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CONVENTION CONCERNING THE PROTECTION OF
THE WORLD CULTURAL AND NATURAL HERITAGE

World Heritage Committee

Thirty-sixth session

Saint Petersburg, Russian Federation

24 June – 6 July 2012

**Item 8 of the Provisional Agenda: Establishment of the World Heritage List
and of the List of World Heritage in Danger**

8E: Adoption of retrospective Statements of Outstanding Universal Value

SUMMARY

This Document presents the Draft Decision concerning the adoption of ninety-four retrospective Statements of Outstanding Universal Value submitted by thirty-six States Parties for properties which had no Statement approved at the time of their inscription on the World Heritage List.

Annex I contains the full text of the retrospective Statements of Outstanding Universal Value concerned.

Draft Decision: 36 COM 8E, see Point II.

I. Background

1. A Statement of Outstanding Universal Value represents a formalization, in an agreed format, of the reasons why a World Heritage property has Outstanding Universal Value. The concept of Statement of Outstanding Universal Value, as an essential requirement for the inscription of a property on the World Heritage List, was introduced in the *Operational Guidelines* in 2005. All sites inscribed since 2007 present such a Statement.
2. In 2007, the World Heritage Committee (see Decision **31 COM 11D.1**), requested that Statements of Outstanding Universal Value be drafted and approved retrospectively, for all World Heritage properties inscribed between 1978 and 2006, prior to the launching of the Second Cycle of Periodic Reporting in each Region.
3. As a consequence, in the framework of the Second Cycle of the Periodic Reporting Exercise, or in preparation for it, several States Parties have drafted retrospective Statements of Outstanding Universal Value for World Heritage properties located within their territories. These draft Statements have been or are being reviewed by the relevant Advisory Body(ies). The ninety-four Statements whose review process has been finalized, and which have obtained the final agreement of the thirty-six States Parties concerned, are presented to the World Heritage Committee in this document, for adoption.
4. The retrospective Statements of Outstanding Universal Value contained in Annex I are presented in the following order:
 - natural, mixed, cultural properties;
 - Arab States, Africa, Asia and the Pacific, Europe and North America;
 - State Party, in alphabetical order;
 - property, by year of inscription and by identification number.

Annex I is preceded by a table of contents aiming at facilitating its consultation.

II. Draft Decision

Draft Decision 36 COM 8E

The World Heritage Committee,

1. *Having examined Document WHC-12/36.COM/8E,*
2. *Congratulates States Parties for the excellent work accomplished in the elaboration of retrospective Statements of Outstanding Universal Value for World Heritage properties in their territories;*
3. *Adopts the retrospective Statements of Outstanding Universal Value, as presented in the Annex of Document WHC-12/36.COM/8E, for the following World Heritage properties:*
 - *Australia: Great Barrier Reef; Lord Howe Island Group; Gondwana Rainforests of Australia; Wet Tropics of Queensland; Fraser Island;*

- Australian Fossil Mammal Sites (Riversleigh / Naracoorte); Heard and McDonald Islands; Macquarie Island; Purnululu National Park;*
- *Bangladesh: Historic Mosque City of Bagerhat;*
 - *Cambodia: Angkor;*
 - *China: Mount Taishan; The Great Wall; Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang; Mogao Caves; Peking Man Site at Zhoukoudian; Jiuzhaigou Valley Scenic and Historic Interest Area; Temple and Cemetery of Confucius, and the Kong Family Mansion in Qufu; Ancient Building Complex in the Wudang Mountains; Historic Ensemble of the Potala Palace, Lhasa; Lushan National Park; Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area; Old Town of Lijiang; Temple of Heaven: an Imperial Sacrificial Altar in Beijing; Mount Wuyi; Dazu Rock Carvings; Mount Qincheng and the Dujiangyan Irrigation System; Capital Cities and Tombs of the Ancient Koguryo Kingdom; Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiayin Mountains;*
 - *Côte d'Ivoire and Guinea: Mount Nimba Strict Nature Reserve;*
 - *Democratic People's Republic of Korea: Complex of Koguryo Tombs;*
 - *Democratic Republic of the Congo: Virunga National Park; Garamba National Park; Kahuzi-Biega National Park; Salonga National Park;*
 - *Egypt: Wadi Al-Hitan (Whale Valley);*
 - *Estonia: Historic Centre (Old Town) of Tallinn;*
 - *Ethiopia: Rock-Hewn Churches, Lalibela; Lower Valley of the Awash; Lower Valley of the Omo; Harar Jugol, the Fortified Historic Town;*
 - *Gambia: Kunta Kinteh Island and Related Sites;*
 - *Gambia and Senegal: Stone Circles of Senegambia;*
 - *Ghana: Forts and Castles, Volta, Greater Accra, Central and Western Regions; Asante Traditional Buildings;*
 - *India: Taj Mahal; Keoladeo National Park; Sundarbans National Park; Nanda Devi and Valley of Flowers National Parks;*
 - *Indonesia: Borobudur Temple Compounds; Prambanan Temple Compounds;*
 - *Islamic Republic of Iran: Bam and its Cultural Landscape;*
 - *Kazakhstan: Mausoleum of Khoja Ahmed Yasawi; Petroglyphs within the Archaeological Landscape of Tamgaly;*
 - *Madagascar: Tsingy de Bemaraha Strict Nature Reserve; Royal Hill of Ambohimanga;*
 - *Malaysia: Gunung Mulu National Park;*
 - *Mali: Timbuktu; Cliff of Bandiagara (Land of the Dogons); Tomb of Askia;*
 - *Mongolia: Orkhon Valley Cultural Landscape;*
 - *Nepal: Sagarmatha National Park; Kathmandu Valley; Chitwan National Park; Lumbini, the Birthplace of the Lord Buddha;*
 - *New Zealand: Te Wahipounamu – South West New Zealand; New Zealand Sub-Antarctic Islands;*
 - *Nigeria: Osun-Osogbo Sacred Grove;*
 - *Pakistan: Archaeological Ruins at Moenjodaro;*
 - *Philippines: Baroque Churches of the Philippines; Puerto-Princesa Subterranean River National Park;*
 - *Republic of Korea: Seokguram Grotto and Bulguksa Temple; Haeinsa Temple Janggyeong Pajeon, the Depositories for the Tripitaka Koreana Woodblocks; Jongmyo Shrine; Changdeokgung Palace Complex; Hwaseong Fortress; Gyeongju Historic Areas; Gochang, Hwasun and Ganghwa Dolmen Sites;*
 - *Solomon Islands: East Rennell;*

- *Thailand: Historic City of Ayutthaya;*
 - *Turkmenistan: State Historical and Cultural Park “Ancient Merv”; Kunya-Urgench;*
 - *United Republic of Tanzania: Serengeti National Park; Kondoa Rock-Art Sites;*
 - *Uzbekistan: Historic Centre of Bukhara; Historic Centre of Shakhrisyabz; Samarkand – Crossroads of Cultures;*
 - *Viet Nam: Ha Long Bay; My Son Sanctuary; Phong Nha-Ke Bang National Park;*
 - *Zambia and Zimbabwe: Mosi-oa-Tunya / Victoria Falls;*
 - *Zimbabwe: Great Zimbabwe National Monument; Khami Ruins National Monument; Matobo Hills;*
4. Decides that retrospective Statements of Outstanding Universal Value for World Heritage properties in Danger will be reviewed by the Advisory Bodies in priority;
5. Further decides that, considering the high number of retrospective Statements of Outstanding Universal Value to be examined, the order in which they will be reviewed by the Advisory Bodies will follow the Second Cycle of Periodic Reporting, namely:
- *World Heritage properties in the Arab States;*
 - *World Heritage properties in Africa;*
 - *World Heritage properties in Asia and the Pacific;*
 - *World Heritage properties in Latin America and the Caribbean;*
 - *World Heritage properties in Europe and North America.*

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ANNEX I: Retrospective Statements of Outstanding Universal Value

A. NATURAL PROPERTIES

A.1 ARAB STATES

| | |
|---------------------|-------------------------------------|
| Property | Wadi Al-Hitan (Whale Valley) |
| State Party | Egypt |
| Id. N° | 1186 |
| Date of inscription | 2005 |

Brief synthesis

The globally important fossils of Wadi Al-Hitan (Whale Valley), in the Western Desert of Egypt, provide dramatic evidence of one of the iconic stories of evolution: the emergence of whales as ocean-going mammals, from their previous life as land-based animals.

The World Heritage property is a strictly protected zone, set within the wider landscape of the attractive Wadi El-Rayan Protected Area. It is an exceptional global reference site because of the number, concentration, quality and accessibility of the evidence of the earliest whales, often in the form of complete skeletons, and the record of the environment that they lived in.

Criterion (viii): *Wadi Al-Hitan is the most important site in the world to demonstrate one of the iconic changes that make up the record of life on Earth: the evolution of the whales. It portrays vividly their form and mode of life during their transition from land animals to a 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.*

Integrity

Wadi Al Hitan is of sufficient size to include the main exposures of rocks where the whale fossils are found, as well as associated geological features of interest. In addition, a wider part of the Wadi El-Rayan Protected Area is included in the property, including the immediate landscape surrounding the fossil sites, areas of scenic interest, and areas which provide visitor access and facilities. A buffer zone has been identified to protect the property from wider threats, including from visitation and traffic, and could be extended further in order to provide additional safeguards and to facilitate management.

Protection and management requirements

Wadi Al-Hitan is State owned and has strong and unequivocal legal protection under the Egyptian Law 102/1983 for Nature Protectorates reserves, forbidding actions that would lead to destruction or deterioration of the natural environment. The law mentions geological features as specific elements receiving protection.

The property lies within the Wadi El-Rayan Protected Area (WRPA), declared by Prime ministerial Decree No. 2954/1997. It is managed under national regulatory law on Nature Protectorates. The Nature Conservation Sector (NCS) of the Egyptian Environmental Affairs Agency (EEAA) is responsible for the management, protection and conservation of the entire site, as part of its overall management of the WRPA.

An effective management system is in place for the property, as an integrated part of the implementation of the Management Plan for the WRPA. Under the updated Management Plan (2008-2013) the property is identified as a "World Heritage Zone". No vehicle access is permitted, whilst zones provide for well-controlled eco-tourism in part of the property, whilst maintaining areas for research and studies. The buffer zone is also managed as a part of the World Heritage Zone within the WRPA. Effective and well designed visitor facilities are provided to present the property, guide visitors to key localities via footpaths, prevent vehicular traffic in the property and provide for limited on-site accommodation. There is a planning team responsible for day-to-day management of the property, and the preparation of annual plans and monitoring and reporting on the effectiveness of its management.

Maintenance of an effective and well-resourced management plan, supported by adequate staff, finance and resources is an essential long term requirement. Amongst the key management issues are the protection, conservation and encouragement of well-managed research in relation to the fossil remains and the associated geological values, to international standards of best practice. Other important long-term management needs are the continued protection of the property from damage by traffic of vehicles, the provision and maintenance of the essential management infrastructure within the property that minimises intrusion and damage to its natural values, and the provision of facilities for sustainable tourism at appropriate levels of visitation.

A.2 AFRICA

| | |
|----------------------|--|
| Property | Mount Nimba Strict Nature Reserve |
| States Parties | Côte d'Ivoire and Guinea |
| Id. N° | 155 bis |
| Dates of inscription | 1981 - 1982 |

Brief synthesis

A veritable « water tower » with about fifty springs between the Côte d'Ivoire and Guinea, the Mount Nimba Strict Nature Reserve is dominated by a chain of mountains that culminate at 1,752 m altitude at Mount Nimba. The slopes, covered with dense forest at the lower levels, with grassy mountain pastures, overflow with particularly rich endemic flora and fauna. Extending over a total of area of 17,540 ha, with 12,540 ha in Guinea and 5,000 ha in Côte d'Ivoire, the property is integrated into the public domain of the two States.

This Reserve contains original and diverse species of the most remarkable animal and plant populations, not only in West Africa, but also in the entire African continent; notably threatened species such as the Micropotamogale of Mount Nimba (*Micropotamogale lamottei*), the viviparous toad of Mount Nimba (*Nimbaphrynoides occidentalis*) and chimpanzees that use stones as tools.

Criterion (ix): Part of the rare mountainous chains of West Africa, Mount Nimba rises abruptly to an altitude of 1,752 m above a rolling panorama and giving way to forested plains at the lower altitudes. It is an isolated refuge covered with montane forests, making the landscape of the Gulf of Guinea an exceptional site from the ecological perspective. Its geomorphological characteristics and its sub-equatorial montane climate of strong seasonal and altitudinal contrasts produce a rich variety of microclimates. This latter factor has contributed to the individualization of an insolate plant and fauna population, as well as a dynamic and exceptionally varied ecosystem.

Criterion (x): Its unique geographical and climatic location combined with its biogeographical background provides the Nimba chain with one of the most remarkable diversities of the whole West African region. It is also one of the only sites of the Gulf of Guinea with a strong endemism potential. The wide range of habitats in the Reserve with its numerous niches enables the property to provide shelter to more than 317 vertebrate species, 107 of which are mammals, and, to more than 2,500 invertebrate species with a strong endemism level.

The viviparous toad of Mount Nimba (*Nimbaphrynoides occidentalis*), critically threatened with extinction due to its very reduced breeding area, only lives in high altitude habitats. Another endemic species in danger of extinction is the micropotamogale of Mount Nimba (*Micropotamogale lamottei*), a small semi-aquatic insectivore. Several species of threatened primates are also present, including chimpanzees capable of using tools.

The Reserve contains a very important plant population, with a dense forest covering the lower level of the massif up to 1,000 m altitude, replaced higher up by a montane forest rich in epiphytes. The massif of Nimba has summits that extend over 15 km in length and covered with montane savanna. More than 2,000 species of vascular plants, including several endemic or quasi-endemic plants have been recorded.

Integrity

The property includes almost the totality of the massif of Nimba located in Guinea and the Côte d'Ivoire. Today, the Reserve covers an area of about 17,540 ha of which 12,540 ha in Guinea and 5,000 ha in Côte d'Ivoire. The part of the massif located on the territory of Liberia is greatly degraded due to former mining activities. The property therefore includes the necessary sufficient habitats to sustain its integrity. In the Guinean part, an enclave where mining has occurred is directly adjacent to the property. Even if this exploitation is technically outside the property, it remains questionable as to whether it may be worked without affecting the integrity of this property.

Protection and management requirements

Since 1944, Mount Nimba enjoys the status of strict protection in its northern part – today shared between Guinea and Côte d'Ivoire. The Reserve is clearly delineated by its natural boundaries (water ways) recognized and respected by the neighbouring populations. In Côte d'Ivoire, its status has been strengthened by Law 2002-102 of 11 February 2002 that confers the quality of public domain inalienable to the State. All the land rights of the Reserve are now the exclusive property of the State and any installation of human activity is prohibited. In addition to the legal framework, the Ivorian State has established a reinforced institutional framework that decentralises certain administrative functions to the

Ivorian Office of Parks and Reserves (OIPR) by decree No. 2002-359 of 24 July 2002 and to the Foundation for Parks and Reserves (FPRCI) to seek permanent funding.

With regard to Guinea, the 1944 status remains the legal basis for protection. It is important that this protection is transcribed in Guinean law by means of a legal process. The administration of the Reserve is assured by a public establishment of administrative and scientific character (Centre for the Management of the Environment of Mount Nimba-Simandou (CEGENS)) under the responsibility of the Ministry of Environment, Water and Forests and Sustainable Development. The Guinean part was pronounced Biosphere Reserve in 1980.

The massif is threatened by increased pressure adjacent to the boundaries of the site, caused by the neighbouring populations and increased demographic pressure. Although the natural forests that cover the slopes of Nimba have not suffered much damage, on the contrary, the fauna has been the subject of very intense poaching.

The need for land for agriculture and cattle breeding has strengthened the traditional practice of clearing by fire. These anthropic fires occur regularly in the protected area, constituting an important administrative challenge. The participation of the neighbouring population in conservation measures is indispensable to remedy these problems.

Surveillance of the property must be assured to dissuade the practices that damage its integrity. Also, the capacities of the management authorities must be reinforced both at the technical and human resource levels as well as the financial means.

| | |
|---------------------|---|
| Property | Virunga National Park |
| State Party | Democratic Republic of the Congo |
| Id. N° | 63 |
| Date of inscription | 1979 |

Brief synthesis

Virunga National Park is unique with its active chain of volcanoes and rich diversity of habitats that surpass those of any other African park. Its range contains an amalgamation of steppes, savannas and plains, marshlands, low altitude and afro-montane forest belts to unique afro-alpine vegetation and permanent glaciers and snow on Monts Rwenzori whose peaks culminate in 5000 m height. The property includes the spectacular massifs of Rwenzori and Virunga Mountains containing the two most active volcanoes of Africa. The wide diversity of habitats produces exceptional biodiversity, notably endemic species and rare and globally threatened species such as the mountain gorilla.

Criterion (vii): *Virunga National Park offers the most spectacular montane landscapes in Africa. Mt Rwenzori with its jagged reliefs and snowy summits, their cliffs and steep valleys, and the volcanoes of the Virunga massif covered with an afro-alpine vegetation of tree ferns and Lobelia and their slopes covered by dense forests, are the places of exceptional natural beauty. The volcanoes, which erupt at regular intervals every few years, constitute the dominant land features of the outstanding landscape. The Park presents several other spectacular panoramas like the eroded valleys in the Sinda and Ishango regions. The Park also contains important concentrations of wildlife, notably elephants, buffalo and Thomas cobs, and the largest concentration of hippopotamuses in Africa, with 20,000 individuals living on the banks of Lake Edward and along the Rwindi, Rutshuru and Semliki Rivers.*

Criterion (viii): *Virunga National Park is located in the centre of the Albertine Rift, of the Great Rift Valley. In the southern part of the Park, tectonic activity due to the extension of the earth's crust in this region has caused the emergence of the Virunga massif, comprising eight volcanoes, seven of which are located, totally or partially, in the Park. Among them, are the two most active volcanoes of Africa – Nyamuragira and nearby Nyiragongo - which between them are responsible for two-fifths of the historic volcanic eruptions on the African continent and which are characterized by the extreme fluidity of the alkaline lava. The activity of Nyiragongo is of world importance as a witness to volcanism of a lava lake: the bottom of its crater is in fact filled by a lake of quasi permanent lava that empties periodically with catastrophic consequences for the local communities. The northern sector of the Park includes about 20% of the massif of Monts Rwenzori – the largest glacial region of Africa and the only true alpine mountain chain of the continent. It borders the Rwenzori Mountains National Park of Uganda, inscribed as World Heritage, with which it shares the 'Pic Marguerite', third highest summit of Africa (5,109 m).*

Criterion (x): *Due to its variations in altitude (from 680 m to 5,109 m), rainfall and nature of the ground, Virunga National Park possesses a very wide diversity of plants and habitats, making it the top African National Park for biological diversity. More than 2,000 premier plant species have been identified, of which 10% are endemic to the Albertine Rift. The afro-montane forests represent about 15% of the vegetation. The Rift Albertine also contains more endemic vertebrate species than any other region of the African continent and the Park possesses numerous examples of them. The Park contains 218*

mammal species, 706 bird species, 109 reptile species and 78 amphibian species. It also serves as refuge to 22 primate species of which three are the great ape – mountain gorilla (*Gorilla beringei beringei*), the eastern plain gorilla (*Gorilla beringei graueri*) and the eastern chimpanzee (*Pan troglodytes schweinfurthi*), with a third of the world population of mountain gorillas. The savannah zones of the Park contain a diverse population of ungulates and the density of biomass of wildlife is one of the highest on the earth Planet (27.6 ton/km²). Among the ungulates, there are certain rare animals such as the okapi (*Okapi johnstoni*), endemic to the Democratic Republic of the Congo, and the red forest duiker (*Cephalophus rubidus*), endemic to Monts Rwenzori. The Park also comprises important tropical zones essential for the wintering of Palearctic avifauna.

Integrity

The Park is characterized by a mosaic of extraordinary habitats that extend over 790,000 ha. The property is clearly delineated by the 1954 Ordinance. The wealth is well protected despite the economic and demographic challenges to its periphery.

The Park contains two highly important ecological corridors as it connects the different respective sectors: the Muaro corridor connects the Mikeno sector to the Nyamulagira sector; the west side connects the north sector to the centre sector of the Virunga massif. The presence of the Queen Elizabeth National Park, a protected area contiguous with Uganda, also constitutes an ecological land corridor connecting the centre and north sectors. Also, Lake Edward forms an important aquatic corridor.

Protection and management requirements

The property has benefited from the status of National Park since 1925. Its management authority is the Congolese Institute for Nature Conservation (ICCN) the body which has lost numerous agents killed on active service. The Park encounters management problems.

To assure the perpetuation in resource values of the property, the Park must be managed on a scientific basis and possess a management plan which will facilitate, among others, a better delineation of the different zones. Strengthened surveillance is required to assure the integrity of the Park boundaries. It would reduce poaching, deforestation, and pressure on the fishery resources (which risk increase), notably activities by isolated armed groups. To this end, the strengthening of staff and availability of equipment as well as the training of Park staff are of primary importance.

Improvement and strengthening of the administrative and surveillance infrastructures would contribute towards reducing the pressure on the rare and threatened species, such as the mountain gorilla, elephants, hippotomuses and chimpanzees. In view of the important increase in the populations, the establishment of buffer zones in all the sectors is indispensable and a matter of urgency. Another priority is to establish a Trust Fund to guarantee sufficient resources for the long-term protection and management of the property.

The promotion of a localised and controlled tourism could increase the income and contribute towards regular financing for the maintenance of the property.

| | |
|---------------------|---|
| Property | Garamba National Park |
| State Party | Democratic Republic of the Congo |
| Id. N° | 136 |
| Date of inscription | 1980 |

Brief synthesis

Covering vast grass savannas and woodlands interspersed with gallery forests and marshland depressions, Garamba National Park is located in the north-eastern part of the Democratic Republic of the Congo (DRC) in the transition zone between the dense tropical forests of the Congo Basin and the Guinea-Sudano savannas. It contains the last worldwide population of the northern white rhinoceros, endemic sub-species of Congolese giraffe and a mixed population of elephants, combining forest elephants, bush elephants and individuals demonstrating morphological characteristics common to the two elephant sub-species. It is also characterized by an exceptionally high level of biomass of great herbivores as a result of the vegetation productivity of the environment. Extending over 490,000 ha and surrounded by 752,700 ha of three hunting grounds that contribute to an effective protection of the property against threats from the adjacent area, this property is an outstanding sanctuary with its unusual mix of large spectacular mammals.

Criterion (vii): Garamba National Park and its neighbouring hunting grounds offers a vast area scattered with a dense network of small permanent springs that support an exceptionally high plant productivity and herbivore biomass. This biomass translates for example in the presence of large herds of elephants at certain periods of the year, sometimes herds of more than 550 individuals, an exceptional natural phenomenon.

Criterion (x): Garamba National Park contains the four largest land mammals in the world, the elephant, the rhinoceros, the giraffe and the hippopotamus. The northern white rhinoceros population is the last surviving population of this sub-species. In addition, the sub-species of the Congolese giraffe is also endemic to the Park. Located in the transition zone between the Guinean-Congo and Guinean-Sudanese endemism centres, the Park and the nearby hunting domains contain a particularly interesting biodiversity with species typical of the two biogeographical zones. In addition to the rhinoceros and the giraffe, the purely savannicole species include the lion, the spotted hyena and numerous species of antelope. Furthermore, the species typical of the forest include the bongo, the forest hog, the chimpanzee and five species of small diurnal primates. The Park is also one of the rare places in Africa where one can observe both the African forest elephant *Loxodonta africana cyclotis* and the African bush elephant *Loxodonta africana africana*, as well as hybrid elephants presenting morphological characteristics common to both sub-species. A very large population of African buffalo also display intermediary forms between the forest buffalo *Syncerus caffer nanus* and the savannah buffalo *Syncerus caffer aequinoctialis*.

Integrity

Garamba National Park is delineated to the east, south and west by major rivers that constitute natural and precise boundaries, recognized by all. To the north, it shares its boundaries with the Lantoto National Park in South Sudan, offering interesting possibilities of protection on the transfrontier and regional level. In a virgin landscape, no human presence or installations were indicated in the Park at the time of the nomination and the peripheral population was sparse. Garamba National Park is surrounded by three large contiguous hunting grounds, constituting an ecosystem of a sufficiently extensive area (1,242,700 ha) to support vast populations of large mammals with their local seasonal migration routes. The hunting grounds contribute towards the effective protection of the property against the threats from the surrounding zone. Their value is primordial, particularly for the seasonal movement of elephants and for the maintenance of viable populations of bush species.

Protection and management requirements

Garamba National Park has had the status of National Park since 1938 under the management authority of the Congolese Institute for Nature Conservation (ICCN). It is managed by the three administrative sectors of Nagero, Gangala na Bodio and Beredwa at the northern limit, each having buildings and road infrastructures. The establishment of a management plan is an indispensable condition in the management of the Park, given the importance of these hunting grounds for the integrity of the property, they should benefit from an integrated management with the Park.

It is essential that the integration of the local communities in the management of the Park and the peripheral hunting grounds, through a community conservation approach, be established through the participatory management of natural resources.

Surveillance is ensured by the guards through patrols in the three hunting grounds as well as in the Park, in liaison with regular aerial patrols of all these zones. The tourism aspect has been developed and the possibility, unique in Africa, of tourism on elephant back existed; this activity could be revived once the security situation is more stable.

Partnerships with international bodies and sufficient fund-raising for an effective conservation of the property should also be reinforced, ideally including the creation of a Trust Fund.

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|---------------------|---|
| Property | Kahuzi-Biega National Park |
| State Party | Democratic Republic of the Congo |
| Id. N° | 137 |
| Date of inscription | 1980 |

Brief synthesis

Straddling the Albertine Rift and the Congo Basin, Kahuzi-Biega National Park is an exceptional habitat for the protection of the rainforest and the eastern lowland gorillas, *Gorilla berengei graueri*. Extending over 600,000 ha, are dense lowland rainforests as well as Afro-montane forests, with bamboo forests and some small areas of sub-alpine prairies and heather on Mounts Kahuzi (3,308 m) and Biega (2,790 m).

The Park contains a flora and fauna of exceptional diversity, making it one of the most important sites in the Rift Albertine Valley, it is also one of the ecologically richest regions of Africa and worldwide. In particular, the most important world population of eastern lowland gorillas (or de Grauer), sub-species endemic to the Democratic Republic of the Congo (DRC) and listed under the endangered category on the IUCN Red Data Book, uses the mosaic of habitats found in the property.

Criterion (x): Kahuzi-Biega National Park contains a greater diversity of mammal species than any other site in the Albertine Rift. It is the second most important site of the region for both endemic species and in terms of specific diversity. The Park protects 136 species of mammals, among which the star is the eastern lowland gorilla and thirteen other primates, including threatened species such as the chimpanzee, the colobus bai and cercopiuthic of Hoest and Hamlyn. Other extremely rare species of the eastern forests of the DRC are also found, such as the giant forest genet (*Genetta victoriae*) and the aquatic genet (*Genetta piscivora*). Characteristic mammals of the central African forests also live in the Park, such as the bush elephant, bush buffalo, hylochere and bongo.

The property is located in an important endemism zone (Endemic Bird Area) for birds identified by Birdlife International. The Wildlife Conservation Society established a complete list of birds in the Park in 2003 with 349 species, including 42 endemic. Also, the Park was designated as a centre of diversity for plants by IUCN and WWF in 1994, with at least 1,178 inventoried species in the highland zone, although the lowland yet remains to be recorded. The Park is one of the rare sites of sub-Saharan Africa where the floral and fauna transition from low to highlands is observable. In effect, it includes all the stages of forest vegetation from 600 m to more than 2,600 m, dense low and middle altitude rainforests to sub-mountain to mountain and bamboo forests. Above 2,600 m at the summit of Mounts Kahuzi and Biega, a sub-alpine vegetation has developed, with heather, and home to the endemic plant *Senecio kahuzicus*. The Park also contains plant formations, rare worldwide, such as the swamp and bog altitudes and the marshland and riparian forests on hydromorphic ground at all altitudes.

Integrity

The forests of the property are characterized by continuous vegetation from the summit of the mountains to the lowland regions. A corridor connects a highland zone of 60,000 ha to a lowland sector of 540,000 ha. The area of the property is considered as sufficient to maintain its fauna. Maintenance of the sustainability of the vegetation is essential to avoid the fragmentation of animal populations, in particular the large mammals.

Protection and management requirements

The property is protected by the National Park legal status and managed by the Congolese Institute for Nature Conservation (ICCN). A management and surveillance structure is present. A management plan should be finalized and approved.

Although the greater part of the property is inhabited, some villages were included in the Park at the time of its extension in 1975, creating disputes with the populations. These problems must be resolved to strengthen the effectiveness of conservation actions.

The boundaries of the property should also be clearly delineated, especially where there are no evident natural boundaries. This is particularly important both in the lowlands and the key corridor connecting the high and low biographic regions of the Park.

The highland sector is crossed by a national road with minimal traffic. The control of the traffic flow is important to avoid an impact on the populations of threatened species in this sector, notably the gorillas. At the time of the inscription of the property in 1980, challenges of protection and management had been highlighted, including the economic problems that have caused a serious reduction in the effectiveness of the management and necessary protection to guarantee the survival of species in the Park and the sustainability of its ecosystems. It was also noted that because of logistical problems large areas of the Park were only rarely observed, even never visited by the under-staffed guards, and poaching has since increased.

Political instability in the region, provoking the displacement of thousands of people, represents a very serious threat to the integrity of the property, resources and populations of large mammals in the Park have declined dramatically. The Park does not have a designated buffer zone, supporting cooperation of the neighbour populations in the conservation of the property is one of the principal tasks of management, in particular in the zones of heavy human density.

Another key challenge is that of the control of poaching and artisanal oil exploration in the former extraction sites. Hunting of wild game for bush meat as well as the conversion of habitats are considered the consequence of the presence of numerous miners in the Park. With the financial and human resources being insufficient, it becomes imperative to obtain additional means to strengthen the effectiveness of management including, ideally, the creation of a Trust Fund.

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|---------------------|---|
| Property | Salonga National Park |
| State Party | Democratic Republic of the Congo |
| Id. N° | 280 |
| Date of inscription | 1984 |

Brief synthesis

At the heart of the central basin of the River Congo, Salonga National Park is the largest protected area of dense rainforest on the African continent (when considering the two disjointed sectors of the Park). Very isolated and only accessible by water transport, this vast Park (3,600,000 ha) contains the important evolution of both species and communities in a forest area still relatively intact. Playing also the fundamental role for the climate regulation and the sequestration of carbon, it constitutes the habitat of numerous threatened species such as the pygmy chimpanzee (or bonobo), the bush elephant and the Congo peacock.

Criterion (vii): *Salonga National Park represents one of the very rare existing biotopes absolutely intact in central Africa. Moreover, it comprises vast marshland areas and practically inaccessible gallery forests, which have never been explored and may still be considered as practically virgin.*

Criterion (ix): *The plant and animal life in Salonga National Park constitute an example of biological evolution and the adaptation of life forms in a complex equatorial rainforest environment. The large size of the Park ensures the continued possibility for evolution of both species and biotic communities within the relatively undisturbed forest.*

Integrity

Salonga National Park, created in 1970, with an area of 3,334,600 ha, is divided into two sectors (North and South) by a corridor outside the Park of about forty km wide. The Park is one of the most extensive in the world and its area is sufficiently important to offer viable habitats to its fauna and flora. The fact that the Park is divided into two distinct sectors suggests that biological corridors must be foreseen in the unlisted portion between the two sectors, to create an ecological liaison between these two zones. Roughly one third of the southern sector of the Park is occupied by groups of pygmies and a part of this occupied land is claimed by the local population. The boundaries of the property are intact due to the existence of major rivers that form recognized, precise and natural boundaries and this despite the presence of some villages inside the Park.

Protection and management requirements

Salonga National Park is managed in accordance with Law 70-318 of 30 November 1970 and Law 69-041 of 28 August 1969, relating to nature conservation. It has six administrative sectors: Monkoto, Mondjoku, Washikengo, Yoketelu, Anga and Mundja that do not yet have any consequential infrastructure.

The management authority is the Congolese Institute for Nature Conservation (ICCN). The Park requires a management plan, even although a Coordination Committee for the site (COCOSI) exists and at least once a year reunites the partners supporting the site, the site chief and his collaborators.

At the time of inscription, it was noted that Salonga National Park suffered from pressures such as poaching and the removal of vegetation by the local populations. A management structure, sufficient qualified staff and a management plan are lacking. The future of the Park cannot be assured without a strengthening of both the management structure and available financial means.

Among the management problems requiring long-term attention are poaching using traditional methods, and more recently by the military with modern war weapons; pressure and human occupation by the Yaelima in the southern part and by the Kitawalistes in the northern area (with accompanying impacts, such as fire, deforestation for the sowing of food crops, logging for heating purposes, honey gathering and the building of pirogues); dispute of the Park boundaries by populations in certain areas; commercial traffic in bush meat; forestry exploitation by individuals in the southern part; and pollution of the Park waters with toxic products used for illicit fishing.

The integration of local communities established in the unlisted corridor between the two sectors of the Park is an important condition and must be implemented by means of participatory management of the natural resources.

Surveillance is assured by the guards by means of regular patrols and it is necessary to guarantee that the numbers are increased over the long-term to effectively monitor and manage the very vast areas of difficult access.

The partnership with international bodies and the seeking of sufficient funds for the effective conservation of the property must also be reinforced, ideally including the creation of a Trust Fund.

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| Property | Tsingy de Bemaraha Strict Nature Reserve |
| State Party | Madagascar |
| Id. N° | 494 rev |
| Date of inscription | 1990 |

Brief synthesis

The Tsingy de Bemaraha Integral Nature Reserve is located in the District of Antsalova and in the region of the central west part of Madagascar. It is part of the Melaky region, in the autonomous province of Mahajanga, and localized between 44°34' to 44°57' longitude east and 18°12' to 19°09' latitude south. Its total area is 152,000 ha.

The Reserve offers a wide variety of geomorphological structures. It is a veritable cathedral of limestone and offers one of the most spectacular natural landscapes of the Grand Island and even of the world. The western part of the plateau presents a very dissected or 'lapiezée' relief, most of which is covered by a dense, dry and deciduous forest. In its eastern part, the forest is interspersed by savannas.

The Tsingy of Bemaraha is considered a centre for endemism by its wealth in faunal and floral species.

Criterion (vii): The Tsingy de Bemaraha Integral Nature Reserve represents rare or eminently remarkable geological phenomena and of exceptional beauty. It presents impressive geological elements including karstic scenery with a highly dissected limestone massif, crossed by a deep river gorge which is the spectacular expression of a stage of evolution of the earth in the form of a « forest of sharp stones » with high limestone pinnacles rising up to 100 metres, forming veritable cathedrals, offering a grandiose, spectacular natural landscape. Further, « the Tsingy » of the limestone plateau forms an unusual feature of outstanding beauty, unique in the world, universally recognized by the effect created by the shades of forest green on metallic reflections of the grey karst "bristles".

Criterion (x): The Tsingy de Bemaraha Integral Nature Reserve contains communities of rare and/or threatened animal species. In addition to a forestry cover of more than 85,000 ha and excellent examples of principal types of ecosystem from rainforest habitats to very dry ones, the property contains a very rich biological diversity on a world level, due to its faunal and floral species, their rarity and containment presenting spectacular adaptation and insular characteristics, enabling the conservation in situ of endemism and biological diversity. The same applies to the habitats of very rare species all threatened with extinction, which are either endemic or subordinate: 11 species of Lemur; 6 bird species; 2 local endemic amphibian species; 17 endemic reptile species including the famous miniscule chameleon, *Brookesia perarmata*; as well as a species of rodent, *Nesomys lambertoni*, that only exists in the Reserve. Linked to the diversity of habitats, systematic research will without doubt shortly enable the addition of new species to this list. Furthermore, certain surrounding lakes, also dependent on the hydrological system of the property, have been listed as Ramsar sites.

Integrity

Since its national listing in 1927, the protection of the Reserve is partially assured due to the very difficult access formed by the karst barriers and vegetation formations still intact. Currently, the dense, dry forest covers an area of 80,000 ha, that is a little more than half of the Reserve. It still constitutes a suitable habitat for the conservation of animal and plant species. Another part of the property is composed of karst system (limestone), forming an exceptional landscape. The savanicole formation occupies nearly all the other half of the Reserve (47.6%). This entire zone, that contains botanical characteristic elements of the landscape, provides favourable natural conditions for livestock breeding. Consequently, each year, anthropogenic fires cover some areas of the savanna and affect a part of the borders and the forests. Human and cattle disruption to the integrity must be part of the elements to monitor in the Reserve.

Protection and management requirements

The Reserve has the status of « Integral Natural Reserve » representing the strongest protection at the national level, since 1927. Until 1990, apart from the presence of a Chief of the Reserve, staff from the Ministry of Water and Forests assures the protection in situ, the property has not had any organized management structure. However, the Government, UNESCO and WWF were willing to allocate funds to improve management and conservation. To this end, a document which is at the same time a strategic management plan for the Reserve, was prepared to constitute an overall planning reference. Presently, the Reserve has a management and conservation plan, including bush fire control, and the implementation of this plan was already undertaken during this decade.

Since 1991, an institution mandated by the Malagasy State assures the management and conservation of this site, the « National Association for the Management of Protected Areas », that has become the « Madagascar National Parks ». Moreover, a change in the status from the Integral Nature Reserve to National Park is envisaged to redefine physically and legally the boundaries as well as the eventual promotion of ecotourism, in permanent consultation with the neighbouring communities and the State.

In the border areas of the property, the management of wild fires in grazing lands with the communities remains one of the major management concerns especially in the northern part. At the same time, developing tourism impacts shall be monitored to use as a socio-economic integration tool which does not negatively affect the integrity of the property in the mid- or long-term, whilst being a stimulant for local development. The financial income resulting from the development of ecotourism is beginning to have its positive impacts on conservation activities.

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|---------------------|------------------------------------|
| Property | Serengeti National Park |
| State Party | United Republic of Tanzania |
| Id. N° | 156 |
| Date of inscription | 1981 |

Brief synthesis

In the vast plains of Serengeti National Park, comprising 1.5 million hectares of savannah, the annual migration of two million wildebeests plus hundreds of thousands of gazelles and zebras - followed by their predators in their annual migration in search of pasture and water – is one of the most impressive nature spectacles in the world. The biological diversity of the park is very high with at least four globally threatened or endangered animal species: black rhinoceros, elephant, wild dog, and cheetah.

Criterion (vii): *The Serengeti plains harbour the largest remaining unaltered animal migration in the world where over one million wildebeest plus hundreds of thousands of other ungulates engage in a 1,000 km long annual circular trek spanning the two adjacent countries of Kenya and Tanzania. This spectacular phenomenon takes place in a unique scenic setting of 'endless plains': 25,000km² of treeless expanses of spectacularly flat short grasslands dotted with rocky outcrops (kopjes) interspersed with rivers and woodlands. The Park also hosts one of the largest and most diverse large predator-prey interactions worldwide, providing a particularly impressive aesthetic experience.*

Criterion (x): *The remarkable spatial-temporal gradient in abiotic factors such as rainfall, temperature, topography and geology, soils and drainage systems in Serengeti National Park manifests in a wide variety of aquatic and terrestrial habitats. The combination of volcanic soils combined with the ecological impact of the migration results in one of the most productive ecosystems on earth, sustaining the largest number of ungulates and the highest concentration of large predators in the world. The ecosystem supports 2 million wildebeests, 900,000 Thomson's gazelles and 300,000 zebras as the dominant herds. Other herbivores include 7,000 elands, 27,000 topis, 18,000 hartebeests, 70,000 buffalos, 4,000 giraffes, 15,000 warthogs, 3,000 waterbucks, 2,700 elephants, 500 hippopotamuses, 200 black rhinoceroses, 10 species of antelope and 10 species of primate. Major predators include 4,000 lions, 1000 leopards, 225 cheetahs, 3,500 spotted hyenas and 300 wild dogs. Of these, the black rhino *Diceros bicornis*, leopard *Panthera pardus*, African elephant *Loxodonta africana* and cheetah *Acynonix jubatus* are listed in the IUCN Red List. There are over 500 species of birds that are perennially or seasonally present in the Park, of which five species are endemic to Tanzania. The Park has the highest ostrich population in Tanzania and probably Africa, making the population globally important.*

Integrity

Serengeti National Park is at the heart the larger Serengeti ecosystem, which is defined by the area covered by the annual migration. The property is contiguous with Ngorongoro Conservation Unit, an area of 528,000ha declared a World Heritage Site in 1979. The entire ecosystem also includes the Maswa Game Reserve (2,200km²) in the south, Grumeti and Ikorongo Game Reserves in the east, Maasai Mara National Reserve in Kenya (1,672km²) to the north, and Loliondo Game Controlled Area in the west. This entire ecosystem is intact and no barriers hamper the migration. Serengeti National Park is sufficiently large and intact to ensure the survival and vigour of all the species contained therein, if maintained in its present state but does not, by itself, ensure the protection of the entire ecosystem. However, all other parts of the ecosystem do have a greater or lesser degree of protection. A potential threat is the plan to build a transport infrastructure through the Serengeti. This would essentially cut the ecosystem into two halves, with predictably negative consequences on the Serengeti. Adding Maswa Game Reserve and Maasai Mara National Reserve to the World Heritage List, or giving them the status of a buffer zone would further safeguard the Outstanding Universal Values of this property.

Another major potential threat to the integrity of the Park is the scarcity of surface water for the animals during dry years, as only one river (Mara) flows perennially through the Park. An extension of the Park boundary to reach Lake Victoria providing a corridor for animals to access water in times of drought is planned for the future to address this issue.

Protection and management requirements

The site has a well designated and partially demarcated boundary, and since 2009 funds have been allocated to demarcate the entire boundary. Its management is regulated by both international and government policies and legal obligations. The National Parks Ordinance Cap 412 of 1959 provides for Tanzania National Parks with the mandate to manage the site. In addition, The 1974 Tanzanian Wildlife Conservation Act and the 2009 Wildlife Conservation Act provide for both within the site and adjacent area protection of resources, respectively. A General Management Plan (2006-2016) has been formulated to guide the daily management of the site in a sustainable manner and is currently being

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implemented. The Plan provides guidance on how to execute the various activities within the park under four main Themes: Ecosystem Management, Outreach services, Tourism Management and Park Operations. The site has a reasonable level of human and financial resources for effective management, but as the activities expand, and more challenges emerge, the lack of sufficient resources remains a potential future constraint. The major management concerns include poaching, tourism pressure, wildfires, and lack of adequate capacity in resource monitoring. Another important management challenge is water: despite numerous sources of water during the rain season, there is only one perennial river (Mara) which is transnational. However, this river currently faces multiple human-mediated cross-boundary threats.

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|---------------------|---------------------------------------|
| Property | Mosi-oa-Tunya / Victoria Falls |
| States Parties | Zambia and Zimbabwe |
| Id. N° | 509 |
| Date of inscription | 1989 |

Brief synthesis

The Mosi-oa-Tunya/Victoria Falls is the world's greatest sheet of falling water and significant worldwide for its exceptional geological and geomorphological features and active land formation processes with outstanding beauty attributed to the falls i.e. the spray, mist and rainbows. This transboundary property extends over 6860 ha and comprises 3779 ha of the Mosi-oa-Tunya National Park (Zambia), 2340 ha of Victoria Falls National Park (Zimbabwe), 741 ha of the riverine strip of Zambezi National Park (Zimbabwe). A riverine strip of the Zambezi National Park extending 9 km west along the right bank of the Zambezi and islands in the river are all within the Park as far as Palm and Kandahar Islands, with the Victoria Falls being one of the major attractions. The waterfall stands at an altitude of about 915 m above mean sea level (a.m.s.l.) and spans to about 1708 m wide with an average depth of 100 m and the deepest point being 108 m. Sprays from this giant waterfall can be seen from a distance of 30 km from the Lusaka road, Zambia and 50 km from Bulawayo road, Zimbabwe. Basalts have been cut by a river system producing a series of eight spectacular gorges that serve as breeding sites for four species of endangered and migratory bird species, such as the Taita Falcon and Black Eagle. The riverine 'rainforest' within the waterfall splash zone is a fragile ecosystem of discontinuous forest on sandy alluvium, dependent upon maintenance of abundant water and high humidity resulting from the spray plume of about 500 m (at maximum height) that can be seen from a distance of 50 km and 30 km from Bulawayo and Lusaka roads respectively. A direct frontage viewing of the falls is possible from both Zambia and Zimbabwe.

Criterion (vii): The Mosi-oa-Tunya/Victoria Falls is the largest curtain of falling water in the world; it is 1.708 m wide and with up to 500 million litres per minute descending at 61 m (Devil's Cataract), 83 m (Main Falls), 99 m (Rainbow Falls), 98 m (Eastern Cataract). Eight spectacular gorges of igneous origin (i.e. comprising basalts) and several islands in the core zone serve as breeding sites for four endangered and migratory bird species, such as the Taita Falcon and Black Eagle. The riverine 'rainforest' within the waterfall splash zone is a fragile ecosystem of discontinuous forest on sandy alluvium, dependent upon maintenance of abundant water and high humidity resulting from the spray plume of about 500 m (at maximum height) that can be seen from a distance of 50 km and 30 km from Bulawayo and Lusaka roads respectively. A direct frontage viewing of the falls is possible from both Zambia and Zimbabwe.

Criterion (viii): The Mosi-oa-Tunya/Victoria Falls and associated eight steep sided gorges have been formed through the changing waterfall positions over a geological time scale. The gorges are an outstanding example of river capture and the erosive forces of the water still continue to sculpture the hard basalts. These gorges take a zigzag course of a distance of about 150 km along the Zambezi River below the falls. Seven previous waterfalls occupied the seven gorges below the present falls, and the Devil's Cataract in Zimbabwe is the starting point for cutting back to a new waterfall. In addition, an aerial view of the falls shows possible future waterfall positions. Upstream are a spectacular series of riverine islands formed during the ongoing geological and geomorphological processes. The property is characterized by banded basalt of ancient lava flow, Kalahari sandstones and chalcedony out of which stone artefacts of *Homo habilis* dating three million years, stone tools of the middle Stone Age and weapons, adornments and digging tools of the late Stone Age that indicate occupation by hunter-gatherers.

Integrity

The transboundary property extends over 6,860 ha, which is considered relatively intact and adequately sized to maintain the diverse natural processes, functions and interactions including the waterfall, gorges, riverine ecosystem, breeding ground, habitat or landing base for migratory endangered bird species making it an Important Bird Area (IBA), lava flows, ancient stone artefacts and tools for hunter-gatherers. It comprises 3779 ha of the Mosi-oa-Tunya National Park (Zambia), 2340 ha of the Victoria Falls National Park (Zimbabwe), and 741 ha of the riverine strip of Zambezi National Park (Zimbabwe).

The boundary includes areas of the Zambezi River upstream of the waterfall both in Zimbabwe and in Zambia. The remaining area of these protected areas is considered as the buffer zone on either side of the Zambezi River in Southern Zambia and north-western Zimbabwe. The Mosi-oa-Tunya National Park boundary follows the left bank between the Sinde River and the Songwe Gorge, bounded in the North by Dambwa Forest Reserve and the Maramba Township. On the right bank, the Victoria Falls National Park is bounded by the river from 6 km above to 12 km below the falls and by the town of Victoria Falls on the West. Sprays from this giant waterfall can be seen from a distance of 30 km from the Lusaka road, Zambia and 50 km from Bulawayo road, Zimbabwe. The system is directly bordered by three protected areas which serve as buffering system.

Protection and management requirements

The property is protected under the National Heritage Conservation Act (1998) and the Zambia Wildlife Act on the Zambia part and the Zimbabwe Parks and Wildlife Act Cap. 20. 14 of 2008 (revised) on the Zimbabwean side. This principal legislation provides for legal protection of the resources within the property. The property has a well defined and buffered boundary which requires clean demarcation. It has a Joint Integrated Management Plan (JIMP) prepared in a participatory manner, approved by the State Parties in November 2007 and being implemented in a participatory manner.

The Plan addresses specifically questions of transboundary coordination, management of urban and tourism facilities and funding schemes. It is divided into three administrative zones (High, Medium and Low Ecologically Sensitive Zones), each with specific prescriptions that best protect the specific resources and values found in each zone. These are surrounded by a buffer zone, and there is a challenge to ensure support for conservation within settlements in this area that pre-date the inscription of the property on the World Heritage List.

The agreed institutional framework for the management of the property is at three levels: Joint Ministerial, Joint Technical and Joint Site Management Committees.

The property requires continued maintenance and updating of its management plan, supported by adequate staffing and provision of financial resources.

The falls being a major attraction, urban infrastructure developments, tourism facilities and services may impact the property's integrity and therefore need to be carefully managed not to compromise the exceptional beauty and Outstanding Universal Value of the property.

Effective and continued action is also required to tackle the current and potential impacts of alien species on the property.

A.3 ASIA AND THE PACIFIC

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|---------------------|---------------------------|
| Property | Great Barrier Reef |
| State Party | Australia |
| Id. N° | 154 |
| Date of inscription | 1981 |

Brief synthesis

As the world's most extensive coral reef ecosystem, the Great Barrier Reef is a globally outstanding and significant entity. Practically the entire ecosystem was inscribed as World Heritage in 1981, covering an area of 348,000 square kilometres and extending across a contiguous latitudinal range of 14° (10°S to 24°S). The Great Barrier Reef (hereafter referred to as GBR) includes extensive cross-shelf diversity, stretching from the low water mark along the mainland coast up to 250 kilometres offshore. This wide depth range includes vast shallow inshore areas, mid-shelf and outer reefs, and beyond the continental shelf to oceanic waters over 2,000 metres deep.

Within the GBR there are some 2,500 individual reefs of varying sizes and shapes, and over 900 islands, ranging from small sandy cays and larger vegetated cays, to large rugged continental islands rising, in one instance, over 1,100 metres above sea level. Collectively these landscapes and seascapes provide some of the most spectacular maritime scenery in the world.

The latitudinal and cross-shelf diversity, combined with diversity through the depths of the water column, encompasses a globally unique array of ecological communities, habitats and species. This diversity of species and habitats, and their interconnectivity, make the GBR one of the richest and most complex natural ecosystems on earth. There are over 1,500 species of fish, about 400 species of coral, 4,000 species of mollusk, and some 240 species of birds, plus a great diversity of sponges, anemones, marine worms, crustaceans, and other species. No other World Heritage property contains such biodiversity. This diversity, especially the endemic species, means the GBR is of enormous scientific and intrinsic importance, and it also contains a significant number of threatened species. At time of inscription, the IUCN evaluation stated "... if only one coral reef site in the world were to be chosen for the World Heritage List, the Great Barrier Reef is the site to be chosen".

Criterion (vii): *The GBR is of superlative natural beauty above and below the water, and provides some of the most spectacular scenery on earth. It is one of a few living structures visible from space, appearing as a complex string of reefal structures along Australia's northeast coast.*

From the air, the vast mosaic patterns of reefs, islands and coral cays produce an unparalleled aerial panorama of seascapes comprising diverse shapes and sizes. The Whitsunday Islands provide a magnificent vista of green vegetated islands and spectacular sandy beaches spread over azure waters. This contrasts with the vast mangrove forests in Hinchinbrook Channel, and the rugged vegetated mountains and lush rainforest gullies that are periodically cloud-covered on Hinchinbrook Island.

On many of the cays there are spectacular and globally important breeding colonies of seabirds and marine turtles, and Raine Island is the world's largest green turtle breeding area. On some continental islands, large aggregations of over-wintering butterflies periodically occur.

Beneath the ocean surface, there is an abundance and diversity of shapes, sizes and colours; for example, spectacular coral assemblages of hard and soft corals, and thousands of species of reef fish provide a myriad of brilliant colours, shapes and sizes. The internationally renowned Cod Hole near Lizard Island is one of many significant tourist attractions. Other superlative natural phenomena include the annual coral spawning, migrating whales, nesting turtles, and significant spawning aggregations of many fish species.

Criterion (viii): *The GBR, extending 2,000 kilometres along Queensland's coast, is a globally outstanding example of an ecosystem that has evolved over millennia. The area has been exposed and flooded by at least four glacial and interglacial cycles, and over the past 15,000 years reefs have grown on the continental shelf.*

During glacial periods, sea levels dropped, exposing the reefs as flat-topped hills of eroded limestone. Large rivers meandered between these hills and the coastline extended further east. During interglacial periods, rising sea levels caused the formation of continental islands, coral cays and new phases of coral growth. This environmental history can be seen in cores of old massive corals.

Today the GBR forms the world's largest coral reef ecosystem, ranging from inshore fringing reefs to mid-shelf reefs, and exposed outer reefs, including examples of all stages of reef development. The processes of geological and geomorphological evolution are well represented, linking continental islands, coral cays and reefs. The varied seascapes and landscapes that occur today have been moulded by changing climates and sea levels, and the erosive power of wind and water, over long time periods.

One-third of the GBR lies beyond the seaward edge of the shallower reefs; this area comprises continental slope and deep oceanic waters and abyssal plains.

Criterion (ix): *The globally significant diversity of reef and island morphologies reflects ongoing geomorphic, oceanographic and environmental processes. The complex cross-shelf, longshore and vertical connectivity is influenced by dynamic oceanic currents and ongoing ecological processes such as upwellings, larval dispersal and migration.*

Ongoing erosion and accretion of coral reefs, sand banks and coral cays combine with similar processes along the coast and around continental islands. Extensive beds of Halimeda algae represent active calcification and accretion over thousands of years.

Biologically the unique diversity of the GBR reflects the maturity of an ecosystem that has evolved over millennia; evidence exists for the evolution of hard corals and other fauna. Globally significant marine faunal groups include over 4,000 species of molluscs, over 1,500 species of fish, plus a great diversity of sponges, anemones, marine worms, crustaceans, and many others. The establishment of vegetation on the cays and continental islands exemplifies the important role of birds, such as the Pied Imperial Pigeon, in processes such as seed dispersal and plant colonisation.

Human interaction with the natural environment is illustrated by strong ongoing links between Aboriginal and Torres Strait Islanders and their sea-country, and includes numerous shell deposits (middens) and fish traps, plus the application of story places and marine totems.

Criterion (x): *The enormous size and diversity of the GBR means it is one of the richest and most complex natural ecosystems on earth, and one of the most significant for biodiversity conservation. The amazing diversity supports tens of thousands of marine and terrestrial species, many of which are of global conservation significance.*

As the world's most complex expanse of coral reefs, the reefs contain some 400 species of corals in 60 genera. There are also large ecologically important inter-reefal areas. The shallower marine areas support half the world's diversity of mangroves and many seagrass species. The waters also provide major feeding grounds for one of the world's largest populations of the threatened dugong. At least 30 species of whales and dolphins occur here, and it is a significant area for humpback whale calving.

Six of the world's seven species of marine turtle occur in the GBR. As well as the world's largest green turtle breeding site at Raine Island, the GBR also includes many regionally important marine turtle rookeries.

Some 242 species of birds have been recorded in the GBR. Twenty-two seabird species breed on cays and some continental islands, and some of these breeding sites are globally significant; other seabird species also utilize the area. The continental islands support thousands of plant species, while the coral cays also have their own distinct flora and fauna.

Integrity

The ecological integrity of the GBR is enhanced by the unparalleled size and current good state of conservation across the property. At the time of inscription it was felt that to include virtually the entire Great Barrier Reef within the property was the only way to ensure the integrity of the coral reef ecosystems in all their diversity.

A number of natural pressures occur, including cyclones, crown-of-thorns starfish outbreaks, and sudden large influxes of freshwater from extreme weather events. As well there is a range of human uses such as tourism, shipping and coastal developments including ports. There are also some disturbances facing the GBR that are legacies of past actions prior to the inscription of the property on the World Heritage list.

At the scale of the GBR ecosystem, most habitats or species groups have the capacity to recover from disturbance or withstand ongoing pressures. The property is largely intact and includes the fullest possible representation of marine ecological, physical and chemical processes from the coast to the deep abyssal waters enabling the key interdependent elements to exist in their natural relationships.

Some of the key ecological, physical and chemical processes that are essential for the long-term conservation of the marine and island ecosystems and their associated biodiversity occur outside the boundaries of the property and thus effective conservation programs are essential across the adjoining catchments, marine and coastal zones.

Protection and management requirements

The GBR covers approximately 348,000 square kilometres. Most of the property lies within the GBR Marine Park: at 344,400 square kilometres, this Federal Marine Park comprises approximately 99% of the property. The GBR Marine Park's legal jurisdiction ends at low water mark along the mainland (with the exception of port areas) and around islands (with the exception of 70 Commonwealth managed islands which are part of the Marine Park). In addition the GBR also includes over 900 islands within the jurisdiction of Queensland, about half of which are declared as 'national parks', and the internal waters of Queensland that occur within the World Heritage boundary (including a number of long-established port areas).

The World Heritage property is and has always been managed as a multiple-use area. Uses include a range of commercial and recreational activities. The management of such a large and iconic world heritage property is made more complex due to the overlapping State and Federal jurisdictions. The Great Barrier Reef Marine Park Authority, an independent Australian Government agency, is responsible for protection and management of the GBR Marine Park. The Great Barrier Reef Marine Park Act 1975 was amended in 2007 and 2008, and now provides for "the long term protection and conservation ... of the Great Barrier Reef Region" with specific mention of meeting "... Australia's responsibilities under the World Heritage Convention".

Queensland is responsible for management of the Great Barrier Reef Coast Marine Park, established under the Marine Parks Act 2004 (Qld). This is contiguous with the GBR Marine Park and covers the area between low and high water marks and many of the waters within the jurisdictional limits of Queensland. Queensland is also responsible for management of most of the islands.

The overlapping jurisdictional arrangements mean that the importance of complementary legislation and complementary management of islands and the surrounding waters is well recognised by both governments. Strong cooperative partnerships and formal agreements exist between the Australian Government and the Queensland Government. In addition, strong relationships have been built between governments and commercial and recreational industries, research institutions and universities. Collectively this provides a comprehensive management influence over a much wider context than just the marine areas and islands.

Development and land use activities in coastal and water catchments adjacent to the property also have a fundamental and critical influence on the values within the property. The Queensland Government is responsible for natural resource management and land use planning for the islands, coast and hinterland adjacent to the GBR. Other Queensland and Federal legislation also protects the property's Outstanding Universal Value addressing such matters as water quality, shipping management, sea dumping, fisheries management and environmental protection.

The Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides an overarching mechanism for protecting the World Heritage values from inappropriate development, including actions taken inside or outside which could impact on its heritage values. This requires any development proposals to undergo rigorous environmental impact assessment processes, often including public consultation, after which the Federal Minister may decide, to approve, reject or approve under conditions designed to mitigate any significant impacts. A recent amendment to the EPBC Act

makes the GBR Marine Park an additional 'trigger' for a matter of National Environmental Significance which provides additional protection for the values within the GBR.

The GBR Marine Park and the adjoining GBR Coast Marine Park are zoned to allow for a wide range of reasonable uses while ensuring overall protection, with conservation being the primary aim. The zoning spectrum provides for increasing levels of protection for the 'core conservation areas' which comprise the 115,000 square kilometres of 'no-take' and 'no-entry' zones within the GBR.

While the Zoning Plan is the 'cornerstone' of management and provides a spatial basis for determining where many activities can occur, zoning is only one of many spatial management tools and policies applied to collectively protect the GBR. Some activities are better managed using other spatial and temporal management tools like Plans of Management, Special Management Areas, Agreements with Traditional Owners and permits (often tied to specific zones or smaller areas within zones, but providing a detailed level of management not possible by zoning alone). These statutory instruments also protect the Outstanding Universal Value of the property.

Many Aboriginal and Torres Strait Island peoples undertake traditional use of marine resource activities to provide traditional food, practice their living maritime culture, and to educate younger generations about traditional and cultural rules and protocols. In the GBR these activities are managed under both Federal and Queensland legislation and policies including Traditional Use of Marine Resource Agreements (TUMRAs) and Indigenous Land Use Agreements (ILUAs). These currently cover some 30 per cent of the GBR inshore area, and support Traditional Owners to maintain cultural connections with their sea country.

Similarly non-statutory tools like site management and Industry Codes of Practice contribute to the protection of World Heritage values. Some spatial management tools are not permanently in place nor appear as part of the zoning, yet achieve effective protection for elements of biodiversity (e.g. the temporal closures that are legislated across the GBR prohibit all reef fishing during specific moon phases when reef fish are spawning).

Other key initiatives providing increased protection for the GBR include the comprehensive Great Barrier Reef Outlook Report (and its resulting 5-yearly reporting process); the Reef Water Quality Protection Plan; the GBR Climate Change Action Plan; and the Reef Guardians Stewardship Programs which involve building relationships and working closely with those who use and rely on the GBR or its catchment for their recreation or their business.

The 2009 Outlook Report identified the long-term challenges facing the GBR; these are dominated by climate change over the next few decades. The extent and persistence of damage to the GBR ecosystem will depend to a large degree on the amount of change in the world's climate and on the resilience of the GBR ecosystem to such change. This report also identified continued declining water quality from land-based sources, loss of coastal habitats from coastal development, and some impacts from fishing, illegal fishing and poaching as the other priority issues requiring management attention for the long-term protection of the GBR.

Emerging issues since the 2009 Outlook Report include proposed port expansions, increases in shipping activity, coastal development and intensification and changes in land use within the GBR catchment; population growth; the impacts from marine debris; illegal activities; and extreme weather events including floods and cyclones.

Further building the resilience of the GBR by improving water quality, reducing the loss of coastal habitats and increasing knowledge about fishing and its effects and encouraging modified practices, will give the GBR its best chance of adapting to and recovering from the threats ahead, including the impacts of a changing climate.

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| Property | Lord Howe Island Group |
| State Party | Australia |
| Id. N° | 186 |
| Date of inscription | 1982 |

Brief synthesis

The Lord Howe Island Group is an outstanding example of oceanic islands of volcanic origin containing a unique biota of plants and animals, as well as the world's most southerly true coral reef. It is an area of spectacular and scenic landscapes encapsulated within a small land area, and provides important breeding grounds for colonies of seabirds as well as significant natural habitat for the conservation of threatened species. Iconic species include endemics such as the flightless Lord Howe Woodhen (*Gallirallus sylvestris*), once regarded as one of the rarest birds in the world, and the Lord Howe Island Phasmid (*Dryococelus australis*), the world's largest stick insect that was feared extinct until its rediscovery on Balls Pyramid.

About 75% of the terrestrial part of the property is managed as a Permanent Park Preserve, consisting of the northern and southern mountains of Lord Howe Island itself, plus the Admiralty Islands, Mutton Bird Islands, Balls Pyramid and surrounding islets. The property is located in the Tasman Sea, Adoption of retrospective Statements of Outstanding Universal Value

approximately 570 kilometres east of Port Macquarie. The entire property including the marine area and associated coral reefs covers 146,300 hectares, with the terrestrial area covering approximately 1,540 hectares.

Criterion (vii): The Lord Howe Island Group is grandiose in its topographic relief and has an exceptional diversity of spectacular and scenic landscapes within a small area, including sheer mountain slopes, a broad arc of hills enclosing the lagoon and Balls Pyramid rising abruptly from the ocean. It is considered to be an outstanding example of an island system developed from submarine volcanic activity and demonstrates the nearly complete stage in the destruction of a large shield volcano. Having the most southerly coral reef in the world, it demonstrates a rare example of a zone of transition between algal and coral reefs. Many species are at their ecological limits, endemism is high, and unique assemblages of temperate and tropical forms cohabit.

The islands support extensive colonies of nesting seabirds, making them significant over a wide oceanic region. They are the only major breeding locality for the Providence Petrel (*Pterodroma solandri*), and contain one of the world's largest breeding concentrations of Red-tailed Tropicbird (*Phaethon rubricauda*).

Criterion (x): The Lord Howe Island Group is an outstanding example of the development of a characteristic insular biota that has adapted to the island environment through speciation. A significant number of endemic species or subspecies of plants and animals have evolved in a very limited area. The diversity of landscapes and biota and the high number of threatened and endemic species make these islands an outstanding example of independent evolutionary processes.

Lord Howe Island supports a number of endangered endemic species or subspecies of plants and animals, for example the Lord Howe Woodhen, which at time of inscription was considered one of the world's rarest birds. While sadly a number of endemic species disappeared with the arrival of people and their accompanying species, the Lord Howe Island Phasmid, the largest stick insect in the world, still exists on Balls Pyramid. The islands are an outstanding example of an oceanic island group with a diverse range of ecosystems and species that have been subject to human influences for a relatively limited period.

Integrity

The boundary of the property includes all areas that are essential for maintaining the ecosystems and beauty of the property. It includes all of the above water remains of the ancient shield volcano and surrounding reefs and a substantial proportion of the Lord Howe Island and Balls Pyramid seamounts. The island component of the property is largely Permanent Park Preserve (PPP) and the surrounding waters are Marine Parks. The land area not included in the PPP is managed to ensure that the property's values are maintained. The inscribed property would be strengthened by the inclusion of the entire Commonwealth Marine Park.

At time of inscription concern was raised with respect to a proposal to construct four telecommunications masts without thorough assessment by way of an Environmental Impact Statement. These were then built, although today no longer exist. Other potential threats to the integrity of the property include development pressures, introduced plants and animals and visitor / tourism pressures. Since inscription, a programme improving the conservation status of the Lord Howe Woodhen, and the successful eradication of feral pigs, cats and almost eradication of goats has contributed significantly to the enhancement of World Heritage values beyond their status at listing.

Protection and management requirements

The property is subject to a comprehensive protection, management and monitoring regime which is supported by adequate human and financial resources.

All World Heritage properties in Australia are 'matters of national environmental significance' protected and managed under national legislation, the Environment Protection and Biodiversity Conservation Act 1999. This Act is the statutory instrument for implementing Australia's obligations under a number of multilateral environmental agreements including the World Heritage Convention. By law, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. Substantial penalties apply for taking such an action without approval. Once a heritage place is listed, the Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

Importantly, this Act also aims to protect matters of national environmental significance, such as World Heritage properties, from impacts even if they originate outside the property or if the values of the property are mobile (as in fauna). It thus forms an additional layer of protection designed to protect values of World Heritage properties from external impacts.

In 2007 the Lord Howe Island Group was added to the National Heritage List in recognition of its national heritage significance.

On-ground management of the terrestrial component of the property is by the Lord Howe Island Board under the statutory framework of the Lord Howe Island Local Environment Plan (2010), which emphasises World Heritage values. Planning for the Permanent Park Preserve is the responsibility of the New South Wales Department of Environment, Climate Change and Water. Management of the marine areas (both State and Commonwealth waters) is the responsibility of the New South Wales Marine Park Authority.

Key threats requiring ongoing attention include fishing, tourism, invasive animals, plants and pathogens, and anthropogenic climate change. Visitor numbers are limited to control impacts and new Marine Park management and zoning plans are being developed for state and Commonwealth waters. Measures are being taken to prevent the introduction of new invasive plant species while significant resources are being directed towards the management and eradication of weeds. A proposal to eradicate introduced rodents is being developed.

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| Property | Gondwana Rainforests of Australia |
| State Party | Australia |
| Id. N° | 368 bis |
| Dates of inscription | 1986 - 1994 |

Brief synthesis

The Gondwana Rainforests of Australia is a serial property comprising the major remaining areas of rainforest in southeast Queensland and northeast New South Wales. It represents outstanding examples of major stages of the Earth's evolutionary history, ongoing geological and biological processes, and exceptional biological diversity. A wide range of plant and animal lineages and communities with ancient origins in Gondwana, many of which are restricted largely or entirely to the Gondwana Rainforests, survive in this collection of reserves. The Gondwana Rainforests also provides the principal habitat for many threatened species of plants and animals.

