uganda) contains more than 200 tree species and 104 fern species, which partly explains why it is one of twenty-nine African forests selected by IUCN as being most important for biodiversity conservation. Dry tropical forests on the World Heritage List include Tsingy de Bemaraha Strict Nature Reserve (Madagascar): this is a dense, dry and deciduous forest with a number of typical species such as wild banana and baobab.

Most of these sites have a high number of endemic species. A notable feature of the Vallée de Mai Nature Reserve (Seychelles), for example, is the high proportion of endemic species among which is the *coco de mer*, reputed to bear the largest seed in the plant kingdom. Another example is Taï National Park (Côte d'Ivoire), which contains 1,300 species of higher plant, of which 54% occur only in the Guinea biogeographical zone.

Several African World Heritage forests are the home of some of the largest wild animal concentrations in the world, including large mammal populations of primates, and large cats such as leopards and lions. Thus Virunga National Park (Democratic Republic of the Congo) contains numerous mammal species including population of elephant, hippopotamus, buffalo, antelope as well as various monkeys, chimpanzees and gorillas. Notable among the avian fauna in this park are large populations of pelican, shoebill and papyrus yellow warbler.

A number of species are endemic to this region, including the okapi (*Okapia johnstoni*), which gives its name to Okapi Wildlife Reserve (Democratic Republic of the Congo). The water chevrotain is also endemic in this reserve. More than 500 new faunal species have been discovered in Mount Nimba Strict Nature Reserve (transboundary site between Côte d'Ivoire and Guinea) of which 200 are endemic.

14. http://www.fao.org/forestry/fo/fra/

TABLE 3: WORLD HERITAGE FORESTS IN AFRICA ON THE DANGER LIST

Site and year inscribed on World Heritage List	Year inscribed on Danger List	Country	Threats
Mount Nimba Strict Nature Reserve (1981)	1992	Côte d'Ivoire / Guinea (transboundary)	Agricultural pressure, deforestation, mining, poaching, weak management capacity, lack of transborder cooperation
Kahuzi-Biega National Park (1980)	1997	Democratic Republic of the Congo	Armed conflict and political instability, poaching, deforestation, encroachment by local populations and refugees, artisanal mining, uncontrolled immigration (Okapi Wildlife Reserve), expansion of illegal fisheries (Virunga National Park)
Okapi Wildlife Reserve (1996)	1997		
Salonga National Park (1984)	1999		
Virunga National Park (1979)	1994		
Garamba National Park (1980)	1996		
Comoé National Park (1983)	2003	Côte d'Ivoire	Conflict and political instability, poaching and uncontrolled hunting, diminishing protection, human occupation, agricultural pressure

UIS based on UNESCO/WHC databases

CONSERVATION ISSUES OF AFRICAN WORLD HERITAGE FORESTS

Seven forest sites on the List of World Heritage in Danger are located in Africa (Table 3). Six of these have been affected by armed conflict. Not only does the general insecurity result in greater threats to these World Heritage sites, but the armies themselves seem to prefer dense forest cover as bases from which to carry out their military activities. These armies, be they rebel or governmental, are also well-equipped to poach systematically forest species for commercial trade (e.g. ivory, pelts, trophies) or for food (bush meat). Once such profitable networks are set up, it is often difficult to dismantle them in times of peace. Above all, where governance is absent, conservation organizations tend to stop all activities, awaiting the return of peace to carry on working. The World Heritage Centre is promoting the continuation of activities during times of war (see examples from the Democratic Republic of the Congo, p. 176), when World Heritage sites are most vulnerable.

CURRENT PROJECTS FOR BETTER CONSERVATION OF FORESTS IN AFRICA

Over the past few decades, substantial interventions, often with significant international support, have been carried out to improve forest conservation in Africa. A key project aimed at improving conservation of protected forests is the Central African World Heritage Forest Initiative (CAWHFI), located in forests in Cameroon, the Central African Republic, the Congo and Gabon. These forests cover 70% of Africa's remaining rainforests, harbour the highest biodiversity in Africa and are home to a variety of globally endangered tropical forest megafauna. The governments of these four countries, in partnership with the UNESCO World Heritage Centre, FAO, World Wildlife Fund US,[15] Wildlife Conservation Society,[16] Conservation International[17] and the Jane Goodall Institute[18] have launched the project, with the ultimate goal of creating a mechanism for sustainable management of the natural resources of the area, while reinforcing government and local community capacity to ensure long-term management and conservation of biodiversity.

15. http://www.worldwildlife.org
16. http://www.wcs.org
17. http://www.conservation.org
18. http://www.janegoodal.org

The immediate objectives of this project are

- to combat illegal hunting and regulate the bush meat trade;
- to strengthen law enforcement for the protection of transborder protected areas linking corridors and their buffer zones;
- to improve the management of key protected areas;
- to prepare the nomination of new transborder World Heritage sites in the Congo Basin forest; and
- to identify possibilities for long-term funding of the proposed World Heritage site.

The project duration is 2003–07, and it should lead to new inscriptions of African forest sites from this region on the World Heritage List.

FURTHER INFORMATION

D'Huart, J. P. 2004. Survival of the Major Natural Sites of the Democratic Republic of the Congo. *World Heritage*, No. 37, pp. 4–19.

Kaboza, Y. and Debonnet, G. (eds.) 2005. *Promoting and Preserving Congolese Heritage. Linking Biological and Cultural Diversity*. Proceedings of the Conference and Workshops, UNESCO, 13–17 September 2004. Paris, UNESCO World Heritage Centre (World Heritage Paper No. 17.)

UNEP. 2002. *Africa Environment Outlook. Past, Present and Future Perspectives*. Cambridge, UK, UNEP. http://www.unep.org/dewa/Africa/publications/aeo-1/about.htm

MARINE WORLD HERITAGE SITES

MAP 14: MARINE SITES ON WORLD HERITAGE LIST (2005)

UIS based on UNESCO/WHC databases

WORLD HERITAGE CONVENTION AND THE HIGH SEAS

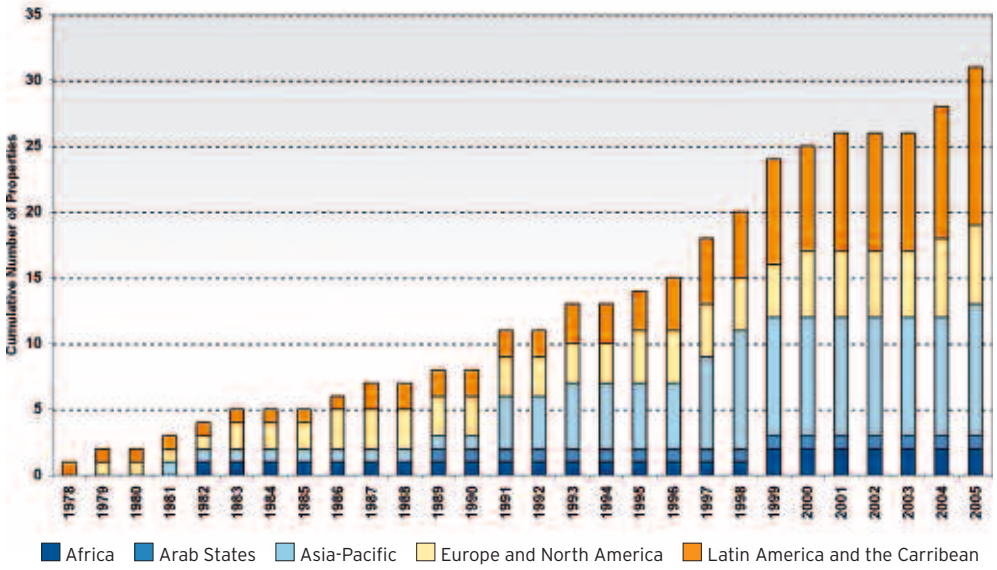
The high seas, areas outside national jurisdiction in the open ocean, are currently the least-protected areas in the world. The Convention on Biological Diversity is developing guidance on the conservation of the high seas. Unfortunately the World Heritage Convention is not applicable to the high seas, as areas nominated as World Heritage must be situated within the 200-nautical-miles Exclusive Economic Zone.

IMPORTANCE OF MARINE SITES

The marine environment is under increasing threat and pristine marine areas are fast being affected by fishing and other human activities. Less than 0.5% of the world's shores and marine areas have any form of protected status, and only 0.01% of the globe is set aside as 'no-take' fisheries areas. Innovative ways and means are urgently required to reverse the degradation of these fragile marine ecosystems. The key provisions of the World Heritage Convention and its international profile provide an innovative framework for strategically enhancing marine conservation action worldwide. The importance of this biome has been recognized by the World Heritage Committee, which in 2003 requested the official establishment of a World Heritage Marine Programme.[19] The application of marine nominations can take place within the 200-nautical-miles Exclusive Economic Zones (EEZ) of States Parties (see box).

19. http://whc.unesco.org/en/marine/

FIGURE 25 : WORLD HERITAGE MARINE SITES BY REGION (1978-2005)



UIS based on UNESCO/WHC databases

MARINE WORLD HERITAGE SITES

As of November 2005, thirty-one sites with marine protected areas were included on the World Heritage List (Map 14 and Figure 25); yet only a few of these have been inscribed primarily for their marine features. World Heritage sites with important marine component include coral reef sites such as the Great Barrier Reef (Australia), Belize Barrier Reef Reserve System (Belize), Tubbataha Reef Marine Park (Philippines) and Aldabra Atoll (Seychelles). In addition, there are sites that are important for migratory species, including marine mammals. Some of these are located in the tropics, such as the Brazilian Atlantic Islands (Brazil) (see box), Cocos Island National Park (Costa Rica), Galápagos Islands (Ecuador) (see box p. 129) and the Whale Sanctuary of El Vizcaino (Mexico) (see box on Reactive Monitoring, p. 44). Others are located in the temperate zone and include, for example, Gough and Inaccessible Islands (United Kingdom territory in the South Atlantic) which is one of the least-disrupted island and marine ecosystems in the cool temperate zone. Sites in the arctic or subarctic region include Natural System of Wrangel Island Reserve (Russian Federation), which is a self-contained island ecosystem with the highest level of biodiversity in the high Arctic; and the New Zealand Sub-Antarctic Islands, which display a pattern of immigration of species, diversifications and emergent endemism, offering particularly good opportunities for research into the dynamics of island ecology.

In addition, about twenty-five sites lie in a coastal or island setting, such as Río Plátano Biosphere Reserve (Honduras) and Ha Long Bay (Viet Nam). Some small island sites have also been included on the World Heritage List, such as Desembarco del Granma National Park (Cuba) and East Rennell (Solomon Islands).

BETTER REPRESENTATION OF MARINE SITES

The World Heritage Centre has taken a proactive approach to addressing the perceived under-representation of marine sites on the World Heritage List. It held in Viet Nam in 2002, in collaboration with partners such as the IUCN–WCPA Marine Programme and WWF, an international expert workshop to identify potential marine, coastal and small island sites in the tropics. The proceedings of the workshop are presented in *World Heritage Paper* No 4.[20] The workshop highlighted the Pacific region, in particular, for its high potential for marine sites but also noted that the information gaps are greatest in this region. It also noted the lack of pristine areas and ecological integrity, and of legal protection, as well as the limited management capacity for several sites around the world, which may prevent their inclusion on the World Heritage List.

The Viet Nam workshop drew up a number of recommendations. Concerning coverage and representation, it was recommended that all marine ecoregions should have World Heritage sites to ensure protection and representation of areas of outstanding universal value. Transboundary and serial

20. Hillary et al. (2003).

BRAZILIAN ATLANTIC ISLANDS: FERNANDO DE NORONHA AND ATOL DAS ROCAS RESERVES (BRAZIL)

This site covers a large proportion of the island surface of the South Atlantic and its rich waters are extremely important for the breeding and feeding of tuna, shark, turtle and marine mammals. The islands are home to the largest concentration of tropical seabirds in the Western Atlantic. These islands were inscribed on the World Heritage List in 2001 under natural heritage criterion (ii) because the islands play a key role in the reproduction, dispersal and colonization by marine organisms of the entire Tropical South Atlantic; and under natural heritage criterion (iii) because of its exceptional submarine landscapes that have been recognized worldwide. It also fulfilled natural heritage criterion (iv) because it is key to the protection of biodiversity and endangered species in the Southern Atlantic. The islands are important as a serial marine site, a type under-represented on the World Heritage List.

GALÁPAGOS ISLANDS (ECUADOR)

The Galápagos Islands, located at the confluence of three ocean currents, have been included on the World Heritage List since 1978 (the site was extended in 2001). The Galápagos were inscribed under:

- natural heritage criterion (i) because the ongoing seismic and volcanic activities reflect the processes that formed the islands.
- natural heritage criterion (ii) because the Galápagos marine environment is a 'melting pot' of species that biogeographers have recognized as a distinct biotic province.
- natural heritage criterion (iii) because of its superlative natural phenomena or natural beauty and aesthetic importance. Indeed, it forms an underwater wildlife spectacle with abundant life.
- natural heritage criterion (iv) because of the diversity of species of fish, sea turtles, invertebrates, marine mammals and seabirds, many of which are endangered species.

In recent years, the World Heritage Centre has worked with the Government of Ecuador to solve a number of issues including invasion by alien species, illegal fishing, unsustainable tourism, limited institutional capacity and weak governance. Although some efforts have been made by the State Party, such as the adoption and implementation of a management plan or the launch of the Galápagos 2020 Initiative to build a shared vision for the islands among the key people involved in the conservation and management of the islands, a number of issues remain to be resolved.

nominations should be promoted and should include all essential types of habitat, of such quality that allows organisms and populations to perform their basic biological functions. There are only a few examples of existing serial marine sites (e.g. Belize Barrier Reef and Brazilian Atlantic Islands) and no transboundary marine sites on the World Heritage List. More guidance should be developed to help States Parties in nominating transboundary or serial sites. It was also noted that the World Heritage nomination process can be used to identify the strengths and weaknesses of a site and thus help to find ways in which management should be enforced. Once inscribed, World Heritage sites should be recognized as high-priority conservation areas for funding and collaboration, both nationally and internationally, and they should receive continuing high levels of financing and support.

In the follow-up to the Viet Nam workshop, the World Heritage Centre has been promoting inclusion of marine sites on Tentative Lists, especially in the Pacific region. The Centre has also initiated pilot projects such as the Central Pacific World Heritage Project (see box) to test and promote serial and transboundary marine nominations in the Pacific and the Caribbean. Since the Viet Nam workshop, the popularity of serial nominations has also increased at national level. Parts of the Gulf of California (Mexico) were included as a serial site on the World Heritage List in July 2005, and Malpelo Fauna and Flora Sanctuary (Colombia) was inscribed in July 2006.

CENTRAL PACIFIC WORLD HERITAGE PROJECT (CPWHP)

The Pacific region and marine sites are under-represented on the World Heritage List. The CPWHP focuses on supporting a serial and transboundary World Heritage nomination consisting of the islands and atolls of Cook Islands, French Polynesia and Kiribati, as well as the US Pacific territories. These atolls and islands are a refuge for migratory, resident and breeding marine and terrestrial biota, especially seabirds; a habitat for many endemic and endangered species; and illustrate evolutionary stages of volcanic subsidence and corresponding reef growth culminating in the formation of the largest biogenic structures on Earth. Workshops have been held in this region to finalize Tentative Lists, to review the natural and cultural features of various proposed atolls and islands, and to discuss practical and economic considerations for long-term management.

http://whc.unesco.org/en/events/65/

WORLD HERITAGE MARINE PROGRAMME

The World Heritage Marine Programme was established to continue the work started with the Viet Nam workshop. This programme has the potential to contribute to the goals of the international marine conservation agenda as stated for example in the Durban Action Plan[21] adopted at the Vth IUCN's World Parks Congress (2003) and the Programme of Work on Marine and Coastal Biodiversity of the Convention on Biological Diversity.[22] The overall goal of the Marine Programme is effective conservation of existing and potential marine and coastal protected areas of outstanding universal value. The Marine Programme supports the four strategic objectives of the Committee and aims:

- to promote serial and transboundary marine nominations to embrace better the interconnected nature of marine ecosystems and to respond to conditions of integrity;
- to develop, fund-raise and implement projects that support management of existing and proposed sites;
- to promote networking and joint learning among marine sites managers through the establishment of a Marine Site Manager's Network and to facilitate site managers' access to international learning opportunities;
- to raise awareness of the World Heritage Convention as a marine conservation instrument among public, partner organizations and institutions as well as private sector and through website development.

FURTHER INFORMATION

Hillary, A., Kokkonen, M. and Max, L. (eds.) 2003. *Proceedings of the World Heritage Marine Biodiversity Workshop*, Hanoi, Viet Nam (February 25-March 1, 2002). Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 4.)

Kelleher, G. and Philips, A. (eds.) 1999. *Guidelines for Marine Protected Areas.* World Commission on Protected Areas (WCPA), IUCN Best Practice Protected Area Guidelines Series No. 3.) http://app.iucn.org/dbtw-wpd/edocs/PAG-003.pdf

Phillips, A. 2002. *The World Heritage Convention and its Application to Marine and Coastal Sites.* http://international.nos.noaa.gov/heritage/pdfs/A_Phillips.pdf

Convention on Biological Diversity, Programme of Work on Marine and Coastal Biodiversity. Cambridge, UK, UNEP. http://www.biodiv.org/programmes/areas/marine/default.aspx

21. www.danadeclaration.org/durbanactioneng.pdf
22. http://www.biodiv.org/programmes/areas/marine/default.aspx

FOCUS: EASTERN TROPICAL PACIFIC SEASCAPE PROJECT

MAP 15: PARTNERS IN EASTERN TROPICAL PACIFIC SEASCAPE PROJECT

IMPORTANCE AND ISSUES OF THE REGION

The islands and the waters surrounding the Panama Bight in the east central Pacific of Colombia, Costa Rica, Ecuador and Panama are among the most productive and biologically diverse marine areas in the world (Map 15). This area has a high degree of ecological interconnection and complex oceanographic characteristics, mainly due to the convergence of major marine currents, which facilitate the dispersal of marine larvae and affect the migrations, movements and distribution of many species of regional and global significance. The seascape harbours unique and vulnerable habitats supporting a rich biological diversity, including species that are endemic, in danger of extinction and/or have ecological, economic and aesthetic importance. In addition, the islands of this region have some of the few coral reefs in the Eastern Tropical Pacific. As proof of its importance, this region has as of June 2006 three marine World Heritage sites: Cocos Island National Park (Costa Rica), Galápagos Islands (Ecuador) and Coiba National Park and its Special Zone of Marine Protection (Panama; see box p. 132). Other sites from the region have also been nominated for inclusion on the World Heritage List.

However, the region also faces a number of threats. These include over-fishing, especially of sharks, illegal fishing of protected species and pollution such as noise and oil spills. Factors underlying these threats include the fact that laws for protected areas and other marine areas tend to be weak and/or not fully known and applied by the relevant authorities; the surveillance and patrol capabilities also tend to be insufficient and collaboration is lacking among the countries in controlling illegal fishing activities. Many coastal communities are poor, so tend to overfish the areas within their reach.

PROMOTING PROTECTION THROUGH EASTERN TROPICAL PACIFIC SEASCAPE PROJECT

The challenge is therefore to overcome these threats and obstacles to promote good management of the seascape, so that the ecosystem can support sustainable economic use and maintain its rich biodiversity and high productivity. For this reason, the Eastern Tropical Pacific Seascape Project was launched in 2004 by the World Heritage Centre, Conservation International and IUCN with financing from the UN Foundation and the Global Conservation Fund, as part of the World Heritage Marine Programme. The project will support the World Heritage nomination process for sites not yet listed in Colombia, Costa Rica, Ecuador and Panama, possibly using serial and/or transboundary nomination strategies. It will also promote regional collaboration on key marine conservation issues to support the integrity of the marine World Heritage sites and their surrounding waters in the Eastern Tropical Pacific, as well as the increased application of relevant international conventions and environmental laws through capacity-building.

COIBA NATIONAL PARK AND ITS SPECIAL ZONE OF MARINE PROTECTION (PANAMA)

Coiba National Park was inscribed on the World Heritage List in 2005 under natural heritage criteria (ii) and (iv). Protected from the cold winds and effects of El Niño, Coiba's Pacific tropical moist forest maintains exceptionally high levels of endemism of mammals, birds and plants. It is also the last refuge for a number of threatened species such as the crested eagle. The site is an outstanding natural laboratory for scientific research and provides a key ecological link to the Tropical Eastern Pacific for the transit and survival of pelagic fish and marine mammals.

The reasons for approaching this conservation and sustainable development challenge as a region, involving four countries, are twofold. First, the interconnectedness of the marine ecosystem makes it almost impossible for one country to maintain a healthy, thriving marine ecosystem, while neighbouring Exclusive Economic Zones are degraded. This is most obvious in the case of wide-ranging species such as sea turtles, sharks, cetaceans, tuna, billfish, etc., which constitute some of the key values of the existing and potential World Heritage sites of the region. The second reason for a regional approach is that the countries face common problems, can see joint opportunities and have complementary experiences and skills to share.

Actions specific to this project include the provision of technical advice to help secure World Heritage designation for seascapes of outstanding universal value in the region as well as the identification of regional management issues and the development of strong management strategies to solve them. The project also aims to enable the sustainable use of some World Heritage sites, including the development of viable, locally based sustainable economic alternatives in key coastal communities as well as better management of local artisanal fishing, while reducing industrial fishing. Another important objective is the improved understanding among those involved in seascape management of regional issues affecting the conservation of biodiversity values. This will be achieved through in-depth analysis, publication of the results of this analysis and their dissemination among regional management and decision-makers – thus promoting collaborative action.

FURTHER INFORMATION

Key Marine Regions. Seasscapes. Conservation International. http://www.conservation.org/xp/CIWEB/regions/priorityareas/marine/seascapes.xml

MacFarland, C. 1997. Galapagos. *World Heritage*, No. 4, pp. 20–31.

Eastern Tropical Pacific Seascape Project. Paris, UNESCO World Heritage Centre. http://whc.unesco.org/en/seascape/

WORLD HERITAGE GEOLOGICAL AND GEOMORPHOLOGICAL SITES

MAP 16 : GEOLOGICAL AND GEOMORPHOLOGICAL SITES ON THE WORLD HERITAGE LIST (2005)

IMPORTANCE AND DEFINITION OF GEOLOGICAL HERITAGE

Geological heritage is given considerable prominence under the World Heritage Convention (Map 16, Figure 26). Indeed, natural heritage criterion (i) specifically recognizes places that best represent the Earth's history, fossils, geological processes, landforms and physiographic features, including the world's major geological and geomorphological formations (i.e. the Earth's surface features or landforms and the processes that form them).

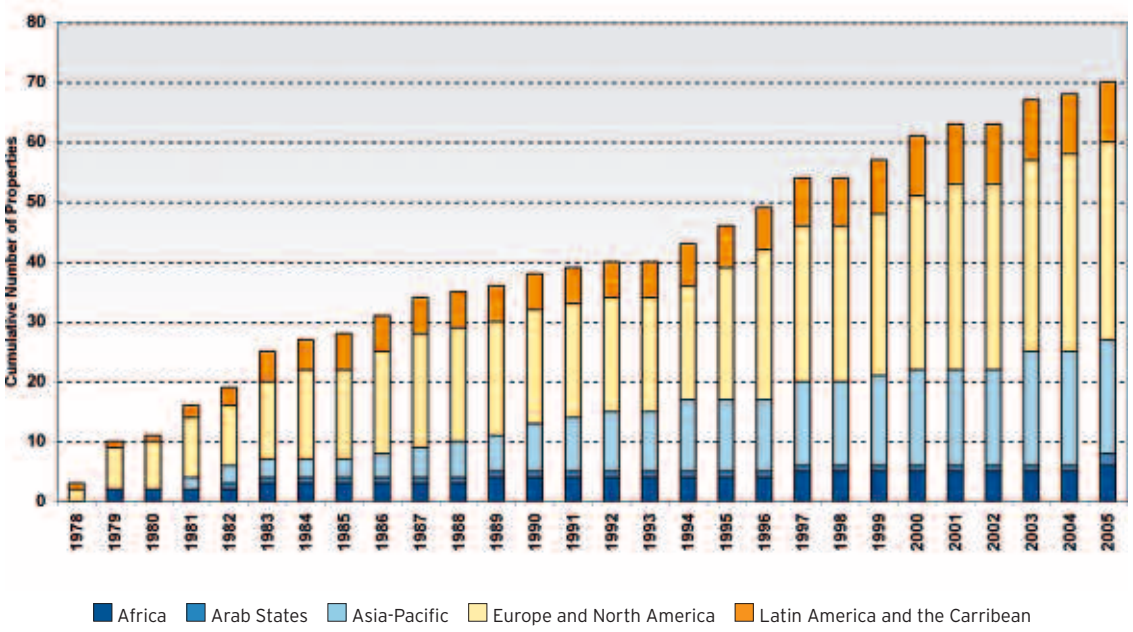
CHARACTERISTICS OF GEOLOGICAL WORLD HERITAGE SITES

The world's ubiquitous hydrological features are well represented on the World Heritage List through different formations. Some of the world's greatest waterfalls are also on the World Heritage List, including Iguazu / Iguaçu National Park (Argentina and Brazil) and the transboundary sites of Mosi-oa-Tunya / Victoria Falls (Zambia and Zimbabwe). Majestic landscapes with rivers, canyons, lakes and wetlands are also found notably in China's Three Parallel Rivers of Yunnan Protected Areas.

The diversity of fossil hominid sites has been presented previously in the section on archaeology and the focus on archaeological sites in Europe and North America. Natural or mixed World Heritage sites with important fossil sites represent almost all major geological periods. Prominent examples are Australian Fossil Mammal Sites (Riversleigh / Naracoorte), Egypt's Wadi Al-Hitan (Whale Valley; see box p. 135) and Vredefort Dome (South Africa).

Caves and karst are important as storehouses of past climates, vegetation, fauna and human cultures. Notable among these are Puerto-Princesa Subterranean River National Park (Philippines) or the 2,400 m high Gunung Mulu National Park on Malaysia's island of Borneo, regarded as the world's most cavernous mountain with about 300 km of explored caves and the world's largest known cave chamber. Purnululu National Park (Australia) is outstanding in displaying

FIGURE 26 : WORLD HERITAGE GEOLOGICAL AND GEOMORPHOLOGICAL SITES BY REGION (1978-2005)



UIS based on UNESCO/WHC databases

FURTHER ANALYSIS OF WORLD HERITAGE GEOLOGICAL AND GEOMORPHOLOGICAL SITES

FIGURE 27 : CRITERIA USED FOR INSCRIPTION OF GEOLOGICAL AND GEOMORPHOLOGICAL SITES BY REGION (1978-1993)

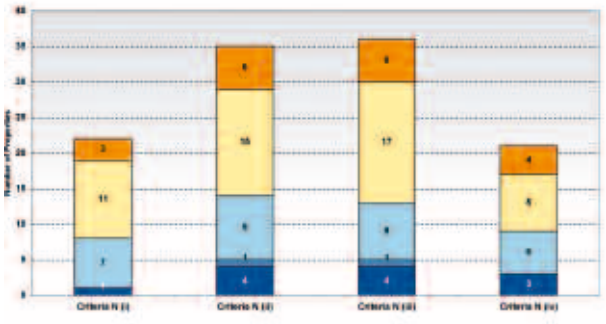
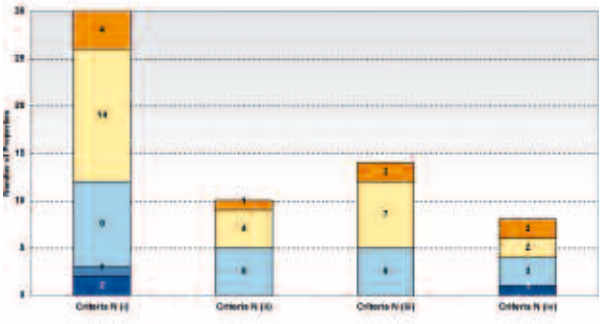


FIGURE 28 : CRITERIA USED FOR INSCRIPTION OF GEOLOGICAL AND GEOMORPHOLOGICAL SITES BY REGION (1994-2005)



UIS based on UNESCO/WHC databases

Until 1993, most geological sites were inscribed on the World Heritage List under natural heritage criterion (ii) for their geological importance and (iii) for their aesthetics. Since 1994 and the change in the wording of natural heritage criteria, the majority have been inscribed under natural heritage criterion (i).

WADI AL-HITAN (WHALE VALLEY) (EGYPT)

Wadi Al-Hitan (Whale Valley) in the Western Desert of Egypt, contains invaluable fossil remains of the earliest, and now extinct, suborder of whales, the archaeoceti. This site was inscribed on the World Heritage List under natural heritage criterion (i). Indeed, Wadi Al-Hitan is the key site in demonstrating one of the iconic changes that make up the record of life on Earth: the evolution of the whales. It vividly portrays their form and mode of life during their transition from terrestrial to marine existence. It exceeds the values of other comparable sites in terms of the number, concentration and quality of its fossils, and their accessibility and setting in an attractive and protected landscape. It accords with key principles of the IUCN study on fossil World Heritage sites, and represents significant values that are currently lacking on the List.

karst-like terrain in quartz sandstones. Here, 20 million years of erosion in a tropical environment has created a fascinating landscape composed of innumerable beehive-shaped towers (cone karst), known locally as the 'Bungle Bungles'.

CURRENT PROSPECTS

In 2005, IUCN and WCPA released a thematic study on geological World Heritage sites.[23] It stresses that the Convention is a mechanism for the selection of a small number of the best global sites illustrating geological and geomorphological processes, and recommends that guidance be given on the World Heritage nomination process for geological/geomorphological sites, including justification of their outstanding universal value. The report also emphasizes the need for comparative analyses before placing sites on Tentative Lists and guidance on undertaking such analysis. It also advocates the importance of alternative programmes such as the Geoparks Programme (see below the Focus on World Heritage geological and fossil sites in Europe and North America), for recognition and protection of those sites that may not be of outstanding universal value but have other merits.

23. Dingwall et al. (2005).

FURTHER INFORMATION

Australian Government, D.E.H. 2005. Purnululu National Park. *World Heritage*, No. 41, pp. 24-35.

Dingwall, P., Weighell, T. and Badman, T. 2005. *Geological World Heritage: A Global Framework*. Gland, Switzerland, IUCN-WCPA. http://www.iucn.org/themes/wcpa/pubs/pdfs/heritage/Geological%20World%20HeritagGlobalFramework2005.pdf

Katanekwa, N. 2003. Mosi-oa-Tunya / Victoria Falls. The Smoke that Thunders. *World Heritage*, No. 30, pp. 22-31.

Wells, R. 1996. *Earth' s Geological History. A Contextual Framework for Assessment of World Heritage Fossil Site Nominations*. Gland, Switzerland, IUCN. http://www.iucn.org/themes/wcpa/pubs/pdfs/heritage/whgeo_history.pdf

The Strategy of the UNESCO World Heritage Convention and the Conservation of Geological Heritage. In: *Naturopa*, No. 99. December 2003 (Memory of the heritage) (English and French edition), p 6.

FOCUS: WORLD HERITAGE GEOLOGICAL AND FOSSIL SITES IN EUROPE AND NORTH AMERICA

DIVERSITY OF EUROPEAN GEOLOGICAL SITES ON WORLD HERITAGE LIST

The region of Europe and North America covers a wide geographical area, and embodies a range of geological features that reveal much of the history of the planet and the evolution of life itself. This varied geology and geomorphology is not only an inspiration today but was also an inspiration to early European geologists who developed many of the key ideas that moulded scientific thought on the origin and age of the Earth, how it evolved over geological time, and how life emerged and developed.

The diverse geological and geomorphological landforms from this region include volcanic landscapes, such as the Volcanoes of Kamchatka (Russian Federation), which also contain a multitude of thermal and mineral springs and geysers. Similar geothermal features are prominent in Yellowstone (United States). Hydrological features are also represented in this region as exemplified by Russia's Lake Baikal, which is the oldest (25 million years) and deepest (1,700 m) lake on earth and contains 20% of the world's unfrozen fresh water. Glacial terrains are represented by Jungfrau-Aletsch-Bietschhorn (Switzerland) or by Kvarken Archipelago / High Coast (Finland/Sweden), which demonstrates the massive impact of continental ice sheets during the Pleistocene ice ages. Prominent examples of fossils include the Burgess Shale in Canadian Rocky Mountain Parks (see box p. 139), which displays the earliest expansion of biological forms on Earth 520 million years ago; Canada's Miguasha Park representing the 'Age of Fishes' 370 million years ago; and Dinosaur Provincial Park (Canada) (see box p. 137) and Dorset and East Devon Coast (United Kingdom), which record the 'Age of Reptiles' from 240 to 75 million years ago. Caves and karst are represented above all by the Škocjan Caves (Slovenia) and the Caves of the Aggtelek Karst and Slovak Karst, a transboundary site between Hungary and Slovakia.

KVARKEN ARCHIPELAGO / HIGH COAST (FINLAND/SWEDEN)

The High Coast of Sweden was inscribed on the World Heritage List in 2000 under natural heritage criterion (i). The land here was depressed some 800 m by the weight of the continent-sized ice sheet, but with removal of the ice over the last 20,000 years it has rebounded as much as 300 m. This rapid uplift is still continuing today at a rate of about 8 mm per year, reshaping the coastal landscape as bays become estuaries or lakes, and offshore islands are joined to the mainland as peninsulas. A remarkable sequence of human occupation is associated with these coastal changes, and remnants of the oldest Stone Age settlements are now uplifted 150 m above their original shoreline location 7,500 years ago.

The Kvarken Archipelago, in the Gulf of Bothnia off the coast of Finland, was added in 2006 as an extension to the High Coast of Sweden, more than doubling its size. The Kvarken Archipelago numbers 5,600 islands and islets and covers a total of 194,400 hectares (15% land and 85% sea). It features unusual ridged washboard moraines (De Geer moraines), formed by the melting of the continental ice sheet, 10,000–24,000 years ago.

DINOSAUR PROVINCIAL PARK (CANADA)

Dinosaur Provincial Park is located at the heart of the province of Alberta's badlands. In addition to its particularly beautiful scenery, the site contains some of the most important fossil discoveries ever made from the 'Age of Reptiles', in particular a total of 23,347 fossil specimens including 300 dinosaur skeletons from at least thirty-five distinct species, dating back some 75 million years. As a major stage of the Earth's evolutionary history, criterion (i) was used for inscription on the List in 1979. Criterion (iii) was also met, as the site is an outstanding example of a major geological process and fluvial erosion patterns in semi-arid steppes, which, combined with a stretch of high-quality and virtually undisturbed riparian habitat, forms a landscape of exceptional natural beauty.

EFFORTS TO RATIONALIZE NOMINATION OF GEOLOGICAL SITES: EXAMPLE FROM EUROPE

In addition to the IUCN thematic study presented in the previous chapter, other programmes such as Geoparks can help to facilitate the selection of geological sites to be nominated for inclusion on the World Heritage List.[24] The Geoparks Programme originated in 2000 as a UNESCO concept designed to complement Man and the Biosphere. Seeking to link geology and people, it has developed rapidly in Europe and is now global, with a World Geoparks Centre established in Beijing (China). The main objective of the Geoparks Programme is the protection of geological heritage and the promotion of sustainable development. It also seeks to allow the inhabitants to reappropriate the values of a territory's heritage and actively participate in its cultural revitalization.
The extensive networks of conservation geologists working in Europe, and the geoparks concepts and programmes, should be used by States Parties to identify sites that could be added to Tentative Lists and to provide an early indication that a geopark or other status may be more appropriate than a World Heritage nomination. Once a decision is made to prepare a World Heritage nomination on a rational basis using comparative analysis, the existing, and constantly growing, European information base can be used to enhance significantly the quality of such nomination, increase the chance of a successful inscription on the List and improve the site's long-term conservation.

24. UNESCO Global Network of National Geoparks
http://www.unesco.org/science/earth/geoparks.shtml

FURTHER INFORMATION

European Geopark network.
http://www.europeangeoparks.org/

Peterson, M. 1997. Yellowstone. *World Heritage*, No. 5, pp. 68-78.

Thorsell, J. 2000. Canadian Rocky Mountain Parks. *World Heritage*, No. 16, pp. 30-41.

MOUNTAIN SITES ON THE WORLD HERITAGE LIST

MAP 17: MOUNTAIN SITES ON THE WORLD HERITAGE LIST (2005)

DEFINING A MOUNTAIN

Several definitions and criteria exist of what constitutes a mountain. This publication updates the analysis of Thorsell and Hamilton [25] and therefore follows their definition of a mountain. These authors have defined a mountain as having :

- a minimum of 1,500 m of relative relief present inside the protected area;
- a minimum size of 10,000 hectares;
- the application of IUCN protected area categories I-IV.

This definition precludes consideration of many areas that may be considered as mountains that have been inscribed on the World Heritage List, such as Morne Trois Pitons National Park (Dominica, inscribed 1997) and the Laponian Area (Sweden, inscribed 1996), which do not have the minimum relief within their boundaries. For information, Map 17 displays both mountains and 'mountainous areas' that do not correspond to the above definition.

IMPORTANCE AND DEFINITION OF MOUNTAIN SITES

Mountains are vital for the ecological health of the world. Many mountain ecosystems have high biodiversity in terms of species richness and degree of endemism. In some cases, mountains appear to have acted as refuges from environmental and agricultural changes or competing species. Mountains also play crucial roles in regional and global hydrological cycles. They help to capture water in icecaps or glacier ice, and store it perhaps for many centuries. They also capture snow until it melts in spring and summer, providing essential water for settlements, agriculture and industries downstream – often during the period of lowest rainfall. In semi-arid and arid regions, over 90% of river flow comes from the mountains.[26] Many mountainous regions are associated with distinctive cultural patterns. And finally, of course, mountains are places of dramatic scenery (see box for definitions).

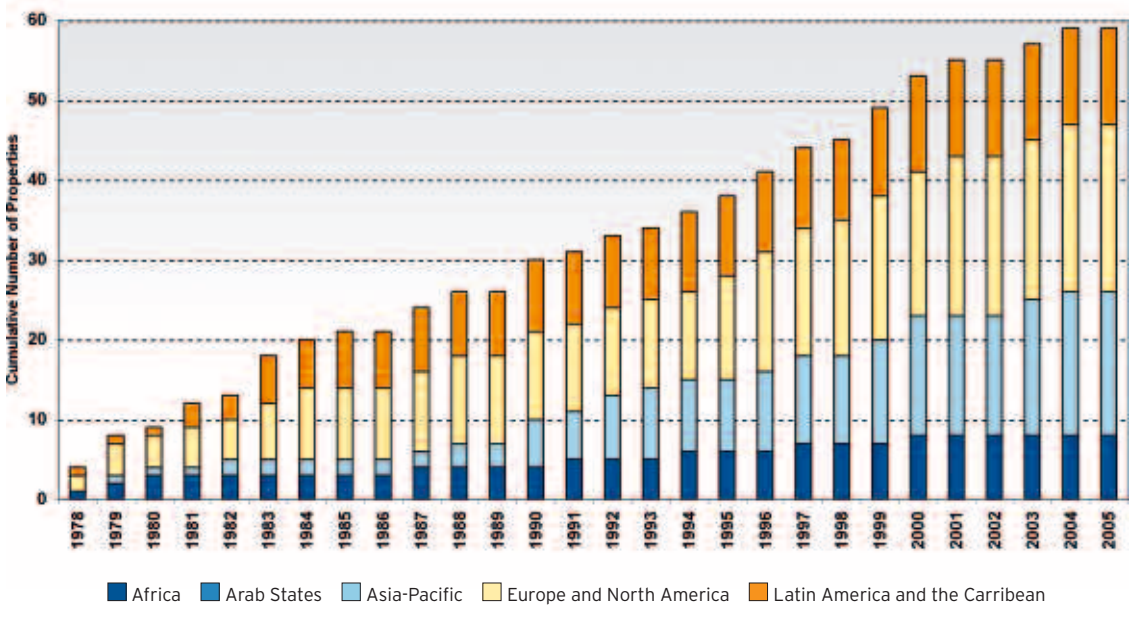
25. Thorsell and Hamilton (2003).

26. http://www.fao.org/docrep/w9300e/w9300e03.htm#topofpage

CANADIAN ROCKY MOUNTAIN PARKS (CANADA)

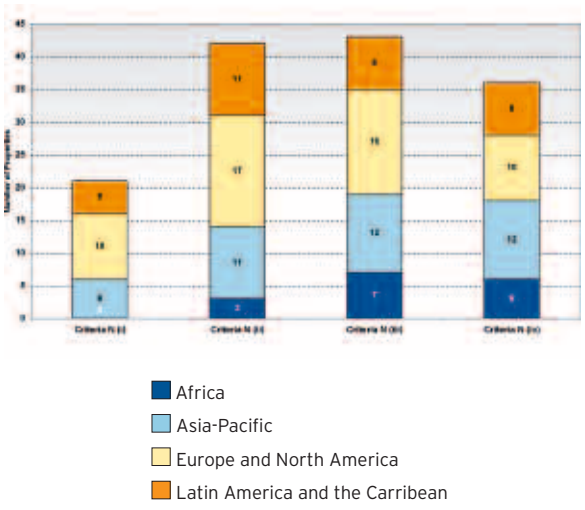
The contiguous national parks of Banff, Jasper, Kootenay and Yoho, as well as the Mount Robson, Mount Assiniboine and Hamber provincial parks, studded with mountain peaks, glaciers, lakes, waterfalls, canyons and limestone caves, form a striking mountain landscape. The Burgess Shale fossil site, well known for its fossil remains of soft-bodied marine animals, is also found there. This site, inscribed in 1984, meets criteria (i) and (ii) because of its geological importance and is a classic illustration of glacial geological processes; and criterion (iii) because of its exceptional natural beauty.

FIGURE 29 : WORLD HERITAGE MOUNTAIN SITES BY REGION (1978-2005)



UIS based on UNESCO/WHC databases

FIGURE 30 : CRITERIA USED FOR INSCRIPTION OF MOUNTAIN SITES BY REGION (1978-2005)



UIS based on UNESCO/WHC databases

Figure 30 indicates the wide range of natural features under which mountains can qualify. Further analysis of the inscription criteria also yields some interesting findings. Twelve of the mountain sites met all four natural criteria, such as Australia's Tasmanian Wilderness, Talamanca-La Amistad (Costa Rica and Panama) and the Three Parallel Rivers of Yunnan Protected Areas (China, see box p. 141). More than any other biome, mountain sites tend to meet a higher number of natural criteria. On the other hand, eleven mountain sites were inscribed under only one criterion. Examples include the Golden Mountains of Altai (Russian Federation) and Kilimanjaro National Park (United Republic of Tanzania). Many of these sites deserve scrutiny and perhaps renomination under additional criteria in order to reflect fully their values at global level. Ten mountain areas have also been inscribed as mixed sites, such as Pyrénées – Mont Perdu (France and Spain), Mount Athos (Greece) and the Historic Sanctuary of Machu Picchu (Peru). In fact, 42% of all twenty-four mixed sites occur in mountain areas.

CHARACTERISTICS OF WORLD HERITAGE MOUNTAIN SITES

As of August 2005, fifty-nine mountain protected areas that correspond to the above definition were inscribed on the World Heritage List (Figure 29). This represents 32% of the 184 natural and mixed sites listed as of August 2005. Eight of these mountain sites are in Africa, eighteen in Asia, twenty-one in Europe and North America and twelve in Latin America. Included are Kilimanjaro National Park (United Republic of Tanzania), Mount Wuyi (China), Ischigualasto / Talampaya Natural Parks (Argentina) and Canadian Rocky Mountain Parks (Canada; see box p. 139).

As mountain ranges are often used to delineate the borders between countries, it is not surprising that six of the nine transboundary natural and mixed sites on the World Heritage List occur in mountains. They include Talamanca Range – La Amistad Reserves / La Amistad National Park (Costa Rica and Panama), the highest and wildest non-volcanic mountain range in Central America, and Pyrénées – Mont Perdu (France and Spain).

At least twenty-five of these mountain sites have people living within their boundaries, with populations ranging from 50,000 at Lake Baikal (Russian Federation) to fifty at Mount Huangshan (China). Local activities include commercial fishing, subsistence hunting and gathering, pastoralism and provision of visitor services. It is clear that few mountain World Heritage sites are pristine wilderness areas without human influence. Furthermore, they illustrate the important human dimensions of these sites and the potential for States Parties to renominate them to take better account of their anthropological dimension and the possible interaction between people and the environment.

As of 2003, of an estimated total of 70 million visitors to all natural World Heritage sites, 48 million had visited mountain sites. Indeed, eight of the top ten most-visited natural World Heritage sites are mountains, with Great Smoky Mountains National Park (United States) and Canadian Rocky Mountain Parks heading the list with over 9 million annual visitors. Mountain World Heritage sites attract more visitors than any other biome type, accounting for approximately 72% of all visitors to natural sites worldwide. With such a high level of visitors, these sites need a planned policy for tourism management.

THREE PARALLEL RIVERS OF YUNNAN PROTECTED AREAS (CHINA)

Consisting of eight geographical clusters of protected areas within the boundaries of the Three Parallel Rivers National Park, in the mountainous north-west of Yunnan Province, this site features sections of the upper reaches of three of the great rivers of Asia: the Yangtze (Jinsha), Mekong and Salween. It was inscribed on the World Heritage List in 2003 under all four natural heritage criteria. Criterion (i) was used because the site displays the geological history of the last 50 million years associated with the collision of the Indian Plate with the Eurasian Plate, the closure of the ancient Tethys Sea, and the uplifting of the Himalaya Range and the Tibetan Plateau. Criterion (ii) was used for the mix of geological, climatic and topographical effects. First, the location of the area within an active orographic belt has resulted in a wide range of rock substrates from four types of igneous rock, as well as various sedimentary types including limestones, sandstones and conglomerates. This site also fulfils criterion (iii) as the deep, parallel gorges are outstanding natural features of high aesthetic value; high mountains are everywhere, with the glaciated peaks providing a spectacular skyline. Finally, the high biodiversity and endemism of the site, with a number of rare species, fulfil criterion (iv).

SUGGESTIONS FOR ADDITIONAL MOUNTAIN PROTECTED AREA NOMINATIONS

In their study on mountains, Thorsell and Hamilton[27] recommended that some of the mountain sites that have, over the years, been deferred by the Committee, be renominated to the World Heritage List. These include Bale Mountains National Park (Ethiopia), whose legal status needs clarification, and Sierra de los Minas (Guatemala), which needs redefinition of its boundaries and clarification of its criteria for inscription.

IUCN also recommended the extension of the boundaries of some existing mountain World Heritage sites so that they could become part of transboundary sites, for example, the renomination of Sagarmatha National Park (Nepal) along with the adjoining Makalu Barun National Park and the Chinese side of Mount Everest, Zhu Feng Nature Reserve.

FURTHER INFORMATION

High Mountain Areas of the World Heritage. 1996. *World Heritage*, No. 2, pp. 40-49.

Price, M. 1998. *Mountains: Globally Important Ecosystems. Unasylva*, No. 195, Rome, UN Food and Agriculture Organization. http://www.fao.org/docrep/w9300e/w9300e03.htm#topofpage

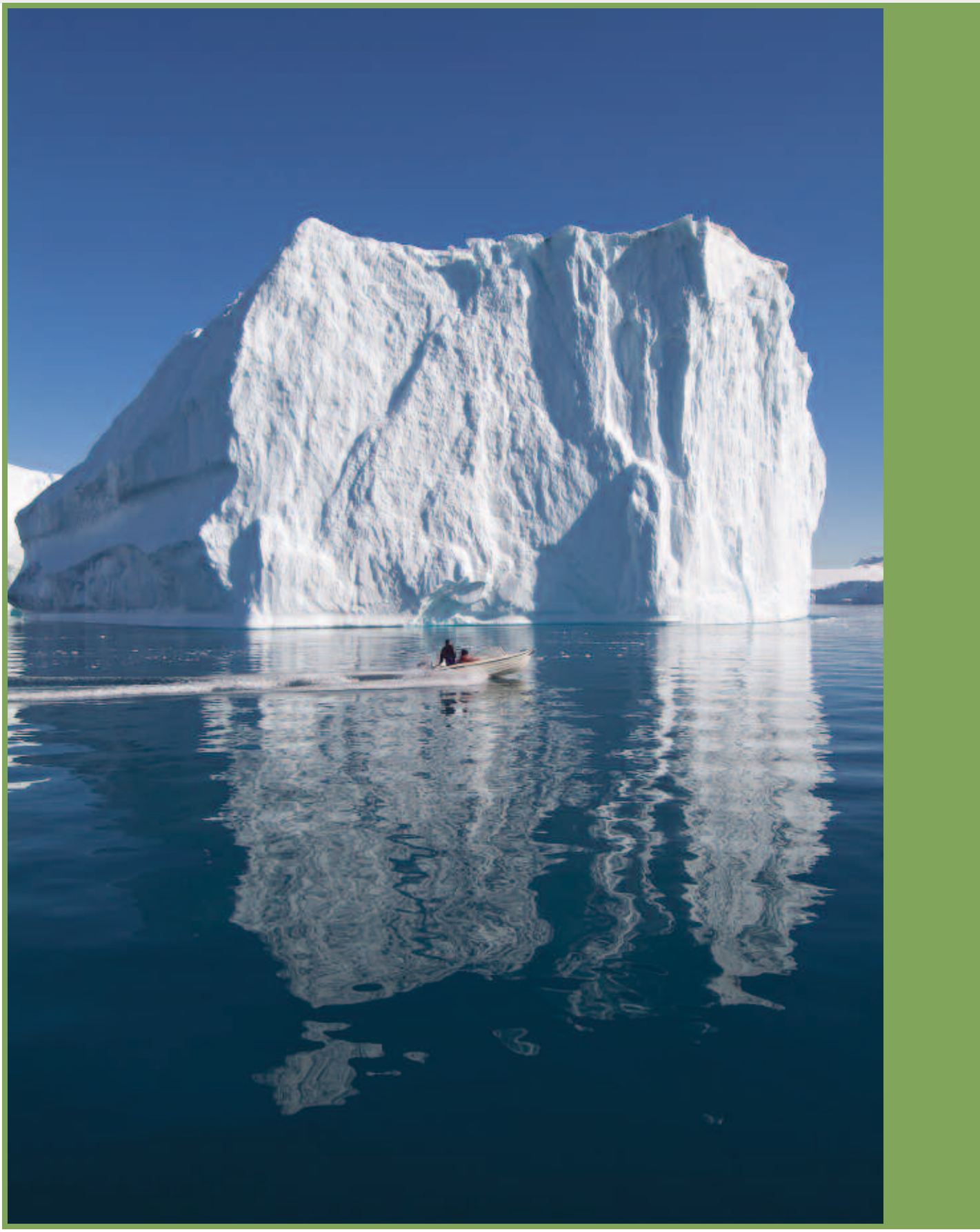
Rössler, M. 1997. Lake Baikal. The Pearl of Siberia. *World Heritage*, No. 7, pp. 52-62.

Thorsell, J. and Hamilton, L. S. 2003. A Global Overview of Mountain Protected Areas on the World Heritage List. In: D. Harmon and G. Worboys (eds.), *Managing Mountain Protected Areas in the 21st Century*. Colledara, Italy, Andromeda Editrice.

UNESCO in the Mountains of the World, CD produced on the Occasion of the UN year on Mountains, MAB-WHC. 2002. Paris, UNESCO.

Price, Martin F. 1995. Mountain Research in Europe. *Man and the Biosphere (MAB) book series*. Vol. 14. Paris, UNESCO.

27. Thorsell and Hamilton, op. cit., p.15-16

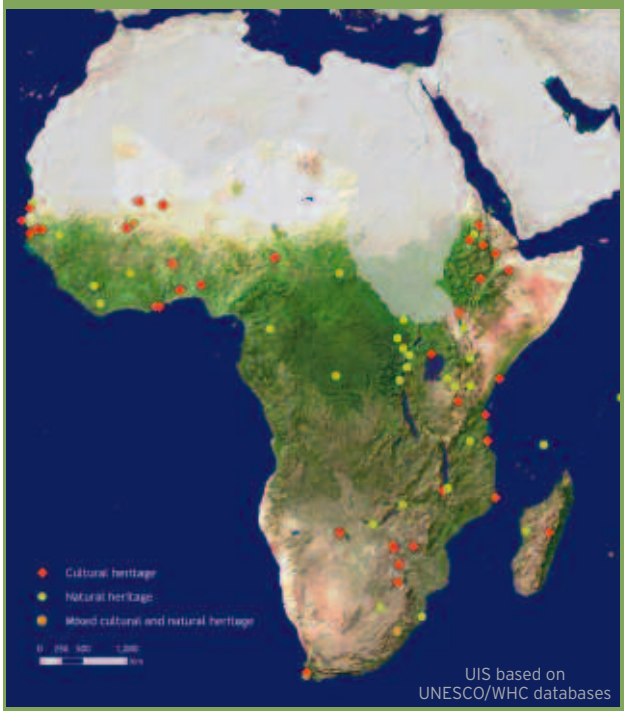


REGIONAL PRESENTATIONS

Have the regional meetings organized primarily for the implementation of the Global Strategy had a real impact on the inscription of new sites? Does a balance between all the regions on the World Heritage List appear possible? This section considers these questions through analyses of regional selection and nomination of sites for inclusion on the List. The World Heritage Convention has not defined regions and regional groups. For practical purposes the presentations are based on the five official UNESCO regions, Africa, Arab States, Asia and the Pacific, Europe and North America, Latin America and the Caribbean. The information on States Parties and sites reflects the structure of the Periodic Reporting exercise as approved by the World Heritage Committee. The data analysed include the Tentative Lists per region, the ratio between sites nominated and those inscribed, and the types of site inscribed per region and year. Particular attention has also been given to the presentation of the regional Global Strategy meetings, which have been key activities since 1994, and their tangible results. Important results of the regional Periodic Reports relating to the issues under consideration are also presented.