Criterion (viii): The Gondwana Rainforests provides outstanding examples of significant ongoing geological processes. When Australia separated from Antarctica following the breakup of Gondwana, new continental margins developed. The margin which formed along Australia's eastern edge is characterised by an asymmetrical marginal swell that runs parallel to the coastline, the erosion of which has resulted in the Great Divide and the Great Escarpment. This eastern continental margin experienced volcanicity during the Cenozoic Era as the Australian continental plate moved over one of the planet's hot spots. Volcanoes erupted in sequence along the east coast resulting in the Tweed, Focal Peak, Ebor and Barrington volcanic shields. This sequence of volcanos is significant as it enables the dating of the geomorphic evolution of eastern Australia through the study of the interaction of these volcanic remnants with the eastern highlands.

The Tweed Shield erosion caldera is possibly the best preserved erosion caldera in the world, notable for its size and age, for the presence of a prominent central mountain mass (Wollumbin/Mt Warning), and for the erosion of the caldera floor to basement rock. All three stages relating to the erosion of shield volcanoes (the planeze, residual and skeletal stages) are readily distinguishable. Further south, the remnants of the Ebor Volcano also provides an outstanding example of the ongoing erosion of a shield volcano.

Criterion (ix): The Gondwana Rainforests contains outstanding examples of major stages in the Earth's evolutionary history as well as ongoing evolutionary processes. Major stages represented include the 'Age of the Pteridophytes' from the Carboniferous Period with some of the oldest elements of the world's ferns represented, and the 'Age of Conifers' in the Jurassic Period with one of the most significant centres of survival for Araucarians (the most ancient and phylogenetically primitive of the world's conifers). Likewise the property provides an outstanding record of the 'Age of the Angiosperms'. This includes a secondary centre of endemism for primitive flowering plants originating in the Early Cretaceous, the most diverse assemblage of relict angiosperm taxa representing the primary radiation of dicotyledons in the mid-Late Cretaceous, a unique record of the evolutionary history of Australian rainforests representing the 'golden age' of the Early Tertiary, and a unique record of Miocene vegetation that was the antecedent of modern temperate rainforests in Australia. The property also contains an outstanding number of songbird species, including lyrebirds (Menuridae), scrub-birds (Atrichornithidae), treecreepers (Climacteridae) and bowerbirds and catbirds (Ptilonorhynchidae), belonging to some of the oldest lineages of passerines that evolved in the Late Cretaceous. Outstanding examples of other relict vertebrate and invertebrate fauna from ancient lineages linked to the break-up of Gondwana also occur in the property.

The flora and fauna of the Gondwana Rainforests provides outstanding examples of ongoing evolution including plant and animal taxa which show evidence of relatively recent evolution. The rainforests have

been described as 'an archipelago of refugia, a series of distinctive habitats that characterise a temporary endpoint in climatic and geomorphological evolution'. The distances between these 'islands' of rainforest represent barriers to the flow of genetic material for those taxa which have low dispersal ability, and this pressure has created the potential for continued speciation.

Criterion (x): The ecosystems of the Gondwana Rainforests contain significant and important natural habitats for species of conservation significance, particularly those associated with the rainforests which once covered much of the continent of Australia and are now restricted to archipelagos of small areas of rainforest isolated by sclerophyll vegetation and cleared land. The Gondwana Rainforests provides the principal habitat for many species of plants and animals of outstanding universal value, including more than 270 threatened species as well as relict and primitive taxa.

Rainforests covered most of Australia for much of the 40 million years after its separation from Gondwana. However, these rainforests contracted as climatic conditions changed and the continent drifted northwards. By the time of European settlement rainforests covered only 1% of the landmass and were restricted to refugia with suitable climatic conditions and protection from fire. Following European settlement, clearing for agriculture saw further loss of rainforests and only a quarter of the rainforest present in Australia at the time of European settlement remains.

The Gondwana Rainforests protects the largest and best stands of rainforest habitat remaining in this region. Many of the rare and threatened flora and fauna species are rainforest specialists, and their vulnerability to extinction is due to a variety of factors including the rarity of their rainforest habitat. The Gondwana Rainforests also protects large areas of other vegetation including a diverse range of heaths, rocky outcrop communities, forests and woodlands. These communities have a high diversity of plants and animals that add greatly to the value of the Gondwana Rainforests as habitat for rare, threatened and endemic species. The complex dynamics between rainforests and tall open forest particularly demonstrates the close evolutionary and ecological links between these communities.

Species continue to be discovered in the property including the re-discovery of two mammal species previously thought to have been extinct: the Hastings River Mouse (*Pseudomys oralis*) and Parma Wallaby (*Macropus parma*).

Integrity

The Gondwana Rainforests contains the largest and most significant remaining stands of subtropical rainforest and Antarctic Beech (*Nothofagus moorei*) cool temperate rainforests in the world, the largest and most significant areas of warm temperate rainforest and one of only two remaining large areas of Araucarian rainforest in Australia.

Questions related to the small size of some of the component parts of the property, and the distance between the sites for the long-term conservation and continuation of natural biological processes of the values for which the property was inscribed have been raised. However, noting that the serial sites are in reasonable proximity and are joined by corridors of semi-natural habitats and buffers, compensation for small size and scattered fragments is being made through intensive management consistent with approved management plans and policy.

Since inscription, there have been significant additions to the protected area estate in both New South Wales and Queensland in the region encompassing the Gondwana Rainforests. These areas have undergone a rigorous assessment to determine their suitability for inclusion in the property and a significant extension of the property is planned as indicated by the addition of the property extension to Australia's Tentative List in May 2010. In relation to ongoing evolution, the level of legislative protection provided for World Heritage properties will minimise direct human influence and enable the continuation of natural biological processes.

Protection and management requirements

Institutional arrangements for the protection and management of Gondwana Rainforests are strong. The property is made up of 41 reserves, almost all of which are within the protected area estate, and primarily managed by the Queensland Parks and Wildlife Service and the New South Wales National Parks and Wildlife Service. Both States have legislation relating to protected areas and native flora and fauna that provide protection for the values of the Gondwana Rainforests.

In 1993, Governments agreed to establish a Coordinating Committee, comprised of on-ground managers from these agencies and the Australian Government, to facilitate the cooperative management of the property at an operational level. A Technical and Scientific Advisory Committee and a Community Advisory Committee have also assisted with management advice since their establishment in 2002.

In 1994 when the property was extended, the World Heritage Committee requested the Australian authorities to complete the management plans of individual sites, particularly those within Queensland. Management plans have been produced for the majority of individual reserves within the property, and are in draft form or planned for the remainder.

In 2000 a Strategic Overview for Management for the Central Eastern Rainforest Reserves of Australia (now Gondwana Rainforests) World Heritage Area was published. This overarching document is a major

element in guiding cooperative management by the three Governments in relation to the identification, protection, conservation, rehabilitation and presentation of the Gondwana Rainforests.

All World Heritage properties in Australia are 'matters of national environmental significance' protected and managed under national legislation, the Environment Protection and Biodiversity Conservation Act 1999. This Act is the statutory instrument for implementing Australia's obligations under a number of multilateral environmental agreements including the World Heritage Convention. By law, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. Substantial penalties apply for taking such an action without approval. Once a heritage place is listed, the Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

Importantly, this Act also aims to protect matters of national environmental significance, such as World Heritage properties, from impacts even if they originate outside the property or if the values of the property are mobile (as in fauna). It thus forms an additional layer of protection designed to protect values of World Heritage properties from external impacts.

On 15 May 2007, the Gondwana Rainforests of Australia was added to the National Heritage List; National Heritage is also a matter of national environmental significance under the EPBC Act.

The impacts of climate change and high levels of visitation, undertaking effective fire management, and mitigating the effects of invasion by pest species and pathogens present the greatest challenges for the protection and management of Gondwana Rainforests. Climate change will impact particularly on those relict species in restricted habitats at higher altitudes, where particular microclimatic conditions have enabled these species to survive. Management responses include improving the resilience of the property by addressing other threats such as inappropriate fire regimes and invasion by pest species, and trying to increase habitat connectivity across the landscape.

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|---------------------|----------------------------------|
| Property | Wet Tropics of Queensland |
| State Party | Australia |
| Id. N° | 486 |
| Date of inscription | 1988 |

Brief synthesis

The Wet Tropics of Queensland, or Wet Tropics, stretches along the northeast coast of Australia for some 450 kilometres. Encompassing some 894,420 hectares of mostly tropical rainforest, this stunningly beautiful area is extremely important for its rich and unique biodiversity. It also presents an unparalleled record of the ecological and evolutionary processes that shaped the flora and fauna of Australia, containing the relicts of the great Gondwanan forest that covered Australia and part of Antarctica 50 to 100 million years ago. All of Australia's unique marsupials and most of its other animals originated in rainforest ecosystems, and their closest surviving relatives occur in the Wet Tropics. These living relicts of the Gondwanan era and their subsequent diversification provide unique insights to the process of evolution in general. They also provide important information for the interpretation of fossils of plants and animals found elsewhere in Australia, and about the evolution of Australia's sclerophyll flora and marsupial fauna in particular.

The property supports tropical rainforests at their latitudinal and climatic limits, and unlike most other seasonal tropical evergreen equatorial forests, is subject to a dry season and to frequent cyclonic events. Many of the distinct features of the Wet Tropics relate to its extremely high but seasonal rainfall, diverse terrain and steep environmental gradients. In addition to its complex array of species and life forms, the Wet Tropics is also recognised as an area possessing outstanding scenic features, natural beauty and magnificent sweeping landscapes.

Criterion (vii): The Wet Tropics exhibit exceptional natural beauty, with superlative scenic features highlighted by extensive sweeping forest vistas, wild rivers, waterfalls, rugged gorges and coastal scenery. This is particularly apparent between the Daintree River and Cedar Bay, where exceptional coastal scenery combines tropical rainforest and white sandy beaches with fringing offshore coral reefs. The winding channels of the Hinchinbrook Channel contain the most extensive mangroves in the region, providing a rich visual mosaic of rainforest and mangroves, and a terrestrial continuum with the Great Barrier Reef.

Criterion (viii): The Wet Tropics contains one of the most complete and diverse living records of the major stages in the evolution of land plants, from the very first pteridophytes more than 200 million years ago to the evolution of seed-producing plants including the cone-bearing cycads and southern conifers (gymnosperms), followed by the flowering plants (angiosperms). As the Wet Tropics is the largest part of the entire Australasian region where rainforests have persisted continuously since Gondwanan times, its

living flora, with the highest concentration of primitive, archaic and relict taxa known, is the closest modern-day counterpart for Gondwanan forests. In addition, all of Australia's unique marsupials and most of its other animals originated in rainforest ecosystems, and the Wet Tropics still contains many of their closest surviving members. This makes it one of the most important living records of the history of marsupials as well as of songbirds.

Criterion (ix): The Wet Tropics provides outstanding examples of significant ongoing ecological processes and biological evolution. As a centre of endemism for the region (second only to New Caledonia in the number of endemic genera per unit area), the Wet Tropics provides fundamental insights into evolutionary patterns both in isolation from and in interaction with other rainforests. Its tall, open forests on the drier western margins of the rainforest are also significant as part of an evolutionary continuum of rainforest and sclerophyll forests. Eucalypts, that now dominate the Australian landscape, are considered to have evolved from such rainforest stock and radiated into drier environments from the margins of closed forests.

The area supports an exceptionally high level of diversity of both flora and fauna, with over 3,000 vascular plant species in 224 families, of which 576 species and 44 genera are endemic, including two endemic plant families. Vertebrate diversity and endemism are also very high, with 107 mammal species including 11 endemic species and two monotypic endemic genera. In terms of avifauna, there are 368 bird species, of which 11 species are endemic. For reptiles, there are 113 species of which 24 species are endemic, including three monotypic endemic genera. The diversity of amphibians includes 51 species of which 22 are endemic.

Criterion (x): The Wet Tropics holds a largely intact flora and fauna with hundreds of endemic species restricted to the property, of which many are classified as threatened. The majority of plant species have restricted distributions, and many monotypic plant genera and several species of marsupials, frogs and reptiles have very restricted distributions either as isolated or disjunct populations, reflecting the refugial nature of the rainforests found in several locations. The diversity of the plant communities and animal habitats of the Wet Tropics is recognised as being the most floristically and structurally diverse in Australia and is also outstanding on a global scale. Among many emblematic species occurring in the property is the flightless Australian cassowary, one of the largest birds in the world.

In an Australian context, the Wet Tropics covers less than 0.2% of Australia, but contains 30% of the marsupial species, 60% of bat species, 25% of rodent species, 40% of bird species, 30% of frog species, 20% of reptile species, 60% of butterfly species, 65% of fern species, 21% of cycad species, 37% of conifer species, 30% of orchid species and 18% of Australia's vascular plant species. It is therefore of great scientific interest and of fundamental importance to conservation.

Although the Wet Tropics is predominantly wet tropical rainforest, it is fringed and in a few places dissected by sclerophyll forests, woodlands, swamps and mangrove forests, adding to its diversity.

Integrity

At the time of its inscription the property was identified as being an essentially intact ecosystem with the level of human impact low, especially when compared to other tropical forest regions, with 80% of the estimated cover originally present at the time of the first European settlement remaining. A substantial amount of lowland forest, however, had been cleared for agricultural purposes. A number of human disturbances that cumulatively detracted from the overall natural integrity were scattered throughout the property and included infrastructure such as transmission lines, access roads, abandoned mine sites and more extensive areas which had been selectively logged. However the evaluation also noted that these disturbances accounted for only a small proportion of the total area of the property. In addition other local management issues that needed attention included invasions of exotic plants, animals and forest diseases.

Since inscription, the Australian and Queensland governments have worked cooperatively to put in place a comprehensive management regime for the property, outlined in the following section. Logging has been prohibited since 1987 with the infrastructure associated with this activity removed and the impacted forests allowed to recover. Maintenance activities associated with the provision of community infrastructure are now regulated under a statutory management plan and guided by environmental codes of practice.

A number of threatening processes still impact on the overall integrity of the property including invasive species, fragmentation, and altered hydrological and fire regimes. In addition, a key emerging threat to the integrity of the property is climate change, as with even a small increase in temperature, large declines in the range size for almost every endemic vertebrate species confined to the property are predicted.

Protection and management requirements

In 1990 the Australian and Queensland Governments agreed to jointly fund and coordinate management of the Wet Tropics, signing an agreement that established the Wet Tropics Management Scheme. The agreement outlined the broad structural and funding arrangements for the management

scheme, including the establishment of the Wet Tropics Management Authority. The management scheme also establishes a scientific advisory committee to provide advice to the Authority and a community consultative committee to report to the Authority on matters relating to the management of the property from the viewpoint of representative interest groups and the community at large.

The Queensland Wet Tropics World Heritage Protection and Management Act 1993 (Wet Tropics Act) and the Commonwealth Wet Tropics of Queensland World Heritage Conservation Act 1994 together give effect to the administrative and operational aspects of the agreement and facilitate the implementation of Australia's obligations under the World Heritage convention. These Acts require the Authority to produce an annual state of the Wet Tropics World Heritage Area report for the Queensland and Commonwealth parliaments respectively.

The Wet Tropics Management Plan 1998 (WT Plan) was subsequently developed under the Wet Tropics Act. This statutory Plan provides for the regulation of potentially damaging activities within the property. The Plan includes a zoning system and a system for administration of permit applications and a penalty regime for any infringements. Under the WT Plan, the Authority is required to consider a set of principles and criteria for deciding permit applications of which the most important consideration is the likely impact of a proposed activity on the integrity of the property.

While the WT Plan applies to all lands within the Wet Tropics, the property contains a diversity of different tenures, and a corresponding range of government agencies and private land holders with responsibilities for managing these tenures, under different legislation. Since listing, the Queensland Government has transferred the majority of former forestry tenures to protected area tenure. This has resulted in the total of protected area estate being increased from 14% at listing to over 65%. The conversion to protected area estate ensures a more compatible conservation management regime.

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) now provides an additional layer of protection for all World Heritage properties in Australia. Under the EPBC Act, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. The EPBC Act applies whether the activity is inside or outside of the boundaries of a World Heritage property. Substantial penalties apply for taking such an action without approval. In 2007, the Wet Tropics was added to the National Heritage List, in recognition of its national heritage significance under the Act.

As well as the regulatory protection mechanisms described above, the Authority has prepared a number of strategies to guide management of the property, including: the Wet Tropics Nature Based Tourism Strategy (2000); the Wet Tropics Conservation Strategy (2004); and the WTMA Research Strategy 2010 – 2014.

The Wet Tropics Management Authority is committed to promoting and developing partnerships with people and stakeholders with rights, responsibilities and interests associated with the Wet Tropics. The Wet Tropics Act recognises the important role that Aboriginal people can play in the management of natural and cultural heritage in the property. The Wet Tropics World Heritage Area Regional Agreement 2005 provides for the cooperative management of the property between 18 Rainforest Aboriginal tribal groups, the Authority and the Australian and Queensland governments. This Regional Agreement has seen the formal establishment of a Rainforest Aboriginal Advisory Committee under the Wet Tropics Act and the inclusion of two Rainforest Aboriginal directors on the Authority's Board. The Authority has also established a conservation sector liaison group and a tourism industry liaison group to promote improved communication and liaison with these key stakeholders.

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|---------------------|----------------------|
| Property | Fraser Island |
| State Party | Australia |
| Id. N° | 630 |
| Date of inscription | 1992 |

Brief synthesis

Fraser Island, also known by its Aboriginal name of K'gari, lies along the eastern coast of Australia. The property covers 181,851 hectares and includes all of Fraser Island and several small islands off the island's west coast. It is the world's largest sand island, offering an outstanding example of ongoing biological, hydrological and geomorphological processes. The development of rainforest vegetation on coastal dune systems at the scale found on Fraser Island is unique, plus the island boasts the world's largest unconfined aquifer on a sand island.

The property has exceptional natural beauty with over 250 kilometres of clear sandy beaches with long, uninterrupted sweeps of ocean beach, strikingly coloured sand cliffs, and spectacular blowouts. Inland from the beach are majestic remnants of tall rainforest growing on sandy dunes and half of the world's perched freshwater dune lakes.

Criterion (vii): Fraser Island is the largest sand island in the world, containing a diverse range of features that are of exceptional natural beauty. The area has over 250 kilometres of clear sandy beaches with long, uninterrupted sweeps of ocean beach, including more than 40 kilometres of strikingly coloured sand cliffs, as well as spectacular blowouts. Inland from the beach are majestic remnants of tall rainforest growing on tall sand dunes, a phenomenon believed to be unique in the world. Half of the world's perched freshwater dune lakes occur on the island, producing a spectacular and varied landscape. The world's largest unconfined aquifer on a sand island has also been found here.

Criterion (viii): The property represents an outstanding example of significant ongoing geological processes including longshore drift. The immense sand dunes are part of the longest and most complete age sequence of coastal dune systems in the world and are still evolving. The superimposition of active parabolic dunes on remnants of older dunes deposited during periods of low sea level, which are stabilised by towering rainforests at elevations of up to 240 metres, is considered unique. Fraser Island also has a variety of freshwater dune lakes which are exceptional in terms of number, diversity and age. The dynamic interrelationship between the coastal dune sand mass, aquifer hydrology and the freshwater dune lakes provides a sequence of lake formation both spatially and temporally.

The process of soil formation on the island is also unique, since as a result of the successive overlaying of dune systems, a chronosequence of podzol development from the younger dune systems on the east to the oldest systems on the west change from rudimentary profiles less than 0.5 metres thick to giant forms more than 25 metres thick. The latter far exceeds known depths of podzols anywhere else in the world and has a direct influence on plant succession, with the older dune systems causing retrogressive succession when the soil horizon becomes too deep to provide nutrition for tall forest species.

Criterion (ix): The property represents an outstanding example of significant ongoing biological processes. These processes, acting on a sand medium, include biological adaptation (such as unusual rainforest succession), and biological evolution (such as the development of rare and biogeographically significant species of plants and animals).

Vegetation associations and succession represented on Fraser Island display an unusual level of complexity, with major changes in floristic and structural composition occurring over very short distances. Both heathland and closed forest communities provide refugia for relict and disjunct populations, which are important to ongoing speciation and radiation. Evolution and specialised adaptation to low fertility, fire, waterlogging and aridity is continuing in the ancient angiosperm flora of the heathlands and the associated vertebrate and invertebrate fauna. Since listing, patterned fens have been discovered on the property, which along with those at Cooloola, are the only known examples of sub-tropical patterned fens in the world. These fens support an unusual number of rare and threatened invertebrate and vertebrate species.

The dynamic interrelationship between the coastal dune sand mass, hydrology, the ongoing processes of soil formation and the development of plant communities is remarkable in its scale and complexity given the uniform substrate. In particular, the development of rainforest vegetation communities, with trees up to 50 metres tall on coastal dune systems at the scale found on Fraser Island, is not known to occur elsewhere in the world. There is clear zonation and succession of plant communities according to salinity, water table, age and nutrient status of dune sands, exposure and fire frequency. The low shrubby heaths ('wallum') are of considerable evolutionary and ecological significance. Fauna including a number of threatened species of frog, have adapted to the highly specialised acidic environment associated with wet heathlands and sedgelands in this siliceous sand environment.

Integrity

The property includes all of Fraser Island and a number of small adjacent islands off the west coast including Stewart and Dream Islands covering an area of 181,851 hectares. The boundary of the property extends 500 metres seaward from high water mark around Fraser Island and the smaller islands. The majority of Fraser Island is National Park, and all of the marine area within the property lies within Great Sandy Marine Park. A small area of private land on the island is managed to ensure the property's values are maintained.

The conditions of integrity are met as there is no perceptible human threat to longshore drift and other ongoing processes that make this area outstanding. The property is sufficiently large, diverse and free from disturbance to contain all ecosystem components required for viable populations of all species and for continued maintenance of all natural phenomena. For example the evolution of soil profiles remains essentially undisturbed. Weeds, plant diseases and feral animals are present but in low numbers and are subject to active management. Disjunct and relict populations of flora and fauna, including those associated with the lakes and creeks, have remained intact and will continue to be important for ongoing speciation. While the tall forests have been affected to some extent by logging, this practice has stopped and the forests have the capacity to return to their former grandeur.

Protection and management requirements

On-ground management of the property is the responsibility of the Queensland Parks and Wildlife Service, Department of Environment and Resource Management, guided by the Great Sandy Region Management Plan, and activity-specific management plans for Fraser Island. As the majority of the island is national park, the strongly protective provisions of the Nature Conservation Act 1992 and the Recreation Areas Management Act 2006 apply. The narrow marine zone surrounding the island lies within the Great Sandy Marine Park and is subject to the provisions of the Marine Parks Act 2004. Indigenous, community and scientific advice on protection and management of the World Heritage values is provided to the State of Queensland and Australian Governments by three Fraser Island World Heritage Area Advisory Committees.

Key threats requiring ongoing attention include degradation due to visitor numbers, inappropriate fire, invasive plants and animals, and climate change. Recreational use of the area is intensive and localised degradation can occur from excessive numbers of visitors potentially impacting on, in particular, lake water quality. Appropriate fire management is required to maintain the integrity of the World Heritage values. Significant human and financial resources are being directed to the management of these threats as well as to the protection and monitoring of the property.

Overarching protection of the World Heritage values occurs under national legislation, the Environment Protection and Biodiversity Conservation Act 1999. All World Heritage properties in Australia are 'matters of national environmental significance' under that legislation, which is the statutory instrument for implementing Australia's obligations under the World Heritage Convention. By law, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. Substantial penalties apply for taking such an action without approval. In 2007, Fraser Island was added to the National Heritage List, in recognition of its national heritage significance under the Act.

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| Property | Australian Fossil Mammal Sites (Riversleigh / Naracoorte) |
| State Party | Australia |
| Id. N° | 698 |
| Date of inscription | 1994 |

Brief synthesis

Australia is regarded as the most biologically distinctive continent in the world, an outcome of its almost total isolation for 35 million years following separation from Antarctica. Only two of its seven orders of singularly distinctive marsupial mammals have ever been recorded elsewhere. Two of the world's most important fossil sites, Riversleigh and Naracoorte, located in the north and south of Australia respectively, provide a superb fossil record of the evolution of this exceptional mammal fauna. This serial property provides outstanding, and in many cases unique, examples of mammal assemblages during the last 30 million years.

The older fossils occur at Riversleigh, which boasts an outstanding collection from the Oligocene to Miocene, some 10-30 million years ago. The more recent story then moves to Naracoorte, where one of the richest deposits of vertebrate fossils from the glacial periods of the mid-Pleistocene to the current day (from 530,000 years ago to the present) is conserved. This globally significant fossil record provides a picture of the key stages of evolution of Australia's mammals, illustrating their response to climate change and to human impacts.

Criterion (viii): These fossil deposits are outstanding examples representing major stages of earth's history, including the record of life. Riversleigh provides exceptional, and in many cases unique, mammal assemblages from the Oligocene to Miocene, spanning from 10-30 million years ago. These assemblages document changes in habitat from humid, lowland rainforest to dry eucalypt forests and woodlands, and provide the first fossil record for many distinctive groups of living mammals such as the marsupial moles and feather-tailed possums. The assemblages recovered from the caves at Naracoorte Victoria Fossil Cave preserve an outstanding record of more recent terrestrial vertebrate life. These open a window into a significant period of earth's history from the mid-Pleistocene to present (530,000 years ago to today), a period characterised by great climatic changes.

Criterion (ix): Both sites provide complementary evidence of key stages in the evolution of the fauna of one of the world's most isolated continents. The history of mammal lineages in modern Australia can be traced through these fossil deposits and, as a consequence, there is a better understanding of the conservation status of living mammals and their communities.

At Riversleigh the mammal fossil assemblages indicate changes in habitat from humid lowland rainforest to dry eucalypt forests and woodlands from the Oligocene to the Miocene, and indicate the rainforest origins for the majority of mammal groups that today occupy arid Australia. The vertebrate

species present at Naracoorte provide a key clue to understanding their responses to climate change, and include superbly preserved examples of the Australian ice age megafauna (giant, now extinct mammals, birds and reptiles), such as the enigmatic extinct marsupial lion (*Thylacoleo carnifex*). This site also hosts essentially modern species including marsupials such as the Tasmanian devil (*Sarcophilus harrisi*), Tasmanian tiger (*Thylacinus cynocephalus*), wallabies and possums; placental mammals including mice and bats; and snakes, lizards, frogs and turtles. The Naracoorte assemblages span the probable time of arrival of humans to Australia and thus are of additional value in helping unravel the complex relationships between humans and their environment. They highlight the impacts of both climatic change and humans on Australia's mammals, including its now vanished megafauna.

Integrity

In Riversleigh, an area of very active mining exploration, not all of the deposit is contained within the property although the representativeness of the site, located within the Boodjamulla (Lawn Hill) National Park, is judged adequate. In Naracoorte, the whole of the deposit of the Victoria Fossil Cave is included within the property. While the surficial boundaries of the Naracoorte Caves National Park do not match those of its underground cave deposits, the entrances to the caves are protected, which is the critical factor. Since the World Heritage inscription, the boundaries of the National Park have been expanded and cover most known caves within the park. Additional land has been purchased and added to the park providing greater security. Researchers have expanded the knowledge of Naracoorte's caves in addition to Victoria Fossil Cave, including the timeframe of the fossil records.

A major issue for the integrity of fossil sites is the physical removal of fossils. Because palaeontology is an extractive science, the determination of a site's scientific value involves the removal of specimens from their depositional context to laboratories for study. The extent to which the resource is affected by paleontological excavation in Riversleigh was less than 1% at the time of inscription.

In Naracoorte, although paleontological excavations at the site affect a higher proportion of the total fossil deposits compared to the extensive deposits at Riversleigh, less than 1% of the resource is affected by excavation and many sites remain undisturbed.

In order to retain the integrity of the original site as much as possible, as a matter of policy, collections should not be too widely dispersed. Conditions are applied, supported by legislation, to record the location and regulate the removal of fossil material from both Riversleigh and Naracoorte. The paleontological work is important for the identification, presentation and transmission of the World Heritage values of the property to future generations.

Protection and management requirements

The Riversleigh site is contained within Boodjamulla (Lawn Hill) National Park. Owing to the rugged limestone terrain, visitor access and on-site presentation are restricted to one location. In 1992, the nominated area was acquired for National Park purposes and grazing on the property has ceased. The Riversleigh site is protected by the strong provisions of Queensland's Nature Conservation Act 1992, and it is managed as a discrete component of the larger national park. Management is guided by the Riversleigh Management Strategy (2002), and a management plan for the whole national park is presently being developed. A Riversleigh Community and Scientific Advisory Committee has been established, with representation from the scientific community, Queensland Museum, tourism, Waanyi traditional owners, and local, Queensland and Australian governments. In addition, a Waanyi Advisory Committee provides advice on Indigenous issues.

Naracoorte Caves National Park has a management plan. There are some factors relating to the previous use of the site which have impacted on a minority of its caves, including the partial modification of some parts of caves to facilitate visitor access (a small proportion of Naracoorte National Park's caves are open to the public), and the mining of guano in one cave in the 19th century. However access to the main fossil beds is carefully controlled and they remain in an undisturbed condition. Visitor access is controlled to protect the scientific, conservation and aesthetic values of the caves.

All World Heritage properties in Australia are 'matters of national environmental significance' protected and managed under national legislation, the Environment Protection and Biodiversity Conservation Act 1999. This Act is the statutory instrument for implementing Australia's obligations under a number of multilateral environmental agreements including the World Heritage Convention. By law, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. Substantial penalties apply for taking such an action without approval. Once a heritage place is listed, the Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

Importantly, this Act also aims to protect matters of national environmental significance, such as World Heritage properties, from impacts even if they originate outside the property or if the values of the property are mobile (as in fauna). It thus forms an additional layer of protection designed to protect values of World Heritage properties from external impacts.

The Australian Fossil Mammal Site was also listed under the EPBC Act as a place inscribed on the National Heritage List in 2007.

Fossil excavation is regulated under relevant State legislation in addition to the EPBC Act and is restricted to very small areas. Other potential impacts on natural condition of both sites such as those associated with visitor access, other research activities and management actions are guided by the relevant management arrangement.

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| Property | Heard and McDonald Islands |
| State Party | Australia |
| Id. N° | 577 rev |
| Date of inscription | 1997 |

Brief synthesis

Heard and McDonald Islands are remote sub-Antarctic volcanic islands located in the southern Indian Ocean about half-way between Australia and South Africa, and just over 1,600 kilometres from Antarctica. The property covers a total area of 658,903 hectares of which about 37,000 hectares is terrestrial, and the remainder marine. The islands are a unique wilderness, containing outstanding examples of biological and physical processes continuing in an environment essentially undisturbed by humans.

Heard Island is dominated by Big Ben (an active volcano rising to a height of 2,745 metres), and is largely covered by snow and glaciers. McDonald Island is much smaller, covering only 100 hectares at the time of inscription, and is surrounded by several smaller rocks and islands. The only active sub-Antarctic volcanos are found on these islands, with the volcano on McDonald Island erupting after inscription and doubling the size of the island. The island group's physical processes provide valuable indicators of the role of crustal plates in the formation of ocean basins and continents, of dynamic glacial changes in the coastal and submarine environment, and of atmospheric and oceanic warming. The large populations of marine birds and mammals, combined with a virtual absence of introduced species, provide a unique arena for the maintenance of biological and evolutionary processes.

Criterion (viii): *The islands contain outstanding examples of significant on-going geological processes occurring in an essentially undisturbed environment, particularly physical processes which provide an understanding of the role of crustal plates in the formation of ocean basins and continents, and of atmospheric and oceanic warming. The islands are distinctive among oceanic islands in being founded upon a major submarine plateau which in this case deflects Antarctic circumpolar waters northwards, with striking consequences for geomorphological processes. They also offer an active example of plume volcanism, providing direct geological evidence of the action of the longest operational plume system known in the world. This includes information about plume interaction with overlying crustal plates, as well as insights into mantle plume composition due to the widest range of isotopic compositions of strontium, neodymium, lead and helium known from any oceanic island volcano system. Big Ben on Heard Island is the only known continuously active volcano on a sub-Antarctic island, whereas the volcano on MacDonal Island recently became active again after a 75,000 year period of dormancy, increasing significantly in size since inscription.*

Heard Island's relatively shallow and fast-flowing glaciers respond quickly to climate change, faster than any glaciers elsewhere, making them particularly important in monitoring climate change. They have fluctuated dramatically in recent decades and have retreated significantly.

Criterion (ix): *Heard Island and McDonald Islands are outstanding examples representing significant on-going ecological, biological, and evolutionary processes. As the only sub-Antarctic islands virtually free of introduced species and with negligible modification by humans, they are a classic example of a sub-Antarctic island group with large populations of marine birds and mammals numbering in the millions, but low species diversity. These intact ecosystems provide opportunities for ecological research investigating population dynamics and interactions of plant and animal species, as well as monitoring the health and stability of the larger southern oceans ecosystem. Areas of newly deglaciated land as well as areas isolated from each other by glaciers provide unparalleled opportunities for the study of the dispersal and establishment of plants and animals.*

The islands also furnish crucial, alien-free habitat for large populations of marine birds and mammals, including major breeding populations of seals, petrels, albatrosses and penguins. Endemic species demonstrating ongoing evolutionary processes include the Heard Island cormorant, the endemic subspecies of the Heard Island sheathbill, and a number of endemic invertebrates (some endemic to Heard and McDonald Islands, and some endemic to the Heard and McDonald Islands-Kerguelen region).

Integrity

The islands form a discrete entity of sufficient size to fulfil the conditions of integrity, plus are of very high wilderness quality and are the least disturbed of all sub-Antarctic islands. They are subject to low anthropogenic pressures except for the largely unknown impact of commercial fisheries on the marine ecosystem. However, commercial fishing is not permitted within the property, or in the Marine Reserve within which it is located. Heard Island's remoteness and harsh climate have ensured that human occupation, notably 19th century sealing, and research activity from 1947 to 1955, has been very restricted. The McDonald Islands have only had two brief visits, and there has been no protracted stay ashore on Heard Island since a winter research programme in 1992, the first winter occupation of the island since 1954.

Protection and management requirements

The area is managed as a strict nature reserve (IUCN Category 1a) by the Australian Antarctic Division through the Australian Government's Heard Island and McDonald Islands Marine Reserve Management Plan that covers marine reserves in the same region as well as the World Heritage Area.

The main management requirements are the maintenance of strict visitation and quarantine controls to maintain natural conditions and ecological integrity, and to prevent the introduction of pathogens and non-native species. Human activity in the reserve is expected to continue to slowly increase in line with interest in the region for science, tourism and fisheries. The management goal must be to prevent the introduction of alien species by minimising the risk of introductions occurring. Fisheries in the region require careful management to minimise the potential of adverse impacts on the marine-dependent fauna of the islands.

All World Heritage properties in Australia are 'matters of national environmental significance' protected and managed under national legislation, the Environment Protection and Biodiversity Conservation Act 1999. This Act is the statutory instrument for implementing Australia's obligations under a number of multilateral environmental agreements including the World Heritage Convention. By law, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. Substantial penalties apply for taking such an action without approval. Once a heritage place is listed, the Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

Importantly, this Act also aims to protect matters of national environmental significance, such as World Heritage properties, from impacts even if they originate outside the property or if the values of the property are mobile (as in fauna). It thus forms an additional layer of protection designed to protect values of World Heritage properties from external impacts. In 2007 the Heard and McDonald Islands World Heritage Area was added to the National Heritage List in recognition of its national heritage significance.

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|---------------------|-------------------------|
| Property | Macquarie Island |
| State Party | Australia |
| Id. N° | 629 |
| Date of inscription | 1997 |

Brief synthesis

Macquarie Island lies almost 1,500 kilometres to the southeast of Tasmania, about half-way between Australia and Antarctica. The property includes Macquarie Island, Judge and Clerk Islets 11 kilometres to the north, the Bishop and Clerk Islets 37 kilometres to the south, rocks, reefs and the surrounding waters to a distance of 12 nautical miles. The main island is approximately 34 kilometres long and 5.5 kilometres wide at its broadest point, covering an area of approximately 12,785 hectares. The property covers an area of 557,280 hectares.

Macquarie Island has outstanding universal value for two reasons. First, it provides a unique opportunity to study, in detail, geological features and processes of oceanic crust formation and plate boundary dynamics, as it is only place on earth where rocks from the earth's mantle (6 kilometres below the ocean floor) are being actively exposed above sea level. These unique exposures include excellent examples of pillow basalts and other extrusive rocks. Second, its remote and windswept landscape of steep escarpments, lakes, and dramatic changes in vegetation provides an outstanding spectacle of wild, natural beauty complemented by vast congregations of wildlife including penguins and seals.

Criterion (vii): Macquarie Island provides an outstanding spectacle of wild, natural beauty with huge congregations of penguins and seals populating what has been described as a small speck thrust up into the vast Southern Ocean. The island lies in latitudes known as the 'Furious Fifties' because of the

frequency of very strong winds and stormy seas, which have sculpted the island. A coastal terrace supports vast waterlogged and heavily vegetated areas, forming a mire based on deep peat beds known as 'featherbed'. This is framed by steep escarpments which rise spectacularly to a plateau surface dotted with innumerable lakes, tarns and pools. The continual westerly winds, which increase in force as they rise over the barrier of the island, and changes in topography result in dramatic changes in the vegetation cover which can vary from lush grassland to sparse feldmark within the space of a few metres.

Among the most aesthetically appealing features of the island are the vast congregations of wildlife, particularly penguins, during the breeding season. The breeding population of Royal Penguins (*Eudyptes schlegeli*), a species endemic to Macquarie Island and nearby Bishop and Clerk Islets, is estimated at over 850,000 pairs, one of the greatest congregations of seabirds in the world. The breeding population of King Penguins (*Aptenodytes patagonicus*), estimated at around 150,000–170,000 breeding pairs in 2000, is still expanding. As the King Penguin chicks do not leave the vicinity of the nest for a year, they survive the rigours of winter by huddling together on the windy and snow-swept beaches. Four species of albatross nest on steep and rugged cliffs and are easily viewed when nesting. Elephant Seals (*Mirounga leonina*) also form impressive colonies during the breeding season.

Criterion (viii): Macquarie Island and its outlying islets are geologically unique in being the only place on earth where rocks from the earth's mantle are being actively exposed above sea level. The island is the exposed crest of the undersea Macquarie Ridge, raised to its present position where the Indo-Australian tectonic plate meets the Pacific plate. These unique exposures provide an exceptionally complete section of the structure and composition of both the oceanic crust and the upper mantle, and provide evidence of 'sea-floor spreading' and tectonic processes that have operated for hundreds of millions of years. The geological evolution of Macquarie Island began 10 million years ago and continues today with the island experiencing earthquakes and a rapid rate of uplift, all of which are related to active geological processes along the boundary between the two plates.

Sequences from all crustal levels, down to 6 kilometres below the ocean floor, are exposed as a result of tilting and differential uplift on Macquarie Island. This provides rare evidence for sequences that are common from the bottom of the oceans to the upper mantle, but not seen elsewhere in surface outcrops. The lack of deformation of this exposed crust is highly significant as it exhibits key interrelated and interdependent oceanic crustal elements in their natural relationship.

Macquarie Island is the only ophiolite (a well-developed and studied geological complex) recognised to have been formed within a major ocean basin. The geology of the island is therefore considered to be the connecting link between the ophiolites of continental environments and those located within the oceanic crust.

Integrity

The property is of sufficient size and contains the necessary elements to demonstrate the key aspects of the geological processes of Macquarie Island and the outlying Bishop and Clerk and Judge and Clerk islets. All major elements of the Macquarie deformational zone are included in the property.

Human impacts, commencing on Macquarie Island in 1810, have resulted in major changes to the biota of the reserve. The commercial exploitation of seals and penguins, together with the introduction of alien species, resulted in the extinction of some native species and major declines in others. Resultant modifications to vegetation associations and nutrient cycles severely impacted on some species while benefiting others.

Active management programmes, commenced in the 1960s, are aimed at stopping and/or reversing some of these trends. Some of these programmes have resulted in very rapid changes, including the eradication of feral cats and wekas from the island. However, the recovery of natural ecosystem processes as a result of these management programmes may take centuries. Macquarie Island is remote and well protected and managed.

Protection and management requirements

The property is vulnerable to the consequences of anthropogenic climate change. The other threat to the integrity of the property, which is monitored and managed, is the spread of introduced species and pathogens. A project to eradicate the remaining mammalian pest species (rabbits, black rats and mice) is underway, and is expected to be completed in 2016.

Macquarie Island, the adjacent islets of Judge and Clerk and Bishop and Clerk, and all surrounding waters out to three nautical miles, is managed as a nature reserve by the Tasmanian Parks and Wildlife Service (PWS). Management of the reserve is guided by the Macquarie Island Nature Reserve and World Heritage Area Management Plan 2006. Most of the waters out to 200 nautical miles to the east of the reserve are within the Macquarie Island Commonwealth Marine Reserve, which is managed by the Australian Government in cooperation with the PWS.

Overarching management of the World Heritage values occurs under national legislation, the Environment Protection and Biodiversity Conservation Act 1999 (the Act). All World Heritage properties in Australia are 'matters of national environmental significance' protected and managed under the Act.

This Act is the statutory instrument for implementing Australia's obligations under a number of multilateral environmental agreements, including the World Heritage Convention. By law, any action that has, will have or is likely to have a significant impact on the World Heritage values of a World Heritage property must be referred to the responsible Minister for consideration. Substantial penalties apply for taking such an action without approval. Once a heritage place is listed, the Act provides for the preparation of management plans which set out the significant heritage aspects of the place and how the values of the site will be managed.

Importantly, this Act also aims to protect matters of national environmental significance, such as World Heritage properties, from impacts even if they originate outside the property or if the values of the property are mobile (as in fauna). It thus forms an additional layer of protection designed to protect values of World Heritage properties from external impacts.

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|---------------------|--------------------------------|
| Property | Purnululu National Park |
| State Party | Australia |
| Id. N° | 1094 |
| Date of inscription | 2003 |

Brief synthesis

Purnululu National Park, located in the Kimberley region of Western Australia, covers almost 240,000 hectares of remote area managed as wilderness. It includes the Bungle Bungle Range, a spectacularly incised landscape of sculptured rocks which contains superlative examples of beehive-shaped karst sandstone rising 250 metres above the surrounding semi-arid savannah grasslands. Unique depositional processes and weathering have given these towers their spectacular black and orange banded appearance, formed by biological processes of cyanobacteria (single cell photosynthetic organisms) which serve to stabilise and protect the ancient sandstone formations. These outstanding examples of cone karst that have eroded over a period of 20 million years are of great beauty and exceptional geological interest.

Criterion (vii): *Although Purnululu National Park has not been widely known in Australia until recently and remains relatively inaccessible, it has become recognised internationally for its exceptional natural beauty. The prime scenic attraction is the extraordinary array of banded, beehive-shaped cone towers comprising the Bungle Bungle Range. These have become emblematic of the park and are internationally renowned among Australia's natural attractions. The dramatically sculptured structures, unrivalled in their scale, extent, grandeur and diversity of form anywhere in the world, undergo remarkable daily and seasonal variation in appearance, including striking colour transition following rain and with the positioning of the sun. The intricate maze of towers is accentuated by sinuous, narrow, sheer-sided gorges lined with majestic Livistona fan palms. These and the soaring cliffs up to 250 metres high are cut by seasonal waterfalls and pools, creating the major tourist attractions in the park with evocative names such as Echidna Chasm, Piccaninny and Cathedral Gorges. The diversity of landforms and ecosystems elsewhere in the park are representative of the semi-arid landscape in which Purnululu is located and provide a sympathetic visual buffer for the massif.*

Criterion (viii): *The Bungle Bungles are, by far, the most outstanding example of cone karst in sandstones anywhere in the world and owe their existence and uniqueness to several interacting geological, biological, erosional and climatic phenomena. The sandstone karst of Purnululu National Park is of great scientific importance in demonstrating so clearly the process of cone karst formation on sandstone - a phenomenon recognised by geomorphologists only recently and still not completely understood. The Bungle Bungle Ranges of the Park also display to an exceptional degree evidence of geomorphic processes of dissolution, weathering and erosion in the evolution of landforms under a savannah climatic regime within an ancient, stable sedimentary landscape.*

Integrity

Purnululu National Park includes the full extent of the Bungle Bungle Range, the World Heritage property's predominant feature. The Range is well-buffered by protected land on all sides including spinifex- and mulga-dominated sand plains within the Park to the north, south and east. In the west the dominant feature is that of the Osmond Ranges which lie within the adjoining Purnululu Conservation Park (PCP). These areas were considered sufficient to protect the World Heritage values of the Range with the recommendation that the PCP be incorporated into the Park, and that surrounding pastoral country should also be added to provide better buffering and boundary delimitation. It was noted that the existing park boundaries are not ideal, being mainly water courses rather than watershed boundaries. This could potentially allow incursion of undesirable impacts from neighbouring areas in catchments upstream of the park, such as waste effluent from mining activities.

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Since World Heritage listing, extensive areas of land have been added to reserved lands adjacent to the World Heritage property. This has resulted in the Park being completely surrounded by large areas of conservation land. These reserves include the Western Australian Government's Purnululu Conservation Park and Ord River Regeneration Reserve.

The issue of impacts from outside the reserved area is managed by the Australian Government's Environment Protection and Biodiversity Conservation Act 1999, which addresses any potential impact to the property's World Heritage values. While there were no permanent inhabitants within the property at time of inscription, today there is seasonal occupation by traditional owners in three areas designated as special "Living Area Leases" within the property. Land tenure issues between the Indigenous community (Native Title claims) and the State are in the process of being determined.

Protection and management requirements

Purnululu National Park World Heritage property is public land with secure legal protection and is managed on a day-to-day basis by the Western Australian government. Ranger staff resides within the Park whilst on duty, but the Park is closed during the wet season from December to the beginning of April.

Land-based access to and within the Park can be difficult because of the remoteness of the area and the Park's position at the edge of Australia's monsoonal region. Infrastructure funding has been used to upgrade the Park's walking tracks, airstrip and associated helipad. Aerial tours are managed through set flight paths to control noise and facilitate safety.

Although visitor numbers have steadily risen over time, management measures are sufficient to address potential impacts. Infrastructure funding has increased with the Park's World Heritage listing. However, maintaining adequate staffing of the Park can be difficult in this remote area. In the past grazing by cattle and feral donkeys has been problematic, and at time of inscription wandering stock and other pests were still an issue, requiring cooperation from neighbouring landowners. Invasive alien species such as feral cats and more recently the imminent arrival of cane toads also requires management.

Wildfires, especially now there is greater vegetation cover as the landscape recovers from past over-grazing, are also a major management concern. Measures, including controlled burns in the monsoon season, are in place to manage this threat.

Potential impacts to World Heritage values by mining activities are well-managed through a number of measures. First, mineral exploration and mining are prohibited in the Park by the State Government. Second, while exploration and mining are possible in the neighbouring Purnululu Conservation Park and Ord River Regeneration Reserve, any potential impacts to the World Heritage values are addressed through the Australian Government's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

From July 2000, any proposed activity which may have a significant impact on the property became subject to the provisions of the EPBC Act, which regulates actions that will, or are likely to, have a significant impact on World Heritage values. In 2007, Purnululu was added to the National Heritage List, in recognition of its national heritage significance under the Act.

Since inscription, climate change has emerged as an additional potential threat to the World Heritage values, and Australia has introduced a range of measures at both the national and property-specific level to address potential threats.

Australia has reported regularly to the World Heritage Committee on a number of management issues in Purnululu National Park. These include the addition of reserve land to further buffer the Park, measures to ensure that any mining outside the Park is suitably managed to avoid impacts to World Heritage values, management of alien invasive species and funding for staffing and infrastructure for the Park.

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| Property | Jiuzhaigou Valley Scenic and Historic Interest Area |
| State Party | China |
| Id. N° | 637 |
| Date of inscription | 1992 |

Brief synthesis

The Jiuzhaigou Valley Scenic and Historic Interest Area is a reserve of exceptional natural beauty with spectacular jagged alpine mountains soaring above coniferous forest around a fairyland landscape of crystal clear, strange-coloured blue, green and purplish pools, lakes, waterfalls, limestone terraces, caves and other beautiful features. These include a number of karst formations; indeed the area is a "natural museum" for alpine karst hydrology and research. Covering 72,000 ha in the northern part of Sichuan Province, Jiuzhaigou preserves a series of important forest ecosystems including old-growth forests which provide important habitat for numerous threatened species of plants and animals, including the giant panda and takin. Attaining heights of 4,752 m in the southern Minshan Mountains, Jiuzhaigou also contains an important number of well-preserved quaternary glacial remnants with great scenic value.

Criterion (vii): Jiuzhaigou is renowned for its scenic and aesthetic majesty. Its fairyland landscape of numerous lakes, waterfalls, and limestone terraces, with their attractive, clear, mineral-rich waters, set in the spectacular alpine mountains with a highly diverse forest ecosystem, demonstrates remarkable natural beauty.

Integrity

Jiuzhaigou contains all the elements necessary to demonstrate and protect its natural beauty, and is surrounded by buffer zones. Although the site was partially degraded by previous forestry activities, it is recovering through tree planting and strict management which includes protecting water quality, air quality, and forests. At time of inscription some 800 residents in six villages lived inside the site, with the policy being to seek voluntary agreement to gradually reduce the human population within the reserve.

Protection and management requirements

As a national park and a national nature reserve, Jiuzhaigou is protected by national and provincial laws and regulations, which secure the long-term management and conservation of the Property. In 2004, the Sichuan Provincial Regulation on World Heritage Protection in Sichuan and the Regulation on Implementing Sichuan Provincial Regulation on World Heritage Protection in Aba Autonomous Prefecture became law, which provided a stricter basis for protection of the property.

The Administration Bureau of the Jiuzhaigou World Heritage Site, established in 2006, ensures the site complies with Aba Prefecture's Guidelines of Implementing Sichuan Provincial Regulations on World Heritage Protection. This Administration Bureau contains 21 departments, including a natural protection department, a multi-disciplinary science department, a planning and construction department, and a resident management office. A General Plan for Jiuzhaigou National Park is in place and approved by the national government, which provides a framework for the protection and management of the park, including a detailed monitoring plan for park resources. Water resources, biodiversity, forest pests and diseases, and weather and climate are all monitored under this plan. In addition, the plan provides for protection of biodiversity, traditional culture, and the environment under increased tourism development. As part of the monitoring and protection of Jiuzhaigou, the Science Department is intimately involved in collaborative research with both domestic and international universities and researchers. Important areas of research and monitoring include the evolution of Jiuzhaigou's tufa deposits; air and water quality; archaeology; meadow reforestation and biodiversity; and human-landscape interactions. The results of these research projects form the basis for new management policies. The continuing growth in tourism is a challenge and of concern, and many remedial actions to control the effects of human activities have been undertaken based on the research and monitoring projects.

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| Property | Sichuan Giant Panda Sanctuaries – Wolong, Mt Siguniang and Jiajin Mountains |
| State Party | China |
| Id. N° | 1213 |
| Date of inscription | 2006 |

Brief synthesis

Sichuan Giant Panda Sanctuaries - Wolong, Mt Siguniang and Jiajin Mountains is principally renowned for its importance for the conservation of the giant panda, recognized as a "National Treasure" in China and as a flagship for global conservation efforts. The property is the largest and most significant remaining contiguous area of panda habitat in China and thus the world. It is also the most important source of giant panda for establishing the captive breeding population of the species.

In addition to the giant panda, the property features a great number of endemic and threatened species of plants and animals, including other iconic mammal species such as the red panda, snow leopard and clouded leopard among the 109 species of mammals recorded (more than 20% of all Chinese mammals). The property is an important centre of endemism for some bird taxa with 365 bird species recorded, 300 of which breed locally. However the property is particularly important for flora, being one of the botanically richest sites of any temperate region in the world with some 5,000 – 6,000 species recorded. Many species are relicts, such as the dove tree, and there is significant diversity in groups such as magnolias, bamboos, rhododendrons, and orchids. The property is a major source and gene pool for hundreds of traditional medicinal plants, many now under threat.

Located in China's southeast province of Sichuan in the Qionglai and Jiajin Mountains between the Chengdu Plateau and the Qinghai-Tibetan Plateau, the property includes seven nature reserves and eleven scenic parks in four prefectures or cities. It covers a total area of 924,500 ha surrounded by a buffer zone of 527,100 ha.

Criteria (x): *The Sichuan Giant Panda Sanctuary includes more than 30% of the world's population of giant Panda and constitutes the largest and most significant remaining contiguous area of panda habitat in the world. It is the most important source of giant panda for establishing the captive breeding population of the species. The property is also one of the botanically richest sites of any temperate region in the world or indeed anywhere outside of the tropical rain forests. Underlining the outstanding value is that it protects a wide variety of topography, geology, and plant and animal species. The property has exceptional value for biodiversity conservation and can demonstrate how ecosystem management systems can work across the borders of national and provincial protected areas.*

Integrity

The boundaries of the property have been designed to maximize the protection of giant panda habitat based on panda survey data carried out in 2003-2004, as well as the distribution of existing natural habitat. Fragmentation of habitat makes it essential that large intact areas of panda habitat are adequately protected and also that green corridors are established to enable movement of panda species and to avoid inbreeding. A number of towns, villages, agriculture land, major infrastructures and sites of high impact tourism have been excluded from the property, leaving enclaves.

Integrity issues include the need to enhance integrated monitoring and management capacity across all 18 management units of the property; establish and implement tourism management plans and tourism impact monitoring programmes; review existing infrastructure within the property with a view to better controlling impacts and, where possible, to remove infrastructure and allow habitat restoration with native species; ensure the "Sichuan World Heritage Management Committee" has sufficient powers, resources and authority to ensure it can effectively carry out its role in relation to management of the property; and to closely monitor the impact of the dam at Yaoji, and the associated relocation of people. Reviewing the possibilities for future addition of areas of high nature conservation value to the property, with priority on those areas which are particularly important for panda habitat and which are close to but outside the property (such as the Rongjin Nature Reserve which is as a critical link between the giant panda populations of Quionglashan and Liangshan), is also recommended.

Protection and management requirements

The Property is wholly owned by the government of the People's Republic of China. It is protected under a range of laws and regulations at national and provincial levels, including: Regulations on Wild Plant Protection of the People 's Republic of China (1997); Forest Law of the People 's Republic of China (1998); Environmental Protection Law of the People's Republic of China (2002), Regulations of the People's Republic of China on Nature Reserves (2002); Cultural Heritage Protection Law of the People's Republic of China (2002); Law of the People's Republic of China on Wildlife Protection (2004); Scenic Areas Ordinance of the State Council of the People's Republic of China (2006); Regulations on the Management of Nature Reserves of Sichuan Province (2000); and Regulations on the Management of Scenic and Historic Areas of Sichuan Province (2010). Regulations on the Protection of World Heritage of Sichuan Province was issued in 2002, which is the legal basis for direct management of all the World Heritage properties in the province and is a very important measure for the protection of the property.

A management plan of 2002 aims to ensure that "The biodiversity, ecosystem and habitat of the giant panda will be effectively protected in the World Heritage site and social and economic development of the human population in the area will be harmonized with the natural environment guidelines for the area and for management of different types of use". It provides a sound framework for site management and conservation.

The property has three levels of management: the Sichuan Provincial World Heritage Management Committee, the relevant Prefecture or City World Heritage Management Office, and the local site management agencies. Sichuan World Heritage Management Committee and Sichuan World Heritage Experts Committee have been formed under the Provincial Government to achieve coordination, and to improve authoritative and scientific management effectively.

The property is currently well-protected and in good condition. Following the 2008 Sichuan Earthquake which measured 8.0 on the Richter scale, a restoration and reconstruction plan for the property has been compiled and implemented. Future management priorities include to progressively increase the level of staffing and resources within all reserves within the property; improve the coordination relationship between all reserves within the property; better support scientific research and education; and maximize the tourism benefit and minimize the tourism impact.

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| Property | Keoladeo National Park |
| State Party | India |
| Id. N° | 340 |
| Date of inscription | 1985 |

Brief synthesis

Keoladeo National Park, located in the State of Rajasthan, is an important wintering ground of Palaearctic migratory waterfowl and is renowned for its large congregation of non-migratory resident breeding birds. A green wildlife oasis situated within a populated human-dominated landscape, some 375 bird species and a diverse array of other life forms have been recorded in this mosaic of grasslands, woodlands, woodland swamps and wetlands of just 2,873 ha. This 'Bird Paradise' was developed in a natural depression wetland that was managed as a duck shooting reserve at the end of the 19th century. While hunting has ceased and the area declared a national park in 1982, its continued existence is dependent on a regulated water supply from a reservoir outside the park boundary. The park's well-designed system of dykes and sluices provides areas of varying water depths which are used by various avifaunal species.

Due to its strategic location in the middle of Central Asian migratory flyway and presence of water, large congregations of ducks, geese, coots, pelicans and waders arrive in the winter. The park was the only known wintering site of the central population of the critically endangered Siberian Crane, and also serves as a wintering area for other globally threatened species such as the Greater Spotted Eagle and Imperial Eagle. During the breeding season the most spectacular heronry in the region is formed by 15 species of herons, ibis, cormorants, spoonbills and storks, where in a well-flooded year over 20,000 birds nest.

Criterion (x): The Keoladeo National Park is a wetland of international importance for migratory waterfowl, where birds migrating down the Central Asian flyway congregate before dispersing to other regions. At time of inscription it was the wintering ground for the Critically Endangered Siberian Crane, and is habitat for large numbers of resident nesting birds. Some 375 bird species have been recorded from the property including five Critically Endangered, two Endangered and six vulnerable species. Around 115 species of birds breed in the park which includes 15 water bird species forming one of the most spectacular heronries of the region. The habitat mosaic of the property supports a large number of species in a small area, with 42 species of raptors recorded.

Integrity

This is the only park in India that is completely enclosed by a 2 m high boundary wall that minimises the possibilities of any encroachment and biotic disturbances, but there is no possibility of a buffer zone. As the wetlands of Keoladeo are not natural, they are dependent on the monsoon and on water pumped in from outside, traditionally provided from the "Ajan Bandh" reservoir. The water shortage caused by the erratic rainfall in the region is being addressed by initiating two large water resources projects that will bring water from permanent water sources in the region. There has been some concern expressed over possible air and water pollution effects from the adjacent city of Bharatpur, but these effects are unknown at present.

Through eco-development activities in the surrounding villages, the grazing of cattle within the park has been minimised and the local communities are also engaged in participatory resource conservation, which includes removal of invasive alien species. Keoladeo attracts many visitors who are taken for bird watching in bicycle rickshaws by trained local guides from surrounding villages, which provides additional livelihoods as well as reduces noise pollution.

A recently started conservation programme for the 27 satellite wetlands surrounding this park has further enhanced the protection of the migratory waterfowl arriving in the Central Asian flyway to winter in Western India.

Protection and management requirements

The property has effective legal protection under the provisions of Wildlife (Protection) Act, 1972 and Indian Forest Act, 1927. The site is managed by the Rajasthan Forest Department with the support of local communities and national and international conservation organizations, and a management plan has been developed for the protection and management of the property.

The major threats to the property are the water supply (both quantity and quality); invasive vegetation (*Prosopis*, *Eichhornia*, *Paspalum*); and inappropriate use of the property by neighbouring villages. These issues are being dealt with through the management plan, and two projects have been developed to bring a permanent solution to the water crisis. Invasive alien species have been removed through cooperative arrangements with the surrounding populations. The 2 m high boundary wall that surrounds the park virtually eliminates the threats of poaching or pollution, and there is no encroachment or habitations inside the park. Noise pollution from the adjoining Bharatpur city and National Highway are minimal. Due to stringent legal environmental regulations in India, all proposed developmental activities have to be subjected to a stringent environmental assessment process.

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|---------------------|---------------------------------|
| Property | Sundarbans National Park |
| State Party | India |
| Id. N° | 452 |
| Date of inscription | 1987 |

Brief synthesis

The Sundarbans contain the world's largest mangrove forests and one of the most biologically productive of all natural ecosystems. Located at the mouth of the Ganges and Brahmaputra Rivers between India and Bangladesh, its forest and waterways support a wide range of fauna including a number of species threatened with extinction. The mangrove habitat supports the single largest population of tigers in the world which have adapted to an almost amphibious life, being capable of swimming for long distances and feeding on fish, crab and water monitor lizards. They are also renowned for being "man-eaters", most probably due to their relatively high frequency of encounters with local people.

The islands are also of great economic importance as a storm barrier, shore stabiliser, nutrient and sediment trap, a source of timber and natural resources, and support a wide variety of aquatic, benthic and terrestrial organisms. They are an excellent example of the ecological processes of monsoon rain flooding, delta formation, tidal influence and plant colonisation. Covering 133,010 ha, the area is estimated to comprise about 55% forest land and 45% wetlands in the form of tidal rivers, creeks, canals and vast estuarine mouths of the river. About 66% of the entire mangrove forest area is estimated to occur in Bangladesh, with the remaining 34% in India.

Criterion (ix): *The Sundarbans is the largest area of mangrove forest in the world and the only one that is inhabited by the tiger. The land area in the Sundarbans is constantly being changed, moulded and shaped by the action of the tides, with erosion processes more prominent along estuaries and deposition processes along the banks of inner estuarine waterways influenced by the accelerated discharge of silt from sea water. Its role as a wetland nursery for marine organisms and as a climatic buffer against cyclones is a unique natural process.*

Criterion (x): *The mangrove ecosystem of the Sundarbans is considered to be unique because of its immensely rich mangrove flora and mangrove-associated fauna. Some 78 species of mangroves have been recorded in the area making it the richest mangrove forest in the world. It is also unique as the mangroves are not only dominant as fringing mangroves along the creeks and backwaters, but also grow along the sides of rivers in muddy as well as in flat, sandy areas.*

*The Sundarbans support a wealth of animal species including the single largest population of tiger and a number of other threatened aquatic mammals such as the Irrawaddy and Ganges River dolphins. The site also contains an exceptional number of threatened reptiles including the king cobra and significant populations of the endemic river terrapin which was once believed to be extinct. The property provides nesting grounds for marine turtles including the olive riley, green and hawksbill. Two of the four species of highly primitive horseshoe crab (*Tachypleus gigas* and *Carcinoscorpius rotundicauda*) are found here. The Sajnakhali area, listed as an Important Bird Area, contains a wealth of waterfowl and is of high importance for migratory birds.*

Integrity

The property is situated within a larger UNESCO Biosphere Reserve that was designated in November, 2001. It is well protected and largely undisturbed as it is surrounded by three wildlife sanctuaries which act as a buffer zone, as recommended in the original 1987 evaluation report. However, the salinity of the Indian Sundarbans, largely due to the eastward shift of the mouth of the Ganges, is being influenced by upstream diversion of up to 40% of the dry season flow of the Ganges, the repercussions of which are not clearly understood. Oil spills are a potential threat which cause immense damage, especially to aquatic fauna and seabirds and probably also to the forest itself into which oil could be carried by high tides. An average of 45 people were killed annually by tigers from 1975-1982. This has caused certain conflicts with local people who use the adjacent Tiger Reserve for collection of honey and firewood and for fishing.

Protection and management requirements

The legal protection provided to the property is adequate. The Indian Forest Act, 1927 with its amendments, Forest Conservation Act 1980, Wildlife Protection Act, 1972 and Environment Protection Act 1986 are being effectively implemented, with rules and regulation regarding environmental pollution strictly enforced. The existing laws are sufficiently strict in respect to the protection and conservation of the property.

The property is currently in a good state of conservation with regular maintenance undertaken according to a set maintenance schedule. There is an approved Management Plan of the property.

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With the existing infrastructure, the Forest Department is making its best efforts, although there is a need to maintain and enhance the level of financial and human resources to effectively manage the property. This includes an ecosystem approach that integrates the management of the existing protected areas with other key activities occurring in the property, including fisheries and tourism. There is a need to develop alternate livelihood options for the local population to eliminate the dependence of people on the Sundarbans ecosystem for sustenance. Maintenance of participatory approaches in planning and management of the property is needed to reinforce the support and commitment from local communities and NGOs to the conservation and management of the property. Research and monitoring activities also require adequate resources.

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| Property | Nanda Devi and Valley of Flowers National Parks |
| State Party | India |
| Id. N° | 335 bis |
| Dates of inscription | 1988 - 2005 |

Brief synthesis

The Nanda Devi and Valley of Flowers National Parks are exceptionally beautiful high-altitude West Himalayan landscapes with outstanding biodiversity. One of the most spectacular wilderness areas in the Himalayas, Nanda Devi National Park is dominated by the 7,817 m peak of Nanda Devi, India's second highest mountain which is approached through the Rishi Ganga gorge, one of the deepest in the world. The Valley of Flowers National Park, with its gentler landscape, breath-taking beautiful meadows of alpine flowers and ease of access, complements the rugged, inaccessible, high mountain wilderness of Nanda Devi. Apart from some community-based ecotourism to small portions of these parks, there has been no anthropogenic pressure in this area since 1983. This property therefore acts as a control site for the maintenance of natural processes, and is of high significance for long-term ecological monitoring in the Himalayas.

Both parks contain high diversity and density of flora and fauna of the west Himalayan biogeographic zone, with significant populations of globally threatened species including the snow leopard, Himalayan musk deer and numerous plant species. Covering 71,210 ha, these two parks are surrounded by a large buffer zone of 514,857 ha which encompasses a wide range of elevation and habitats. This entire area, located within the Western Himalayas Endemic Bird Area (EBA), supports significant populations of mountain ungulates and galliformes that are prey to carnivores such as the snow leopard.

Criterion (vii): The Nanda Devi National Park is renowned for its remote mountain wilderness, dominated by India's second highest mountain at 7,817 m and protected on all sides by spectacular topographical features including glaciers, moraines, and alpine meadows. This spectacular landscape is complemented by the Valley of Flowers, an outstandingly beautiful high-altitude Himalayan valley. Its 'gentle' landscape, breath-taking beautiful meadows of alpine flowers and ease of access has been acknowledged by renowned explorers, mountaineers and botanists in literature for over a century and in Hindu mythology for much longer.

Criterion (x): The Nanda Devi National Park, with its wide range of high altitude habitats, holds significant populations of flora and fauna including a number of threatened mammals, notably snow leopard and Himalayan musk deer, as well as a large population of bharal, or blue sheep. Abundance estimates for wild ungulates, galliformes and carnivores within the Nanda Devi National Park are higher than those in similar protected areas in the western Himalayas. The Valley of Flowers is internationally important on account of its diverse alpine flora, representative of the West Himalaya biogeographic zone. The rich diversity of species reflects the valley's location within a transition zone between the Zaskar and Great Himalaya ranges to the north and south, respectively, and between the Eastern and Western Himalaya flora. A number of plant species are globally threatened, several have not been recorded from elsewhere in Uttarakhand and two have not been recorded in Nanda Devi National Park. The diversity of threatened species of medicinal plants is higher than has been recorded in other Indian Himalayan protected areas. The entire Nanda Devi Biosphere Reserve lies within the Western Himalayas Endemic Bird Area (EBA). Seven restricted-range bird species are endemic to this part of the EBA.