WORLD HERITAGE IN AFRICA

MAP 18: WORLD HERITAGE IN AFRICA (JULY 2006)

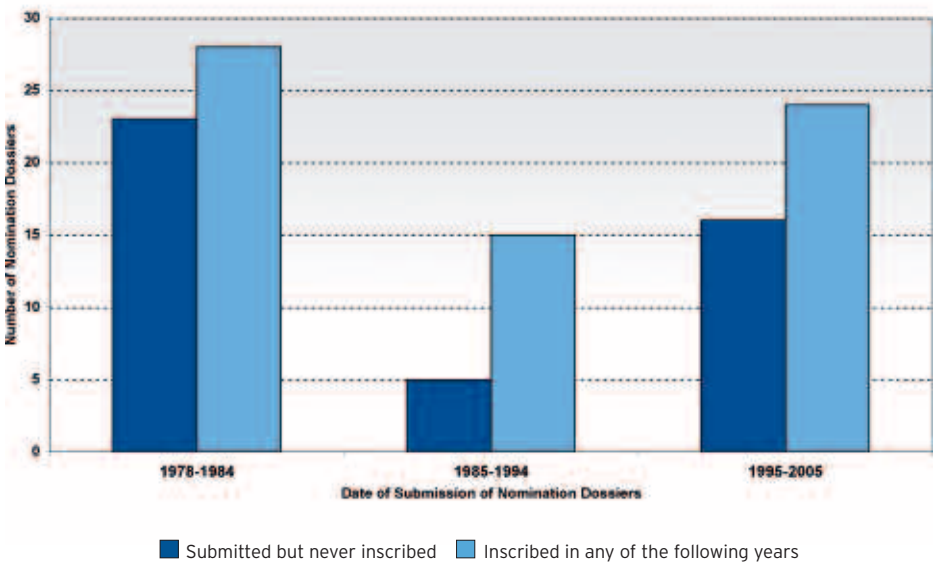


EVOLVING PARTICIPATION (1978-1994)

Figure 31 shows that, from 1978 to 1984, fifty-one sites had been nominated for inclusion on the World Heritage List and twenty-eight of them were subsequently inscribed. During these first years of implementation of the World Heritage Convention, the number of sites nominated was twice as many as during the following ten years. This active participation of African States Parties might be due to the wider scope offered by the cultural heritage criteria before 1980 (Section 1, p. 39). Seventeen natural and eleven cultural heritage sites were inscribed during that time (Figure 32), such as Kilimanjaro National Park (see box), Dja Faunal Reserve (Cameroon) and the Rock-Hewn Churches, Lalibela (Ethiopia).

Between 1985 and 1994, only fifteen more African sites were added to the World Heritage List, representing only half the number inscribed between 1978 and 1984. By the mid-1990s, Africa had therefore become under-represented, with only 10% of its sites listed (Map 18). Sites that were inscribed include Bwindi Impenetrable National Park (Uganda) and Air and Ténéré Natural Reserves (Niger). During meetings for the implementation of the Global Strategy in Africa, a number of reasons were given to explain this situation. For example, the cultural heritage criteria in the *Operational*

FIGURE 31: NOMINATION DOSSIERS SUBMITTED (SITE EXTENSIONS INCLUDED) AND OUTCOME, AFRICA (1978-2005)

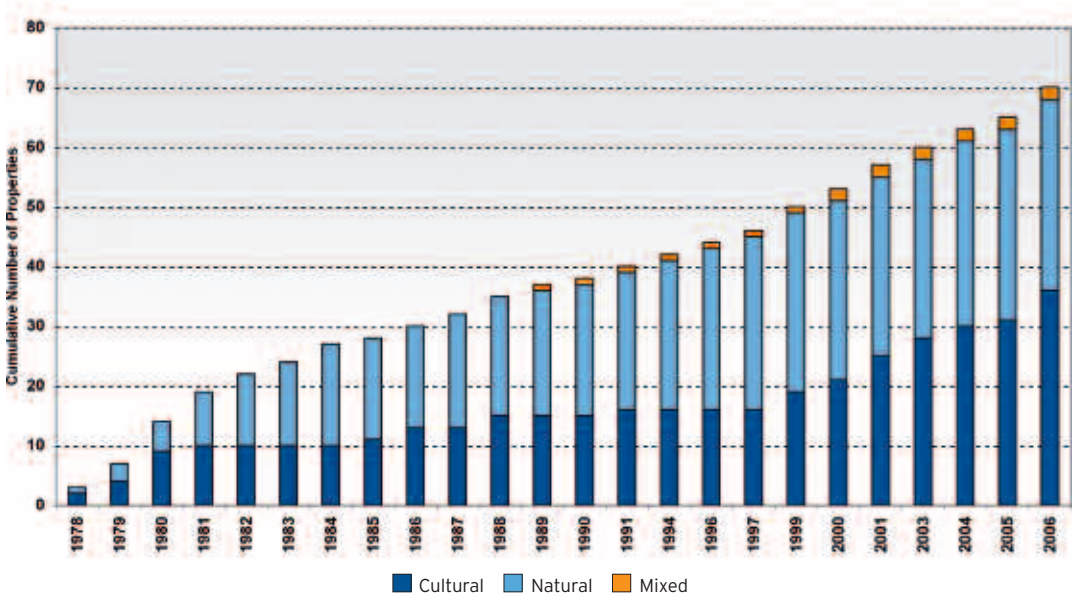


UIS based on UNESCO/WHC databases

KILIMANJARO NATIONAL PARK (UNITED REPUBLIC OF TANZANIA)

Among the impressive African natural World Heritage sites is Kilimanjaro, which is not only the highest mountain of the continent, rising to 5,895 m, but also one of the largest volcanoes in the world (last showing signs of major activity in the Pleistocene). It was included on the World Heritage List in 1987 under natural heritage criterion (iii) because of its exceptional natural beauty that has made it an iconic image of Africa.

FIGURE 32: WORLD HERITAGE SITES BY TYPE, AFRICA (1978-2006)



UIS based on UNESCO/WHC databases

Guidelines were not considered well suited to the heritage of Africa until they were revised in 1994, as they downplayed the multiple and complex relationships between cultural heritage and its physical and intangible environment. Furthermore, as detailed in Section 1, a restrictive and Eurocentric interpretation of the criterion of authenticity also tended to disadvantage African cultural heritage.

GLOBAL STRATEGY MEETINGS: AFRICA AT THE FOREFRONT

Following the adoption of the Global Strategy, at least five regional and thematic meetings have been organized to encourage more African countries to join the World Heritage Convention and implement it actively. Symbolically, the first Global Strategy meeting took place on the African continent, in Harare (Zimbabwe), in October 1995. The objectives of these different meetings were to obtain recognition of the wealth and diversity of African heritage and improve its representation on the World Heritage List. The meetings were also important in initiating and encouraging fruitful exchanges of experience between participating experts and helping them to acquire a deeper understanding of the Convention system. They were useful, too, in encouraging countries that had not done so to ratify the World Heritage Convention, and to help them in the preparation of Tentative Lists and nomination dossiers. Five themes considered to be under-represented on the List were selected to guide the discussions as well as the identification and nomination of African sites: archaeological heritage, traditional know-how and technical heritage, religious and spiritual heritage, human settlements, and cultural itineraries and trade routes.

TANGIBLE RESULTS OF GLOBAL STRATEGY MEETINGS

The overall awareness of the World Heritage Convention has increased notably. Between 1994 and August 2006, thirteen new States Parties from Africa have ratified the Convention, including South Africa in 1997, Togo in 1998 and Sierra Leone in 2005. A total of forty-three countries have therefore become party to the Convention as of 2006, against twenty-eight in 1994. Only three countries from this region had not yet ratified the Convention as at July 2006: Djibouti, Equatorial Guinea and Somalia.

Whereas in March 1995 none of the forty-two African States Parties had submitted a Tentative List, as of March 2006 thirty-two had done so. Map 19 (p. 148) clearly shows that most States Parties that have no current Tentative List are located in western Africa. According to the 2002 ICOMOS analyses of Tentative Lists, the majority of the cultural sites are archaeological, followed by symbolic sites and cultural landscapes. The themes identified in the regional Global

OSUN-OSOGBO SACRED GROVE (NIGERIA)

The dense forest of the Osun Sacred Grove and its meandering river is dotted with sanctuaries and shrines, sculptures and artworks in honour of Osun and other Yoruba deities. This site was inscribed in 2005 under cultural heritage criterion (ii) because the development of the movement of New Sacred Artists and the absorption of Suzanne Wenger, an Austrian artist, into the Yoruba community have led to a fertile exchange of ideas that has revived the sacred Osun Grove. The site also fulfils cultural criterion (iii) as the largest and perhaps the only remaining example of a once widespread phenomenon that used to characterize every Yoruba settlement. Finally, it meets criterion (vi) as a tangible expression of Yoruba divinatory and cosmological systems; its annual festival is a living, thriving and evolving response to Yoruba beliefs in the bond between people, their ruler and the Osun goddess.

Strategy meetings have therefore been partially taken into account in these Tentative Lists.

Between 1995 and 2006, twenty-eight new African sites were added to the World Heritage List: in all there are now seventy sites inscribed. While natural heritage sites tended to predominate until 1995, only a third of the sites inscribed during the last decade were natural heritage (Figure 32). This might be a direct impact of the Global Strategy meetings and of AFRICA 2009 (see box). Cultural heritage sites recently inscribed include the Fossil Hominid Sites of Sterkfontein, Swartkrans, Kromdraai, and Environs (South Africa) and Osun-Osogbo Sacred Grove (Nigeria; see box). Natural heritage sites include Mount Kenya National Park / Natural Forest (Kenya) and Vredefort Dome (South Africa). Only one mixed site, uKhahlamba / Drakensberg Park (South Africa), was inscribed in the same period.

CHALLENGES AND PROSPECTS

Despite all these efforts and the progress made, a number of issues still prevent the full implementation of the World Heritage Convention and conservation of heritage in Africa.

AFRICA 2009

AFRICA 2009 is a partnership of African cultural heritage organizations, ICCROM, UNESCO World Heritage Centre, Earth Construction Research Centre of Grenoble School of Architecture (CRATerre-ENSAG), École du Patrimoine Africain (EPA) and Centre for Heritage Development in Africa (CHDA). Launched in 1998 following the start of the Global Training Strategy and a need assessment and survey to determine the present state of conservation of immovable cultural heritage in Africa, this programme developed around the idea that conservation problems in Africa must be addressed not only through technical solutions, but also through the relationships between immovable heritage and the relevant communities and overall environment.

The aim of AFRICA 2009 is to increase national capacity in sub-Saharan Africa for management and conservation of immovable cultural heritage. It does so through training, raising awareness of the importance of heritage, and creating better networking among professionals and institutions in the region. ICCROM is responsible for the secretariat and day-to-day management while site projects are overseen by CRATerre-ENSAG.

All activities are guided by a series of principles, including involving the local community in planning for and protecting their heritage resources, giving priority to local knowledge systems, ensuring tangible benefits to local communities, seeking simple, incremental solutions to problems, and focusing on prevention and maintenance as a cost-effective and sustainable strategy for management and conservation.

Activities have been structured on two levels. At regional level, training courses, seminars and networking favour reflection and progressive development of ideas. In addition to a yearly course on conservation and site management, thematic seminars have been held on legal frameworks for conservation, documentation and inventory, sustainable tourism and awareness. Two technical courses were also held on inventory and documentation of immovable heritage.

Projects at site level ensure that AFRICA 2009 is deeply rooted in reality while responding to the specific needs of selected sites for training and conservation activities. Projects range from the preparation of nomination dossiers for the World Heritage List (five sites with nominations prepared within AFRICA 2009 have been inscribed: Stone Circles of Senegambia in the Gambia and Senegal, Tomb of Askia in Mali, Osun-Osogbo Sacred Grove in Nigeria, Tombs of Buganda Kings at Kasubi in Uganda, and Kondoa Rock-Art Sites in the United Republic of Tanzania) to development management or maintenance plans and carry out of conservation works.

As of 2005, 175 participants from forty-three countries have taken part in training activities and many of these have later helped in teaching other courses or workshops, thus increasing the number of trained heritage professionals in the region. Some countries are also conducting legal reforms, such as Angola, Kenya, Namibia and Zimbabwe. Many institutions and professionals have also begun national and site inventories and documentation, thus facilitating the drafting of Tentative Lists and nomination dossiers. Perhaps the most lasting success of AFRICA 2009, however, will be the strengthened network of the professionals and institutions that have been brought together. This network will ensure that the results obtained during the twelve years of the programme will be able to continue in a sustainable way in future.

http://www.africa2009.net/index.htm

AFRICAN WORLD HERITAGE FUND (2005)

In 2005, for the first time, an annual session of the World Heritage Committee was organized in sub-Saharan Africa, in Durban (South Africa). During that session the setting up of an African World Heritage Fund was unanimously supported. This fund, launched in May 2006, awards grants to help African States Parties to prepare national inventories of their heritage and nomination dossiers. Help will also be extended to train personnel to carry out these tasks. Activities relating to conservation and management of African sites will also be eligible for funding.

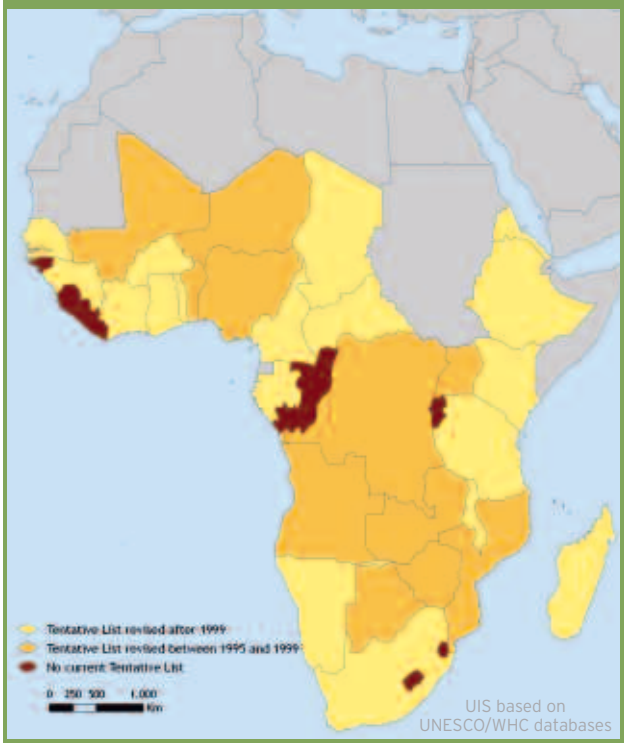
http://whc.unesco.org/en/news/253

As indicated by the results of some Periodic Reports, the lack of documentation and information is a major problem, hindering the preparation of Tentative Lists and nomination dossiers. Heritage legislation, in a number of cases, was adopted in colonial times and does not necessarily reflect the specificities of the region. Furthermore, effective strategies for sustainable development based on a holistic conservation of sites and the environment are often lacking. Too often heritage is seen as an obstacle to development and somehow in opposition to the process of modernization.

A number of sites are also imperilled and, as of July 2006, thirteen (42%) of the thirty-one sites on the List of World Heritage in Danger were located in Africa, against five in 1994. Twelve of these are natural heritage sites, six of which – almost half of the African sites on the Danger List – have been included as a consequence of ongoing conflicts in the Great Lakes region (see chapters on forests, pp. 120-126, and conflicts, p. 176). As detailed in Section 5, poaching and development pressures are also major threats to World Heritage sites in the region.

These results have led to the development of diverse activities to strengthen the implementation of the Convention in Africa. An African World Heritage Fund was created in 2005 (see box). An action plan has also been developed based on the results from the Periodic Reports. One of the programmes, Management of African Natural Sites, is a management training course for African natural heritage site managers. It is structured though an international network with regional objectives and on-site projects. It completes AFRICA 2009 (see box p. 147).

MAP 19: TENTATIVE LISTS AND REVISION DATES, AFRICA (MARCH 2006)



FURTHER INFORMATION

Periodic Reports. Progress Report on the Implementation of the Recommendations of the Periodic Report for Africa 2002-2005 and AFRICA 2009. 2005. Twenty-ninth session of the World Heritage Committee, Durban, South Africa, 10-17 July. (WHC-05/29.COM/11C.)

Munjeri, D. et al. (eds.) 1995. African Cultural Heritage and the World Heritage Convention. *First Global Strategy Meeting (Harare, Zimbabwe, 11-13 October 1995).* Paris, UNESCO World Heritage Centre. http://whc.unesco.org/en/globalstrategy/

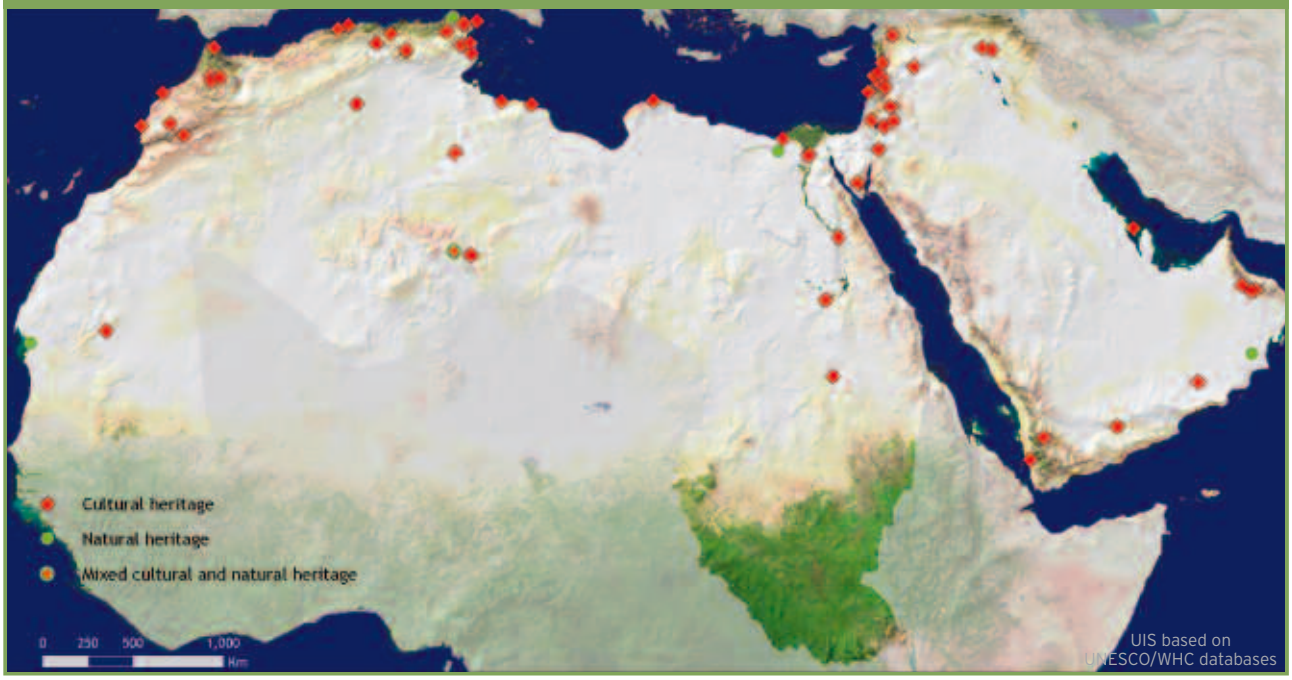
Resources on AFRICA 2009. http://www.africa2009.net/english/resources/index.shtm

South Africa. 2005. *World Heritage* Special Issue, No. 40.

Periodic Report Africa. 2003. Paris. UNESCO World Heritage Centre. (World Heritage Report No. 3)

WORLD HERITAGE IN THE ARAB STATES

MAP 20: WORLD HERITAGE IN THE ARAB STATES (JULY 2006)



ACTIVE PARTICIPATION (1978-1984)

Figure 33 indicates a similar evolution to that noted for Africa. Indeed, from 1978 to 1984, sixty sites were nominated for inclusion on the List, thirty-four of which would subsequently be inscribed (Map 20). During this period, more sites were nominated for inscription than during the following twenty years. This active participation from the Arab States might be due to the wider scope offered by the cultural heritage criteria before 1980.

As Figure 34 (p. 151) indicates, all the World Heritage sites included from 1979 to 1984 were cultural, with the exception of the natural site of Ichkeul National Park (Tunisia; see box p. 150) and the mixed site of Tassili n'Ajjer (Algeria). Cultural heritage sites include Tipasa (Algeria), Islamic Cairo, the Nubian Monuments from Abu Simbel to Philae (Egypt) and the Medina of Fez (Morocco).

INCREASED UNDER-REPRESENTATION (1985-2000)

From 1985 to 2000, only twenty-five sites (twenty-three cultural and two natural) from this region were included on the World Heritage List. In 2000 the Arab region corresponded to only 8% of the total sites listed and was therefore under-represented. While the results of the Periodic Reports indicate some reasons for this lack of active participation in the implementation of the Convention, it is also important to stress that very few Global Strategy meetings were organized in this region during the period 1994–2000, thus preventing regional experts from being actively involved.

REGIONAL PERIODIC REPORTS: KEY PROBLEMS IDENTIFIED

In 2000, the regional Periodic Report for the Arab States was presented to the Committee. It demonstrated the lack of inventories that should provide the basis for the selection of sites for Tentative Lists. Legislative and institutional frameworks were also deemed insufficient and excluded some categories of heritage, such as modern heritage. Following these results, several activities have been undertaken to help solve these issues and increase active participation in the implementation of the Convention, including regional thematic meetings as well as training workshops and specific projects on the Convention and conservation of World Heritage sites in the region. Important work is also under way to translate key texts and some pages of the World Heritage Centre website into Arabic.

ICHKEUL NATIONAL PARK (TUNISIA)

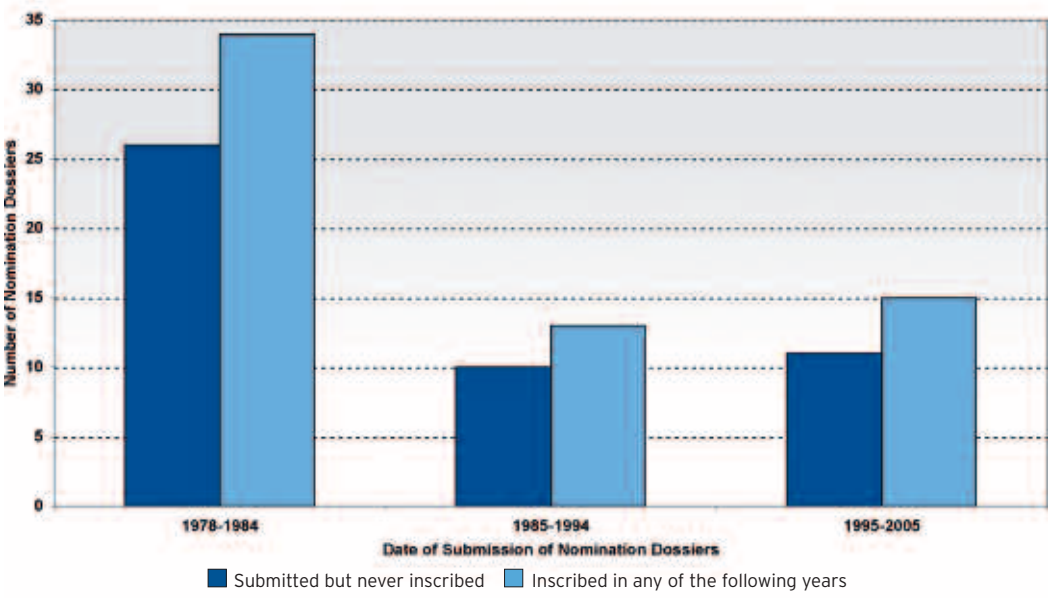
Ichkeul Lake and wetland was inscribed in 1980 under natural criterion (iv) as it is a major stopover point for thousands of migrating birds, such as ducks, geese, storks and pink flamingoes, who come to feed and nest there. The park was also inscribed on the List of World Heritage in Danger in 1996. In fact the construction of three dams on rivers supplying Lake Ichkeul and its marshes has cut off almost all inflow of fresh water, causing a destructive increase in the salinity of the lake and marshes. Reed beds, sedges and other fresh-water plant species have been replaced by halophytic plants, with a consequent sharp reduction in the migratory bird populations dependent on the habitat that the lake formerly provided. Efforts by the State Party have led to the removal of this site from the List of World Heritage in Danger in July 2006.

CURRENT SITUATION AND FUTURE PROSPECTS

As of July 2006, all the Arab States have ratified the Convention. Map 21 shows that six States Parties have not yet submitted a Tentative List. An important imbalance still exists towards cultural heritage on these Tentative Lists, mirroring the imbalance on the World Heritage List. Concerning the types of sites on the Tentative Lists, the 2002 ICOMOS analysis demonstrates the predominence of archaeological sites and to a lesser degree of historic towns. This analysis noted the almost complete absence of sites identified as under-represented on the World Heritage List during discussions on the implementation of the Global Strategy, including modern heritage sites or cultural landscapes.

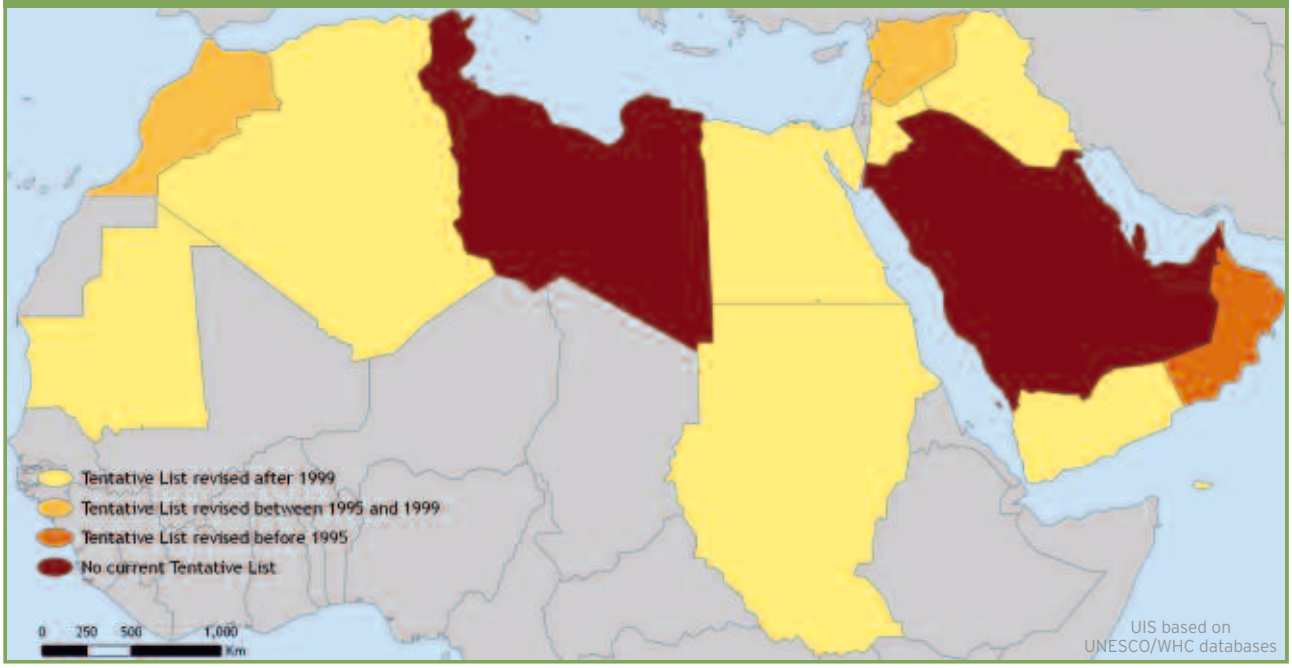
Between 2000 and July 2006 eleven new sites from the Arab States were included on the World Heritage List. In all there are now sixty-three World Heritage sites in this region. Sites listed in the past decade have included the natural heritage site of Wadi Al-Hitan (Whale Valley) in Egypt and the cultural sites of the Land of Frankincense (Oman), Um er-Rasas (Kastrom Mefa'a) (Jordan) and Ashur (Qal'at Sherqat) (Iraq; see box p. 152). This increased activity may be considered as a positive effect of the meetings organized as a follow-up to the Periodic Reporting exercise. Despite this increase, there is still a lack of natural World Heritage sites, demonstrating the need to further reinforce national

FIGURE 33: NOMINATION DOSSIERS SUBMITTED (SITE EXTENSIONS INCLUDED) AND OUTCOME, ARAB STATES (1978-2005)



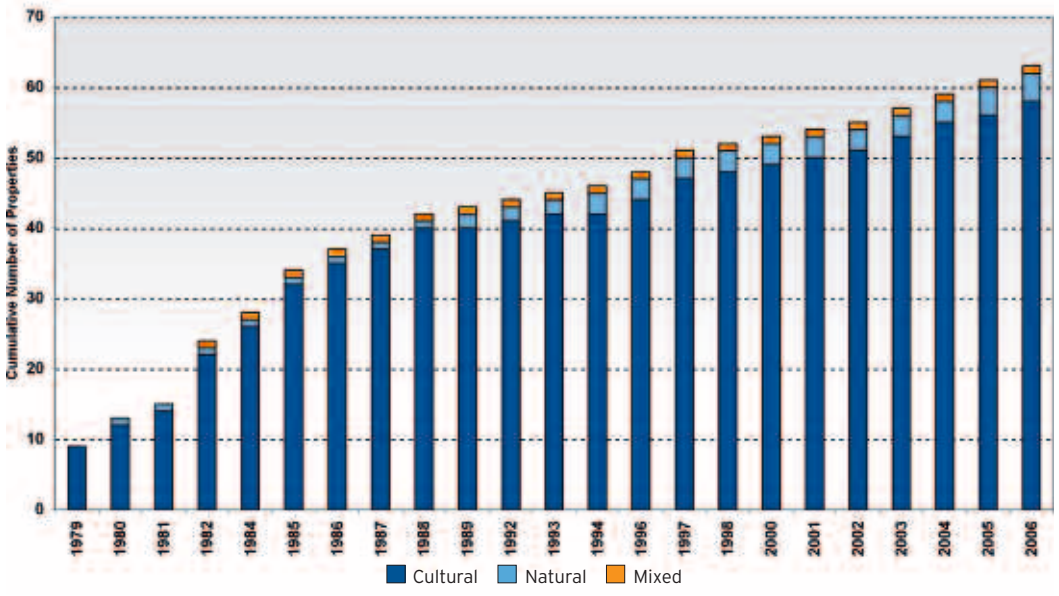
UIS based on UNESCO/WHC databases

MAP 21: TENTATIVE LISTS AND REVISION DATES, ARAB STATES (MARCH 2006)



legislation and institutional frameworks for protection. Sites from this region representing new categories of heritage, such as modern heritage or cultural landscapes, do not feature prominently. It might therefore be necessary to encourage the organization of regional and national workshops on the evolution of the concept of outstanding universal value.

FIGURE 34: WORLD HERITAGE SITES BY TYPE, ARAB STATES (1978-2006)



UIS based on UNESCO/WHC databases

ASHUR (QAL'AT SHERQAT) (IRAQ)

The ancient city of Ashur is located on the Tigris River in northern Mesopotamia. It was inscribed on the World Heritage List in 2003 under cultural heritage criterion (iii) because of the key role it played from the fourteenth to the ninth centuries BC, when it was the first capital of the Assyrian Empire. Ashur was also the religious capital of the Assyrians, and the place for crowning and burial of their kings. It also fulfilled criterion (iv) as the excavated remains of the public and residential buildings of Ashur provide an outstanding record of the evolution of building practice from the Sumerian and Akkadian period to the Assyrian Empire. Ashur was simultaneously inscribed on the List of World Heritage in Danger in 2003 because of a large dam project that would have partially flooded the site with a reservoir. While the dam project has been suspended by the current administration, the Committee considered that its possible future construction, as well as the present lack of adequate protection, justified this inscription.

FURTHER INFORMATION

Progress Report on the Implementation of the Recommendations of the Periodic Report for the Arab States. 2006. Thirtieth session of the World Heritage Committee, Vilnius, Lithuania, 8-16 July. (WHC-06/30.COM/11C.1.)

Jansen, M. 2004. Land of Frankincense. *World Heritage*, No. 38, pp. 54-63.

Pagès, J-L. 2002. Islamic Cairo. *World Heritage*, No. 26, pp. 36-47.

Periodic Report and Regional Programme - Arab States - 2000-2003. 2004. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 11.)

WORLD HERITAGE IN ASIA AND THE PACIFIC

MAP 22: WORLD HERITAGE IN ASIA AND THE PACIFIC (JULY 2006)

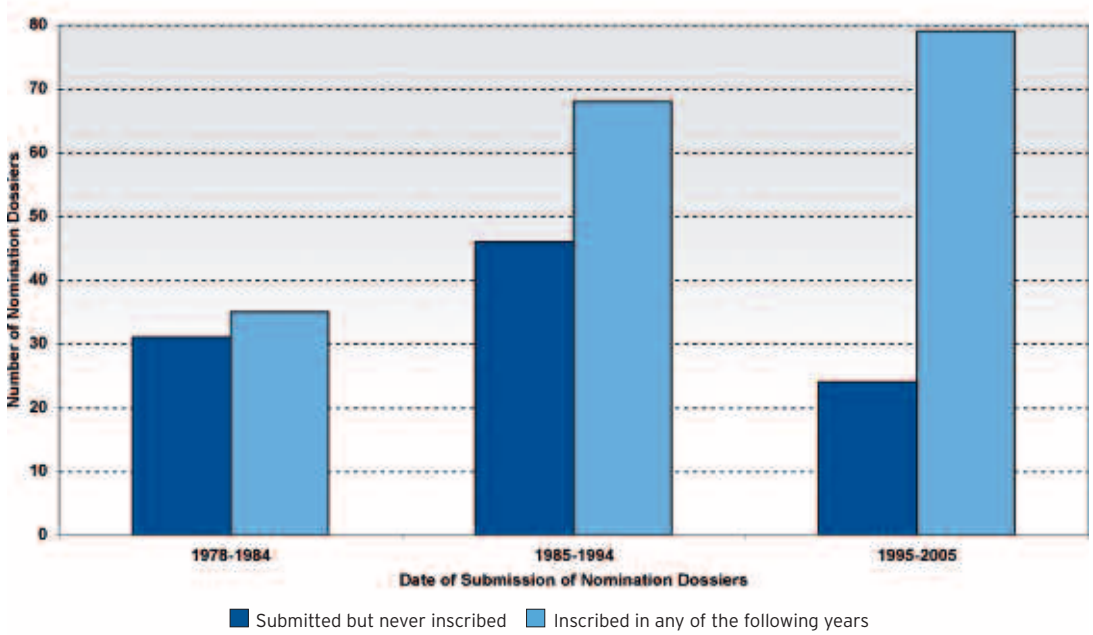
IMPORTANT DISPARITIES (1978-1994)

From 1978 to 1994, five sites in the Asia-Pacific region were inscribed on average each year on the World Heritage List (Map 22, Figure 35 p. 154). However, important disparities existed. India and China were among the most active States Parties, with twenty-one and fourteen sites respectively inscribed during that time. On the other hand, Asian States Parties such as Afghanistan and Uzbekistan had no site listed. As for the Pacific, during that time, only Australia and New Zealand heritage had World Heritage sites. The status of ratification of this Convention in the region was also uneven. In 1994, 80% of all Asian countries, but only 23% of Pacific ones, had signed the Convention. During that period, iconic

BOROBODUR TEMPLE COMPOUNDS (INDONESIA)

The Borobodur Temple Compounds site was inscribed in 1991 under criteria (i), (ii) and (vi). Borobudur is a unique artistic achievement as one of the greatest Buddhist monuments in the world. It was founded by a king of the Saliendra dynasty around AD 800 to honour the glory of the Buddha. The structure, composed of 55,000 m² of lava-rock, is erected on a hill in the form of a stepped pyramid of five rectangular storeys, three circular terraces and a central stupa forming the summit. Its architecture is also associated with the Buddha's teaching, which is expressed in the choice of reliefs. The higher up the stupa the more abstract the presentations, symbolizing the fact that the highest state of spiritual achievement is beyond any description by human faculties. This monument was restored with UNESCO assistance in the 1970s.

FIGURE 35: NOMINATION DOSSIERS SUBMITTED (SITE EXTENSIONS INCLUDED) AND OUTCOME, ASIA AND THE PACIFIC (1978-2005)



UIS based on UNESCO/WHC databases

sites were listed such as Borobudur Temple Compounds (Indonesia; see box), the Taj Mahal (India), The Great Wall (China), the Great Barrier Reef (Australia) and Manas Wildlife Sanctuary (India).

IMPLEMENTATION OF GLOBAL STRATEGY

Since the early years of the Convention, the Pacific region has not had many sites inscribed on the World Heritage List, with the exception of Australia and New Zealand. For this reason, two regional and thematic Global Strategy meetings were organized from the mid-1990s onwards for the Pacific Islands. During these meetings, participants noted that the region contains a series of spectacular and highly powerful and spiritually valued natural features and cultural places, rather than an extensive range of monuments and human built permanent features. These places are related to the origins of peoples, the land and sea, and other sacred stories. Among the recommendations was that the preparation of Tentative Lists, nomination and selection of relevant World Heritage criteria must be carefully conducted with constant reference to the specific features, needs, cultural traditions and knowledge, and the dominance of custom-based land tenure of the region. It was also strongly stressed that decisions about World Heritage conservation in the Pacific islands have to be formulated in partnership with, and with the agreement of, local communities and individual landholders who are the custodians and who have the sites under direct political, spiritual and traditional control.

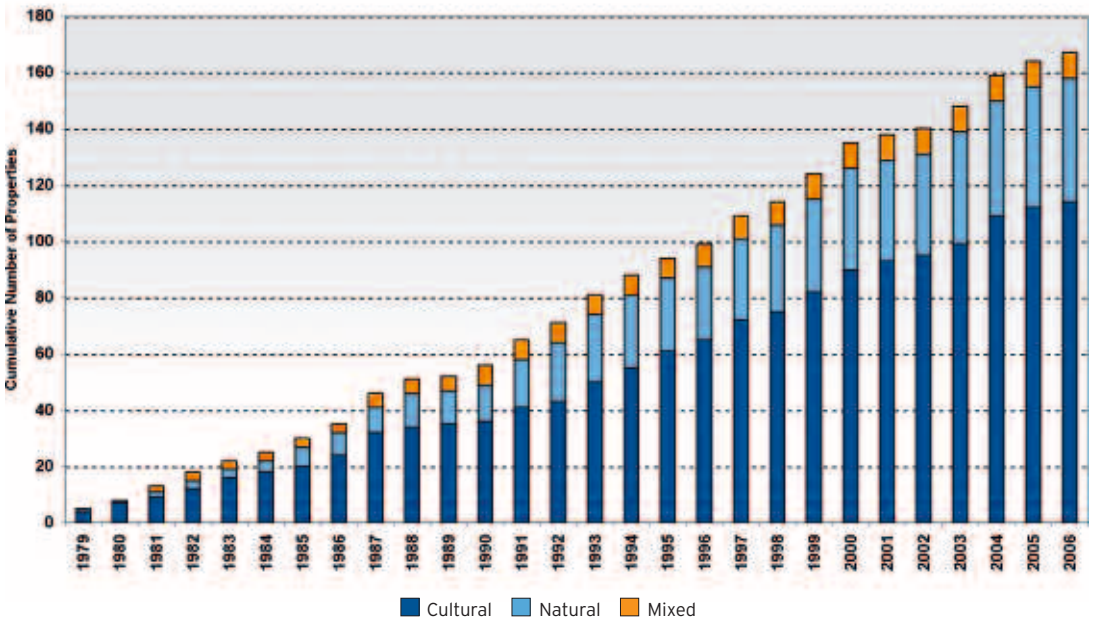
Two regional meetings were also organized for central Asian and south-east Asian States Parties in 2000 and 2001. The first, the Global Strategy Expert Meeting on Central Asian Cultural Heritage, was held in Turkmenistan in May 2000 and identified themes attesting to the cultural-ethnic diversity of this region, which could enhance the geographical and thematic representativity of the World Heritage List, including centres and routes of religious and cultural exchange, landscapes, and ancient and medieval civilizations. The second, the Global Strategy Meeting for States Parties in South-East Asia, held in Tana Toraja (Indonesia) in April 2001, highlighted the importance of identifying and protecting the vernacular architecture and traditional settlements of the region's numerous ethnic communities. Experts at this meeting also stressed that the conservation of the remarkable regional architecture and fast disappearing timber buildings requires urgent attention.

CURRENT SITUATION AND PROSPECTS

The Pacific

In 2005, thirteen countries from the Pacific had become party to the World Heritage Convention; thus only four

FIGURE 36: WORLD HERITAGE SITES BY TYPE, ASIA AND THE PACIFIC (1978-2006)



UIS based on UNESCO/WHC databases

EAST RENNELL (SOLOMON ISLANDS)

East Rennell is located on the southern third of Rennell Island, the southernmost of the Solomon Island group. Rennell is the world's largest raised coral atoll. This site was inscribed in 1998 under natural criterion (ii) because of its importance for the science of island biogeography. Combined with the strong climate effects of frequent cyclones, East Rennell is a true natural laboratory. With this inscription, the World Heritage Committee acknowledged for the first time that sites could be protected through customary management.

countries have not yet become party to it. While only one State Party had a Tentative List in 1995, as of May 2006 four additional lists had been submitted and three were under preparation. Between 1994 and July 2006, five sites from Australia and one from New Zealand were inscribed on the World Heritage List. Some of these inscriptions illustrate under-represented categories detailed in the 1994 text of the Global Strategy, such as the Royal Exhibition Building and Carlton Gardens (Australia), inscribed in 2004, which reflects the global influence of the International Exhibition movement of the nineteenth and early twentieth centuries. However, only one site has been listed for the other Pacific States Parties: East Rennell (Solomon Islands; see box).

The implementation of the World Heritage Convention in the Pacific region therefore remains quite low. For this reason, the World Heritage Committee in 2003 approved the World Heritage – Pacific 2009 Programme.[1] This programme was officially launched in October 2004 at Tongariro National Park (New Zealand). An Action Plan for its implementation was produced by experts, representatives from the Pacific Island Countries and Territories (PICTs) and partner organizations and adopted in 2004. The plan is designed to assist PICTs with the preparation of Tentative Lists and nominations, of conservation and management plans, and with raising awareness and capacity of national institutions in implementing the Convention. Activities undertaken since then include the identification of main themes for potential studies (see box). In addition, potential World Heritage cultural sites have been identified in each PICT.

Asia

Between 1994 and 2006, three new Asian countries ratified the World Heritage Convention, bringing the total ratifications from this region to twenty-seven. Three countries, Brunei, Singapore and Timor-Leste, have yet to ratify the Convention. Twenty-five States Parties have submitted Tentative Lists as of March 2005, against only seven in March 1995. This region has 147 sites inscribed on the World Heritage List as of July 2006. A few sites illustrating a number of under-represented categories of heritage have been listed, which demonstrates some respect for the Global Strategy's recommendations. They include industrial heritage such as the Mountain Railways of India (1999, extended 2005) and Chhatrapati Shivaji Terminus (formerly Victoria Terminus) (inscribed in 2004, also India), or cultural landscapes such as Sacred Sites and Pilgrimage Routes in the Kii Mountain Range (Japan, 2004), and Petroglyphs within the Archaeological Landscape of Tamgaly (Kazakhstan, 2004).

1. http://whc.unesco.org/en/activities/5/

THEMATIC FRAMEWORK FOR WORLD CULTURAL HERITAGE IN THE PACIFIC, PORT VILA (VANUATU), SEPTEMBER 2005

The Vanuatu Workshop Report reflects the ideas and recommendations formulated by participants from the Pacific Region. The identification of regional cultural themes and the following elaboration of thematic studies are to assist States Parties from the Pacific Region in selecting sites to be included on Tentative Lists and developing comparative analyses to support nomination dossiers for the inscription of cultural sites on the World Heritage List. The participants identified three major themes:

Early human expansion and innovation in the Pacific
The large 'continental' islands of the Western Pacific were settled as long as 40,000 years ago. Evidence of this period is in the rock-shelter sites and stone artefacts, or open sites such as the Huon Peninsula in Papua New Guinea. Some of these earliest people domesticated and improved root crops and tree crops. Between 3,500 and 3,300 years ago, on the northern island margins of New Guinea, a new type of pottery known as Lapita is evident. This marks the arrival of people ultimately of south-east Asian origin, skilled sea voyagers who in a few centuries settled for the first time the western part of remote Oceania, before the central and marginal Pacific over the succeeding millennia.

Pacific societies
This is a theme in which intangible associations are important and yet where remarkable monumental sites and cultural landscapes can help to focus nominations and inscriptions on the World Heritage List. The intangible issues of religious belief and the reinforcement of social structures have attracted international attention, such as Melanesian 'big man' societies and Polynesian chiefdoms. In some cases the whole of small atolls (for example in the Tuamotu archipelago) or the periphery of larger islands (Rapa Nui) is taken up with ceremonial centres that form a continuing landscape. Nan Madol (Federated States of Micronesia), is a Micronesian site that would also fit within a Pacific-wide serial listing of ceremonial sites. Among the cultures of the Pacific there seem to be many common features. Some may be related to ancestral traditions, others to the environment. Origin stories, stories of voyaging and navigation, and places of the dead can often be centred on ceremonial sites or cultural landscapes, some with distinct and remarkable monuments.

'Pasifika' encounters
The initial contacts between European and Pacific countries transformed the settlement patterns of the latter and led to trading centres, tragedies such as the spread of disease and the intensification of warfare, and a sustained international fascination with the idea and image of the Pacific.

However, the themes identified at the regional Global Strategy meetings are still not properly represented on the List. This is one of the reasons why the Action Asia 2003–2009 Programme, adopted following the Periodic Reporting exercise carried out between 1999 and 2003, advises States Parties from the region to review national inventories, harmonize Tentative Lists based on these inventories and prepare nomination dossiers, especially of non- or under-represented heritage, with particular focus on West Central Asian heritage, modern heritage, proto-historic heritage and vernacular architectural heritage.

FURTHER INFORMATION

Day, J. and Tanzer, J. 2000. Great Barrier Reef, Keeping it Great. *World Heritage*, No. 17, pp. 4–17.

Identification of World Heritage Properties in the Pacific. 3rd Global Strategy Meeting (Suva, Fiji, 1997). Findings and Recommendations. Paris, UNESCO World Heritage Centre
http://whc.unesco.org/en/globalstrategy/

Progress Report on the Implementation of the Recommendations of the Periodic Report for Asia-Pacific. 2006. Thirtieth session of the World Heritage Committee, Vilnius, Lithuania, 8–16 July. (WHC-06/30.COM/11D.)

The State of World Heritage in the Asia-Pacific Region – 2003. 2004. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 12.)

WORLD HERITAGE IN LATIN AMERICA AND THE CARIBBEAN

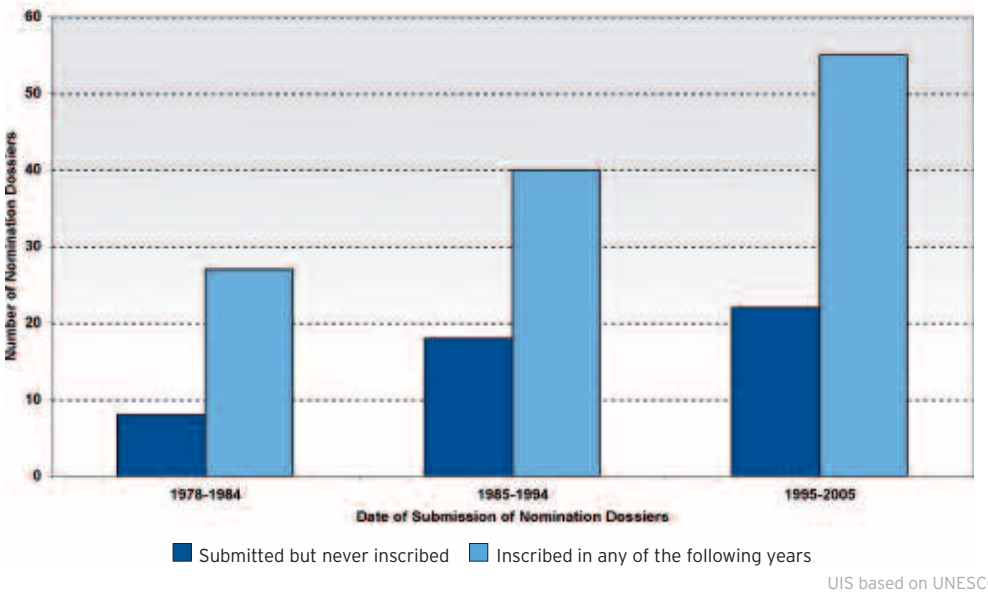
MAP 23: WORLD HERITAGE IN LATIN AMERICA AND THE CARIBBEAN (JULY 2006)

UIS based on UNESCO/WHC databases

UNEVEN IMPLEMENTATION (1972-1995)

From 1978 to 1995, the Latin America and Caribbean region was rather active in nominating sites and obtaining their inscription on the World Heritage List (Map 23, Figure 37). However, this implementation was uneven with very low activity in the Caribbean. During that period, only four cultural heritage sites were inscribed in the Caribbean (Figure 38): Old Havana and its Fortifications, Trinidad and the Valley de los Ingenios (Cuba), the Colonial City of Santo Domingo (Dominican Republic) and the National History Park – Citadel, Sans Souci, Ramiers (Haiti). Of the sixty-three sites listed during that time in Latin America, forty-five were cultural heritage, such as the Pre-Hispanic City of Teotihuacan and the Pre-Hispanic City of Chichen-Itza (Mexico; see box) and Chan Chan Archaelogical Zone (Peru), fourteen natural heritage, such as Los Katíos National Park (Colombia) and Sian Ka'an (Mexico) and three mixed sites, such as Tikal National Park (Guatemala).

FIGURE 37: NOMINATION DOSSIERS SUBMITTED (SITE EXTENSIONS INCLUDED) AND OUTCOME, LATIN AMERICA AND THE CARIBBEAN (1978-2005)

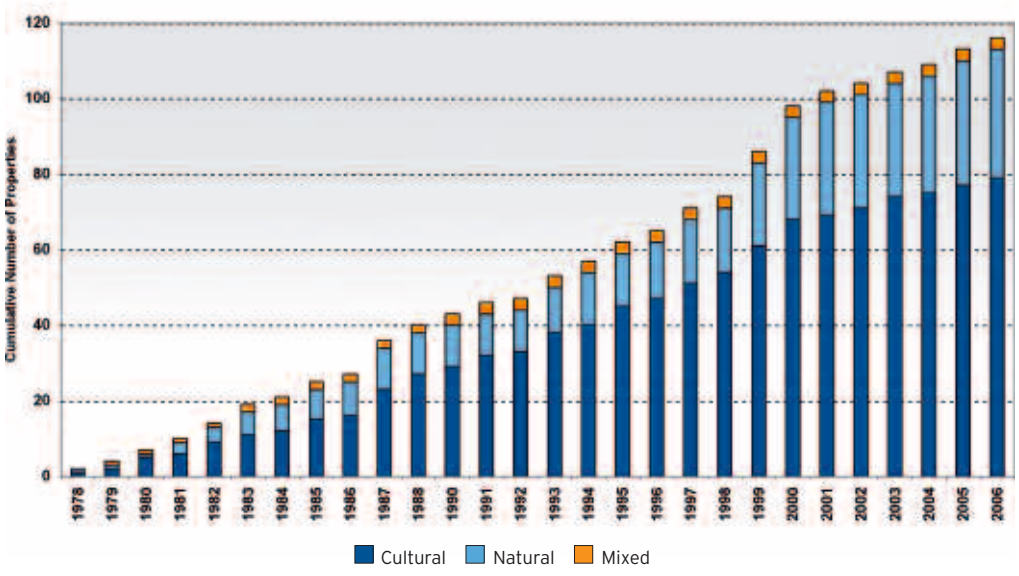


UIS based on UNESCO/WHC databases

PRE-HISPANIC CITY OF CHICHEN-ITZA (MEXICO)

The Pre-Hispanic City of Chichen-Itza was inscribed on the World Heritage List in 1988 under cultural heritage criteria (i), (ii) and (iii). This sacred site was one of the greatest Mayan centres of the Yucatán Peninsula. Throughout its almost 1,000 years of history, different peoples have left their mark on the city. The Maya and Toltec vision of the world and the universe is revealed in their stone monuments and artistic works. The fusion of Mayan construction techniques with new elements from central Mexico makes Chichen-Itza one of the most important examples of the Mayan-Toltec civilization in Yucatán. Several buildings have survived, such as the Warriors' Temple, El Castillo and the circular observatory known as El Caracol.