Integrity

The Nanda Devi and Valley of Flowers National Parks are naturally well protected due to their remoteness and limited access. Both the parks were unexplored until the 1930s and have not been subjected to anthropogenic pressures since 1983 with the exception of some well regulated community-based ecotourism to small portions of the parks. Therefore, both the parks contain relatively undisturbed natural habitats that now act as control sites for the continuance of natural processes. The integrity of

this property is further enhanced by the fact that both the parks form the core zones of the Nanda Devi Biosphere Reserve and are encircled by a large buffer zone of 514,857 ha. The Kedarnath Wildlife Sanctuary and the Reserved Forest Divisions located west, south and east of the Biosphere Reserve provide additional buffer to this Biosphere Reserve. The local communities residing in the buffer zones of the Nanda Devi Biosphere Reserve actively participate in the conservation programmes of the Forest Department.

Protection and management requirements

The Nanda Devi and Valley of Flowers National Parks are naturally well protected due to their inaccessibility. The State Forest Department undertakes regular monitoring of the limited routes that provide access to these parks. Both parks are subject to very low levels of human use, with only some community-based ecotourism that is regulated and facilitated by the park management. There has been no livestock grazing inside these parks since 1983. Mountaineering and adventure-based activities inside Nanda Devi National Park has been banned since 1983 due to garbage accumulation and environmental degradation by such activities in the past. The status of flora, fauna and their habitats inside Nanda Devi National Park has been monitored through scientific expeditions carried out once in every ten years since 1993. Results of the surveys and time series analysis of remote sensing data indicate substantial improvement in the status of flora, fauna and their habitats inside Nanda Devi National Park. Similarly, studies and annual surveys in Valley of Flowers National Park indicate the maintenance of the status of the flora, fauna and habitats. Both the National Parks and the Reserved Forests in the buffer zone of the Nanda Devi Biosphere Reserve are well protected and managed as per wildlife management and working plans respectively.

The long-term protection of the Nanda Devi and Valley of Flowers National Parks is dependant on the maintenance of the high levels of protection and current low levels of anthropogenic pressures within the parks. Regular monitoring of the status of wildlife and their habitats in these parks is critical and needs to be continued. Tourist or pilgrim management, and development activities such as hydro power projects and infrastructure inside the buffer zone of the Nanda Devi Biosphere Reserve are the existing and potential threats that need to be addressed.

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| Property | Gunung Mulu National Park |
| State Party | Malaysia |
| Id. N° | 1013 |
| Date of inscription | 2000 |

Brief synthesis

Gunung Mulu National Park, situated in the Malaysian State of Sarawak on the island of Borneo, is outstanding both for its high biodiversity and for its karst features. The park is dominated by Gunung Mulu, a 2,376 m-high sandstone pinnacle and the property is the most studied tropical karst area in the world. The geological Melinau Formation contains a remarkable concentration of caves, revealing a geological history of over more than 1.5 million years.

High in endemism, Gunung Mulu National Park provides significant natural habitat for a wide range of plant and animal species, both above and below ground. The 52,865 ha park contains seventeen vegetation zones, exhibiting some 3,500 species of vascular plants. Its palm species are exceptionally rich, with 109 species in twenty genera recorded, making it one of the worlds richest sites for palm species. Providing protection for a substantial area of Borneo’s primary tropical forest and a home for a high diversity of species, including many endemics and threatened species, the large cave passages and chambers provide a major wildlife spectacle in terms of millions of cave swiftlets and bats.

The property is home to one of the world’s finest examples of the collapse process in karstic terrain and provides outstanding scientific opportunities to study theories on the origins of cave faunas. The deeply-incised canyons, wild rivers, rainforest-covered mountains, spectacular limestone pinnacles, cave passages and decorations found within the property produce dramatic landscapes and breathtaking scenery that is without rival.

Criterion (vii): *Gunung Mulu National Park is an area of exceptional natural beauty, with striking primary forest, karst terrain, mountains, waterfalls and the largest caves on earth. Sarawak Chamber, the largest cave chamber in the world, stretches 600 m in length by 415 m wide and 80 m high. With a volume of 12 million cubic meters and an unsupported roof span of 300 m, this chamber dwarfs any other large chamber so far discovered. Deer Cave at 120 to 150 m in diameter is the largest cave passage in the world known at the present time and the Clearwater Cave System holds the world record as the longest cave in Asia at 110 km of mapped and explored passages. As some of the largest caves in the world they contain fine examples of tropical river caves, flood incuts, vadose, and phreatic caves,*

exhibiting fine examples of all types of speleothems (structures formed in a cave by the deposition of minerals from water).

Criterion (viii): The park is an outstanding example of major changes in the earth's history. Three major rock formations are evident; the Mulu Formation of Paleocene and Eocene shale's, and sandstone, rising to 2,376 m at the summit of Gunung Mulu: the 1.5 km thick Melinau Limestone formation of Upper Eocene, Oligocene and Lower Miocene, rising to 1,682 m at Gunung Api; and the Miocene Setap Shale formation outcropping as a gentle line of hills to the west. Major uplift that occurred during the late Pliocene to Pleistocene is well represented in the 295 km of explored caves as a series of major cave levels. The surface and underground geomorphology and hydrology reveal significant information on the tectonic and climatic evolution of Borneo. The sequence of terrestrial alluvial deposits provides an important record of glacial – interglacial cycles with the series of uplifted caves ranging from 28 m to over 300 m above sea level are at least 2 to 3 million years old, indicating uplift rates of about 19 cm per 1,000 years.

Criterion (ix): The property provides significant scientific opportunities to study theories on the origins of cave fauna with over 200 species recorded, including many troglobitic species and it displays outstanding examples of ongoing ecological and biological processes. Seventeen vegetation zones have been identified along with their diverse associated fauna. Some 3,500 species of plants, 1,700 mosses and liverworts and over 4,000 species of fungi have been recorded within the property. There are 20,000 species of invertebrates, 81 species of mammals, 270 species of birds, 55 species of reptiles, 76 species of amphibians and 48 species of fish.

Criterion (x): The property supports one of the richest assemblages of flora to be found in any area of comparable size in the world. It is botanically-rich in species and high in endemism, including one of the richest sites in the world for palm species and contains outstanding natural habitats for in-situ conservation for a large number of species; Deer Cave alone has one of the largest colonies in the world of free tailed bats, *Chaerephon plicata* at over 3 million. This one cave also has the largest number of different species of bats to be found in a single cave. Several million cave swiftlets (*Aerodramus* sp.) have been recorded from one cave system, constituting the largest colony in the world. Many species of fauna are endemic and 41 species are included on the endangered species list.

Integrity

Covering a vast area ranging in altitude from 28 metres to 2,376 metres above sea level and containing steep escarpments and ridges, karst towers, caves, rivers and associated terraces and floodplains, the terrain of the property lends itself to using natural landscape features as boundaries. The boundaries are marked and for the most part follow rivers with short sections of cut boundaries to the south-west, east and north-west. A section of the boundary to the north-west follows the international border with the State of Brunei.

The Government and management agency for the property are in the process of designating two extensions to the property to overcome limits to the current boundaries, as full catchment protection is lacking. Additionally the neighbouring Gunung Buda National Park, covering catchments of high natural significance, will be added to the property, thus strengthening the security and integrity of the property. The Governments of Malaysia and Brunei are also collaborating to establish what will effectively become a buffer zone for the property by using the Labi Forest Reserve in Brunei that adjoins Gunung Mulu National Park. This collaboration builds upon the on-going Heart of Borneo (HOB) Initiative to which the Governments of Malaysia, Brunei and Indonesia are committed.

Research at the park undertaken by both foreign and local researchers has assisted in providing a greater understanding of the property and its resources. Resulting information assists in decision-making and the formulation of management prescriptions. The State Government's continued policy not to allow road access to the park since its establishment in 1974 ensures that uncontrolled access is greatly minimized. This contributes to the continued maintenance and protection of the park's pristine conditions and ecological integrity. The land claims by the local people have been confirmed to be outside the boundary of the property and have hence resolved conflicts and issues in regards to land tenure and use within the boundary of the property. The State Government has also confirmed that it has no plan to implement dam projects that would significantly impact on the values of the property.

Protection and management requirements

Formally gazetted and constituted in 1974, the protection and management of Gunung Mulu National Park is fully backed by the National Parks and Nature Reserves Ordinance of 1998 and its subsidiary legislation, the National Parks and Nature Reserves Regulations of 1999. The Ordinance *inter alia* specifies the type of activities and developments that are allowed inside the boundaries of the national park, the various acts that constitute offences, the penalties applicable, and the process that has to be followed in dealing with such offences. The Regulations specify the prescriptions for carrying out the provisions of the principal Ordinance, for example Part III (C) of the Regulations has a specific section that deals with measures for the protection and management of caves.

Located in the State of Sarawak, Gunung Mulu National Park is under the prime responsibility of the State of Sarawak for management and protection. Management plans have been developed for the property and implementation has been effective.

Management related infrastructure includes a park headquarters, field stations and a system of trails with access restricted to four "show caves". Management interventions ensure that there is limited human interference in the natural system and assist in controlling impacts from increased tourism levels. Currently, over 90% of the park and 95% of caves are closed to visitors. The only exception is access to areas for research purposes. Further, there is also reduced access to some sensitive caves. The use of an Integrated Development and Management Plan ensures very strict controls on physical developments in relation to sites, scope, scale, and aesthetic characteristics (of physical projects), so as to avoid "over development". Development inside the property requires consultation with all relevant stakeholders especially the Special Park Committee which comprises members of local communities and other relevant stakeholders.

Illegal activities remain one of the major challenges in managing the property. Enforcement is carried out in collaboration with other relevant law enforcement agencies such as the Police, Customs, Airport Security, and the Sarawak Biodiversity Centre for protection of park resources. Patrolling of boundaries is incorporated in annual operations plans. Proposed extensions to the property, gazetting of Gunung Buda National Park, and establishment of Labi Forest Reserve on the Brunei side may provide buffers to illegal activities and assist in preventing them from occurring within the property and in the case of additional reserves this will provide wider refuge for wildlife species within the area. Hunting activities within the boundary of the property also remain an ongoing threat. However, this pressure is mainly confined to nomadic Penan communities who have been given permission to hunt non-totally protected species, such as the wild boar, for subsistence consumption only.

Areas of forest surrounding the property have been heavily logged and cut, up to the rivers that demark much of the boundary of the property and this remains an ongoing threat to its integrity and natural values. Extensions to the Park, covering a total area of about 33,000 ha would provide an additional buffer from illegal activities. However, increased erosion and resulting silt loads have potential to significantly alter the aquatic ecology and require monitoring while logging and conversion of forests adjacent to the property to palm oil plantation also require constant and on going attention due to potential impacts.

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| Property | Sagarmatha National Park |
| State Party | Nepal |
| Id. N° | 120 |
| Date of inscription | 1979 |

Brief synthesis

Including the highest point on the Earth's Surface, Mount Sagarmatha (Everest; 8,848 m) and an elevation range of 6,000 m Sagarmatha National Park (SNP) covers an area of 124,400 hectares in the Solu-Khumbu district of Nepal. An exceptional area with dramatic mountains, glaciers, deep valleys and seven peaks other than Mount Sagarmatha over 7,000 m the park is home to several rare species such as the snow leopard and the red panda. A well-known destination for mountain tourism SNP was gazetted in 1976 and with over 2,500 Sherpa people living within the park has combined nature and culture since its inception.

Encompassing the infinitely majestic snow capped peaks of the Great Himalayan Range, the chain of mountains including the world's highest Mt. Sagarmatha (Everest) and extensive Sherpa settlements that embody the openness of SNP to the rest of the world. The carefully preserved natural heritage and the dramatic beauty of the high, geologically young mountains and glaciers were recognized by UNESCO with the inscription of the park as a world heritage site in 1979. The property hosts over 20 villages with over 6000 Sherpas who have inhabited the region for the last four centuries. Continuing their traditional practice of cultural and religion including the restriction of animal hunting and slaughtering, and reverence of all living beings. These practices combined with indigenous natural resource management practices, have been major contributing factors to the successful conservation of the SNP.

The constantly increasing numbers of tourists visiting the property, 3,600 visitors in 1979 to over 25000 in 2010, has immensely boosted the local economy and standard of living with better health, education, and infrastructure facilities. One initiative of SNP has been to implement a buffer zone (BZ) program to enhance protection and management of the property and was motivated by a desire to enhance conservation in combination with improved socio-economic status of the local communities through a revenue plough back system. The SNP area is also the major source of glaciers, providing freshwater-based benefits for the people downstream. In addition to conservation of the values of the property a priority of the park is to monitor the impacts of global warming and climate change on flora, fauna and Sherpa communities.

Criteria (vii): Sagarmatha National Parks' superlative and exceptional natural beauty is embedded in the dramatic mountains, glaciers, deep valleys and majestic peaks including the Worlds' highest, Mount Sagarmatha (Everest) (8,848 m.). The area is home to several rare species such as the snow leopard and the red panda. The area represents a major stage of the Earth's evolutionary history and is one of the most geologically interesting regions in the world with high, geologically young mountains and glaciers creating awe inspiring landscapes and scenery dominated by the high peaks and corresponding deeply-incised valleys. This park contains the world's highest ecologically characteristic flora and fauna, intricately blended with the rich Sherpa culture. The intricate linkages of the Sherpa culture with the ecosystem are a major highlight of the park and they form the basis for the sustainable protection and management of the park for the benefit of the local communities.

Integrity

Encompassing the upper catchment of the Dudh Kosi River system the boundaries of the property ensure the integrity of its values. The property's Northern boundary is defined by the main divide of the Great Himalayan Range, which follows the International boundary between Nepal and the Tibetan Autonomous Region of the People's Republic of China. The other boundaries are demarked by physical divisions encompassing discrete physical entities in the Khumbu region with the southern boundary extending almost as far as Monjo on the Dudh Kosi River.

The property's integrity is enhanced by the designation of a buffer zone that is not part of the inscribed property. The buffer zone to the south of the property was designated in 2002 and serves as a protective layer to the park. The involvement of local communities in the buffer zone management practices is an additional asset for the park sustainability.

The protective designation of the park has been further increased with the establishment of the Makalu Barun National Park (1998) in the eastern region of the property and Gauri Shankar Conservation Area (2010) in the west. These additional sites, combined with the attachment of SNP's northern region with Qomolangma Nature Reserve in the Tibetan Autonomous Region of the People's Republic of China have added further protection to the values of the property .

The primarily Tibetan Buddhist Sherpas who live within the park carry out primarily agricultural or trade based activities and to ensure limited impact on the values and integrity of the property their properties have been excluded from the park by legal definition. An active protection and management program, focusing on the mountain landscape, called Sacred Himalayan Landscape (SHL), covers the regions from Kanchanjonga Conservation Area in the east to Langtang National Park in the west has been implemented by the government. The SHL incorporates both conservation and management practices with a focus on involvement of local communities.

The conservation oriented Sherpa culture is the backbone for the conservation of biodiversity in the Khumbu region. Despite the comparatively small area of the park, the surrounding landscape is adequate to ensure sustainable management of the SNP. The declaration of the high altitude Gokyo Lake as a RAMSAR site in 2007 is additional recognition of the value addition of the area and re-colonization of snow leopards within the property is an indication of habitat suitability for both prey and predator species.

Protection and management requirements

Sagarmatha National Park was established on July 19, 1976 under the National Parks and Wildlife Conservation Act and is managed by the National Park and Wildlife Conservation Office, Department of National Parks and Wildlife Conservation, Ministry of Forests., Government of Nepal. Effective legal protection remains in place under the National Park and Wildlife Protection Act 1973 and the Himalayan National Park Regulations 1978. Most of the park (69%) comprises barren land above 5,000m with 28% being grazing land and nearly 3% forested, this combined with the resident Sherpa population, who are reliant on subsistence agro-pastoralism provides a number of management challenges.

In addition to the staff from the Sagarmatha National Parks Office, a company of soldiers from the Nepalese Army has been deployed for protection and law enforcement purposes. The Government of Nepal provides a regular budget for the management and protection of the property and buffer zone. Furthermore, the Government has been providing 50% of the park's revenue to the local communities through the buffer zone Integrated Conservation and Development Programme (ICDP) and its related activities based on the approved Management Plan.

The Management Plan (2007 – 2012) for the property and the buffer zone has been approved by the Government of Nepal and is managed and implemented by a team of professional staff under the Department of National Parks and Wildlife Conservation. The Government continues to implement the Management Plan, however, additional efforts are needed to minimize the impact of a number of issues prevalent at the property , namely to address tourism management issues affecting the values of the property and the promotion of sustainable use of natural resources within the park and minimizing environmental pollution.

Constant involvement and support of local communities in the field of conservation and management, subsequent to the implementation of buffer zone program, has been a fortifying milestone for the

management of SNP. A Park Advisory Committee, consisting of local leaders, village elders, head lamas and park authority representatives has been instrumental in achieving more cooperation and support for the park. In addition, there are many national and international conservation partners that regularly assist in park and buffer zone management activities and conduct research. Buffer Zone Management Committees, User Committees and User Groups work as additional tools for the sustainable management of the park and buffer zone resources.

Dramatic increases in the number of annual visitors has stimulated the local economy but has also brought an increase in the degradation of the region's fragile ecology and cultural traditions. Construction of illegal trails, resort development, energy demand and supply, assessment of impacts from tourism and tourism carrying capacity are issues that remain important in the management of the property despite recent success working with local communities and stakeholders to halt a number of development projects, including the extension of the Sanboche airport. Proper garbage disposal is one of the principal obstacles faced by the park in spite of the efforts of Sagarmatha Pollution Control Committee, a community based NGO based in Namche Bazar with active involvement in pollution control. The NGO with support from other line agencies and pooled with the coordination of park authorities and relevant stakeholders continue to attempt to address this issue. Likewise, with growing tourism activities, the demand for new hotels and lodges is inevitable and the property remains vulnerable to encroachment and requires enforcement of park management policies to protect endangered habitats and species within the property boundaries. In order to respond to the increasing pressure from tourism and related activities it has become necessary to upgrade the existing park organizational structure.

Degradation of the fragile mountain forest ecosystem due to a constant and increasing demand for firewood also remains an important issue at the property, despite the mitigating impacts of the few operational micro-hydro projects as an alternative to firewood.

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| Property | Chitwan National Park |
| State Party | Nepal |
| Id. N° | 284 |
| Date of inscription | 1984 |

Brief synthesis

Nestled at the foot of the Himalayas, Chitwan has a particularly rich flora and fauna and is home to one of the last populations of single-horned Asiatic rhinoceros and is also one of the last refuges of the Bengal Tiger. Chitwan National Park (CNP), established in 1973, was Nepal's first National Park. Located in the Southern Central Terai of Nepal, it formerly extended over the foothills, the property covers an area of 93,200 hectares, extends over four districts: Chitwan, Nawalparasi, Parsa and Makwanpur.

The park is the last surviving example of the natural ecosystems of the 'Terai' region and covers subtropical lowland, wedged between two east-west river valleys at the base of the Siwalik range of the outer Himalayas. The core area lies between the Narayani (Gandak) and Rapti rivers to the north and the Reu River and Nepal-India international border in the south, over the Sumeswar and Churia hills, and from the Dawney hills west of the Narayani, and borders with Parsa Wildlife Reserve to the east. In 1996, an area of 75,000 hectares consisting of forests and private lands and surrounding the park was declared as a buffer zone. In 2003, Beeshazar and associated lakes within the buffer zone were designated as a wetland of international importance under the Ramsar Convention.

Criteria (vii): The spectacular landscape, covered with lush vegetation and the Himalayas as the backdrop makes the park an area of exceptional natural beauty. The forested hills and changing river landscapes serve to make Chitwan one of the most stunning and attractive parts of Nepal's lowlands. Situated in a river valley basin and characterized by steep cliffs on the south-facing slopes and a mosaic of riverine forest and grasslands along the river banks of the natural landscape makes the property amongst the most visited tourist destination of its kind in the region. The property includes the Narayani (Gandaki) river, the third-largest river in Nepal which originates in the high Himalayas and drains into the Bay of Bengal providing dramatic river views and scenery as well as the river terraces composed of layers of boulders and gravels.

The property includes two famous religious areas: Bikram Baba at Kasara and Balmiki Ashram in Tribeni, pilgrimage places for Hindus from nearby areas and India. This is also the land of the indigenous Tharu community who have inhabited the area for centuries and are well known for their unique cultural practices.

Criteria (ix): Constituting the largest and least disturbed example of sal forest and associated communities, Chitwan National Park is an outstanding example of biological evolution with a unique

assemblage of native flora and fauna from the Siwalik and inner Terai ecosystems. The property includes the fragile Siwalik-hill ecosystem, covering some of the youngest examples of this as well as alluvial flood plains, representing examples of ongoing geological processes. The property is the last major surviving example of the natural ecosystems of the Terai and has witnessed minimal human impacts from the traditional resource dependency of people, particularly the aboriginal Tharu community living in and around the park.

Criteria (x): The combination of alluvial flood plains and riverine forest provides an excellent habitat for the Great One-horned Rhinoceros and the property is home for the second largest population of this species in the world. It is also prime habitat for the Bengal Tiger and supports a viable source population of this endangered species. Exceptionally high in species diversity, the park harbours 31% of mammals, 61% of birds, 34% of amphibians and reptiles, and 65% of fishes recorded in Nepal. Additionally, the park is famous for having one of the highest concentrations of birds in the world (over 350 species) and is recognized as one of the worlds' biodiversity hotspots as designated by Conservation International and falls amongst WWFs' 200 Global Eco-regions.

Integrity

The property adequately incorporates the representative biodiversity of the central Terai-Siwalik ecosystem and in conjunction with the adjacent Parsa Wildlife Reserve constitutes the largest and least disturbed example of sal forest and associated communities of the Terai. The park also protects the catchment of the river system within the park and the major ecosystems included are Siwalik, sub-tropical deciduous forest, riverine and grassland ecosystems. The Park boundary is well defined. The ecological integrity of the park is further enhanced by the adjoining Parsa Wildlife Reserve to its eastern boundary and the designation of a buffer zone around the Park that is not part of the inscribed World Heritage Site but provides additional protection and important habitats.

The World Heritage values of the Park have been enhanced as the population of Greater One-horned Rhinoceros and Bengal Tiger have increased (Rhinoceros - around 300 in the 1980s to 503 in 2011 and Tigers 40 breeding adults in the 1980s to 125 breeding adults in 2010). While no major changes in the natural ecosystem have been observed in the recent years the grasslands and riverine habitats of the park have been encroached by invasive species such as *Mikania macrantha*.

Poaching of endangered one horned rhinoceros for illegal trade of its horn is one pressing threat faced by the park authority, despite the tremendous efforts towards Park Protection. Illegal trade in tiger parts and timber theft are also threats with the potential to impact on the integrity of the property. The traditional dependency of local people on forest resources is well controlled and has not been seen to impact negatively on the property. Human-wildlife conflict remains an important issue and threat that has been addressed through compensation schemes and other activities as part of the implementation of the buffer zone program.

Protection and management requirements

Chitwan National Park has a long history of protection dating back to the early 1800s. It has been designated and legally protected under the National Parks and Wildlife Conservation Act, 1973. The Nepalese Army has been deployed for park protection since 1975. In addition, Chitwan National Park Regulation, 1974 and Buffer Zone Management Regulation, 1996 adequately ensure the protection of natural resources and people's participation in conservation as well as socio-economic benefits to people living in the buffer zone. This makes Chitwan National Park an outstanding example of Government-Community partnership in biodiversity conservation.

The management of the property is of a high standard and the Government of Nepal has demonstrated that it recognizes the value of the park by investing significant resources in its management. Management activities have been guided by the Management Plan, which should undergo regular updating and revision to ensure key management issues are being addressed sufficiently. The first five year Management Plan (1975-1979) for CNP was prepared in 1974 with an updated plan for 2001-2005 expanded to include CNP and its Buffer Zone along with the provision of three management zones. A subsequent plan covering 2006-2011 covers the Park and the Buffer Zone and streamlines the conservation and management of the property. The maintenance of the long-term integrity of the park will be ensured through continuation of the existing protection strategy with need-based enhancement as well as maintaining intact wildlife habitat through science-based management. Effective implementation of the buffer zone program will continue to address the issues regarding human-wildlife conflicts.

The aquatic ecosystem of the park has been threatened by pollution from point and non-point sources including developments in close proximity to Narayani River. This pollution needs to be controlled with the coordinated efforts of all the stakeholders. The need to maintain the delicate balance between conservation and the basic requirements of people living around the park remains a main concern of the management authority. The need to address issues related to regulation of increasing traffic volume at Kasara bridge, construction of a bridge at Reu River and the underground electricity transmission line for the people living in Madi valley are also concerns.

High visitation and the maintenance of adequate facilities remain an ongoing management issue. As one of the most popular tourist sites in Nepal, due to the ease of wildlife viewing and spectacular scenery and the economic benefit of this is significant. Facilities are a model of appropriate park accommodation with efforts continuing to ensure this is maintained. Poaching of wildlife and vegetation remains an important issue and the most significant threat to many of the species and populations harboured within the park. Ongoing efforts to tackle this problem are required despite already significant attempts to enforce regulations and prevent poaching.

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| Property | Te Wahipounamu – South West New Zealand |
| State Party | New Zealand |
| Id. N° | 551 |
| Date of inscription | 1990 |

Brief synthesis

Located in the south-west corner of New Zealand's South Island, Te Wāhipounamu – South West New Zealand covers 10% of New Zealand's landmass (2.6 million hectares) and is spread over a 450km strip extending inland 40 - 90km from the Tasman Sea. The property exhibits many classic examples of the tectonic, climatic, and glacial processes that have shaped the earth. The great Alpine Fault divides the region and marks the contact zone of the Indo-Australian and Pacific continental plates making it one of only three segments of the world's major plate boundaries on land. Collision between the two tectonic plates constructs the main mountain range, known as the Southern Alps/Kā Tiritiri o te Moana, which rise to nearly 4 000m altitude within a mere 30km from the sea.

Overwhelmingly a mountainous wilderness, including significant piedmont surfaces in the north-west glaciation, both historic and modern, is a dominant landscape feature. Spectacular landforms include: the 15 fiords which deeply indent the Fiordland coastline; a sequence of 13 forested marine terraces progressively uplifted more than 1000m along the Waitutu coastline over the past million years; a series of large lake-filled glacial troughs along the south-eastern margin; the Franz Josef and Fox Glaciers which descend into temperate rainforest; and spectacular moraines of ultramafic rock extending to the Tasman coastline.

As the largest and least modified area of New Zealand's natural ecosystems, the flora and fauna has become the world's best intact modern representation of the ancient biota of Gondwana. The distribution of these plants and animals is inextricably linked to the dynamic nature of the physical processes at work in the property. The region contains outstanding examples of plant succession after glaciation, with sequences along altitudinal (sea level to permanent snowline), latitudinal (wet west to the dry east), and chronological gradients (fresh post-glacial surfaces to old Pleistocene moraines).

It is the combination of geological and climatic processes, the resultant landforms, the unique biota displaying evolutionary adaptation over a diverse range of climatic and altitudinal gradients, all in a relatively pristine state, that give Te Wāhipounamu – South West New Zealand its exceptional and outstanding natural characteristics.

Criterion (vii): Te Wāhipounamu - South West New Zealand contains many of the natural features which contribute to New Zealand's international reputation for superlative landscapes: its highest mountains, longest glaciers, tallest forests, wildest rivers and gorges, most rugged coastlines and deepest fiords and lakes, as well as the remnant of an extinct volcano in Solander Island. The temperate rainforests of the property are unmatched in their composition, extent and intactness by any such forests anywhere in the world.

From the vast wilderness of Fiordland in the south to the spectacular upthrust of the Southern Alps in the north, the landscapes are world class for the sheer excellence of their scenic beauty. It is an area of magnificent primeval vistas: snow-capped mountains, glaciers, forests, tussock grasslands, lakes, rivers, wetlands and over 1000km of wilderness coastline. Only traces of human influence are evident and then mainly in peripheral areas.

Criterion (viii): Te Wāhipounamu - South West New Zealand is considered to be the best modern example of the primitive taxa of Gondwanaland seen in modern ecosystems – and as such the property is of global significance. The progressive break-up of the southern super-continent of Gondwanaland is considered one of the most important events in the earth's evolutionary history. New Zealand's separation before the appearance of marsupials and other mammals, and its long isolation since, were key factors enabling the survival of the ancient Gondwanan biota on the islands of New Zealand to a greater degree than elsewhere. The living representatives of this ancient biota include flightless kiwis, carnivorous land snails, 14 species of podocarp and genera of beech.

The South West is also an outstanding example of the impact of the Pleistocene epoch of earth history. Ice-carved landforms created by these "Ice Age" glaciers dominate the mountain lands, and are

especially well-preserved in the harder, plutonic igneous rocks of Fiordland. Glacier-cut fiords, lakes, deep U-shaped valleys, hanging valleys, cirques, and ice-shorn spurs are graphic illustrations of the powerful influence of these glaciers on the landscape. Depositional landforms of Pleistocene glacial origin are also important, especially in Westland, west of the Alpine Fault. Chronological sequences of outwash gravels, and moraine ridges in elegant curves and loops, outline the shapes of both former piedmont glaciers and Holocene "post-glacial" valley glaciers.

Criterion (ix): A continuum of largely unmodified habitats, the property exhibits a high degree of geodiversity and biodiversity. Fresh-water, temperate rainforest and alpine ecosystems are all outstandingly well represented over an extensive array of landforms and across wide climatic and altitudinal gradients. Notable examples of on-going biological processes can be found in the large expanses of temperate rainforest, the plant succession after glacial retreat, soil/plant chronosequences on beach ridges, plant succession on alluvial terraces, vegetation gradients around the margins of glacial lakes and ecotypic differentiation of plants on ultramafic soils. The extensive and little modified freshwater habitats, the impressive diversity of alpine ecosystems, extensive alpine plant endemism, and on-going evolution associated with long-standing geographical isolation of animal populations, like the kiwi taxa of South-Westland, are further examples of on-going biological evolution.

While there is little permanent physical evidence of past human interaction with the natural environment, tangata whenua (the indigenous people who have customary authority in a place) have long associations with the area which was significant to them for natural resources, particularly pounamu (nephrite). European associations are more recent and initially based on natural resource exploitation. The predominant human uses today are associated with sustainable tourism.

Criterion (x): The habitats of Te Wāhipounamu contain an extensive range of New Zealand's unusual endemic fauna, a fauna which reflects its long evolutionary isolation and absence of mammalian predators. The property contains the entire wild population of the rare and endangered takahē (*Notornis mantelli*), the entire population of the South Island subspecies of brown kiwi (*Apteryx australis*), New Zealand's rarest Kiwi, the rowi (*Apteryx rowi*), the only significant remaining populations of the seriously declining mohua / yellowhead (*Mohoua ochrocephala*), the only large populations remaining of kākā and kākāriki / yellow-crowned parakeet, the only remaining population of pateke / Fiordland brown teal in the South Island.

The world's rarest and heaviest parrot, kākāpō (*Strigops habroptilus*) survived in Fiordland until the early 1980s. It is now thought to be extinct on the mainland and its survival depends on careful management of a limited number of offshore island populations.

Integrity

Te Wāhipounamu encompasses many complete 'mountains-to-the-sea' or 'mountains-to-inland basins' landscape sequences. These landscapes cover the full range of erosion and deposition landforms of Pleistocene and modern glacial origin. The 2.6 million hectare property represents the 10 percent of New Zealand that is least disturbed or modified by human settlement, and is largely in its natural state giving it a high degree of integrity. The property boundaries encompass all the values of the property which comprises a nearly contiguous network of reserved land covering much of the south-west of the South Island. The boundaries are closely and realistically aligned with the main features of the area. The property includes four national parks (Fiordland, Mount Aspiring, Mount Cook and Westland) covering 1,725,437 ha, two nature reserves, three scientific reserves, 13 scenic reserves, four wildlife management reserves, five ecological areas, conservation areas and one private reserve (20 ha). Bordered by other protected public conservation land the property has an effective buffer zone providing further protection for the natural values.

The property contains nearly 2 million hectares of temperate rainforest on an extraordinary range of landforms and soils-including altitudinal, latitudinal, west-to east rainfall gradients, and age sequences associated with glacial retreat, prograding coastlines and marine terraces uplifted progressively over the last million years. In particular, the rainforest contains the best examples in the Southern Hemisphere of one of the most ancient groups of gymnosperms, the Podocarpaceae, which range from the densely-packed 50m-high rimus of the South Westland terraces to the world's smallest conifer, the prostrate pygmy pine.

The relatively recent introductions of alien browsing mammals and predators, such as rodents and mustelids, have resulted in localised extinctions, range reductions, and significant declines in abundance of some indigenous biota. These threats will remain, but with ongoing intervention can be managed and should not impact significantly on the integrity of the area. There is some evidence of the effects of global warming on the permanent icefields and glaciers in the region.

The international profile of the area as a visitor destination places pressure on some of the main tourist attractions within the wider site. These pressures are being managed to provide visitor access but only where the conservation values at these sites are protected.

Protection and management requirements

A comprehensive array of statutes and regulations protect the property, the most important being the National Parks Act 1980 and the Conservation Act 1987. These two pieces of legislation along with the Reserves Act 1977 are the principal means of ensuring legal protection for the property. The land encompassed by the boundaries of the property, with one small exception, is Crown (Government and the people of New Zealand) owned and it is administered by the Department of Conservation. The property is a reformulation of two previous property inscribed on the World Heritage List in 1986; Fiordland National Park and Westlands / Mt Cook National Park. This property adds 1.2 million ha of the intervening land, almost doubling the size of the area inscribed in 1986 and including almost 70% of the area under national park status, and greatly adding to the overall universal value, wilderness quality and integrity of the property.

The Department of Conservation has a legislative mandate for the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations.

The Department of Conservation is obligated through its legislation to give effect to the principles of the Treaty of Waitangi. In practice this implies a partnership agreement with tangata whenua that have manawhenua (prestige, authority over the land) over the area. This involves an annual business planning process with the Ngäi Tahu iwi (the overarching tribal authority for tangata whenua). This process gives Ngäi Tahu the opportunity to engage in and contribute to the operational management of the property.

The particularly high natural values of the property, along with the World Heritage status, mean that this area is a priority area for ongoing management. The Area covers four separate Conservancies, although they all report to one Manager. The Department's organisational structure therefore also provides for integrated management of the area.

There is no single management strategy for the area, although under the National Parks Act, each national park is required to have a national park management plan and there are also a number of conservancy conservation strategies that acknowledge the values of the regions comprising the large site, as well as the property's World Heritage status. Together these planning documents set strategic directions for the integrated management of this property. These are statutory documents formulated through a public consultation process. The national park management plans are prepared by the Department of Conservation (the administering authority for all national parks in NZ) and approved by the New Zealand Conservation Authority, in accordance with the General Policy for National Parks (a policy document that guides the implementation of the National Parks Act, also prepared and administered by the Department of Conservation).

The principal uses of the property are nature conservation, nature based recreation and tourism and sustainable small-scale natural resource utilisation. Impacts from tourism at key sites and introduced species are being addressed by management actions and continue to be a concern. Traditional use of vegetation by native Maori people, fishing for whitebait, recreational hunting and short-term pastoral leases are closely regulated and do not result in significant impacts.

Invasive species are the biggest impact on the property, despite their impacts being restricted to small areas of the property. Population increases of red deer as well as impacts from other browsing mammals such as wapiti, fallow deer, goat, chamois and tahr have caused severe damage in some parts of the property, in particular threatening the integrity of the forest and alpine ecosystems. Commercial hunting activities have assisted in reducing numbers and impacts from these species. Australian brush-tailed possum, rabbits, mustelids and rodents also impact habitats and indigenous birds. The Department of Conservation has control programmes in place and National Parks general policy seeks to eradicate new incursions and eradicate (where possible) or reduce the range of existing invasive species.

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|---------------------|--|
| Property | New Zealand Sub-Antarctic Islands |
| State Party | New Zealand |
| Id. N° | 877 |
| Date of inscription | 1998 |

Brief synthesis

The New Zealand Sub-antarctic Islands (NZSAI) encompasses five island groups that lie between latitudes 47° and 53° south; Snares Islands/Tini Heke, Bounty Islands, Antipodes Islands, Auckland Islands/Motu Maha and Campbell Island/Motu Ihupuku and the islands surrounding it. The World Heritage status also applies to the marine environment out to 12 nautical miles from each group. Including a total land area of 76,458ha, the marine area takes in 1,400,000 ha and constitutes one of New Zealand's remotest protected natural areas, including some of the world's least-modified islands.

The property lies between the Antarctic and Subtropical Convergences and the seas have a high level of productivity, biodiversity, wildlife population densities and endemism. While the NZSAI's are all located on the Pacific Tectonic Plate, the different geological history and age of each island group, and their geographical isolation from mainland New Zealand and from each other, has shaped the unique and remarkable biodiversity of the islands including distinctive plants, birds, invertebrates, marine mammals, fish and marine algae assemblages. The biota contains numerous endemic and/or rare elements, and some extraordinary examples of adaptation.

Particularly notable is the abundance and diversity of pelagic seabirds and penguins that utilise the islands for breeding. The property supports the most diverse community of breeding seabirds in the Southern Ocean. There are 126 species of birds, including 40 seabirds, eight of which breed nowhere else in the world. The islands support major populations of 10 of the world's 22 species of albatross and almost 2 million sooty shearwaters nest on Snares Island alone. Land birds also display a surprising diversity, considering the limited land area available, with a large number of threatened endemics including one of the world's rarest ducks. More than 95% of the world's population of New Zealand sea lion (formerly known as Hooker's sea lion) breed here and the marine environment provides critical breeding areas for the southern right whale.

The plant life of the NZSAI is notable for its diversity, special forms and unique communities, yet another outstanding example of the biological and ecological processes significant in the property. The Snares Islands and two islands in the Auckland group (Adams and Disappointment), are among the last substantial areas in the world harbouring vegetation essentially unmodified by humans or alien species. Another notable feature about the NZSAI is the land-sea interface and the close inter-dependence of both environments for many of the species – the inclusion of the marine environment out to 12 nautical miles in the world heritage property recognises this.

Criterion (ix): Isolation, climatic factors, and seven degrees of latitudinal spread have combined to significantly influence the biota of the islands. Consequently they provide scientific insights into the evolutionary processes affecting widely-spread oceanic islands, varying from relatively mature endemic forms to relatively immature taxa, constituting a fascinating laboratory for the study of genetic variation, speciation and adaptation, particularly in the insular antarctic biogeographic province.

Evolutionary processes, such as the loss of flight in birds and invertebrates, offer unique opportunities for research into island dynamics and ecology. Another outstanding feature is the preponderance of 'megaherbs' within the plant biodiversity. These large herbs, often with brightly coloured flowers are considered to display unique evolutionary adaptation to the distinctive sub-antarctic climate – with its cloud cover (and lack of solar radiation), lack of frosts, strong winds, and high nutrient levels (derived from seabird transference of nutrients).

Criterion (x): The NZSAI, and the ocean that surrounds and links them, support an extraordinary and outstanding array of endemic and threatened species among the marine fauna, land birds, and invertebrates. As a group they are distinct from all other island groups, having the highest diversity of indigenous plants and birds. Of particular significance: the most diverse community of seabirds in the world with eight species endemic to the region; including four species of albatross, three species of cormorants (one of which, the Bounty Island Shag, is the world's rarest cormorant) and one species of penguin; 15 endemic land birds including snipe, parakeets and teal; breeding sites of the world's rarest sea lion (the New Zealand (or Hooker's) sea lion); and a significant breeding population of the southern right whale.

Together with neighbouring Macquarie Island, the NZSAI represent a Centre of Plant Diversity and have the richest flora of all the sub-antarctic islands with 35 endemic taxa. The "megaherbs" are unique to the NZSAI and Macquarie Island. The Snares Group and two of the Auckland Islands are of particular biodiversity conservation significance due to the absence of any human and exotic species modification.

Integrity

The NZSAI have benefited from their remoteness providing them with a high degree of natural protection. With their geographical isolation from mainland New Zealand and from each other, the NZSAI include some of the world's most unmodified islands. In particular; the Snares and two islands in the Auckland group (Adams and Disappointment), are among the last substantial areas in the world harbouring vegetation essentially unmodified by human impacts. Many of the islands remain in virtually pristine condition, being rat and cat free and rarely visited by humans. The Antipodes group have undergone minimal modification from a pristine state despite sealers once being active there. The boundaries of the property include all land area of these island groups and are sufficient to protect the core natural values of the property. The geological and biological integrity of the terrestrial component of the NZSAI is considered high with conservation actions underway to reduce the impact of exotic species.

One of the island groups (Auckland Islands) is surrounded by an overlapping no-take marine reserve and marine mammal sanctuary out to 12 nautical miles. In 2008, a stakeholder forum was convened to consider additional marine protection measures in the Sub-Antarctic region. As a result of that process,

three new marine reserves have been approved and are awaiting implementation. These reserves will protect 100% of the territorial sea surrounding Antipodes Island, approximately 58% of the territorial sea around the Bounty Islands and approximately 39% of the territorial sea around Campbell Island. In addition, restrictions on fishing methods will be in place in the remaining territorial sea areas around these island groups. These protection measures significantly enhance the integrity of the islands' marine environments, and complement the protection afforded to the islands themselves. Bycatch of pinnipeds and seabirds remain important issues in the Subantarctic marine environment, and the fishing industry, New Zealand Government and environmental groups continue to work together to address these issues.

Protection and management requirements

Managed by the Department of Conservation on behalf of the Government and the people of New Zealand the comprehensive application of legal, administrative and management systems in place ensure the areas of the NZSAI that are above mean high water have the highest level of protection under New Zealand legislation, being classified as Nature Reserves under the Reserves Act 1977. In addition, the five island groups have each been identified as National Reserves, which acknowledges "values of national or international significance" (section 13 Reserves Act 1977). The islands are also covered under the Wildlife Act 1953; the Wild Animal Control Act 1977; the Resource Management Act 1991; the Marine and Coastal Area (Takutai Moana) Act 2011; the Marine Mammals Protection Act 1978; and the Fisheries Act 1996. The existing no-take marine reserve and marine mammal sanctuary around the Auckland Islands are managed by the Department of Conservation. Proposed marine reserves around Antipodes, Bounty and Campbell Islands will also be managed by the Department of Conservation.

Under section 4 of the Conservation Act 1987 the Department is required to give effect to the principles of the Treaty of Waitangi. In practice this implies a partnership agreement with *tāngata whenua* (*Iwi* or *hapū* that has customary authority in a place) that have *manawhenua* (prestige, authority) over the area. As a part of the Crown's settlement with Ngāi Tahu, protocols have been developed on how the Department and Ngāi Tahu will work together on specified matters of cultural significance to Ngāi Tahu. Ngāi ai Tahu ki Murihiku are *kaitiaki* (guardians) of the Southland region, including the Sub-antarctic Islands. They have prepared a management plan: *Te Tangi a Taurira—the Cry of the People*, which consolidates Ngāi Tahu ki Murihiku values, knowledge and perspectives on natural resource and environmental management issues.

The range of legislation relating to the NZSAI is aimed at the protection and conservation of the species and ecosystems within the property. The Resource Management Act 1991 requires a Regional Coastal Plan to be developed, with the aim of promoting the sustainable management of natural and physical resources of the islands (jurisdiction is mean high water springs to outer limits of the territorial sea). A Regional Coastal Plan for the Sub-antarctic and Kermadec Islands (Coastal Plan) was notified on 15 January 2011. While yet to be operative, the rules took immediate legal effect on the date of notification. The key issues the plan seeks to address are to minimise the risk of oil spills and biosecurity breaches. The NZSAI are managed in accordance with a Conservation Management Strategy (CMS), which is a statutory document prepared under the Conservation Act 1987 that aims for integrated management of the natural and historic resources of the islands and specifies what activities are considered appropriate. The integrity of the marine area and the conservation of the marine resources is a key management issue for the property. Work to further assess the risk to protected wildlife from fisheries impacts is in progress. Studies have revealed the status and significance of the (formerly endangered) southern right whale population in the waters surrounding the Campbell and Auckland islands. The New Zealand subantarctic waters are also on the migratory path of several additional whale species, including minke, sei, fin, blue and humpback whales, highlighting the importance of the marine environment and adding further weight to the natural values of the property.

The impacts of alien mammal species, currently restricted to pigs, cats and mice on Auckland Island and mice on Antipodes Island, along with a range of alien plant and invertebrate species have in most cases been addressed through the management plans. Previous eradication programmes have removed cattle, sheep, goats, rabbits, rats and mice from several of the islands. New Zealand authorities plan to eventually remove all alien mammal species from the islands and once achieved this will provide a model for oceanic islands elsewhere.

Increased tourism demand has resulted in a significant increase in tourist numbers and activity within the property and the challenge is to manage this increased demand while protecting the experience tourists are seeking and most importantly ensuring the longer term protection of the islands and the immediate marine environment. The CMS and Coastal Plan work together to address these issues and recommend approaches to limit the impact of tourism activities while also enabling the benefits of access to the property.

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| Property | Puerto-Princesa Subterranean River National Park |
| State Party | Philippines |
| Id. N° | 652 rev |
| Date of inscription | 1999 |

Brief synthesis

Puerto-Princesa Subterranean River National Park encompasses one of the world's most impressive cave systems, featuring spectacular limestone karst landscapes, pristine natural beauty, and intact old-growth forests and distinctive wildlife. It is located in the south-western part of the Philippine Archipelago on the mid western coast of Palawan, approximately 76 km northwest of Puerto Princesa and 360 km southwest of Manila.

The property, comprising an area of approximately 5,753ha, contains an 8.2km long underground river. The highlight of this subterranean river system is that it flows directly into the sea, with its brackish lower half subjected to tidal influence, distinguishing it as a significant natural global phenomenon. The river's cavern presents remarkable, eye catching rock formations. The property contains a full mountain-to-sea ecosystem which provides significant habitat for biodiversity conservation and protects the most intact and noteworthy forests within the Palawan biogeographic province. Holding the distinction of being the first national park devolved and successfully managed by a local government unit, the park's effective management system is a symbol of commitment by the Filipino people to the protection and conservation of their natural heritage.

Criterion (vii): *The Puerto-Princesa Subterranean River National Park features a spectacular limestone or karst landscape. It contains an underground river that flows directly to the sea. The lower half of the river is brackish and subject to ocean tide. The associated tidal influence on the river makes this a significant natural phenomenon. The river's cavern exhibits dramatic speleothems and several large chambers of as much as 120m wide and 60m high. Its accessibility and navigability up to 4.5km inland allows it to be experienced by the general public, who can view the magnificent rock formations on a river cruise unequalled by any other similar experience elsewhere in the world.*

Criterion (x): *The property contains globally significant habitat for biodiversity conservation. It includes a full mountain-to-sea ecosystem, protecting the most significant forest area within the Palawan Biogeographic Province. There are eight intact forest formations: forest on ultramafic soil, forest on limestone soil, montane forest, freshwater swamp forest, lowland evergreen tropical rainforest, riverine forest, beach forest, and mangrove forest, included in the property. It contains outstanding biodiversity with the Palawan Moist Forest recognized by the WWF's Global Report as containing the richest tree flora, with high levels of regional and local endemism and as being the largest and most valuable limestone forest in Asia.*

Integrity

The property, including the karst mountain landscapes and the underground river, is in excellent condition. Integrity of the property is also expressed in the complete "mountain-to-the-sea" ecosystem that protects one of the most significant forests in Asia. The uniqueness of the mangrove forests in the Bay along with the flora and fauna they harbour, and the bioecological connection with the caves and surrounding forest is protected within the core area of the property ensuring the local key inter-related and inter-dependant elements of their natural relationships are protected.

The Puerto-Princesa Subterranean River National Park, comprising 5753ha and covering three barangays, encompasses the natural values of the property and is of adequate size to protect all the various landforms and the estuarine ecosystem that conveys the Outstanding Universal Value of the property. The boundaries of the property cover the entire watershed of the underground river, thus protecting water quality and quantity and ensuring the long-term viability of the outstanding natural values contained within the property. The biodiversity values of the property are highlighted in Barangay Marufinas which is included in the property along with the adjacent barangays which also contain significant biodiversity values and habitats important to their integrity. Management guidelines are needed to address threats to the property including pollutants impacting on water quality in the underground river. Threats to the property are mainly from adverse activities in adjacent catchment areas, primarily forest clearing and agricultural activities. Tourism activities require careful planning and management to ensure the natural values are not impacted.

Protection and management requirements

Effective site protection is provided at a local rather than a national level through agreements that place legal ownership with the City Government of Puerto Princesa. This arrangement for local ownership ensures the property's national values are maintained even after changes in local management perspectives. The property is also covered by the National Integrated Protected Area System (NIPAS)

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Act of 1992 which ensures legal protection and conservation of protected areas in the Philippines. It decrees that all management decisions for the property are made in consultation with the Protected Areas Management Board (PAMB). Multilateral agreement provisions between national government agencies and local stakeholders have been considered throughout the planning and management of the site to ensure protection and conservation of its natural values.

Management of the park is conducted within the boundary as two zones: a core comprising the Park and a surrounding buffer. The Management Plan for the park sets out relevant objectives and programs and provides zoning within the park's boundaries wherein different management regimes apply. Management of the property is very effective, reflecting strong local political support and enabling the provision of reasonable funding and staffing. Its key directive is to conserve the underground river and the forest ecosystem in their most natural state possible.

Management of the buffer is covered by guidelines that seek to regulate activities that may impact on the property. They also provide for the establishment of sustainable protective measures for agricultural lands within the buffer. Thus, not only conserving the natural resources of the area, but also improving the quality of life of its residents. However, more resources are required for the full implementation of the management plan and guidelines.

Tourism, identified as a potential threat, adversely impacting the natural values of the property, is being addressed through tourism management objectives set out in the Management Plan. But as tourist visits are increasing, more staff training in park planning and management is required to ensure effective management of tourism activities. The property's tourism program aims to enhance visitor's experience with nature while protecting the natural values. The threats posed by uncontrolled access from outside developments are being addressed through the implementation of a limit of 600 visitors per day. Wildlife population surveys are conducted annually to monitor the effects of tourism on wildlife.

Threats from activities such as forest clearing and agriculture also need to be addressed in the Management Plan. Water quality in the underground river, invariably affected by upstream activities in the catchment area, as well as concerns about pollution inputs to the river, need to be addressed in the management guidelines. Regular awareness campaigns at the level of the barangays are needed to ensure natural values of the property are conserved within their jurisdictions and the establishment of an integrated land use plan is required to ensure long term conservation of the natural values of the property.

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|---------------------|------------------------|
| Property | East Rennell |
| State Party | Solomon Islands |
| Id. N° | 854 |
| Date of inscription | 1998 |

Brief synthesis

East Rennell is part of Rennell Island, the southernmost island of the Western Pacific, Solomon Islands Group. Rennell Island is the largest raised coral atoll in the world, covering an area of 87,500ha at 86km long and 15km wide and is located 250km due south of the Solomon's capital, Honiara. The World Heritage property occupies the southern third of the island and includes approximately 37,000ha and a marine area that extends 3km offshore. A prominent feature of the property is Lake Tegano, the former lagoon of the atoll, which at 15,000ha is the largest lake in the insular Pacific. Containing many rugged limestone islets the lake's brackish waters harbour numerous endemic species including an endemic sea snake. The surrounding karst terrain has a dense cover of indigenous forest. Remaining in its natural state, the forest has a rich biodiversity with many endemic species; four species and nine subspecies of land and water birds respectively, one bat and seven land snails.

The property was the first natural property inscribed on the World Heritage List with customary ownership and management. Approximately 1,200 people of Polynesian origin occupy four villages within the boundaries of the property, living mainly by subsistence gardening, hunting and fishing. Frequent cyclones can have severe consequences for the local people and the biota, and rising lake water levels from climatic change are adversely affecting some staple food crops.

Criterion (ix): East Rennell demonstrates significant on-going ecological and biological processes and is an important site for the science of island biogeography. The property is an important stepping stone in the migration and evolution of species in the western Pacific and for speciation processes, especially with respect to avifauna. Combined with the strong climatic effects of frequent cyclones, the property is a true natural laboratory for scientific study. The unmodified forest vegetation contains floral elements from the more impoverished Pacific Islands to the east and the much richer Melanesian flora to the west. For its size, Rennell Island has a high number of endemic species, particularly among its avifauna and also harbours 10 endemic plant species.

The wildlife includes 11 species of bat (one endemic) and 43 species of breeding land and water birds (four species and nine subspecies endemic respectively). The invertebrate life is also rich with 27 species of land snail (seven endemics) and approximately 730 insect species, many of which are endemic. The flora of Lake Tegano is dominated by more than 300 species of diatoms and algae, some of which are endemic. There is also an endemic sea snake in the lake.

Integrity

East Rennell encompasses a number of marine, coastal and forest values, combined in one place and in a relatively undisturbed state. The clearly defined boundaries of the property encompass Lake Tegano as well as a continuous expanse of surrounding forest-covered karst terrain. The property also includes a marine area extending 3km offshore. Apart from subsistence garden cultivation, hunting, fishing and utilisation of forest products for building materials, the natural vegetation is little-modified by human impact and there are no serious invasive species of animals or plants. Both rats and alien land snails, which have decimated fauna of other islands, are absent.

The location of the western boundary, determined by community and administrative borders, is not optimal as it excludes important forest habitat for some species, particularly birds. Previously reported threats from mining and commercial fishing have passed. However, potential logging operations in the lands adjacent to the property, in West Rennell, could have severe adverse impacts on the forests within the property. These forests are intrinsically linked to those of West Rennell and are insufficient on their own to ensure the long-term survival of a number of endemic birds.

Increasing water levels and salinity in Lake Tegano, induced by sea level rise due to climate change, are adversely affecting plant growth in low-lying areas. Of particular concern is the reduced harvest of taro and coconut, both of which are vital staple foods for the local community. Of particular importance and significance is the support for conservation from the local community.

Protection and management requirements

All land, islands and marine reefs within the property are under customary ownership, which is acknowledged in the Constitution of the Solomon Islands and the 1995 Customs Recognition Act. East Rennell is also protected under a National Protected Areas Act, passed in 2010 and administered by a recently established Ministry of the Environment. The legislation is focused on biodiversity conservation and explicitly applies to World Heritage properties, but it requires a Provincial Ordinance and local regulations and by-laws to empower the traditional owners and make it fully effective at the local level. The property has a management plan as well as an action plan for implementation. The management plan requires more specific policies to address vulnerabilities and threats including mining, logging, over-exploitation of coconut crabs and marine resources and invasive species and has no timeline or budget. Customary values and traditional management practices are not detailed in the plan, though a recent scoping study has begun the task of addressing this gap.

The recently created Lake Tegano World Heritage Site Association, comprising some 250 community members, has established a representative committee to co-ordinate management activities. The committee, recognised by the Government, requires funding, office and communication facilities and a presence or counterpart focal point in either the provincial or national Governments to ensure it is effective.

Heritage management and capacity-building projects, conducted by foreign donor Governments and international NGO's, have provided beneficial outcomes including: enhanced awareness and understanding of World Heritage obligations on the part of the community, Government officials and other stakeholders; better co-ordination and co-operation in community management activities; improved survey and monitoring of natural resources; a strengthened legal basis for protection and management; and initial arrangements for twinning East Rennell with an Australian property.

The ability of the traditional owners to adequately protect and manage the natural values and resources of the property is limited by a lack of funding, capacity and resources. In particular, they require funding and substantial rural development aid in the form of improved communication and transport facilities, health and medical services, education resources and income-generating small business enterprises based on sustainable uses of the natural resources. The isolation of the property and the consequent restricted access, requiring long- distance travel on infrequent and unreliable air services and extremely difficult overland travel assist in protection of the property but have also impacted on attempts to develop eco-tourism. Restricted transport links also hinder the ability of the community to obtain food and medical supplies, and to access markets for locally produced products.

Future priorities for management of the property include: full implementation of legal and planning provisions; community capacity-building and empowerment for managing projects and natural resources; and increased sources of sustainable funding, including income generation, to improve the standard of living of the traditional owners and enhance their ability to protect the property to World Heritage standards.

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| Property | Ha Long Bay |
| State Party | Viet Nam |
| Id. N° | 672 bis |
| Dates of inscription | 1994 - 2000 |

Brief synthesis

Ha Long Bay, located in the Gulf of Tonkin, within Quang Ninh Province, in the northeast of Vietnam, is 165 km from the capitol of Ha Noi. Covering an area of 43,400 ha and including over 1600 islands and islets, most of which are uninhabited and unaffected by humans, it forms a spectacular seascape of limestone pillars and is an ideal model of a mature Karst landscape developed during a warm and wet tropical climate. The property's exceptional scenic beauty is complemented by its great biological interest.

The outstanding value of the property is centered around the drowned limestone karst landforms, displaying spectacular pillars with a variety of coastal erosional features such as arches and caves which form a majestic natural scenery. The repeated regression and transgression of the sea on the limestone karst over geological time has produced a mature landscape of clusters of conical peaks and isolated towers which were modified by sea invasion, adding an extra element to the process of lateral undercutting of the limestone towers and islands.

Criterion (vii): *Comprised of a multitude of limestone islands and islets rising from the sea, in a variety of sizes and shapes and presenting picturesque, unspoiled nature, Ha Long Bay is a spectacular seascape sculpted by nature. The property retains a high level of naturalness, and despite its long history of human use, is not seriously degraded. Outstanding features of the property include the magnificent towering limestone pillars and associated notches, arches and caves, which are exceptionally well-developed and among the best presented of their type in the world.*

Criterion (viii): *As the most extensive and best known example of marine-invaded tower karst in the world Ha Long Bay is one of the world's most important areas of Fengcong (clusters of conical peaks) and Fenglin (isolated tower features) karst. Abundant lakes, occupying drowned dolines, are one of the distinctive features of the Fengcong karst, with some appearing to be tidal. Possessing a tremendous diversity of caves and other landforms derived from the unusual geomorphological process of marine invaded tower karst the caves are of three main types: remnants of phreatic caves; old karstic foot caves and marine notch caves. The property also displays the full range of karst formation processes on a very large scale and over a very long period of geological time, possessing the most complete and extensive example of its type in the world and providing a unique and extensive reservoir of data for the future understanding of geoclimatic history and the nature of karst processes in a complex environment.*

Integrity

All elements necessary to sufficiently protect the outstanding scenic and geological values of the Ha Long Bay property are included within the boundaries of the property and its size and area provide sufficient integrity for the large scale geomorphological processes to operate unhindered. It benefits from being completely surrounded by a large and extensive buffer zone with both the size and area providing sufficient integrity for the large scale geomorphic processes to operate unhindered.

Located within an area of high tourism, marine transport, fisheries and the daily activities of people living and conducting their business on Ha Long Bay, management of the area, instituted since inscription of the property, applies strict regulation and control of activities in an attempt to minimize impacts on the integrity of the property. There is a continuing challenge to improve the integrity and quality of the environment. The natural scenic features, geomorphology, landform values and cultural heritage along with key features such as islands, caves and grottoes remain intact and the property retains a high level of naturalness despite the long history of human use in the area.

Protection and management requirements

Ha Long Bay was established as a historical and cultural relict and classified as a National Landscape Site in 1962. Subsequently designated as a Special National Landscape Site under the Cultural Heritage Law amended in 2009, land tenure is held by the Provincial Government. The property is protected effectively by a number of relevant provincial and national laws as well as governmental decrees including; the Cultural Heritage Law, the Bio-Diversity Law, the Tourism Law, the Environmental Protection Law, the Fishery Law and Marine Transport Law. Under these laws, any proposed action within the property that could have significant impact on the property's values must have official approval from the Ministry of Culture, Sports and Tourism, along with other relevant ministries.

The Ha Long Bay Management Department was established after the inscription of Ha Long Bay on the World Heritage List, with the main functions of management, conservation and promotion of the

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property's values. The Department takes into account the requirements of the World Heritage Convention, recommendations of the World Heritage Committee and other regulations issued by both the Vietnamese Government and the Quang Ninh Province. Day-to-day management involves collaboration with various relevant stakeholders at different levels, especially local communities, to maintain the integrity of the property and monitor socio-economic activities.

Socio-economic activities on Ha Long Bay are well regulated, carefully observed and effectively managed. Management and protection are further strengthened through regulations, master planning, and action plans at the provincial level. These include regulations on operation of tourist boats, mud dredging, land filling, fishermen and floating house management. They also provide for education and promotion, and enhancing community awareness of heritage values and their protection. There are several specific plans dealing with environmental protection, tourism development and management and conservation planning. These include Ha Long Bay to 2020, the master plan on conservation, management and development of the values of World Natural Heritage approved by the Prime Minister in 2001, and the Comprehensive Management Plan for the Ha Long Bay World Heritage Site 2010 - 2015 approved by the provincial authority in 2010.

In the long-term, management of the property will focus on: ensuring the integrity of the scenic, geological and geomorphologic values, as well as the property's environment; strengthening the legislative provisions; carefully monitoring of the socio-economic activities on Ha Long Bay; increasing the use of technology in heritage management; undertaking research to gain better understanding of the property's values; improving the staff capacity and enhancing community awareness and involvement. Increasing visitor numbers and associated impacts continue to impact on the management of the property. The sensitivity, aesthetic quality and attention to public safety of infrastructure such as pathways, steps and boardwalks is of a high standard and with steadily increasing visitor numbers the quality of visitor management is also steadily improving. Development pressures associated with growing tourist numbers continue to be an issue for government authorities and an appropriate balance between conservation and development, while difficult to maintain, is important to ensure the protection of the natural values of the property.

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| Property | Phong Nha-Ke Bang National Park |
| State Party | Viet Nam |
| Id. N° | 951 rev |
| Date of inscription | 2003 |

Brief synthesis

Phong Nha - Ke Bang National Park is located in the middle of the Annamite Mountain Range in Quang Binh province, Vietnam and shares its boundary with the Hin Namno Nature Reserve in Lao PDR to the west. The property comprises an area of 85,754 ha and contains terrestrial and aquatic habitats, primary and secondary forest, sites of natural regeneration, tropical dense forests and savanna and is rich in large, often spectacular and scientifically significant caves.

The property contains and protects over 104 km of caves and underground rivers making it one of the most outstanding limestone karst ecosystems in the world. The karst formation has evolved since the Palaeozoic period (some 400 million years ago) and as such is the oldest major karst area in Asia. Subject to massive tectonic changes, the karst landscape is extremely complex, comprising a series of rock types that are interbedded in complex ways and with many geomorphic features. The karst landscape is not only complex but also ancient, with high geodiversity and geomorphic features of considerable significance.

The karst formation process has led to the creation of not only underground rivers but also a variety of cave types including; dry caves, terraced caves, suspended caves, dendritic caves and intersecting caves. With a length of over 44.5 km the Phong Nha cave is the most famous of the system with tour boats able to penetrate inside to a distance of 1,500 m.

A large number of faunal and floral species occur within the property with over 568 vertebrate species recorded comprising 113 mammals, 81 reptiles and amphibians, 302 birds and 72 fish. This impressive level of biodiversity and species richness includes a number of endemic species as well as threatened species including tiger, Asiatic black bear, Asian elephant, giant muntjac, Asian wild dog, gaur and the recently discovered sao la.

Criterion (viii): *Phong Nha is part of a larger dissected plateau, which also encompasses the Ke Bang and Hin Namno karsts. The limestone is not continuous and demonstrates complex interbedding with shales and sandstones. This, together with the capping of schists and apparent granites has led to a particularly distinctive topography.*

The caves demonstrate discrete episodic sequences of events, leaving behind various levels of fossil passages, formerly buried and now uncovered palaeokarst (karst from previous, perhaps very ancient,

periods of solution); evidence of major changes in the routes of underground rivers; changes in the solutional regime; deposition and later re-solution of giant speleothems and unusual features such as sub-aerial stromatolites. The location and form of the caves suggests that they might owe much of their size and morphology to some as yet undetermined implications of the schists and granites which overlay the limestone. On the surface, there is a striking series of landscapes, ranging from deeply dissected ranges and plateaux to an immense polje. There is evidence of at least one period of hydrothermal activity in the evolution of this ancient mature karst system. The plateau is probably one of the finest and most distinctive examples of a complex karst landform in Southeast Asia.

Phong Nha displays an impressive amount of evidence of earth's history. It is a property of very great importance for increasing our understanding of the geologic, geomorphic and geo-chronological history of the region.

Integrity

Covering an area of 85,754 ha and bounded on the west by the Lao People's Democratic Republic, all elements necessary to manifest the outstanding geological values of the property of Phong Nha – Ke Bang National Park are contained within the boundaries of the property. The inscribed property is completely surrounded and protected by a buffer zone of approximately 200,000 ha and is designated into three management zones; Strictly protected (64,894 ha), ecological recovery (17,449 ha) and administrative service (3,411 ha).

There are a number of issues that affect the integrity of the property. These include the fact that a part of the major watershed is not contained within the boundaries of the property and that a road crosses the property. While former problems with poaching posed a threat to the values contained within the site these are now considered to be under effective control. However, continued management actions and monitoring is required to ensure poaching does not become an issue in the future.

The property is situated within an area of high population density and as such a number of activities, such as cultivation, tourism, transport and fisheries also impact on the integrity of the property. However, these activities are currently under strict control and management. As a result, the natural landscape, geologic and geomorphic values, and key features such as primitive forest, caves, rivers and streams within the inscribed area are all intact.

Protection and management requirements

Originally designated as a Nature Reserve in 1986, Phong Nha - Ke Bang National Park was established in 2001 under the Decision 189/QĐ-TTg by the Prime Minister and is managed by a Management Board. The management board is responsible for protection of forest resources and biodiversity and was established in 1994. Cave conservation and the provision of a tourism service are the responsibility of the Cultural and Ecological Tourist Centre under the Management Board. The site management is conducted by more than 470 staff members from many different technical backgrounds. The property is also included in the Special National Heritage List (2009), and the Special Use Forest system (1999). The National Park is effectively protected by a number of national laws and government decisions, which prohibit any action to be under taken inside or outside the boundaries of the National Park or a World Heritage property that may have a significant impact on the heritage values.

A management plan was prepared in 2010 providing for rigorous conservation programmes, and a revised master plan is under preparation. A visitor management plan has also been prepared along with a provincial action plan to control hunting and trade in wildlife, which was implemented from 2005. Additionally, the Management Board has set up ten ranger stations and a mobile patrol unit to prevent poaching within the property. The rugged nature of the country, difficulty of control, and low income of many local families and relative shortage of resources for control purposes means that wildlife poaching and illegal timber gathering are difficult to eliminate and this challenging issue will require further efforts into the future if it is not to continually impact the property.

The Ho Chi Minh highway, constructed outside and to the north of the property is clearly justifiably and appropriately located. It provides important and valuable benefit to the National Park in terms of opening up views of and access to the Ke Bang forest area. The highway also greatly enhances year-round traffic flow from the North and South of the country as a whole, constructed with a high level of environmental responsibility the road linking the highway and route 20, which crosses the property, is small and has little impact on its natural values. Other road construction in the area requires careful planning and construction as impacts from construction processes as well as indirect impacts on the property may threaten the values of the site.

Impacts of increased development pressure and tourism numbers also require further consideration, planning and management. In the long-term, management of the property focuses on ensuring the integrity of the geological and geomorphologic values, as well as the property's environment; strengthening the legislative provisions; carefully monitoring the socio-economic activities within the national park; designing suitable eco-tours; increasing the usage of technology in heritage management; undertaking research to gain a better understanding of the property's values; improving the staff capacity and enhancing community awareness and involvement.

B. MIXED PROPERTIES

B.1 ASIA AND THE PACIFIC

| | |
|---------------------|----------------------|
| Property | Mount Taishan |
| State Party | China |
| Id. N° | 437 |
| Date of inscription | 1987 |

Brief synthesis

Mount Taishan is the most famous sacred mountain of China, with exceptional historic, cultural, aesthetic and scientific value. Settled by humans as early as the Neolithic (a Dawenkou site is nearby), the mountain has been worshipped continuously throughout the last three millennia. A large and impressive rock mass covering 25,000 ha and rising to 1,545 m above the surrounding plateau, Mount Taishan is considered one of the most beautiful scenic spots in China and was an important cradle of oriental East Asian culture since the earliest times. The mountain was an important object of the cult worship of mountains even before 219 BCE, when the Qin Emperor, Huang Di, paid tribute to the mountain in the Fengshan sacrifices to inform the gods of his success in unifying all of China. On the mountain there are 12 historically recorded imperial ceremonies in homage to Heaven and Earth, about 1,800 stone tablets and inscriptions, and 22 temples, which together make Mount Taishan the most important monument in China, a world-renowned treasure house of history and culture.

The key monument, the Temple to the God of Taishan, contains the Taoist masterpiece painting of 1,009 CE "The God of Taishan Making a Journey". Inscriptions include the Han Dynasty stelae of Zhang Qian, Heng Fang and Madam Jin Sun; the Valley of Inscribed Buddhist Scriptures inscribed in the Northern Qi Dynasty; the Eulogium on Taishan by Tang Xuanzong, and the Parallel Stelae of the Tang Dynasty. There is also a number of ancient and significant trees, including six cypresses of the Han Dynasty planted 2,100 years ago; Sophora japonica of the Tang Dynasty planted 1,300 years ago, and the Guest-Greeting Pine and the Five-Bureaucrat Pine, both of which were planted some 500 years ago. All the architectural elements, paintings, in situ sculptures, stone inscriptions and ancient trees are integrated into the landscape of Mount Taishan.

Criterion (i): *The landscape of Mount Taishan as one of the five sacred mountains in traditional China is a unique artistic achievement. The eleven gates, the fourteen archways, the fourteen kiosks and the four pavilions, which are scattered along the flight of 6,660 steps that rise between heaven and earth are not just simple architectural achievements, but are the final touches by human hands to the elements of a splendid natural site. Its very size places this scenic landscape, which has evolved over a period of 2,000 years, among the most grandiose human achievements of all time.*

Criterion (ii): *Mount Taishan, the most venerated of mountains in China, exerted for 2,000 years multiple and wide-ranging influence on the development of art. The Temple to the God of Taishan and the Azure Cloud Temple, dedicated to his daughter, the Goddess Laomu, were prototypes built on Mount Taishan and subsequently used as models during the imperial period, throughout all of China. The conceptual model of a mountain bearing the traces of man, where graceful structures – bridges, gateways or pavilions – contrast with sombre pine forests or frightening rocky cliffs, could only have originated by referring to Mount Taishan.*

Criterion (iii): *Mount Taishan bears unique testimony to the lost civilizations of imperial China, most particularly in relation to their religions, arts and letters. For 2,000 years it was one of the principal places of worship where the emperor paid homage to Heaven and Earth in the Fengshan sacrifices, conducted by the Son of Heaven himself. Since the time of the Han Dynasty, it has been one of the five mountains symbolizing the Celestial Kingdom, in accordance with the Doctrine of the Five Elements, a fundamental premise in Chinese thought.*

Criterion (iv): *Mount Taishan is an outstanding example of a sacred mountain. The Palace of Heavenly Blessings (1,008 CE), located inside the Temple to the God of Taishan, is one of the three oldest palaces in China. The Azure Cloud Temple, also constructed under the Song Dynasty, is typical of a mountain architectural complex in the arrangement of its courtyards and buildings, and the Divine Rock Temple with its Thousand Buddhas Hall are outstanding and complete examples of great temples. Together they illustrate the cultural and religious aspects of the Tang and Song periods.*

Criterion (v): *The natural and cultural ensemble of Mount Taishan comprises a traditional human settlement in the form of a cult centre dating from the Neolithic (Dawenkou) period, which has become*

an outstanding example of traditional culture under the impact of irreversible change wrought by increasing visitation and tourism.

Criterion (vi): Mount Taishan is directly and tangibly associated with events whose importance in universal history cannot be minimized. These include the emergence of Confucianism, the unification of China, and the appearance of writing and literature in China.

Criterion (vii): With nearly 3 billion years of natural evolution, Mount Taishan was formed through complicated geological and biological processes, which resulted in a gigantic rock mass covered with dense vegetation towering over the surrounding plateau. This dramatic and majestic mountain is an outstanding combination of a beautiful natural landscape dominated by the cultural impacts of thousands of years of human use.

Integrity

Due to its long-standing status as a sacred place, Mount Taishan has been preserved with little alteration. The ensemble of elements enables Mount Taishan to entirely and accurately represent its harmonious combination as a natural landscape modified and enhanced by human agency to become the embodiment of ancient Chinese belief and culture.

A cable car was built before the property was inscribed as World Heritage but most visitors reach the summit area by climbing the 6,660 steps. The integrity of the property has been impacted little by tourism and associated facilities, however there needs to be a definite limit of the extent of development of such facilities. There are substantial and impressive areas free of both historic and modern features such as the very impressive Rear Rocky Basin. Much of the mountain has a grandeur and wilderness that belies its thousands of years of human use.

Authenticity

The elements of the cultural heritage of Mount Taishan meet all requirements of authenticity: form and design, materials and substance, use and function, traditions and techniques, location and setting, spirit and feeling. The humanistic and ecological environment of Taishan has been well preserved through all the dynasties. The age-old geological relics, ancient architectural ensembles, stone tablets and inscriptions, and ancient and rare trees all have been carefully protected and maintained.

Protection and management requirements

Mount Taishan has been protected and managed for over 3,000 years. The present administrative organization is the Management Committee of Scenic Spots and Historic Sites of Taishan, Taian City, and comprises representatives of the National World Heritage Office, the Bureau of Cultural Relics and Religions, the Bureau of Hygiene and Environmental Protection, and other functional departments and administrative units. Financial resources for the maintenance and protection of Taishan are allocated from the government and supplemented by entrance fees to scenic areas.

In 1982, Taishan was designated as the National Top Scenic Spot by the State Council of the People's Republic of China. According to the law on the Protection of World Cultural and Natural Heritage and other relevant laws and regulations of the People's Republic of China, a document laying out the Overall Planning of Protection of Taishan was adopted in October 2000 by the Standing Committee of the National People's Congress of Shandong Province, which provides a legal basis of effective operations for the integrated management of protection of Mount Taishan. In 2004, the government of Taian City gazetted the World Heritage property area for highest-level protection within which any construction project must be approved by relevant administrative departments according to established laws and procedures.

Management and protection issues included the concept of adopting a carrying capacity and designing facilities to be used to control access, and to consider proposals to progressively remove or replace incongruous buildings with those of an appropriate architectural style. The location, number and type of small scale photo and refreshment operations also need to be rationalised and controlled to reduce adverse impact on visitor appreciation of natural and cultural values. Finally, a proper resource inventory of the natural features of the site is needed in order to better document the full value of the park. The specific long-term management objective for the property is to control business and tourist activities within the protection zone in order to safeguard both integrity and authenticity of the property.

| | |
|---------------------|--|
| Property | Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area |
| State Party | China |
| Id. N° | 779 |
| Date of inscription | 1996 |

Brief synthesis

Mount Emei (Emeishan) is an area of exceptional cultural significance as it is the place where Buddhism first became established on Chinese territory and from where it spread widely through the East. The first Buddhist temple in China was built on the summit of Mount Emei in the 1st century CE. It became the Guangxiang Temple, receiving its present royal name of Huazang in 1614. The addition of more than 30 other temples including the Wannian Temple founded in the 4th century containing the 7.85m high Puxian bronze Buddha of the 10th century, and garden temples including the Qingyin Pavilion complex of pavilions, towers and platforms dating from the early 6th century; the early 17th century Baoguo Temple and the Ligou Garden (Fuhu Temple) turned the mountain into one of Buddhism's holiest sites. The most remarkable manifestation of this is the 71 meter tall Giant Buddha of Leshan. Carved in the 8th century CE on the hillside of Xijuo Peak overlooking the confluence of three rivers, it is the largest Buddhist sculpture in the world. A contemporary account of the creation of the Giant Buddha is preserved in the form of an inscribed tablet. Associated monuments include the 9th century Lingbao Pagoda and the Dafo (Giant Buddha) Temple dating from the early Qing Dynasty. The Wuyu Temple contains two important statues: the 9th century Dashi bronze Buddha and the 11th century Amithabha statue group, cast in iron and gilded. Over five hundred Han Dynasty tombs of the 1st to 4th centuries, notable for their fine carvings and calligraphic inscriptions are located on Mahao Crag.

Mount Emei is an area of striking scenic beauty. It is also of great spiritual and cultural importance because of its role in the introduction of Buddhism into China. The conscious siting of so many of the cultural monuments, particularly of traditional architecture, within the natural environment makes it a cultural landscape of very high order.

Mount Emei is also notable for its exceptionally rich vegetation, ranging from subtropical evergreen forests to subalpine pine forests. Covering an area of 15,400 ha in two discrete areas – the Mount Emei and the Leshan Giant Buddha Scenic Areas – the property is an area of natural beauty into which the human element has been integrated with skill and subtlety.

Criterion (iv): On Mount Emei, there are over 30 temples, ten of them large and very old; they are in local traditional style and most are built on hillsides, taking advantage of the terrain. In the selection of the site, design, and construction they are masterpieces of great originality and ingenuity. The advanced architectural and building techniques are the quintessence of Chinese temple architecture.

Associated with these temples are found some of the most important cultural treasures of China, including the remarkable Leshan Giant Buddha carved in the 8th century CE out of the hillside of Xijuo Peak. Facing the confluence of the Minjiang, Dadu and Qingyi rivers, it is the tallest Buddha sculpture in the world with a height of 71 meters.

Criterion (vi): On Mount Emei, the importance of the link between the tangible and intangible, the natural and the cultural, is uppermost. Mount Emei is a place of historical significance as one of the four holy lands of Chinese Buddhism. Buddhism was introduced into China in the 1st century CE via the Silk Road from India to Mount Emei, and it was on Mount Emei that the first Buddhist temple in China was built.

The rich Buddhist cultural heritage of Mount Emei has a documented history of over 2,000 years, consisting of archaeological sites, important architecture, tombs, ritual spaces, and collections of cultural artefacts, including sculpture, stone inscriptions, calligraphy, painting, and music, among other traditional arts.

Criterion (x): Mount Emei is a site of special significance to conservation and to science for its high floral diversity. The biodiversity of the site is exceptionally rich: some 3,200 plant species in 242 families have been recorded, of which 31 are under national protection and more than 100 species are endemic. This is due to its transitional location at the edge of the Sichuan basin and the eastern Himalayan highlands. Within its elevation range of 2,600 m are found a great variety of vegetation zones including subtropical evergreen broad-leaved forest, mixed evergreen and deciduous broad-leaved forest, mixed broad-leaved and conifer forests, and subalpine conifer forest. This exceptional flora is also rich in animal species with some 2,300 species recorded, including several threatened at a global scale.

Integrity

The heritage zones of the Mount Emei and Leshan Giant Buddha cover 15,400 ha and 17.88 ha respectively and completely represent the importance of Buddhist culture and ancient architecture. Emei is one of four sacred Buddhist mountains in China and as such, it has been treated as a special protected place for almost 3,000 years. Protection in modern times has taken the form of laws culminating in its establishment as a "Scenic Area" in 1982. The area is subject to various regulations from the national, provincial and municipal governments and has a plan to guide its conservation. Fortunately, because of its size and the relative inaccessibility of its terrain, much of Emei remains untouched and unspoiled. The revival of Buddhism reinforces its protection as the monks can play a quasi-warden role.

Authenticity

The authenticity of the inscribed property, Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area, lies to a large extent in the relationship between the man-made element and the natural environment. In these terms the authenticity is very high. Conservation and restoration projects have been carried out on individual buildings which in general terms are authentic. As a sacred place, Mount Emei has benefited from a long-standing and traditional regime of conservation and restoration, which dated back to the mid-10th century. Today, the conservation of the property continues to be carried out in accordance to very strict standards and hence effectively maintains the outstanding values and authenticity of the property.

Protection and management requirements

Mount Emei has been managed since the middle of the 10th century, and the first General Administrative Plan of Mount Emei was produced in the early 1980s. Management follows strictly the central government's Regulations on Scenery Areas, and the Provincial government's Regulations on World Heritage Protection of Sichuan Province and the Regulations on Scenery Areas of Sichuan Province. A Management Committee of the Mount Emei-Leshan Giant Buddha Scenic Area with 27 sectors has been established in order to protect and manage the site. The Revised Master Plan for the Mount Emei Scenic Area and the Leshan Giant Buddha Scenic Area has provided the legal basis and policy framework for management and conservation of the property. Any project that has dramatic impacts on the heritage value is strictly controlled and requires government approval. Both the central and local governments provide fiscal support for site protection and management.

At present, the thousand year-old traditional link between the natural and the cultural values of the property is well-preserved. The main threat to Emei is the number of tourists and pilgrims that visit the property and the development that they bring with them. The main intrusion has been a cable car which leads to the Golden Summit of the mountain and brings some 300,000 people a year to the sensitive montane forest zone, as well as the construction of a light monorail in 1998 after inscription of the property. There are numerous drink stands and souvenir stalls which detract from the natural atmosphere of the mountain. The specific long-term management objective for the property is to ensure that, despite increasing visitor pressure, the traditional link of nature and culture is maintained and continues to be well-managed so that both integrity and authenticity of the property are conserved.

| | |
|---------------------|-------------------|
| Property | Mount Wuyi |
| State Party | China |
| Id. N° | 911 |
| Date of inscription | 1999 |

Brief synthesis

Mount Wuyi, located in China's south-east province of Fujian, contains the largest, most representative example of a largely intact forest encompassing the diversity of the Chinese Subtropical Forest and the South Chinese Rainforest. Of enormous importance for biodiversity conservation, the property acts as a refuge for an important number of ancient, relict plant species, many of them endemic to China, and contains an extremely rich flora and fauna, including significant numbers of reptile, amphibian and insect species.

The serene beauty of the dramatic gorges of the Nine-Bend River is of exceptional scenic quality in its juxtaposition of smooth rock cliffs with clear, deep water. Situated along this river are numerous temples and monasteries, many now in ruins, which provided the setting for the development and spread of Neo-Confucianism, a political philosophy which has been very influential in the cultures of East Asia since the 11th century. In particular there are no fewer than 35 ancient Confucian academies dating from the Northern Song to Qing Dynasties (10th to 19th centuries CE). In addition the area contains tombs, inscriptions and rock shelters with wooden boat coffins dating back to the Shang Dynasty (2nd century BCE), and the remains of more than 60 Taoist temples and monasteries.

In the 1st century BCE a large administrative capital was built at nearby Chengcun by the Han Dynasty rulers. Its massive walls enclose an archaeological site of great significance.

The property consists of four protected areas: Wuyishan National Nature Reserve (56,527 ha) in the west, Nine-Bend Stream Ecological Protection Area (36,400 ha) in the centre and Wuyishan National Scenic Area (7,000 ha) in the east are contiguous, and the Protection Area for the Remains of Ancient Han Dynasty (48 ha) is a separate area, about 15km to the south-east. Totalling 99,975 ha, the property is surrounded by a buffer zone of 27,888 ha and has been inscribed for cultural as well as scenic and biodiversity values.

Criterion (iii): Mount Wuyi is a landscape of great beauty that has been protected for more than twelve centuries. It contains a series of exceptional archaeological sites, including the Han City established in the 1st century BCE and a number of temples and study centres associated with the birth of Neo-Confucianism in the 11th century CE.

Criterion (vi): Mount Wuyi was the cradle of Neo-Confucianism, a doctrine that played a dominant role in the countries of Eastern and South-eastern Asia for many centuries and influenced philosophy and government over much of the world.

Criterion (vii): The spectacular landforms in the eastern scenic area around Nine-Bend Stream (lower gorge) are of exceptional scenic quality, with isolated, sheer-sided monoliths of the local red sandstone. They dominate the skyline for a tortuous 10 km section of the river, standing 200-400 m above the riverbed, and terminate in clear, deep water. The ancient cliff tracks are an important dimension of the site, allowing the visitor to get a 'bird's-eye-view' of the river.

Criterion (x): Mount Wuyi is one of the most outstanding subtropical forests in the world. It is the largest, most representative example of a largely intact forest encompassing the diversity of the Chinese Subtropical Forest and the South Chinese Rainforest, with high plant diversity. It acts as a refuge for a large number of ancient, relict plant species, many of them endemic to China and rare elsewhere in the country. It also has an outstanding faunal diversity, especially with respect to its reptile, amphibian and insect species.

Integrity

Mount Wuyi has a high level of ecological and landscape integrity, as well as a long history of management as a protected area. It has had strict protective status since 1979, prior to which provincial and central governments had issued protective edicts over the area for more than 1,000 years. It is a large property with all elements necessary to express its values included within the boundaries of the inscribed area, and has an effective buffer zone. The property lies within one provincial administration of Fujian, and in 1999 when the property was inscribed, few inhabitants lived within the Wuyishan National Nature Reserve; the 22,700 inhabitants (24,500 in 2012) in Mount Wuyi being scattered through 14 villages primarily in Nine-Bend Stream Ecological Protection Area and Wuyishan National Scenic Area. The water and soil loss caused by the increased tea production activities of inhabitants has certain impact and is a challenge for management.

Authenticity

The cultural landscape in the eastern zone, along the Nine-Bend River, has conserved a remarkable degree of authenticity, largely owing to the strict application over more than a millennium of the 8th century ban on fishing and forestry operations. However, the intact cultural properties in this region have to a considerable extent lost their authenticity in design, materials, and function as a result of numerous changes of use and reconstructions. By contrast, the archaeological sites - the Chengcun ancient town site, the boat coffins, and the remains of demolished or collapsed temples, academies, and monasteries - possess full authenticity.

Protection and management requirements

The Mount Wuyi World Heritage property is wholly owned by the government of the People's Republic of China. It is listed as a state-level nature reserve, a state-level scenic area, a forest park and a state-level cultural relics protection unit, thus assuring the safeguarding of both the cultural and natural values of the property, under a number of national laws including: the Forestry Law (1998), the Environmental Protection Law (2002), Regulations on Nature Reserves (2002), Cultural Relics Protection Law (2002), the Law on the Protection of Wildlife (2004), and Scenic Areas Ordinance (2006). Regulations relating specifically to Mount Wuyi were promulgated by the National Government in 1982, 1988, 1990, 1995, and 1996. The property was designated as a UNESCO (MAB) Biosphere Reserve in 1987, giving it additional international and national protection status.

At the provincial level, Fujian Province has issued the Regulations of Fujian Province on the Protection of Mount Wuyi World Cultural and Natural Heritage and other special local regulations relating to the protection of Mount Wuyi as a World Heritage property. A master plan or a protection plan has been compiled for each of the four protected areas of the property. Special administrative organizations, including an on-site Monitoring Center, have been set up for the property. The Monitoring Center conducts periodic monitoring on the condition of the property's cultural and natural resources, the overall ecological environment of the property, and the potential damage to the property resulting from the pressures of tourism. The Center is also responsible for conducting research on the subtropical forest ecosystem, biodiversity protection, and sustainable development of the nearby community. This ongoing monitoring and research programme informs policy review to enhance the safeguarding of the property's integrity and authenticity.

Future management priorities include: reduction of the impacts from domestic sewage and solid waste on the water quality of the Nine-Bend River; improved forest fire management taking advantage of GIS technology, improving fire control facilities and training professional staff; reduction of the weathering of rock inscriptions; and measures to achieve sustainable development of the tea industry.

C. CULTURAL PROPERTIES

C.1 AFRICA

| | |
|---------------------|-------------------------------------|
| Property | Rock-Hewn Churches, Lalibela |
| State Party | Ethiopia |
| Id. N° | 18 |
| Date of inscription | 1978 |

Brief synthesis

In a mountainous region in the heart of Ethiopia, some 645 km from Addis Ababa, eleven medieval monolithic churches were carved out of rock. Their building is attributed to King Lalibela who set out to construct in the 12th century a 'New Jerusalem', after Muslim conquests halted Christian pilgrimages to the holy Land. Lalibela flourished after the decline of the Aksum Empire.

There are two main groups of churches – to the north of the river Jordan: Bieta Medhani Alem (House of the Saviour of the World), Bieta Mariam (House of Mary), Bieta Maskal (House of the Cross), Bieta Denagel (House of Virgins), Bieta Golgotha Mikael (House of Golgotha Mikael); and to the south of the river, Bieta Amanuel (House of Emmanuel), Bieta Qeddus Mercoreus (House of St. Mercoreos), Bieta Abba Libanos (House of Abbot Libanos), Bieta Gabriel Raphael (House of Gabriel Raphael), and Bieta Lehem (House of Holy Bread). The eleventh church, Bieta Ghiorgis (House of St. George), is isolated from the others, but connected by a system of trenches.

The churches were not constructed in a traditional way but rather were hewn from the living rock of monolithic blocks. These blocks were further chiselled out, forming doors, windows, columns, various floors, roofs etc. This gigantic work was further completed with an extensive system of drainage ditches, trenches and ceremonial passages, some with openings to hermit caves and catacombs.

Bieta Medhani Alem, with its five aisles, is believed to be the largest monolithic church in the world, while Bieta Ghiorgis has a remarkable cruciform plan. Most were probably used as churches from the outset, but Bieta Mercoreos and Bieta Gabriel Rafael may formerly have been royal residences. Several of the interiors are decorated with mural paintings.

Near the churches, the village of Lalibela has two storey round houses, constructed of local red stone, and known as the Lasta Tukuls. These exceptional churches have been the focus of pilgrimage for Coptic Christians since the 12th century.

Criterion (i): *All the eleven churches represent a unique artistic achievement, in their execution, size and the variety and boldness of their form.*

Criterion (ii): *The King of Lalibela set out to build a symbol of the holy land, when pilgrimages to it were rendered impossible by the historical situation. In the Church of Biet Golgotha, are replicas of the tomb of Christ, and of Adam, and the crib of the Nativity. The holy city of Lalibela became a substitute for the holy places of Jerusalem and Bethlehem, and as such has had considerable influence on Ethiopian Christianity.*

Criterion (iii): *The whole of Lalibela offers an exceptional testimony to the medieval and post-medieval civilization of Ethiopia, including, next to the eleven churches, the extensive remains of traditional, two storey circular village houses with interior staircases and thatched roofs.*

Integrity

The drainage ditches were filled up with earth for several centuries, before being cleared in the 20th century, and have been disrupted by seismic activity. This has resulted in a severe degradation of the monuments from water damage, and most of them are now considered to be in a critical condition.

Structural problems have been identified in Biet Amanuel where an imminent risk of collapse is possible, and other locations need to be monitored. Serious degradation of the paintings inside the churches has occurred over the last thirty years. Sculptures and bas-reliefs (such as at the entrance of Biet Mariam) have also been severely damaged, and their original features are hardly recognisable. All of this threatens the integrity of the property.

Temporary light-weight shelters have now been installed over some churches and these, while offering protection, impact on visual integrity.

Other threats include encroachment on the environment of the churches by new public and private construction, housing associated with the traditional village adjacent to the property, and from the infrastructure of tourism.

Authenticity

The Rock-Hewn Churches of Lalibela are still preserved in their natural settings. The association of the rock-hewn churches and the traditional vernacular circular houses, in the surrounding area, still demonstrate evidences of the ancient village layout. The original function of the site as a pilgrimage place still persists and provides evidence of the continuity of social practices. The intangible heritages associated with church practices are still preserved.

Protection and management requirements

For centuries, the Church and State have been jointly responsible for the holy site of Lalibela. Home to a large community of priests and monks, it is a living site which draws many pilgrims to celebrate the great feasts of the Ethiopian Christian calendar. This active and energetic perspective is central to the management of the site.

No special legal framework is provided to protect the Rock-Hewn Churches except the general law, Proclamation No. 209/2000, which has also established the institution in charge, the Authority for Research and Conservation of Cultural Heritage (ARCCH). With the Ethiopian Church as a partner, the ARCCH has a representative in Lalibela but a principle difficulty has been the harmonization of the different projects and effective coordination between the partners.

The property is administered under the regional and the Lasta district culture and tourism office. To prevent the property from the impact of development, a draft proclamation has been prepared but this is not yet ratified. A management plan has not yet been established. A four year Conservation Plan was established in 2006 but this has yet to be fully implemented.

The boundary for the property has not yet been clearly delineated and a buffer zone has not yet been provided.

There is a need for stronger planning controls for the setting of the churches that address housing, land-use tourism and for a management plan to be developed that integrates the Conservation action plan, and addresses the overall sustainable development of the area, with the involvement of the local population.

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|---------------------|----------------------------------|
| Property | Lower Valley of the Awash |
| State Party | Ethiopia |
| Id. N° | 10 |
| Date of inscription | 1980 |

Brief synthesis

The Lower Awash Valley paleo-anthropological site is located 300 km northeast of Addis Ababa, in the west of the Afar Depression. It covers an area of around 150 km².

The Awash Valley contains one of the most important groupings of paleontological sites on the African continent. The remains found at the property, the oldest of which date back over 4 million years, provide evidence of human evolution, which has modified our conception of the history of humankind. The most spectacular discovery came in 1974, when 52 fragments of a skeleton enabled the famous Lucy to be reconstructed.

Excavations by an international team of palaeontologists and pre-historians began in 1973, and continued annually until 1976, and ended in 1980. In that time, they found a large quantity of fossilised hominid and animal bones in a remarkable state of preservation, the most ancient of which were at least four million years old. In 1974, the valley produced the most complete set of remains of a hominid skeleton, *Australopithecus afarensis*, nicknamed 'Lucy', dating back 3.2 million years. *Afarensis* has since been proved to be the ancestral origin for both the Genus *Australopithecus* and *Homo-sapiens*.

A recovered female skeleton nicknamed 'Ardi' is 4.4 million years old, some 1.2 million years older than the skeleton of *Australopithecus afarensis* 'Lucy'.

There is a wealth of paleo-anthropological and pre-historic tools still awaiting discovery and scientific study and these are seen as constituting an exceptionally important cultural heritage resource.

Criterion (ii): The evidence of hominid and animal fossil remains discovered in the Lower Awash Valley testify to developments in human evolution that have modified views of the history of mankind as a whole.

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Criterion (iii): The excavated paleo-anthropological remains from the Lower Awash Valley dating back almost 4 million years are of exceptional antiquity.

Criterion (iv): The human vestiges that have been excavated dating back over 3 million years provide an exceptional record that contributes to an understanding of human development.

Integrity

The boundaries of the sites have yet to be defined. The most extensive remains assigned were found in Hadar, one of the localities within the Lower Awash Valley, but the rest of the valley is seen to have the potential to contribute to further paleontological and historical evidence.

Furthermore, the Middle Awash Valley has been the focus of intensive research since 1981 and it is the entire valley that is now seen to constitute one of the most important paleontological and pre-historical sites in the world. The boundaries of the property need to be defined to encompass all the attributes related to known and potential archaeological evidence. A buffer zone needs to be provided for the property.

In spite of its remote location in the Afar Depression, the property is reportedly the target of individual tourists hunting fossil souvenirs and is thus highly vulnerable.

Authenticity

The material authenticity is explicit in the finds themselves. However, due to the nature of the site, it is necessary to hold the unearthed finds in the National Museum. The authenticity of the immediate settings of the finds remains largely intact as a result of its desert location, but is vulnerable to fossil hunters. In order to manifest the complete storey of the finds from this valley, it is necessary to go beyond the current boundaries. Better information on the property is still needed.

Protection and management requirements

An open site, it is naturally protected by the difficult terrain and by the local Afar population. No special legal framework is provided to protect the Lower Awash Valley, except the general law, Proclamation No. 209/2000. This also established the Authority for Research and Conservation of Cultural Heritage as the institution in charge.

The site has no local management, and is overseen from the Afar Regional Office in Asayta, 160 km away.

A museum has been a long-standing aim of the local authorities. One of the principal American research institutions was prepared to build it in 2004, but how it was to be staffed was not resolved.

Through the Africa 2009 programme, some expertise in training, in conservation and management was provided at a regional level. Pastoral nomads live around the property, and it has been considered that protection might be improved by involving nomadic tribal chiefs in an oversight of the large area.

There is an urgent need to re-assess and define the boundaries so as to encompass all the attributes of Outstanding Universal Value, to define a buffer zone, to put in place local protection, perhaps through the local communities, and to prepare an overall management plan that sets out how protection, management and interpretation will be met in the medium and long term.

| | |
|---------------------|--------------------------------|
| Property | Lower Valley of the Omo |
| State Party | Ethiopia |
| Id. N° | 17 |
| Date of inscription | 1980 |

Brief synthesis

The Lower Valley of the Omo is located in south-western Ethiopia. It extends over an area of 165 km². The age old sedimentary deposits in the Lower Omo Valley are now world renowned for the discovery of many hominid fossils, that have been of fundamental importance in the study of human evolution.

The Lower Omo Valley includes the Konso and Fejej paleontological research locations with sedimentary deposit going back to the plio-pleistocene period. These have produced numerous hominid and animal fossils, including fragments of Australopithecus. The deposits of human vertebrae fauna, and paleo-environmental evolution, shed light on the earliest stages of the origins and development of Homo sapiens of Africa. The discoveries of ancient stone tools in an encampment also offers evidence of the oldest known technical activities of prehistoric beings, thus making the property one of the most significant for mankind.

To ensure Omo's position as the yardstick against which all other ancient deposits in East Africa are measured, researched evidence from the site has established bio-stratigraphical, radiometric and magneto-stratigraphical scales spanning between one and 3.5 million years. Since 1966, scientific research has proved that the site significantly contributes to prominent archaeological, geological, paleo-anthropological and paleo-environmental studies. .

Criterion (iii): Evidence from the Lower Omo Valley pre-historic and paleo-anthropological site have provided a unique insight into the oldest known technical activities by pre-historic beings.

Criterion (iv): Discoveries from the Lower Omo Valley represent exceptional developments in the domain of cultural activities in the pre-historic time.

Integrity

The boundaries of the property are not adequately defined and such definition needs to be undertaken to ensure all the sites that might contribute to its Outstanding Universal Value are included. Its wider context and setting also need to be established and protected.

Due to its very remote location, the Omo Valley is a site that is uniquely preserved for scientific research purposes. Although no development activities are foreseen in the near future, it is vulnerable to the work of petroleum companies and other plantation operating around the site, and has been at risk from pillage.

Authenticity

The sites where discoveries were made remain intact, as does their context. Overall the areas that might provide further evidence of early man are undisturbed.

Protection and management requirements

The property was placed under the protection of the Administration of Antiquities in 1969 through the National Law of 1968.

No special legal framework is provided to protect the Lower Omo Valley, except for the general law, Proclamation No. 209/2000, which established the Authority for Research and Conservation of Cultural Heritage as the institute in charge. Currently the zonal and regional Information and Culture Departments perform the management functions.

A management plan has not yet been established and, due to the extreme geographical difficulties involved, no attempt has yet been made to define the boundary of the property or its buffer zone.

Recently the protection of the property has become a concern as there have emerged development activities around the area. There is therefore an urgent need to put in place structured management and to define the boundaries.

International research expeditions are still working at the property, as an extension of the research activities started in 1976. It was recommended in 1996 that a survey should be carried out on the present state of the deposits to record any changes brought about by erosion and this still needs to be undertaken.

There are an unknown number of nomads living around the Omo Valley who sometimes cross the property, raising the concern of possible occasional damage. A new bridge is scheduled to be constructed in the near future, 104 km from the valley, and this will bring both benefits and threats to the property that will need to be managed.

| | |
|---------------------|---|
| Property | Harar Jugol, the Fortified Historic Town |
| State Party | Ethiopia |
| Id. N° | 1189 rev |
| Date of inscription | 2006 |

Brief synthesis

The fortified historic town of Harar is located in the eastern part of Ethiopia, 525 km from the capital of Addis Ababa, on a plateau with deep gorges surrounded by deserts and savannah. The walls surrounding this sacred city, considered "the fourth holy city" of Islam, were built between the 13th and 16th centuries and served as a protective barrier. There were five historic gates, which corresponded to the main roads to the town and also served to divide the city into five neighbourhoods, but this division is not functional anymore. The Harar gate, from where the main streets lead to the centre, is of recent construction.

Harar Jugol numbers 82 mosques, three of which date from the 10th century, 102 shrines and a number of traditional, Indian and combined townhouses with unique interior designs, which constitute a

spectacular part of Harar's cultural heritage. The African and Islamic traditions influenced over a long period of time the development of the city and its typical urban planning and contributed to its particular character and uniqueness. The present urban layout follows the 16th century design for an Islamic town with its central core occupied with commercial and religious buildings and a maze of narrow alleyways with imposing facades. The traditional Harari house has a typical, specific and original architectural form, different from the domestic layout usually known in Muslim countries, although reminiscent of the coastal Arab architecture, and with an exceptional interior design. At the end of the 19th century Indian merchants built new houses with wooden verandas that defined a different urban landscape and influenced the construction of the combined Indian/Harari houses. Their architectural and ornamental qualities are now part of the Harari cultural heritage.

Harar functioned as the capital of the Harari Kingdom from 1520 to 1568, became an independent emirate in the 17th century and was integrated into Ethiopia in 1887. From the late 16th century to the 19th century Harar was an important trade centre between the coast and the interior highlands and a location for Islamic learning.

Today Harar is the administrative capital of the Harari People National Regional State (HPNRS). The historic town has a traditionally functioning community, forming a complex social-environmental whole where each element has its symbolic and practical significance. The Harari people are distinguished by the continued cultural traditions and quality of their handicrafts, including weaving, basket making and book binding. The organization of the communities through traditional systems has preserved its social and physical inheritance and, significantly, the Harari language.

Criterion (ii): The historic town of Harar Jugol exhibits an important interchange of values of original Islamic culture, expressed in the social and cultural development of the city enclosed within the otherwise Christian region. Such influences have been merged with traditions that relate to the inland of Africa and particularly to southern Ethiopia, giving a particular characteristic form to its architecture and urban plan.

Criterion (iii): Harar Jugol bears exceptional testimony to cultural traditions related to Islamic and African roots. It is considered "the fourth holy city" of Islam, having been developed by a holy missionary from the Arabic Peninsula. Though a trading place and thus a melting pot of various influences, Harar has been in relative isolation in its region, contributing to a cultural specificity, expressed in its characteristic community structure and traditions, which are still alive.

Criterion (iv): Harar Jugol is an outstanding example of a type of architectural and urban ensemble which illustrates the impact of African and Islamic traditions on the development of specific building types. The building types and the entire urban layout reflect these traditions, which give a particular character and even uniqueness to Harar Jugol.

Criterion (v): Harar Jugol with its surrounding landscape is an outstanding example of a traditional human settlement, representative of cultural interaction with the environment. The social and spatial structure (afocha) and the language of the people all reflect a particular and even unique relationship that there developed with the environment. The cultural and physical relationships with the territory have survived till today, but they are also vulnerable to irreversible change under the impact of the modern globalizing world.

Integrity

The inscribed property of Harar Jugol has a core zone of 48 ha which encompass the entire walled city and contains all the attributes that sustain the Outstanding Universal Value of the property. The buffer zone extends 800m to the south and 1700m to the east whilst, on the west side, it is narrow and confined by the new town of Harar. Urban encroachment, on the western edge of the walled town, is the current concern.

Although there have been some urban development towards the west and north parts, the historic city remains intact on the eastern and south-eastern part of the walled town where the essential relationship between the urban and rural areas is still maintained.

Except for some changes that took place in the 19th and 20th centuries, such as the replacement of the principal Mosque by the Orthodox Church, and the enlargement of the main street leading from the western gate, the historic city has kept its traditional housing reasonably intact.

However, the integrity of the property can be threatened by emerging trends to alter and modernize the traditional buildings, which would make them susceptible to irreversible change. Careful monitoring, enforcement of regulations, raising awareness and the promotion of preservation attitudes amongst the inhabitants are actions needed to maintain integrity.

Authenticity

Harar Jugol is a rare example of a relatively well preserved historic town that has retained its traditions, urban fabric, and rich Harari Muslim cultural heritage to the present time. It is one of the holy towns of

Islam in Africa, and the capital of a minority region within Christian Ethiopia. The historic city is physically limited and well defined by its 16th century surrounding wall and the setting has been retained along the eastern and south-eastern sides of the property. However, inappropriate interventions, such as plastering the houses, changing doors from wood to metal, the introduction of non-traditional materials and visual impacts such as TV antennas have been gradually affecting the authenticity of the historic fabric. Guidelines for interventions need to be enforced and communicated amongst the inhabitants to prevent further impacts on the authenticity of the property.

Protection and management requirements

Harar has been officially registered as an Ethiopian National Heritage site since 1974. The legislative framework which protects the property includes the "Heritage Conservation Draft Proclamation of Harari People National Regional State" (January 2000), "The Establishment of Harar Heritage Conservation Office" (Proclamation no. 21/1992) and the Federal Proclamation no. 209/2000 for "Research and Conservation of Cultural Heritage". In addition, four levels of protection have been identified for the property within the Management Plan: principal monuments, important historic buildings, contextual urban fabric and 'out-of-context' buildings.

The Centre for Research and Conservation of Cultural Heritage (ARCCH), established in 1976, is responsible for the inventory and the definition of conservation policies, providing support for restoration work, and making decisions over grants and permits. The local authority and the Kebele act as administrative offices in the process. The Jugol Heritage Conservation Office (JHCO), established in 2003, has a management committee and serves as a liaison between the Harari Counsel, under the General Meeting of the Harari People National Regional State, and representatives of the administrative and social structure in Jugol. The main source of funding comes from the government. However, there has been cooperation between the local authority, the Urban Development Support Service, and the German Technical Organization.

The Urban Master Plan and the GIS system that inventories historic structures are tools to drive decision-making at the property. The Master Plan has the main objectives of preserving historic heritage, improving living conditions for the inhabitants and the promotion of tourism in addition to the conservation of the agricultural landscape in the buffer zone. Factors that need to be addressed through management and conservation actions include the enforcement of regulations for new constructions, infrastructure development, waste management, the maintenance and conservation of historic buildings as well as the preservation of the setting. The management of Harar Jugol will need to address the challenges faced to achieve the delicate balance between the need for conservation of cultural heritage and traditional values with those for the improvement of quality of life and sustainable development.

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| Property | Kunta Kinteh Island and Related Sites |
| State Party | Gambia |
| Id. N° | 761 rev |
| Date of inscription | 2003 |

Brief synthesis

Kunta Kinteh Island is a small island in the Gambia River which joins the Atlantic Ocean. Its location in the middle of the river made it a strategic place to control the waterway. Visited by explorers and merchants in their search for a sea route to India it became one of the first cultural exchange zones between Africa and Europe. By 1456 the Island had been acquired by Portugal from local rulers and the construction of a fort began.

Kunta Kinteh Island and Related Sites form an exceptional testimony to the different facets and phases of the African-European encounter, from the 15th to the 19th centuries. The River Gambia was particularly important forming the first trade route to the inland of Africa. The site was already a contact point with Arabs and Phoenicians before the arrival of the Portuguese in the 15th century. The region forms a cultural landscape, where the historic elements are retained in their cultural and natural context. The properties illustrate all the main periods and facets of the various stages of the African-European encounter from its earliest moments in the 15th Century through the independence period.

The specific location of Kunta Kinteh Island and its Related Sites, at the mouth of the Gambia River, is a tangible reminder of the story of the development of the Gambia River as one of the most important waterways for trade of all kinds from the interior to the Coast and beyond. The specific, important role of the site in the slave trade, both in its propagation and its conclusion, makes Kunta Kinteh Island and its Related Sites an outstanding memory of this important, although painful, period of human history.

The property includes Kunta Kinteh Island Fort and a series of sites associated with the early European occupation of the African continent. The ensemble has seven separate locations: the whole of Kunta Kinteh Island, the remains of a Portuguese Chapel and of a colonial warehouse (CFAO Building) in the village of Albreda, the Maurel Frères Building in the village of Juffureh, the remains of the small

Portuguese settlement of San Domingo, as well as Fort Bullen and the Six-Gun Battery. Fort Bullen and the Six-Gun Battery are at the mouth of the Gambia River, whilst Kunta Kinteh Island and the other sites are some 30 km upstream.

The development of Kunta Kinteh Island differed greatly from the many other forts, castles, and trading posts found in other parts of West Africa in that the main focus of the Kunta Kinteh Island site was the control of the hinterland and its riches rather than control of the coast and the trade that passed along it. The Six-Gun Battery (1816) and Fort Bullen (1826), located on both sides of the mouth of the River Gambia came much later than Kunta Kinteh Island and were built for the specific intent of thwarting the trade in slaves once it had become illegal in the British Empire after the passing of the Abolition Act in 1807. They are the only known defensive structures in the region to have been built specifically to stop slaving interests. The other fortifications of the region (including Kunta Kinteh Island), were constructed as a means of enhancing and controlling the trade in slaves (and commodities) rather than stopping it. These two military positions allowed the British to take full control of the River Gambia, eventually paving the way for the establishment of colonial government, a period well-illustrated by many colonial buildings in Banjul and the Governor's Rest House at Fort Bullen. Finally, Fort Bullen shows evidence of its re-use during the Second World War (1939-1945) as a strategic observatory and artillery post. This later period illustrates yet another European rivalry that spread to the African continent.

Criterion (iii): Kunta Kinteh Island and related sites on the River Gambia provide an exceptional testimony to the different facets of the African-European encounter, from the 15th to 20th centuries. The river formed the first trade route to the inland of Africa, being also related to the slave trade.

Criterion (vi): Kunta Kinteh Island and related sites, the villages, remains of European settlements, the forts and the batteries, were directly and tangibly associated with the beginning and the conclusion of the slave trade, retaining its memory related to the African Diaspora.

Integrity

The six parts of the serial nomination together present a testimony to the main periods and facets of the Afro-European encounter along the River Gambia, a continuum that stretched from pre-colonial and pre-slavery times to the period of independence and in particular to the beginning and the abolition of the slave trade, as well as documenting the functions of the early access route to the inland of Africa. The six sites encompass all the key remains.

All the sites except the CFAO and Maurel Frères Buildings are ruins. The CFAO Building has been restored and provided with adequate sea defence. The Maurel Frères Building was restored in 1996 and is in a good state of conservation. The Portuguese chapel and San Domingo are in a state of ruins, but these have been stabilized, with the most endangered parts reinforced during 2000.

The isolated position of Kunta Kinteh Island in the river has conserved its setting to the present day. Fort Bullen is also bordered by the river on one side and a large open tract of land on the other, naturally serving as a buffer zone and helping to preserve its setting. It is in a relatively good state of conservation, though the wall on the seaward side is suffering from sea erosion. Parts have collapsed and 20 metres were rebuilt in 2000. The Six-Gun Battery is in a good state of conservation. The ruined sites need on-going maintenance if they are not to deteriorate over time.

Authenticity

Kunta Kinteh Island Fort was subject to destruction on numerous occasions. Since the last time by the French, in 1779, it has remained a ruin with only minor attempt at consolidation and minimizing the effects of sea erosion. The Island is a landmark for all concerned with the slave trade, especially the local community and Africans in the Diaspora. Apart from a short period of re-use during the Second World War, Fort Bullen and the Six-Gun Battery were similarly abandoned in the late 19th century. At San Domingo there are very few visible remains, but the area has considerable potential for archaeological research. The ruins that convey the Outstanding Universal Value are extremely vulnerable to erosion. At the time of inscription the ruined sites were seen to be part of a wider cultural landscape that needed protection in order to protect the setting of the sites and to allow them to be understood.

Protection and management requirements

Kunta Kinteh Island, Fort Bullen and all the significant historic buildings in the Albreda-Juffureh complex are legally protected as National Monuments (1995) under the National Council for Arts and Culture Act, 1989 (revised 2003). The proclamation instrument also establishes a buffer zone for all the sites that should be kept free of incompatible developments with adverse effects on their setting. As National Monuments the historic structures are under the custodianship of the National Centre for Arts and Culture (NCAC) who are responsible for their conservation and upkeep. Day to day management rests with the Directorate of Cultural Heritage of the NCAC, who employ site attendants and caretakers. The Six-Gun Battery is located within the State House grounds and is protected by the Office of the

President. The sites also have a 5-year management plan that sets out what is acceptable at the individual sites and at national level. This plan was prepared as a result of the joint effort of ten different national and local organisations, supported by the Africa 2009 programme.

The financial resources required for the management and maintenance of the sites are relatively scarce, and come mainly from entrance fees. Every three months, the Head of the Museums and Monuments section of the NCAC performs a physical inspection of the sites. This condition assessment is carried out with a representative of the local stakeholders and, if possible, with a local guide. A brief report is prepared after each visit and these are summarized in an annual report.

Since 1996 the Gambia Government, through its Department of State for Tourism and Culture, has instituted an annual event called the 'International Roots Homecoming Festival'. Considered to be a "heritage week", the main aim is to attract visitors from the African Diaspora. The festival usually devotes a daylong spiritual pilgrimage to Kunta Kinteh Island and the Albreda-Juffureh area. To the visitors the property has symbolic and emotional significance, as a visit to Kunta Kinteh Island is a pilgrimage to their roots. As a piece of historical evidence, much can be learnt from the Island, and it already forms part of the history and social studies syllabus in Gambian schools.

The property contains very fragile ruins that need to be protected and conserved as the tangible elements that convey Outstanding Universal Value. There needs to be ongoing maintenance monitoring and conservation to allow these ruins to have the best chance of survival and be robust enough to withstand the onslaughts of nature.

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|---------------------|------------------------------------|
| Property | Stone Circles of Senegambia |
| States Parties | Gambia and Senegal |
| Id. N° | 1226 |
| Date of inscription | 2006 |

Brief synthesis

The inscribed site corresponds to four large groups of megalithic circles located in the extreme western part of West Africa, between the River Gambia and the River Senegal. These sites, Wassu, and Kerbatch in Gambia, and Wanar and Sine Ngayene in Senegal, represent an extraordinary concentration of more than 1,000 stone circles and related tumuli spread over a territory of 100 km wide and 350 km in length, along the River Gambia. Together, the four groups comprise 93 circles and associated sites, some of which have been excavated, some of which have revealed archaeological material and human burials, from pottery to iron instruments and ornamentation dating between the 1st and 2nd millennia to our era. These four megalithic sites are the most dense concentration in the zone and have Outstanding Universal Value, representing a traditional monumental megalithic construction spread out over a vast area, with more than 1,000 stone circles scattered along one of the major rivers of Africa.

The Sine Ngayene complex (Senegal) is the largest site in the area. It consists of 52 circles of standing stones, including one double circle. In all, there are 1102 carved stones on the site. Around 1km to the east, (outside the inscribed property) is the quarry from which the monoliths were extracted and where the sources of around 150 stones can be traced. The site was excavated around 1970, and more recently by Bocoum and Holl. The work established that the single burials appeared to precede in time the multiple burials associated with the stone circles. The Wanar complex (Senegal) consists of 21 circles including one double circle. The site contains 9 'lyre' stones or bifed stones, sometimes with a cross piece strung between the two halves. The Wassu complex (Guinea) consists of 11 circles and their associated frontal stones. This site has the highest stones of the area. The most recent excavations conducted on these megalithic circles date to the Anglo-Gambian campaign led by Evans and Ozanne in 1964 and 1965. The finds of burials enabled the dating of the monuments between 927 and 1305 AD. The Kerbatch complex consists of 9 circles, including a double circle. The site possesses a 'bifid' stone, the only known one in the area.

The stones forming the circles were extracted from nearby laterite quarries using iron tools and skillfully shaped into almost identical pillars, either cylindrical or polygonal, on average around 2 m in height and weighing up to 7 tons. Each circle contains between eight to fourteen standing stones having a diameter of four to six metres. The four megalithic sites inscribed bear witness to a prosperous and highly organized society with traditions of stone circle constructions, associated with burials, and persisting in certain areas over more than a millennium.

Criterion (i): Individual stones finely carved bear witness to an exact and experienced technique and contribute to the organized and imposing size of the stone circle groups.

Criterion (iii): The circles of stones proposed for inscription represent the totality of the megalithic area in which the presence of such a large number of circles is a unique manifestation of construction and

funerary practices which persisted for over a millennium across a large geographical area and reflecting a sophisticated and productive society.

Integrity

The integrity of the four components of the site can only be evaluated as part of a much wider unified cultural complex. The complexes conserve their integrity in terms of spatial associations of the component circles, individual megaliths and tumuli. The spiritual beliefs associated to the stones by local communities help to protect their integrity.

Authenticity

The stone circles stand in a farmed landscape and there have been few interventions. A very small number of stones have been removed. Some burial sites have been excavated and subsequently back-filled. These disturbances remain minimal. The overall authenticity of the four sites is intact.

Protection and management requirements

In Gambia, management of the of the two sites (Wassu and Kerbath) fall under the responsibility of the National Centre for Arts and Culture (NCAC) in accordance with the law promulgated by the National Assembly (NCAC Law of 1989, amended in 2003). The NCAC is the dismantled technical section of the Ministry of Tourism and Culture. The daily management of the sites is under the responsibility of the Directorate for Cultural Heritage of the NCAC that employs, on a permanent basis, the caretakers and maintenance staff. Both sites have a management plan prepared during the nomination process with participatory cooperation of local communities and their representatives. The two sites are fenced and four thatched round buildings, built in the manner of traditional houses, serve as a museum, visitor reception facilities and lodgings for the caretaker. The NCAC has support from local management committees that ensure the interests of the community in the sites. Funding is principally provided by Government revenue from visitor entrance fees and other subventions.

In Senegal, the two sites enjoy legal protection: Law No.71-12 of 25 January 1971, regulating the regime for historical sites and monuments and excavations and finds/ Decree 73-746 of 8 August 1973 promulgating the law. The Directorate of Cultural Heritage of the Ministry is responsible for the management of the sites. The communities also have extended powers through the Law on decentralization facilitating their involvement in the management of the sites. The funding sources are: the State budget, local communities and donor subventions. These funds have enabled the fencing of the two sites, the construction of a hall (Wanar) and a welcome space (Sine Ngayene), visitor sanitary facilities as well as the funding of two full-time caretakers. Good signposting was installed to access the two sites as well as an interpretation centre at Sine Ngayene. In the long-term, improvement to the access paths is foreseen in the presentation framework.

The management plan was prepared in consultation with the Senegalese and Gambian stakeholders meeting in Wassu in Gambia and Ngayene in Senegal in December 2004.

The long-term objective of this action plan is to render the site visible, accessible and ensure economic benefits for the local communities. Beyond the conservation and enhancement of the sites, the management envisages conducting in-depth research and enable the sites to be better adapted to the development objectives at the national level.

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|---------------------|---|
| Property | Forts and Castles, Volta, Greater Accra, Central and Western Regions |
| State Party | Ghana |
| Id. N° | 34 |
| Date of inscription | 1979 |

Brief synthesis

These fortified trading posts, founded between 1482 and 1786, and spanning a distance of approximately 500 km along the coast of Ghana between Keta in the east and Beyin in the west, were links in the trading routes established by the Portuguese in many areas of the world during their era of great maritime exploration. The castles and forts were built and occupied at different times by traders from Portugal, Spain, Denmark, Sweden, Holland, Germany and Britain. They served the gold trade of European chartered companies. Latterly they played a significant part in the developing slave trade, and therefore in the history of the Americas, and, subsequently, in the 19th century, in the suppression of that trade.

The property consists of three Castles (Cape Coast, St. George's d'Elmina and Christiansborg at Osu, Accra), 15 Forts (Good Hope at Senya Beraku; Patience at Apam; Amsterdam at Abandzi; St. Jago at Elmina; San Sebastian at Shama; Metal Cross at Dixcove; St. Anthony at Axim; Orange at Sekondi; Groot Fredericksborg at Princesstown; William (Lighthouse) at Cape Coast; William at Anomabu;

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Victoria at Cape Coast; Ussher at Ussherstown, Accra; James at Jamestown, Accra and Apollonia at Beyin), four Forts partially in ruins (Amsterdam at Abandzi; English Fort at British Komenda; Batenstein at Butre; Prinzenstein at Keta), four ruins with visible structures (Nassau at Mouri; Fredensborg at Old Ningo; Vredenburg at Dutch Komenda; Vernon at Prampram and Dorothea at Akwida) and two sites with traces of former fortifications (Frederiksborg at Amanful, Cape Coast and Augustaborg at Teshie, Accra).

The basic architectural design of the Forts was in the form of a large square or rectangle. The outer components consisted of four bastions/batteries or towers located at the corners, while the inner components consisted of buildings of two or three storeys with or without towers, in addition to an enclosure, courtyard or a spur. Many have been altered, during their use by successive European powers, and some survive only as ruins.

St. George's d'Elmina Castle, built in 1482, is one of the oldest European buildings outside Europe, and the historic town of Elmina is believed to be the location of the first point of contact between Europeans and sub-Saharan Africans.

The castles and forts constituted for more than four centuries a kind of 'shopping street' of West Africa to which traders of Europe's most important maritime nations came to exchange their goods for those of African traders, some of whom came from very far in the interior.

They can be seen as a unique "collective historical monument": a monument not only to the evils of the slave trade, but also to nearly four centuries of pre-colonial Afro-European commerce on the basis of equality rather than on that of the colonial basis of inequality. They represent, significantly and emotively, the continuing history of European-African encounter over five centuries and the starting point of the African Diaspora.

Criterion (vi): The Castles and Forts of Ghana shaped not only Ghana's history but that of the world over four centuries as the focus of first the gold trade and then the slave trade. They are a significant and emotive symbol of European-African encounters and of the starting point of the African Diaspora.

Integrity

The property contains all the significant remains of forts and castles along the coast.

Some of the ruins are susceptible to wave action. The sea has attacked a major part of Fort Prinzenstein but its protection has been enhanced by the construction of a sea defence wall, and efforts are being made to stabilise the remaining parts.

The sites overall remains vulnerable to environmental pressures, development pressure including localized quarrying, and lack of adequate funding for the regular maintenance and conservation of the sites. There are also no buffer zones.

Authenticity

The forts and castles were periodically altered, extended and modified to suit changing circumstances and new needs. In their present conditions, they demonstrate that history of change. As symbols of trade, and particularly the slave trade, they need to continue to reflect the way they were used.

Protection and management requirements

The Castles and Forts have been respectively established and protected as National Monuments under the National Liberation Council Decree (N.L.C.D) 387 of 1969 and Executive Instrument (E.I.) 29 of 1973. All sites are in the custody of the Ghana Museums and Monuments Board (GMMB). Also James Fort, Accra, and Fort William, Anomabu, are no longer in use as prisons and have been handed over to the GMMB.

The Monuments Division of the GMMB provides technical advice and management. Regular state-of-conservation inspections are undertaken. Priority programmes are established to help ensure that appropriate interventions are carried out

The existing legislative framework is to be reviewed, and it is expected that a new legal framework will enhance the existence of the heritage resources, the socio-economic developments and improve the quality of life of the local inhabitants.

A management plan still needs to be prepared. There is an on-going need to ensure adequate resources and training for staff, and to demarcate the boundaries of the sites and establish buffer zones.

| | |
|---------------------|-------------------------------------|
| Property | Asante Traditional Buildings |
| State Party | Ghana |
| Id. N° | 35 |
| Date of inscription | 1980 |

Brief synthesis

Near Kumasi, a group of traditional buildings are the last remaining testimony of the great Asante civilization, which reached its peak in the 18th century.

The buildings include ten shrines/fetish houses (Abirim, Asawase, Asenemaso, Bodwease, Ejisu Besease, Adarko Jachie, Edwenase, Kentinkrono, Patakro and Saaman). Most are to the north-east of Kumasi, and Patakro, to the south.

Arranged around courtyards, the buildings are constructed of timber, bamboo and mud plaster and originally had thatched roofs. The unique decorative bas-reliefs that adorn the walls are bold and depict a wide variety of motifs. Common forms include spiral and arabesque details with representations of animals, birds and plants, linked to traditional "Adinkra" symbols. As with other traditional art forms of the Asante, these designs are not merely ornamental, they also have symbolic meanings, associated with the ideas and beliefs of the Asante people, and have been handed down from generation to generation.

The buildings, their rich colour, and the skill and diversity of their decorations are the last surviving examples of a significant traditional style of architecture that epitomized the influential, powerful and wealthy Asante Kingdom of the late 18th to late 19th centuries. Asante Traditional Buildings reflect and reinforce a complex and intricate technical, religious and spiritual heritage.

The traditional religion, still practiced in the Asante shrines, takes the form of consulting with the deities to seek advice on specific situations, or before an important initiative. That is why the shrines have been maintained complete with all their symbolic features.

Criterion (v): The Asante Traditional Buildings are the last remaining testimony of the unique architectural style of the great Asante Kingdom, The traditional motifs of its rich bas-relief decoration, are imbued with symbolic meaning.

Integrity

The group of buildings is the only surviving example of the Asante traditional architecture. Very few of the buildings are complete. In most cases parts of the original structures are missing.

The integrity is threatened by deterioration of the fabric due to the warm humid tropical climate that is destructive of traditional earth and wattle-and-daub buildings. Heavy rainfall and high humidity encourage rapid mould formation on wall surfaces, and the activities of termites, and other prolifically breeding destructive insects.

The intensification of agricultural developments makes the traditional building materials of thatch, bamboo, and specific timber species less easy to obtain.

Authenticity

The present appearance of the buildings and their architectural form is largely authentic in terms of reflecting their traditional form and materials, although many have been largely reconstructed. In 12 of the 13 buildings the original steeply pitched palm-frond thatched roof has been replaced by lighter, shallower-pitched, corrugated iron roofs, and in all the buildings there has been the insertion of more durable paved flooring than the traditional rammed earth.

Protection and management requirements

Between 1960 and 1970 the buildings were acquired by the Ghana Museums and Monuments Board (GMMB) and scheduled as a National Monument under the Law of Ghana NLC Decree 387 of 1969. There is also involvement by the Chief and his Elders.

Therefore, the instruments for the protection of the Asante Traditional Buildings operate on two levels. The first is a prescription of customary regulations, prohibitions and penalties that have been handed down through generations from the past. The second is the modern statutory regulations enacted by Government. The two sets of laws complement each other, and are a generally effective means of protection although the modes of enforcement are different. The former is built into the belief system and worldview of the communities where the sites are located, while the latter prescribes the role of the GMMB.

Part III of Executive Instrument (EI) 29 of National Museums Regulations, 1973, provides legal protection for the properties as National Monument.

The GMMB is responsible for all conservation activities on the properties. Routine inspections are carried out by staff of GMMB and there are Caretakers at all the sites who report to the Regional Office of the GMMB.

Planning and implementation of intervention measures are carried out with the involvement of the Traditional Authorities, Local Council, the Community members and Kwame Nkrumah University of Science and Technology (KNUST).

A strategic and management planning framework "Local Tourism Promotional Strategy and Management Planning framework for Sustainable Development of Asante Traditional Buildings" has been put in place to ensure a sustainable development of the Asante Traditional Buildings.

Adoption of retrospective Statements
of Outstanding Universal Value

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The long-term challenges for the management of the Asante Traditional Buildings are to ensure regular maintenance in order to mitigate the impacts of the warm humid climate and to put in place a long-term strategy to secure a sufficient supply of organic materials for their repair.

| | |
|---------------------|----------------------------------|
| Property | Royal Hill of Ambohimanga |
| State Party | Madagascar |
| Id. N° | 950 |
| Date of inscription | 2001 |

Brief synthesis

The Royal Hill of Ambohimanga constitutes an exceptional witness to the civilization which developed in the 'Hautes Terres Centrales' in Madagascar between the 15th and 19th centuries and to the cultural and spiritual traditions, the cult of kings and ancestors which were closely associated there. The Royal Hill of Ambohimanga is the cradle of the kingdom and the dynasty that has made Madagascar a modern state, internationally acknowledged since 1817. It is associated with strong feelings of identity and emotion relating to the sacred nature of the site through its venerated royal tombs, its numerous holy places (fountains, sacred basins and woods, sacrificial stones) and its majestic royal trees. Religious capital and sacred town of the kingdom of Madagascar in the 19th century, the Royal Hill was the burial ground for its sovereigns. The site retains clear archaeological proof of the former exercise of power and justice. It is still today the centre of the religious practices for many Malagasy people and constitutes a living memory of the traditional religion.

The Royal Hill of Ambohimanga comprises a system of fortifications with a series of ditches and fourteen fortified stone gateways, a royal city consisting of a coherent suite of buildings divided by a royal enclosure and associating a public place (the Fidasiana), royal trees, a seat of justice and other natural or built places of cult, an ensemble of sacred places as well as agricultural lands. The royal city comprises two palaces and a small pavilion, an "ox pit", two sacred basins and four royal tombs. In addition, the designated property shelters vestiges of a primary forest conserving numerous endemic and medicinal plant species.

The Royal Hill of Ambohimanga constitutes an eminent example of an architectural ensemble (the Rova) and the associative cultural landscape (wood, sacred fountain and lake) illustrating significant periods of human history between the 16th and 19th centuries in the islands of the Indian Ocean. The particularly high elevation of the Rova indicates the political importance of the site and gives it a very significant place among the fortified groups of the Imerina (region of Antananarivo). Because of its geographical position, the Royal Hill of Ambohimanga offers a complete panorama, determining it as the strategic choice for a defensive residence. Thus, Ambohimanga bears witness to a strong royal power, a decision-making centre serving as a model for the future. The recognizable traditional Malagasy and European style of architecture of the royal city bears witness to the diverse political phases in the history of Madagascar.

The landscape of the Royal Hill of Ambohimanga is associated with important historic events (Malagasy place of unification), as well as with traditions and living beliefs having an Outstanding Universal Value (ancestor worship). The eminently sacred character of the place and its components justifies the respect and veneration that the Malagasy people have demonstrated over centuries. The site constitutes a remarkable testimony to the austro-indonesian culture (Indonesia) through ancestor worship and agricultural practices, notably irrigated stepped rice paddy fields on the one hand, and the African culture (west and southern Africa) through the cult of the royal person, on the other. The Malagasy nation accords primary importance and absolute respect of the Royal Hill of Ambohimanga, that they visit to imbibe the spirituality of the place, for renewal and request blessing and protection for all that they undertake in life. It is also a cult and pilgrimage place for the nation, as well as for numerous foreigners, and has been so for centuries.

Criterion (iii): The Royal Hill of Ambohimanga is the most significant symbol of the cultural identity of the people of Madagascar.

Criterion (iv): The traditional design, materials and layout of the Royal Hill of Ambohimanga are representative of the social and political structure of Malagasy society from at least the 16th century.

Criterion (vi): The Royal Hill of Ambohimanga is an exceptional example of a place where, over centuries, common human experience has been focused in memory, ritual and prayer.

Integrity

The Royal Hill of Ambohimanga has preserved its visual integrity. The site is in a good state of conservation, vegetation covers the slopes of the hill evenly despite the invasion of certain exotic or

local species (*bambusa*, *lantana*, *pinus*). The forest on the Hill constitutes the most important residual element of the primary forest, with deciduous species that in earlier times covered the interior of Madagascar. This forest contains endemic, woody and herbaceous species and medicinal plants. The abundance of “zahana” (*phyllarthron madagascariensis*) and medicinal plants constitute the specific character of the Ambohimanga forest. In addition, the forest has retained its regenerative powers and biogeochemical cycles, in particular that of the water, which continue to be active, ensuring the continual use of the sacred fountain and lake.

Authenticity

The layout at the summit of the Hill of the royal enclosure with its buildings is in conformity with the Imerina tradition, in particular, and of Madagascar in general. The sacred character of the site is manifested in the pilgrimages and sacrifices to which it is witness. The different elements that comprise it are representative of the traditional skills and beliefs: the homes of the living are made of wood and vegetation (living materials), while those of the dead are in stone (cold and inert materials). The materials used respect the construction traditions of their era. Restoration work undertaken since 1996 uses materials and construction techniques based on the traditional Malagasy skills and respects the cosmological vision of the place to preserve its authenticity. Furthermore, the sacred wooden houses, symbol of the royal tombs demolished by the French colonial authorities, were rebuilt in 2008 by the Malagasy State respecting the rites, the construction regulations and traditional materials (for the choice of wood essences in particular), due to their symbolic importance. Thus, the mortal remains of the sovereigns removed from the site in 1897 have been replaced in their original tombs to consolidate the sacredness of the site.

Protection and management requirements

The site of the Royal Hill of Ambohimanga receives adequate legal protection: incorporated into the Colony Domains Service since 1897, inscribed on the national inventory since 1939, the site benefits from the provisions of Ordinance No. 82.029 of 6 November 1982 and Decree No. 83.116 of 31 March 1983. In addition, the site also has municipal legal protection. However, there is a need to strengthen the legal framework to be compatible with the status of the property.

Since 2006, the designated property has been managed by the Office of the Cultural Site of Ambohimanga (OSCAR). This public establishment, created by the Ministry of Culture, has an Administration Council (deliberative body), a Scientific Monitoring Commission and a Management Planning Commission (consultative body) that work in close cooperation with the Conservator of the site. About thirty employees ensure the implementation of the 5-year management plan prepared in 2006. At the local level, the Rural Commune of the Ambohimanga Rova collaborates with the OSCAR to strengthen security at the site. The Village Committee, comprising representatives of all the adjacent quarters and the local community, (tradi-practitioners) are also involved in the protection of the site. The OSCAR manages the income from entrance fees and State subventions.

The spontaneous development of exotic species (*bambusa* and *lantana*) constitutes a threat which over time could degrade the natural landscape. Eradication actions have been undertaken but should be reinforced to rapidly and definitively replace these exotic species by endemic species. The risk of fire is another threat for the site (forest, buildings) and it is necessary to identify the financial partners able to contribute towards providing the designated property with an adequate fire-fighting system. Finally, the lack of town planning for the domain of the Rural Commune of Ambohimanga results in the local inhabitants deliberately ignoring the conservation measures proposed for the preservation of the visual integrity of the site. It would be desirable if a landscape development expert collaborates with the Commune of Ambohimanga to mitigate this gap.

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|---------------------|-----------------|
| Property | Timbuktu |
| State Party | Mali |
| Id. N° | 119 rev |
| Date of inscription | 1988 |

Brief synthesis

Located at the gateway to the Sahara desert, within the confines of the fertile zone of the Sudan and in an exceptionally propitious site near to the river, Timbuktu is one of the cities of Africa whose name is the most heavily charged with history.

Founded in the 5th century, the economic and cultural apogee of Timbuktu came about during the 15th and 16th centuries. It was an important centre for the diffusion of Islamic culture with the University of Sankore, with 180 Koranic schools and 25,000 students. It was also a crossroads and an important

market place where the trading of manuscripts was negotiated, and salt from Toghaza in the north, gold was sold, and cattle and grain from the south.

The Djingareyber Mosque, the initial construction of which dates back to Sultan Kankan Moussa, returning from a pilgrimage to Mecca, was rebuilt and enlarged between 1570 and 1583 by the Imam Al Aqib, the Qadi of Timbuktu, who added all the southern part and the wall surrounding the cemetery located to the west. The central minaret dominates the city and is one of the most visible landmarks of the urban landscape of Timbuktu.

Built in the 14th century, the Sankore Mosque was, like the Djingareyber Mosque, restored by the Imam Al Aqib between 1578 and 1582. He had the sanctuary demolished and rebuilt according to the dimensions of the Kaaba of the Mecca.

The Sidi Yahia Mosque, to the south of the Sankore Mosque, was built around 1400 by the marabout Sheik El Moktar Hamalla in anticipation of a holy man who appeared forty years later in the person of Cherif Sidi Yahia, who was then chosen as Imam. The mosque was restored in 1577-1578 by the Imam Al Aqib.