FIGURE 38: WORLD HERITAGE SITES BY TYPE, LATIN AMERICA AND THE CARIBBEAN (1978-2006)



UIS based on UNESCO/WHC databases

MORNE TROIS PITONS NATIONAL PARK (DOMINICA)

Luxuriant natural tropical forest blends with scenic volcanic features of great scientific interest in this national park centred on the 1,342 m high volcano known as Morne Trois Pitons. This site is remarkable for its precipitous slopes and deeply incised valleys, fifty fumaroles, hot springs, three freshwater lakes, a 'boiling lake' and five volcanoes, located on the park's nearly 7,000 hectares and the richest biodiversity in the Lesser Antilles. It was inscribed on the World Heritage List in 1997 under natural criteria (i) and (iv) for its diverse flora with endemic species of vascular plants, and its volcanoes, rivers and waterfalls that illustrate ongoing geomorphological processes.

GLOBAL STRATEGY MEETINGS FROM MID-1990S

Since 1995, a number of activities have taken place in the Caribbean to raise awareness of the Convention, encourage States Parties to implement it and provide them with guidance on World Heritage issues. These include the promotion of the Convention among governments of the region and directors of cultural heritage institutions at the Ninth Forum of Ministers of Culture of Latin America and the Caribbean in 1997. A major Regional Conference on the Social, Cultural and Economic Relevance of World Heritage to the Caribbean was also organized in Dominica in 1998. Parallel to these events, a series of thematic expert meetings took place, such as those on Fortifications of the Caribbean (Cartagena, Colombia, 1996) and Plantation Systems in the Caribbean (Paramaribo, Suriname, 2001), undertaken jointly with the UNESCO Slave Route Project.[2] These meetings were accompanied by regional training courses, such as the Ten-day Regional Training Course on the Application of the World Heritage Convention and its Role in Sustainable Development and Tourism in the Caribbean (Roseau, Dominica, 2001).

Since 1995, thematic meetings have also been organized in Latin America to raise awareness of the themes of the Global Strategy. These have included two subregional expert meetings on cultural landscapes in 1998 and 2000, meetings on modern heritage, and an international workshop on the vernacular architecture of the nineteenth and early twentieth centuries.

TANGIBLE RESULTS OF GLOBAL STRATEGY MEETINGS

Knowledge of the World Heritage Convention has substantially increased and networks linking decision-makers, heritage managers, experts and subregional non-governmental heritage organizations have expanded. As of June 2006, all but one of UNESCO Member States, Bahamas, have signed the World Heritage Convention and several of the now thirty-two States Parties of the region have served on the World Heritage Committee.

As of March 2006, twenty-five States Parties had submitted valid Tentative Lists against seven in 1995 (Map 24). The majority of the States Parties without valid Tentative Lists were in the Caribbean. Some of the Tentative Lists show serious efforts to prepare a balanced list at national level. There is a marked increase in cultural heritage sites from the nineteenth and twentieth centuries, including industrial heritage as well as mixed sites. However, the number of

2. http://portal.unesco.org/culture/en/ev.php-URL_ID=25659&URL_DO_TOPIC&URL_SECTION=201.html

MAP 24: TENTATIVE LISTS AND REVISION DATES, LATIN AMERICA AND THE CARIBBEAN (MARCH 2006)

cultural landscapes is still modest, as is the number of geological sites. There is also little evidence of the harmonization of Tentative Lists among States Parties at regional level.

As of July 2006, this region counted 116 World Heritage sites. Inscriptions from the Caribbean have increased, with twelve sites included by 2006 compared with only five in 1995. While in 1995 these were all cultural sites, there are now six natural sites such as Pitons Management Area (Saint Lucia), Morne Trois Pitons National Park (Dominica; see box) or the Belize Barrier Reef Reserve System. Despite this increase, the geographical distribution of sites is very low in the Caribbean in comparison with the rest of Latin America, where forty-seven World Heritage sites were listed in the last decade. Most of these are archaeological sites such as the Pre-Hispanic Town of Uxmal (Mexico) or historic towns or urban ensembles from the colonial period, such as the Historic Centre of the Town of Diamantina (Brazil). Modern heritage is a theme that has received increased attention, with three new sites from this category listed in the past five years: the Historic Quarter of the Seaport City of Valparaíso (Chile), the Luis Barragán House and Studio (Mexico) and the Ciudad Universitaria de Caracas (Venezuela).

RESULTS OF REGIONAL PERIODIC REPORTS (JULY 2004) AND PERSPECTIVES

The regional Periodic Reports highlighted a number of problems in the implementation of the Convention, including: a lack of institutional continuity in States Parties resulting in a loss of institutional memory and technical capacity; a lack of understanding of the concepts of outstanding universal value, significance, authenticity and integrity; lack of management plans for existing World Heritage sites and the need for training in World Heritage concepts and in all the components of the World Heritage management cycle. A number of actions for the medium term have been defined to help solve these problems, such as reflection on the concepts of outstanding universal value and significance as applied in the region, and the compilation and publication of the reports of thematic and regional Global Strategy meetings and studies, particularly those in the Caribbean.

FURTHER INFORMATION

Cho-Ricketts, L. 2003. Belize: Barrier Reef. *World Heritage*, No. 33, pp. 40-51.

Progress Report on the Implementation of the Recommendations of the Periodic Report for Latin America and the Caribbean. 2006. Thirtieth session of the World Heritage Committee, Vilnius, Lithuania, 8-16 July. (WHC-06/30.COM/11E.)

Piras, P. G. and van Hoof, H. (eds.) 2006. *Periodic Report 2004, Latin America and the Caribbean.* Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 18.)

Van Oers, R. and Haraguchi, S. (eds.) 2005. *Caribbean Wooden Treasures.* Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 15.)

WORLD HERITAGE IN EUROPE AND NORTH AMERICA

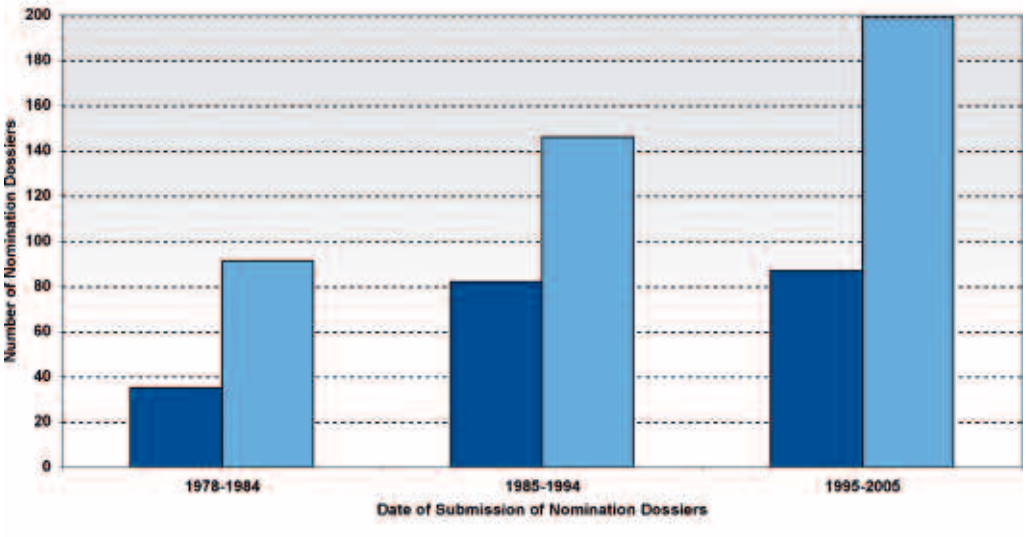
MAP 25: WORLD HERITAGE IN EUROPE (JULY 2006)

UIS based on UNESCO/WHC databases

MOST ACTIVE REGION (1978-1994)

As indicated in Figure 39, from 1978 onwards, compared with other regions, States Parties from Europe and North America have been the most active in nominating sites to the World Heritage List. In 1994, half of the listed sites were located in this region. Their distribution was unequal, however, with high concentration in some areas such as in Western Europe and the Mediterranean. Cultural heritage sites inscribed during that period were five times more numerous than natural heritage (Figure 40, Map 25). These cultural sites were diverse and included religious heritage such as Boyana Church (Bulgaria), historic cities such as the Town of Bamberg (Germany) and more symbolic sites such as Auschwitz Concentration Camp (Poland, see box). Half of the natural heritage sites included during that time was located in North America (Map 26), such as Wood Buffalo National Park (Canada) and Hawaii Volcanoes National Park (United States).

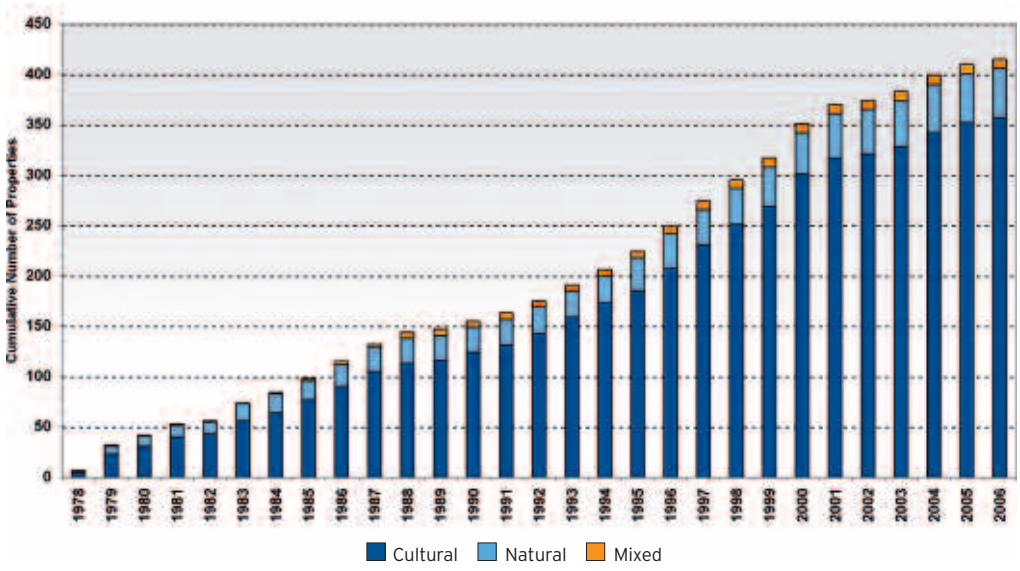
FIGURE 39: NOMINATION DOSSIERS SUBMITTED (SITE EXTENSIONS INCLUDED) AND OUTCOME, EUROPE AND NORTH AMERICA (1978-2005)



UIS based on UNESCO/WHC databases

MAP 26: WORLD HERITAGE IN NORTH AMERICA (JULY 2006)

FIGURE 40: WORLD HERITAGE SITES BY TYPE, EUROPE AND NORTH AMERICA (1978-2006)



UIS based on UNESCO/WHC databases

AUSCHWITZ CONCENTRATION CAMP (POLAND)

The fortified walls, barbed wire, platforms, barracks, gallows, gas chambers and cremation ovens show the conditions within which the Nazi genocide took place in the former concentration and extermination camp of Auschwitz-Birkenau, the largest in the Third Reich. It was inscribed under cultural heritage criterion (vi) as it is emblematic for the holocaust and a symbol of the martyrdom and resistance of millions of men, women and children. According to historical investigations, 1.5 million people, among them a great number of Jews, were systematically starved, tortured and murdered in this camp. This representation of human cruelty in the twentieth century might also help to contribute to education in peace, human rights and tolerance.

There are a number of reasons for the predominance of World Heritage sites from Europe and North America since the late 1970s. Western European and Northern American countries have long had legislation for the protection of cultural heritage, since the nineteenth century in some cases. Moreover, until 1994 the cultural heritage criteria and the definition of authenticity strongly favoured monumental and European cultural heritage sites.

CONTINUED OVER-REPRESENTATION (1995-2006)

As of March 2006, Liechtenstein (not a UNESCO Member State) is the only country in Europe that has not ratified the Convention. The majority of States Parties has submitted Tentative Lists, most of which have been revised in recent years to take better account of the themes identified in the Global Strategy. An example is the recent revision of Canada's Tentative List, which reflects the themes of the Global Strategy and the documents released as part of its implementation. Other important initiatives include the harmonization of Tentative Lists from the Nordic countries, in the framework of the Nordic Council of Ministers meetings. This harmonization of Tentative Lists is an important tool in the stringent selection of the most representative sites from this area, and has its roots in the mid-1980s with the first active attempt at a regional harmonization of Tentative Lists. This initiative resulted in a 1996 study that has since provided an overall framework to guide the Nordic countries in the selection of relevant under-represented sites of outstanding universal value. In recent years, successful nominations have been submitted according to this study. This subregional cooperation is unique and could well be adopted by other regions.

In 1994, the text of the Global Strategy recognized that the European region was over-represented on the List in comparison with other regions. Since 1988, Paragraph 6 of the *Operational Guidelines* has also invited 'States Parties to consider whether their cultural heritage is already well represented on the List and if so to slow down voluntarily their rate of submission of further nominations'. This would help to make the List more universally representative. However, this advice does not seem to have been followed, as the region still represents 50% of the World Heritage List as of July 2006 with 415 sites (357 cultural, 49 natural and 9 mixed). The Cairns/Suzhou decisions may help to reduce the number of sites nominated by States Parties from this region and encourage joint nominations (Section 1, pp. 58-59).

World Heritage sites included in the Europe and North America region represent important themes and cultures, in particular transnational sites. An interesting example is the Struve Geodetic Arc, located in ten different countries (see box), which exemplifies the first accurate measurement of a long segment of a meridian, helping to establish the exact size and shape of the world. Another example is the Flemish Béguinages (Belgium), which illustrate the under-represented theme of women's heritage.

STRUVE GEODETIC ARC (BELARUS, ESTONIA, FINLAND, LATVIA, LITHUANIA, NORWAY, REPUBLIC OF MOLDOVA, RUSSIAN FEDERATION, SWEDEN, UKRAINE)

Struve Geodetic Arc is a chain of survey triangulations stretching from Hammerfest in Norway to the Black Sea, through ten countries and over 2,820 km. These are the points of a survey carried out between 1816 and 1855 by the astronomer Friedrich Georg Wilhelm Struve and representing the first accurate measurement of a long segment of a meridian. This site was included on the World Heritage List under cultural heritage criteria (ii), (iv) and (vi). It fulfilled criterion (ii) because it is the first accurate measurement of a long segment of a meridian, which helped to establish the exact size and shape of the world. It is also an extraordinary example of interchange of human values in the form of scientific collaboration among scientists from different countries. It also met criterion (iv) as an outstanding example of a technological ensemble, and criterion (vi) as the measuring of the arc and its results are directly associated with questions about the world, its shape and size. This inscription is also a landmark in international cooperation, the first time in which ten countries have come together to jointly prepare a nomination.

Although the European region is generally over-represented on the World Heritage List, there are regional and thematic discrepancies that must be addressed. A great many Eastern and South Eastern European States Parties have three or less sites listed. Concerning natural heritage, lake systems, temperate grasslands and cold winter deserts are also not adequately represented.

RESULTS OF PERIODIC REPORTS AND PROSPECTS

The regional Periodic Report for North America was presented to the World Heritage Committee in July 2005. It stressed a number of key findings and recommendations, including the need for a revised statement of significance for all the sites that underwent the Periodic Reporting exercise. The report also requested clarification on the use of specific criteria for the initial inscription of sites, and highlighted the need for research into the recognition of the importance of local populations living in or near to natural World Heritage sites.

The European Periodic Report was presented to the Committee in July 2006. It noted a number of deficiencies and made a number of key proposals, as part of an Action Plan, for the future implementation of the Convention in this region. This report stressed the need to strengthen understanding of the key concepts of the World Heritage Convention, and pointed out the lack of legislation covering both cultural and natural heritage in one system. It encouraged States Parties to define integrated policies for both cultural and natural World Heritage conservation. It also noted that, with some exceptions, Tentative Lists remain cumulative, outdated and have not been harmonized at subregional level, for which it encouraged further regional cooperation. Concerning nomination dossiers, the report encouraged States Parties to improve community participation mechanisms in heritage conservation and management.

FURTHER INFORMATION

Presentation of the Periodic Report for North America. 2005. Twenty-ninth session of the World Heritage Committee, Durban, South Africa, 10-17 July. (WHC-05/29.COM/11A.)

Presentation of Parts I and II of the Periodic Report for Europe (2005-2006). 2006. Thirtieth session of the World Heritage Committee, Vilnius, Lithuania, 8-16 July. (WHC-06/30.COM/11A.1.)

Tentative List of Canada.
http://www.pc.gc.ca/progs/spm-whs/index_E.asp

Van Aerschot-van Haeverbeeck, S. 2000. The Flemish Béguinages. A Past Still Present Today. *World Heritage*, No. 17, pp. 18-29.

CONSERVATION OF WORLD HERITAGE SITES

Heritage sites are affected by a variety of natural and human-induced disasters. What disasters strike World Heritage sites? What remedial action and preparedness strategies have been adopted? Analyses of more than 2,000 State of Conservation reports presented to and discussed by the World Heritage Committee and/or its Bureau between 1986 and 2004 have helped to answer these questions. These analyses are based on categorization of the different threats that have affected both cultural and natural heritage sites. Only threats that have had a major impact on sites and those that are recurrent are mentioned: floods, earthquakes, armed conflicts, poaching, mining, development pressures and tourism.

Sites that have been threatened by disasters are not systematically subject to a State of Conservation report. The fact that a site has not been the subject of a report does not indicate that it is not affected by different threats.

Guidelines are also provided, using existing publications, on risk preparedness and threat mitigation to provide States Parties and site managers with practical advice that can be followed. Best examples are also presented (see boxes) as well as instances highlighting the difficulty of solving threats.

FLOODS – PREPARATION AND PREDICTION

Historically, regular flooding has played an important role in the formation of many settlements and indeed of entire civilizations. For example, the seasonal flooding of the Nile created the fertile land that attracted agriculture, which in turn encouraged the settlements of Ancient Egypt. However, floods can also have a disastrous impact on both the natural and cultural environment and heritage. The 2002 disastrous floods in the Czech Republic and Germany that caused great damage to some World Heritage sites are but one example. Even when sophisticated prevention techniques are in place, floods still have the potential to cause immense damage to cultural and natural heritage. Above all, with climate change, the danger of severe flooding is growing in many parts of the world, for example in Nepal (see box).

There are three general types of floods, which are often interdependent. First, river floods, which usually build up slowly and are caused by seasonal precipitation over large areas, by melting of snow that has accumulated over the winter, or sometimes by a combination of these. Second, flash floods caused by tropical storms and, finally, coastal floods caused by storms, wind and other natural elements that can sometimes cause ocean water to overflow, leading to coastal flooding. Tsunamis, exceptionally large ocean waves triggered by submarine earthquakes, volcanic events or landslides, also cause coastal flooding (see box).

Floods[1] can cause the collapse or movement of buildings and their elements due to the force of water flow. Water flow can also lead to the erosion of soil or foundation settlement. Flooding can also cause loose objects to act as abrasive agents, thus damaging structures; subterranean building services can become inundated and therefore inoperable and inaccessible; infrastructure such as roads and bridges can be seriously

TABLE 4: WORLD HERITAGE SITES REPORTED FOR FLOODS (1986-2004)

Region	Number of sites reported
Africa	0
Arab States	3
Asia / Pacific	5
Europe / North America	2
Latin America / Caribbean	1

UIS based on UNESCO/WHC databases

Although flooding is one of the most frequent types of disaster worldwide, only eleven sites were reported for floods to the World Heritage Committee from 1986 to 2004. Nine of these were cultural sites and two were natural. These floods have, on average, been the subject of two State of Conservation reports in two consecutive years. This is rather surprising considering that floods can have long-lasting tangible effects on the state of conservation of sites.

THE 2004 TSUNAMI AND THE ALERT SYSTEM

On 26 December 2004, a tsunami caused by an earthquake swept over the Indian Ocean, leaving behind devastation, death and destruction. The Old Town of Galle and its Fortifications in Sri Lanka suffered superficial damage to some of the temples, churches and other religious buildings caused by penetration of water. Although the damage to sites was small, this event raised awareness of the importance of a disaster-preparedness strategy for the region. UNESCO is actively participating in aid to countries affected by the disaster and, along with the Intergovernmental Oceanographic Commission (IOC) has developed an Indian Ocean Tsunami Warning System.

1. See Stovel (1998).

FLOODS AND CLIMATE CHANGE: SAGARMATHA NATIONAL PARK (NEPAL)

The history of the planet has been characterized by frequent changes in climate. During the twentieth century, the average global temperature increased by 0.6 °C. This increase is likely to have been the largest of any century during the past 1,000 years. According to the Intergovernmental Panel on Climate Change (IPCC), 'there is new and stronger evidence that most of the warming observed over the last fifty years is attributable to human activities'. These increasing atmospheric temperatures ('global warming') may lead to changes in the frequency, intensity and seasonality of floods. Climate change may also increase the frequency of floods through the melting of ice caps, glaciers, sea ice, ice and snow cover especially in polar and mountain regions. In Sagarmatha National Park (Nepal), inscribed on the World Heritage List in 1979 under natural heritage criterion (iii), for example, air temperatures have risen by 1°C since the 1970s, leading to a decrease in snow and ice cover of 30% in the same period and replacing a 4,000 m high glacier on Mount Everest by a lake. Glacier lake outburst floods are now much more frequent, creating serious risks for human populations and having implications for the water supply in South Asia and the flow of major rivers such as the Ganges, Indus and Brahmaputra.

impaired; furnishings, collections and libraries destroyed through resulting water and humidity; landscape elements such as trees or fields lost; and layers of mud, tree trunks, and flood debris deposited around unprotected heritage sites.

The frequency of flooding, unlike other risks, is usually predictable and therefore well-made preparations can help to mitigate its often disastrous effects. All sites at risk should develop a flood-preparedness strategy that respects heritage values, such as at Ironbridge Gorge (United Kingdom; see box p.170). The degree to which sites are prepared for disaster determines how vulnerable or resilient they will be. The following elements could be taken into consideration when establishing a flood preparedness strategy[2]:

- Enhancing flood resistance for individual properties – including regular maintenance of roofs, gutter and drainage system to ensure that buildings are at their strongest when facing floods;
- Improving flood detection and monitoring – including efforts to provide adequate early warning mechanisms, establishing monitoring stations, and recording intensity and location of flood for analysis;
- Developing appropriate local response plans – including flood-response training for occupants and officials, involvement of occupants in identification of flood protection needs, inventory/documentation of fragile building elements and landscapes, provision of adequate salvage, protection and restoration materials.

2. As recommended by Stovel, op. cit., pp.74-79.

REDUCING FLOOD DAMAGE AT IRONBRIDGE GORGE (UNITED KINGDOM)

Integral to the industrial heritage site of Ironbridge Gorge is the River Severn, which provided a source of power and also the means of transporting raw materials and finished products. However, the river has often caused problems due to flooding and this appears to be increasing in frequency and severity. Not only does the flooding cause great inconvenience to local businesses and residents, it also has a potentially detrimental effect on the stability of riverbanks, footpaths, structures and bridges, including the iron bridge itself. Work undertaken to reduce flood damage has included:

- The development of an early warning system that uses a series of codes to indicate the possibility of flooding and its estimated severity.
- The employment of temporary freestanding flood protection systems. Working partnerships have been developed and agreed with the local authority, water companies and emergency services. Local community groups have also been briefed and involved in the planning, which has helped to secure their cooperation.

However, the authorities are still trying to identify further flood prevention measures and ways to reduce the damage and impact caused by flooding.

http://www.telford.gov.uk/Leisure+culture+and+tourism/Ironbridge+Gorge+world+heritage+site/Managing+and+Protecting+the+World+Heritage+Site.htm
Source: Ironbridge Gorge Management Plan

FURTHER INFORMATION

Issues Related to the State of Conservation of World Heritage Properties: The Impacts of Climate Change on World Heritage Properties. 2006. Thirtieth session of the World Heritage Committee, Vilnius, Lithuania, 8-16 July. (WHC-06/30.COM/7.1.)

Stovel, H. 1998. *Risk Preparedness: a Management Manual for World Cultural Heritage*. Rome, ICCROM.

Tsunami - Disaster in South East Asia. 2005. Paris, ICOMOS. http://www.international.icomos.org/tsunami-asia.htm

UNESCO/UNEP. 2004. *Awareness and Preparedness for Emergencies at the Local Level (APELL) and Floods. A Community-Based Approach for Disaster Reduction*. Paris/Cambridge, UK, UNESCO/UNEP. http://www.unesco.org/science/disaster/apell_floods.pdf

EARTHQUAKES – CONTROLLING DAMAGE

Earthquakes and seismic activity are associated with the movement of tectonic plates that form the Earth's surface. Their occurrence today is evidence that such movements, with associated processes such as mountain building, continue as they have done for millions of years. Some places are especially vulnerable to repeated earthquakes because they lie near or even astride the zones where the plates collide or shift past each other, such as the San Andreas Fault running through California. However, seismic activity does not always occur in such circumstances: thus Þingvellir National Park (Iceland) is found in a rift valley that marks the widening gap between the European and North America plates; as the plates edge apart, they cause frequent small seismic adjustments.

Earthquakes can cause damage both directly and indirectly to the natural and built environment due to fault rupture, ground shaking, inundation (tsunami or dam failure), liquefaction, landslides, fire or the release of hazardous materials.

TABLE 5: WORLD HERITAGE SITES REPORTED FOR EARTHQUAKES (1986-2004)

Region	Number of sites reported
Africa	0
Arab States	1
Asia / Pacific	1
Europe / North America	6
Latin America / Caribbean	4

UIS based on UNESCO/WHC databases

From 1986 to 2004, twelve sites, all cultural heritage, were reported for earthquakes to the Committee. Eight of these sites were reported only once to the World Heritage Committee, although the damage caused by earthquakes might have been considerable. It could have been expected that their state of conservation would have required careful monitoring over a longer period.