The three big Mosques of Djingareyber, Sankore and Sidi Yahia, sixteen mausoleums and holy public places, still bear witness to this prestigious past. The mosques are exceptional examples of earthen architecture and of traditional maintenance techniques, which continue to the present time.

Criterion (ii): The mosques and holy places of Timbuktu have played an essential role in the spread of Islam in Africa at an early period.

Criterion (iv): The three great mosques of Timbuktu, restored by the Qadi Al Aqib in the 16th century, bear witness to the golden age of the intellectual and spiritual capital at the end of the Askia dynasty.

Criterion (v): The three mosques and mausoleums are outstanding witnesses to the urban establishment of Timbuktu, its important role of commercial, spiritual and cultural centre on the southern trans-Saharan trading route, and its traditional characteristic construction techniques. Their environment has now become very vulnerable under the impact of irreversible change.

Integrity

The three mosques and the sixteen mausoleums comprising the property are a cliché of the former great city of Timbuktu that, in the 16th century, numbered 100,000 inhabitants. The vestiges of urban fabric are essential for their context. However, as indicated at the time of inscription of the property, rampant urbanization which is rife in Timbuktu, as in Djenne, is particularly threatening to the architecture, and the large public squares and markets. Contemporary structures have made irretrievable breaches in the original parcelling and obviously exceed the scale of the traditional buildings. This process is ongoing and most recently a new very large institute was built on one of the public squares, compromising the integrity of the Sankore Mosque. Urban development pressures, associated with the lack of maintenance and flooding, resulting from the heavy rains, threaten the coherence and integrity of the urban fabric and its relation to the property.

The three mosques are stable but the mausoleums require maintenance, as they are fragile and vulnerable in the face of irreversible changes in the climate and urban fabric.

Authenticity

The three mosques retain their value in architectural terms, traditional construction techniques associated to present-day maintenance, and their use. However, the Sankore Mosque has lost a part of the public square that was associated with it following the construction of the new Ahmed Baba Centre. Following this construction, the status of the mosque in the urban context and part of its signification have been compromised and require review and reconsideration.

Overall, because of the threat from the fundamental changes to the traditional architecture and the vestiges of the old city, the mosques and mausoleums risk losing their capacity to dominate their environment and to stand as witnesses to the once prestigious past of Timbuktu.

Protection and management requirements

The site of Timbuktu has three fundamental management tools: a Revitalization and Safeguarding Plan of the Old Town (2005), and a Strategic Sanitary Plan (2005), that are being implemented despite certain difficulties; and a Conservation and Management Plan (2006-2010) is being implemented and which shall be reassessed shortly.

The management system of the property is globally appropriate as its legal protection is jointly assured by the community of Timbuktu through management committees of the mosques, the cultural Mission of Timbuktu and the Management and Conservation Committee of the Old Town of Timbuktu. This mechanism is strengthened by two practical functioning modalities, initiated in consultation with the World Heritage Centre: the Town Planning Regulation and the Conservation Manual. The specific long-term objectives are the extension of the buffer zone by approximately 500 m to assure the protection of

the inscribed property ; the development of the historic square of Sankore to integrate corrective measures proposed by the Committee at its 33rd session and by the reactive monitoring mission of March 2010 ; the extension of the inscribed property to include the entire Timbuktu Medina ; the development of an integrated conservation and sustainable and harmonious management project for the site, in the wider framework of development of the urban commune and in close cooperation with the elected members of the Territorial Communities of Timbuktu and the development partners ; the active conservation of the mausoleums.

| | |
|---------------------|---|
| Property | Cliff of Bandiagara (Land of the Dogons) |
| State Party | Mali |
| Id. N° | 516 |
| Date of inscription | 1989 |

Brief synthesis

The Cliff of Bandiagara, Land of the Dogons, is a vast cultural landscape covering 400,000 ha and includes 289 villages scattered between the three natural regions: sandstone plateau, escarpment, plains (more than two-thirds of the listed perimeter are covered by plateau and cliffs).

The communities at the site are essentially the Dogon, and have a very close relationship with their environment expressed in their sacred rituals and traditions.

The site of the Land of the Dogons is an impressive region of exceptional geological and environmental features. Human settlements in the region, since Palaeolithic times, have enabled the development and harmonious integration into the landscape of rich and dense tangible and intangible cultures, the best known of which are those of the Tellem, that are thought to live in the caves, and the Dogon.

This hostile milieu and difficult access has been, since the 15th century, a natural refuge that corresponded to the need for defence of the Dogons in the face of formidable invaders. Entrenched on the plateau and hanging to cliff faces, the Dogon were able to conserve their centuries-old culture and traditions, thanks to this defensive shelter. The architecture of the Dogon land has been adapted to benefit from the physical constraints of the place. Whether on the high plateau, the cliff-faces, or on the plain, the Dogon have exploited all the elements available to build their villages that reflect their ingenuity and their philosophy of life and death.

In certain cultural areas, the Dogon villages comprise numerous granaries, for the most part square with a thatched tapering roof. The gin'na, or large family house, is generally built on two levels. Its facade built from banco, is windowless but has a series of niches and doors, often decorated with sculptured motifs: rows of male and female characters which symbolize the couple's successive generations.

One of the most characteristic forms of the Land of the Dogon is that of the togu-na, the large shelter, a long construction that provides shelter under a roof of branches supported by roughly-shaped wooden poles, for a platform with benches for the men.

The totemic sanctuaries (binu), privileged places, are of a great variety: some, in caves, keep alive the cult places of the Tellem; others, built of banco, resemble houses. The most venerated are the responsibility of the Hogon, the priest of one or several villages living alone, his source of inspiration being the snake, Lèbe, whose totem is often sculpted near the door of his dwelling.

The irruption of new « written religions » (Islam and Christianity) since at least the 18th century has contributed to the vulnerability of the heritage that today has suffered from the negative effects of globalization linked to the increasing development of cultural tourism and the phenomena of rural exodus, consequence of the drought of the last decades.

Criterion (v): *The Land of the Dogon is the outstanding manifestation of a system of thinking linked to traditional religion that has integrated harmoniously with architectural heritage, very remarkably in a natural landscape of rocky scree and impressive geological features. The intrusion of new written religions (Islam and Christianity) since at least the 18th century has contributed towards the vulnerability of the heritage that today suffers from adverse effects of globalization.*

Criterion (vii): *The cliff and its rocky scree constitute a natural area of unique and exceptional beauty in West Africa. The diversity of geomorphological features (plateau, cliffs and plains) of the site are characterized by the presence of natural monuments (caves, secondary dunes and rock shelters) that bear witness to the continued influence of the different erosion phenomena. It is also in the natural environment that the endemic plant *Acridocarpus monodii* is found, its growth area being limited to the cliffs, and specific medicinal plants used by the Dogon therapists and healers. These plants suffer from gradual decline due to climate change (drought and desertification) and logging. The relationship of the Dogon people with their environment is also expressed in the sacred rituals associating spiritually the pale fox, the jackal and the crocodile.*

Integrity

Due to the socio-economic phenomena (exodus, scholarization, infrastructure development), human activities and the degradation of the environment (climate change causing droughts, desertification or also torrential rains; demographic pressure), the populations are leaving the villages located on the steep escarpments for the plain. Some intangible cultural practices undergo mutation linked to contact with other imported value systems (religions, cultural tourism...). The integrity of this very extensive property is, consequently, threatened as several sectors no longer contain all the attributes of the Outstanding Universal Value.

Authenticity

The social and cultural traditions of the Dogon are among the best preserved of sub-saharan Africa, despite certain important irreversible socio-economic mutations. The villages and their inhabitants are faithful to the ancestral values linked to an original life style. The harmonious integration of cultural elements (architecture) in the natural landscape remains authentic, outstanding and unique. Nevertheless, the traditional practices associated to the living quarters and the building constructions have become vulnerable, and in places the relationship between the material attributes and the Outstanding Universal Value are fragile.

Protection and management requirements

The property is listed in national heritage by Decree No 89 – 428 P-RM of 28 December 1989 as a natural and cultural sanctuary. The Law regulating forestry exploitation (No.68-8/AN-RN of February 1968) as well as the Ordinance No. 60/CMLN of 11 November 1969 concerning hunting are also applicable. The Ministry of Culture of Mali, the overall body responsible for the protection of the property, has delegated the management to the Cultural Mission of Bandiagara. The Cultural Mission of Bandiagara has prepared a management and conservation plan for the site (2006-2010). This plan requires the implementation of activities relating to integrated conservation programmes. It highlights the improvement of living conditions of the communities, bearers of the heritage values of the site.

For a sustainable and effective management of the site, priority is given to the implementation of programmes inscribed in the management and conservation plan of the site. This plan calls for the correlation of the management of heritage and development of the local economy. The Land of the Dogon is a living site, but fragile, and certain important values can only be preserved by taking into consideration the well-being of the local communities, translated by the implementation of targeted development and infrastructural projects (for example, the provision of water to high-perched sites and the economic enhancement of heritage resources).

It is essential to assess the implementation of the management plan to better pinpoint the concerns of the populations and those responsible bodies of the decentralized territorial communities.

Another concern is the need to revise the listing of the site. Any revision of the boundaries should reflect the vulnerabilities of certain parts of the property in terms of authenticity and integrity.

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|---------------------|----------------------|
| Property | Tomb of Askia |
| State Party | Mali |
| Id. N° | 1139 |
| Date of inscription | 2004 |

Brief synthesis

The Tomb of Askia is located in the town of Gao. The site comprises the following elements: the pyramidal tower, the two flat-roofed mosques, the necropolis and the white stone square. The spectacular pyramidal structure was built by Askia Mohamed, Emperor of the Songhai Empire in 1495. The Tomb of Askia was built when Gao became the capital of the Empire and Islam was adopted as the official religion.

The Tomb of Askia is a magnificent example of how the local traditions have adapted to the exigences of Islam in creating an architectural structure unique across the West African Sahel. The Tomb is the most important and best conserved vestige of the powerful and rich Songhai Empire that extended through West Africa in the 15th and 16th centuries. Its value is also invested in its architectural tomb/minaret shape, its prayer rooms, its cemetery and its assembly space that have survived and are still in use. From the architectural perspective, the Tomb of Askia is an eminent example of Sudano-Sahelian style, characterized by rounded forms resulting in the regular renewal of the layer of plaster eroded each winter by the rare but violent rains. The pyramidal form of the tomb, its function as central minaret as well as the length and shape of the pieces of wood comprising the permanent scaffolding, give the Tomb of Askia its distinctive and unique architectural characteristics.

Criterion (ii) : *The Tomb of Askia reflects the way the local building traditions, in response to Islamic needs, absorbed influences from North Africa to create a unique architectural style across the West African Sahel.*

Criterion (iii): *The Tomb of Askia is an important vestige of the Songhai Empire, which once dominated the Sahel lands of West Africa and controlled the lucrative trans-Saharan trade.*

Criterion (iv): *The Tomb of Askia reflects the distinctive architectural tradition of the West African Sahel and in particular the way buildings evolve over centuries through regular, traditional maintenance practices.*

Integrity

The integrity of the site is fully intact with regard to all its components which remain visually, socially and culturally associated, first in the town of Gao where its elements are integrated into the architectural traditions and in the associated sites (Saneye, Gounzourey, Koima, Kankou Moussa Mosque), important elements for its interpretation.

Authenticity

The monument reflects the constructive culture of the local populations as regards earthen architecture, even if the necessary repairs regularly carried out have engendered some minor alterations. Reversible, these alterations (tin water spouts, cement stairways, other wooden scaffolding than the hasu – Maerua crassifolia) do not however detract from the authenticity of the site.

Protection and management requirements

The site belongs to the State. It was inscribed in 2003 on the National Heritage List of Mali and the buffer zone is officially recognized by municipal decree. The management of the site is the responsibility of an association created by the Prefect of Gao in 2002 and comprises representatives of all the principal stakeholders.

The Conservation and Management Plan of 2002-2007 was prepared in the framework of the Africa 2009 Programme, in cooperation with two experts from CRAterre-ENSAG (International Centre for Earthen Construction, Grenoble, France). Its implementation has enabled the improvement of the state of conservation and authenticity of the site, and the maintenance of its harmony with the urban fabric of Gao.

The long-term specific objectives for the conservation of the Tomb of Askia are the following: redevelop the surrounding wall to include the entire prayer area and assure a better visibility of the site from the Askia Avenue and the prayer area; gradually improve the state of conservation and authenticity of the site while continuing traditional maintenance practices; assure the promotion of the site and its improved use as an educative and tourism resource.

| | |
|---------------------|---------------------------------|
| Property | Osun-Osogbo Sacred Grove |
| State Party | Nigeria |
| Id. N° | 1118 |
| Date of inscription | 2005 |

Brief synthesis

A century ago there were many sacred groves in Yorubaland: every town had one. Most of these groves have now been abandoned or have shrunk to quite small areas. Osun-Osogbo, in the heart of Osogbo, the capital of Osun State, founded some 400 years ago in southwest Nigeria, at a distance of 250 km from Lagos is the largest sacred grove to have survived and one that is still revered.

The dense forest of the Osun Sacred Grove is some of the last remnants of primary high forest in southern Nigeria. Through the forest meanders the river Osun, the spiritual abode of the river goddess Osun. Set within the forest sanctuary are forty shrines, sculptures and art works erected in honour of Osun and other Yoruba deities, many created in the past forty years, two palaces, five sacred places and nine worship points strung along the river banks with designated priests and priestesses.

The new art installed in the grove has also differentiated it from other groves: Osogbo is now unique in having a large component of 20th century sculpture created to reinforce the links between people and the Yoruba pantheon, and the way in which Yoruba towns linked their establishment and growth to the spirits of the forest.

The restoration of the grove by artists has given the grove a new importance: it has become a sacred place for the whole of Yorubaland and a symbol of identity for the wider Yoruba Diaspora.

The Grove is an active religious site where daily, weekly and monthly worship takes place. In addition, an annual processional festival to re-establish the mystic bonds between the goddess and the people of the town occurs every year over twelve days in July and August and thus sustains the living cultural traditions of the Yoruba people.

The Grove is also a natural herbal pharmacy containing over 400 species of plants, some endemic, of which more than 200 species are known for their medicinal uses.

Criterion (ii): *The development of the Movement of New Sacred Artists and the absorption of Suzanne Wenger, an Austrian artist, into the Yoruba community have proved to be a fertile exchange of ideas that revived the sacred Osun Grove.*

Criterion (iii): *The Osun Sacred Grove is the largest and perhaps the only remaining example of a once widespread phenomenon that used to characterise every Yoruba settlement. It now represents Yoruba sacred Groves and their reflection of Yoruba cosmology.*

Criterion (vi): *The Osun Grove is 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.*

Integrity

The property encompasses almost the whole of the sacred grove and certainly all that has been restored over the forty years before inscription. Some of the recent sculptures are vulnerable to lack of regular maintenance which given their materials – cement, iron and mud – could lead to potentially difficult and expensive conservation problems.

The Grove is also vulnerable to over-visiting and visitor pressure that could erode the equilibrium between the natural aspects and people necessary to sustain the spiritual qualities of the site.

Authenticity

The authenticity of the Grove is related to its value as a sacred place. The sacred nature of places can only be continually reinforced if that sacredness is widely respected. Over the past forty years the new sculptures in the Grove have had the effect of reinforcing the special qualities of the Grove and giving it back its spiritual qualities that imbue it with high cultural value.

At the same time the new sculptures are part of a long and continuing tradition of sculptures created to reflect Yoruba cosmology. Although their form reflects a new stylistic departure, the works were not created to glorify the artists but rather through their giant size and intimidating shapes to re-establish the sacredness of the Grove. The new sculptures have achieved their purpose and the Grove now has wider than local significance as a sacred place for the Yoruba people.

Protection and management requirements

The Grove was first declared a National Monument in 1965. This original designation was amended and expanded in 1992 to protect the entire 75 hectares. The Nigerian Cultural Policy of 1988 states that 'The State shall preserve as Monuments old city walls and gates, sites, palaces, shrines, public buildings, promote buildings of historical significance and monumental sculptures'. Under the Land Use Act of 1990 the Federal Government of Nigeria conferred trusteeship of the Grove to the Government of Osun State.

The Grove had a well-developed management plan covering the period 2004 – 2009 that was adopted by all stakeholders and the site enjoys a participatory management system. The Federal Government administers the site through a site manager of the National Commission for Museums and Monuments as empowered by Decree 77 of 1979. Osun State Government equally contributes to its protection and management through its respective Local Governments, Ministries and Parastatals, who are also empowered by the state edicts to manage state monuments.

The community's traditional responsibilities and cultural rites are exercised through the Ataoja (King) and his council - the Osogbo Cultural Heritage Council. There are traditional activities that have been used to protect the site from any form of threats such as traditional laws, myths, taboos and customs that forbid people from fishing, hunting, poaching, felling of trees and farming.

The traditional worshippers and devotees maintain the intangible heritage through spiritualism, worship and symbolism. There is a management committee made up of all cadres of stakeholders, that implements policies, actions and activities for the sustainable development of the site.

Osun-Osogbo Sacred Grove is also part of National Tourism development Master Plan that was established with World Tourism Organization (WTO) and United Nations Development Program (UNDP). The annual Osun Osogbo festival will need to be better managed so that the site will no longer suffer from adverse impacts of tourism during the festival.

The Grove will also serve as a model of African heritage that preserves the tangible and intangible values of the Osogbo people in particular, and the entire Yoruba people. As a source of pride to them, the Grove will remain a living thriving heritage that has traditional landmarks and a veritable means of transfer of traditional religion, and indigenous knowledge systems, to African people in the Diaspora.

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|---------------------|------------------------------------|
| Property | Kondoa Rock-Art Sites |
| State Party | United Republic of Tanzania |
| Id. N° | 1183 rev |
| Date of inscription | 2006 |

Brief synthesis

On the eastern slopes of the Masai escarpment bordering the Great Rift Valley are natural rock shelters, overhanging slabs of sedimentary rocks fragmented by rift faults, whose vertical planes have been used for rock paintings over at least two millennia.

The exact number of rock art sites in the Kondoa area is not yet known but it is estimated that there are between 150 and 450 decorated rock shelters, caves and overhanging cliff faces. The sites are located on the steep eastern slopes, an area of spectacular, fractured geological formations, which provided the necessary shelter for the display of paintings.

The extensive and dense collection of rock paintings represents and embodies the cultures of both hunter-gatherer and pastoralist communities who have lived in the area over several millennia.

The similarities with images from southern and central Africa, together with their distinctive streaky style and rare depiction of domesticated animals, make them distinctive examples of hunter-gatherer rock art at its northernmost limit.

In the spectacular collection of images from over 150 shelters, many have a high artistic value, and display sequences that provide a unique testimony to the changing socio-economic base of the area, from hunter-gatherer to agro-pastoralist societies, and the beliefs and ideas associated with them. Some of the shelters still have ritual associations with the peoples who live nearby, and are associated with the strong living traditions of the local population.

Criterion (iii): *The rock art sites at Kondoa are an exceptional testimony to the lives of hunter-gatherers and agriculturalists who have lived in the area over several millennia, and reflect a unique variation of hunter-gatherer art from southern and central Africa and a unique form of agro-pastoralist paintings.*

Criterion (vi): *Some of the rock art sites are still used actively by local communities for a variety of ritual activities such as rainmaking, divining and healing. These strong intangible relationships between the paintings and living practices reinforce the links with those societies that created the paintings, and demonstrate a crucial cultural continuum.*

Integrity

The boundaries enclose the extent of the main rock art sites. The boundaries do not follow any recognisable feature on the ground, although they are marked with embedded concrete posts.

Most of the rock art sites are stable and relatively well preserved. Although the rock shelters with paintings are located on the slopes of the escarpment or on the plateau and are generally surrounded by a wooded or bushy environment, there are some threats due to village land use practices. In particular, village farming, cattle grazing and harvesting of forestry resources are encroaching on the areas surrounding the rock art sites.

The forested or wooded environment surrounding the rock art sites creates a desirable protective measure for the paintings as this minimizes the effects of the sun, wind and dusts.

The woodland areas around the rock art sites give vital protection to the rock art, and are essential to control soil erosion and retain ground water. Deforestation, through the seeking of building materials and fuel, could seriously damage the images. A large number of sites were illegally excavated before inscription with a loss of contextual material.

One of the key qualities of the Kondoa rock art sites is that they still play an active role in the rituals of local communities. The sites are used for instance for weather-divination, healing and initiation. Whereas it is essential to sustain the links with local communities, there is also a need to ensure that use and conservation do not conflict. For instance in some of the rain-making rituals, animal fat and beer are thrown over the rock art paintings, perhaps a recent adaptation of older practices.

Authenticity

The authenticity of Kondoa rock art is beyond question. It has never been restored or enhanced in any way. What is of special importance about Kondoa is that the rock art exists, largely in its original natural

environment, and in the context of a rich living heritage. The places where ancient hunter-gatherers painted rock art perhaps to influence the weather are still used today by local farmer communities in modern rain-making ceremonies. Modern versions of boys' initiation ceremonies, which a few centuries ago may have led to the creation of certain white paintings, are still held every year in most of the villages in the area. Descendants of the Maa-speaking pastoralists, who once perhaps painted at a number of rock art sites in the area, still visit the area to graze their cattle during periods of drought. A recent rock painting made by a Sandawe speaking man illustrated a remarkable persistence of artistic tradition, perhaps extending over several millennia.

Protection and management requirements

The Kondoa rock art site was initially managed by the National Monuments preservation ordinance No. 4 of 1937. This was repealed and replaced by the Antiquities Act No 10 of 1964, with its amendment Act No. 22 of 1979. Twelve Kondoa rock painting sites were given a special status and level of protection when they were scheduled as National Monuments in 1949. These sites were re-listed in 1981 when the Government of Tanzania published a new gazette, notice No. 39 published on 27 March 1981 with seven other sites added to the list. The property was declared a Conservation Area in 2004.

A Conservation Plan, started in 2001, was completed and updated in 2005. A Property Management Plan and Statement of Objectives were prepared in 2004. Both of these need to be regularly updated.

The existence of rock paintings in the area was first reported in 1908 and, although a variety of excavations were carried out during the 20th century, the rock art area at Kondoa has never been comprehensively surveyed. The records from these past surveys and work are scattered over a variety of institutions in different countries. At present there is no integrated documentation system for the sites. The management plan notes this as a matter of serious concern and, in order to support the management and monitoring, there is a need for the Department of Antiquities to create a central database of all documentation.

The management of the property will need to create a careful path between supporting the living heritage values of the sites and supporting the physical preservation of the sites. Working together with the Kondoa forest authority, the village governments and communities have now identified areas where trees can be grown for firewood.

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|---------------------|---|
| Property | Great Zimbabwe National Monument |
| State Party | Zimbabwe |
| Id. N° | 364 |
| Date of inscription | 1986 |

Brief synthesis

Great Zimbabwe National Monument is approximately 30 km from Masvingo and located in the lowveld at an altitude of some 1100 m in a sparsely populated region of the Bantu/Shona people. The property, built between 1100 and 1450 AD, extends over almost 800 ha and is divided into three groups: the Hill Ruins, the Great Enclosure and the Valley Ruins.

The Hill Ruins, forming a huge granite mass atop a spur facing north-east/south-west, were continuously inhabited from the 11th to 15th centuries, and there are numerous layers of traces of human settlements. Rough granite rubble-stone blocks form distinct enclosures, accessed by narrow, partly covered, passageways. This acropolis is generally considered a 'royal city'; the west enclosure is thought to have been the residence of successive chiefs and the east enclosure, where six steatite upright posts topped with birds were found, considered to serve a ritual purpose.

The Great Enclosure, which has the form of an ellipsis, is located to the south of the hills and dates to the 14th century. It was built of cut granite blocks, laid in regular courses, and contains a series of daga-hut living quarters, a community area, and a narrow passage leading to a high conical tower. The bricks (daga) were made from a mixture of granitic sand and clay. Huts were built within the stone enclosure walls; inside each community area other walls mark off each family's area, generally comprising a kitchen, two living huts and a court.

The Valley Ruins are a series of living ensembles scattered throughout the valley which date to the 19th century. Each ensemble has similar characteristics: many constructions are in brick (huts, indoor flooring and benches, holders for recipients, basins, etc.) and dry stone masonry walls provide insulation for each ensemble. Resembling later developments of the Stone Age, the building work was carried out to a high standard of craftsmanship, incorporating an impressive display of chevron and chequered wall decorations.

Scientific research has proved that Great Zimbabwe was founded in the 11th century on a site which had been sparsely inhabited in the prehistoric period, by a Bantu population of the Iron Age, the Shona. In the 14th century, it was the principal city of a major state extending over the gold-rich plateaux; its population exceeded 10,000 inhabitants. About 1450, the capital was abandoned because the

hinterland could no longer furnish food for the overpopulated city and because of deforestation. The resulting migration benefited Khami, which became the most influential city in the region, but signaled waning political power. When in 1505 the Portuguese settled in Sofala, the region was divided between the rival powers of the kingdoms of Torwa and Mwene-Mutapa.

Archaeological excavations have revealed glass beads and porcelain from China and Persia, and gold and Arab coins from Kilwa which testify to the extent of long-standing trade with the outer world. Other evidence, including potsherds and ironware, gives a further insight to the property's socio-economic complexity and about farming and pastoral activities. A monumental granite cross, located at a traditionally revered and sacred spiritual site, also illustrates community contact with missionaries.

Criterion (i): A unique artistic achievement, this great city has struck the imagination of African and European travellers since the Middle Ages, as evidenced by the persistent legends which attribute to it a Biblical origin.

Criterion (iii): The ruins of Great Zimbabwe bear a unique testimony to the lost civilisation of the Shona between the 11th and 15th centuries.

Criterion (vi): The entire Zimbabwe nation has identified with this historically symbolic ensemble and has adopted as its emblem the steatite bird, which may have been a royal totem.

Integrity

The property, extending to almost 800 ha, is considered relatively intact and of an appropriate size to maintain the diverse cultural needs, functions and interactions of the traditional and urban communities in an ongoing process. The boundaries and buffer zone have been delineated and are of sufficient size to contain the natural and aesthetic attributes of the property. It is well protected from modern environmental pressures and alternative land uses by surrounding cultural and traditional barriers, and by the traditional communities themselves.

The natural environment within and around the Great Zimbabwe Estate is important for the survival of the archaeological remains and the understanding of the relationship between the built environment and its setting. Measures need to be continued so that this important attribute continues to be protected. The natural fauna has to a large extent been eliminated by poaching and other means. Although the flora is not much different from the surrounding areas, it needs to be kept under control, particularly from the invasive *lantana camara*.

Authenticity

The authenticity of the property is unquestionable, particularly the fossil localities which need to remain undisturbed. It is a non-functional sacred archaeological site that is still being used by contemporary communities for spiritual reasons.

The method of construction is unique in African architecture and, although they are examples of similar work elsewhere, none are as distinguished and imposing as Great Zimbabwe. It is an edifice which emulates that of the prehistoric people and is unquestionably of Bantu origin. The Shona word Zimbabwe means the house in stone. The divine soapstone figurines, the Zimbabwe Birds, found within the ruins are testimony to the use of the site as place of worship spanning from the ancient past to the present day.

Decay phenomena have occurred due to variations in temperature, soil moisture content, and tourism pressure, encroaching invasive vegetation and improper preservation methods. All of these factors need to be controlled through a sustained conservation and maintenance plan to maintain the conditions of authenticity. Particular attention needs to be put on the conservation techniques and materials employed as well as on the application of conservation standards that meet international requirements but are balanced with traditional uses at the property. Provisions should also be made to accommodate rituals and practices that substantiate the associative values of the property.

Protection and management requirements

The site has been legally protected since 1893 and is currently protected under the National Museum & Monuments Act Chapter 25:11 (1976) which provides for the legal protection of the resources within the property.

The National Museums and Monuments of Zimbabwe (NMMZ), under the Ministry of Home Affairs, is the entity directly responsible for the management of the property. Funding for the management and conservation of the property comes mainly from the central government with limited income generated by entrance fees, accommodation and sale of publications which are used to finance projects at the national level at the discretion of the NMMZ Board of Trustees.

Although there are management arrangements for the property, an updated and integrated Management Plan is critical to ensure the long term conservation of the property and address existing

factors mainly potential encroachments, impacts from unplanned or inappropriate tourism development and public use. Adequate financial resources need to be provided to ensure the sustained implementation of conservation, maintenance and monitoring activities and skilled staff needs to exist to mitigate the progressive deterioration of the historic fabric. The Management Plan should also emphasize the implementation of programmes to enhance community participation and promote the continuation of the religious functions of the site.

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|---------------------|--------------------------------------|
| Property | Khami Ruins National Monument |
| State Party | Zimbabwe |
| Id. N° | 365 |
| Date of inscription | 1986 |

Brief synthesis

Khami Ruins National Monument is located to the west of the Khami River, 22 km from the City of Bulawayo. The property, located on a 1300 m hilltop downstream from a dam built during 1928-1929, covers an area of about 108 ha, spread over a distance of about 2 km from the Passage Ruin to the North Ruin.

The property was the capital of the Torwa dynasty, which arose from the collapse of the Great Zimbabwe Kingdom between 1450 -1650 and was abandoned during the Ndebele incursions of the 19th century. It is composed of a complex series of platforms of dry-stone walled structures, emulating a later development of Stone Age culture. The chief's residence (Mambo) was located towards the north on the Hill Ruin site with its adjacent cultivation terraces. The population lived in daga huts of cobwork, surrounded by a series of granite walls. These structures display a high standard of workmanship, a great number of narrow passageways and perambulatory galleries and impressive chevron and chequered wall decorations. Khami conforms to Great Zimbabwe in a number of archaeological and architectural aspects but it possesses certain features particular to itself and its successors such as Danangombe and Zinjanja. Revetments or retaining walls found expression for the first time in the architectural history of the sub-region at Khami, and with it were elaborate decorations; it still has the longest decorated wall in the entire sub-region.

The architecture of the site and the archaeological artefacts provide evidence for an exceptional understanding of strong, united, early civilizations. They also offer information on the property's complex socio-economic, religious and spiritual significance for the local communities and for the overall chronological development of Zimbabwe tradition; initiated in Mapungubwe (South Africa), extending to Great Zimbabwe, and through the emergence of later states. The archaeological remains are also a testament to long-distance historic trade links with the Portuguese, and the wider world, the diverse range of imported artefacts provide evidence of 15th and 17th century Spanish porcelain, Rhineland stoneware and Ming porcelain, many of which are on display in the Museum of Natural History in Bulawayo. There is also a monumental granite cross which illustrates the contact with missionaries at a traditionally revered and sacred spiritual site.

Khami is the second largest stone built monument in Zimbabwe. Its historical importance lies in its position at the watershed between the history of Great Zimbabwe and the later Zimbabwe period. It is one of the few Zimbabwe sites that were not destroyed by treasure hunters and its undisturbed stratigraphy is scientifically important in providing a much clearer insight into the history of the country. The climate supports a natural vegetation of open woodland, dominated by Combretum and Terminalia trees. Being close to the Kalahari Desert, the area is also vulnerable to droughts, and rainfall tends to vary considerably. The property has suffered some degradation due to variations in temperature, ground water, tourism, encroaching vegetation and applied preservation techniques.

Criterion (iii): *The property is a unique and exceptional testimony to a civilization which has disappeared. The architecture and archaeological artefacts of the site provide important scientific and historical evidence critical for the understanding of the full chronological development of the Zimbabwe tradition from the Stone Age to the Iron Age era.*

Criterion (iv): *The property is an outstanding example of a type of building and architectural ensemble which illustrates a significant stage in history. It has yielded an exceptional long evidence related to human evolution and human environment dynamics, collectively extending from 100 000 years ago to date and demonstrates testimonial to the long distance trade with the outer world.*

Integrity

Over its area of 108 ha, the property is relatively intact and appropriately maintains the diverse cultural and traditional processes, functions and interactions of the local communities. Dispersed over 2 km,

extending from the Passage Ruin to the North Ruin, an appropriate degree of indigenous cultural processes remain for the property to be sufficiently well protected from environmental pressures and alternative land uses. The boundaries are also sufficient in size to fully capture the natural and aesthetic values. In addition to the established boundaries, the property has a buffer zone to retain the natural characteristics of the area. However, some negative effects on the relationship between the site and its setting are being caused by the expansion of the suburbs of Bulawayo (10 km distant), and the polluting discharge from the city's effluent into the Khami River. The buffer zone needs to be carefully monitored so that this relationship does not erode any further.

The ruins have been subjected to some natural erosion, veld fires, burrowing animals, encroaching vegetation, and the effects of tourism. Rain induced ground creepage down the site slopes has increased the incidence of wall cracks, bulges and collapses, adding to the deterioration of the structures, ornamental features and architectural coherence. Conservation and maintenance actions are needed to maintain the existing integrity of the historic fabric.

Authenticity

The authenticity of the historic evidence is unquestionable. The ruins generally follow the pattern and style of the Great Zimbabwe ruins but are considered to be a later development of that culture. It remains an undisturbed, non-functional, archaeological site whilst also still being used by contemporary communities for spiritual purposes. The dry-stone building traditions enhance the sacredness of the area, where human presence is traceable over 100,000 years. Acknowledging huts made of cobwork (daga) enhanced by decorative friezes, and surrounded by a series of granite walls, and with a great number of passage ways and uncovered perambulatory galleries, the current population maintains the historic traditions of the site.

Khami has retained its authenticity largely in part due to the minimal interventions that have been carried out. All restorations have used traditional methods and no new materials have been added. Restorations nowadays are by anastylosis which ensures that no new materials are introduced to the fabric of the site and promotes use of traditional methods of construction.

Protection and management requirements

The archaeological zone was protected as a 'Royal Reserve' until the death of King Lobengule in 1893. In recognition of the historic, cultural and architectural significance of the site, it was scheduled as a National Monument in 1937. Currently the National Museums and Monuments Act Cap. 25:11 legally protect the property and its resources.

Khami Ruins National Monument is managed by National Museums and Monuments as overall responsible Agency. At local level Khami falls under the Western Region administrative unit and a project manager, who liaises with the Regional Director and Executive Director on administrative and policy issues and is responsible for conservation and development.

The government of Zimbabwe partly funds conservation work and also makes available funds for capital improvements through its Public Sector Investment Programme (PSIP). National Museums and Monuments provide some funds raised through entrance fees, filming fees, etc. for conservation. International cooperation has existed for financial support, including assistance for the development of a conservation and site management plan.

A management plan, which derives from a master plan for resource conservation and development, exists and is currently being implemented in accordance with National Museums and Monuments Act. However, there are challenges for implementation because the community was not adequately involved in the nomination of the property and, therefore, do not fully understand the implications of its status. The management plan needs to be periodically updated to respond to new conditions as they arise.

Although the well-defined and buffered boundary is not physically marked, a system of regular monitoring is in place but there are challenges in enforcing restrictions to regulate further developments, particularly from tourism development, and to maintain the conditions of integrity. Larger cooperation is needed to ensure the adequate management of the buffer zone and the conservation of its characteristics.

A regular and well resourced conservation programme is required to maintain stone walls and landforms and to address factors that contribute to deterioration, such as water infiltration and pollution. An appropriate visitor use strategy, including the development of facilities, is needed to regulate visitation at the site and to adequately present and interpret its significance.

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| Property | Matobo Hills |
| State Party | Zimbabwe |
| Id. N° | 306 rev |
| Date of inscription | 2003 |

Brief synthesis

The Matobo Hills some 35 km south of Bulawayo are a profusion of distinctive granite landforms, densely packed into a comparatively tight area, that rise up to form a sea of hills. Their forms have resulted from the varied composition and alignment of the granite rocks, which responded differently to millions of years of weathering. These extraordinary granite rock formations have exerted a strong presence over the whole area – both in natural and cultural terms.

People have interacted with, and been inspired by, the dramatic natural rock formations of the Matobo Hills for over many millennia. This interaction has produced one of the most outstanding rock art collections in southern Africa; it has also fostered strong religious beliefs, which still play a major role in contemporary local society; and it demonstrates an almost uninterrupted association between man and his environment over the past 100,000 years.

The Matobo Hills have one of the highest concentrations of rock art in Southern Africa dating back at least 13,000 years. The paintings illustrate evolving artistic styles and also socio-religious beliefs. The whole bears testimony to a rich cultural tradition that has now disappeared. The rich evidence from archaeology and from the rock paintings at Matobo provides evidence that the Matobo Hills have been occupied over a period of at least 500,000 years. Furthermore, this evidence provides a very full picture of the lives of foraging societies in the Stone Age and the way agricultural societies eventually came to displace them in the Iron Age.

The Mwari religion which is still practiced in the area, and which may date back to the Iron Age, is the most powerful oracular tradition in southern Africa. The Matobo rocks are seen as the seat of god and of ancestral spirits. Sacred shrines within the hills are places where contact can be made with the spiritual world. The living traditions associated with the shrines represent one of the most powerful intangible traditions in southern Africa and one that could be said to be of universal significance. This is a community response to a landscape rather than individual ones. The natural qualities of Matobo, in terms of the power of the rocks and of the produce from the surrounding natural environment, thus have strong cultural associations.

Criterion (iii): *The Matobo Hills have one of the highest concentrations of rock art in southern Africa. The rich evidence from archaeology and from the rock paintings at Matobo provide a very full picture of the lives of foraging societies in the Stone Age and the way agricultural societies came to replace them.*

Criterion (v): *The interaction between communities and the landscape, manifested in the rock art and also in the long-standing religious traditions still associated with the rocks, are community responses to a landscape.*

Criterion (vi): *The Mwari religion, centred on Matobo, which may date back to the Iron Age, is the most powerful oracular tradition in southern Africa.*

Integrity

In order to reflect a coherent landscape, encompassing not only the rock paintings and rock batholiths but also the strong social interaction between local people and these tangible aspects, the boundary encompasses the Rhodes Matopos National Park and two Rural District Councils of Matobo and Umzingwane. The boundary thus encompasses all the attributes of Outstanding Universal Value.

Overall the rock paintings are in a fairly good state of preservation. Natural weathering is the main agent of change and although this has made some of the paintings difficult to decipher, the process is part of the relationship between the images and their setting. Further slight damage is being wrought by visitors. In only one cave are the paintings badly compromised: at Pomongwe Cave, experiments were carried out in the 1920s with linseed oil as a preservative and this has darkened the images. The archaeological evidence appears to be well protected – both within those caves, where large-scale excavations have taken place, and elsewhere in caves that could produce further evidence.

Through a system of taboos and cultural norms that prohibit desecration, the long-standing intangible heritage of indigenous traditional religious beliefs and practices are still instrumental in the preservation of the tangible heritage. Around the two shrines, there are no artificial buildings, structures, walls or other traces of human presence, apart from a wooden palisade that demarcates the area beyond which people may not proceed without permission from the ancestral spirits who are consulted by the custodian and the elders. There are development pressure from the demand for amenities and facilities by visitors. Increased population has had a negative impact on the natural environment.

The area is prone to droughts and floods and soil erosion is becoming a serious problem. There are also threats follows the introduction of exotic plants.

Authenticity

The authenticity of the hunter-gatherer and a few agriculturist rock paintings in the Matobo Hills area has been widely confirmed. The rock paintings survive in situ and are still linked to a landscape that reflects elements of the pastoral and agricultural traditions reflected in painted images.

The living traditions and intangible heritage associated with the site and which bind the cultural and natural values together are still thriving. The annual pilgrimage in August attracts more than a thousand pilgrims who gather around the natural features of the rocks and the adjacent terraces, where participants dance, perform rituals, eat and sleep during the 3-week long ceremonies.

Protection and management requirements

The Matobo Hills World Heritage Landscape comprises three types of land ownership, recognized by Zimbabwean laws namely, state protected areas (Matopo National Parks), communal lands and state land without individual tenure (Matobo and Umzingwane Districts), and privately owned land with individual tenure (commercial farms). Each land category is administered by the following Acts of Parliament: Rural District Council Act (29:13), Parks and Wildlife Act (20:14) and Natural Resources Board Act (20:13). The Department of National Parks and Wild Life Management takes care of the natural resources, and the management of cultural properties falls under the National Museums and Monuments of Zimbabwe Act (25:11) irrespective of the land tenure.

A Management Committee, consisting of key stakeholders has been established. The property was guided by a five year Management Plan for the period 2005-2009. For technical expertise the committee relies on technical staff drawn from the major stakeholders. Other organizations and agencies involved in management include the Natural Resources Board and the Forestry Commission.

The Management Plan needs revising so that it is a live and relevant document that addresses the opportunities provided by inscription. The Plan also needs to support integrated management to achieve sustainable development, which respects both cultural and natural parameters of the cultural landscape, and fosters the integration of intangible heritage issues into management and interpretation. It also needs to address threats, such as from uncontrolled visitor access, soil erosion and invasive plants. There is also a need for conservation plans for key aspects of the site.

C.2 ASIA AND THE PACIFIC

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| Property | Historic Mosque City of Bagerhat |
| State Party | Bangladesh |
| Id. N° | 321 |
| Date of inscription | 1985 |

Brief synthesis

The Historic Mosque City of Bagerhat is an important evidence of medieval city in the south-west part of present Bagerhat district which is located in the south-west part of Bangladesh, at the meeting-point of the Ganges and Brahmaputra rivers. The ancient city, formerly known as Khalifatabad, sprawls over on the southern bank of the old river Bhairab and flourished in the 15th century BC.

The magnificent city, which extended for 50 km², contains some of the most significant buildings of the initial period of the development of Muslim architecture of Bengal. They include 360 mosques, public buildings, mausoleums, bridges, roads, water tanks and other public buildings constructed from baked brick.

This old city, created within a few years and covered up by the jungle after the death of its founder in 1459, is striking because of certain uncommon features. The density of Islamic religious monuments is explained by the piety of Khan Jahan, which is evidenced by the engraved inscription on his tomb. The lack of fortifications is attributable to the possibilities of retreat into the impenetrable mangrove swamps of the Sunderbans. The quality of the infrastructures - the supply and evacuation of water, the cisterns and reservoirs, the roads and bridges - all reveal a perfect mastery of the techniques of planning and a will towards spatial organization.

The monuments, which have been partially disengaged from the vegetation, may be divided into two principal zones 6.5 km apart: to the West, around the mosque of Shait-Gumbad and to the East, around the mausoleum of Khan Jahan. More than 50 monuments have been catalogued: in the first group, the mosques of Singar, Bibi Begni and Clumakkola; and in the second, the mosques of Reza Khoda, Zindavir and Ranvijoypur.

Criterion (iv): The Historic Mosque City of Bagerhat represents the vestiges of a medieval Muslim town in the northern peripheral land of the Sundarbans. It contains some of the most significant buildings of the initial period of the development of Muslim architecture in Bengal. Shait-Gumbad is one of the largest mosques and represents the flavour of the traditional orthodox mosque plan and it is the only

example of its kind in the whole of Bengal. The second important monument, Khan Jahan's tomb, is an extraordinary representation of this type of architecture as well as calligraphic parlance. The site exhibits a unique architectural style, known as Khan-e-Jahan (15th Century A.D.), which is the only known example in the history of architecture.

Integrity

The original picturesque location and the natural setting of these densely located religious and secular monuments along with the medieval form and design are intact. The property of the Historic Mosque City of Bagerhat contains and preserves all the necessary elements which include not only mosques but also residences, roads, ancient ponds, tombs, chillakhana (ancient graveyard). Therefore, the attributes of the city are still preserved.

The threat of the unauthorized activities by the community and the extreme salinity of the soil and atmosphere, which can potentially threaten the physical integrity of the attributes, are being closely monitored by the site managers. In particular, interventions are needed to preserve the Shaitgumbad Mosque.

Authenticity

In order to preserve the authenticity of the monuments, conservation and restoration actions have respected the use of original materials (lime and mortar). Notwithstanding, some of the original features, such as stone pillars inside the mosques, reticulated windows, pediment, upper band of cornice, were lost in earlier interventions.

Many of the structures continue to be in religious and secular use contributing to the social and communal harmony by the way of retaining the original features of traditional practices.

Protection and management requirements

The property is managed under the Antiquities Act, 1968 (Amendment 1976). In addition the Department of Archaeology protects the property under the Antiquities Export Control Act (1947), the Immovable Antiquities Preservation Rules (1976), the Conservation Manual (1923) and the Archaeological Works Code (1938).

The Department of Archaeology ensures that inappropriate activities which may affect the Outstanding Universal Value of property such as buildings or infrastructure cannot be constructed within or close to the property, and no one can alter or deface monuments within the property.

The Government of Bangladesh has worked on the implementation of recommendations set out in the Master plan prepared by UNESCO 1973/74-1977/78 for the conservation and presentation of the Historic Mosque City of Bagerhat. Though the financial efforts have been made to address the conservation problem derived from salinity, this has not been comprehensively solved and deterioration has continued. The implementation of the management plan, including conservation provisions, will need to be monitored so as to evaluate achieved results and provide new action plans in response to emerging conditions.

Conservation of the historic landscape, buffer zone and the property has yet to be addressed. A number of issues have recently been identified and will constitute the basis for a new project named "South Asia Tourism Infrastructure Development Project" (Bangladesh Portion), which is going to be shortly implemented. Challenges to sustainably manage these concerns, along with the conservation of the property, will need to be taken up to ensure the long term preservation and protection of its Outstanding Universal Value.

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| Property | Angkor |
| State Party | Cambodia |
| Id. N° | 668 |
| Date of inscription | 1992 |

Brief synthesis

Angkor, in Cambodia's northern province of Siem Reap, is one of the most important archaeological sites of Southeast Asia. It extends over approximately 400 square kilometres and consists of scores of temples, hydraulic structures (basins, dykes, reservoirs, canals) as well as communication routes. For several centuries Angkor, was the centre of the Khmer Kingdom. With impressive monuments, several different ancient urban plans and large water reservoirs, the site is a unique concentration of features testifying to an exceptional civilization. Temples such as Angkor Wat, the Bayon, Preah Khan and Ta Prohm, exemplars of Khmer architecture, are closely linked to their geographical context as well as being imbued with symbolic significance. The architecture and layout of the successive capitals bear

witness to a high level of social order and ranking within the Khmer Empire. Angkor is therefore a major site exemplifying cultural, religious and symbolic values, as well as containing high architectural, archaeological and artistic significance.

The park is inhabited, and many villages, some of whom the ancestors are dating back to the Angkor period are scattered throughout the park. The population practices agriculture and more specifically rice cultivation.

Criterion (i): The Angkor complex represents the entire range of Khmer art from the 9th to the 14th centuries, and includes a number of indisputable artistic masterpieces (e.g. Angkor Wat, the Bayon, Banteay Srei).

Criterion (ii): The influence of Khmer art as developed at Angkor was a profound one over much of South-east Asia and played a fundamental role in its distinctive evolution.

Criterion (iii): The Khmer Empire of the 9th-14th centuries encompassed much of South-east Asia and played a formative role in the political and cultural development of the region. All that remains of that civilization is its rich heritage of cult structures in brick and stone.

Criterion (iv): Khmer architecture evolved largely from that of the Indian sub-continent, from which it soon became clearly distinct as it developed its own special characteristics, some independently evolved and others acquired from neighboring cultural traditions. The result was a new artistic horizon in oriental art and architecture.

Integrity

The Angkor complex encompasses all major architectural buildings and hydrological engineering systems from the Khmer period and most of these “barays” and canals still exist today.

All the individual aspects illustrate the intactness of the site very much reflecting the splendor of the cities that once were.

The site integrity however, is put under dual pressures:

- a) endogenous: exerted by more than 100,000 inhabitants distributed over 112 historic settlements scattered over the site, who constantly try to expand their dwelling areas;
- b) exogenous: related to the proximity of the town of Siem Reap, the seat of the province and a tourism hub.

Authenticity

Previous conservation and restoration works at Angkor between 1907 and 1992, especially by the École Française d'Extrême-Orient (EFEO), the Archaeological Survey of India, the Polish conservation body PKZ, and the World Monuments Fund have had no significant impact on the overall authenticity of the monuments that make up the Angkor complex and do not obtrude upon the overall impression gained from individual monuments.

Protection and management requirements

The property is legally protected by the Royal Decree on the Zoning of the Region of Siem Reap/Angkor adopted on 28 May 1994 and the Law on the protection of the natural and cultural heritage promulgated on 25 January 1996, the Royal Decree on the creation of the APSARA National Authority (Authority for the protection of the site and the management of the Angkor Region) adopted on 19 February 1995, the No. 70 SSR government Decision, dated 16 September 2004 providing for land-use in the Angkor Park: “All lands located in zone 1 and 2 of the Angkor site are State properties”, and the sub-decree No. 50 ANK/BK on the organisation and functioning of the APSARA National Authority adopted on 9 May 2008, specifically provided for the establishment of a Department of Land-use and Habitat Management in the Angkor Park.

In order to strengthen and to clarify the ownership and building codes in the protected zones 1 and 2, boundary posts have been put in 2004 and 2009 and the action was completed in 2012.

As off 1993, the ICC-Angkor (International Coordinating Committee for the Safeguarding and Development of the historic site of Angkor) created on 13 October 1993, ensures the coordination of the successive scientific, restoration and conservation related projects, executed by the Royal Cambodian Government and its international partners. It ensures the consistency of the various projects, and defines, when necessary, technical and financial standards and calls the attention of all the concerned parties when required. It also contributes to the overall management of the property and its sustainable development.

The successful conservation of the property by the APSARA National Authority, monitored by the ICC-Angkor, was crowned by the removal of the property from the World Heritage List in danger in 2004.

Angkor is one of the largest archaeological sites in operation in the world. Tourism represents an enormous economic potential but it can also generate irreparable destructions of the tangible as well as

intangible cultural heritage. Many research projects have been undertaken, since the international safeguarding program was first launched in 1993. The scientific objectives of the research (e.g. anthropological studies on socio-economic conditions) result in a better knowledge and understanding of the history of the site, and its inhabitants that constitute a rich exceptional legacy of the intangible heritage. The purpose is to associate the "intangible culture" to the enhancement of the monuments in order to sensitize the local population to the importance and necessity of its protection and preservation and assist in the development of the site as Angkor is a living heritage site where Khmer people in general, but especially the local population, are known to be particularly conservative with respect to ancestral traditions and where they adhere to a great number of archaic cultural practices that have disappeared elsewhere. The inhabitants venerate the temple deities and organize ceremonies and rituals in their honor, involving prayers, traditional music and dance. Moreover, the Angkor Archaeological Park is very rich in medicinal plants, used by the local population for treatment of diseases. The plants are prepared and then brought to different temple sites for blessing by the gods. The Preah Khan temple is considered to have been a university of medicine and the NeakPoan an ancient hospital. These aspects of intangible heritage are further enriched by the traditional textile and basket weaving practices and palm sugar production, which all result in products that are being sold on local markets and to the tourists, thus contributing to the sustainable development and livelihood of the population living in and around the World Heritage site.

A Public Investigation Unit was created as « measure instrument » for identifying the needs, expectations and behaviors of visitors in order to set policies, monitor its evolution, prepare a flux management policy and promote the unknown sites.

The management of the Angkor Site, which is inhabited, also takes into consideration the population living in the property by associating them to the tourist economic growth in order to strive for sustainable development and poverty reduction.

Two major contributions supporting the APSARA National Authority in this matter are:

1. The Angkor Management Plan (AMP) and Community Development Participation Project (CDPP), a bilateral cooperation with the Government of New Zealand. The AMP helps the APSARA National Authority to reorganize and strengthen the institutional aspects, and the CDPP prepares the land use map with an experimental participation of the communities and supports small projects related to tourist development in order to improve the income of villagers living in the protected zones;

2. The Heritage Management Framework composed of a Tourism Management Plan and a Risk map on monuments and natural resources; a multilateral cooperation with the Government of Australia and UNESCO. Preliminary analytical and planning work for the management strategy will take into account the necessity to preserve the special atmosphere of Angkor. All decisions must guarantee physical, spiritual, and emotional accessibility to the site for the visitors.

| | |
|---------------------|-----------------------|
| Property | The Great Wall |
| State Party | China |
| Id. N° | 438 |
| Date of inscription | 1987 |

Brief synthesis

The Great Wall was continuously built from the 3rd century BC to the 17th century AD on the northern border of the country as the great military defence project of successive Chinese Empires, with a total length of more than 20,000 kilometers. The Great Wall begins in the east at Shanhaiguan in Hebei province and ends at Jiayuguan in Gansu province to the west. Its main body consists of walls, horse tracks, watch towers, and shelters on the wall, and includes fortresses and passes along the Wall.

The Great Wall reflects collision and exchanges between agricultural civilizations and nomadic civilizations in ancient China. It provides significant physical evidence of the far-sighted political strategic thinking and mighty military and national defence forces of central empires in ancient China, and is an outstanding example of the superb military architecture, technology and art of ancient China. It embodies unparalleled significance as the national symbol for safeguarding the security of the country and its people.

Criterion (i): The Great Wall of the Ming is, not only because of the ambitious character of the undertaking but also the perfection of its construction, an absolute masterpiece. The only work built by human hands on this planet that can be seen from the moon, the Wall constitutes, on the vast scale of a continent, a perfect example of architecture integrated into the landscape.

Criterion (ii): During the Chunqiu period, the Chinese imposed their models of construction and organization of space in building the defence works along the northern frontier. The spread of Sinicism was accentuated by the population transfers necessitated by the Great Wall.

Criterion (iii): *That the Great Wall bear exceptional testimony to the civilizations of ancient China is illustrated as much by the rammed-earth sections of fortifications dating from the Western Han that are conserved in the Gansu province as by the admirable and universally acclaimed masonry of the Ming period.*

Criterion (iv): *This complex and diachronic cultural property is an outstanding and unique example of a military architectural ensemble which served a single strategic purpose for 2000 years, but whose construction history illustrates successive advances in defence techniques and adaptation to changing political contexts.*

Criterion (vi): *The Great Wall has an incomparable symbolic significance in the history of China. Its purpose was to protect China from outside aggression, but also to preserve its culture from the customs of foreign barbarians. Because its construction implied suffering, it is one of the essential references in Chinese literature, being found in works like the "Soldier's Ballad" of Tch'en Lin (c. 200 A.D.) or the poems of Tu Fu (712-770) and the popular novels of the Ming period.*

Integrity

The Great Wall integrally preserves all the material and spiritual elements and historical and cultural information that carry its outstanding universal value. The complete route of the Great Wall over 20,000 kilometers, as well as elements constructed in different historical periods which constitute the complicated defence system of the property, including walls, fortresses, passes and beacon towers, have been preserved to the present day. The building methods of the Great Wall in different times and places have been integrally maintained, while the unparalleled national and cultural significance of the Great Wall to China is still recognised today. The visual integrity of the Wall at Badaling has been impacted negatively by construction of tourist facilities and a cable car.

Authenticity

The existing elements of the Great Wall retain their original location, material, form, technology and structure. The original layout and composition of various constituents of the Great Wall defence system are maintained, while the perfect integration of the Great Wall with the topography, to form a meandering landscape feature, and the military concepts it embodies have all been authentically preserved. The authenticity of the setting of the Great Wall is vulnerable to construction of inappropriate tourism facilities.

Protection and management requirements

The various components of the Great Wall have all been listed as state or provincial priority protected sites under the Law of the People's Republic of China on the Protection of Cultural Relics. The Regulations on the Protection of the Great Wall promulgated in 2006 is the specific legal document for the conservation and management of the Great Wall. The series of Great Wall Conservation Plans, which is being constantly extended and improved and covers various levels from master plan to provincial plans and specific plans, is an important guarantee of the comprehensive conservation and management of the Great Wall. China's national administration on cultural heritage, and provincial cultural heritage administrations where sections of the Great Wall are located, are responsible for guiding the local governments on the implementation of conservation and management measures for the Great Wall.

The Outstanding Universal Value of the Great Wall and all its attributes must be protected as a whole, so as to fulfill authentic, integral and permanent preservation of the property. To this end, considering the characteristics of the Great Wall, including its massive scale, transprovincial distribution and complicated conditions for its protection and conservation, management procedures and regulations, conservation interventions for the original fabric and setting, and tourism management shall be more systematic, scientific, classified, and prioritized. An efficient comprehensive management system, as well as specific conservation measures for the original fabric and setting will be established, while a harmonious relationship featuring sustainable development between heritage protection and social economy and culture can be formed. Meanwhile, the study and dissemination of the rich connotation of the property's Outstanding Universal Value shall be enhanced, so as to fully and sustainably realize the social and cultural benefits of the Great Wall.

| | |
|-------------|--|
| Property | Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang |
| State Party | China |
| Id. N° | 439 bis |

Brief synthesis

As the royal residences of the emperors of the Ming and Qing dynasties from the 15th to 20th century, the Imperial Palaces of the Ming and Qing dynasties in Beijing and Shenyang were the centre of State power in late feudal China. The Imperial Palace of the Ming and Qing Dynasties in Beijing known as the Forbidden City was constructed between 1406 and 1420 by the Ming emperor Zhu Di and witnessed the enthronement of 14 Ming and 10 Qing emperors over the following 505 years. The Imperial Palace of the Qing Dynasty in Shenyang was built between 1625 and 1637 by Nurgaci for the Nuzhen/Manchu forebears of the Qing Dynasty, which established itself in Beijing in 1644. Also known as Houjin Palace or Shenglin Palace, it was then used as the secondary capital and temporary residence for the royal family until 1911. The Imperial Palaces of Beijing and Shenyang were inscribed on the World Heritage List in 1987 and 2004 respectively.

The Forbidden City, located in the centre of Beijing is the supreme model in the development of ancient Chinese palaces, providing insight into the social development of late dynastic China, especially the ritual and court culture. The layout and spatial arrangement inherits and embodies the traditional characteristic of urban planning and palace construction in ancient China, featuring a central axis, symmetrical design and layout of outer court at the front and inner court at the rear and the inclusion of additional landscaped courtyards deriving from the Yuan city layout. As the exemplar of ancient architectural hierarchy, construction techniques and architectural art, it influenced official buildings of the subsequent Qing dynasty over a span of 300 years. The religious buildings, particularly a series of royal Buddhist chambers within the Palace, absorbing abundant features of ethnic cultures, are a testimony of the integration and exchange in architecture among the Manchu, Han, Mongolian and Tibetan since the 14th century. Meanwhile, more than a million precious royal collections, articles used by the royal family and a large number of archival materials on ancient engineering techniques, including written records, drawings and models, are evidence of the court culture and law and regulations of the Ming and Qing dynasties.

The Imperial Palace of the Qing Dynasty in Shenyang while following the traditions of palace construction in China retains typical features of traditional folk residences of the Manchu people, and has integrated the architectural arts of Han, Manchu and Mongolian ethnic cultures. The buildings were laid out according to the "eight-banner" system, a distinct social organization system in Manchu society, an arrangement which is unique among palace buildings. Within the Qingning Palace the sacrificial places for the emperors testify to the customs of Shamanism practiced by the Manchu people for several hundred years.

Criterion (i): *The Imperial Palaces represent masterpieces in the development of imperial palace architecture in China.*

Criterion (ii): *The architecture of the Imperial Palace complexes, particularly in Shenyang, exhibits an important interchange of influences of traditional architecture and Chinese palace architecture particularly in the 17th and 18th centuries.*

Criterion (iii): *The Imperial Palaces bear exceptional testimony to Chinese civilisation at the time of the Ming and Qing dynasties, being true reserves of landscapes, architecture, furnishings and objects of art, as well as carrying exceptional evidence of the living traditions and the customs of Shamanism practised by the Manchu people for centuries.*

Criterion (iv): *The Imperial Palaces provide outstanding examples of the greatest palatial architectural ensembles in China. They illustrate the grandeur of the imperial institution from the Qing Dynasty to the earlier Ming and Yuan dynasties, as well as Manchu traditions, and present evidence on the evolution of this architecture in the 17th and 18th centuries.*

Integrity

Since the collapse of the Qing dynasty, much attention has been paid to the conservation of the property. The designated property area includes all elements embodying the values in the creativity, influence, historic evidence, and architectural exemplar, with the historical scale, architectural types, and other components, as well as the techniques and artistic achievements of Chinese palace buildings after the 15th century, particularly in the 17th to 18th century, well preserved. Various embodiments of the court culture in the Ming and Qing dynasties, and the features of the lifestyles of and the exchange and integration between the Manchu and Han peoples have been well retained. The buffer zone protects the spatial positions of the complexes in the cities and their settings.

Authenticity

The Imperial Palaces of the Ming and Qing dynasties in Beijing and Shenyang, particularly the

Forbidden City, genuinely preserve the outstanding embodiment of Chinese hierarchical culture in the layout, design and decoration of the building complex. The highest technical and artistic achievements of Chinese official architecture, conveyed by wooden structures, are preserved in an authentic way, and traditional craftsmanship is inherited. Various components of the Palaces bearing witness to the court culture of the Ming and Qing dynasties are retained, reflecting the lifestyle and values of the royal family of the times. The Imperial Palace of the Qing Dynasty in Shenyang genuinely preserves the historical arrangement of Manchu palace buildings, the style and features of local buildings and information on the exchange between Manchu and Han nationalities in lifestyle in the 17th and 18th centuries.

Protection and management requirements

The Imperial Palaces of the Ming and Qing Dynasties have been well protected in the past century. After the collapse of the Qing dynasty, the two palace complexes were declared by the state as the Palace Museums in 1925 and 1926 respectively. In 1961, they were among the first group of the State Priority Protected Sites designated by the State Council, and were repaired and protected according to the conservation principles of cultural relics. As a result, all the main buildings and majority of ancillary buildings have remained intact. Based on the strict implementation of the Law of the People's Republic of China on the Protection of Cultural Relics, the State Administration of Cultural Heritage issued Regulations Concerning the Management of the Palace Museum in 1996, and the people's government of Beijing Municipality demarcated an area of 1,377 hectares as the buffer zone of the Imperial Palace in 2005; in 2003, the people's government of Shenyang City issued the Regulations on the Protection of the Imperial Palace, Fuling Tomb and Zhaoling Tomb of Shenyang. All of these laws and regulations have detailed prescription on the protection of the settings of the Imperial Palaces, providing legal, institutional and managerial guarantee to the maximal protection of the authenticity and integrity of the property, and ensuring a better safeguarding of this outstanding cultural heritage site for all human beings.

In future, integrated protection of the values of the Imperial Palaces of the Ming and Qing Dynasties will be conducted through implementing and improving the conservation management plan, adhering to the conservation principle of minimal intervention, and improving the scientific and technological measures, so as to ensure the sustainable protection of the authenticity and integrity of the property. All the regulations concerning the protection and management of the Imperial Palaces should be strictly implemented, and the number of tourists, especially in the Forbidden City, should be effectively controlled, so as to reduce the negative impact on the property. The protection of the setting should be strengthened, especially that of the Imperial Palace of the Qing Dynasty in Shenyang. The needs of the stakeholders should be coordinated to maintain the rational and effective balance between the protection of the Imperial Palaces and the development of tourism and urban construction. The research on interpretation and promotion should be enhanced to better showcase the scientific, historic and artistic values of the Palaces to tourists from home and abroad and provide spiritual enlightenment and enjoyment to people, in order to give play to the social and cultural benefits of the Imperial Palaces in a reasonable way, and promote the sustainability of the protection of the Imperial Palaces within the context of the development of the cities.

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|---------------------|--------------------|
| Property | Mogao Caves |
| State Party | China |
| Id. N° | 440 |
| Date of inscription | 1987 |

Brief synthesis

Carved into the cliffs above the Dachuan River, the Mogao Caves south-east of the Dunhuang oasis, Gansu Province, comprise the largest, most richly endowed, and longest used treasure house of Buddhist art in the world. It was first constructed in 366AD and represents the great achievement of Buddhist art from the 4th to the 14th century. 492 caves are presently preserved, housing about 45,000 square meters of murals and more than 2,000 painted sculptures. Cave 302 of the Sui dynasty contains one of the oldest and most vivid scenes of cultural exchanges along the Silk Road, depicting a camel pulling a cart typical of trade missions of that period. Caves 23 and 156 of the Tang dynasty show workers in the fields and a line of warriors respectively and in the Song dynasty Cave 61, the celebrated landscape of Mount Wutai is an early example of artistic Chinese cartography, where nothing has been left out – mountains, rivers, cities, temples, roads and caravans are all depicted.

As evidence of the evolution of Buddhist art in the northwest region of China, the Mogao Caves are of unmatched historical value. These works provide an abundance of vivid materials depicting various aspects of medieval politics, economics, culture, arts, religion, ethnic relations, and daily dress in western China. The unique artistic style of Dunhuang art is not only the amalgamation of Han Chinese artistic tradition and styles assimilated from ancient Indian and Gandharan customs, but also an

integration of the arts of the Turks, ancient Tibetans and other Chinese ethnic minorities. Many of these masterpieces are creations of an unparalleled aesthetic talent.

The discovery of the Library Cave at the Mogao Caves in 1990, together with the tens of thousands of manuscripts and relics it contained, has been acclaimed as the world's greatest discovery of ancient Oriental culture. This significant heritage provides invaluable reference for studying the complex history of ancient China and Central Asia.

Criteria (i): *The group of caves at Mogao represents a unique artistic achievement both by the organization of space into 492 caves built on five levels and by the production of more than 2,000 painted sculptures, and approximately 45,000 square meters of murals, among which are many masterpieces of Chinese art.*

Criteria (ii): *For 1,000 years, from the period of the Northern Wei Dynasty (386-534) to the Mongol-led Yuan Dynasty (1276-1386), the caves of Mogao played a decisive role in artistic exchanges between China, Central Asia and India.*

Criteria (iii): *The paintings at Mogao bear exceptional witness to the civilizations of ancient China during the Sui, Tang and Song dynasties.*

Criteria (iv): *The Thousand-Buddha Caves constitute an outstanding example of a Buddhist rock art sanctuary.*

Criteria (v): *Occupied by Buddhist monks from the end of the 19th century up to 1930, the rock art ensemble at Mogao, administered by the Dunhuang Cultural Relics Research Institute, preserves the example of a traditional monastic settlement.*

Criteria (vi): *The caves are strongly linked to the history of transcontinental relations and of the spread of Buddhism throughout Asia. For centuries the Dunhuang oasis, near which the two branches of the Silk Road forked, enjoyed the privilege of being a relay station where not only merchandise was traded, but ideas as well, exemplified by the Chinese, Tibetan, Sogdian, Khotan, Uighur and even Hebrew manuscripts found within the caves.*

Integrity

Mogao Caves encompass caves, wall paintings, painted sculptures, ancient architecture, movable cultural relics and their settings. The property area and buffer zone contain all the attributes that demonstrating the values of the Mogao Caves and thus ensure the integrity of both the heritage site and its environment. Documents of Western Xia, Central Asian and Phags-pa scripts had been discovered through archaeological investigations in the 243 caves in the northern area of Mogao Caves, which was the area for monks to live and meditate and also served as the graveyard in the past. The Mogao Caves comprise the Northern Area and Southern Area caves together.

Authenticity

The location of the Mogao Caves and its settings are faithful to the authentic historical context in which they were created. The design, materials, traditions, techniques, spirit, and impression of the caves, wall paintings, painted sculptures and movable cultural relics still exhibit the characteristics of the periods in which they were created. The continued utilization of the Mogao Caves for tourism has indeed promoted its historic significance. Conservation plans have established the guidelines for the caves' utilization and conservation and therefore will ensure the authenticity of the site and its settings.

Protection and management requirements

The Mogao Caves were inscribed on the World Heritage List in 1987. As a State Party, China has put all World Heritage sites under top-level protection. In 1961, the Mogao Caves was listed as one of the State Priority Protected Sites by the State Council and was put under the protection of national laws including the Law of the People's Republic of China on the Protection of Cultural Relics. The Regulations for the Conservation of the Mogao Caves in Dunhuang, Gansu Province (2002) has confirmed the boundaries of the conservation area, and the Master Plan for the Conservation of the Mogao Caves at Dunhuang (2006-2025), which has been reported to the Gansu Provincial Government and will be issued soon, adds the area for the control of construction, which overlaps with the buffer zone. The two directives are the most important measures taken for preserving the authenticity and integrity of the Mogao Caves. The Administrative Institution of the Mogao Caves has been cooperating with international counterparts to study conservation and site management and looks forward to continuing its work in preserving the heritage of the site.

The goal in the future is to implement the measures set out in the management plan by the scheduled time, to learn from advanced experiences in heritage site conservation and management at home and

abroad, to ensure the authenticity and integrity of the heritage site and its setting, and to make its full historical information and value available to future generations.

| | |
|---------------------|---------------------------------------|
| Property | Peking Man Site at Zhoukoudian |
| State Party | China |
| Id. N° | 449 |
| Date of inscription | 1987 |

Brief synthesis

*Peking Man Site at Zhoukoudian is a Pleistocene hominid site on the North China Plain. This site lies about 42 km south-west of Beijing and is at the juncture of the North China Plain and the Yanshan Mountains. Adequate water supplies and natural limestone caves in this area provided an optimal survival environment for early humans. Scientific work at the site is still under way. So far, ancient human fossils, cultural remains and animal fossils from 23 localities within the property dating from 5 million years ago to 10,000 years ago have been discovered by scientists. These include the remains of *Homo erectus pekinensis*, who lived in the Middle Pleistocene (700,000 to 200,000 years ago), archaic *Homo sapiens* of about 200,000–100,000 years ago and *Homo sapiens sapiens* dating back to 30,000 years ago. At the same time, fossils of hundreds of animal species, over 100,000 pieces of stone tools and evidence (including hearths, ash deposits and burnt bones) of Peking Man using fire have been discovered.*

As the site of significant hominid remains discovered in the Asian continent demonstrating an evolutionary cultural sequence, Zhoukoudian is of major importance within the worldwide context. It is not only an exceptional reminder of the prehistoric human societies of the Asian continent, but also illustrates the process of human evolution, and is of significant value in the research and reconstruction of early human history.

Criterion (iii): *The Zhoukoudian site bears witness to the human communities of the Asian continent from the Middle Pleistocene Period to the Palaeolithic, illustrating the process of evolution.*

Criterion (vi): *The discovery of hominid remains at Zhoukoudian and subsequent research in the 1920s and '30s excited universal interest, overthrowing the chronology of Man's history that had been generally accepted up to that time. The excavations and scientific work at the Zhoukoudian site are thus of significant value in the history of world archaeology, and have played an important role in the world history of science.*

Integrity

*All elements necessary to express the values of the Peking Man Site at Zhoukoudian are included within the boundary of the property. The localities of where the ancient human fossils were found, the living environments of ancient humans, as well as the scientific excavation and research process during the 1920s and 1930s have all been integrally preserved, and accurately reveal the significant scientific value of the property. Unfortunately, the outbreak of the Sino-Japanese War in 1937 interrupted the excavations and led to disastrous consequences: fossil remains of *Sinanthropus Pekinensis* discovered previously were disassembled or lost. After the war, some human fossils unearthed through new excavations have partially compensated for these losses and Peking Man Site at Zhoukoudian still retains its scientific value.*

Authenticity

Peking Man Site at Zhoukoudian bears historic evidence of human evolution, maintains and passes on its authentic historic information, and promotes the research on the origins of early humans. The fossil localities and the setting of the site have been effectively protected. The conservation projects for the site have strictly followed the principles for cultural heritage conservation in terms of design, material, methods and technology.

Protection and management requirements

Based on laws and regulations including the Law of People's Republic of China on the Protection of Cultural Relics, in order to protect the property, the Beijing People's Municipal Government promulgated the Regulations for the Conservation of the Peking Man Site at Zhoukoudian in Beijing in 1989; revised in 2009 as the Regulations for the Conservation of Zhoukoudian Site. Activities that may damage the value of the site such as mining and kiln firing are prohibited.

Owing to the formulation and updated revisions and improvements of the scientific Conservation Plan of the Zhoukoudian Site (completed in 2006), the property is in an excellent state of conservation.

Adoption of retrospective Statements
of Outstanding Universal Value

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According to the Plan, the property area has been defined as 4.8 km² and the buffer zone has been established. Meanwhile, a series of conservation projects have been carried out at the property. The laws, regulations and plans provide the policy guarantee for the scientific conservation and management of the property.

| | |
|---------------------|--|
| Property | Temple and Cemetery of Confucius, and the Kong Family Mansion in Qufu |
| State Party | China |
| Id. N° | 704 |
| Date of inscription | 1994 |

Brief synthesis

Confucius, a renowned philosopher, politician and educator in ancient China whose system of belief involving philosophy, politics and ethics (subsequently known as Confucianism) has exerted profound influence on Chinese culture, was revered as the Sacred Model Teacher for Ten Thousand Generations by Chinese emperors. Located in his birthplace, Qufu City of Shandong Province, China, the Temple of Confucius was built to commemorate and offer sacrifices to Confucius in 478 BC. Having been destroyed and reconstructed over the centuries, it now covers 14 hectares, with 104 buildings dating from the Jin to Qing dynasties including the Dacheng Hall, Kuiwen Pavilion and Xing Altar, and over 1,250 ancient trees. The Temple houses more than 1,000 stelae made at different times, and precious objects such as Han stone reliefs, carved pictures depicting the life of Confucius, and the stone dragon carvings of the Ming and Qing dynasties. The Temple is the prototype and model for all the Confucius temples widely distributed in countries in East Asia and Southeast Asia, particularly in terms of layout and style.

Located 1,100 meters to the north of Qufu City, the Cemetery of Confucius covers an area of 183 hectares. It contains Confucius' tomb and more than 100,000 graves of his descendants.

Lying to the east of the Temple, the Kong Family Mansion developed from a small family house linked to the temple into an aristocratic mansion in which the male direct descendants of Confucius lived and worked. Following a fire and rebuilding of the temple with an enclosure wall on the model of an imperial palace in the 14th century, the mansion was rebuilt a short distance from the temple. Subsequently expanded, then destroyed again by fire and rebuilt in the late 19th century, it now covers 7 hectares with a total of some 170 buildings. Over 100,000 collections are kept in the Mansion; among them the ten ceremonial utensils of the Shang and Zhou dynasties, the portraits of Confucius made in different periods and clothes and caps dating to the Ming and Qing dynasties are the most famous. Furthermore, the more than 60,000 files and archives of the Ming and Qing dynasties collected in the Mansion not only provide a credible record of all kinds of activities in the Mansion for more than 400 years, but are highly valuable for studying the history of the Ming and Qing period.

The buildings were designed and built with meticulous care according to the ideas of Confucianism regarding the hierarchy of disposition of the various components. In the Ming period many outstanding artists and craftsmen applied their skills in the adornment of the temple, and in the Qing period imperial craftsmen were assigned to build the Dacheng Hall and Gate and the Qin Hall, considered to represent the pinnacle of Qing art and architecture.

Confucianism has exerted a profound influence not only in China but also on the feudal societies of Korea, Japan and Vietnam and had a positive influence on the Enlightenment of 18th century Europe. The Temple of Confucius, the Cemetery of Confucius, and the Kong Family Mansion are not only outstanding representatives of oriental architectural skills, but they also have a deep historical content and are an important part of the cultural heritage of mankind.

Criterion (i): The group of monumental ensembles at Qufu is of outstanding artistic value because of the support given to them by Chinese Emperors over two millennia, ensuring that the finest artists and craftsmen were involved in the creation and reconstruction of the buildings and the landscape dedicated to Confucius.

Criterion (iv): The Qufu ensemble represents an outstanding architectural complex which demonstrates the evolution of Chinese material culture over a considerable period of time.

Criterion (vi): The contribution of Confucius to philosophical and political doctrine in the countries of the East for two thousand years, and also in Europe and the west in the 18th and 19th centuries, has been one of the most profound factors in the evolution of modern thought and government.

Integrity

As a heritage site embodying the core value of traditional Chinese culture—Confucianism, incorporating the Temple and Cemetery of Confucius and the Kong Family Mansion, the property area covers all the necessary elements for demonstrating its historical values and setting. The Temple reflects the

paramount position of Confucianism in traditional Chinese culture. The Cemetery, as a graveyard for Confucius and his descendants, provides integral and most important material evidence for the development of the Kong Clan. The Kong Family Mansion, as the office and residence for the direct descendants of Confucius, testifies to the eminent status enjoyed by the Kong family in traditional Chinese society because of Confucianism.

Authenticity

The maintenance and protection of the property, which was never disrupted in Chinese history due to the property's great significance, reflect traditional Chinese conservation intervention methods. The property possesses high authenticity in terms of design of the building complex, building materials used, continuity in construction technology, preservation of historical condition and as deliverer of spiritual values, which are all faithful expressions of traditional Chinese culture. Qufu, as the hometown of Confucius, has always been the most congregated inhabitation of his descendants, and today, the surroundings of the property still provides the most important residence for the offspring of Confucius. This social phenomenon and situation also contributes to the authenticity of the property.

Protection and management requirements

The Temple and Cemetery of Confucius and the Kong Family Mansion were included in the first group of State Priority Protected Sites in 1961 and the property is protected under the Law of the People's Republic of China on the Protection of Cultural Relics. The official institution responsible for the protection and management of the property is Qufu Cultural Heritage Management Committee. A multi-source and stable fund guarantee system has been established, with specific funds allocated for heritage conservation each year. The enactment and efficient implementation of relevant national and local laws and regulations provides strong legal protection to the property.

The property boundaries and buffer zone were clearly designated in 1986. In 2003, the Master Plan for Qufu City was drawn up, and the Regulatory Plan for the Ming City of Qufu was made in 2007, regulating protection of the setting of the property. These documents provide legal, institutional and management guarantees for safeguarding the authenticity and integrity of the property. Now the protection of the heritage has been integrated into the social and economic development plan, the urban and rural construction plan, the fiscal budget, the system reform and the leadership accountability system of Qufu.

Systematic periodic and daily monitoring has been carried out, while the complete heritage monitoring system and documentation database of the property are being developed. Survey, design and implementation of intervention projects are conducted strictly in accordance with relevant laws, regulations and technical specifications, while charters relating to world cultural heritage protection have also been observed. Further measures will be taken to ensure the authenticity and integrity of the heritage and its setting, and to strive for rational use and sustainable development of the property.

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|---------------------|---|
| Property | Ancient Building Complex in the Wudang Mountains |
| State Party | China |
| Id. N° | 705 |
| Date of inscription | 1994 |

Brief synthesis

The palaces and temples of the Ancient Building Complex are located amongst the peaks, ravines and gullies of the picturesque Wudang Mountains, Hubei Province. Established as a Taoist centre from the early Tang Dynasty, some Taoist buildings could be traced back to the 7th century. However the surviving buildings exemplify the architectural and artistic achievements of China's secular and religious buildings of the Yuan, Ming and Qing dynasties. The Ancient Building Complex reached its apogee during the Ming dynasty, with 9 palaces, 9 monasteries, 36 nunneries and 72 temples, following the major building campaign undertaken by Emperor Zhu Di to align his imperial regime with Taoism. Today, 53 ancient buildings and 9 architectural sites survive, including the Golden Shrine and the Ancient Bronze Shrine, which are prefabricated buildings in bronze made in 1307; the stone-walled Forbidden City of 1419; Purple Heaven Palace built originally in the 12th century, rebuilt in the 15th century and extended in the 19th century; the Nanyang Palace of the 12th and 13th centuries; the Fuzhen Temple of the 15th and 17th centuries and the stone Zhishi-Xuanyue Gateway built to mark the entrance to the Wudang Mountains in 1522.

The buildings in the Wudang Mountains exhibit exceptional architectural art and technology and represent the highest level of Chinese art and architecture achieved over a period of nearly 1,000 years. They are examples of religious and secular buildings closely associated with the growth of Taoism in China and lavishly endowed by successive Emperors. As an exceptionally large and well-preserved

Taoist building complex it is important material evidence for studying early Ming politics and the Chinese history of religion.

Criterion (i): The ancient buildings in the Wudang Mountains represent the highest standards in Chinese art and architecture over a period of nearly one thousand years.

Criterion (ii): The Wudang buildings exercised an enormous influence on the development of religious and public art and architecture in China.

Criterion (vi): The religious complex in the Wudang Mountains was the centre of Taoism, one of the major eastern religions and one which played a profound role in the development of belief and philosophy in the region.

Integrity

All the 62 ancient buildings and sites have been included in the property boundaries surrounded by extensive buffer zones with signs and enhanced safety control. Meanwhile, guided by the principle of “giving priority to the protection of cultural relics and attaching primary importance to their rescue”, priority is given to each building in terms of maintenance and repairs to ensure the integrity of the property.

Authenticity

Besides carrying out necessary works on the property such as cleaning, reinforcement, termite prevention and lightning conductors, the principle of respecting the authenticity is strictly adhered in terms of maintenance and repair, so that the original condition of the property in terms of layout, specification, style and material are all preserved. Meanwhile, the setting of the property has been improved by relocating residents out of the property area, which helps to preserve the authenticity as well as to restore the original setting.

According to the planned national water diversion project from the south to the north, the local water level is to rise 15 meters. As a result, some ancient buildings may need to be elevated, while some others may need to be relocated, which may impact the authenticity and integrity of the property.

Protection and management requirements

The property is protected at the highest level by the Law of the People’s Republic of China on the Protection of Cultural Relics. The Management Committee of the Wudang Mountains Tourism and Economic Special Zone where the property is located exercises the local governmental responsibility, and is exclusively in charge of protection, management, development, use, planning and construction of the Wudang Mountains scenery area. The Cultural Heritage Bureau under the Management Committee is responsible for the administration of cultural heritage in the Special Zone. The Institute for Cultural Heritage Conservation, a museum and 5 cultural heritage management departments are set under the Bureau to carry out conservation works. Among them, the 5 cultural heritage management departments are established according to the distribution of cultural heritage over the Mountains, and have clearly assigned scope of jurisdiction and staff. With regard to the 28 remote heritage sites, voluntary conservators’ tenders coming from the villages where these sites are located take care of them. At present, there are 84 such conservators that are professionally engaged in cultural heritage conservation.

Meanwhile, the “Four Legal Prerequisites” (demarcation of the boundaries, erection of an official plaque declaring a site a protected entity, creation of an archive for records, designation of an organization or person dedicated to management) and ‘five bring into’ (bring into the economic and society development plan, bring into urban and rural construction plan, bring into the fiscal budget, bring into system reform, bring into leadership accountability system) for cultural heritage conservation have been achieved, and the heritage monitoring system and database have been established.

The Outline of the Master Plan of Wudang Mountains Scene Area, the Twelfth Five-year (2011-2015) Conservation Plan for the Ancient Building Complex in Wudang Mountains, Regulations of Wudang Mountains Environment and Regulations on Basic Construction in the Planned Area of Wudang Special Zone have been formulated, and the provincial government has issued laws and regulations including the Regulations of Wudang Mountain Scene Area. The Master Plan for Cultural Heritage Conservation of Wudang Mountain is under preparation.

Moreover, the top-level protection zone inside the Scenic Area has been expanded to coincide with the property boundaries. Farmers living in the property area have been relocated for better protection of the sites, while all constructions impairing the setting of the property have been demolished.

The property is properly managed and preserved through periodic, strict and well planned maintenance and protection.

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| Property | Historic Ensemble of the Potala Palace, Lhasa |
| State Party | China |
| Id. N° | 707 ter |
| Dates of inscription | 1994 – 2000 - 2001 |

Brief synthesis

Enclosed within massive walls, gates and turrets built of rammed earth and stone the White and Red Palaces and ancillary buildings of the Potala Palace rise from Red Mountain in the centre of Lhasa Valley at an altitude of 3,700 metres. As the winter palace of the Dalai Lama from the 7th century CE the complex symbolizes Tibetan Buddhism and its central role in the traditional administration of Tibet. The White Palace contains the main ceremonial hall with the throne of the Dalai Lama, and his private rooms and audience hall are on the uppermost level. The palace contains 698 murals, almost 10,000 painted scrolls, numerous sculptures, carpets, canopies, curtains, porcelain, jade, and fine objects of gold and silver, as well as a large collection of sutras and important historical documents. To the west and higher up the mountain the Red Palace contains the gilded burial stupas of past Dalai Lamas. Further west is the private monastery of the Dalai Lama, the Namgyel Dratshang.

The Jokhang Temple Monastery was founded by the regime also in the 7th century, in order to promote the Buddhist religion. Covering 2.5ha in the centre of the old town of Lhasa, it comprises an entrance porch, courtyard and Buddhist hall surrounded by accommodation for monks and storehouses on all four sides. The buildings are constructed of wood and stone and are outstanding examples of the Tibetan Buddhist style, with influences from China, India, and Nepal. They house over 3,000 images of Buddha and other deities and historical figures along with many other treasures and manuscripts. Mural paintings depicting religious and historical scenes cover the walls.

Norbulingka, the Dalai Lama's former summer palace constructed in the 18th century, is located on the bank of the Lhasa River about 2km west of the Potala Palace in a lush green environment. It comprises a large garden with four palace complexes and a monastery as well as other halls, and pavilions all integrated into the garden layout to create an exceptional work of art covering 36ha. The property is closely linked with religious and political issues, having been a place for contemplation and for signing political agreements.

The Historic Ensemble of the Potala Palace, Jokhang Temple and Norbulingka embody the administrative, religious and symbolic functions of the Tibetan theocratic government through their location, layout and architecture. The beauty and originality of the architecture of these three sites, their rich ornamentation and harmonious integration in a striking landscape, contribute to their Outstanding Universal Value.

Criterion (i): *The Historic Ensemble of the Potala Palace is an outstanding work of human imagination and creativity, for its design, its decoration and its harmonious setting within a dramatic landscape. The three-in-one historic ensemble of the Potala Palace, with Potala the palace-fort complex, Norbulingka the garden residence and the Jokhang Temple Monastery the temple architecture, each with its distinctive characteristics, forms an outstanding example of traditional Tibetan architecture.*

Criterion (iv): *The scale and artistic wealth of the Historic Ensemble of the Potala Palace, which represents the apogee of Tibetan architecture, make it an outstanding example of theocratic architecture, of which it was the last surviving example in the modern world.*

Criterion (vi): *The Historic Ensemble of the Potala Palace forms a potent and exceptional symbol of the integration of secular and religious authority.*

Integrity

The Historic Ensemble of the Potala Palace owns tens of thousands of collections of diverse cultural relics. The wall paintings are rich in themes, form the best of Tibetan painting art and precious material evidence for learning Tibetan history and the multi-ethnic cultural fusion. The historic scale, architectural typology and the historic environment remain intact within the property area and within the buffer zone, carrying the complete historic information of the property.

Authenticity

In terms of design, material, technology and layout, the historic ensemble of the Potala Palace has well retained its original form and characteristics since it was first built and from successive significant additions and expansions, convincingly testifying to its Outstanding Universal Value.

Protection and management requirements

The three components of the Historic Ensemble of the Potala Palace, the Potala Palace, Norbulingka and the Jokhang Temple are all State Priority Protected Sites, and protected by the Law on the Protection of Cultural Relics of the People's Republic of China. The Potala Palace was inscribed on the World Heritage List in 1994, the Jokhang Temple in 2000 as an extension to the property, and Norbulingka in 2001 as a further extension to the property. The buffer zone of the property has been confirmed as originally demarcated. Any intervention must be approved by the responsible cultural heritage administration, with restoration strictly in accordance with the principle of retaining the historic condition. The Potala Palace Management Regulations have been put into force; measures are formulated and taken for better visitor management. A World Heritage Steering Committee has been established in Lhasa. The conservation and management plans for the three component parts of the World Heritage property have been formulated and will be submitted and put into force as soon as possible.

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|---------------------|-----------------------------|
| Property | Lushan National Park |
| State Party | China |
| Id. N° | 778 |
| Date of inscription | 1996 |

Brief synthesis

Mount Lushan is located in Jiujiang City, Jiangxi Province. The property area of Lushan National Park occupies a total area of 30,200 hectares and its highest Peak, Hanyang Peak, is 1,474 meters above sea level. Bordered on the north by the Yangtze River and on the south by Poyang Lake, Mount Lushan presents an integral scene of river, hills and lake, the beauty of which has attracted spiritual leaders, scholars, artists and writers for over 2,000 years. More than 200 historic buildings are located in the Lushan National Park; complexes of prayer halls that have been rebuilt and extended many times to create an ongoing centre for study and religion. These include the Buddhist East Grove Temple complex begun by Huiyuan in 386 CE; the West Grove Pagoda begun around 730 CE; the Temple of Simplicity and Tranquility built during the Tang dynasty as the repository of Taoist scriptures, and the White Deer Cave Academy originally established in 940 CE and revived in the late 12th century during the Song dynasty when Zhu Xi instigated the spread of Confucius' political and ethical teaching. This complex continued to be extended up to the 19th century to include many temples, study halls and libraries. Other important features include the stone single-span Guan Ying Bridge of 1,015 CE and more than 900 inscriptions on cliffs and stone tablets. In addition there are around 600 villas built by Chinese and foreign visitors in the late 19th and 20th centuries, when the area became a popular resort and was, during the 1930s and 40s the official Summer Capital of the Republic of China. The villas reflect various architectural fashions and are laid out within the landscape in accordance with Western planning concepts prevalent at the time.

Mount Lushan has an important place in Chinese history and culture. It is an outstanding representative of Chinese landscape culture, as well as a remarkable model of Chinese academy-based education, and a focal point for the integration of Chinese and Western cultures, once acting as the cultural center of southern China. The significant cultural developments and political events occurring over the course of Lushan's history have influenced the course of Chinese history.

The natural beauty of Lushan is perfectly integrated with its historic buildings and features, creating a unique cultural landscape which embodies outstanding aesthetic value powerfully associated with Chinese spiritual and cultural life. Combining nature and culture, Mount Lushan represents the Chinese national spirit and epitomizes its cultural life.

Criterion (ii): The building and layout of temples and educational buildings within the scenic landscape at Lushan have created a cultural landscape exhibiting an interchange of values over a long period from the Han dynasty in the late 3rd century BCE through to the early 20th century.

Criterion (iii): The Lushan landscape has inspired philosophy and art. The selective and sensitive integration of high quality cultural properties into this landscape is exceptional testimony to Chinese appreciation of the harmonious interaction of natural beauty and culture.

Criterion (iv): The group of ancient buildings at the White Deer Cave Academy represents the architectural model for Chinese traditional academies. Guanyin Bridge, a stone arch bridge with a rabbit and mortise structure, has played a very important role in Chinese bridge building. The groups of modern villas are a testament to the penetration of Western culture into China's hinterlands in the late

19th century to the middle of the 20th century.

Criterion (vi): Huiyuan, who created the Pure Land Sect of Buddhism at Lushan's Donglin Temple, inaugurated an era of the localization of Buddhism in China. Zhu Xi revitalized the White Deer Cave Academy, making it the model for the popularization of Song and Ming Dynasty Confucian idealist philosophy and the model of academy-based education. His influence continued over 700 years of Chinese history after the Song Dynasty. The Confucian idealist philosophy as interpreted by Zhu Xi, and his educational pattern, spread as far as Japan, Korea, Indonesia and elsewhere, and has played a very important role in the global history of education.

Integrity

The property area of Lushan National Park covers 30,200 hectares, and the buffer zone is 50,000 hectares. The property area and buffer zone contain all necessary elements relevant to the formation of the cultural heritage, as well as to the presentation of its heritage values, including ancient buildings, ruins, modern villas, stone inscriptions, vegetation on the mountain and its waterfalls and streams, which integrally displays the cultural and natural elements of the Lushan cultural landscape.

Authenticity

Mount Lushan has rich cultural and natural heritage, which authentically preserve the unique elements and characteristics of Mount Lushan's creation, development and inheritance, including cultural, historical and natural elements such as ancient monuments and sites, villas, ancient stone inscriptions, paintings and poems dating to different historic periods, and streams and waterfalls, peaks and valleys. Temporary or partial damage of the ecological environment can be quickly and effectively restored. Restoration and intervention have followed principle of retaining the historic condition of the heritage in terms of design, materials, methods, and techniques. Thus, the property retains its historical authenticity, which permanently preserves the value of this "famous cultural mountain".

Protection and management requirements

In 1982, Mount Lushan became one of the first National Scenic Areas and one of the First Class National Nature Reserves, with the property area and buffer zone delimited. All attributes of Mount Lushan are effectively protected by the laws and regulations pertaining to the management of national scenic areas, and to the protection of cultural heritage and its setting. Any measures and projects that may significantly impact the heritage value must be authorized by the relevant national authorities. The Lushan Scenic and Historic Interest Administrative Bureau focused on sustainable development of the property, and made increased investments in conservation and management. Both mid-term and long-term master plans for protecting the property have been made. Special attention has been placed on protecting the cultural heritages and their settings as a whole, and how to protect them more scientifically. Additional efforts have been made towards researching rational use of the property. Broad cooperation and exchanges have been undertaken. Conservation measures are strictly carried out. Environmental management and development projects are being tightly controlled. The right balance between heritage conservation and tourism development has been maintained, making it possible for the sustainable development of the property.

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|---------------------|----------------------------|
| Property | Old Town of Lijiang |
| State Party | China |
| Id. N° | 811 |
| Date of inscription | 1997 |

Brief synthesis

The Old Town of Lijiang is located on the Lijiang plain at an elevation of 2,400 meters in southwest Yunnan, China, where a series of strategic passes give access through the surrounding mountains. The Yulong Snow Mount to the north-west is the source of the rivers and springs which water the plain and supply the Heilong Pool (Black Dragon Pond), from where waterways feed into a network of canals and channels to supply the town. The Old Town of Lijiang comprises three component parts: Dayan Old Town (including the Black Dragon Pond), Baisha and Shuhe housing clusters. Dayan Old Town was established in the Ming dynasty as a commercial centre and includes the Lijiang Junmin Prefectural Government Office; the Yizi pavilion and Guabi Tower remaining from the former Mujia compound and the Yuquan architectural structures in the Heilongtan Park. Numerous two-storeyed, tile-roofed, timber-framed houses combining elements of Han and Zang architecture and decoration in the arched gateways, screen walls, courtyards and carved roof beams are representative of the Naxi culture and are disposed in rows following the contours of the mountainside. Wooden elements are elaborately

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carved with domestic and cultural elements - pottery, musical instruments, flowers and birds.

The Baisha housing cluster established earlier during the Song and Yuan dynasties is located 8km north of the Dayan Old Town. Houses here are arranged on a north-south axis around a central, terraced square. The religious complex includes halls and pavilions containing over 40 paintings dating from the early 13th century, which depict subjects relating to Buddhism, Taoism and the life of the Naxi people, incorporating cultural elements of the Bai people. Together with the Shuhe housing cluster located 4km north-west of Dayan Old Town, these settlements nestling in mountains and surrounded by water reflect the blend of local cultures, folk customs and traditions over several centuries.

The vivid urban space, the vigorous water system, the harmonious building complexes, the comfortable residences of appropriate size, the pleasant environment, and the folk art of unique style combine to form an outstanding example of human habitat.

Criterion (ii): From the 12th century onward, the Old Town of Lijiang was an important goods distribution center for trade between Sichuan, Yunnan and Tibet, and is where the Silk Road in the south joins the Ancient Chama (Tea and Horse) Roads. The Old Town of Lijiang became an important center for the economic and cultural communication between various ethnic groups such as the Naxi, Han, Tibetan and Bai. Cultural and technological exchanges over the past 800 years resulted in the particular local architecture, art, urban planning and landscape, social life, customs, arts and crafts and other cultural features which incorporate the quintessence of Han, Bai, Tibetan and other ethnic groups, and at the same time show distinctive Naxi features. In particular, the murals in the religious architecture and other buildings reflect the harmonious co-existence of Confucianism, Taoism, and Buddhism.

Criterion (iv): The three parts of the Old Town of Lijiang: Dayan Old Town (including the Heilong Pool), Baisha housing cluster and Shuhe housing cluster, fully reflect the social, economic and cultural features of the different periods, following the natural topography of mountains and water sources to form an outstanding settlement combining the residential traditions of Naxi, Han, Bai and Tibetan people.

Criterion (v): The Old Town of Lijiang has integrated the mountains, rivers, trees and architecture to create a human habitat featuring the unity between man and nature. With mountains extending to the plain as the protective screen in the north and the plains in the east and south, the Old Town enjoys a sound geometrical relationship and ecological layout. A forked water system originates from the snow-capped mountain and runs through the villages and the farmland. Heilong Pool and the scattered wells and springs constitute a complete water system, meeting the needs for fire prevention, daily life and production in the town. Water plays an important role in the Old Town's unique architectural style, urban layout and landscape as the main street and small alleys front onto the canals and some buildings and numerous bridges are constructed across the canals. As an excellent example of human habitat showing a harmony between man and nature, the Old Town is a remarkable tribute to human ingenuity in land use.

Integrity

The mountains in the surrounding area of the Old Town of Lijiang have been well preserved, and the time-honored water-supply system is still functioning today. The property boundaries and buffer zone are in the process of being modified to better protect the Outstanding Universal Value of the property.

Authenticity

The property area of Dayan, Baisha housing cluster and Shuhe housing cluster of the Old Town of Lijiang have retained the overall layout, urban morphology, street landscape, and architectural style of the Ming and Qing dynasties, in spite of numerous earthquakes including a big earthquake on February 3, 1996. The intangible heritage including Dongba culture, Naxi character, and the building skills of traditional residences in the Old Town of Lijiang have been inherited and promoted with the development of Naxi society.

Protection and management requirements

For the protection and management, the Old Town of Lijiang has strictly abided by the Law of the People's Republic of China on the Protection of Cultural Relics, Regulations for the Implementation of the Law of the People's Republic of China on Protection of Cultural Relics and Regulation on the Protection of Famous Historical and Cultural Cities, Towns and Villages. In recent years, World Heritage protection and management organs at various levels have taken additional measures. They have positively responded to the reactive monitoring carried out by the World Heritage Committee, carefully implemented the decisions of the Committee, and organized professional institutions and experts to enhance the research on the Outstanding Universal Value of the Old Town of Lijiang; they have prepared the Conservation Master Plan for the Old Town of Lijiang as a World Cultural Heritage Site, Manual on Repairing Folk Residences, Manual on Environment Protection, Plan for Business Development, and Management Plan; they have strengthened the control and management over

tourism and commercial development in the surrounding area of the property by adjusting the area of protection.

In the future, the preparation, examination and implementation of the Conservation Master Plan for the Old Town of Lijiang as a World Cultural Heritage Site will be accelerated. Monitoring will be enhanced during the implementation to ensure that the measures will be effectively taken. Moreover, the capacity of the World Cultural Heritage Management Bureau of the Old Town of Lijiang, the local protection and management institution, will be further built to improve heritage protection and management.

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| Property | Temple of Heaven: an Imperial Sacrificial Altar in Beijing |
| State Party | China |
| Id. N° | 881 |
| Date of inscription | 1998 |

Brief synthesis

The Temple of Heaven is an axial arrangement of Circular Mound Altar to the south open to the sky with the conically roofed Imperial Vault of Heaven immediately to its north. This is linked by a raised sacred way to the circular, three-tiered, conically roofed Hall of Prayer for Good Harvests further to the north. Here at these places the emperors of the Ming and Qing dynasties as interlocutors between humankind and the celestial realm offered sacrifice to heaven and prayed for bumper harvests. To the west is the Hall of Abstinence where the emperor fasted after making sacrifice. The whole is surrounded by a double-walled, pine-treed enclosure. Between the inner and outer walls to the west are the Divine Music Administration hall and the building that was the Stables for Sacrificial Animals. Within the complex there are a total of 92 ancient buildings with 600 rooms. It is the most complete existing imperial sacrificial building complex in China and the world's largest existing building complex for offering sacrifice to heaven.

Located south of the Forbidden City on the east side of Yongnei Dajie, the original Altar of Heaven and Earth was completed together with the Forbidden City in 1420, the eighteenth year of the reign of the Ming Emperor Yongle. In the ninth year of the reign of Emperor Jiajing (1530) the decision was taken to offer separate sacrifices to heaven and earth, and so the Circular Mound Altar was built to the south of the main hall for sacrifices particularly to heaven. The Altar of Heaven and Earth was thereby renamed the Temple of Heaven in the thirteenth year of the reign of Emperor Jiajing (1534). The current arrangement of the Temple of Heaven complex covering 273ha was formed by 1749 after reconstruction by the Qing emperors Qianlong and Guangxu.

The siting, planning, and architectural design of the Temple of Heaven as well as the sacrificial ceremony and associated music were based on ancient tenets relating numbers and spatial organisation to beliefs about heaven and its relationship to people on earth, mediated by the emperor as the 'Son of Heaven'. Other dynasties built altars for the worship of heaven but the Temple of Heaven in Beijing is a masterpiece of ancient Chinese culture and is the most representative work of numerous sacrificial buildings in China.

Criterion (i): The Temple of Heaven is a masterpiece of architecture and landscape design which simply and graphically illustrates a cosmogony of great importance for the evolution of one of the world's great civilizations.

Criterion (ii): The symbolic layout and design of the Temple of Heaven had a profound influence on architecture and planning in the Far East over many centuries.

Criterion (iii): For more than two thousand years China was ruled by a series of feudal dynasties, the legitimacy of which is symbolized by the design and layout of the Temple of Heaven.

Integrity

The Temple of Heaven covers an area of 273ha and its ancient buildings are well preserved. The garden landscape and pathways have retained their historic layout. All elements necessary to express the value of the property are included within the boundaries of the property area. This ensures the integral representation of its uniqueness as a traditional Chinese cultural landscape.

Authenticity

The attributes such as the landscape layout and historic buildings are preserved either as built originally or as reconstructed in the Qing dynasty. The management and maintenance is carried out strictly in accordance with records in historical literature and archaeological evidence, to preserve the historic condition, while the exhibitions and displays are also designed to reflect the authenticity. The general layout and architectural features of the property vividly and distinctly demonstrate the traditional Chinese

philosophical ideas, cosmogony, sacrificial rituals and scientific and artistic achievements, as well as genuinely reflect the political and cultural concepts and historic characteristics at that time.

Protection and management requirements

At the highest level the Temple of Heaven is protected by the Law of the People's Republic of China on the Protection of Cultural Relics. In 1961, the Temple of Heaven was included by the State Council of the People's Republic of China on the first group of State Priority Protected Sites. On the basis of efficient implementation of pertinent laws such as the Constitution of the People's Republic of China, the Criminal Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Cultural Relics, the Law of the People's Republic of China on Environmental Protection, and the Law of the People's Republic of China on Urban Planning, relevant regulations on conservation and management have been formulated according to the practical situation. Any proposed measures or projects to be taken inside and outside the property area that may have any impact on the heritage values is prohibited without the approval of the national administration on cultural heritage. A buffer zone has been established.

At present, the main sacrificial building complexes including the Hall of Prayer for Good Harvests, the Circular Mound Altar, the Fasting Palace and the Divine Music Administration are all integrally preserved. The flourishing trees in the property remind people of the heyday of the site. The authenticity and integrity of the property are maintained and preserved by strictly observing pertinent principles and provisions of the Law of the People's Republic of China on the Protection of Cultural Relics and through regular and rigorous maintenance and conservation projects. The management system of the Temple of Heaven has taken into account a wide range of measures provided under planning, heritage legislation and policies of the Central Government and Beijing Municipal Government. The Master Plan of Temple of Heaven on Protection and Management which provides the policy framework for the conservation and management of the Temple of Heaven is under formulation and will be presented to the World Heritage Committee as soon as it is complete.

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|---------------------|---------------------------|
| Property | Dazu Rock Carvings |
| State Party | China |
| Id. N° | 912 |
| Date of inscription | 1999 |

Brief synthesis

The steep hillsides in the Dazu area near Chongqing, contain an exceptional series of five clusters of rock carvings dating from the 9th to 13th centuries. The largest cluster at Beishan contains two groups along a cliff face 7-10m high stretching for around 300m. There are more than 10,000 carvings dating from the late 9th to the mid-12th century which depict themes of Tantric Buddhism and Taoism. Inscriptions give insight to the history, religious beliefs, dating and the identification of historical figures. The late 11th century Song dynasty carvings at Shizhuanshan extend over 130m and depict Buddhist, Taoist and Confucian images in a rare tripartite arrangement. The Song dynasty carvings at Shimenshan dating from the first half of the 12th century extend along 72m and integrate Buddhist and Taoist subjects. At Nanshan the Song dynasty carvings of the 12th century extend over a length of 86m and depict mostly Taoist subjects. The culmination in terms of expression of Tantric Buddhism is found in the U shaped gorge at Baodingshan which contains two groups of carvings dating from the late 12th to the mid-13th century near the Holy Longevity Monastery. The very large group to the west stretches for about 500 metres and comprises 31 groups of carved figures depicting themes from Tantric Buddhism as well scenes of herdsmen and ordinary life.

The carvings are known for their grand scale, aesthetic quality and rich diversity of subject matter as well as for being well preserved. Standing as an example of the highest level of Chinese cave temple art dating from the 9th to 13th centuries, the Dazu Rock Carvings not only underline the harmonious coexistence in China of three different religions, namely Buddhism, Taoism and Confucianism, but also provide material proof that cave temple art has increasingly shed light on everyday life. Large numbers of carvings and written historical materials within the heritage site show the great changes in and development of cave temple art and religious beliefs in China during that period.

Criterion (i): The Dazu Carvings represent the pinnacle of Chinese rock art in their high aesthetic quality and their diversity of style and subject matter.

Criterion (ii): Tantric Buddhism from India and Chinese Taoist and Confucian beliefs came together at Dazu to create a highly original and influential manifestation of spiritual harmony.

Criterion (iii): The eclectic nature of religious belief in late Imperial China is given material expression in the exceptional artistic heritage of the Dazu rock art.

Integrity

The Dazu Rock Carvings are among the best preserved of this form of Chinese cave temple art. Each of the five clusters is contained within its own designated demarcation of property area and buffer zone, which ensures the integrity of the statues, their natural and cultural landscapes as well as the historical information they bear.

Authenticity

The Dazu Rock Carvings retain the original characteristics and values of the period when the carvings were created, as they have not suffered man-made damage or destruction by natural disasters. Daily maintenance and care have strictly adhered to the principle of ‘retaining the historic condition’. To date, the historical authenticity of the design, materials, technology and layout of the Dazu Rock Carvings have been maintained. In devoting effort to the conservation and protection of these statues, attention has also been paid to the protection of their surroundings, both natural and cultural. As a result, the historical scale, style and features of the Dazu Rock Carvings have been basically preserved, so as to retain to the utmost extent their functions of secular belief, cultural transmission and social education as a type of religious art.

Protection and management requirements

Laws and regulations for heritage protection apply at different administrative levels; at the highest level the property is protected by the Law of the People’s Republic of China on the Protection of Cultural Relics. At the municipal level the Regulations of Chongqing Municipality on the Conservation and Management of Dazu Rock Carvings, have guaranteed that no damage or degradation will threaten the integrity and authenticity of the heritage in Dazu. In order to satisfy the necessary requirements, the local government has also incorporated the conservation and management of Dazu Rock Carvings into the local economic and social development plan.

As per the Conservation Master Plan of Dazu Rock Carvings, the conservation and management work of Dazu Rock Carvings will be carried out via the establishment of a fully elaborated heritage monitoring system, formulation of a scientific and precise conservation and maintenance plan and management measures, and the setting up of a team of conservation professionals.

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| Property | Mount Qincheng and the Dujiangyan Irrigation System |
| State Party | China |
| Id. N° | 1001 |
| Date of inscription | 2000 |

Brief synthesis

The Dujiangyan irrigation system, located in the western portion of the Chengdu flatlands at the junction between the Sichuan basin and the Qinghai-Tibet plateau, is an ecological engineering feat originally constructed around 256 BC. Modified and enlarged during the Tang, Song, Yuan and Ming dynasties, it uses natural topographic and hydrological features to solve problems of diverting water for irrigation, draining sediment, flood control, and flow control without the use of dams. Today the system comprises two parts: the Weir Works, located at an altitude of 726m, the highest point of the Chengdu plain 1km from Dujiangyan City, and the irrigated area. Three key components of the Weir Works control the water from the upper valley of the Minjiang River: the Yuzui Bypass Dike, the Feishayan Floodgate, and the Baopingkou Diversion Passage. Together with ancillary embankments and watercourses including the Baizhang Dike, the Erwang Temple Watercourse and the V-Shaped Dike, these structures ensure a regular supply of water to the Chengdu plains. The system has produced comprehensive benefits in flood control, irrigation, water transport and general water consumption. Begun over 2,250 years ago, it now irrigates 668,700 hectares of farmland.

Mount Qincheng, dominating the Chengdu plains to the south of the Dujiangyan Irrigation System, is a mountain famous in Chinese history as the place where in 142 CE the philosopher Zhang Ling founded the doctrine of Chinese Taoism. Most of the essential elements of Taoism culture are embodied in the teachings of Taoism that emanated from the temples that were subsequently built on the mountain during the Jin and Tang dynasties. The mountain resumed its role as the intellectual and spiritual centre of Taoism in the 17th century. The eleven important Taoist temples on the mountain reflect the traditional architecture of western Sichuan and include the Erwang Temple, the Fulong Temple, the Changdao Temple built over the place where Zhang Ling preached his doctrines, and the Jianfu Palace (formerly the Zhangren Temple).

Criterion (ii): The Dujiangyan Irrigation System, begun in the 2nd century BCE, is a major landmark in the development of water management and technology, and is still discharging its functions perfectly.

Criterion (iv): The immense advances in science and technology achieved in ancient China are graphically illustrated by the Dujiangyan Irrigation System.

Criterion (vi): The temples of Mount Qingcheng are closely associated with the foundation of Taoism, one of the most influential religions of East Asia over a long period of history.

Integrity

Mount Qingcheng and the Dujiangyan Irrigation System have been completely preserved, with all necessary attributes demonstrating the outstanding universal value of the property included inside the property area and buffer zone. They express the importance of utilizing natural features to their fullest in constructing an irrigation system as well as Qingcheng Mountain's importance as one of the birth places of Tao ideology.

Authenticity

Dujiangyan Irrigation System is not only a living heritage of 2,000 year-old design and engineering ideas; it is also still in use today. The functions, religious traditions and the special religious status of the Taoist temple cluster of Mount Qingcheng are fully preserved while still maintaining traditional building styles. Furthermore, internationally accepted protection guidelines and rules have been adhered in conservation and repair projects in terms of location, design, materials, and techniques.

Protection and management requirements

Mount Qingcheng and the Dujiangyan Irrigation System were inscribed on the World Heritage List in 2000. It has also been declared a State Priority Protected Site, among the first batch of National Scenic Areas and Historical Sites, and a National ISO14000 Demonstration Area. Mount Qingcheng and the Dujiangyan Irrigation System are protected by several national laws including the Law of the People's Republic of China on the Protection of Cultural Relics; Environmental Protection Law of the People's Republic of China, and Scenic Spots and Historical Sites Regulations. In addition to national laws, Sichuan Province has also enacted its own laws, including the Regulations on Conservation of Heritage of Sichuan Province and Regulations on Management of Scenic Spots and Historical Sites of Sichuan Province. The buffer zone of the property has been designated.

Currently, the conservation condition of both properties is excellent. During the Sichuan earthquake on May 12th, 2008, Dujiangyan Irrigation System was basically undamaged, but some Taoist shrines were damaged to varying degrees. Subsequently, these ancient structures were successfully repaired with the help of the State Administration of Cultural Heritage, Shanghai Municipal Government and the Macao Foundation. The Outstanding Universal Value of Mount Qingcheng and the Dujiangyan Irrigation System is kept through regular and rigorous maintenance and protection of the properties.

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| Property | Capital Cities and Tombs of the Ancient Koguryo Kingdom |
| State Party | China |
| Id. N° | 1135 |
| Date of inscription | 2004 |

Brief synthesis

Located in northeast China, the Capital Cities and Tombs of the Ancient Koguryo Kingdom dating from the 1st century BCE to the 7th century CE comprise archaeological remains of three cities and 40 tombs: Wunu Mountain City in Huanren Manchu Autonomous County, Liaoning Province; Guonei City, Wandu Mountain City, and the 40 tombs in Ji'an municipality, Jilin Province.

The Koguryo kingdom was a regional power and ethnic group from the year 37BCE until the kingdom moved its capital to Pyonyang in 427CE. Wunu Mountain City, Guonei City and Wandu Mountain City served as capitals of Koguryo during the early and middle period of the Kingdom. Wunu Mountain City was built in 37BCE as the first capital of the Koguryo regime. Surrounded by a defensive wall with three gates which was partly built in stone and in other places exploited the cliff face, the city included a palace, military camp, watch tower, houses and warehouses. Guonei City, now surrounded by the city of Ji'an, was built on the plain with a stone-built defensive wall and had separate palace and residential zones. Wandu Mountain City, the only Koguryo mountain city capital whose general layout was planned with the large palace as its core, created a mountain city that perfectly combined the Koguryo culture with the natural environment. Guonei City and Wandu Mountain City were the economic, political and

cultural centers of the Koguryo for hundreds of years. Guonei City was destroyed in the year 197 CE when the Koguryo were defeated by another power. Wandu Mountain City was built in 209 CE. Both cities were damaged in wars and rebuilt several times, serving alternately as the capital. Guonei City played the role of a supporting capital after the main Koguryo capital moved to Pyongyang; it is one of the few plains city sites with stone city walls still standing.

The tombs of kings and nobles of the ancient Koguryo Kingdom are distributed in the Donggou Ancient Tombs Area of Wandu Mountain City. The 12 imperial tombs take a stepped pyramid form constructed of stone. The burial chambers within were roofed with clay tiles. The tombs of the nobles have stone chambers covered with earth mounds and are decorated with wall paintings, depicting scenes of daily life, sports, hunting, nature, gods, fairies, and dragons. The stele of King Haotaiwang dating from 414CE, tells the story of the founding of the Koguryo kingdom.

The capital cities and tombs are exceptional testimony to the vanished Koguryo civilisation. The layout and construction of the capital cities influenced the city planning and building of later cultures. The tomb paintings represent a rare artistic expression in medieval North-east Asia and together with the stele and inscriptions show the impact of Chinese culture on the Koguryo.

Criterion (i): The tombs represent a masterpiece of the human creative genius in their wall paintings and structures.

Criterion (ii): The Capital Cities of the Koguryo Kingdom are an early example of mountain cities, later imitated by neighbouring cultures. The tombs, particularly the important stele and a long inscription in one of the tombs, show the impact of Chinese culture on the Koguryo (who did not develop their own writing). The paintings in the tombs, while showing artistic skills and specific style, are also an example for strong impact from other cultures.

Criterion (iii): The Capital Cities and Tombs of the Ancient Koguryo Kingdom represent exceptional testimony to the vanished Koguryo civilization.

Criterion (iv): The system of capital cities represented by Guonei City and Wandu Mountain City also influenced the construction of later capitals built by the Koguryo regime; the Koguryo tombs provide outstanding examples of the evolution of piled-stone and earthen tomb construction.

Criterion (v): The capital cities of the Koguryo Kingdom represent a perfect blending of human creation and nature whether with the rocks or with forests and rivers.

Integrity

The Capital Cities and Tombs of the Ancient Koguryo Kingdom contain all the essential elements and relevant archaeological materials expressing the Outstanding Universal Value of the property. The 43 heritage sites retain their original distribution, and the original fabric is fundamentally unimpaired.

Authenticity

The core area and buffer zone authentically reflect the historical setting and development of the property. Besides the partial damage of Guonei City and Wandu Mountain City caused by wars in history, there is no serious man-made damage to the rest of the heritage sites.

Protection and management requirements

The property area and buffer zone have been delimited around all sites. The property is protected by the Law of the People's Republic of China on the Protection of Cultural Relics; the Measures of Liaoning Province for the Implementation of the Law of the People's Republic of China on the Protection of Cultural Relics; the Rules on the Protection and Management of Wunu Mountain City and the Master Plan for the Protection of Wunu Mountain City. The issued laws, regulations and the Conservation Plan for the Capital Cities and Tombs of the Ancient Koguryo Kingdom have developed specific conservation and management rules to cope with the pressure of tourism and city development on each heritage site. Meanwhile, appropriate conservation and management measures have been set for heritage maintenance, ecological control of the setting, and land utilization. These laws and regulations provide the policy guarantee and law enforcement mechanism for heritage conservation, and lay the foundation for heritage conservation and management.

From now on, improvement of the setting and heritage protection goals will be implemented step by step in accordance with the current framework of protection and management. Heritage presentation will be enriched pursuant to the progress of archaeological discovery, and the planned ecological protection program of the property will be carried out simultaneously.

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| Property | Complex of Koguryo Tombs |
| State Party | Democratic People's Republic of Korea |
| Id. N° | 1091 |
| Date of inscription | 2004 |

Brief synthesis

Koguryo was one of the strongest kingdoms in northeast China and half of the Korean peninsula between the 3rd century BC and the 7th century AD. The best known cultural heritage remains of this kingdom are the tombs, built of stone and covered by stone or earthen mounds. These tombs, from the middle period of the kingdom, many with beautiful wall paintings, are the representative remains of this culture. About 100 out of more than 10,000 Koguryo tombs discovered in Democratic People's Republic of Korea and China to date are decorated with wall paintings, some 80 of which are in the Democratic People's Republic of Korea. Among the Koguryo tombs identified in Democratic People's Republic of Korea, 63 individual tombs including 16 tombs with wall paintings are included in the inscribed property. The Complex of Koguryo Tombs is a serial property and includes several groups and individual tombs situated mainly at the foot of mountains and some in villages. Located in Pyongyang and surrounding provinces, the tombs are thought to have been made for the burial of kings, members of the royal family and the aristocracy.

There are several types of tombs included in the property, based on the number of burial chambers – single chamber, two chambers, and multi-chambers with side chambers. They represent the full range of the Koguryo tomb typology and showcase the best examples of this construction technology. The tombs are monumental, stone-chambered earthen mounds that were skillfully constructed with ingenious ceiling designs to support the heavy weight above. The technology employed represented a unique, creative and long-sought engineering solution to the technical problems posed by underground tomb construction.

The wall paintings constitute masterpieces of the art of wall painting. The subject matter of the wall paintings of the tombs offers unique evidence of the richness and complexity of the now-vanished Koguryo culture, portraying the costumes, food, residential life and burial customs, as well as religious practices and imagery associated with Buddhism, Taoism and the Four Deities.

The Complex of Koguryo Tombs represents an exceptional testimony to the Koguryo culture, its burial customs, daily life and beliefs. The special burial customs of this culture had an important influence on other cultures in the region, including those of Japan.

Criterion (i): *The wall paintings of the Koguryo tombs are masterpieces of the culture and period of the Koguryo kingdom; the construction of the tombs demonstrates ingenious engineering solutions.*

Criterion (ii): *The special burial customs of the Koguryo culture had an important influence on other cultures in the region, including Japan.*

Criterion (iii): *The Koguryo tombs are an exceptional testimony of the Koguryo culture, its burial customs as well as its daily life and beliefs.*

Criterion (iv): *The Complex of Koguryo Tombs is an important example of burial typology.*

Integrity

The serial property, which is scattered across the northwest part of the Korean peninsula and grouped into four regions, comprises 63 individual tombs, 16 of which feature wall paintings. The tombs represent the full typology of Koguryo tombs from the later kingdom and together with the wall paintings represent among the only remains of the now-vanished Koguryo culture.

Most of the known tombs suffered clandestine excavations in the last thousand years and few were scientifically excavated prior to such activity. Although some of the wall paintings in the tombs were damaged by looting and environmental factors, the architectural features remain largely intact and the wall paintings possess sufficient integrity to express their Outstanding Universal Value.

The natural environment and setting of the tombs have not been substantially altered since the time the tombs were constructed, providing a clear understanding of the relationship between the tombs and their symbolic siting in the landscape.

The attributes that express the Outstanding Universal Value of the property are not threatened by development or neglect. The wall paintings and the architectural structures are vulnerable to humidity, harmful bacteria and natural weathering. There is a risk of flooding in one of the tombs and an overall plan for the management of tourism is required.

Authenticity

The authenticity of the tombs has been well preserved, as has their relationship with their landscape setting. The tombs have remained largely unaltered since the time of their construction and still retain the evidence of outstanding architectural techniques. The wall paintings inside are authentic and untouched.

Although parts of the wall paintings were damaged owing to looting and other factors, a significant proportion of all the attributes expressing their Outstanding Universal Value, for example, their subject matter, composition, layout, methods of portrayal, and types and texture of pigments, still remain in their original state, guaranteeing their truthfulness.

New additions to the exterior of the tombs for the purposes of protection, presentation and interpretation of the sites can be read as contemporary features that neither mimic the authentic attributes of the property, nor compromise the cultural value of the tombs.

Protection and management requirements

The Complex of Koguryo Tombs is substantially protected under the Law of the Democratic People's Republic of Korea on the Protection of Cultural Property. The on-site management bodies, under the guidance of the National Bureau for Cultural Property Conservation, are responsible for the conservation and management of these properties. The site management structure is adequate and staff well qualified. Buffer zones have been demarcated for all properties, and the overall state of conservation of the property is relatively good.

Conservation and restoration projects for the wall paintings of the Koguryo tombs are being undertaken in collaboration with UNESCO, notably in the Susan-ri Tomb. The major problem in the management and conservation of the tombs is the damage to the wall paintings and architectural structures done by humidity, harmful bacteria and natural weathering. To address this, a remote interior monitoring system and temperature and humidity sensor and regulation system to monitor and regulate the interior of the tombs are being planned in collaboration with UNESCO, and will be installed within a few years. Long-term strategies have been developed to conserve and restore all tombs within the serial property. This will include preventative conservation to avoid the flaking off of paint, changes to the colour of the paintings and corrosion of the tomb structures. It will also aim to continue and strengthen scientific and technical research in relevant fields. The Management Plan is being revised in order to improve conservation, management and interpretation of the property and all the associated elements, including their surrounding natural environment.

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|---------------------|------------------|
| Property | Taj Mahal |
| State Party | India |
| Id. N° | 252 |
| Date of inscription | 1983 |

Brief synthesis

The Taj Mahal is located on the right bank of the Yamuna River in a vast Mughal garden that encompasses nearly 17 hectares, in the Agra District in Uttar Pradesh. It was built by Mughal Emperor Shah Jahan in memory of his wife Mumtaz Mahal with construction starting in 1632 AD and completed in 1648 AD, with the mosque, the guest house and the main gateway on the south, the outer courtyard and its cloisters were added subsequently and completed in 1653 AD. The existence of several historical and Quaranic inscriptions in Arabic script have facilitated setting the chronology of Taj Mahal. For its construction, masons, stone-cutters, inlayers, carvers, painters, calligraphers, dome builders and other artisans were requisitioned from the whole of the empire and also from the Central Asia and Iran. Ustad-Ahmad Lahori was the main architect of the Taj Mahal.

The Taj Mahal is considered to be the greatest architectural achievement in the whole range of Indo-Islamic architecture. Its recognised architectonic beauty has a rhythmic combination of solids and voids, concave and convex and light shadow; such as arches and domes further increases the aesthetic aspect. The colour combination of lush green scape reddish pathway and blue sky over it show cases the monument in ever changing tints and moods. The relief work in marble and inlay with precious and semi precious stones make it a monument apart.

The uniqueness of Taj Mahal lies in some truly remarkable innovations carried out by the horticulture planners and architects of Shah Jahan. One such genius planning is the placing of tomb at one end of the quadripartite garden rather than in the exact centre, which added rich depth and perspective to the distant view of the monument. It is also, one of the best examples of raised tomb variety. The tomb is further raised on a square platform with the four sides of the octagonal base of the minarets extended beyond the square at the corners. The top of the platform is reached through a lateral flight of steps provided in the centre of the southern side. The ground plan of the Taj Mahal is in perfect balance of

composition, the octagonal tomb chamber in the centre, encompassed by the portal halls and the four corner rooms. The plan is repeated on the upper floor. The exterior of the tomb is square in plan, with chamfered corners. The large double storied domed chamber, which houses the cenotaphs of Mumtaz Mahal and Shah Jahan, is a perfect octagon in plan. The exquisite octagonal marble lattice screen encircling both cenotaphs is a piece of superb workmanship. It is highly polished and richly decorated with inlay work. The borders of the frames are inlaid with precious stones representing flowers executed with wonderful perfection. The hues and the shades of the stones used to make the leaves and the flowers appear almost real. The cenotaph of Mumtaz Mahal is in perfect centre of the tomb chamber, placed on a rectangular platform decorated with inlaid flower plant motifs. The cenotaph of Shah Jahan is greater than Mumtaz Mahal and installed more than thirty years later by the side of the latter on its west. The upper cenotaphs are only illusory and the real graves are in the lower tomb chamber (crypt), a practice adopted in the imperial Mughal tombs.

The four free-standing minarets at the corners of the platform added a hitherto unknown dimension to the Mughal architecture. The four minarets provide not only a kind of spatial reference to the monument but also give a three dimensional effect to the edifice.

The most impressive in the Taj Mahal complex next to the tomb, is the main gate which stands majestically in the centre of the southern wall of the forecourt. The gate is flanked on the north front by double arcade galleries. The garden in front of the galleries is subdivided into four quarters by two main walk-ways and each quarters in turn subdivided by the narrower cross-axial walkways, on the Timurid-Persian scheme of the walled in garden. The enclosure walls on the east and west have a pavilion at the centre.

The Taj Mahal is a perfect symmetrical planned building, with an emphasis of bilateral symmetry along a central axis on which the main features are placed. The building material used is brick-in-lime mortar veneered with red sandstone and marble and inlay work of precious/semi precious stones. The mosque and the guest house in the Taj Mahal complex are built of red sandstone in contrast to the marble tomb in the centre. Both the buildings have a large platform over the terrace at their front. Both the mosque and the guest house are the identical structures. They have an oblong massive prayer hall consist of three vaulted bays arranged in a row with central dominant portal. The frame of the portal arches and the spandrels are veneered in white marble. The spandrels are filled with flowery arabesques of stone intarsia and the arches bordered with rope molding.

Criterion (i): Taj Mahal represents the finest architectural and artistic achievement through perfect harmony and excellent craftsmanship in a whole range of Indo-Islamic sepulchral architecture. It is a masterpiece of architectural style in conception, treatment and execution and has unique aesthetic qualities in balance, symmetry and harmonious blending of various elements.

Integrity

Integrity is maintained in the intactness of tomb, mosque, guest house, main gate and the whole Taj Mahal complex. The physical fabric is in good condition and structural stability, nature of foundation, verticality of the minarets and other constructional aspects of Taj Mahal have been studied and continue to be monitored. To control the impact of deterioration due for atmospheric pollutants, an air control monitoring station is installed to constantly monitor air quality and control decay factors as they arise. To ensure the protection of the setting, the adequate management and enforcement of regulations in the extended buffer zone is needed. In addition, future development for tourist facilities will need to ensure that the functional and visual integrity of the property is maintained, particularly in the relationship with the Agra Fort.

Authenticity

The tomb, mosque, guest house, main gate and the overall Taj Mahal complex have maintained the conditions of authenticity at the time of inscription. Although an important amount of repairs and conservation works have been carried out right from the British period in India these have not compromised to the original qualities of the buildings. Future conservation work will need to follow guidelines that ensure that qualities such as form and design continue to be preserved.

Protection and management requirements

The management of Taj Mahal complex is carried out by the Archaeological Survey of India and the legal protection of the monument and the control over the regulated area around the monument is through the various legislative and regulatory frameworks that have been established, including the Ancient Monument and Archaeological Sites and Remains Act 1958 and Rules 1959 Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation); which is adequate to the overall administration of the property and buffer areas. Additional supplementary laws ensure the protection of the property in terms of development in the surroundings.

An area of 10,400 sq km around the Taj Mahal is defined to protect the monument from pollution. The Supreme Court of India in December, 1996, delivered a ruling banning use of coal/coke in industries

located in the Taj Trapezium Zone (TTZ) and switching over to natural gas or relocating them outside the TTZ. The TTZ comprises of 40 protected monuments including three World Heritage Sites - Taj Mahal, Agra Fort and Fatehpur Sikri.

The fund provided by the federal government is adequate for the buffer areas. The fund provided by the federal government is adequate for the overall conservation, preservation and maintenance of the complex to supervise activities at the site under the guidance of the Superintending Archaeologist of the Agra Circle. The implementation of an Integrated Management plan is necessary to ensure that the property maintains the existing conditions, particularly in the light of significant pressures derived from visitation that will need to be adequately managed. The Management plan should also prescribe adequate guidelines for proposed infrastructure development and establish a comprehensive Public Use plan.

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| Property | Borobudur Temple Compounds |
| State Party | Indonesia |
| Id. N° | 592 |
| Date of inscription | 1991 |

Brief synthesis

The Borobudur Temple Compounds is one of the greatest Buddhist monuments in the world, and was built in the 8th and 9th centuries AD during the reign of the Syailendra Dynasty. The monument is located in the Kedu Valley, in the southern part of Central Java, at the centre of the island of Java, Indonesia.

The main temple is a stupa built in three tiers around a hill which was a natural centre: a pyramidal base with five concentric square terraces, the trunk of a cone with three circular platforms and, at the top, a monumental stupa. The walls and balustrades are decorated with fine low reliefs, covering a total surface area of 2,520 m². Around the circular platforms are 72 openwork stupas, each containing a statue of the Buddha.

The vertical division of Borobudur Temple into base, body, and superstructure perfectly accords with the conception of the Universe in Buddhist cosmology. It is believed that the universe is divided into three superimposing spheres, kamadhatu, rupadhatu, and arupadhatu, representing respectively the sphere of desires where we are bound to our desires, the sphere of forms where we abandon our desires but are still bound to name and form, and the sphere of formlessness where there is no longer either name or form. At Borobudur Temple, the kamadhatu is represented by the base, the rupadhatu by the five square terraces, and the arupadhatu by the three circular platforms as well as the big stupa. The whole structure shows a unique blending of the very central ideas of ancestor worship, related to the idea of a terraced mountain, combined with the Buddhist concept of attaining Nirvana.

The Temple should also be seen as an outstanding dynastic monument of the Syailendra Dynasty that ruled Java for around five centuries until the 10th century.

The Borobudur Temple Compounds consists of three monuments: namely the Borobudur Temple and two smaller temples situated to the east on a straight axis to Borobudur. The two temples are Mendut Temple, whose depiction of Buddha is represented by a formidable monolith accompanied by two Bodhisattvas, and Pawon Temple, a smaller temple whose inner space does not reveal which deity might have been the object of worship. Those three monuments represent phases in the attainment of Nirvana.

The temple was used as a Buddhist temple from its construction until sometime between the 10th and 15th centuries when it was abandoned. Since its re-discovery in the 19th century and restoration in the 20th century, it has been brought back into a Buddhist archaeological site.

Criterion (i): *Borobudur Temple Compounds with its stepped, unroofed pyramid consisting of ten superimposing terraces, crowned by a large bell-shaped dome is a harmonious marriage of stupas, temple and mountain that is a masterpiece of Buddhist architecture and monumental arts.*

Criterion (ii): *Borobudur Temple Compounds is an outstanding example of Indonesia's art and architecture from between the early 8th and late 9th centuries that exerted considerable influence on an architectural revival between the mid-13th and early 16th centuries.*

Criterion (vi): *Laid out in the form of a lotus, the sacred flower of Buddha, Borobudur Temple Compounds is an exceptional reflection of a blending of the very central idea of indigenous ancestor worship and the Buddhist concept of attaining Nirvana. The ten mounting terraces of the entire structure correspond to the successive stages that the Bodhisattva has to achieve before attaining to Buddhahood.*

Integrity

The boundaries contain the three temples that include the imaginary axis between them. Although the visual links are no longer open, the dynamic function between the three monuments, Borobudur Temple, Mendut Temple, and Pawon Temple is maintained.

The main threat to the ensemble is from development that could compromise the extraordinary relationship between the main monument and its wider setting and could also affect the Outstanding Universal Value of the property. The approach to the property has to a degree already been compromised by weak developmental regulations.

Tourism also exerts considerable pressure on the property and its hinterland.

There is a growing rate of deterioration of the building stone, the cause of which needs further research.

There is also a small degree of damage caused by unsupervised visitors.

The eruption of Mount Merapi is also considered as one of the potential threats because of its deposit acidic ash as happened in 2010.

Authenticity

The original materials were used to reconstruct the temple in two phases in the 20th century: after the turn of the century and more recently (1973-1983). Mostly original materials were used with some additions to consolidate the monument and ensure proper drainage which has not had any significant adverse impact on the value of the property. Though the present state of Borobudur Temple is the result of restorations, it retained more than enough original material when re-discovered to make a reconstruction possible.

Nowadays the property could be used as a Buddhist pilgrimage site. Its overall atmosphere is, however, to a certain degree compromised by the lack of control of commercial activities and the pressure resulting from the lack of an adequate tourism management strategy.

Protection and management requirements

The protection of the property is performed under Indonesian Law No. 11/2010 concerning Cultural Heritage and its surrounding cultural landscape. It is executed under a National Strategic Area and the Spatial Management Plan by the Ministry of Public Works in accordance with the Law concerning Spatial Management No. 26/2007 and Governmental Regulation No. 26/2008 concerning National Spatial Planning and will be enforced further by another presidential regulation regarding the Management for the Borobudur National Strategic Area that is still being drafted by the Ministry of Public Works.

The legal and institutional framework for the effective management of the property is regulated by a Presidential Decree Number 1 Year 1992. The established zones within the World Heritage property are respectively under the responsibility of the Borobudur Heritage Conservation Office under Ministry of Education and Culture, of state-owned institute PT. Taman Wisata Candi Borobudur under the Ministry of Enterprises, and of the local governments (Magelang Regency and Central Java Province). A study on the integrated management of Borobudur Temple Compounds has been conducted, including attention for the ecosystem, social and cultural aspects, ecotourism, public and private partnership and organisational feasibility study. This study is the basis of the still to be developed visitor management approach.

In order to ensure consistency between the 1992 Presidential Decree and the 1972 JICA Master Plan zone-system indicated in the World Heritage nomination dossier and to strengthen the regulations regarding development, a New Presidential Regulation is still being formulated by a Coordinating Board (14 Ministries and local authorities as well as representatives of local communities) and by formalizing the role of the proposed Management Board into the wider zones. In addition, the protection of the property has been ensured by the regular financial contribution by the national budget.

Monitoring programs has been effectively executed to monitor the growing rate of deterioration of building stone and also damage by unsupervised visitors. A research is being conducted to determine the long- term impact of deposit acidic ash of eruption of Mount Merapi to set further protection and conservation management of the property. Furthermore, a risk preparedness plan will be formulated in 2012.

The Borobudur Heritage Conservation Office has conducted community development programs targeting especially at the youth to raise their awareness. In improving and empowering local community as specialist guide for Borobudur Temple Compounds, several training programs have been conducted. The community development related to economical sector (small enterprises that produce traditional handicrafts, culinaries, etc) have already being conducted by the municipalities of Magelang Regency and Central Java Province.

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| Property | Prambanan Temple Compounds |
| State Party | Indonesia |
| Id. N° | 642 |
| Date of inscription | 1991 |

Brief synthesis

Prambanan Temple Compounds consist of Prambanan Temple (also called Loro Jonggrang), Sewu Temple, Buraah Temple and Lumbung Temple. Prambanan Temple itself is a complex consisting of 240 temples. All the mentioned temples form the Prambanan Archaeological Park and were built during the heyday of Sailendra's powerful dynasty in Java in the 8th century AD. These compounds are located on the border between the two provinces of Yogyakarta and Central Java on Java Island.