RISK MAP, CULTURAL HERITAGE IN ITALY

Much of Italy is prone to earthquakes because of the existence of well-defined fault lines and geological movements criss-crossing the mainland. The earthquake that touched the World Heritage site of Assisi in September 1997 is but one example. In order to avoid damage, particularly to cultural heritage, the Italian Government has attempted to tackle threatened cultural heritage at national level as the first step towards preventive action for risk management. To this end, a Risk Map of Cultural Heritage in Italy has been established by the Istituto Centrale per il Restauro in Rome, which focuses on earthquakes but also on other environmental hazards.

The project has the following aims:

- To predict the most urgent preventive measures, in relation to the environmental conditions of Italy's cultural heritage, and time/cost effectiveness of available preventive measures;
- To improve the Italian authorities' capabilities in focusing their spending on preparedness measures that would be most likely to benefit heritage;
- To develop systems and methods to enable maintenance and restoration programmes for cultural heritage.

These aims are being achieved through the gathering and analysis of data relating to different risks that may affect cultural heritage. The data are used to draw up maps where areas most exposed to risk factors are identified. Site managers can then use such maps to take all the necessary steps against the identified risks.

Source: Adapted from Stovel, op. cit., p.70.
Risk Map of Cultural Heritage in Italy:
http://www.uni.net/aec/riskmap/english.htm

BAM (ISLAMIC REPUBLIC OF IRAN)

Bam and its Cultural Landscape was inscribed simultaneously on the UNESCO World Heritage List and the List of World Heritage in Danger in 2004. The site fulfilled cultural heritage criteria (ii), (iii), (iv) and (v); respectively as having developed at the crossroads of important trade routes at the southern side of the Iranian high plateau; as an exceptional testimony to the development of a trading settlement in the desert environment of the Central Asian region; as an example of a fortified settlement and citadel in the region, based on the use of the mud-layer technique (*Chineh*) combined with mud bricks (*Khesht*); and finally as an outstanding representation of the interaction of humankind and nature in a desert environment, using underground irrigation canals known as *qanats*.

On 26 December 2003, the historic city of Bam was hit by a devastating earthquake that caused the tragic loss of many lives and the destruction of part of the structure, including recent restorations and rebuilding. Nonetheless this earthquake also revealed underlying layers of history, including remains of ancient settlements and irrigation systems, dating at least to the second century BC. In order to coordinate the numerous pledges for assistance, an International Workshop for the Recovery of Bam's Cultural Heritage was organized by the Iranian Cultural Heritage Organization, UNESCO and ICOMOS in April 2004. This workshop was attended by leading national and international experts and organizations, which examined and reflected on the impact of the earthquake on Bam's heritage and drew up immediate, short-term, mid-term and long-term recommendations. Recommendations for immediate action included securing and stabilizing the parts of the Citadel of Bam, the Arg-e Bam, which are vulnerable to aftershocks. Short-term actions (2004–2005) included the development of a Master Plan for the Reconstruction of Bam City that respects the heritage, drawn up in full consultation with the relevant authorities. Mid-term actions (2004–2010) include the development of a conservation programme, through a comprehensive analysis based on the identification of the complete range of values in accordance with international charters. Finally, long-term actions (2004–2015) include scientific investigations to address issues relating to the long-term conservation of earthen architecture in Arg-e Bam.

A building may survive an earthquake and appear undamaged but it may also have been severely weakened and would be unable to withstand further shocks. Additionally, damage to infrastructure can impair roads, railways, electrical and communication systems, and access to and from areas, thus impeding an effective response.

Earthquakes are unpreventable but not unpredictable and uncontrollable. Scientists are able to estimate the likelihood and location of the next earthquake and can carry out geological, seismic and vulnerability studies and assess risks to infrastructure (see box p. 171 on Risk Map, Cultural Heritage in Italy).

The World Heritage Committee has often advised States Parties with sites in areas prone to earthquakes to ensure that all possible measures are taken to limit damage caused by this natural phenomenon. A risk-preparedness strategy could be based on the following:[3]

- Reducing risks through ensuring high levels of site maintenance and suitable uses;
- Increasing earthquake resistance through the strengthening of buildings or their components and through analysis of structural response to previous seismic events and the isolation of buildings from the ground in order to interrupt or divert the lateral thrust of an earthquake;
- Improving earthquake detection and monitoring through the provision of adequate early warning systems;
- Earthquake-response planning through preparation efforts by occupants and emergency-response officials in anticipation of earthquakes by ensuring that municipal and regional plans indicate sites and structures deserving special care in the event of an earthquake and by developing a comprehensive earthquake-response plan.

After an earthquake, particular attention should be paid to the likelihood of continuing seismic aftershocks and to immediate condition assessment to plan for urgently needed stabilization, repair or rebuilding, for example the aftermath of the December 2003 earthquake in Bam (Islamic Republic of Iran, see box).

3. This follows Stovel, op. cit., p. 59.

FURTHER INFORMATION

ICOMOS. 2005. *ICOMOS World Report on Monuments and Sites in Danger 2004-2005*. Paris, ICOMOS.
http://www.international.icomos.org/risk/2004/index.html

Feilden, B. 1987. *Between Two Earthquakes: Cultural Property in Seismic Zones*. Los Angeles, J. Paul Getty Trust Publications.

Stovel, H. 1998. *Risk Preparedness: A Management Manual for World Cultural Heritage*. Rome, ICCROM.

UNESCO/UNEP. 2004. *Awareness and Preparedness for Emergencies at the Local Level (APELL) for Earthquake Risk. A Community-Based Approach for Disaster Reduction*. Paris/Cambridge, UK, UNESCO/UNEP.
http://www.unesco.org/science/disaster/apell_earthquake.pdf

ARMED CONFLICTS – PREVENTING AND REDUCING DAMAGE

Armed conflicts, whether international or civil, can be triggered by diverse causes including ethnicity, culture, territory, religion, distribution of wealth or a general breakdown in governance. They are, by definition, destructive and their direct and indirect negative impacts on natural and cultural heritage tend to be immense and long lasting. Possible impacts of war include [4]:

- Destruction by bombs, shells and subsequent fire of sites and their contents;
- Loss of stability of buildings, as a result of shelling partly destroying walls and roofs;
- Damage to objects, collections and significant interior features and fittings by heat, smoke and combustion by-products;
- Water damage resulting from efforts to arrest fire;
- Obliteration of landscape patterns and features through shelling and associated fire;
- Danger of future damage to people and property due to buried landmines;
- Destruction of vegetation;
- Destruction and/or displacement of animals and their habitats;
- Displacement of local communities;
- Looting of artefacts;
- Breakdown of management, protection, conservation and surveillance programmes;
- Overuse of natural resources;

In some instances, damage to heritage has not just been an outcome of war but it is the heritage itself which has been targeted, for iconoclastic reasons or centuries-old internecine or religious conflicts, and has consequently suffered irreparable damage, as occurred for example in the Cultural Landscape and Archaeological Remains of the Bamiyan Valley (Afghanistan), the Old Bridge Area of the Old City of Mostar (Bosnia and Herzegovina) and the Old City of Dubrovnik (Croatia). In other cases, such as Los Katíos National Park (Colombia, see box), heritage is affected indirectly as the large-scale social and economic disruption caused by conflict leads to breakdown in law and order.

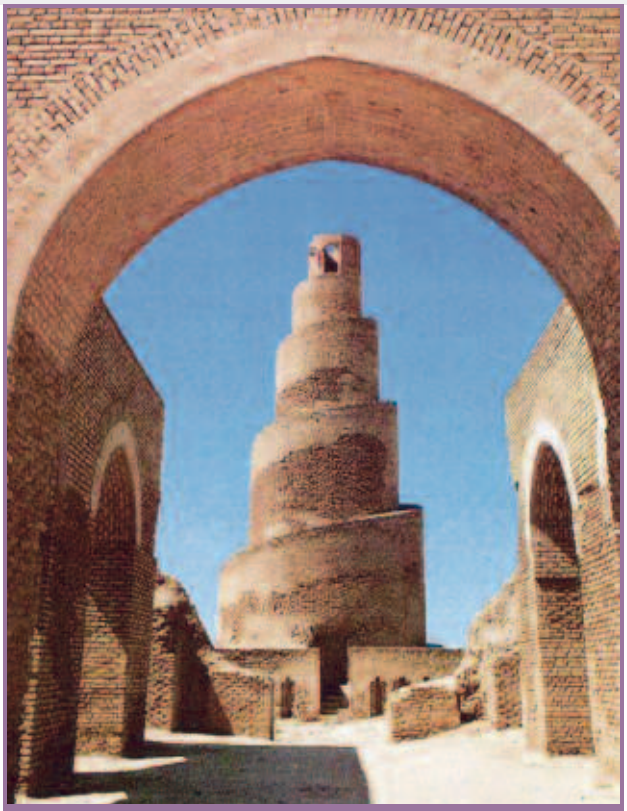
TABLE 6: WORLD HERITAGE SITES REPORTED FOR ARMED CONFLICT (1986-2004)

Region	Number of sites reported	Percentage of sites per region
Africa	11	24
Arab States	4	10
Asia / Pacific	4	5
Europe / North America	5	4
Latin America / Caribbean	2	4

UIS based on UNESCO/WHC databases

From 1986 to 2004, twenty-six sites were reported to the Committee as threatened by armed conflict, two-thirds of which were natural heritage. Half of the sites reported were in Africa. Six of these African sites were reported at least six times to the World Heritage Committee, which demonstrates the intractability of the threats. Concerning the other regions, armed conflicts were reported four times on average.

4. Adapted from Stovel, op. cit. , p. 85.



HELPING TO PROTECT SITES OF OUTSTANDING UNIVERSAL VALUE IN IRAQ

Iraq has been recognized as one of the cradles of human civilization. Successive cultures and traditions have left the country with an immense legacy of archaeological sites, architectural monuments and landscapes. Yet this complex and rich heritage is being destroyed in the current conflict.

There are currently two sites on the World Heritage List – Hatra, inscribed in 1985, and Ashur (Qal'at Sherqat), inscribed in 2003. Ashur was immediately placed on the List of World Heritage in Danger due to the potential construction of a nearby dam. A new nomination dossier was submitted on 1 February 2006 by the Iraqi State Board of Antiquities and Heritage, proposing the Archaeological City of Samarra as the third Iraqi World Heritage site. This nomination will be examined by the World Heritage Committee at its 31st session in 2007. UNESCO believes that it is essential to continue with the implementation of the Convention in Iraq despite the current political situation. So inscriptions are actively encouraged. Inscription can help to eliminate the idea that Iraq is just a war zone and introduce people to its outstanding heritage, perhaps even raising awareness of the disastrous looting and illicit trade that is taking place.

LOS KATÍOS NATIONAL PARK (COLOMBIA)

Los Katíos National Park was inscribed on the World Heritage List in 1994 under natural heritage criteria (ii) and (iv). This park comprises low hills, forests and humid plains and is home to many threatened animal species, as well as many endemic plants. In the late 1990s, the integrity of the park was seriously threatened by the breakdown of law and order. A significant portion of the park was off-limits to staff due to the presence of armed groups. Tourism to that area had also come to a halt. Despite these negative effects on the park, preventive measures were taken that ensured the security of park personnel and allowed them to quickly return to the off-limits areas and therefore bring them under control. Following the conflict, several non-governmental organizations in Colombia carried out a rapid ecological evaluation to assess damage, and work has been done on defining a buffer zone and elaborating a management plan. Furthermore, the Colombian authorities have been working on enhancing transboundary cooperation with the neighbouring Darien National Park (Panama) and strengthening the legal systems protecting the area.

BIODIVERSITY CONSERVATION IN ARMED CONFLICT: DEMOCRATIC REPUBLIC OF THE CONGO

The tropical forest of the Congo Basin, most of which is to be found in the Democratic Republic of the Congo (DRC) is second in size only to that of the Amazon Basin. Five national parks and reserves in the DRC have been inscribed on the World Heritage List (Virunga National Park, Garamba National Park, Kahuzi-Biega National Park, Salonga National Park and Okapi Wildlife Reserve), illustrating the diversity and richness of the country's natural heritage.

The 1990s saw the Great Lakes Region of Africa plagued with political uncertainty and a breakdown of law and order that led the parks to face a multitude of new threats, which the managing authority, the Institut Congolais pour la Conservation de la Nature (ICCN), was unprepared for. Natural resources were exploited by various groups without any controls, and wild areas, particularly the national parks, were used increasingly as refuges and for subsistence by refugees and armed militia. All five national parks and reserves were subject to damaging incursions of various kinds and were placed on the List of World Heritage in Danger, where they remain today. Minerals and the timber and wildlife of the forests were also intensively exploited. Efforts were made to combat the deterioration of the sites but these were hampered by continuing civil unrest. Conditions were so bad that delisting the sites was discussed.

However, in response to the urgent pleas of the World Heritage Committee, the international community mounted a major rescue effort to safeguard the five natural heritage sites. To lay the foundation for this initiative, a workshop was held in 1999. Organized by GTZ (German Technical Cooperation) and attended by ICCN, UNESCO and other non-governmental organizations working at these sites, it led to a four-year project, Biodiversity Conservation in Regions of Armed Conflict: Protecting World Natural Heritage in the Democratic Republic of the Congo, funded by the UN Foundation. The project aimed to re-establish the infrastructure of the sites by capacity-building; ensure the security of the working environment; and guarantee the salaries of the park staff. It also addressed immediate wildlife conservation needs, and looked to the future by promoting collaboration with indigenous communities and establishing sustainable sources of finance to support the sites in the long term.

In September 2004, an international conference was held at UNESCO Headquarters to assess the effectiveness of the project. Several positive outcomes were reported, such as regular pay for park guards, the survival of okapi and gorilla, the return of tourism to the area, and the unified management of the parks. It was agreed that the project had been successful but that much work was still required and an Emergency Action Plan was developed to rehabilitate the sites.

http://www.iccnrdc.cd/
http://whc.unesco.org/en/congobiodiversity/

Besides encouraging countries to ratify the 1954 Convention and its two Protocols (Section 2, pp. 66-68), the World Heritage Committee has also encouraged measures to celebrate and share the importance of heritage sites with others (e.g. listing sites in Iraq during times of conflict, see box). World Heritage listing may be one way to reconcile previously polarized communities, breaking down longstanding enmities that can result in attacks on the cultural heritage of another group. The reconstruction of the Old Bridge of Mostar (Bosnia and Herzegovina), inscribed in 2005 on the World Heritage List, is a symbol of reconciliation, international cooperation and celebration of the coexistence of diverse cultural, ethnic and religious communities.

Existing guidelines[5] for reducing the impact of armed conflict advise:

- The inclusion of impact assessments of armed conflicts and opportunities for mitigation in strategic contingency plannings in regions where political instability exists or is likely to occur in future;
- The maintenance of a presence during conflicts and whenever and wherever possible, by conservation organizations in protected areas and other heritage places. This was the case in the five World Heritage sites in the Democratic Republic of the Congo (see box). Providing materials and giving moral support to staff should be a high priority to ensure success in maintaining a presence in protected areas in armed conflict;
- Collaboration with others in the conservation community and the relief and development sector to increase conservation effectiveness during conflicts;
- Working with the local communities during conflicts and helping them meet their needs to put the least strain possible on natural resources.

5. See Oglethorpe et al., (2004).

FURTHER INFORMATION

Debonnet, G and Hillman-Smith, K. 2004. Supporting Protected Areas in a Time of Political Turmoil: the Case of World Heritage Sites in the Democratic Republic of Congo. *PARKS*, Vol. 14, No. 1, pp. 9-16. http://www.iucn.org/themes/wcpa/pubs/pdfs/PARKS/14_1.pdf

Oglethorpe, J., Shambaugh, J. and Kormos, R. 2004. Parks in the Crossfire: Strategies for Effective Conservation in Areas of Armed Conflict. *PARKS*, Vol. 14, No. 1, pp. 2-8. http://www.iucn.org/themes/wcpa/pubs/pdfs/PARKS/14_1.pdf

Stovel, H. 1998. *Risk Preparedness: A Management Manual for World Cultural Heritage*. Rome, ICCROM.

The International Committee of the Blue Shield (ICBS). http://www.ifla.org/blueshield.htm

War and Protected Areas. 2004. *PARKS*, Vol. 14, No. 1. http://www.iucn.org/themes/wcpa/pubs/pdfs/PARKS/14_1.pdf

WILDLIFE – PROTECTION AGAINST POACHING

According to WWF, between 1970 and 2000, 'populations of species on Earth declined by an average of 40%'. Poaching is a direct threat, second only to habitat destruction.

Two forms of poaching exist. First, commercial poaching where particular species are targeted, especially those with valuable body parts (e.g. poaching sharks for their fins in the Galápagos Islands). This type of poaching, used in illegal trade in wildlife, is worth billions of US dollars annually. Second, subsistence poaching, which can occur in the event of war or civil unrest when people are displaced from their usual settlements. This type of poaching can be as intense as commercial poaching.

The most obvious problem associated with the wildlife trade is that it can cause overexploitation to the point where the survival of a species is threatened. Wildlife trade can also cause indirect harm through:

- the introduction of invasive species which can threaten native species;
- the incidental killing of non-target species, such as dolphins and seabirds, when they are caught in fishing gear. WWF report that over a quarter of the global marine fisheries catch is reported to be incidental, unwanted, or discarded.

Furthermore, poaching challenges the outstanding universal value of World Heritage sites inscribed under natural heritage criterion (iv) because they contain threatened species of exceptional importance.

Unlike other threats mentioned here, such as mining and tourism, there have been no World Heritage endorsed conferences or workshops solely on poaching and no specific guidelines and/or recommendations have been officially adopted on this subject. The boxes in this section illustrate some different approaches that have been adopted at site level for curbing poaching. TRAFFIC, the wildlife trade monitoring network which is a joint WWF and IUCN programme originally founded largely to assist in the implementation of CITES (see Section 2, pp. 71-74), aims to ensure that wildlife trade helps to foster international cooperation and does not result in the endangerment of any wild animal or plant species nor threaten the integrity of selected priority ecoregions.

TRAFFIC believes that four critical conservation methods must be employed to meet these objectives:

- Mobilized knowledge, whereby TRAFFIC shall ensure that decision-makers at all levels acquire and apply sound

TABLE 7: WORLD HERITAGE SITES REPORTED FOR POACHING-RELATED ISSUES (1986-2004)

Region	Number of sites reported	Percentage of sites per region
Africa	14	31
Arab States	1	3
Asia / Pacific	6	7
Europe / North America	3	2
Latin America / Caribbean	5	10

UIS based on UNESCO/WHC databases

From 1986 until 2004 twenty-nine sites were reported to the Committee as being threatened by poaching, 97% of which were natural heritage (twenty-eight sites), and 3% cultural (one site). Half of all these natural heritage sites were in Africa.

6. http://www.panda.org/about_wwf/what_we_do/species/problems/illegal_trade/index.cfm

CHALLENGE OF CURBING POACHING AT SERENGETI NATIONAL PARK (UNITED REPUBLIC OF TANZANIA)

In 1994, subsistence poaching at Serengeti National Park was reported as having reached commercial levels, leading to significant reductions in wildlife populations. To combat this problem, in 1998, an outreach programme focused on three communities on the eastern border of the park was launched by Tanzania National Parks (TANAPA). This programme was conceived to combat the decline of wildlife species including elephant, buffalo and rhino. It aims to explain the purpose of the national parks to local communities and to solicit local participation in park management. It also seeks to protect the integrity of the park by reducing conflicts between wildlife and surrounding communities, by improving relations with those communities and by helping to solve problems of mutual concern.

Anti-poaching patrols and operations have also been conducted by Village Game Scouts (VGS). Under the Wildlife Policy of Tanzania (1998), VGS are empowered to make arrests within their communal land. VGS also provide tip-offs leading to the arrest of dealers in illegal trophies. VGS have a key role as they know the seasons and areas susceptible to illegal activities, as well as having a good idea of the likely perpetrators.

Since the beginning of this project poaching has decreased, but not significantly. Poaching has an economic basis and, without changing the economic incentive system for the villagers, all efforts will bear little result.

http://www.tanzaniaparks.com/

USE OF SPACE TECHNOLOGY TO MONITOR HABITATS OF THREATENED SPECIES

In 2003, UNESCO and the European Space Agency (ESA) launched the BEGo (Build Environment for Gorilla) project to monitor the mountain gorilla habitat of three World Heritage sites: Bwindi Impenetrable National Park (Uganda) and Virunga and Kahuzi-Biega National Parks (Democratic Republic of the Congo). Additional protected areas in Uganda and Rwanda, which also host mountain gorillas, were included. The region has been seriously disturbed in the past due to civil unrest and an influx of refugees that has led, at the borders of the park, to illegal forest clearing and certain poaching for food. An assessment of the eventual threats to the gorilla habitat was necessary, and only space technologies could assist. BEGo addresses one of the main problems affecting the conservation community in this area: the total lack of maps covering the World Heritage sites and protected areas hosting the gorilla habitat. Combining the GIS layers derived from satellite images with GPS data collected in the field, continuous and operational monitoring of World Heritage sites is now possible. This allows gaps to be identified in existing anti-poacher patrol coverage so that they can be redressed. Areas of major threats to the gorilla habitat have also been derived from satellite images so that priorities for conservation can be defined.

Satellite maps will ease plight of endangered mountain gorillas:
http://eu.spaceref.com/news/viewpr.html?pid=16591

MEASURES TO REDUCE ILLEGAL FISHING: COCOS ISLAND NATIONAL PARK (COSTA RICA)

Cocos Island National Park is located 550 km off the Pacific coast of Costa Rica. It was inscribed in 1997 (extended in 2002) under natural heritage criteria (ii) and (iv) because of the critical habitats it provides for marine wildlife including large pelagic species, especially sharks.

In 2002, the World Heritage Centre received information about the significant increase of illegal fishing within the Cocos Island Marine Reserve. To solve this problem and increase the protection of marine resources, the Ministry of the Environment extended the boundary of the Marine Reserve from 15 km (8.33 nautical miles) to 22 km (12 nautical miles). A strategic partnership was also formed with the National Coast Guard Service and Sea Shepherd Conservation Society for patrolling the marine area and prosecuting illegal fishing-boat owners. In 2002, the owners of a pirate vessel arrested while illegally fishing at the site were prosecuted and imposed a fine. The World Heritage Committee recognizes that this prosecution underlined the commitment of the State Party and sets a precedent.

knowledge about the scope, dynamics and conservation impact of wildlife trade and its response to different management measures and approaches;

- Effective regulation, whereby TRAFFIC shall assist governments to enact and implement policies and legislation that ensure trade in wild animals and plants is not a threat to the conservation of nature;
- Positive economic incentives, whereby TRAFFIC shall collaborate with governments and the private sector to develop and adopt economic policies and practices that provide incentives and benefits that encourage the maintenance of wildlife trade within sustainable levels and support effective wildlife trade regulation;
- Sustainable consumptive behaviour, whereby TRAFFIC shall encourage users of wildlife commodities, at all levels of trade, to voluntarily adopt sustainable consumptive behaviour that does not threaten the conservation of nature.

FURTHER INFORMATION

Kaboza, Y. and Debonnet, G. (eds.) 2005. *Promoting and Preserving Congolese Heritage. Linking Biological and Cultural Diversity.* Proceedings of the Conference and Workshops, UNESCO, 13–17 September 2004. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 17.)

Fernández-Prieto, D., Hernandez, M. and Seifert, F. M. *Protecting World Heritage from Space: The Activities of ESA.* International Society for Photogrammetry and Remote Sensing. www.isprs.org/publications/related/ISRSE/html/papers/892.pdf

Justin Hando, J. 2004. Community Conservation Services: Experiences from Serengeti National Park, United Republic of Tanzania. In: *Linking Universal and Local Values: Managing a Sustainable Future for World Heritage.* Conference organized by the Netherlands National Commission for UNESCO in collaboration with the Netherlands Ministry of Education, Culture and Science. Paris, UNESCO World Heritage Centre, pp. 70–74. (World Heritage Paper No. 13.)

WWF. 2006. *Species Fact Sheet: Illegal and Unsustainable Wildlife Trade.* London, WWF. http://assets.panda.org/downloads/wildlife_trade_factsheet2006.pdf

MINING – PROTECTING WORLD HERITAGE SITES

Mining is the extraction of valuable materials from the Earth such as copper, iron, gold and uranium. Mining in a wider sense can also include extraction of petroleum and natural gas. Many large mining companies and governments have adopted responsible attitudes and specific measures to minimize the potentially adverse environmental and social effects of mining operations (see boxes pp. 182-183 for examples). However, mining still has a range of environmental consequences for heritage sites, whether operations are undertaken within them or nearby, including the following:

- Land take and loss of vegetation cover in the mined area and other parts directly affected by associated activities, such as deposition of tailings, or consequences such as subsidence;
- Pollution, especially on water supplies, aggravated by accidents;
- Noise and visual intrusion;
- Impacts of access line development (roads, railways, pipelines, power lines, etc.), which facilitate illegal hunting, habitat fragmentation and alien invasions;
- Secondary effects of human immigration linked to real or perceived livelihood opportunities (e.g. on water supplies, illegal hunting, harvesting of vegetation, alien invasions, illegal land settlements).

While the prime responsibility for managing secondary effects usually lies with the civil authorities in the country concerned, mining companies cannot disown responsibility for some of these very damaging secondary effects. It is also recognized that much damage is done by illegal mining and that responsible companies cannot fairly be held to account for actions of this kind – but the existence of illegal or corrupt practices in some mining sectors is no excuse for multinational corporations lowering their own standards.

At its 1999 session (Marrakesh, Morocco), the World Heritage Committee discussed the issue of mining at World Heritage sites. To help guide future decision-making, a technical workshop on World Heritage and Mining was organized in 2000 by IUCN and the International Council on Metals and the

TABLE 8: WORLD HERITAGE SITES REPORTED FOR MINING-RELATED ISSUES (1986-2004)

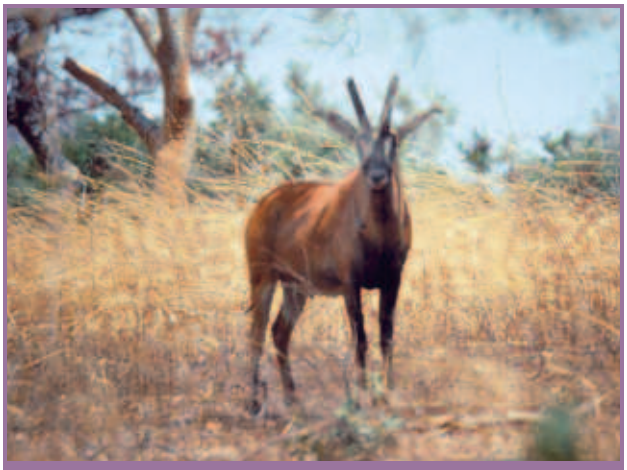
Region	Number of sites reported	Percentage of sites per region
Africa	8	18
Arab States	2	5
Asia / Pacific	9	10
Europe / North America	18	14
Latin America / Caribbean	6	11

UIS based on UNESCO/WHC databases

From 1986 until 2004, forty-three sites were reported to the Committee as being threatened by mining, 79% of which were natural heritage (thirty-four sites), 16% cultural (seven sites), and 5% mixed (two sites). On average, sites threatened by mining have been the subject of three State of Conservation reports. However, some individual cases such as Mount Nimba Strict Nature Reserve (Côte d'Ivoire and Guinea) and Kakadu National Park (Australia) were reported for more than ten years to the World Heritage Committee over mining issues.