While Loro Jonggrang, dating from the 9th century, is a brilliant example of Hindu religious bas-reliefs, Sewu, with its four pairs of Dwarapala giant statues, is Indonesia's largest Buddhist complex including the temples of Lumbung, Buraah and Asu (Gana temple). The Hindu temples are decorated with reliefs illustrating the Indonesian version of the Ramayana epic which are masterpieces of stone carvings. These are surrounded by hundreds of shrines that have been arranged in three parts showing high levels of stone building technology and architecture from the 8th century AD in Java. With over 500 temples, Prambanan Temple Compounds represents not only an architectural and cultural treasure, but also a standing proof of past religious peaceful cohabitation.

Criterion (i): *Prambanan Temple Compounds presents the grandiose culture of Siva art as a masterpiece of the classical period in Indonesia, and the region.*

Criterion (iv): *The property is an outstanding religious complex, characteristic of Siva expression of the 10th century.*

Integrity

Prambanan Temple Compounds comprises of two groups of buildings which includes Loro Jonggrang, Sewu complexes, Lumbung, Buraah and Asu (Gana). The 508 stone temples of various shapes and sizes are either in a complete and preserved condition or have been retained as ruins. This site includes all elements necessary to express its exceptional significance and is well maintained. There are no threats of development or neglect; however the area is prone to natural threats such as earthquakes and volcanic eruptions.

Authenticity

Prambanan Temple Compounds contains the original structures that were built in the 9th century AD. The temples collapsed due to earthquake, volcanic eruption and a shift of political power in the early 11th century, and they were rediscovered in the 17th century. These compounds have never been displaced or changed. Restoration works have been conducted since 1918, both in original traditional method of interlocking stone and modern methods using concrete to strengthen the temple structure. Even though extensive restoration works have been done in the past and as recently as after the 2006 earthquake, great care has been taken to retain the authenticity of the structures.

Protection and management requirements

The property has been designated as a National Cultural Property in 1998 and the national law issued in 2010 also supports the protection and conservation of the property. Management of Prambanan Temple Compounds is accommodated in the Presidential Decree of 1992 that established the 77 ha that encompasses the property under central government ownership. This area is divided into two zones. The management of Zone 1 or the area within the boundary is conducted by the Ministry of Culture and Tourism under two different regional offices, namely the Archaeological Preservation Office of Yogyakarta and Central Java. The Borobudur, Prambanan and Ratu Boko Tourism Park Ltd. are responsible for Zone 2 which comprises the buffer zone. In order to implement standard operations for the safeguarding of the property, the government has established a regulation concerning national vital object area. All regulations have been well enforced and implemented.

In order to improve the management of the property, government issued the law in 2007 and government regulation of 2008 concerning national spatial planning which means that spatial planning in World Cultural Heritage area will be prioritized. Prambanan site has been established as one of the strategic national area which consists of Prambanan temple Compounds and others related temple remains. To ensure the long term safeguarding of the property, an integrated management and regulation that support preservation is needed.

The Action Plan of 2007 has been implemented with the involvement of the local community around the property. The welfare of the local community around the property that was affected by the earthquake of

27 May 2006, is now improving with the recovery of the usual economic activity and especially in the creative industry sector. The Siva temple has not been rehabilitated but research activities or technical studies of the Siva temple have been carried out in 2010 and 2011. The results have been discussed at national and international level with the conclusion that it is still necessary to study and research to determine the method of handling Siva Temple, including monitoring through seismograph study and crack meter periodically.

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|----------------------|---------------------------------------|
| Property | Bam and its Cultural Landscape |
| State Party | Islamic Republic of Iran |
| Id. N° | 1208 bis |
| Dates of inscription | 2004 - 2007 |

Brief synthesis

The property of Bam and its Cultural Landscape is located on the southern edge of the Iranian high plateau, in Kerman Province, in south-eastern Iran, close to the Pakistan border. Bam lies 1,060 metres above sea level in the centre of the valley dominated to the north by the Kafut Mountains and to the south by the Jebal-e Barez Mountains. This valley forms the wider cultural landscape of the Bam County. Beyond the mountains lies the vast Lut Desert of Central Iran. Water from the Jebal-e Barez Mountains supplies the seasonal Posht-e Rud River that skirts Bam City between Arg-e Bam and Qal'eh Dokhtar. The Chelekhoneh River and its tributaries gather water from the central parts of the Jebal-e Barez Mountain range. It now runs northeast, although it formerly flowed through the Bam City until it was diverted by a dam into a new course that met with the Posht-e Rud northwest of Bam City. Water from the Kafut Mountains also supplies the catchment area.

The origins of the citadel of Bam, Arg-e Bam, can be traced back to the Achaemenid period (6th to 4th centuries BC) and even beyond. The heyday of the citadel was from the 7th to 11th centuries, being at the crossroads of important trade routes and known for the production of silk and cotton garments. The citadel, which contains the governor's quarters and the fortified residential area, forms the central focus of a vast cultural landscape, which is marked by a series of forts and citadels, now in ruins. The existence of life in the oasis was based on the underground irrigation canals, the qanāts, of which Bam has preserved some of the earliest evidence in Iran and which continue to function till the present time. Arg-e Bam is the most representative example of a fortified medieval town built in vernacular technique using mud layers (Chineh), sun-dried mud bricks (khesht), and vaulted and domed structures. Outside the core area of Arg-e Bam, there are other protected historic structures which include Qal'eh Dokhtar (Maiden's fortress, ca. 7th century), Emamzadeh Zeyd Mausoleum (11-12th century), and Emamzadeh Asiri Mausoleum (12th century and historic qanāt systems and cultivations southeast of the Arg.

Bam and its Cultural Landscape represents an outstanding example of an ancient fortified settlement that developed around the Iranian central plateau and is an exceptional testimony to the development of a trading settlement in the desert environment of the Central Asian region. This impressive construction undoubtedly represents the climax and is the most important achievement of its type not only in the area of Bam but also in a much wider cultural region of Western Asia. Bam is located in an oasis area, the existence of which has been based on the use of underground water canals, qanāts, and has preserved evidence of the technological development in the building and maintenance of the qanāts over more than two millennia. For centuries, Bam had a strategic location on the Silk Roads connecting it to Central Asia in the east, the Persian Gulf in the south, as well as Egypt in the west and it is an example of the interaction of the various influences.

The cultural landscape of Bam is an important representation of the interaction between man and nature and retains a rich resource of ancient canalisations, settlements and forts as landmarks and as a tangible evidence of the evolution of the area.

Criterion (ii): Bam developed at the crossroads of important trade routes at the southern side of the Iranian high plateau, and it became an outstanding example of the interaction of the various influences.

Criterion (iii): The Bam and its Cultural Landscape represent an exceptional testimony to the development of a trading settlement in the desert environment of the Central Asian region.

Criterion (iv): The city of Bam represents an outstanding example of a fortified settlement and citadel in the Central Asian region, based on the use mud layer technique (chineh) combined with mud bricks (khesht).

Criterion (v): The cultural landscape of Bam is an outstanding representation of the interaction of man and nature in a desert environment, using the qanats. The system is based on a strict social system with precise tasks and responsibilities, which have been maintained in use until the present, but has now become vulnerable to irreversible change.

Integrity

Bam and its Cultural Landscape form an organically grown relict cultural landscape. The World Heritage property encompasses the central part of the oasis of Bam, including the Citadel of Bam and the area along the Bam Seismic Fault. This contains historical evidence of the evolution of qanat construction from the first millennium till the present. The inscribed property and the buffer zone are of sufficient size and encompass the attributes that sustain the Outstanding Universal Value of the property, including the elements that express the relationship between man and the environment.

In the Arg-e Bam, earthen structures have retained urban forms and type of construction which, in spite of requiring interventions as a result of the earthquake have still retained a high degree of integrity. The new urban master plan for the modern city of Bam, largely affected by the 2003 earthquake, will follow the traditional street pattern and overall garden city approach to maintain the character of the property.

The living cultural landscape retains a high level of integrity with the continued use and maintenance of the historic hydraulic systems qanāts and continued territorial land use for agricultural activities. The traditional visual relationship of the fortified ensemble with its setting is still preserved. However, there are challenges relating to new developments in industrial and residential areas developing in the outskirts of Bam city, which will need to be properly regulated and managed to preserve this relationship.

Authenticity

The property maintains several attributes that substantiate its authenticity. In regard to the historic fabric, although some deterioration existed and partial restorations were carried out between 1976 and 2003, these used traditional techniques and materials.

The 2003 earthquake caused the collapse of various sections of the Governor's Quarters and the upper parts of the defence walls. Notwithstanding, much of the lost fabric was from modern restorations. The materials found at the older levels are well preserved and have now been revealed. The traditional culture for architecture and the city plan have also been preserved, including the continuity in workmanship and know-how for earthen architecture construction. To maintain the authenticity of the property, it will be important that interventions follow appropriate restoration principles and guidelines, in accordance to international doctrine, and in consideration to the original materials and techniques.

The setting has also maintained many of the historical features that speak to the integration of man and environment and other symbolic associations with the natural landscape. To retain the authenticity of this relationship, the management of the buffer zone will play a critical role, as well as provisions made for the continuation of historic practices and rituals and the continuous function and use of the area.

Protection and management requirements

Bam and its Cultural Landscape are protected since 1945, under Iranian national legislation (Law of Conservation of National Monuments, 3 Nov. 1930), and other instruments of legal control and norms of protection related to architecture and land use control. Illegal excavations are prohibited in Iran.

The main management authority is the Iranian Cultural Heritage, Handicraft and Tourism Organization (ICHHTO), an independent directorate who collaborates with other national and local authorities and follows a programme that is regularly updated. Some of the listed buildings outside the Arg are the property of other government institutions but changes are subject to permission by ICHHTO. Management involves collaboration particularly with the Religious Endowment Organization (Sazeman-e Owqaf), Ministry of Housing and Town Planning (Vezerat-e Maskan va Shahr-sazi), and the Municipalities (Shahrdari) of Bam and Baravat. ICHHTO has two offices in the region, the regional office of Kerman, and the Task Force office in Bam.

While the nominated World Heritage property is generally an archaeological area, the buffer zone consists of two towns, Bam and Baravat, and related palm groves. The buffer zone one covers the urban area next to the citadel: any construction activity or alteration here is forbidden without the permission and supervision of the ICHHTO. An extended landscape protection zone is provided, covering the entire town, the irrigation areas and cultivations in Bam and Baravat this allows for land use control. The skyline and views of the Arg will be protected as long as the building height is limited to 10m. Agricultural activity is allowed so far as this will not require constructions disturbing the landscape. Any mining or quarrying is forbidden if it affects the sight of the mountains visible from Bam. The balance between palm groves and built areas is retained the same as before the earthquake.

Following the 2003 earthquake, a team of experts coordinated by the UNESCO Tehran Cluster Office and ICHHTO prepared a Comprehensive Management Plan, 2008-2017, which covers the World Heritage property and was developed through a process involving the local authorities of the County, the five Districts and the municipalities of Bam and Baravat. The new urban master plan for the reconstruction of the City of Bam, prepared in 2004, respects the original street pattern. Conservation and management actions at the property need to guarantee the preservation and presentation of all the key characteristics of the Citadel and the other architectural remains in the inscribed property.

The restoration and partial reconstruction of selected elements need to be based on a critical assessment of the reliability of documentary and field evidence, and taking care that the impact on the archaeological and natural setting will not alter the existing balance of the property. The re-establishment of some of the pre-earthquake conditions will need to be in concurrence with international conventions and charters to ensure that the conditions of authenticity and integrity continue to be met. At the same time, conservation and protection of the World Heritage property requires a balanced approach to confer the site its place in the living culture and its contribution to the specific identity of Bam, as well as the values associated with the long and complex history of the city and its associated landscape.

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| Property | Mausoleum of Khoja Ahmed Yasawi |
| State Party | Kazakhstan |
| Id. N° | 1103 |
| Date of inscription | 2003 |

Brief synthesis

The Mausoleum of Khoja Ahmed Yaswi, a distinguished Sufi master of the 12th century, is situated in southern Kazakhstan, in the north-eastern section of the city of Turkestan (Yasi). Built between 1389 and 1405, by order of Timur (Tamerlane), the ruler of Central Asia, it replaced a smaller 12th century mausoleum. Construction of the building was halted in 1405, with the death of Timur, and was never completed. The property (0.55 ha) is limited to the mausoleum, which stands within a former citadel and the archaeological area of the medieval town of Yasi; the latter serves as the buffer zone (88.15 ha) for the property.

Rectangular in plan and 38.7 meters in height, the mausoleum is one of the largest and best-preserved examples of Timurid construction. Timur, himself, is reported to have participated in its construction and skilled Persian craftsmen were employed to work on the project. Its innovative spatial arrangements, vaults, domes, and decoration were prototypes that served as models for other major buildings of the Timurid period, in particular in Samarkand. It was left unfinished, providing documented evidence of the construction methods at that time and by having a unique architectural image.

Considered to be an outstanding example of Timurid design that contributed to the development of Islamic religious architecture, the mausoleum is constructed of fired brick and contains thirty-five rooms that accommodate a range of functions. It is a multifunctional structure of the khanaqa type, with functions of a mausoleum and a mosque. A conic-spherical dome, the largest in Central Asia, sits above the Main Hall (Kazandyk). Other notable attributes include fragments of original wall paintings in the mosque, alabaster stalactites (muqarnas) in the intrados of the domes, glazed tiles featuring geometric patterns with epigraphic ornaments on the exterior and interior walls, fine Kufic and Suls inscriptions on the walls, and texts from the Qu'ran on the drums of the domes. The principal entrance and parts of the interior were left unfinished, providing exceptional evidence of the construction methods of the period.

The property, burials and remains of the old town offer significant testimony to the history of Central Asia. The mausoleum is closely associated with the diffusion of Islam in this region with the help of Sufi orders, and with the political ideology of Timur.

Criterion (i): The Mausoleum of Khoja Ahmed Yasawi is an outstanding achievement in the Timurid architecture, and it has significantly contributed to the development of Islamic religious architecture.

Criterion (iii): The mausoleum and its property represent an exceptional testimony to the culture of the Central Asian region, and to the development of building technology.

Criterion (iv): The Mausoleum of Khoja Ahmed Yasawi was a prototype for the development of a major building type in the Timurid period, becoming a significant reference in the history of Timurid architecture.

Integrity

All components of the Mausoleum of Khoja Ahmed Yasawi have been included within the boundaries of the property. Its historic setting, the former citadel and archaeological remains of the medieval town of Yasi, serve as the buffer zone for the property.

The Mausoleum of Khoja Ahmed Yaswi is considered to be stable, although deterioration associated with rising damp and salts, due to the high water table, can potentially threaten structural integrity. To maintain the conditions of integrity, the impact of high water table levels needs to be mitigated as well as the impact of other humidity factors that can increase the risk of condensation and salt migration.

The Mausoleum stands within the former old town area, an archaeological area where the houses were destroyed in the 19th century. Since no rebuilding has taken place, it possesses valuable potential for

medieval archaeology, since cultural layers of all the stages of evolution of this important religious, cultural, economic and administrative centre of a large region have been preserved. The northern part of the old citadel wall was rebuilt in the 1970s, providing an enclosure for the mausoleum and adjacent buildings. The new town of Turkestan, which developed to the west, has maintained a low skyline, allowing the mausoleum to stand out as a major monument within its context and maintain the required visual integrity. Since Turkestan is situated in a vast plain, any high-rise buildings outside the buffer zone would have a significant impact on the visual integrity of the mausoleum. This needs to be controlled by the continuous enforcement of adequate planning regulations to ensure the required protection.

Authenticity

The Mausoleum of Khoja Ahmed Yaswi maintains an exceptionally high degree of authenticity as a monument as it has preserved its architectural design and workmanship, as well as the original materials. It has not been subject to any major changes over time and can be considered a genuine representation of the architecture of the Timurid period. Although it suffered from inappropriate use and neglect, particularly during the mid-19th century, it has been better preserved than other examples of Timurid monuments, including the Bibi Khanum Shrine in Samarkand, which is of comparable size. The mausoleum has preserved its original vaults' structures and a large part of its external decoration. Original remains of the wall paintings are visible in the interior, and it is possible that more may be discovered under the whitewashed surfaces when further restoration work is undertaken. The muqarnas of the ceilings are still in place. The unfinished state of the principal entrance and parts of the interior are of added interest, serving as documentary evidence of the construction methods of the period.

Protection and management requirements

The Mausoleum of Khoja Ahmed Yaswi is a national monument, inscribed on the List of National Properties of Kazakhstan (decree 38 of 26.01.1982). It is owned by the state and protected by the Law of the Republic of Kazakhstan on Protection and Use of Historical and Cultural Heritage (No 1488-XII, 02.07.1992). The mausoleum site is included in the Plan of Zones of protection of monuments of the history and culture of the city of Turkestan (1986), which was prepared under the supervision of the Ministry of Culture, by the State Institute for Scientific Research and Planning on Monuments of Material Culture (NIPi PMK, Almaty). The site within its boundaries has the highest level of protection. Adjacent to its boundaries are Zones of planning control with different regulations and a Zone of protected natural setting. The Plan was approved by the Committee of Culture and confirmed by the decree 628 of 22.11.1988 and it is still in force.

At the national level, the management of the property is under the responsibility of the Committee of Culture of the Ministry of Culture and Information. Locally, the care of the mausoleum and its setting is under the responsibility of the 'Azret-Sultan' State Historical and Cultural Reserve Museum which was founded under the Committee of Culture of the Ministry of Culture and Information (decree 265 of 28.08.1989). Reserve Museum includes architectural complex of Khoja Ahmed Yasawi mausoleum, archaeological remains of the medieval town of Yasi within the boundaries of the buffer zone and the adjacent secondary monuments. The main task of the Reserve Museum is to provide protection and preservation to archaeological and architectural monuments in their authentic state, to their interiors, historical setting and related territories. Reserve Museum builds its activities in cooperation with the Institute of "Kazrestavrtziya", Institute of Archaeology of the Academy of Sciences and other interested organizations, conducts historical studies of the site and its monuments, develop museum funds and collections for scientific research and to make them acceptable for wide public. Since the property was inscribed on the World Heritage List, annual budget and permanent staff of the Reserve-Museum have increased. From the year 2006, the State Enterprise "Kazrestavrtziya", under the Ministry of Culture, has been responsible for conservation projects and their implementation.

The Protection Zoning Plan (Plan of Zones of protection of monuments of the history and culture of the city of Turkestan) (1986) has not been integrated into the last development plan for Turkestan. The Museum and "Kazrestavrtziya" are working on the revision of the Protection Zoning Plan and on its legal adoption and integration into the new Master Plan for the City of Turkestan, in order to strengthen control over construction that is underway just outside the buffer zone. This measure will ensure that the increased pressure on the property and its buffer zone, as a result of illegal and high-rise construction, is comprehensively addressed.

The Management Plan for the 2004-2009 period was not implemented and needs to be updated. A new five-year Management Plan for the Protection and Preservation of the Mausoleum of Khoja Ahmed Yasawi and architectural and archaeological monuments of Ancient Town of Turkestan, whose focus is the property and its buffer zone, is under elaboration. The Ministry of Culture is planning to revise and update the long-term management plan for the Mausoleum, which will address safeguarding, research, conservation, monitoring, maintenance, education and training, visitor controls, raising of public awareness, and risk preparedness. The management plan, to be developed in cooperation with organizations and authorities linked to the site, should include conservation guidelines so that adequate

methods are identified for the restoration of the wall paintings, metal works, wood works, and surface finishes.

To ensure the sustained management and conservation of the property, adequate financial, technical and material resources will need to be secured. A qualified permanent technical team of specialized technicians and skilled craftsmen dedicated to the maintenance of the property will need to be maintained. A documentation centre for the property and the buffer zone will also be important tools to facilitate conservation and management endeavours and to promote larger awareness of legislative and heritage preservation issues.

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| Property | Petroglyphs within the Archaeological Landscape of Tamgaly |
| State Party | Kazakhstan |
| Id. N° | 1145 |
| Date of inscription | 2004 |

Brief synthesis

Towards the western end of the Tianshan Mountains in the southeast of Kazakhstan, the Chu-lli mountain spur forms a canyon around the Tamgaly Gorge. An abundance of springs, rich vegetation and shelter distinguishes the area from the arid mountains that fringe the border of Kazakhstan with Kyrgyzstan to the south, and from the flat dry plains of central Kazakhstan to the north. The Gorge and its surrounding rocky landscape, where shiny black stones rise up rhythmically in steps, have attracted pastoral communities since the Bronze Age, and have come to be imbued with strong symbolic associations.

The Archaeological Landscape of Tamgaly features a remarkable concentration of some 5,000 petroglyphs, associated settlements and burial grounds, which together provide testimony to the husbandry, social organization and rituals of pastoral peoples from the Bronze Age right through to the early 20th century. The large size of the early petroglyphs, their unique images and the quality of their iconography sets them apart from the wealth of rock art in Central Asia.

The property covers a roughly circular area of 900 ha and includes the 982m peak of Mt. Tamgaly. The Tamgaly River flows through the centre and out onto the plain below, to the north. Surrounding the property is a large buffer zone of 2900 ha, which to the northwest and southeast of the property includes outliers of the petroglyphs, and further burial mounds and ancient settlements.

Petroglyphs on unsheltered rock faces, which have been formed using a picketing technique with stone or metal tools, are the most abundant monuments on the property. Images have been recorded in 48 different complexes, of which the most important are five complexes, displaying about 3,000 images. By far the most exceptional engravings come from the earliest period and are characterized by large figures deeply cut in a sharp way with a wide repertoire of images including unique forms such as solar deities, zoomorphic beings dressed in furs, syncretic subjects, disguised people, and a wide range of animals.

The delineation of the property into a sacred core and outer residential periphery, combined with sacred images of sun-heads, altars, and enclosed cult areas, provide a unique assembly, which has maintained persistent sacred associations from the Bronze Age to the present day.

Criterion (iii): *The dense and coherent group of petroglyphs, with sacred images, altars and cult areas, together with their associated settlements and burial sites, provide a substantial testimony to the lives and beliefs of pastoral peoples of the central Asian steppes from the Bronze Age to the present day.*

Integrity

The natural landscape creates a discrete and finite setting for the rock art. The whole of the concentrated central area and the immediate peripheral area have been included within the boundaries of the property.

The Petroglyphs within Archaeological Landscape of Tamgaly still keeps its pristine character and essential natural and cultural features intact. It also has well-preserved cultural layers, representing the evidence of all the stages of development of this important cult centre of a large region.

However, the road across the northern part of the property, constructed in the Soviet period, creates a visual intrusion that needs to be addressed. The concrete posts of the former electricity line and some modern sheepfolds have been removed after the inscription of the property on the World Heritage List. As development and settlement of neighbouring properties is proceeding rapidly, to protect the integrity of the landscape, strong planning and control regulations will need to be enforced to regulate the design, height and scale of new buildings and urban infrastructure.

The main elements of the cultural landscape are the petroglyphs of the different levels of visibility (from bluish black ones of the Bronze and Early Iron Age to the light grey carvings of the latest time), the low stone-earth mounds and stone tombs hardly visible on the surface, the ruins of stone dwellings and enclosures. Despite of the fact that some parts of the rock massifs have traces of ancient destruction

(Groups II-III) and modern graffiti (Groups IV-V), as a whole the gallery of petroglyphs preserved its integrity and representativeness. The traces of the past archaeological excavations (dump piles, shallow digs of the burials) are inconsiderable, partly removed and not noticeable in the whole context of the other sites and the landscape.

The main threats to the physical integrity of the property come from weathering in combination with the geological formation of the rocks. Water ingress and stratification of the bedrock parallel to the surface make the rock face vulnerable to exfoliation. The high water table and its salinity also affect the bones and artefacts (grave goods) that can be found in the burials. These decay factors are also exacerbated by the extreme variation in temperatures daily and seasonally. There is also a threat of earthquake activity in the Almaty region, and fires in the steppes. In terms of human factors, uncontrolled visitation and graffiti pose a threat to the integrity of the component parts.

Authenticity

The natural and cultural features and setting of the property, Petroglyphs within Archaeological Landscape of Tamgaly, maintain a high degree of authenticity. All of the important components of the cultic centre are present and clearly legible.

Protection and management requirements

The Petroglyphs within Archaeological Landscape of Tamgaly is a Property of National Significance, inscribed on the List of Monuments of History and Culture in 2001. It is owned by the State and protected under the 1992 Law on the Protection and Use of Historical and Cultural Heritage. The property and its buffer zone are a territory of the State Archaeological Reserve of Tamgaly, a reserve-museum established under the Ministry of Culture of the Republic of Kazakhstan in 2003, as a permanent management agency for the property. The management authority has offices at the visitor centre on the territory adjacent to the buffer zone and comprises five departments: administration, scientific research, archive, logistics, and security services. A representative’s office for the reserve-museum is housed in the regional administrative centre of Usyn-Agash.

The activities of the reserve-museum staff are focused on ensuring proper protection and conservation of the property and buffer zone, and its cultural and natural components. These activities are based on the property’s Management Plan, which is updated every five years and the General Concept for the State Reserve-Museums Development (2009). The activities are also focused on developing cooperation between all interested institutions in the fields of conservation, scientific research, tourism, education, among others.

Among the current priorities of the reserve-museum is updating the management plan developed by the joint UNESCO- Norwegian-Kazakhstan project for the 2012-2017 period. The most important issues affecting the property’s protection and conservation will be considered in the context of this project.

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| Property | Orkhon Valley Cultural Landscape |
| State Party | Mongolia |
| Id. N° | 1081 rev |
| Date of inscription | 2004 |

Brief synthesis

The Orkhon Valley Cultural Landscape (OVCL) lies in the central part of Mongolia, some 360 km southwest of Ulaanbaatar. The site covers 121,967 ha of grassland along the historic Orkhon River, and includes a buffer zone of 61,044 ha. The archaeologically rich Orkhon River basin was home of successive nomadic cultures which evolved from prehistoric origins in harmony with the natural landscape of the steppes and resulted in economic, social and cultural polities unique to the region. Home for centuries to major political, trade, cultural and religious activities of successive nomadic empires, the Orkhon Valley served as a crossroads of civilizations, linking East and West across the vast Eurasian landmass.

Over successive centuries, the Orkhon Valley was found very suitable for settlement by waves of nomadic people. The earliest evidence of human occupancy dates from the sites of Moiltyn Am (40,000- 15,000 years ago) and “Orkhon-7” which show that the Valley was first settled about 62,000-58,000 years ago. Subsequently the Valley was continuously occupied throughout the Prehistoric and Bronze ages and in proto-historic and early historic times was settled successively by the Huns, Turkic peoples, the Uighurs, the Kidans, and finally the Mongols.

At the height of its cultural ascendancy, the inscribed property was the site of historic Kharakhorum – the grand capital of the vast Mongol Empire established by Chinggis Khaan in 1220.

Within the cultural landscape are a number of archaeological remains and standing structures, including Turkish memorial sites of the 6th-7th centuries, the 8th-9th centuries’ Uighur capital of Khar Balgas as

well as the 13th-14th centuries' ancient Mongol imperial capital of Kharakhorum. Erdene Zuu, the earliest surviving Mongol Buddhist monastery, the Tuvkhun Hermitage and the Shank Western monastery are testimony to the widespread and enduring religious traditions and cultural practices of the Northern School of Buddhism which, with their respect for all the forms of life, enshrine the enduring sustainable management practices of this unique cultural landscape of the Central Asian steppes.

Criterion (ii): The Orkhon Valley clearly demonstrates how a strong and persistent nomadic culture, led to the development of extensive trade networks and the creation of large administrative, commercial, military and religious centers. The empires that these urban centers supported undoubtedly influenced societies across Asia and into Europe and in turn absorbed influence from both east and west in a true interchange of human values.

Criterion (iii): Underpinning all the development within the Orkhon valley for the past two millennia has been a strong culture of nomadic pastoralism. This culture is still a revered and indeed central part of Mongolian society and is highly respected as a 'noble' way to live in harmony with the landscape.

Criterion (iv): The Orkhon Valley is an outstanding example of a valley that illustrates several significant stages in human history. First and foremost it was the centre of the Mongolian Empire; secondly it reflects a particular Mongolian variation of Turkish power; thirdly, the Erdene Zuu monastery and the Tuvkhun hermitage monastery were the setting for the development of a Mongolian form of Buddhism; and fourthly, Khar Balgas, reflects the Uighur urban culture in the capital of the Uighur Empire.

Integrity

The inscribed property straddles the Orkhon River, which provides water and shelter, key requisites for its role as a staging post on the ancient trade routes across the steppes and for its development as the centre of the vast Central Asian empires. Specifically, the inscribed property provides evidence of the 6th-7th century Turkish memorial sites, the 8th-9th century Uighur capita of Khar Balgas, the 13th-14th century Mongol capital of Kharakhorum, the earliest surviving Mongol Buddhist monastery at Erdene Zuu, the Hermitage Monastery of Tuvkhum, the Shankh Western Monastery, the palace at Doit Hill, the ancient towns of Talyn Dorvoljin, Har Bondgor, and Bayangol Am, deer stones and ancient graves, the sacred mountains of Hangai Ovoo and Undor Sant and archaeological and ethnographic evidence attesting to the long and enduring tradition of nomadic pastoralism.

All elements necessary to express the Outstanding Universal Value of the property of Orkhon Valley Cultural Landscape are included within the boundaries of the inscribed area.

The ecology of overall landscape and pastoral practices are vulnerable to lowering water table, associated with tree-cutting and mining, pollution of watercourses and the effects of over-grazing.

The visual integrity of the landscape is vulnerable to modern roads, tracks and power lines.

Lack of maintenance of monastery buildings, city walls and Turkic graves could impact on integrity.

Authenticity

Overall, the Orkhon Valley retains a high level of authenticity as a continuing cultural landscape, reflecting the long-standing traditions of Central Asian nomadic pastoralism. The basic use of the land has remained consistent over the centuries and has not adversely affected the component archaeological features of the landscape, the authenticity of which remains high individually and collectively. Although some modern features have obtruded into the landscape, the way in which the landscape is used is still essentially traditionally nomadic, with herdsman moving their flocks across it in season transhumance. The pastoral management regime of the grasslands and the continuing intangible and tangible traditions associated with the nomadic way of life are integral to the property's continued authenticity.

Protection and management requirements

The central and local authorities recognize how vital it is to sustain pastoralism as means of managing this cultural landscape.

According to the Constitution of Mongolia adopted in 1992, each citizen has the right to live in a healthy and safe environment; additionally, lands and natural resources can be subjected to national ownership and state protection. Parliament Resolution No.43 under the Law on Special Protected Areas (1994) declared an area of the Khangai Mountains, including the upper part of OVCL, a State Special Protection Area, establishing Khangai Mountain Park in 1996. The northern part of the OVCL has been given "limited protected status" under the Law on Special Protected Area Buffer Zones passed in 1997. The five primary sites in the Orkhon Valley have been designated as Special Protected Areas and 20 historical and archaeological sites as Protected Monuments.

The buffer zone of the OVCL was approved by the Government Resolution No. 123 issued on 31 May 2006. Also the longitude and latitude coordinates of 63 points of the OVCL were approved by this

resolution. In 2009, the decree of the Ministry of Education, Culture and Science of Mongolia was adopted for strengthening the legal environment for the conservation of the OVCL. By Government Resolution No. 147 issued on 9 June 2010, the management office of the OVCL World Heritage Property, which was initially established by the Decree of Ministry of Education, Culture and Science of Mongolia in 2006, was re-established at the national government level. A management plan for the property was developed in 2002 and renewed in 2006 with widespread involvement of stakeholders. The purpose of this plan is to ensure the safeguarding of the heritage within a framework for the sustainable development of the OVCL by putting in place a system for ensuring there will be lasting harmony between the ecology of the grasslands and the practices of nomadic pastoralism. According to the Mongolian National Development Policy which was adopted by the Mongolian Parliament in 2008, a further revision to the management plan for the property has been adopted which oversees development in the area up to the year 2030 and ensures its protection under a new "Law on protecting the cultural heritage of Mongolia". A detailed map, indicating the territorial boundaries, sites location, buffer zone, livestock density and grassland cover, of the inscribed property has been officially gazetted. Site museums have been provided for under the revised management plan, as has the reconstruction of Tsogchin Temple.

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|----------------------|-------------------------|
| Property | Kathmandu Valley |
| State Party | Nepal |
| Id. N° | 121 bis |
| Dates of inscription | 1979 - 2006 |

Brief synthesis

Located in the foothills of the Himalayas, the Kathmandu Valley World Heritage property is inscribed as seven Monument Zones. These monument zones are the Durbar squares or urban centres with their palaces, temples and public spaces of the three cities of Kathmandu (Hanuman Dhoka), Patan and Bhaktapur, and the religious ensembles of Swayambhu, Bauddhanath, Pashupati and Changu Narayan. The religious ensemble of Swayambhu includes the oldest Buddhist monument (a stupa) in the Valley; that of Bauddhanath includes the largest stupa in Nepal; Pashupati has an extensive Hindu temple precinct, and Changu Narayan comprises traditional Newari settlement, and a Hindu temple complex with one of the earliest inscriptions in the Valley from the fifth century AD. The unique tiered temples are mostly made of fired brick with mud mortar and timber structures. The roofs are covered with small overlapping terracotta tiles, with gilded brass ornamentation. The windows, doorways and roof struts have rich decorative carvings. The stupas have simple but powerful forms with massive, whitewashed hemispheres supporting gilded cubes with the all-seeing eternal Buddha eyes.

As Buddhism and Hinduism developed and changed over the centuries throughout Asia, both religions prospered in Nepal and produced a powerful artistic and architectural fusion beginning at least from the 5th century AD, but truly coming into its own in the three hundred year period between 1500 and 1800 AD. These monuments were defined by the outstanding cultural traditions of the Newars, manifested in their unique urban settlements, buildings and structures with intricate ornamentation displaying outstanding craftsmanship in brick, stone, timber and bronze that are some of the most highly developed in the world.

Criterion (iii): The seven monument ensembles represent an exceptional testimony to the traditional civilization of the Kathmandu Valley. The cultural traditions of the multi ethnic people who settled in this remote Himalayan valley over the past two millennia, referred to as the Newars, is manifested in the unique urban society which boasts of one of the most highly developed craftsmanship of brick, stone, timber and bronze in the world. The coexistence and amalgamation of Hinduism and Buddhism with animist rituals and Tantrism is considered unique.

Criterion (iv): The property is comprised of exceptional architectural typologies, ensembles and urban fabric illustrating the highly developed culture of the Valley, which reached an apogee between 1500 and 1800 AD. The exquisite examples of palace complexes, ensembles of temples and stupas are unique to the Kathmandu Valley.

Criterion (vi): The property is tangibly associated with the unique coexistence and amalgamation of Hinduism and Buddhism with animist rituals and Tantrism. The symbolic and artistic values are manifested in the ornamentation of the buildings, the urban structure and often the surrounding natural environment, which are closely associated with legends, rituals and festivals.

Integrity

All the attributes that express the outstanding universal value of the Kathmandu Valley are represented through the seven monument zones established with the boundary modification accepted by the World Heritage Committee in 2006. These encompass the seven historic ensembles and their distinct contexts. The majority of listed buildings are in good condition and the threat of urban development is being controlled through the Integrated Management Plan. However the property continues to be vulnerable to encroaching development, in particular new infrastructure.

Authenticity

The authenticity of the property is retained through the unique form, design, material and substance of the monuments, displaying a highly developed traditional craftsmanship and situated within a traditional urban or natural setting. Even though the Kathmandu Valley has undergone immense urbanization, the authenticity of the historic ensembles as well as much of the traditional urban fabric within the boundaries has been retained.

Protection and management requirements

The designated property has been declared a protected monument zone under the Ancient Monument Preservation Act, 1956, providing the highest level of national protection. The property has been managed by the coordinative action of tiers of central government, local government and non-governmental organizations within the responsibilities and authorities clearly enumerated in the Integrated Management Plan for the Kathmandu World Heritage Property adopted in 2007.

The implementation of the Integrated Management Plan will be reviewed in five-year cycles allowing necessary amendments and augmentation to address changing circumstances. A critical component that will be addressed is disaster risk management for the property.

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|---------------------|---|
| Property | Lumbini, the Birthplace of the Lord Buddha |
| State Party | Nepal |
| Id. N° | 666 |
| Date of inscription | 1997 |

Brief synthesis

The Lord Buddha was born in 623 BC in the sacred area of Lumbini located in the Terai plains of southern Nepal, testified by the inscription on the pillar erected by the Mauryan Emperor Asoka in 249 BC. Lumbini is one of the holiest places of one of the world's great religions, and its remains contain important evidence about the nature of Buddhist pilgrimage centres from as early as the 3rd century BC. The complex of structures within the archaeological conservation area includes the Shakya Tank; the remains within the Maya Devi Temple consisting of brick structures in a cross-wall system dating from the 3rd century BC to the present century and the sandstone Ashoka pillar with its Pali inscription in Brahmi script. Additionally there are the excavated remains of Buddhist viharas (monasteries) of the 3rd century BC to the 5th century AD and the remains of Buddhist stupas (memorial shrines) from the 3rd century BC to the 15th century AD. The site is now being developed as a Buddhist pilgrimage centre, where the archaeological remains associated with the birth of the Lord Buddha form a central feature.

Criterion (iii): As the birthplace of the Lord Buddha, testified by the inscription on the Asoka pillar, the sacred area in Lumbini is one of the most holy and significant places for one of the world's great religions.

Criterion (vi): The archaeological remains of the Buddhist viharas (monasteries) and stupas (memorial shrines) from the 3rd century BC to the 15th century AD, provide important evidence about the nature of Buddhist pilgrimage centres from a very early period.

Integrity

The integrity of Lumbini has been achieved by means of preserving the archaeological remains within the property boundary that give the property its Outstanding Universal Value. The significant attributes and elements of the property have been preserved. The buffer zone gives the property a further layer of protection. Further excavations of potential archaeological sites and appropriate protection of the archaeological remains are a high priority for the integrity of the property. The property boundary however does not include the entire archaeological site and various parts are found in the buffer zone. The entire property including the buffer zone is owned by the Government of Nepal and is being managed by the Lumbini Development Trust and therefore there is little threat of development or neglect. However the effects of industrial development in the region have been identified as a threat to the integrity of the property.

Authenticity

The authenticity of the archaeological remains within the boundaries has been confirmed through a series of excavations since the discovery of the Asoka pillar in 1896. The remains of viharas, stupas and numerous layers of brick structures from the 3rd century BC to the present century at the site of the Maya Devi Temple are proof of Lumbini having been a centre of pilgrimage from early times. The archaeological remains require active conservation and monitoring to ensure that the impact of natural degradation, influence of humidity and the impact of the visitors are kept under control. The property continues to express its Outstanding Universal Value through its archaeological remains. The delicate balance must be maintained between conserving the archaeological vestiges of the property while providing for the pilgrims.

Protection and management requirements

The property site is protected by the Ancient Monument Preservation Act 1956. The site management is carried out by the Lumbini Development Trust, an autonomous and non-profit making organization. The entire property is owned by the Government of Nepal. The property falls within the centre of the Master Plan area, the planning of which was initiated together with the United Nations and carried out by Prof. Kenzo Tange between 1972 and 1978.

The long-term challenges for the protection and management of the property are to control the impact of visitors, and natural impacts including humidity and the industrial development in the region. A Management Plan is in the process of being developed to ensure the long-term safeguarding of the archaeological vestiges of the property while allowing for the property to continue being visited by pilgrims and tourists from around the world.

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|---------------------|---|
| Property | Archaeological Ruins at Moenjodaro |
| State Party | Pakistan |
| Id. N° | 138 |
| Date of inscription | 1980 |

Brief synthesis

The Archaeological Ruins at Moenjodaro are the best preserved urban settlement in South Asia dating back to the beginning of the 3rd millennium BC, and exercised a considerable influence on the subsequent development of urbanization. The archaeological ruins are located on the right bank of the Indus River, 510 km north-east from Karachi, and 28 km from Larkana city, Larkana District in Pakistan's Sindh Province. The property represents the metropolis of Indus civilization, which flourished between 2,500-1,500 BC in the Indus valley and is one of the world's three great ancient civilizations.

The discovery of Moenjodaro in 1922 revealed evidence of the customs, art, religion and administrative abilities of its inhabitants. The well planned city mostly built with baked bricks and having public baths; a college of priests; an elaborate drainage system; wells, soak pits for disposal of sewage, and a large granary, bears testimony that it was a metropolis of great importance, enjoying a well organized civic, economic, social and cultural system.

Moenjodaro comprises two sectors: a citadel area in the west where the Buddhist stupa was constructed with unbaked brick over the ruins of Moenjodaro in the 2nd century AD, and to the east, the lower city ruins spread out along the banks of the Indus. Here buildings are laid out along streets intersecting each other at right angles, in a highly orderly form of city planning that also incorporated systems of sanitation and drainage.

Criterion (ii): The Archaeological Ruins at Moenjodaro comprise the most ancient planned city on the Indian subcontinent, and exerted great influence on the subsequent urbanization of human settlement in the Indian peninsular.

Criterion (iii): As the most ancient and best preserved urban ruin in the Indus Valley dating back to the 3rd millennium BC, Moenjodaro bears exceptional testimony to the Indus civilization.

Integrity

The Archaeological Ruins at Moenjodaro comprise burnt brick structures covering 240 ha, of which only about one third has been excavated since 1922. All attributes of the property are within the boundaries established for proper preservation and protection. All significant attributes are still present and properly maintained. However the foundations of the property are threatened by saline action due to a rise of the water table of the Indus River. This was the subject of a UNESCO international campaign in the 1970s, which partially mitigated the attack on the mud brick buildings.

Authenticity

The Archaeological Ruins at Moenjodaro comprise the first great urban center of the Indus civilization built 5000 years ago with burnt brick structures. The property continues to express its Outstanding Universal Value through its planning, form and design, materials and location. The setting of the property is vulnerable to the impact of development in its vicinity.

Protection and management requirements

The Archaeological Ruins at Moenjodaro are being protected by National and Regional laws including the Antiquities Act 1975 from the threats of damage, pillage and pilferage and of new developments in and around the boundaries of the property. There is a management system to administer the property, protect and conserve the attributes that carry Outstanding Universal Value, and address the threats to and vulnerabilities of the property as outlined above. A comprehensive Master Plan has been prepared by the Department of Archaeology and Museums, Government of Pakistan to identify the actual extent of the archaeological area of Moenjodaro. However during the process of approval of the Master Plan, the archaeological area of Moenjodaro has been transferred from the Federal Department of Archaeology to the Culture Department, Government of Sindh. Under the Constitution Act 2010 (18th Amendment), the Culture Department, Government of Sindh is now responsible for the proper up-keep and maintenance of the property.

In order to tackle the potential weaknesses as mentioned in the statements of authenticity and integrity there is a site office supported by a scientific laboratory to deal with the issues of conservation and other problems in a scientific way with traditional methods. The problems of salt action, thermal stress and rain are dealt with through a holistic approach involving application of mud slurry, mud capping, re-pointing and other consolidation works such as under-pinning in order to retain the authenticity and integrity of the property. Besides the above threats there is the danger of flood which was mitigated to some extent by constructing embankments and spurs. However, a breach of the dam upstream would cause catastrophic damage. The Department is therefore undertaking regular monitoring of the dam and is seeking secure funding from the Government, NGOs and other donor countries in order to strengthen it.

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| Property | Baroque Churches of the Philippines |
| State Party | Philippines |
| Id. N° | 677 |
| Date of inscription | 1993 |

Brief synthesis

The Baroque Churches of the Philippines is a serial inscription consisting of four Roman Catholic churches constructed between the 16th and the 18th centuries in the Spanish period of the Philippines. They are located in separate areas of the Philippine archipelago, two at the northern island of Luzon, one at the heart of Intramuros, Manila, and the other in the central Visayas island of Iloilo.

This group of churches established a style of building and design that was adapted to the physical conditions in the Philippines and had an important influence on later church architecture in the region. The four churches are outstanding examples of the Philippine interpretation of the Baroque style, and represent the fusion of European church design and construction with local materials and decorative motifs to form a new church-building tradition.

The common and specific attributes of the churches are their squat, monumental and massive appearance, which illustrates a fortress/protective-like character in response to pirates, marauders and to the geologic conditions of a country that is prone to seismic activities. The churches are made either of stone (tuff or coralline limestone), or brick, and consolidated with lime. They display specific features such as retablos (altars) of high Baroque style – (particularly seen in San Agustin Church, Intramuros), in the volutes of contrafuertes (buttresses) and in the pyramidal finials of wall facades – (particularly seen in Paoay Church), in wall buttresses separating criptocollateral chapels –(particularly seen in San Agustin Church, Intramuros) and in the iconography of the ornately decorated naïf/folk pediment expressing the local understanding of the life of Christ and demonstrated by the use of local elements (papaya, coconut and palm tree reliefs), and the depiction of Catholic Patron Saints (St. Christopher) dressed in local and traditional clothing (particularly seen in the Miagao Church). The fusion of styles is also seen in the construction of bell towers that are either attached to the main church structure (particularly seen in San Agustin, Intramuros and in Miagao churches) or detached from the main church (particularly seen in Paoay and Sta Maria churches) and lastly, in ceiling paintings in the tromp l'oeil style (particularly seen in San Agustin Church, Intramuros). The Baroque churches reflect excellent site planning principles following the Ley de las Indias (Laws of the Indies) enacted by Philip II in 1563 for all newly-discovered settlements within Spanish colonial territories.

Criterion (ii): *The group of churches established a style of building and design that was adapted to the physical conditions in the Philippines which had an important influence on later church architecture in the region.*

Criterion (iv): *The Baroque Churches of the Philippines represent the fusion of European church design and construction using local materials and decorative motifs to form a new church-building tradition.*

Integrity

The churches' important attributes comprising its architectural ensemble and manifesting the uniqueness of their style, are all within the boundaries of the property. All elements of significance identified at the time of inscription are still very much present and none are eroded, with their dynamic functions associated with religious significance intact and well-maintained.

The churches' fabric, to a considerable degree is well preserved, although some parts may have deteriorated due to environmental conditions and the passage of time.

Although areas covered by the churches and their surrounding complex have been recognized during inscription, buffer zones in some of them were undefined. The recent delineation of buffer areas provides an added layer of protection to the core initially identified.

Authenticity

The Baroque Churches of the Philippines of the 'Peripheral Baroque Style' have maintained its authentic features and admirable building technology that is reflective of church architecture of 16th-18th centuries Spanish colonial period Philippines. A potential threat to the property is the possible reconstruction of portions of some of the churches' original ensemble which were not present during inscription, in the effort to ensure that the churches continue to function to best serve their congregations.

The efforts by the government geared towards responsible restoration and conservation have resulted in the retention of the original materials and substantial features of the baroque churches.

The use of the Baroque churches as permanent sacred places devoted to acts of divine worship of the Catholic faith continues.

Protection and management requirements

Three churches and their land properties are legally owned, administered, and managed by their respective corporations sole while one church (San Agustin, Intramuros) is owned and managed by the Augustinian Order. The churches have been traditionally administered by church authorities and parishioners. Specific church Management Plans were not prepared at the time of inscription but the San Agustin Church in Intramuros is covered by the Management Plan of the Intramuros Administration. There is an overall management system where the National Commission for Culture and the Arts (NCCA) is the overall site manager. The NCCA works with its culturally affiliated agencies – the National Museum (NM) and the National Historical Commission of the Philippines (NHCP) who are the implementers of conservation and restoration projects. Altogether the three agencies collaborate closely with the church authorities-owner of the property and with the stakeholders as well who are made aware of projects on the churches. The day to day management of the church is undertaken by the church authorities. There is a tri-partite agreement for the conservation and management of the World Heritage property as well as other nationally designated heritage sites. The main actors of the tri-partite agreement are the NCCA, the NM, the NHCP and the church authorities.

At the time of inscription, the properties had already been strongly protected by national legislation declaring them as National Cultural Treasures and as National Historical Landmarks through Presidential Decrees 260 and 375. The National Commission of Culture and the Arts provides for resources (funds) for its conservation, protection and regular maintenance.

The churches are presently covered and protected through RA 10066 (National Heritage Law) and RA 10086 (National Historical Commission of the Philippines Law). These legislations ensure their proper safeguarding, protection, conservation, management and use as religious structures, as declared National Cultural Treasures, National Historical Landmarks, and as World Heritage properties. A strong administrative protection system is in place through a Tripartite Agreement between the different national cultural government agencies while agreements between Church authorities and the Government have been entered into, especially the Accordo between the Holy See and the Republic of the Philippines on the Cultural Heritage of the Catholic Church in the Philippines, which was ratified on 29 May 2008. The Implementing Rules and regulations (IRR) of the 2009 Cultural Heritage Act of the Philippines, which is still in the process of being approved, states that the highest standards of conservation shall be applied to World Heritage properties and that its authenticity, integrity and OUV shall not be allowed to be compromised.

Conservation and restoration are undertaken through offices under implementing national cultural agencies which ensure the regular monitoring of its state of conservation including its many concerns, threats and problems. The Canon Law on the pastoral care of the cultural heritage resources of the

Church is likewise being applied by the Catholic authorities. The site manager of the Baroque Churches (NCCA) works with the NM and NHCP in ensuring that work is done according to World Heritage standards and in order to improve the conservation management processes so that the Outstanding Universal Value of the properties are maintained and properly managed. If in case repairs are done that involve the replacement of deteriorated parts, these are undertaken with care so that the replaced areas are differentiated from the original.

Both affiliated cultural agencies sit at the National Commission for Monuments and Sites (NCMS) as ex-officio members. A Technical Working Committee (TWC) has also been established within the NCCA composed of experts on conservation and its members ensure that the highest standards of conservation are afforded to World Heritage properties. Both the NM and the NHCP are the implementers of projects in the Baroque Churches and they too sit as members of the NCCA, NCMS and TWC.

Involvement of local communities is strongly encouraged and they are considered important stakeholders where their views are listened to in consultative processes. Church authorities' involvement in all aspects is vital and they also form an essential part of agreements to ensure that conservation is undertaken at their level, being owners of the properties.

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| Property | Seokguram Grotto and Bulguksa Temple |
| State Party | Republic of Korea |
| Id. N° | 736 |
| Date of inscription | 1995 |

Brief synthesis

Established in the 8th century under the Silla Dynasty, on the slopes of Mount Tohamsan, Seokguram Grotto and Bulguksa Temple form a religious architectural complex of exceptional significance. Prime Minister Kim Dae-seong initiated and supervised the construction of the temple and the grotto, the former built in memory of his parents in his present life and the latter in memory of his parents from a previous life.

Seokguram is an artificial grotto constructed of granite that comprises an antechamber, a corridor and a main rotunda. It enshrines a monumental statue of the Sakyamuni Buddha looking out to sea with his left hand in dhyana mudra, the mudra of concentration, and his right hand in bhumisparsa mudra, the earth-touching mudra position. Together with the portrayals of devas, bodhisattvas and disciples, sculpted in high and low relief on the surrounding walls, the statues are considered to be a masterpiece of East Asian Buddhist art. The domed ceiling of the rotunda and the entrance corridor employed an innovative construction technique that involved the use of more than 360 stone slabs.

Bulguksa is a Buddhist temple complex that comprises a series of wooden buildings on raised stone terraces. The grounds of Bulguksa are divided into three areas – Birojeon (the Vairocana Buddha Hall), Daeungjeon (the Hall of Great Enlightenment) and Geungnakjeon (the Hall of Supreme Bliss). These areas and the stone terraces were designed to represent the land of Buddha. The stone terraces, bridges and the two pagodas – Seokgatap (Pagoda of Sakyamuni) and Dabotap (Pagoda of Bountiful Treasures) – facing the Daeungjeon attest to the fine masonry work of the Silla.

Criterion (i): The Seokguram Grotto, with its statue of Buddha surrounded by Bodhisattvas, the Ten Disciples, Eight Divine Guardians, two Devas, and two Vajrapanis all carved from white granite, is a masterpiece of East Asian Buddhist Art.

Criterion (iv): The Seokguram Grotto, with its artificial cave and stone sculptures, and the associated Bulguksa temple with its wooden architecture and stone terraces, is an outstanding example of Buddhist religious architecture that flourished in Gyeongju, capital of the Silla Kingdom in the 8th century, as a material expression of Buddhist belief.

Integrity

Seokguram Grotto portrays the enlightenment of Buddha and Bulguksa Temple represents the Buddhist utopia taking its form in the terrestrial world. The two sites are closely linked physically, historically and culturally and all of their key components are included within the boundaries of the property.

The most significant threats facing Seokguram Grotto are moisture and condensation, which cause the growth of mould, mildew and moss. Weather damage to the stone sculptures is another threat. The construction of a concrete dome between 1913 and 1915 resulted in humidity build-up and moisture infiltration. A second concrete dome was placed over the existing dome in the 1960s, to create a 1.2 m air space between them, control and adjust airflow, reduce the formation of mildew and prevent further climatic damage. A wooden antechamber was also added and the interior of the grotto was sealed off by a wall of glass to protect it from visitors and changes in temperature.

The 1913-15 alterations to the grotto's original structure and subsequent modifications to address the problems caused by it require further study. Temperature and humidity control, and water ingress are carefully monitored and managed, and mitigation measures implemented as required.

The main threats to the masonry components of Bulguksa Temple are acid rain, pollution, salty fogs originating from the East Sea and moss on the surface of masonry. These threats are continuously monitored and studied.

Fire is the greatest threat to the integrity of the wooden buildings of the Bulguksa Temple, calling for systems for prevention and monitoring at the site.

Authenticity

The main statue of the Buddha and most of the stone sculptures has preserved their original form. As a result of the partial collapse of the rotunda ceiling, the entire grotto was dismantled and rebuilt, and covered with a concrete dome between 1913 and 1915. A second concrete dome was added in the 1960s. These dramatic measures have diminished the authenticity of the form of grotto, and to a lesser extent its materials, although they were acceptable in their time and in the face of serious deterioration. There have been no changes to the function and size of the grotto.

The masonry structures within Bulguksa have maintained their original form, having undergone only partial repair. The wooden buildings have been repaired and restored several times since the 16th century. All restoration work and repairs have been based on historical research and have employed traditional materials and techniques.

Protection and management requirements

Seokguram Grotto has been designated as National Treasure and- Bulguksa Temple has been designated as a Historic Site under the Cultural Heritage Protection Act. Any alterations to the existing form of the site require authorization. They are included within the boundaries of Gyeongju National Park, in which there are restrictions on new construction. A Historic Cultural Environment Protection Area that extends 500 meters from the boundary of the site has also been established, in which all construction work must be pre-approved.

At the national level, the Cultural Heritage Administration (CHA) is responsible for establishing and enforcing policies for the protection of the property and buffer zone, allocating financial resources for conservation. Gyeongju City is directly responsible for overseeing the conservation and management of the property, in collaboration with the Korea National Park Service, whilst Bulguksa Temple is responsible for the day-to-day management. Regular day-to-day monitoring is conducted and in-depth professional monitoring is conducted on a 3 to 4 year basis.

Conservation work is conducted by Cultural Heritage Conservation Specialists who have passed the National Certification Exams in their individual fields of expertise. A ventilation fan in Seokguram Grotto, whose vibration posing a risk, has been removed, and the number of visitors is properly controlled. Within Bulguksa Temple, acidic rain, pollution, salty fogs originating from the East Sea and moss on the surface of the stone are carefully monitored and methods to relieve the problems are being continuously studied. To protect the wooden structures of the temple from fire, an overall Fire Risk Prevention System has been implemented for Bulguksa and CCTVs installed in various points in the temple.

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| Property | Haeinsa Temple Janggyeong Pangeon, the Depositories for the Tripitaka Koreana Woodblocks |
| State Party | Republic of Korea |
| Id. N° | 737 |
| Date of inscription | 1995 |

Brief synthesis

The Janggyeong Panjeon in the Temple of Haeinsa, on the slopes of Mount Gayasan, is home to the Tripitaka Koreana, the most complete collection of Buddhist texts, laws and treaties extant, engraved on approximately 80,000 woodblocks between 1237 and 1248. The Haeinsa Tripitaka woodblocks were carved in an appeal to the authority of the Buddha in the defense of Korea against the Mongol invasions. They are recognized by Buddhist scholars around the world for their outstanding accuracy and superior quality. The woodblocks are also valuable for the delicate carvings of the Chinese characters, so regular as to suggest that they are the work of a single hand.

The Janggyeong Panjeon depositories comprise two long and two smaller buildings, which are arranged in a rectangle around a courtyard. As the most important buildings in the Haeinsa Temple complex, they are located at a higher level than the hall housing the main Buddha of the complex. Constructed in the 15th century in the traditional style of the early Joseon period, their design is characterized by its simplicity of detailing and harmony of layout, size, balance and rhythm.

The four buildings are considered to be unique both in terms of their antiquity with respect to this specialized type of structure, and for the remarkably effective conservation solutions that were employed in their design to protect the woodblocks from deterioration, while providing for easy access and storage. They were specially designed to provide natural ventilation and to modulate temperature and humidity, adapted to climatic conditions, thus preserving the woodblocks for some 500 years from rodent and insect infestation. The Haeinsa Temple complex is a famous destination for pilgrimages, not only among Korean Buddhists, but Buddhists and scholars from all over the world.

Criterion (iv): The depositories of the Haeinsa Temple are unique both in terms of their antiquity so far as this specialized type of structure is concerned, and also for the remarkably effective solutions developed in the 15th century to address the problem of storing and conserving the 80,000 woodblocks used to print the Buddhist scriptures (Tripitaka Koreana) against deterioration.

Criterion (vi): The Janggyeong Panjeon and its unique collection of 13th century Tripitaka Koreana woodblocks, outstanding for their artistry and excellent execution of engraving techniques, occupy an exceptional position in the history of Buddhism as the most complete and accurate corpus of Buddhist doctrinal texts in the world.

Integrity

All components of the Haeinsa Temple complex, including the Janggyeong Panjeon and the Tripitaka Koreana woodblocks, are included within the boundaries of the designation.

The overall condition of the Janggyeong Panjeon is good, though continuous repairs are required to the woodblocks and to the shelves on which the woodblocks are stored.

The remarkably successful conservation solutions employed in the design of the depositories, which provide for natural ventilation and temperature and humidity control, have resulted in the protection of the woodblocks for over 500 years from rodent and insect infestation. Temperature and humidity levels should continue to be strictly monitored and controlled.

The woodblocks and depositories are of wood construction and are susceptible to fire damage and theft.

Authenticity

The temple complex, individual structures and woodblocks maintain a high degree of authenticity. The Janggyeong Panjeon continues to house the 80,000 woodblocks of the Tripitaka Koreana and maintains both their original form and function. Restoration of the four depositories was carried out during the past 30 years in order to conserve the buildings. The form, general layout and architectural detailing of the buildings have been preserved to this day without any major changes or damage.

Protection and management requirements

Haeinsa Temple is owned by the Korean Buddhist Jogye Order. The Daejanggyeongpan (Tripitaka Koreana Woodblocks) and the Janggyeong Panjeon (the depositories) have been designated as National Treasures, under the Cultural Heritage Protection Act. The entire area of Haeinsa Temple is designated as a Historic Site and a 2,095 ha area around the temple complex including Mount Gayasan, is designated as a Scenic Site under the same Act. The entire area of Mount Gayasan surrounding the temple is designated and protected as a National Park by the Natural Parks Act, which acts as a buffer zone to the cultural heritage. Haeinsa Temple is also registered as a 'Buddhist Temple with historical significance' under the Traditional Buddhist Temple Preservation Law. These designations impose strict constraints on alterations to the property and buffer zone.

At the national level, the Cultural Heritage Administration (CHA) is responsible for establishing and enforcing policies for the protection of the temple complex and buffer zone, and allocating financial resources for the conservation of the Janggyeong Panjeon and the woodblocks. Gyeongsangnam-do Province provides additional financial support for the conservation of the temple and its woodblocks, and Hapcheon-gun County is directly responsible for the more specific operations of conservation and management. Haeinsa Temple is in charge of the day-to-day management and provides information on the woodblocks via its website. Regular day-to-day monitoring of the property is carried out and in-depth professional monitoring is conducted on a 3 to 4 year basis.

General conservation focuses on protecting the physical environment of the property together with various projects that concentrates on the documentary values of the Tripitaka woodblocks. Conservation work is conducted by Cultural Heritage Conservation Specialists who have passed the National Certification Exams in their individual fields of expertise. Although there is no specific management plan for the property, management policies of collaborating institutions under the various statutory designations provide the framework for conservation.

In order to protect the Janggyeong Panjeon and woodblocks from fire, full-time security guards and a 24-hour surveillance system are in place and a lightning rod has been installed. A mid-size fire pump truck is placed within the grounds of the temple for immediate response to fire. In order to control the temperature and humidity within the depositories, there are restrictions to visitor entry into the Janggyeong Panjeon.

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|---------------------|--------------------------|
| Property | Jongmyo Shrine |
| State Party | Republic of Korea |
| Id. N° | 738 |
| Date of inscription | 1995 |

Brief synthesis

Jongmyo is a shrine housing the spirit tablets of the former kings and queens of the Joseon Dynasty. The shrine is a symbolic structure that conveys the legitimacy of the royal family, where the king visited regularly to participate in the ancestral rites to wish for the safety and security of the people and state. Jongmyo is the oldest and most authentic of the Confucian royal ancestral shrines, with a unique spatial layout that has been preserved in its entirety. It was originally built in the late 14th century, but was destroyed during the Japanese invasion during the 16th century, and was rebuilt in the early 17th century with a few expansions made to the buildings thereafter.

Jongmyo and its expansions occupy a 19.4 ha oval site. The buildings are set in valleys and surrounded by low hills, with artificial additions built to reinforce the site's balance of natural elements, in accordance with traditional pungsu principles. The main features of Jongmyo are Jeongjeon (the main shrine), and Yeongnyeongjeon (the Hall of Eternal Peace, an auxiliary shrine). Other features include Mangmyoru, a wooden structure where the king thought about the ancestral kings in memory; Gongmingdang, the shrine to the Goryeo King Gongmin, built by the Joseon King Taejo; Hyangdaechong, the storage building for ritual utensils; and Jaegung, a main hall with two wings, where the King and participants waited for the rites to take place. Jongmyo was built faithfully abiding by the Confucian ideology of ancestral worship and its ritual formalities under strict royal supervision, and still maintains its original form dating from the Joseon Dynasty.

Traditions of ancestral worship rites – Jongmyo Jerye, are still carried out, together with the accompanying ritual music and dance performance. Construction and management of Jongmyo, and the operations of Jongmyo Jerye rituals, are all meticulously recorded in the royal protocols of the Joseon Dynasty.

Criterion (iv): *Jongmyo Shrine is an outstanding example of the Confucian royal ancestral shrine, which has survived relatively intact since the 16th century, the importance of which is enhanced by the persistence there of an important element of the intangible cultural heritage in the form of traditional ritual practices and forms.*

Integrity

Jongmyo Shrine is composed of a main ritual space, buildings and facilities, together with auxiliary structures and facilities that serve supportive functions in the conduct of rituals, and is surrounded by a forest. The entire complex of buildings and landscape features has been included within the boundaries of the property, and the complex is surrounded by a buffer zone.

The buildings are generally in good condition. The greatest risk factor with respect to the protection of the wooden architecture of Jongmyo is fire.

Beyond the buffer zone of the property, there is considerable modern urbanization. The construction of high-rise buildings in these areas could adversely affect site-lines within Jongmyo.

The Royal Ancestral Rite and Ritual Music of Jongmyo continue to be performed annually and are designated as an Important Intangible Cultural Heritage. The preservation of the music, dance and ritual is carried out by the National Gugak Center, and the Jongmyo Jerye Safeguarding Society.

Authenticity

Jongmyo maintains a high degree of authenticity, having conserved both its physical form and traditional ritual practices. The site layout and architecture of Jongmyo have been kept intact in the original form, and the ancestral ritual music and dance have been handed down and continue to be regularly performed.

Rebuilt in the 17th century, Jongmyo has been expanded twice to enshrine the increasing number of ancestors. As with most buildings within the wooden architecture tradition of East Asia, the buildings have undergone a number of restorations involving dismantling and reconstruction. There has, however, been scrupulous respect for materials and techniques, which makes them authentic in this respect.

Protection and management requirements

The entire area of Jongmyo Shrine and the individual buildings of Jeongjeon and Yeongnyeongjeon have been designated as State-designated Cultural Heritage under the Cultural Heritage Protection Act, which imposes restrictions on alterations to the property.

Adoption of retrospective Statements
of Outstanding Universal Value

The area extending 100 m from the boundary of Jongmyo is protected under the Cultural Heritage Protection Act and also by the Jongno-gu district office regulation as a Historic Cultural Environment Protection Area, and all construction within the area requires approval.

The Royal Ancestral Rite of Jongmyo together with the accompanying Ritual Music has been designated by the State as Important Intangible Cultural Heritage. The Jongmyo Jerye Safeguarding Society is designated as the major practicing group by the Cultural Heritage Administration and under the Cultural Heritage Protection Act receives subsidies and assistance in safeguarding the ritual.

At the national level, the Cultural Heritage Administration (CHA) is responsible for establishing and enforcing policies for the protection of Jongmyo, and allocating financial resources for its conservation. The Jongmyo Management Office, with a staff of approximately 25 employees, is in charge of day-to-day management of the site. Routine monitoring is carried out and in-depth professional monitoring is conducted on a 3-to-4 year basis.

The area around Jongmyo is managed by the Urban Planning Division, Traffic Policy Division and Cultural Heritage Division of the Seoul Metropolitan City, which work in cooperation. Seoul City periodically revises the Basic Scenery Plan and District Unit Plan for the areas surrounding Jongmyo, recommending systematic management policies and work plans.

Conservation work at Jongmyo is carried out by Cultural Heritage Conservation Specialists who have passed the National Certification Exams in relevant fields of expertise. The CHA is implementing the Integrated Security System Establishment Plan for the 5 Palaces and Jongmyo, in place since 2009, in preparation for accidents and/or disasters that could harm the heritage.

The general public is allowed to enter the heritage area on guided tours only, and access to the interior of the buildings is prohibited.

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|---------------------|-------------------------------------|
| Property | Changdeokgung Palace Complex |
| State Party | Republic of Korea |
| Id. N° | 816 |
| Date of inscription | 1997 |

Brief synthesis

Constructed in the 15th century during the Joseon Dynasty, the Changdeokgung Palace Complex occupies a 57.9 ha site in Jongno-gu, in northern Seoul at the foot of Ungbong Peak of Mount Baegaksan, the main geomantic guardian mountain.

Changdeokgung is an exceptional example of official and residential buildings that were integrated into and harmonized with their natural setting. The complex was originally built as a secondary palace to the main palace of Gyeongbokgung, differentiated from it in its purpose and spatial layout within the capital. Situated at the foot of a mountain range, it was designed to embrace the topography in accordance with *pungsu* principles, by placing the palace structures to the south and incorporating an extensive rear garden to the north called Biwon, the Secret Garden. Adaptation to the natural terrain distinguished Changdeokgung from conventional palace architecture.

The official and residential buildings that make up the complex were designed in accordance with traditional palace layout principles. The buildings and structures include three gates and three courts (an administrative court, royal residential court and official audience court), with the residential area to rear of the administrative area reflecting the principles of 'sammun samjo (三門三朝)' and 'jeonjo huchim (前朝後寢)'. The buildings are constructed of wood and set on stone platforms, and many feature tiled hipped roofs with a corbelled multi-bracket system and ornamental carvings.