MINING AROUND YELLOWSTONE NATIONAL PARK (UNITED STATES)

Yellowstone National Park was inscribed on the World Heritage List in 1978 under all four natural heritage criteria. This site contains half of all the world's known geothermal features, has the largest concentration of geysers (more than 300 geysers, or two-thirds of all those on the planet) and is equally known for its wildlife, such as grizzly bear, wolf, bison and wapiti. The World Heritage Committee, worried about the proposal to reopen an older gold and silver mining area 4 km outside Yellowstone National Park, inscribed the site on the List of World Heritage in Danger in 1995. This mining scheme would indeed have led to a number of threats to the site, such as the degradation of surface and ground water, changes in water quantity, the displacement of wildlife and other disturbances. In 1996, the US Government and the mining company signed an agreement to refrain from mining these lands. The Congress also appropriated US $ 65 million for the acquisition of lands and for the clean-up of toxic overburden and tailings left over from a century of previous mining activity. Clean-up of toxic materials from past mining started in 2000 and is expected to take seven years. In June 2003, the World Heritage Committee removed the park from the Danger List as it recognized that significant progress had been made at Yellowstone to address the potential threats that would have been caused by this mining proposal.



POTENTIAL THREAT OF MINING AT W NATIONAL PARK (NIGER)

W National Park of Niger was inscribed on the World Heritage List in 1996 under natural heritage criteria (ii) and (iv). The section of the park that lies in Niger is in a transition zone between savannah and forest lands and represents important ecosystem characteristic of the West African Woodlands/Savannah Biogeographical Province. The site reflects the interaction between natural resources and humanity since Neolithic times and illustrates the evolution of biodiversity in this zone. In 2003, the World Heritage Committee noted with concern the proposed exploitation of a phosphate mine that represented a serious potential threat to the integrity of the site. The Committee asked the authorities to provide the World Heritage Centre with a detailed report on the proposed mining activity as well as an independent evaluation of the environmental and social impact according to international standards. At its 2004 session (Suzhou, China), the Committee requested that the State Party provide a report on the results of any Environmental Impact Assessment that might be carried out or of any decisions on the planned mining inside the park. On 25 March 2005, the Centre received confirmation from Niger that it is no longer considering mine-working in W National Park. During that time, this site was also threatened by the planned construction of an electricity dam between Burkina Faso, Benin and Niger, which was later withdrawn by Niger.

Environment (ICME), in collaboration with the World Heritage Centre. The workshop included representatives from the mining and conservation sectors as well as World Heritage site managers and States Parties. A set of ten principles was established that should underpin the relationship between mining and World Heritage interests, including protection of World Heritage integrity, maximizing economic, social and environmental benefits and minimizing adverse impacts, respect for different value systems, and openness and inclusiveness in the consultation from the earliest possible plans for mining operations. In addition, a series of recommendations were specifically targeted at three groupings of interested parties: the World Heritage Committee and States Parties; World Heritage Management Agencies; and the Mining Industry. These conclusions and recommendations were fully adopted by the World Heritage Committee in 2000.

In 2002 at the World Summit on Sustainable Development the IUCN–ICMM (International Council on Mining and Metals) Dialogue was launched. This initiative aims to improve the mining industry's performance in biodiversity conservation and to raise mutual awareness and understanding between the industry and the conservation community. Since then, in 2003, ICMM, which comprises fifteen of the world's largest mining and metal-producing companies, signed an undertaking to recognize existing World Heritage sites as 'no-go' areas: World Heritage sites would not be explored or mined. The ICMM has further committed itself to work with IUCN and others in developing best practice guidance to enhance the industry's contribution to biodiversity conservation, including in and around protected areas, as well as transparent and fair science-based decision-making processes and assessment tools that better integrate biodiversity conservation and mining into land-use planning and development strategies. A publication presenting case studies from around the world has since been published to show the mutual benefits that can result from stronger collaboration between the mining and conservation sectors, such as in Lorentz National Park (Indonesia, see box).

INTEGRATING MINING AND BIODIVERSITY CONSERVATION: LORENTZ NATIONAL PARK (INDONESIA)

Lorentz National Park was included on the World Heritage List in 1999 under natural heritage criteria (i), (ii) and (iv). The 2.5 million hectare park is the largest protected area in South-East Asia. It is the only protected area in the world to incorporate a continuous, intact transect from snowcap to tropical marine environment, including extensive lowland wetlands. Located at the meeting-point of two colliding continental plates, the area has a complex geology with ongoing mountain formation as well as major sculpting by glaciation. Its remote location and the difficult logistics within the park greatly limit research and few detailed botanical studies have been made there. But botanical surveys of nearby areas within the PT Freeport Indonesia mining project area are providing valuable information concerning the biodiversity within Lorentz.

Source: IUCN/ICMM, 2004, p.30-31.

FURTHER INFORMATION

Eidsvik, H., Clark, M. and 'Bliemrieder, M. 1997. World Heritage in Danger. *PARKS*, World Heritage Special Issue, Vol. 7, No. 2, pp. 27–31.

ICCM. 2003. *Landmark 'No-Go' Pledge from Leading Mining Companies.* Press release. London, International Council on Mining & Metals.
www.icmm.com/news/158ICMMPressRelase-nogoareas-20August03.pdf

Information Document: Report of the Technical Workshop on 'World Heritage and Mining', IUCN Headquarters, Gland, Switzerland, 21–23 September 2000. 2000. Twenty-fourth extraordinary session of the Bureau of the World Heritage Committee, Cairns, Australia, 23–24 November. (WHC-2000/CONF.203/INF.7.)

IUCN/ICMM. 2004. *Integrating Mining and Biodiversity Conservation. Case Studies from Around the World.* Gland, Switzerland/London, IUCN/ICMM.
http://www.icmm.com/publications/767BiodiversityReport.pdf

DEVELOPMENT OF WORLD HERITAGE SITES – ACCEPTABILITY

Striking a balance between conservation and development can be a very difficult endeavor. Developments, in particular large scale ones, might have detrimental and irreversible effects on the outstanding universal value of World Heritage sites. Types of development that may affect sites (problems relating to tourism infrastructures are excluded as they are considered in the next chapter) include:

- Infrastructure construction or modifications such as roads, airports, bridges, harbours;
- Urbanization, e.g. construction of new housing to cater for population increase;
- Hydroelectric development, e.g. dam construction;
- Waste disposal, e.g. construction of incinerators;
- Energy resource development, e.g. construction of wind farms;
- Industrial developments, e.g. construction of factories.

The World Heritage Convention has helped to mitigate a number of these development pressures and to halt unsustainable and unacceptable development projects, as detailed in the illustrations from Austria, Brazil and Nepal. Recommendations and guidelines have been published for the planning and implementation of sustainable and acceptable development projects. The Vienna Conference and Memorandum (2005), presented under the World Heritage Cities Programme (p. 92) includes a number of recommendations to ensure that any development of World Heritage cities does not threaten their outstanding universal value. Another example is the recommendations made by the World Commission on Dams aiming to prevent and resolve conflicts and minimize potential risks to heritage when dams were planned and constructed.[7] These include the need to screen out inappropriate or unacceptable projects at an early stage and to recognize the rights of interested parties and the assessment of the risks and impacts of the projects on them, on the environment and on natural and cultural heritage.

IUCN has also stressed the importance of zoning as part of the management cycle to define the activities that can occur in specific areas of a park 'in terms of natural resources management; cultural resources management; humankind use and

TABLE 9: WORLD HERITAGE SITES REPORTED FOR DEVELOPMENT-RELATED ISSUES (1986-2004)

Region	Number of sites reported	Percentage of sites per region
Africa	16	36
Arab States	21	54
Asia / Pacific	40	47
Europe / North America	74	58
Latin America / Caribbean	24	46

UIS based on UNESCO/WHC databases

From 1986 to 2004, 175 sites were reported to the Committee as threatened by development pressures, 69% of which were natural heritage (121 sites), 29% cultural (fifty sites), and 2% mixed (four sites). Around half of the total number of sites that were the subject of a State of Conservation report in the five regions were reported for problems of development pressures. This is the threat that affects most sites according to the categories presented here.

7. http://www.dams.org/report/contents.htm

ROYAL CHITWAN NATIONAL PARK (NEPAL)

Royal Chitwan National Park was inscribed on the World Heritage List in 1984 under natural heritage criteria (ii), (iii) and (iv). It has a particularly rich flora and fauna and provides refuge for about 400 greater one-horned rhinoceros, characteristic of South Asia. In the early 1990s, an irrigation project that would divert 75% of the water from the river that forms the northern boundary of the park was planned. The World Heritage Committee, in the early 1990s, questioned the findings of the Environmental Impact Assessment of the proposed Rapti River Diversion Project. The Asian Development Bank and the Government of Nepal revised the assessment and found that the diversion project would threaten riparian habitats critical to the rhino inside Royal Chitwan. The project was thus abandoned. Concerns were also raised from 2001 onwards that a new bridge and associated roads had been constructed without an Environmental Impact Assessment. However, since then, the Department of National Parks and Wildlife Conservation has imposed restrictions on the use of the bridge and associated roads.

HISTORIC CENTRE OF VIENNA (AUSTRIA)

The Historic Centre of Vienna was inscribed on the World Heritage List in 2001 under cultural heritage criteria (ii), (iv) and (vi). At the time of inscription, the World Heritage Committee recommended that the State Party undertake the necessary measures to review the height and volume of the Wien-Mitte, an urban renewal project for the derelict area around the train station, east of the Ringstrasse, to avoid impairing the visual integrity of the historic town. Furthermore, the Committee recommended that special attention should be given to continuous monitoring and control of any changes to the morphology of the historic building stock. At its 2002 session (Budapest, Hungary), the Committee repeated its recommendations made in 2001 and threatened to delist this site. These pressures led to the launching of an urban design competition in 2003 by the City of Vienna to establish new architectural proposals complying with the request to reduce the building height at the Wien-Mitte site. In October 2003, the final project was selected and presented to the public. The revised project consists of a main building with a maximum height of 35 m, and an rectangular, slim building measuring 70 m at its highest point. The reduced height and volume of the overall project is seen as compatible with World Heritage protection.

ENSURING ACCEPTABLE DEVELOPMENT IN BRASILIA (BRAZIL)

Brasilia was inscribed on the World Heritage List in 1987 under cultural heritage criteria (i) and (iv). This capital was created *ex nihilo* in the centre of the country in 1956. Urban planner Lucio Costa and architect Oscar Niemeyer intended that every element – from the layout of the residential and administrative districts to the symmetry of the buildings themselves – should be in harmony with the city's overall design. When it inscribed this site, the Committee recommended that 'a conservation policy which respects the characteristics of the urban creation of 1956 be pursued in the federal district of Brasilia'. Such a recommendation guided the authorities facing a population explosion to find innovative and long-lasting methods of safeguarding the site and consequently displaying their undeniable commitment towards the preservation of a modern city in development.

To achieve this, the authorities welcomed advice and suggestions from world-wide experts at an international forum organized in 1993. Following a 2001 recommendation from a joint UNESCO–ICOMOS mission, a Master Plan for the protected area is also currently being prepared that fully recognizes and ensures the preservation of the values of the city. This plan is characterized by the participation of both government and society. A number of preliminary technical studies were also undertaken in 2002 and 2003, including one on legal proposals for the preservation of this city.

benefit; visitor use and experience; access; facilities and park development; maintenance and operations. Through management zoning the limits of acceptable use and development in the park are established'.[8] IUCN has also developed guidelines for small-scale development projects in Category V protected areas: i.e. area of land, with coast or sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. These guidelines include taking account of environmental factors such as the location, resource consumption, scale, design, materials of the development project; of social factors such as impacts on the community and cultural traditions; and of economic factors such as the support of sustainable resource use in the area or the employment of local people.

8. Young and Young, (1993).

FOR MORE INFORMATION

ICOMOS. 2000. *Trends, Threats and Risks, ICOMOS World Report 2000 on Monuments and Sites in Danger*. Paris, ICOMOS. http://www.international.icomos.org/risk/trends_eng.htm

Phillips, A. 2002. *Management Guidelines for IUCN Category V Protected Areas. Protected Landscapes/Seascapes*. Gland, Switzerland, IUCN-WCPA. (Best Practice Protected Area Guidelines Series No. 9.) http://app.iucn.org/dbtw-wpd/edocs/PAG-009.pdf

Young, C. and Young, B. 1993. *Park Planning: A Training Manual (Instructors Guide)*, Mweka, Tanzania, College of African Wildlife Management.

TOURISM AT WORLD HERITAGE SITES – SUSTAINABILITY

Tourism is one of the world's largest industries with an estimated US$3 trillion in annual revenues. The industry is expanding at an average rate of 4 - 5% annually. Tourism can bring a number of benefits, including the enhancement of economic opportunities through increasing jobs for local residents, increasing incomes and the stimulation and creation of local and regional markets. Tourism can also help to protect natural and cultural heritage, transmit conservation values through education and interpretation, and help to support research and development of good environmental practices. Tourism can also help to enhance quality of life through improved infrastructures, enhanced intercultural understanding and the valuation by local people of their culture, their heritage and traditions.

However, World Heritage sites have also been reported to the World Heritage Committee for a number of issues relating to tourism, including:

- Impacts of the development of tourism-related facilities, including on-site facilities, parking and souvenir shops, hotels, roads or airports;
- Physical and environmental impacts, such as accelerated erosion of ground, floor surfaces, walls; pollution, destruction of ecosystems or risks to wildlife;
- Social impacts including exploitation of local populations or mass consumption of sites and monuments by tourists;
- Intrusive or excessive presentation and related works, including inappropriate reconstruction.

On average, sites threatened by tourism problems have been the subject of three State of Conservation reports. However, some individual cases such as the Galápagos Islands (Ecuador) have been reported for nine years to the World Heritage Committee for this issue.

ICOMOS and IUCN have provided key management elements to be taken into consideration when designing and implementing tourism projects (Table 11). The illustrations given here (Iguazú National Park in Argentina and Iguaçu National Park in Brazil as well as Hal Saflieni Hypogeum in Malta) highlight different methods for regulating tourism, including strict controls of tourist numbers and level of activities as well as measures to minimize their impact on the site.

The overriding importance of tourism to World Heritage, both as an opportunity and as a threat if poorly managed,

TABLE 10: WORLD HERITAGE SITES REPORTED FOR TOURISM-RELATED ISSUES (1986-2004)

Region	Number of sites reported	Percentage of sites per region
Africa	6	13
Arab States	10	26
Asia / Pacific	25	29
Europe / North America	18	14
Latin America / Caribbean	11	21

UIS based on UNESCO/WHC databases

From 1986 until 2004, seventy sites were reported to the Committee as threatened by pressures from tourism, 56% of which were natural heritage (thirty-nine sites), 34% cultural (twenty-four sites), and 10% mixed (seven sites). Tourism is the second most reported threat, after development pressures. The Historic Sanctuary of Machu Picchu (Peru, see box p. 189) illustrates the difficulty of developing and implementing sustainable tourism.

TABLE 11: GUIDANCE FROM 1999 ICOMOS CHARTER	
ELEMENT	**GUIDING DIRECTIONS**
Authenticity	◆ Retention of authenticity is important. **Interpretation programmes should:** ◆ Enhance the appreciation and understanding of that cultural heritage; ◆ Present the significance of the culture in a relevant and accessible manner; ◆ Use appropriate, stimulating and contemporary forms of education, technology and personal explanations; and ◆ Encourage high levels of public awareness and support of heritage.
Employment	**Tourism should:** ◆ Bring benefits to host communities and provide an important motivation and means to maintain their heritage and cultural practices; ◆ Promote equitable distribution of benefits of tourism, through education, training and creation of employment opportunities; and ◆ Encourage training and employment of local guides and interpreters. **Managers should:** ◆ Carefully address the potential impact of visitors on the characteristics, integrity and biodiversity of the place, local access and the social/economic/cultural well-being of the host community; and ◆ Select circulation routes to minimize impacts on integrity of place.
Respect	◆ Respect sanctity of spiritual elements, values and lifestyles of the host. ◆ Respect rights and interests of the community, property owners, indigenous peoples, who may have traditional rights over their own land, or wish to restrict certain activities, practices or access. ◆ Encourage and help all parties to understand and resolve conflicting issues. ◆ Conservation should provide well-managed opportunities for visitors and members of the host community to experience and understand that community's heritage and culture, first hand.
Culture	◆ Encourage visitors to experience the wider cultural/natural heritage of the region. ◆ Involvement of all parties, including local and/or indigenous community representatives is necessary to achieve a sustainable tourism industry.
Economic returns	◆ Allocate a significant proportion of revenues to protection, conservation and presentation of places, and tell visitors about this allocation. ◆ Ensure that distribution and sale of crafts and products benefit the host community.
Visitor satisfaction	◆ Ensure that the visitor experience is worthwhile, satisfying and enjoyable. ◆ Present high quality information to optimize visitors' understanding of heritage and need for protection. ◆ Provide appropriate facilities for comfort, safety and well-being of the visitor. ◆ Ensure tourism promotion creates realistic expectations. ◆ Minimize fluctuations in visitor arrivals and even the flow as much as possible.
Consultation and evaluation	◆ Continuing research and consultation are important to understanding and appreciating the heritage significance of the place. ◆ Involve host communities in planning for conservation and tourism, and establishing goals, strategies, policies and protocols. ◆ Evaluate the ongoing impacts of tourism on the place or community.

Source: IUCN adapted from ICOMOS (1999, pp. 63–64).

REGULATING TOURISM AT HISTORIC SANCTUARY OF MACHU PICCHU (PERU)

Machu Picchu was inscribed on the World Heritage List in 1983 under cultural heritage criteria (i) and (iii) and natural heritage criteria (ii) and (iii). The site stands 2,430 m above sea level, in the midst of a tropical mountain forest, in an extraordinarily beautiful setting. It was probably the most amazing urban creation of the Inca Empire at its height, in the Sacred Valley; its giant walls, terraces and ramps seem as if they have been cut naturally in the continuous rock escarpments. This is one of the most iconic, famous and visited sites in Latin America. The high level of tourists and visitors has led to problems such as erosion of the pathways and some stone structures, pollution of the air and ecosystem by buses, and some lack of control of village development within the site boundaries. The site is also highly vulnerable as it is in the second most active landslide region. Landslides could be triggered more easily by proposed projects, such as the development of a cable railway. Efforts have been made by the Peruvian Government to address these issues, including the preparation of a Master Plan in the context of which tourism would be managed and carefully planned. A Management Unit was also set up to prepare short- and mid-term operational plans. However, a number of problems remain, including delays in revising the Master Plan, the lack of a comprehensive sustainable financing strategy for site management and of adequate coordination between those involved.

REGULATING TOURISM AT IGUAZÚ NATIONAL PARK (ARGENTINA) AND IGUAÇU NATIONAL PARK (BRAZIL)

The two sites of Iguazú National Park in Argentina and Iguaçu National Park in Brazil contain one of the most spectacular waterfalls in the world. There are over 5,000 visitors per day to these sites and innovative ways are needed for managing tourism in order to safeguard them. It is indeed essential that constant dialogue takes place between the two States Parties to maintain consistency in management on both sides. Although damaging road development projects were the main reason why the site was added to the List of World Heritage in Danger in 1999, unregulated tourist pressures were another cause of concern. For example, in order to maximize tourist revenue, helicopter flights over the falls were introduced in the late 1990s. These caused serious noise disturbance in an otherwise natural setting; complaints from other visitors to the site were received on a daily basis. Following an Environmental Impact Assessment that showed an alarming impact on fauna, the World Heritage Committee requested the relevant authorities to halt helicopter flights immediately and suggested that cooperation should take place between the States Parties to devise management strategies. A study of tourism management was launched and a management plan developed to protect the integrity of the site. As a result of the Committee's action, helicopter flights are now regulated: they must obey strict time and altitude rules. Meanwhile, a bus service has been introduced that has cut visitor traffic by 70%, a new information centre opened, signposted trails created and bars and restaurants relocated. In short, the problems associated with tourism have been addressed, with an emphasis on ecologically based tourism supported by a service infrastructure designed to meet the demands of international tourism while giving priority to care and conservation of the World Heritage site. As a result of this excellent work by both States Parties (including resolution of the separate issue of the road through the park), the site was removed from the Danger List in 2001.

SUSTAINABLE TOURISM AT HAL SAFLIENI HYPOGEUM (MALTA)

During the 1980s, concerns grew over the impact of the large number of visitors that were entering the Hal Saflieni Hypogeum and disturbing the site's microclimate. In the early 1990s, an extensive project was launched at the site, with technical support from UNESCO, in the form of expert missions and equipment. A number of expert studies indicated that the uncontrolled numbers of visitors and continuous illumination had had considerable physical, biological and chemical impacts on the site. The new conservation project was designed to eliminate these threats. Visitor numbers were strictly controlled while the project was under way. In 2000, it was finally completed and the site reopened to the public, after the Maltese Government had invested more than 1 million euros. A system of reversible walkways has been installed to mitigate the physical impact of visitors. Lighting is now controlled by a computer programme that only illuminates different sections for brief periods. This measure has successfully controlled the growth of algae on the walls, which had previously obliterated the prehistoric wall-paintings. Fresh air needs to be introduced to the site because visitors consume oxygen and generate carbon dioxide. First, however, the air is acclimatized to the prevailing conditions in order not to disturb the microclimate. The number of visitors is also strictly controlled to avoid disturbances to the microclimate. They are admitted in groups of ten at a time, with only one visit per hour, and visits must be booked in advance, including via the internet. Following these precautions, the site is now maintaining a suitable climate and is still accessible to visitors, who are welcomed with a brief introductory exhibition and multilingual audio-visual film focusing on the temple-building peoples and the Hypogeum's relationship to Malta's megalithic temple sites.

http://www.heritagemalta.org/hypogeum.html

was recognized by the World Heritage Committee when it authorized the Centre, in 2001, to develop a World Heritage Sustainable Tourism Programme.[9] The aim of the programme is to aid the Committee and site management, using tourism as a positive force to retain site values and to help to mitigate threats. In general, the Tourism Programme facilitates linkages between the key participants in the sustainable tourism and conservation sectors, and develops tools and methods for practical tourism applications. Here management policies for broad tourism applications for World Heritage sites are being developed, including determining visitor limits, visitor interpretation, facilitating the involvement of the private sector, developing tourism-related activities in communities, and exploring methods to aid sites with their operational costs. The programme encourages the development of planning methodologies so that tourism development remains within the limits of acceptable change to those values for which the sites were listed as World Heritage.

FURTHER INFORMATION

Eagles, P., McCool, S. and Haynes, C. 2002. *Sustainable Tourism in Protected Areas Guidelines for Planning and Management*. Gland, Switzerland, IUCN-WCPA. (Best Practice Protected Area Guidelines Series No. 8.)
http://app.iucn.org/dbtw-wpd/edocs/PAG-008.pdf

Feilden, B. and Jokilehto, J. 1998. *Management Guidelines for World Cultural Heritage Sites*, 2nd edn. Rome, ICCROM

ICOMOS International Committee on Cultural Tourism. *Tourism at World Heritage Sites: The Site Manager's Handbook*, 2nd edn. Paris/Madrid, ICOMOS/WTO.

Pedersen, A. 2002. *Managing Tourism at World Heritage Sites: A Practical Manual for World Heritage Site Managers*. Paris, UNESCO World Heritage Centre. (World Heritage Paper No. 1.)

WTO. 2004. *Tourism Congestion Management at Natural and Cultural Sites. A Guidebook*. Madrid, World Tourism Organization.

The UNESCO Courrier. July/August 1999. *Tourism and Culture: Rethinking the mix*.

Australian Heritage Commission (ed.) 2000, *Successful Tourism at Heritage Places. A Guide for Tourism Operators, Heritage Managers and Communities*. Canberra, Australia.

9. http://whc.unesco.org/en/sustainabletourism/

CONCLUSIONS

by Francesco BANDARIN

LOOKING AHEAD: THE WORLD HERITAGE CONVENTION IN THE TWENTY-FIRST CENTURY

Conservation is a concept of modernity. For two centuries, societies in different parts of the world have developed views on the meaning of heritage and its role in the life of communities, sustainable development, education and human development. The principles embodied in the World Heritage Convention represent a synthesis of this experience, one that is playing a significant role in identifying and protecting culture and nature in a globalizing world. And yet the work has just begun, and the challenges ahead are paramount. Conservation is not for the short term, it would be meaningless. It is for the very long term, for the next and the future generations. This book has offered a reflection on the progress of the World Heritage Convention in its first three decades of implementation, and an overview of the challenges ahead. We are aware that this reflection deals with only part of the issues and the leading questions. Finding the most appropriate answers will require an even greater effort from the States Parties, the World Heritage Committee, UNESCO, the Advisory Bodies and all the institutions involved in the global challenge of cultural and natural heritage conservation.

Let us review some of the dimensions of long-term conservation.

WHICH RESOURCES AND FROM WHERE?

Throughout three decades of implementation, the availability of resources for cultural and natural heritage conservation has been central to the concerns of the World Heritage Convention. The resources needed are clearly not only financial, but technical and organizational. As the number of sites increases, as challenges and threats multiply, the issue of resources for the future is fundamental. In the past decade, significant resources have been channelled through the system of the Convention, largely as a result of greater involvement of governments and the private sector for the implementation of environmental conservation policies. This has provided important opportunities for the conservation of natural heritage sites in critical areas of the world, such as the great tropical forests and the marine zones. The flow of resources for cultural heritage site conservation has been smaller, although it has reached significant levels for certain specific areas (usually post-conflict zones) and special projects. Will this flow of resources be continued? The reform of the United Nations system currently under discussion may provide a new framework for the action of the Convention and provide an opportunity to reshape the links with other development and conservation institutions. It is clear, however, that only an innovative approach to conservation finance will allow the World Heritage Convention to meet future challenges. There are two possible innovations: the establishment of 'sister' institutions in different parts of the world, able to support on a regional basis the policies of the Convention; and the mainstreaming of site conservation in development frameworks on a global scale, in particular the strategies of the multilateral and bilateral development institutions. The Convention has so far only explored these potentials, but not yet established a long-term policy. How can this be achieved? How can the Convention achieve a more central role in the overall UN development framework?

IS THERE A LIMIT TO THE NUMBER OF SITES ON THE LIST?

Are 830 sites too many or too few? This question keeps recurring as the World Heritage List grows in size and popularity. While the Convention sets no upper limit to the List, several attempts have been made to indicate the number and type of sites that could appear, i.e. those that, according to the standards established by the Committee, possess outstanding universal value.

If the current number of sites appears high at first glance, it certainly could be seen as reasonable, even small, considering that the scope of the World Heritage Convention encompasses the entire history of humanity and the diversity of natural features of the Earth.

In this perspective, the real issue is not the number of sites, but rather the capacity to ensure the effective conservation of those inscribed.

Currently, some twenty to twenty-five sites are added every year to the List. Should this progression continue, the List could hit the figure of 1,000 sites in 2012 (40th anniversary of the Convention), 1,500 sites in 2030 and reach 2,000 sites by 2045 (100th anniversary of UNESCO).

Considering today's partition between cultural and natural sites (respectively 75% and 25% of the total), it is anticipated that by mid-century there will be between 1,500 and 1,700 cultural sites and some 300 - 400 natural sites. Is this an acceptable scenario? While it is obviously impossible to set an overall limit, can a list with 2,000 entries be considered a balanced representation of the world's sites of outstanding universal value? And are these numbers compatible with the capacity to implement effective conservation policies and monitoring practices?

Today, with 830 sites, the technical system put in place to monitor and assist World Heritage sites and to ensure their conservation is already insufficient. If we consider that many sites are very large (the Great Barrier Reef in Australia alone is longer than 2,500 km) and that 'serial' sites are made up of several separate parts – sometimes over 100, it is easy to see how the tasks facing the Convention are becoming increasingly complex. What measures could be taken to ensure the effectiveness of the system? Where can the technical and financial resources to support it be found?

HOW CAN A BALANCED LIST BE ACHIEVED?

The issue of balance of the World Heritage List is – as we have seen – a critical one to ensure its credibility and the effective international role of the Convention. However, most of the measures adopted so far have not proved successful. There is no doubt that the capacity of new States Parties to propose sites is improving, and we can certainly expect that the significant investment in training and assistance by the Convention will in the long term – twenty to thirty years – produce good results in terms of new proposals from regions that are today less represented. Will this be enough to give the List full global representation? Much will depend on the willingness of the different partners, especially those with greater technical and financial capacities, to support this process in the long term.

Better balance in the List will also improve the issue of adequate representation of the different types of heritage. As the proposals, however, can only come from States Parties, this will not necessarily match what the experts have identified as the 'ideal' set of World Heritage sites.

Should a 'priority list', based on agreed scientific criteria, be used in future to guide and accelerate the rebalancing process?

Can a system be envisaged that gives sites in these lists priority for International Assistance or other forms of support from the Committee and the States Parties?

What criteria and benchmarks for a periodic assessment of the balance of the World Heritage List should be established?

DO REGIONAL LISTS HELP OR CONFUSE?

National inventories of cultural and natural heritage exist in almost every country, albeit in various forms and with different objectives and degrees of protection.

However, in recent times 'regional' lists have been proposed and discussed, and a trend towards their creation has emerged. Some examples of regional lists for natural heritage developed by intergovernmental and non-governmental organizations are already in place and could serve as reference, such as the list established by the Association of Southeast Asian Nations (ASEAN), under a regional convention for nature conservation, of Heritage Parks and Reserves. Recently, regional heritage lists have been proposed for the Americas and Europe.

Should regional lists be drawn up in future, will they help the Convention or weaken its impact?

Should the Committee launch a discussion and put forward proposals in this direction? Under what terms and form of management would a regional list be considered acceptable?

As all the States Parties have signed the World Heritage Convention, should they consider it as the reference framework, and use similar or compatible criteria and processes for the selection and inscription of sites? Will their creation generate an 'overload' on the work of site managers and States Parties, who in some cases already have difficulty in managing the World Heritage Convention?

Could regional lists offer a useful 'buffer' to the excessive pressure for inscription of sites on the World Heritage List? Could they provide a higher degree of protection and recognition compared with the national level, and become a preparatory step for future nominations to the World Heritage List?

WILL IT BE POSSIBLE TO EXTEND THE 'REACH' OF THE CONVENTION?

As of September 2006, the Convention had been ratified by 183 UNESCO Member States. With only nine yet to ratify, universality of the Convention will be reached in the short term, possibly within the next five to ten years.

While the scope of the Convention is limited to sites that are under the sovereignty of a country that has ratified it, the question arises as to whether it will be possible in future for the Convention to deal with sites located in areas that are not within a national jurisdiction, such as the high seas or the polar regions.[5]

In the past, the Committee has expressed interest and supported conservation in areas that are not under the jurisdiction of a State Party, to foster conservation of potential World Heritage sites, and has encouraged cooperation with other conventions.

Can the conservation of heritage of potential outstanding universal value that lies outside the jurisdiction of States Parties be supported indirectly, by establishing links with other international legal tools, or developing partnerships with institutions and organizations expressed by civil society?

5. The Convention on the Protection of the Underwater Cultural Heritage (2001, not yet in force) addresses some of these concerns.

Examples include the natural heritage of the Pacific islands, such as the Line Islands, extending for over 3,000 km. The conservation of the outstanding universal value of these islands is clearly linked to marine areas that are outside national sovereignty.

Another case – a complex one indeed – is that of the polar regions and in particular Antarctica. In these areas the World Heritage Convention could not be implemented, as this continent is not under a universally recognized system of state sovereignty, and the juridical status of the land is disputed.

However, it is clear that heritage of outstanding universal value could be identified in these areas. If its preservation is of importance for the world, should this be a concern of the Convention? Can forms of collaboration with the international institutions in charge of scientific and conservation activities in these areas be established?

Under international law every convention has a distinctive nature. An international treaty only and exclusively applies to its specific areas of interest, and binds only the countries that are signatories to it.

But as the challenge facing the Convention has a cultural and political dimension, will it be possible in future to exert its 'moral' force in fields that fall outside its strict mandate?

ARE NEW HERITAGE CONCEPTS NEEDED?

In 1992, 'cultural landscapes', a new category of heritage representing the 'combined works of nature and of man' (Article 1 of the Convention), were added to the *Operational Guidelines*. This extension of the original typology of cultural sites (monuments, groups of buildings, sites) reflects the evolution of the concept of heritage in many regions of the world. This new category is the result of a change of the traditional view of heritage as 'monument', linked to European history, to include heritage concepts applicable to all regions of the world.

Could other categories of heritage be considered in future for inclusion in the Convention? Certainly, the definition provided in Article 1 is broad enough to include all types of heritage, including cultural landscapes.

However, it appears that some new typologies are emerging, and may one day require an appropriate and specific definition within the system of the Convention. For example, the Struve Geodetic Arc, a system of land triangulations, testimony of the first complete scientific attempt in the nineteenth century to measure the circumference of the Earth, was proposed by ten countries and inscribed on the World Heritage List in 2005. The nature of this site is quite special, and differs from traditional definitions as it is essentially a scientific achievement. In general, while the Convention has discussed and comprised 'linear' sites, many are clearly still difficult to define.

The mid-Atlantic ridge, the greatest vault on earth, stretches for thousands of kilometres along the ocean floor. Only a few islands emerge and are visible (and under state sovereignty).

Migratory routes such as the one along the Rift Valley are very complex to classify according to the definitions provided by the World Heritage Convention, let alone the complexity of identifying appropriate management practices.

The work being currently developed for the identification and inscription of the Main Andean Road in the six countries of the Andes is a good example of the complexity of these large and multidimensional sites.

Does the identification of sites of this type and their inscription require the development of new concepts, coordination and management frameworks?

Will the entry into force of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage add a new dimension to these definitions?

And as more and more large-scale sites are considered, which methodology for the identification, protection and listing of sites should the Convention adopt?

IS THERE A NEED TO REASSESS EXISTING SITES?

The first cycle of Periodic Reporting, concluded in 2006, highlighted many inconsistencies and deficiencies in the way sites have been proposed and inscribed on the List, in their perimeters and buffer zones, in their management plans, their statement of significance and even in their names.

In coming decades work will be needed to review the sites already inscribed and to reassess their values in relation to the approaches and policies expressed by the Committee. This is needed to maintain the credibility of the List and allow the implementation of an effective system of monitoring and reporting on the situation of the sites.

A review of the values of the listed sites could lead to new conclusions on the use of criteria and management requirements.

Is it possible that, following a more comprehensive approach, cultural values will be identified in sites previously 'seen' exclusively as natural ones, and vice versa?

The development of understanding of the link between cultural and biological diversity has certainly prompted a better understanding of this relationship.

The reorganization of the ten inscription criteria into one list under the 2005 *Operational Guidelines*, at the moment representing just a formal change, may in future bring about some interesting reflections, and possibly some adaptation of the current evaluation system.

For example, can criterion (vii) (exceptional natural beauty and aesthetic importance) be assessed only by 'natural'

experts? Can sites linked to human evolution only be considered as cultural sites?

How will this affect the role and activities of the World Heritage Committee and of all the other partners in the World Heritage system?

DO VALUES CHANGE?

Most of the themes mentioned above are linked to a single and overarching concept: the definition of values in the Convention. A discussion on the concept of outstanding universal value has recently been promoted by the World Heritage Committee, concerned with the maintenance of high standards and consistency in the evaluations.

Can the concept of outstanding universal value match the heritage values of all cultures? Can its timeless dimension be sustained in a changing social context and over generations?

To many experts, the rigid separation between 'culture' and 'nature', referring to Articles 1 and 2 of the World Heritage Convention, appears unsatisfactory. This separation is indeed the result of a Western approach, and finds no match in cultural approaches prevailing in Asia and Africa, for example.

Should new paradigms be discussed, taking into account the most recent propositions of cultural anthropology and the new approach proposed by the Convention for Intangible Heritage?

The complexity of these issues, however, will in future require further analysis, especially in view of the importance of the intellectual debate now taking place in other disciplines on the issue of 'values'. In the future, the Convention will have to confront this debate and adjust its own criteria and parameters.

HOW CAN THE CONVENTION DEAL WITH GLOBAL PROCESSES?

While the Convention is essentially a site-based instrument, an increasing number of issues relating to global phenomena are affecting conservation of World Heritage sites. The main ones are already at the core of the reflection of the Committee: climate change, energy and mining, tourism, urbanization.

The Convention clearly does not have the legal and operational tools to deal with global issues. However, it can foster site conservation by including global issues in the assessment of the state of conservation of sites, in order to facilitate preventive and mitigation measures; and by initiating a dialogue with the institutions dealing with global impacts and supporting the coordinated action needed to contain their effects.

Climate change, which concerns both cultural and natural heritage sites, has been one of the first of the global processes affecting World Heritage sites to be discussed by the Committee. Due to its complexity, it is likely that this issue will remain part of the long-term agenda of the World Heritage Convention. But other issues of a global nature will in future also become central elements in the overall strategies of the Convention.

The diffusion of mining activities, oil and gas extraction and energy production, in view of the increasing scarcity of resources and increasing global demand, could indeed become relevant factors in World Heritage site conservation. The recent case of Lake Baikal, threatened by a planned pipeline, and positively solved by the decision of the Russian Federation to detour the infrastructure, is perhaps the most prominent case in recent times, but it is certainly not the only one of its type. Limited success was obtained in 2003 when the International Council on Mining and Metals, subsequently followed by Shell, decided to stop extractive operations at World Heritage sites. Important as this was, the fact remains that the majority of the extractive industries in the world have not adhered to this policy. What can the Convention do to extend its protection to sites from impacts linked to the growth of the extractive industries?

Tourism, perhaps the fastest growing industry in the world, is a primary user of World Heritage sites, in many cases with relevant impacts on conservation. The problem has already acquired an important dimension: forecasts show that in the next twenty years international tourism flows will double, especially in regions such as Asia and Europe, with potentially huge impacts on the quality of sites and on their conservation. How can the Convention address these issues and define policies able to turn this potential threat into a resource for conservation?

The increasing threats to cities and urban landscapes can be counted among the most critical global challenges, as urbanization has continued apace in most regions of the world. How can World Heritage cities and urban sites be effectively protected?

In 2005, a major symposium was organized in Vienna at the request of the World Heritage Committee to discuss the present and future of urban conservation and to offer the Committee new criteria to assess the impact of modern developments on World Heritage values.

The resulting Vienna Memorandum (p. 95) is a useful, albeit yet incomplete tool to define new directions in urban conservation. How should the Convention deal with the most important social and spatial phenomenon of the twenty-first century, likely to deeply affect cultural and natural sites alike?

WHAT FUTURE FOR THE WORLD HERITAGE CONVENTION?

Over the past sixty years, UNESCO has been a key international player in heritage conservation. The International Safeguarding Campaigns, the interventions in conflict and post-conflict areas, the World Heritage Convention and the other related conventions are testimony to a long and consistent engagement in support of conservation.

The activities and example of UNESCO have prompted many governments to increase their support for heritage conservation, to enact conservation laws and regulations, and to create specialized research and management institutions.

The World Heritage Convention has been able to play a central role in this system. Today, the Convention supports the most comprehensive site monitoring system in the world; intervenes regularly in support of conservation; provides a forum for the intellectual advancement of the concepts, methods and policies of conservation; and fundraises in favour of countries with lower levels of technical and financial capacity.

Its role as a knowledge management hub of conservation policies worldwide has not been yet fully developed, but it is certainly in this direction that future efforts will have to be directed.

As conservation challenges increase, as sites face the impact of global processes, UNESCO will have to rethink and reshape its own role in this field. The current discussion on the reform of the United Nations system offers an interesting opportunity to Member States to discuss and plan the future of the World Heritage Convention in the twenty-first century.

LIST OF FIGURES, MAPS AND TABLES

FIGURES

1: Evolution of number of States Parties by region (1973–2006)
2: Percentage of States Parties using public participation and consultation in preparing Tentative Lists, Europe (2005/2006)
3: World Heritage sites by region (1978–2006)
4: Types of World Heritage site by year of inscription (1978–2006)
5: Sites on List of World Heritage in Danger (1979–2006)
6: Distribution of International Assistance grants, US$ thousands (1998–2005)
7: Distribution of International Assistance grants, percentage by region (1998–2005)
8: Percentage of States Parties participating in World Heritage in Young Hands Project, Latin America and the Caribbean (2004)
9: Percentage of media formats used to publicize World Heritage, Africa (2000) and Europe (2005)
10: World Heritage archaeological sites by region (1978–2005)
11: Criteria used for inscription of archaeological sites by region (1978–1993)
12: Criteria used for inscription of archaeological sites by region (1994–2005)
13: World Heritage cities by region (1978–2005)
14: Criteria used for inscription of World Heritage cities by region (1978–1993)
15: Criteria used for inscription of World Heritage cities by region (1994–2005)
16: World Heritage monuments and groups of buildings by region (1978–2005)
17: Criteria used for inscription of monuments and groups of buildings by region (1978–1993)
18: Criteria used for inscription of monuments and groups of buildings by region (1994–2005)
19: Modern heritage sites on the List by region (1984–2005)
20: World Heritage cultural landscapes by region (1993–2005)
21: Criteria used for inscription of cultural landscapes by region (1993–2005)
22: World Heritage forest sites by region (1978–2005)
23: World Heritage forest sites by type (1997–2005)
24: Total surface area of forest sites by type (1997–2005)
25: World Heritage marine sites by region (1978–2005)
26: World Heritage geological and geomorphological sites by region (1978–2005)
27: Criteria used for inscription of geological and geomorphological sites by region (1978–1993)
28: Criteria used for inscription of geological and geomorphological sites by region (1994–2005)
29: World Heritage mountain sites by region (1978–2005)
30: Criteria used for inscription of mountain sites by region (1978–2005)
31: Nomination dossiers submitted (site extensions included) and outcome, Africa (1978–2005)
32: World Heritage sites by type, Africa (1978–2006)
33: Nomination dossiers submitted (site extensions included) and outcome, Arab States (1978–2005)
34: World Heritage sites by type, Arab States (1978–2006)
35: Nomination dossiers submitted (site extensions included) and outcome, Asia and the Pacific (1978–2005)
36: World Heritage sites by type, Asia and the Pacific (1978–2006)
37: Nomination dossiers submitted (site extensions included) and outcome, Latin America and the Caribbean (1978–2005)
38: World Heritage sites by type, Latin America and the Caribbean (1978–2006)
39: Nomination dossiers submitted (site extensions included) and outcome, Europe and North America (1978–2005)
40: World Heritage sites by type, Europe and North America (1978–2006)

MAPS

1: World Heritage sites by country (2006)
2: Sites on List of World Heritage in Danger (2006) and GDP per capita (2004)
3: Sites that have benefited from UN Foundation funds
4: Countries participating in Forum UNESCO – University and Heritage (FUUH)
5: Biosphere Reserves that are wholly or partially World Heritage sites (2005)
6: Ramsar sites that are wholly or partially World Heritage sites (2005)
7: Parties to 1972 World Heritage Convention and 1983 Convention on Migratory Species (2005)
8: Archaeological sites on World Heritage List (2005)
9: World Heritage cities (2005)
10: World Heritage monuments and groups of buildings (2005)
11: Modern heritage on the World Heritage List (2005)
12: Cultural landscapes on the World Heritage List (2005)
13: Forest sites on the World Heritage List (2005)
14: Marine sites on the World Heritage List (2005)
15: Partners in Eastern Tropical Pacific Seascape Project
16: Geological and geomorphological sites on World Heritage List (2005)
17: Mountain sites on World Heritage List (2005)
18: World Heritage in Africa (July 2006)
19: Tentative Lists and revision dates, Africa (March 2006)
20: World Heritage in the Arab States (July 2006)
21: Tentative Lists and revision dates, Arab States (March 2006)
22: World Heritage in Asia and the Pacific (July 2006)
23: World Heritage in Latin America and the Caribbean (July 2006)
24: Tentative Lists and revision dates, Latin America and the Caribbean (March 2006)
25: World Heritage in Europe (July 2006)
26: World Heritage in North America (July 2006)

TABLES

1: State of Conservation reports by region
2: Regional organization of Periodic Reporting
3: World Heritage forests in Africa on the Danger List
4: World Heritage sites reported for floods (1986–2004)
5: World Heritage sites reported for earthquakes (1986–2004)
6: World Heritage sites reported for armed conflict (1986–2004)
7: World Heritage sites reported for poaching-related issues (1986–2004)
8: World Heritage sites reported for mining-related issues (1986–2004)
9: World Heritage sites reported for development-related issues (1986–2004)
10: World Heritage sites reported for tourism-related issues (1986–2004)
11: Guidance from 1999 ICOMOS Charter

PHOTOGRAPHIC CREDITS

Cover: Hagia Sophia © UNESCO/ F. Bandarin
Back cover: Galápagos Islands © PlanetObserver.com

INTRODUCTION

p. 19 Mostar © UNESCO / S. Sesum
p. 21 Timbuktu © UNESCO / L. Eloundou Assomo

1 OVERVIEW OF THE CONVENTION

p. 24 Ancient *Ksour* of Ouadane, Chinguetti, Tichitt and Oualata © UNESCO/S. Robert
p. 26 Abu Simbel, left: © UNESCO/Nenadovic; right: © UNESCO/D. Roger
p.31 Tubbataha Reef Marine Park © EVERGREEN DIGITAL CONTENTS; Emblem: © UNESCO/ F. Bandarin
p.37 Ensuring local community participation in the Nomination process © UNESCO
p.40 Aranjuez Cultural Landscape © UNESCO; Tongariro National Park © OUR PLACE; Blaenavon Industrial Landscape © S. Labadi; Royal Hill of Ambohimanga © CRATerre/ B. Rakotomamonjy
p.44 Whale Sanctuary of El Vizcaino © EVERGREEN DIGITAL CONTENTS
p.48 Rwenzori Mountains National Park, left: © UNESCO/G. Apel, right: © UNESCO Walled City of Baku with the Shirvanshah's Palace and the Maiden Tower © A. Chen
p.49 Ancient *Ksour* of Ouadane, Chinghetti, Tichitt and Oualata, top: © UNESCO/A. Vorontzoff bottom: © UNESCO/S. Robert
p.53 First World Heritage Youth Forum © UNESCO/V. Vujicic-Lugassy
p.61 30th Anniversary of the World Heritage Convention © UNESCO/FOTOATTUALITA

2 WORLD HERITAGE AND OTHER INTERNATIONAL INSTRUMENTS

p. 64 Jamaâ el-Fna © UNESCO / H. Nadim
p. 67 Bamiyan © M.Santana
p. 70 Angkor, top: © WHTour.org / T. Dupret bottom left and right: © M. Santana
p. 73 Rice Terraces of the Philippine Cordilleras © Nomination file
p. 76 Sian Ka'an © S. Labadi
p. 80 Doñana National Park © EVERGREEN DIGITAL CONTENTS
p.81 Selous Game Reserve © UNESCO/N. Saunier
p. 82 Keoladeo National Park © WHTour.org/T. Dupret

3 THEMATIC PRESENTATIONS

p.84 Angkor © A.C. Addison
p.87 Tassili n'Ajjer © Nomination file
p.88 Mogao Caves, left: © Nomination file, right: © J. Phares
p.91 Neolithic Flint Mines at Spiennes © Nomination file; Cahokia Mounds State Historic Site © UNESCO/K. Black
p.93 Old City of Dubrovnik, left: © UNESCO/ F. Bandarin; right: © J. Phares
p.94 Historic Centre of the Town of Olinda © UNESCO/ R. van Oers, Stone Town of Zanzibar © Nomination file/P. Javelot
p.97 Ancient City of Ping Yao © UNESCO Samarkand – Crossroads of Cultures © S. Tordjman
p.98 Town of Luang Prabang © UNESCO/F. Bandarin
p.99 Kairouan © UNESCO/F. Alcoceba
p.100 Portuguese City of Mazagan © UNESCO
p.101 Old City of Sana'a © UNESCO/F. Bandarin
p.103 Churches of Chiloé © S. Labadi
p.104 Taj Mahal © WHTour.org/ T. Dupret Forts and Castles, Volta, Greater Accra, Central and Western Regions, left: © UNESCO/B. Jacquot right: © UNESCO/J. Sopova
p.105 Royal Palaces of Abomey, left: © UNESCO/ B. Mondichao, right: © UNESCO/ G. Malempré
p.106 Church Village of Gammelstad, Luleå © UNESCO Crespi d'Adda © S. Labadi
p.109 Palau de la Música Catalana and Hospital de Sant Pau, Barcelona © S. Labadi
p.111 Historic Quarter of the Seaport City of Valparaíso, top left: © Nomination file, top right: © S. Labadi, bottom left: © UNESCO/A. Bailey
p.113 Uluṟu-Kata Tjuṯa National Park © UNESCO/ J. Thorsell
p.114 Loire Valley between Sully-sur-Loire and Chalonnes, top: © UNESCO/M. Richon, bottom: © Nomination file

Aranjuez Cultural Landscape © Nomination file
p.115 St Kilda © UNESCO/A. de Crepy
p.118 Quebrada de Humahuaca © Nomination file
p.124 Dja Faunal Reserve © UNESCO/E. Bedel
p.129 Brazilian Atlantic Islands: Fernando de Noronha and Atol das Rocas Reserves © Nomination file
Galápagos Islands © EVERGREEN DIGITAL CONTENTS
p.132 Coiba National Park and its Special Zone of Marine Protection © Nomination File
p.135 Wadi Al-Hitan (Whale Valley) © Nomination file
p.136 Kvarken Archipelago / High Coast, top: © UNESCO/R. Löfgren, bottom left and right: © UNESCO
p.137 Dinosaur Provincial Park © Nomination file
p.139 Canadian Rocky Mountain Parks © Parks Canada/ J.F. Bergeron/Envirofoto
p.141 Three Parallel Rivers of Yunnan Protected Areas © IUCN/J. Thorsell

4 REGIONAL PRESENTATIONS

p.142 Ilulissat Icefjord © M&G Therin-Weise
p.145 Kilimanjaro National Park, left: © UNESCO / M. Batisse, right: © EVERGREEN DIGITAL CONTENTS
p.146 Osun-Osogbo Sacred Grove © Nomination file
p.150 Ichkeul National Park © UNESCO/O. Boyle
p.152 Ashur (Qal'at Sherqat) © Nomination file
p.154 Borobudur Temple Compounds, left: © Nomination file, right: © UNESCO/ G. Boccardi
p.156 East Rennell, top: © UNESCO/R. Paddy, bottom: © Nomination file
p.159 Pre-Hispanic City of Chichen-Itza © S. Labadi
p.160 Morne Trois Pitons National Park © UNESCO/ M. Clusener-Godt
p.164 Auschwitz Concentration Camp, left : © UNESCO/ M. Semeniako, right : © UNESCO/F. Bandarin
p.165 Struve Geodetic Arc © Nomination file

5 CONSERVATION OF WORLD HERITAGE SITES

p.166 Stonehenge © UNESCO/F. Bandarin
p.169 Sagarmatha National Park, left: © Nomination file right: ©UNESCO/ G. Vicas
p.170 Ironbridge Gorge © S. Labadi
p.172 Bam, left: © UNESCO/A.Brunet, right: © UNESCO/M.Bouchenaki
p.175 Samarra © State Board of Antiquities and Heritage
p.175 Los Katios National Park © UNESCO
p.176 Democratic Republic of the Congo, top: © Kes and Fraser Hillman Smith bottom: © UNESCO/ I. Redmond
p.179 Serengeti National Park, left: © IUCN/ Sue Mainka, right: © UNESCO/ I. Redmond
p.180 Cocos Island National Park © Nomination file
p.182 Yellowstone National Park © UNESCO
p.182 W National Park of Niger © Nomination file
p.185 Royal Chitwan National Park, © WHTour.org/ T. Dupret
p.185 Historic Centre of Vienna, left: © UNESC/N. Burke, right: © UNESCO/A. Bailey
p.186 Brasilia © UNESCO/R. van Oers
p.189 Machu Picchu © UNESCO
p.189 Iguazu National Park © EVERGREEN DIGITAL CONTENTS
p.190 Hal Saflieni Hypogeum © Heritage Malta

WORLD HERITAGE Challenges for the Millennium