The garden was landscaped with a series of terraces planted with lawns, flowering trees, flowers, a lotus pool and pavilions set against a wooded background. There are over 56,000 specimens of various species of trees and plants in the garden, including walnut, white oak, zelkova, plum, maple, chestnut, hornbeam, yew, ginkgo, and pine.

Changdeokgung was used as the secondary palace to Gyeongbokgung for 200 years, but after the palaces were burnt down during the Japanese invasion in the late 16th century, it was the first to be reconstructed and since then served as the main seat of the dynasty for 250 years. The property had a great influence on the development of Korean architecture, garden and landscape planning, and related arts, for many centuries. It reflects sophisticated architectural values, harmonized with beautiful surroundings.

Criterion (ii): Changdeokgung had a great influence on the development of Korean architecture, garden design and landscape planning, and related arts for many centuries.

Criterion (iii): Changdeokgung exemplifies the traditional *pungsu* principles and Confucianism through its architecture and landscape. The site selection and setting of the palace were based upon *pungsu* principles, whilst the buildings were laid out both functionally and symbolically in accordance to Confucian ideology that together portrays the Joseon Dynasty's unique outlook on the world.

Criterion (iv): Changdeokgung is an outstanding example of East Asian palace architecture and garden design, exceptional for the way in which the buildings are integrated into and harmonized with the natural setting, adapting to the topography and retaining indigenous tree cover.

Integrity

Changdeokgung incorporates all key components required in Korean palace architecture and conforms to Confucian principles and protocols in its spatial layout, arrangement of buildings, gardens and forested mountain landscape at the rear of the palace. All the palace components are still intact, including the Oejo, the royal court of the dynasty; Chijo, the administrative quarters of the palace; Chimjo, the residence of the royal family; and the garden intended for the king's leisure. The entire architectural complex and natural setting of Changdeokgung are included within the boundaries of the property.

The principal threat to the physical integrity of the buildings is fire. The wooden structures have been destroyed by fire on successive occasions throughout their history.

Authenticity

The buildings of Changdeokgung Palace Complex were destroyed by fire and have undergone successive reconstructions, and some additions were made to the complex in the centuries following its construction. However, when judged against the philosophy and practices that are standard in Asia, the complex has a high level of authenticity. The buildings and natural elements of the rear garden have sustained their original forms, which generally date from the latter part of the Joseon Dynasty, and their relationship with the natural terrain and landscape. Most recently, work has been undertaken to reverse the changes made during the Japanese occupation during the early 20th century. This work is being carried out using traditional methods and materials, and is based on historical evidence and research.

Protection and management requirements

The entire area of the Changdeokgung Palace Complex, including the individual buildings and plantings within the complex, has been designated as a State-designated Cultural Heritage under the Cultural Heritage Protection Act. In addition, a number of the buildings of the complex have been designated as National Treasures or Treasures (Injeongjon Hall, Injeongmun Gate, Seonjeongjeon Hall, Huijeongdang Hall, Daejojeon Hall, Old Seonwonjeon Shrine and Donhwamun Gate) or as Natural Monuments (the Chinese juniper tree and the Actinidia arguta plum tree). These designations impose strict control over any alterations to the property.

The area extending 100 m from the boundary of the Changdeokgung Palace Complex has been designated as a Historic Cultural Environment Protection Area under the Cultural Heritage Protection Act, and all construction work and alterations within the area require the authorization of the Cultural Heritage Administration through the Jongno-gu district office. The Rear Garden of Changdeokgung has been designated as an Ecological Scenery Conservation Area under the Natural Environment Conservation Act.

At the national level, the Cultural Heritage Administration (CHA) is responsible for establishing and enforcing policies for the protection and management of Changdeokgung, and for allocating financial resources for its conservation. The Changdeokgung Management Office, with approximately 40 employees, is in charge of day-to-day management. Regular day-to-day monitoring is carried out and in-depth professional monitoring is conducted on a 3-to-4 year basis.

The area around Changdeokgung is managed co-operatively by the Urban Planning Division, Traffic Policy Division and Cultural Heritage Division of the Seoul Metropolitan Government. Seoul City's Basic Scenery Plan and District Unit Plan for the areas surrounding Changdeokgung, which are periodically revised and updated, provide the framework for management and work planning in the buffer zone.

Conservation works in Changdeokgung are conducted by Cultural Heritage Conservation Specialists who have passed the National Certification Exams in their individual fields of expertise. The CHA is implementing the Integrated Security System Establishment Plan for the 5 Palaces and Jongmyo, in place since 2009, in preparation for accidents and/or disasters that could impair the integrity of the property.

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|---------------------|--------------------------|
| Property | Hwaseong Fortress |
| State Party | Republic of Korea |
| Id. N° | 817 |
| Date of inscription | 1997 |

Brief synthesis

Hwaseong is a piled-stone and brick fortress of the Joseon Dynasty that surrounds the centre of Suwon City, of Gyeonggi-do Province. It was built in the late 18th century by King Jeongjo for defensive purposes, to form a new political basis and to house the remains of his father, Crown Prince Jangheon. The massive walls of the fortress, which are 5.74 km in length, enclose an area of 130 ha and follow the topography of the land. The Suwoncheon, the main stream in Suwon, flows through the centre of the fortress.

The walls incorporate a number of defensive features, most of which are intact. These include floodgates, observation towers, command posts, multiple arrow launcher towers, firearm bastions, angle towers, secret gates, beacon towers, bastions and bunkers. There are four main gates at the cardinal points. The Paldalmun Gate in the south and the Janganmun Gate in the north are impressive two-storey wooden structures on stone bases, flanked by gated platforms and shielded by half-moon ravelins built of fired brick. They are linked to the main road running through the complex. The west (Hwaseomun) and east (Changnyongmun) gates are single-storey structures, also protected by ravelins. The Hwaseong Fortress has had a great influence on the development of Korean architecture, urban planning, and landscaping and related arts. It differed from the fortresses in China and Japan in that it combined military, political and commercial functions. Its design by Jeong Yakyong, a leading scholar of the School of Practical Learning, was characterized by careful planning, the combination of residential and defensive features, and the application of the latest scientific knowledge. It represents the pinnacle of 18th century military architecture, incorporating ideas from some of the best examples in Europe and East Asia. Hwaseong is also unique in that it covers both flat and hilly land, making use of the terrain for maximum defensive efficacy.

A completion report for the building of Hwaseong Fortress, Hwaseong seongyeok uigwe, was published in 1801, which provides the details and particulars about its design and construction process.

Criterion (ii): *Hwaseong Fortress represents the pinnacle of 18th century military architecture, incorporating the best scientific ideas from Europe and East Asia brought together through careful study by scholars from the School of Practical Learning. It demonstrates important developments in construction and the use of materials that reflects the interchange of scientific and technical achievements between the East and West. The fortress had a great influence on the development of Korean architecture, urban planning, and landscaping and related arts.*

Criterion (iii): *Hwaseong combined traditional fortress building methods with an innovative site layout that enabled it to deliver defensive, administrative and commercial functions. Hwaseong is a testimony to the rapid social and technical developments of 18th century of Korea.*

Integrity

The key features of the Hwaseong Fortress, including the main walls, four main gates and various other defensive features of the complex are intact and are included within the boundaries of the property. The Suwoncheon Stream continues to flow through the heart of the city from the Hwahongmun Floodgate and the roads linking the main gates still function as the core of the road system.

The fortress originally comprised 48 elements, including the cardinal gates, floodgates, observation towers, command posts, multiple-arrow launcher platforms, embrasured firearms bastions, angle towers, secret gates, a beacon tower, gate-guard platforms, bastions and bunkers. Seven of these (one floodgate, one observation tower, one secret gate, two gate-guard platforms, and two bunkers) have been lost due to flooding and war. The meandering fortress wall has been pierced in nine places to accommodate the city's traffic network.

The fortress is in good condition, but its conservation and maintenance require specialized skills. The greatest risk factor to Hwaseong is fire, which could damage the wooden components of its architecture. Another risk is weeds, which could damage the fortress walls and other features.

Rapid urbanization has meant that the four cardinal gates are exposed to smog and vibrations from vehicles in nearby streets, which could lead to their deterioration and should be managed.

Authenticity

The circuit of walls and most of their elements (gates, towers, bastions, etc.) preserve their authenticity with respect to the site, materials and techniques.

Considerable damage was caused to some parts of the Fortress during the Korean War. The Janganmun and Changnyongmun Gates were completely destroyed, and sections of the walls were demolished. However, restoration and reconstruction work, which began in 1964 and has continued since that time, has been carried out in accordance with the principles of the Venice Charter and Nara Document, based on the exhaustive information contained in the Hwaseong seongyeok uigwe.

Protection and management requirements

The Hwaseong Fortress has been designated as a State-designated Cultural Heritage under the Cultural Heritage Protection Act. The Paldalmun Gate and Hwaseomun Gate have also been designated as Treasures and the area enclosed by the fortress walls has been designated as a protection area under the same Act. A buffer zone extending 500 m from the fortress walls has been created, and a Historic Cultural Protection Area has been established under the Gyeonggi-do Province Cultural Heritage Protection Ordinance. These designations require that all interventions receive official authorization and that only qualified personnel carry out restoration and conservation work. The Suwon City World Cultural Heritage Hwaseong Management Ordinance regulates visitation and usage of Hwaseong and its associated facilities.

At the national level, the Cultural Heritage Administration (CHA) is responsible for establishing and enforcing policies for the protection of Hwaseong and the surrounding areas, and allocating financial resources for its conservation. The periodically revised District Unit Plan of Suwon City sets limitations to the building coverage ratio, floor space index, and height of structures within and outside of the fortress. Criteria to guide alterations to the property are also employed. The Hwaseong Management Office, with approximately 30 employees, is in charge of day-to-day management. Regular day-to-day monitoring is conducted and in-depth professional monitoring is carried out on a 3 to 4 year basis.

The Suwon Hwaseong Management Foundation established under the authority of the Suwon City Ordinance, is responsible for operating the facilities, profit-generating projects at the site and the promotion of tourism.

Conservation work in Hwaseong is undertaken by Cultural Heritage Conservation Specialists who have passed the National Certification Exams in their individual fields of expertise. There are CCTVs and a 24-hour surveillance system with regular day and night patrols around the fortress. Personnel are allocated for the regular removal of weeds.

A scientific survey of all remaining un-restored sections of the fortress is planned, and research is being conducted into measures to prevent collapse resulting from vehicle vibrations.

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|---------------------|--------------------------------|
| Property | Gyeongju Historic Areas |
| State Party | Republic of Korea |
| Id. N° | 976 |
| Date of inscription | 2000 |

Brief synthesis

The Gyeongju Historic Areas contain a remarkable concentration of outstanding examples of Korean Buddhist art, in the form of sculptures, reliefs, pagodas, and the remains of temples and palaces from the flowering culture of Silla dynasty, in particular between the 7th and 10th century. The Korean peninsula was ruled for almost 1,000 years (57 BCE – 935 CE) by the Silla dynasty, and the sites and monuments in and around Gyeongju bear outstanding testimony to its cultural achievements. These monuments are of exceptional significance in the development of Buddhist and secular architecture in Korea.

The property comprises five distinct areas situated in the centre of Gyeongju and in its suburbs.

The Mount Namsan Belt lies to the north of the city and covers 2,650 ha. The Buddhist monuments that have been excavated at the time of inscription include the ruins of 122 temples, 53 stone statues, 64 pagodas and 16 stone lanterns. Excavations have also revealed the remains of the pre-Buddhist natural and animistic cults of the region. 36 individual monuments, including rock-cut reliefs or engravings, stone images and heads, pagodas, royal tombs and tomb groups, wells, a group of stone banner poles, the Namsan Mountain Fortress, the Poseokjeong Pavilion site and the Seochulji Pond, exist within this area.

The Wolseong Belt includes the ruined palace site of Wolseong, the Gyerim woodland which legend identifies as the birthplace of the founder of the Gyeongju Kim clan, Anapji Pond, on the site of the ruined Imhaejeon Palace, and the Cheomseongdae Observatory.

The Tumuli Park Belt consists of three groups of Royal Tombs. Most of the mounds are domed, but some take the form of a half-moon or a gourd. They contain double wood coffins covered with gravel, and excavations have revealed rich grave goods of gold, glass, and fine ceramics. One of the earlier tombs yielded a mural painting of a winged horse on birch bark.

Hwangnyongsa Belt consists of two Buddhist temples, Bunhwangsa Temple and the ruins of Hwangnyongsa Temple. Hwangnyongsa, built to the order of King Jinheung (540 – 576 CE) was the largest temple ever built in Korea, covering some 72,500 m². An 80 m high, nine-storey pagoda was added in 645 CE. The pagoda in Bunhwangsa was built in 634 CE, using dressed block stones.

The Sanseong Fortress Belt consists of defensive facilities along the east coast and at other strategic points and includes the Myeonghwal Mountain Fortress.

Criterion (ii): *The Gyeongju Historic Areas contain a number of sites and monuments of exceptional significance in the development of Buddhist and secular architecture in Korea.*

Criterion (iii): *The Korean peninsula was ruled for nearly a thousand years by the Silla dynasty, and the sites and monuments in and around Gyeongju (including the holy mountain of Namsan) bear outstanding testimony to its cultural achievements.*

Integrity

As a serial property, the individual areas together convey the value of Gyeongju as the capital city of the Silla Dynasty. The heritage areas, as a whole, serve as testimony to the 1,000-year history by providing evidence of the entirety of the culture, including the city layout, social structure and modes of living of the Silla dynasty. All necessary components to portray the values of the capital city and their original settings are included within the property.

The area surrounding the Mount Namsan and Sanseong Belts are rural and face little threat of development. However, the remaining portions of the historic areas are in urban districts. Building heights, design, encroachments from development and the growing number of vehicles within Gyeongju, all of which could interfere with the physical and visual integrity of the historic areas, should be strictly controlled. The function of the East Sea Southern Railway line running through the Wolseong Belt has been terminated.

Authenticity

The overall complex of the Gyeongju Historic Areas maintains a high degree of authenticity, as do the individual elements, which are largely archaeological sites and carvings. The various component elements of the historic areas have been maintained in situ in their original settings and the ruins of the temple and palace sites have been maintained so as not to interfere with their original form and layout. There has been little restoration of the architecture, sculptures, pagodas, tombs and fortresses, and the work that has been undertaken has been based on scientific evidence from excavation and other forms of research.

Protection and management requirements

Gyeongju Historic Areas consists of five different sub-areas of Mount Namsan, Wolseong, Tumuli, Hwangnyongsa Temple and the Fortress Belt, which are owned by the national government. The entire area of the property, including the numerous individual sites, has been designated as State-designated Cultural Heritage under the Cultural Heritage Protection Act. The entire area is also designated as a national park under the National Park Law. These measures severely restrict any form of development within the designated area. A 500 m buffer zone (Historic Cultural Environment Protection Area) has been established around each of the historic areas, under the Cultural Heritage Protection Act. Within the buffer zones, all construction requires authorization. In order to protect the abundance of unearthed heritage, it is mandatory in Gyeongju City to conduct a Cultural Heritage Impact Assessment before any construction takes place.

At the national level, the Cultural Heritage Administration (CHA) is responsible for establishing and enforcing policies for protection and allocating financial resources for the conservation of Gyeongju Historic Areas. Gyeongju City is directly responsible for the more specific operations of conservation and management together with the Korea National Park Service, which is responsible for the management of Mount Namsan. Regular day-to-day monitoring is conducted at the sites, and in-depth professional monitoring is conducted on a 3-to-4 year basis.

Conservation work is conducted by Cultural Heritage Conservation Specialists who have passed the National Certification Exams in their individual fields of expertise. The CHA and Gyeongju City have continued to purchase the land surrounding the designated heritage areas to ensure better protection and connectivity between the areas. The East Sea Southern Railway will be completely removed by 2014.

Management plans are in force for the Gyeongju Historic Areas, which address the preservation of the original status of the Historic Areas, preservation of the surrounding environment of the Historic Areas, use of the Gyeongju Historic Areas for the education of citizens and field studies for students. They provide for the establishment of long-term plans, the strengthening of measures against forest fires, floods, and other natural calamities, a scientific research program, including archaeological excavations, and a policy of seeking systematic investment and site-management proposals that are eco-friendly and consistent with world-class tourism policies. In addition, programs are in place for regular conservation and maintenance of sculptural and monumental antiquities and for selective restoration, based on thorough scientific research.

Regular monitoring is to be carried out on the open sites, to check for any illegal use of the land for unauthorized burials or shamanistic rites. Parking facilities are to be extended and marked paths laid out so as to prevent uncontrolled access to the land.

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| Property | Gochang, Hwasun and Ganghwa Dolmen Sites |
| State Party | Republic of Korea |
| Id. N° | 977 |
| Date of inscription | 2000 |

Brief synthesis

The Gochang, Hwasun and Ganghwa Dolmen sites contain the highest density and greatest variety of dolmens in Korea, and indeed of any country. Dolmens are megalithic funerary monuments, which figured prominently in Neolithic and Bronze Age cultures across the world during the 2nd and 1st millennia BCE. Usually consisting of two or more undressed stone slabs supporting a huge capstone, it is generally accepted that they were simply burial chambers, erected over the bodies or bones of deceased worthies. They are usually found in cemeteries on elevated sites and are of great archaeological value for the information that they provide about the prehistoric people who built them and their social and political systems, beliefs and rituals, and arts and ceremonies.

The property encompasses three distinct areas.

The Gochang Dolmen Site (8.38 ha) features the largest and most diversified group, and is centered in the village of Maesan, along the southern foot of a group of hills running east/west. Over 440 dolmens of various types have been recorded in this location.

The Hwasun Dolmen Site (31 ha) is situated on the slopes of a low range of hills, along the Jiseokgang River. There are more than 500 dolmens in this group. In a number of cases, the stone outcrops from which the stones making up these dolmens have been identified.

The Ganghwa Dolmen Sites (12.27 ha) are on the offshore island of Ganghwa, on mountain slopes. They tend to be situated at a higher level than the dolmens of the other sites and are stylistically early, in particular those at Bugeun-ri and Gocheon-ri.

The Gochang, Hwasun and Ganghwa Dolmen Sites preserve important evidence of how stones were quarried, transported and raised and of how dolmen types changed over time in northeast Asia.

Criterion (iii): *The global prehistoric technological and social phenomenon that resulted in the appearance in the 2nd and 3rd millennia BCE of funerary and ritual monuments constructed of large stones (the "Megalithic Culture") is nowhere more vividly illustrated than in the dolmen cemeteries of Gochang, Hwasun, and Ganghwa.*

Integrity

A significant number of dolmens are distributed in each of the three areas, fully showing the development history of the megalithic culture with numerous examples of various style and type. The existence of a quarry near the site is especially important in providing references to the origins, nature and developmental history of the dolmens, as well as contributing to the integrity of the property. These components are all included within the boundaries of the inscribed property.

The re-erection of selected collapsed or dispersed dolmens is planned. This work will be based on meticulous scientific research, in order to establish the original configuration and location of the dolmens. The greatest risk to the dolmens is fire and damage to the surrounding environment.

Authenticity

The dolmens possess authenticity of form, materials and location. Most of the dolmens have remained untouched since the time of their construction, their present condition being the result of normal processes of decay. Although a few have been dismantled by farmers their stones have survived intact and their original location and form can be identified without difficulty.

Protection and management requirements

The entire area of the three separate sites has been designated as a Cultural Heritage site under the Cultural Heritage Protection Act, which requires that they be protected and managed accordingly. The sites and the area that extends 500 m from the boundary of the each site have further protection under the Cultural Heritage Protection Act as a Historic Cultural Environment Protection Area. Any form of development or intervention requires authorization and environmental impact assessment, and repairs must be carried out by licensed specialists. The sites are open to the general public.

The properties belong to the Government of the Republic of Korea. Overall responsibility for protection, funding and the preparation and implementation of conservation policies for the sites and buffer zones rests with the Cultural Heritage Administration (CHA). The National Research Institute of Cultural Heritage carries out academic research, field survey and excavation (in association with university museums and private heritage research institutes).

Day-to-day preservation and management is the responsibility of the relevant local administrations (Gochang-gun County, Hwasun-gun County and Ganghwa-gun County). The Gochang Dolmen Museum,

Hwasun Dolmen Site Protection Pavilion and Ganghwa Historic Museum provide information about each dolmen site to visitors. Regular day-to-day monitoring is carried out and in-depth professional monitoring is carried out on a 3-to-4 year basis.

Management plans have been developed for each of the three properties within the inscribed site. Their primary objective is the preservation of the original character of the dolmen sites and their immediate environments. The plans cover scientific research (survey, inventory, selected excavation and paleo-environmental studies), protection of the environment (selective clearance of vegetation cover, routing of visitors to ensure minimal impact on the natural environment, acquisition of adjacent farmland to prevent incursions, etc.), systematic monitoring and presentation (signage, access roads and parking, interpretation facilities, public awareness and participation of local communities, festivals and other onsite events).

To prevent forest fire, scrubs near the dolmens are removed regularly and dolmens that have collapsed as a result of unearthed land or tree roots are investigated, extensively researched and restored to their original state.

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|---------------------|-----------------------------------|
| Property | Historic City of Ayutthaya |
| State Party | Thailand |
| Id. N° | 576 |
| Date of inscription | 1991 |

Brief synthesis

The Historic City of Ayutthaya, founded in 1350, was the second capital of the Siamese Kingdom. It flourished from the 14th to the 18th centuries, during which time it grew to be one of the world's largest and most cosmopolitan urban areas and a center of global diplomacy and commerce. Ayutthaya was strategically located on an island surrounded by three rivers connecting the city to the sea. This site was chosen because it was located above the tidal bore of the Gulf of Siam as it existed at that time, thus preventing attack of the city by the sea-going warships of other nations. The location also helped to protect the city from seasonal flooding.

The city was attacked and razed by the Burmese army in 1767 who burned the city to the ground and forced the inhabitants to abandon the city. The city was never rebuilt in the same location and remains known today as an extensive archaeological site.

At present, it is located in Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province. The total area of the World Heritage property is 289 ha.

Once an important center of global diplomacy and commerce, Ayutthaya is now an archaeological ruin, characterized by the remains of tall prang (reliquary towers) and Buddhist monasteries of monumental proportions, which give an idea of the city's past size and the splendor of its architecture.

Well-known from contemporary sources and maps, Ayutthaya was laid out according to a systematic and rigid city planning grid, consisting of roads, canals, and moats around all the principal structures. The scheme took maximum advantage of the city's position in the midst of three rivers and had a hydraulic system for water management which was technologically extremely advanced and unique in the world.

The city was ideally situated at the head of the Gulf of Siam, equi-distant between India and China and well upstream to be protected from Arab and European powers who were expanding their influence in the region even as Ayutthaya was itself consolidating and extending its own power to fill the vacuum left by the fall of Angkor. As a result, Ayutthaya became a center of economics and trade at the regional and global levels, and an important connecting point between the East and the West. The Royal Court of Ayutthaya exchanged ambassadors far and wide, including with the French Court at Versailles and the Mughal Court in Delhi, as well as with imperial courts of Japan and China. Foreigners served in the employ of the government and also lived in the city as private individuals. Downstream from the Ayutthaya Royal Palace there were enclaves of foreign traders and missionaries, each building in their own architectural style. Foreign influences were many in the city and can still be seen in the surviving art and in the architectural ruins.

The Ayutthaya school of art showcases the ingenuity and the creativity of the Ayutthaya civilization as well as its ability to assimilate a multitude of foreign influences. The large palaces and the Buddhist monasteries constructed in the capital, for example at Wat Mahathat and Wat Phra Si Sanphet, are testimony to both the economic vitality and technological prowess of their builders, as well as to the appeal of the intellectual tradition they embodied. All buildings were elegantly decorated with the highest quality of crafts and mural paintings, which consisted of an eclectic mixture of traditional styles surviving from Sukhothai, inherited from Angkor, and borrowed from the 17th and 18th century art styles of Japan, China, India, Persia and Europe, creating a rich and unique expression of a cosmopolitan culture and laying the foundation for the fusion of styles of art and architecture popular throughout the succeeding Rattanakosin Era and onwards.

Indeed, when the capital of the restored kingdom was moved downstream and a new city built at Bangkok, there was a conscious attempt to recreate the urban template and architectural form of Ayutthaya. Many of the surviving architects and builders from Ayutthaya were brought in to work on building the new capital. This pattern of urban replication is in keeping with the urban planning concept in which cities of the world consciously try to emulate the perfection of the mythical city of Ayodhya. In Thai, the official name for the new capital at Bangkok retains "Ayutthaya" as part of its formal title.

Criterion (iii): The Historic City of Ayutthaya bears excellent witness to the period of development of a true national Thai art.

Integrity

The integrity of the property as the ruins of the former Siamese capital is found in the preservation of the ruined or reconstructed state of those physical elements which characterized this once great city. These consist of first and foremost the urban morphology, the originality of which is known from contemporary maps of the time prepared by several of the foreign emissaries assigned to the Royal Court. These maps reveal an elaborate, but systematic pattern of streets and canals throughout the entire island and dividing the urban space into strictly controlled zones each with its own characteristic use and therefore architecture. The urban planning template of the entire island remains visible and intact, along with the ruins of all the major temples and monuments identified in the ancient maps. Wherever the ruins of these structures had been built over after the city was abandoned, they are now uncovered. In addition, the ruins of all the most important buildings have been consolidated, repaired and sometimes reconstructed.

The designated area of the World Heritage property, which is confined to the former Royal Palace precinct and its immediate surrounding and covers the most important sites and monuments and ensures the preservation of the property's Outstanding Universal Value. Initially it was intended to manage the remaining historic monuments through complementary planning and protection controls, however, present economic and social factors warrant an extension of the historical park to cover the whole of Ayutthaya Island for the protection of all associated ancient monuments and sites as well as to strengthen the integrity of the World Heritage property. Extending the boundaries of the World Heritage property to include the whole of Ayutthaya Island will bring the boundaries of the property into exact conformity with those of the historic city.

Authenticity

The Historic City of Ayutthaya is well-known from historical records. As one of the world's largest cities of its time and a major political, economic and religious center, many visitors recorded facts about the city and their experiences there. The Siamese Royal Court also kept meticulous records; many were destroyed in the sack of the city, but some have remained and are an important source of authenticity. The same can be said for the testimony of works of art, wall painting, sculpture, and palm leaf manuscripts which survive from the period. Of particular note are the surviving mural paintings in the crypt of Wat Ratchaburana. Careful attention to the accurate interpretation of the ruins to the public for educational purposes also contributes to the property's authenticity.

Protection and management requirements

The Historic City of Ayutthaya is managed as a historical park. It is gazetted and protected by Thai law under the Act on Ancient Monuments, Antiques, Objects of Art and National Museums, B.E. 2504 (1961) as amended by Act (No.2), B.E. 2535 (1992), enforced by the Fine Arts Department, Ministry of Culture. There are other related laws enforced by related government units such as the Ratchaphatsadu Land Act, B.E. 2518 (1975), the City Planning Act B.E. 2518 (1975), the Enhancement and Conservation of National Environmental Quality Act, B.E. 2535 (1992), the Building Control Act B.E. 2522 (1979) as amended by Act No. 2, B.E. 2535 (1992), and municipal regulations.

In addition to formal legal protection, there is a Master Plan for the property which has Cabinet approval. Committees for the protection and development of the Historic City of Ayutthaya at the national and local and levels have been established and there are a number of special-interest heritage conservation groups among the non-governmental community.

The budget for the conservation and development of the Historic City of Ayutthaya is allocated by the Government and the private sector.

An extension of the World Heritage property is under preparation which will cover the complete footprint of the city of Ayutthaya as it existed in the 18th century, when it was one of the world's largest urban areas. This will bring other important ancient monuments, some of which are outside of the presently-inscribed area under the same protection and conservation management afforded to the current World heritage property. In addition, new regulations for the control of construction within the property's extended boundaries are being formulated to ensure that the values and views of the historic city are protected. With these changes, all new developments in the modern city of Ayutthaya will be directed to areas outside of the historic city's footprint and the inscribed World Heritage property.

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| Property | State Historical and Cultural Park “Ancient Merv” |
| State Party | Turkmenistan |
| Id. N° | 886 |
| Date of inscription | 1999 |

Brief synthesis

The State Historical and Cultural Park “Ancient Merv” is the oldest and most completely preserved of the oasis cities along the Silk Roads in Central Asia. It is located in the territory of Mary velayat of Turkmenistan. It has supported a series of urban centres since the 3rd millennium BC and played an important role in the history of the East connected with the unparalleled existence of cultural landscape and exceptional variety of cultures which existed within the Murgab river oasis being in continually interactions and successive development. It reached its apogee during the Muslim epoch and became a capital of the Arabic Caliphate at the beginning of 9th century and as a capital of the Great Seljuks Empire at the 11th-12th centuries.

Today “Ancient Merv” is a large archaeological park which includes remains of Bronze Age centres (2500-1200 BC) such as Kelleli, Adji Kui, Taip, Gonur, and Togoluk; Iron Age centres (1200-300 BC) such as Yaz/Gobekli Depes and Takhirbaj Depe; the historic urban centre and the post-medieval city, Abdullah Khan Kala. The inscribed property covers the area of 353 ha with a buffer zone of 883 ha.

The historic urban centre consists of a series of adjacent walled cities: Erk Kala, Gyaur Kala and the medieval Sultan Kala or Marv al-Shahijan. Erk Kala (20ha), is a walled and moated polygonal site with walls surviving to some 30 m and an internal citadel. Gyaur Kala, is roughly square in plan, with walls about 2 km long. In the interior are the remains of a number of important structures: the central Beni Makhan mosque and its cistern; the Buddhist stupa and monastery; and the “Oval Building” consisting in a series of rooms around a courtyard on an elevated platform. Medieval Sultan Kala was walled in the 11th century, with its Mausoleum of Sultan Sanjar (1118-57) which originally formed part of a large religious complex; the fine details of the Mausoleum such as the elegant brickwork, the carved stucco, and the surviving mural paintings, make it one of the most outstanding architectural achievements of the Seljuk period. The walls (12 km) of the medieval city and of the citadel (Shahriyar Ark) are unique and represent two consecutive periods of 11th-13th centuries military architecture, including towers, posterns, stairways, galleries, and in places, crenellation. In addition to these main urban features, there are a number of important medieval monuments in their immediate vicinity such as the Mausoleum of Muhammad ibn Zayd.

The walls of the post medieval city are of exceptional interest, since they continue the remarkable continuous record of the evolution of military architecture from the 5th century BC to the 15th-16th centuries AD.

There are also major monuments from different historical periods in the oasis. Among them it can be mentioned the köshks, one of the most characteristic architectural features of the oasis, fortresses and many fine mosques and mausolea.

Criterion (ii): *The cities of the Merv oasis have exerted considerable influence over the cultures of Central Asia and Iran for four millennia. The Seljuk city in particular influenced architecture and architectural decoration and scientific and cultural development.*

Criterion (iii): *The sequence of the cities of the Merv oasis, their fortifications, and their urban lay-outs bear exceptional testimony to the civilizations of Central Asia over several millennia.*

Integrity

All elements necessary to express the values of the State Historical and Cultural Park “Ancient Merv” are included within the boundaries of the World Heritage property and buffer zone which ensures the complete representation of its significance as an architectural and cultural site.

Ancient Merv represents a system of sites built at different times following the changing course of riverbed of the Murgab river and its gradual shifts from the east to the west. New sites were constructed after old ones were abandoned and never again occupied, thus becoming unique “memory keepers”. Archaeological layers were not covered by the subsequent developments so the ruins of massive earthen buildings retain the characteristics of original structures which did not undergo to reconstruction and alteration.

Conservation actions implemented at the property have centred on addressing current conditions, particularly potential threats such as an anthropogenic change of the landscape and influence of natural factors such as a deflation, underground water levels rising and connected with it a salinisation of earthen constructions.

Authenticity

It is difficult to generalize about the authenticity of so vast and complex a property as the State Historical and Cultural Park "Ancient Merv". The archaeological sites have been relatively untouched and so their authenticity is irreproachable. Restoration and conservation interventions at some of the Islamic religious structures during the 20th century have not been carried out according to existing conservation principles, though they may be defended as essential to stabilize and ensure the continuity of these "living" monuments. They have been well documented and it is possible to reverse them if required. In any case, they represent only a minute proportion of the totality of this ancient landscape and its monuments. Conservation policies for the property will need to consider guidelines that meet current conservation standards so as to prevent potential impacts to the authenticity of the component parts of the property.

Protection and management requirements

The State Historical and Cultural Park "Ancient Merv" was created by decree in 1987 and has additional protection at the national level granted by the provisions of the 1992 Law on the Protection of Turkmenistan Historical and Cultural Monuments. The Park is the property of the Republic of Turkmenistan and all its components are included in the National Heritage List.

Listing in the National Heritage List implies that any proposed action to be taken inside or outside of boundaries of National Heritage place or a World Heritage property that may have a significant impact on the heritage values is prohibited without the approval of the authorized government body. A protection agreement which secures an inviolability of monuments and maintenance of conditions of economic activities and new constructions within boundaries of the buffer zone has been concluded between administration of the Park and local authorities. Archaeological excavations, within the Park require official permits from the Ministry of Culture.

The overall management system for the property is adequate, involving both government administrative bodies and local communities, although plans for the sustainability of the landscape that respect local farming and agricultural traditions need to be better developed.

The present state of conservation is good. The property is maintained and preserved through regular and rigorous repair and conservation programmes.

The Management Plan of the State Historical and Cultural Park "Ancient Merv", currently in place, takes into account a wide range of measures under planning and heritage legislation and policies of the Turkmenistan Government. The Management Plan provides the policy framework for the conservation and management of the "Ancient Merv" and it is scheduled to be updated every 6 years.

In regard to long term management issues, the property requires balanced management of conservation activities and passing both traditional and modern conservation techniques from one generation to the next. Management of high pressure derived from tourism activities and urban growth also will be a long-term concern.

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| Property | Kunya-Urgench |
| State Party | Turkmenistan |
| Id. N° | 1199 |
| Date of inscription | 2005 |

Brief synthesis

Kunya-Urgench is located in the territory of Dashoguz velayat of Turkmenistan. It is situated in the north-western Turkmenistan, on the left bank of the Amu-Daria River. Urgench was the capital of the Khorezm region, which was part of the Achaemenid Empire.

The old town area contains series of monuments mainly from the 11th to 16th centuries. This area has remained a vast deserted land with some remains of ancient fortified settlements, including a mosque, the gates of a caravanserai, fortresses, mausoleums and a 60-m high minaret.

On the sample of Kunya-Urgench monuments one can see all variety of methods and décor of Islamic architecture of Central Asia. There are constructions from adobe and burned bricks, plain unicameral dome constructions up-going to ancient chartak and buildings with complicated compositions, sometimes with a long history of development, repair and reconstruction. These monuments also demonstrate the evolution of methods of treatment of inner surface of domes from cellular sails to stalactite those times called "muqarnas" and brought to the highest perfection by local masters. The best monuments of this city are distinguished by high degree of decorativeness. They provide prominent examples of classical arabesques in monochrome terra-cotta and bright colorfulness of enamel.

The monuments testify to outstanding achievements in architecture and craftsmanship whose influence reached Iran and Afghanistan, and later the architecture of the Mogul Empire of 16th-century India. The Islamic sacred objects concentrated in this city are exceptionally popular places for pilgrims and serve attractive objects for the international tourism.

Criterion (ii): The tradition of architecture expressed in the design and craftsmanship of Kunya-Urgench has been influential in the wider region to the south and southwest i.e. in Iran and Afghanistan, and later in the architecture of the Mogul Empire (India, 16th century).

Criterion (iii): Kunya-Urgench provides an exceptional testimony to a cultural tradition (the Islamic culture of the Khorezm) and is unique in its state of preservation. The society that created this centre has disappeared; however we note that most of visitors are in fact pilgrims from the region.

Integrity

The overall integrity of Kunya-Urgench as an archaeological site results from its historical condition. Having been abandoned for more than three centuries, and then used as a graveyard, the area has remained relatively intact. Accordingly, Kunya-Urgench is considered to have retained its integrity better than most other sites in Central Asia as the attributes of the property are still present.

Authenticity

The authenticity of the property has been preserved in the site layout and the use and the function of the site as a religious centre which is still continuing. It is also preserved as a prominent pilgrimage centre of Islam.

Although the individual monuments are in variable conditions, the principal monuments have retained a substantial amount of original material, representing a reasonable level of authenticity. Other buildings have remained untouched or been more or less substantially reconstructed. The individual monuments have been subject to various degrees of repair, restoration and reconstruction. Seeing the condition before repair, it can be appreciated that in some cases the choice was a complete collapse or partial reconstruction. While taking note of the several reconstructions of individual buildings, the principal monuments are still considered to have retained a reasonable level of authenticity.

Protection and management requirements

The property is protected by national legislation and also has local protection by the local municipality. The State Historical and Cultural Park "Kunya-Urgench", which contains the inscribed property within its limits, was created in 1985 (decree n° 10085). It is registered at the Vilayet (provincial) level (decree 440/16), approved by the State Cabinet of Ministers in 1992. In addition, there are special bylaws, for example, for the protection of the area identified as the buffer zone. The legal protection of the property and its buffer zone is adequate.

All elements of the property are included in the National Heritage List. Listing in the National Heritage List implies that any proposed action to be taken inside or outside of boundaries of a National Heritage place or a World Heritage property that may have a significant impact on the heritage values is prohibited without the approval of the authorized government body. A protection agreement which secures an inviolability of monuments and maintenance of conditions of economic activities and new constructions within boundaries of the buffer zone has been concluded between administration of the State Historical and Cultural Park "Kunya-Urgench" and local municipal authorities.

The property is currently in a good state of conservation with regular maintenance undertaken according to a maintenance schedule.

There are two agencies with management authority: at the local level the administration of the State Historical and Cultural Park "Kunya-Urgench", and at the central level the National Department for the Protection, Study and Restoration of the Historical and Cultural Monuments in Turkmenistan (DPM) in Ashgabat. There is a general management system for the general policies of management and conservation of heritage sites. The system also provides general guidelines. More detailed plans are developed on the basis of these guidelines. Such is the case also with the Kunya-Urgench, which includes a set of guidelines and annual work plans, controlling protection, research and monitoring.

A management plan is currently in place for the property which takes into account a wide range of measures for planning and heritage legislation and policies of the Turkmenistan Government providing the policy framework for the conservation and management of the property which is scheduled to be updated every six years.

In regard to long term management issues, the property requires balanced management of conservation activities and passing both traditional and modern conservation techniques from one generation to the next. Management of high pressure from tourism and urban growth also will be a long-term concern.

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| Property | Historic Centre of Bukhara |
| State Party | Uzbekistan |
| Id. N° | 602 rev |
| Date of inscription | 1993 |

Brief synthesis

The Historic Centre of Bukhara, situated on the Silk Roads, is more than two thousand years old. It is one of the best examples of well preserved Islamic cities of Central Asia of the 10th to 17th centuries, with an urban fabric that has remained largely intact.

Bukhara was long an important economic and cultural center in Central Asia. The ancient Persian city served as a major center of Islamic culture for many centuries and became a major cultural center of the Caliphate in the 8th century.

With the exception of a few important vestiges from before the Mongol invasions of Genghis Khan in 1220 and Temur in 1370, the old town bears witness to the urbanism and architecture of the Sheibani period of Uzbek rule, from the early 16th century onwards. The citadel, rebuilt in the 16th century, has marked the civic center of the town since its earliest days to the present,

Important monuments that survive from early times include the famous Ismail Samanai tomb, impressive in its sober elegance and the best surviving example of 10th century architecture in the whole Muslim world. From the 11th century Karakhanid period comes the outstanding Poi-Kalyan minaret, a masterpiece of decoration in brick, along with most of the Magoki Attori mosque and the Chashma Ayub shrine. The Ulugbek medresseh is a surviving contribution from Temurid. With the advent of the Sheibanids came some of the most celebrated buildings of Bukhara: the Poi-Kalyan group, the Lyabi-Khauz ensemble, the Kosh Medresseh and the Gaukushon medresseh in the Hodja-Kalon ensemble. Later buildings from this phase of Bukhara's history include monumental medressehs at important crossroads: Taki Sarafon (Dome of the Moneychangers), Taki-Tilpak-Furushan (Dome of the Headguard Sellers), Tim-Bazzazan, and Tiro-Abdullah-Khan. In the early 17th century fine buildings were added, including a new great mosque, Magoki Kurns (1637), and the imposing Abdullaziz-Khan medresseh (1652).

However, the real importance of Bukhara lies not in its individual buildings but rather in its overall townscape, demonstrating the high and consistent level of urban planning and architecture that began with the Sheibanid dynasty.

Criterion (ii): *The example of Bukhara in terms of its urban layout and buildings had a profound influence on the evolution and planning of towns in a wide region of Central Asia.*

Criterion (iv): *Bukhara is the most complete and unspoiled example of a medieval Central Asian town which has preserved its urban fabric to the present day.*

Criterion (vi): *Between the 9th and 16th centuries, Bukhara was the largest centre for Muslim theology, particularly on Sufism, in the Near East, with over two hundred mosques and more than a hundred madrasahs.*

Integrity

The property contains all the attributes that sustain its Outstanding Universal Value. Its boundaries and buffer zone are appropriate and adequate. Despite the insensitivity of much of the new construction from 1920 until the 1950s and earthquake damages, Bukhara retains much of its historic ambience and still has a largely intact urban fabric.

However, the integrity of the property is threatened by aggressive impact of salinity and underground water and by termites causing the erosion of wooden structures. In addition, large numbers of the outstanding earthen buildings are in some quarters extremely vulnerable due to the deterioration of the historic fabric.

Authenticity

Bukhara has preserved a great deal of its urban layout that dates from the Sheibanid period. Modern buildings have been erected in the historic centre over the past half-century that have destroyed the appearance of some quarters, but in others the medieval townscape has survived. The proportion of old structures, particularly the public and religious buildings, nonetheless remains high, and the historic centre is unquestionably of outstanding significance as an exceptional example of a largely medieval Muslim city of Central Asia.

In the context of regarding the Historic Centre of Bukhara as an entire entity – expressed through a variety of attributes including urban setting, form and design, use of materials and techniques, functions and tradition – some factors can be recognized as having the potential to impact adversely on the authenticity of the property, namely: (i) the diminishing use of traditional materials and traditional building techniques and introduction of new building materials, as well as new architectural details; (ii) inadequate documentation of major monuments and urban fabric; (iii) urban development pressures resulting in inappropriate designs of new structures.

Protection and management requirements

Relevant national laws and regulations concerning the World Heritage property include the Law on Protection and Exploitation of Cultural Heritage Properties, 2001. Current laws together with urban planning codes provide protection of monuments of cultural heritage and their buffer zones. These documents are reflected in the Master Plan of Bukhara city in 2005. In addition, the Cabinet of Ministers of the Republic of Uzbekistan approved special Decree No. 49 of 23 March 2010 "On State programme on research, conservation, restoration and adaptation to modern use of the cultural heritage properties of Bukhara until 2020". At present this state programme is being implemented which provides an additional layer for the protection and conservation of the property.

Management of monuments of cultural heritage in Bukhara is carried out by the Ministry of Culture and Sports of the Republic of Uzbekistan at national level and Bukhara Regional Inspection for Protection and Utilization of Monuments of Cultural Heritage and local authorities at regional level.

In the framework of protection of cultural heritage of the historic centre of Bukhara, Cabinet of Ministries of the Republic of Uzbekistan adopted a State Programme for complex activities on research, conservation, restoration of monuments of cultural heritage of the Historic Centre of Bukhara and their adaptation to the modern needs for the period 2010-2020. Interventions are strictly regulated in order to ensure the integrity and characteristic elements of monuments. During the realization of the State Programme the monitoring of monuments will be carried out on a permanent base. A management plan, which should include a computerized database, a Master Conservation and Development Plan, a scientific monitoring system, an infrastructure plan, design guidelines, and guidelines and regulations for all tourist services, is required in order to sustain the Outstanding Universal Value of the property and balance the needs for sustainable development. To maintain the conditions of integrity and authenticity, a comprehensive conservation strategy needs to be in place, in particular, to remove cultural layers built on later periods and to reduce the surface of streets to their historical level. Another important aspect is to build capacity in traditional building techniques. At present Urban Planning Scientific-Research and Project Institute is developing a project of detailed planning of historic centre of Bukhara, which will further address these issues.

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| Property | Historic Centre of Shakhriyabz |
| State Party | Uzbekistan |
| Id. N° | 885 |
| Date of inscription | 2000 |

Brief synthesis

The Historic Centre of Shakhriyabz, located on the Silk Roads in southern Uzbekistan, is over 2000 years old and was the cultural and political centre of the Kesh region in the 14th and 15th century.

A collection of exceptional monuments and ancient quarters can be found within the medieval walls, parts of which still remain. The Historic Centre of Shakhriyabz bears witness to the city's secular development and to centuries of its history, and particularly to the period of its apogee, under the empire of Temur, in the 15th century. Construction of elements continued in Shakhriyabz throughout different time periods, lending a unique character to the place by the succession of different architectural styles. Despite the inroads of time, the remaining vestiges are still impressive in the harmony and strength of styles, an enriching addition to the architectural heritage of Central Asia and the Islamic world.

The Ak-Sarai Palace construction began in 1380, the year following Temur's conquest of Khorezm, whose artisans were deported to work on the palace and provide its rich decoration. Although Samarkand may boast a great many Temurid monuments, not one can rival the Ak-Sarai Palace in Shakhriyabz. The foundations of its immense gate have been preserved: this architectural masterpiece is outstanding in its dimensions and bold design.

The Dorus Saodat is a vast complex which was destined as a place of burial for the ruling family and contained, in addition to the tombs themselves, a prayer hall, a mosque, and accommodation for the religious community and pilgrims. The main façade was faced with white marble. The tomb of Temur, also of white marble, is a masterpiece of the architecture of this period and it is also one of the finest memorials to be found in Central Asia.

The covered Chor-su bazaar was built at the cross-roads of two main streets, in the form of an octagon with a central cupola, with no particular decoration but with an eye to the exterior effect of bold architecture. The baths, rebuilt on the site of the 15th century baths and still in use today, are heated by an elaborate network of underground conduits.

Shakhriyabz contains not only outstanding monuments dating from the period of the Temurids, but also mosques, mausoleums, and entire quarters of ancient houses.

In addition to these monuments, the town also offers a variety of interesting constructions of a more modern period, including the Mirhamid, Chubin, Kunduzar, and Kunchibar mosques. Period houses reflect a more popular architectural style, with rooms typically laid out around a courtyard with veranda.

Criterion (iii): *Shakhrisyabz contains many fine monuments, and in particular those from the Temurid period, which was of great cultural and political significance in medieval Central Asia.*

Criterion (iv): *The buildings of Shakhrisyabz, notably the Ak-Sarai Palace and the Tomb of Temur, are outstanding examples of a style which had a profound influence on the architecture of this region.*

Integrity

All the original components of the medieval town including the unique architectural monuments and traditional houses built during the Temurid period are located within the boundaries of the property which is defined by the alignment of the city walls. The historic urban fabric of the town is intact, despite some insensitive insertions made during the Soviet period.

The main factor affecting the physical integrity of monuments is the rising ground water level. Therefore a drainage system is required around the historical area.

Authenticity

The monuments and buildings of Shakhrisabz are a testimony to the architecture and city planning of the Temurid period. The historic centre has retained its original appearance. Most of the buildings and decorative art have been well preserved and are in their original state and care has been taken in restoration works to ensure the use of traditional materials and techniques.

Protection and management requirements

The Historic Centre of Shakhrisyabz was designated as a "Monument of Significance for the Republic" in 1973. The town was entered on the List of Historic Towns under Resolution N°339 of the Council of Ministers of Uzbekistan in 1973.

The relevant legislation of the Republic of Uzbekistan provides sufficient protection for the property and regulates the new urban developments in the historical centre. The property is managed by the Regional Inspection for Protection and Utilization of Cultural Heritage Sites under the Ministry of Culture and Sports with participation of regional authorities.

Monitoring of the monuments is being carried out once or twice a year by the Tashkent State Institute of Architecture and Construction. The main monuments are in good conditions and the income from leased spaces provides the funds for the management of the property. Extra funds would be required from the state for restoration projects such as that of the city walls.

It is necessary to develop a comprehensive conservation and management plan in order to ensure the long-term safeguarding of the property.

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| Property | Samarkand – Crossroads of Cultures |
| State Party | Uzbekistan |
| Id. N° | 603 rev |
| Date of inscription | 2001 |

Brief synthesis

The historic town of Samarkand, located in a large oasis in the valley of the Zerafshan River, in the north-eastern region of Uzbekistan, is considered the crossroads of world cultures with a history of over two and a half millennia. Evidence of settlements in the region goes back to 1500 BC, with Samarkand having its most significant development in the Temurid period, from the 14th to the 15th centuries, when it was capital of the powerful Temurid realm.

The historical part of Samarkand consists of three main sections. In the north-east there is the site of the ancient city of Afrosiab, founded in the 7th century BC and destroyed by Genghis Khan in the 13th century, which is preserved as an archaeological reserve. Archaeological excavations have revealed the ancient citadel and fortifications, the palace of the ruler (built in the 7th century displays important wall paintings), and residential and craft quarters. There are also remains of a large ancient mosque built from the 8th to 12th centuries.

To the south, there are architectural ensembles and the medieval city of the Temurid epoch of the 14th and 15th centuries, which played a seminal role in the development of town planning, architecture, and arts in the region. The old town still contains substantial areas of historic fabric with typical narrow lanes, articulated into districts with social centres, mosques, madrassahs, and residential housing. The traditional Uzbek houses have one or two floors and the spaces are grouped around central courtyards with gardens; built in mud brick, the houses have painted wooden ceilings and wall decorations. The contribution of the Temurid masters to the design and construction of the Islamic ensembles were

crucial for the development of Islamic architecture and arts and exercised an important influence in the entire region, leading to the achievements of the Safavids in Persia, the Moghuls in India, and even the Ottomans in Turkey.

To the west there is the area that corresponds to the 19th and 20th centuries expansions, built by the Russians, in European style. The modern city extends around this historical zone. This area represents traditional continuity and qualities that are reflected in the neighbourhood structure, the small centres, mosques, and houses. Many houses retain painted and decorated interiors, grouped around courtyards and gardens.

The major monuments include the Registan mosque and madrasahs, originally built in mud brick and covered with decorated ceramic tiles, the Bibi-Khanum Mosque and Mausoleum, the Shakh-Zinda compound, which contains a series of mosques, madrasahs and mausoleum, and the ensembles of Gur-Emir and Rukhabad, as well as the remains of Ulugh-Bek's Observatory.

Criterion (i): The architecture and townscape of Samarkand, situated at the crossroads of ancient cultures, are masterpieces of Islamic cultural creativity.

Criterion (ii): Ensembles in Samarkand such as the Bibi Khanum Mosque and Registan Square played a seminal role in the development of Islamic architecture over the entire region, from the Mediterranean to the Indian subcontinent.

Criterion (iv): The historic town of Samarkand illustrates in its art, architecture, and urban structure the most important stages of Central Asian cultural and political history from the 13th century to the present day.

Integrity

The different historic phases of Samarkand's development from Afrosiab to the Timurid city and then to the 19th century development have taken place alongside rather than on top of each other. These various elements which reflect the phases of city expansion have been included within the boundaries of the property. The inscribed property is surrounded by more recent developments, of which parts are in the buffer zone. Afrosiab has been partly excavated and the Timurid and European parts of the city are being conserved as living historic urban areas.

The main listed monuments are well maintained. Some of the medieval features have been lost, such as the city walls and the citadel, as well as parts of the traditional residential structures especially in areas surrounding major monuments. Nevertheless, it still contains a substantial urban fabric of traditional Islamic quarters, with some fine examples of traditional houses.

Notwithstanding, there are several factors that can render the integrity of the property vulnerable that require sustained management and conservation actions.

Authenticity

The architectural ensembles of Samarkand as well as archaeological remains of Afrosiab have preserved all characteristic features related to the style and techniques and have maintained the traditional spatial plans of the urban quarter. However, inadequate restoration interventions as well as the challenges faced in controlling changes, particularly the construction of modern buildings, and the modernization on private properties have affected the authenticity of the property and make the property vulnerable to further changes.

Protection and management requirements

There are adequate legal provisions for the safeguarding of the heritage property. The State Samarkand Historical Architectural Reserve was established under the Decree of the Cabinet of Ministers of the Republic of Uzbekistan (26 May 1982). Within the Reserve all construction and development work is done according to the recommendations of the Samarkand Regional Inspection on Preservation and Restoration of Objects of Cultural Heritage.

The overall responsibility of the management of protected areas is with the Ministry of Cultural and Sport Affairs and the Samarkand provincial government. The operating bodies that influence the conservation and management of the property include the Ministry of Culture and Sports of the Republic of Uzbekistan and the Principal Scientific Board for Preservation and Utilization of Cultural Monuments, the Municipalities of the Samarkand Region and Samarkand city, the Samarkand Regional State Inspection on Protection and Utilization of Cultural Heritage Objects. Decisions on construction/reconstruction within the protective Reserve of Samarkand are taken in consultation with the Samarkand Regional State Inspection on Protection and Utilization of Monuments, or by the Scientific Board on Protection and Utilization of Monuments in Samarkand. Major projects receive approval at the national level.

The Regional State Inspection on Protection and Utilization of Cultural Heritage is in charge of day-to-day activities related to the monuments such as registration, monitoring, technical supervision of

conservation and restoration, or technical expertise of new projects, these are implemented by the Scientific Board on Protection and Utilization of Monuments in Samarkand, which is obtaining the function of a Coordinating Committee and should have the main role to bring together all parties with interest in the conservation and development of Samarkand. Taking into account a scope and a complexity of issues facing the property, site management system could be strengthened through an operational unit.

The sustained implementation of the Management Plan is needed to ensure to further improve the cooperation between the various national and local authorities and set international standards for conservation. Several factors that can pose a threat to the conditions of integrity and authenticity of the property need to be systematically addressed through the implementation of an integrated conservation strategy, that follows internationally accepted conservation standards, as well as through the enforcement of regulatory measures. The management system will need to be integrated into other planning tools so that the existing urban matrix and morphology of the world heritage property are protected.

Funding is provided by the State budget, extra-budgetary sources and sponsorship. Resources needed for all aspects of conservation and development of the property should be secured to ensure the continuous operation of the management system.

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|---------------------|-------------------------|
| Property | My Son Sanctuary |
| State Party | Viet Nam |
| Id. N° | 949 |
| Date of inscription | 1999 |

Brief synthesis

During the 4th to 13th centuries there was a unique culture on the coast of contemporary Vietnam, owing its spiritual origins to the Hinduism of India. This is graphically illustrated by the remains of a series of impressive tower temples in a dramatic site that was the religious and political capital of the Champa Kingdom for most of its existence.

My Son Sanctuary dates from the 4th to the 13th centuries CE. The property is located in the mountainous border Duy Xuyen District of Quang Nam Province, in central Viet Nam. It is situated within an elevated geological basin surrounded by a ring of mountains, which provides the watershed for the sacred Thu Bon river. The source of the Thu Bon river is here and it flows past the monuments, out of the basin, and through the historic heartland of the Champa Kingdom, draining into the South China Sea at its mouth near the ancient port city of Hoi An. The location gives the sites its strategic significance as it is also easily defensible.

The tower temples were constructed over ten centuries of continuous development in what was the heart of the ancestral homeland of the ruling Dua Clan which unified the Cham clans and established the kingdom of Champapura (Sanskrit for City of the Cham people) in 192 CE. During the 4th to 13th centuries CE this unique culture, on the coast of contemporary Viet Nam, owed its spiritual origins to the Hinduism of the Indian sub-continent. Under this influence many temples were built to the Hindu divinities such as Krishna and Vishnu, but above all Shiva. Although Mahayan Buddhist penetrated the Cham culture, probably from the 4th century CE, and became strongly established in the north of the kingdom, Shivite Hinduism remained the established state religion.

The monuments of the My Son sanctuary are the most important constructions of the My Son civilization. The tower temples have a variety of architectural designs symbolizing the greatness and purity of Mount Meru, the mythical sacred mountain home of Hindu gods at the center of the universe, now symbolically reproduced on Earth in the mountainous homeland of the Cham people. They are constructed in fired brick with stone pillars and decorated with sandstone bas-reliefs depicting scenes from Hindu mythology. Their technological sophistication is evidence of Cham engineering skills while the elaborate iconography and symbolism of the tower-temples give insight into the content and evolution of Cham religious and political thought.

The My Son Sanctuary is a remarkable architectural ensemble that developed over a period of ten centuries. It presents a vivid picture of spiritual and political life in an important phase of the history of South-East Asia.

The monuments are unique and without equal in Southeast Asia.

Criterion (ii): The My Son Sanctuary is an exceptional example of cultural interchange, with an indigenous society adapting to external cultural influences, notably the Hindu art and architecture of the Indian sub-continent.

Criterion (iii): The Champa Kingdom was an important phenomenon in the political and cultural history of South – East Asia, vividly illustrated by the ruins of My Son.

Integrity

The Hindu tower temples of the My Son Sanctuary are located within a well-protected property with clearly defined boundaries. Eight groups of 71 standing monuments exist as well as extensive buried archaeology representing the complete historic sequence of construction of tower temples at the site, covering the entire period of the existence of the Champa Kingdom.

Conservation of the My Son monuments began in the early part of the 20th century CE soon after their discovery in modern times by French archaeologists. During World War II, the First Indo-China War and, especially, during the Second Indo-China War, many tower temples were damaged. However, conservation work has been carried out and the remaining tower temples have been maintained and are well-preserved.

The site is at risk from severe climatic conditions such as flooding and high humidity, though stream widening and clearance of surrounding vegetation have minimized these impacts. There remains an enduring issue of the possible presence of unidentified, unexploded ordnance within the boundaries of the property's buffer zone, which has affected the archaeological research of newly-discovered areas, restoration of eight monumental areas, as well as site presentation for visitors.

Authenticity

Our understanding of the authenticity of the My Son Sanctuary is underpinned by the work of Henry Parmentier in the early 20th century. Historically, investigation by archaeologists, historians, and other scholars in the 19th and early 20th century has recorded the significance of the site through its monuments, which are masterpieces of brick construction of the period, both in terms of the technology of their construction and because of their intricate carved-brick decorations. The location and the sacred nature of the site ensured that the monuments have remained intact within their original natural setting, although many have suffered some damage over the years. Conservation interventions under French and Polish expert guidance have been relatively minor and do not affect the overall level of authenticity of the site. The authenticity of My Son in terms of design, materials, workmanship, and setting continues to support its Outstanding Universal Value.

Protection and management requirements

The property was recognized as a National Site in 1979 by the Culture Ministry and as a Special National site in 2009 by the national government. All local and national authorities must act according to the provisions of the Cultural Heritage Law (2001 amended 2009).

Overall responsibility for the protection of the property rests with the Ministry of Culture, Sports and Tourism, operating through its Department of Preservation and Museology. This responsibility is devolved to the Quang Nam Provincial Department of Culture, Sport and Tourism which collaborates closely with the People's Committee of Duy Xuyen District, which has established My Son Management Board of Relics and Tourism. Account is taken of the special needs of the historic heritage in the Nation Plan for the Development of Tourism and in the General Plan for the Socio – Economic Development of Duy Xuyen District.

A strategy for the revision of the Conservation Master plan of My Son is being developed as part of the current UNESCO Asia- Pacific World Heritage site project for My Son, and should be integrated within an up to date Management Plan for the site.

After the unification of Viet Nam in 1975, conservation work began again in earnest and now the conservation of the property is of a high standard with both national and international teams working on site.

Although the Vietnamese authorities demined unexploded ordnance at four main monuments since 1975, this is progressing slowly and much de-mining work remains to be carried out.

To further the safeguarding of the property, the Prime-Minister of Viet Nam promulgated Decision 1915/QĐ-TTg, which gave formal approval and provided budgetary support for the property's Master Plan (2008 to 2020) for the conservation and tourism promotion of the property.

The management of the forested areas surrounding the site needs to be improved to allow better environmental protection of the property. Detailed monitoring of these areas for the effects of extreme climatic conditions should continue to be addressed, and should be included in the future long-term management of the property.

With significantly increased numbers of tourists visiting the site, managing its carrying-capacity will be increasingly important and should also be addressed as part of a Management Plan as is required for the site.

It is essential to continue with the de-mining work to ensure the safety of people and to allow appropriate access and understanding of the monuments in their setting.

C.3 EUROPE AND NORTH AMERICA

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| Property | Historic Centre (Old Town) of Tallinn |
| State Party | Estonia |
| Id. N° | 822 bis |
| Dates of inscription | 1997 – 2008 |

Brief synthesis

The Historic Centre (Old Town) of Tallinn is an exceptionally complete and well-preserved medieval northern European trading city on the coast of the Baltic Sea. The city developed as a significant centre of the Hanseatic League during the major period of activity of this great trading organization in the 13th-16th centuries.

The combination of the upper town on the high limestone hill and the lower town at its foot with many church spires forms an expressive skyline that is visible from a great distance both from land and sea.

The upper town (Toompea) with the castle and the cathedral has always been the administrative centre of the country, whereas the lower town preserves to a remarkable extent the medieval urban fabric of narrow winding streets, many of which retain their medieval names, and fine public and burgher buildings, including town wall, Town Hall, pharmacy, churches, monasteries, merchants' and craftsmen' guilds, and the domestic architecture of the merchants' houses, which have survived to a remarkable degree. The distribution of building plots survives virtually intact from the 13th-14th centuries.

The Outstanding Universal Value of the Historic Centre (Old Town) of Tallinn is demonstrated in its existence as an outstanding, exceptionally complete and well preserved example of a medieval northern European trading city that retains the salient features of this unique form of economic and social community to a remarkable degree.

Criterion (ii): *The Historic Centre of Tallinn, among the most remote and powerful outposts of the colonizing activities of the Hanseatic League in the north-eastern part of Europe in the 13th-16th centuries, provided a crucible within which an international secular-ecclesiastical culture resulting from the interchange of Cistercians, Dominicans, the Teutonic Order and the traditions of the Hanseatic League, formed and was itself exported throughout northern Europe.*

Criterion (iv): *The town plan and the buildings within it constitute a remarkable reflection of the coexistence of the seat of feudal overlords and a Hanseatic trading centre within the shelter of a common system of walls and fortifications.*

Integrity

The boundaries of the inscribed World Heritage property and its buffer zone were modified in 2008 in order to bring the boundaries of the inscribed property in conformity with the boundaries of the Tallinn Old Town Conservation Area, recognized as a national monument in Estonia. The historic centre of Tallinn World Heritage property (thus increased from 60 ha. to 113 ha.) now encompasses the upper town (Toompea), the lower town inside the medieval walls, as well as the 17th century historic fortifications surrounding the entire Old Town, and a range of primarily 19th century structures, streetscapes and views, which today form a green area around the medieval city. This modification has ensured inclusion of all primary elements contributing to the outstanding universal value of the property, and strongly enhanced its completeness and integrity.

The buffer zone, increased from 370 ha to 2253 ha, also in 2008, now protects the immediate setting of the inscribed property in a much more complete fashion. Extended to the sea to include views from Viimsi and Kopli peninsulas, the buffer zone now includes 9 view sectors and 5 view corridors.

To date, Tallinn has maintained its characteristic skyline visible from both the sea and the land. The characteristic skyline however could be vulnerable because of planned high rise development outside the buffer zone.

Authenticity

The site preserves to a remarkable extent the medieval urban structure of building plots, streets and squares, set out in the 13th century, as well as medieval urban fabric. The radial street network is well endowed with buildings from the 14th-16th centuries. The town defences have been preserved over large sections at their original length and height, rising to over 15m in places.

In addition to architectural continuity, Old Town has retained its traditional use as a living city, hosting domestic, commercial and religious functions, and retaining the upper town as the administrative centre of the country. Nevertheless increasingly historic residential buildings are being refurbished for touristic or public use and thus subject to increased life safety and accessibility requirements.

The authentic setting of the inscribed World Heritage property includes some significant architecture from the late 19th century and early 20th century including theatres and schools as well as a number of exceptional wooden suburbs which form an integral part of the historic, urban fabric round Tallinn Old Town.

Until recently the survival of the wooden quarters was threatened by unclear ownership in the years following independence and in a general indifference to the qualities they offered residents. This latter could be seen in a lack of maintenance, and inappropriate upgrading and repair approaches. Today however the situation is turned around and these wooden areas are much valued, and adequate measures are in place to maintain their authenticity.

Protection and management requirements

The Tallinn Old Town conservation area established in 1966 by regulation Nr 360 of the Council of Ministers of the Estonian Socialist Soviet Republic (ESSR), and confirmed in 1996 by the Ministry of Culture of the Republic of Estonia, was the first conservation area established in the former USSR. It was intended to sustain the well-preserved physical substance and integrity of the entire property.

Several contemporary legislative and local government documents also complement the protection of the values of Tallinn Old Town and regulate its administration. These include the Statutes of the Heritage Conservation Area of Tallinn Old Town (Historic Centre) based upon the Heritage Conservation Act of 2002 (amended in 2011). These Statutes, fully applicable to the inscribed property following increase of the boundaries of the property in 2008 and its buffer zone, are focused on managing preservation, conservation, planning and building activities within the area and related supporting administrative arrangements. More specifically, the Statutes provide for maintaining the historic plot structure, building volume and density, historic structures and details of the World Heritage property.

The revised Heritage Conservation Act ensures that research and design permits and activity licensing provisions apply to all structures within the World Heritage property, not just listed monuments. These ensure that all necessary historical and archaeological research is conducted before any building activity is carried out in the inscribed property.

Responsibility for implementation of these regulations and statutes is shared between the National Heritage Board and the Tallinn City Government. Overall supervision is conducted by the National Heritage Board (state level), while the Tallinn Cultural Heritage Department (municipal level) is in charge of direct implementation of the statutes. Experts of the Heritage Conservation Advisory Panel provide consultation on specific questions and issues. Decisions concerning planning and building within the World Heritage property are made by consensus of the National Heritage Board and Tallinn City Government.

The Tallinn Old Town Management Committee has been established in 2010 to strengthen cooperation and co-ordination among responsible organizations, NGOs, local community and other stakeholders. It is also responsible for approving, enhancing and monitoring implementation of the comprehensive management plan of the property (scheduled to be finalized by December 2011). The latter plan will replace the "Development Plan of Tallinn Old Town" 2008-2013, enacted on 28 August 2008, and give prominence to protecting the Outstanding Universal Value of the property.

Existing management provisions are aided by municipal initiatives (appointment of a full time archaeologist the Cultural Heritage Department in 2010, to increase provisions for archaeological monitoring where new work is envisioned) and guidance obtained from important public forums (e.g., the May 2002 conference "Alternatives to Historical Reconstruction in UNESCO World Heritage Cities" whose concluding resolution provides a number of key principles guiding future development within the inscribed property).

Future management strategies should support efforts to strengthen provisions for sustaining authenticity and integrity. Management strategies must attempt to balance residential use with other private/public uses which may threaten the authenticity of the affected structures. The threat to integrity from high rise development outside of the buffer zone is partly addressed in the thematic plan "Framework for high-rise buildings in Tallinn" (adopted by Tallinn City Council in 2008), which contributes to the protection of the skyline, and associated view sectors and view corridors. However effective use of the Thematic Plan to fully preserve the visual integrity of the World Heritage property requires efforts to strengthen consensus among all concerned stakeholders about effective means for in situ implementation of the Plan in all identified view sectors.