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# **EVALUATIONS OF CULTURAL PROPERTIES**

# – ADDENDUM –

Prepared by the International Council on Monuments and Sites (ICOMOS)

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2004

## Mazagan (Morocco)

## No 1058 Rev

#### 1. BASIC DATA

State Party:	Morocco
Name of property:	Portuguese City of Mazagan (El Jadida)
Location:	Region: Doukkala-Abda, Province El Jadida
Date received:	31 April 2004

Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *group of buildings*.

#### Brief description:

The Portuguese fortification of Mazagan, now part of the city of El Jadida in Morocco, was built as a fortified colony on the Atlantic coast in the early 16th century. It was taken over by the Moroccans on the departure of the Portuguese in 1769. The fortification with its permanent system of bastions and ramparts is an early example of Renaissance military design. The surviving Portuguese buildings include the cistern and the Church of the Assumption, built in the Manueline style of late Gothic architecture. From the mid 19th century, when it became known as El Jadida (The New), the city has developed into a multi-cultural commercial centre.

#### 2. THE PROPERTY

#### Description

The fortification of Mazagan is situated on the Atlantic coast, about 90km south-west of Casablanca, and faces a natural bay of great beauty. The modern part of the city of El Jadida has developed around the landward side of the Mazagan fortress. Today the city is of great economic and tourist interest, situated as it is in a region rich in production, and also rich in heritage related to the Portuguese period.

The design of the Fortress of Mazagan is a response to the development of modern artillery in the Renaissance. The star form of the fortress measures c 250m by 300m. The slightly inclined, massive walls are c 8m high on average, with a thickness of 10m, enclosing a patrolling peripheral walkway 2m wide. At the present time the fortification has four bastions: the Angel Bastion in the east, St Sebastian in the north, St Antoine in the west, and the Holy Ghost Bastion in the south. The fifth, the Governor's Bastion at the main entrance, is in ruins, having been destroyed by the Portuguese in 1769. The fort had three gates: the Seagate, forming a small port with the north-east rampart, the Bull Gate in the north-west rampart, and the main entrance with a double arch in the centre of the south rampart, originally connected to land via a drawbridge. A ditch, c 20m wide and 3m deep, formerly filled with seawater, surrounded the

fort. During the time of the French Protectorate the ditch was filled in with earth and a new entrance gate was opened leading to the main street, the Rua da Carreira, and to the Seagate. Along this street are situated the best preserved historic buildings, including the Catholic Church of the Assumption and the cistern.

Two Portuguese religious ensembles are still preserved in the citadel. *Our Lady of the Assumption* is a parish church built in the 16th century; it has a rectangular plan (44m x 12m), a single nave, a choir, a sacristy, and a square bell tower. The second structure is the chapel of *St Sebastian* sited in the bastion of the same name.

The 19th century *Mosque* in front of the Church of the Assumption delimits the urban square, the Praça Terreiro, which opens toward the entrance of the city. The minaret of the mosque is an adaptation of the old Torre de Rebate, originally part of the cistern, showing historical continuity.

A part of the ensemble in the citadel is the *Cistern*, the design of which is attributed to Joao Castilho. The building consists of a nearly square plan (47m x 56m), with three halls on the north, east, and south sides, and four round towers: Torre da Cadea (of the prison) in the west, Torre de Rebate in the north, the Tower of the Storks in the east, and the ancient Arab tower of El-Brija in the south. The cistern has a central hall (33m x 34m) which is partly underground and constructed with stone pillars and brick vaults in the Manueline manner (a version of Gothic from the reign of King Manuel I, 1495–1521). The waters are conducted to the cistern through a system of channels from the citadel.

The terrace of the ensemble had the *Residence of the Captain*, a small *hospital*, and the small *Church of the Misericordia*, of which only the ruins of the bell tower remain. The *synagogues* were built in the fortress following the arrival of Moroccan Jews in the 19th century. There is a *Spanish church* close to one of the mosques, a masterpiece of the late 19th century, which was used by merchants and ambassadors. There are a number of wealthy *residential buildings*, documenting the Moroccan cohabitation with Belgians, Dutch, French, Italians, and Spaniards at the beginning of the 20th century. Other impressive buildings of the same period exist in the proposed buffer zone outside the ramparts.

#### History

The Portuguese first settled the site of Mazagan in 1502, after it had been a Portuguese protectorate since 1486. The name Mazagan, which occurs in Arabic and foreign documents from the 11th century, was pronounced Mazagao in Portuguese. The only construction on the site was a tower called el-Brija. After some years in temporary shelters, the Portuguese decided in 1514 to build a citadel, designed by the brothers Francisco and Diogo de Arruda, who also worked on other fortifications in Moroccan medinas. In 1541, after the loss of Agadir, the Portuguese decided to enlarge the citadel into a fortification. The design was entrusted to a team of engineer-architects, consisting of the Portuguese Joao Ribeiro, the Spaniard Juan Castillo, and the Italian Benedetto da Ravenna. From 1541 to 1548 the governor of the fortress was Louis de Loureiro, already in Ceuta in Brazil and Mogador in Timor. In this period, Mazagan underwent rapid urban development, including the construction of religious ensembles, responding to the requirements of this period of religious confrontation. By the end of the century, there were four churches and several chapels within the fortification.

After more than two and half centuries of occupation the Lusitanian period of Mazagan, the last Portuguese stronghold in Morocco, ended in 1769. Following the peace treaty with Sultan Sidi Mohamed Ben 'Abdallah (1757–90), the Portuguese were obliged to depart from the Seagate without taking any of their belongings. They mined the main entrance, which exploded when the Moroccans forced it, causing many victims. As a result of these explosions, the Governor's Bastion and a large part of the main rampart were destroyed. The city remained uninhabited for nearly half a century and was called al-Mahdouma (The Ruined). In the mid-19th century, Sultan Moulay 'Abderrahman ordered the Pasha of the region to rebuild the lost parts of the fortification (in a style differing somewhat from the rest), to build a mosque, and to rehabilitate this former Portuguese city. The name Mazagan was now banned, and the city was called al-Jadida (The New, The Novel).

The mosque of El Jadida became a sign of purification, but this did not mean destruction of all the testimonies and places of cult of the previous period. Muslims, Jews, Moroccans, and other nationalities cohabited in the ramparts; the Portuguese church remained in front of the mosque, although it was no longer used for cult purposes, and synagogues were erected elsewhere in the city. The religious and racial plurality was intensified with the arrival of new European merchants, missionaries, and ambassadors in the second half of the 19th century in this town, known then by the French as *Le Deauville marocain*, referring to a renowned bathing resort in France.

#### Management regime

#### Legal provision:

The buildings within the fortification are mainly in private ownership, but the State and the local authority own part of the structures.

The site is protected under a series of legal orders for the protection of historic sites and monuments, inscriptions, works of art, and antiquities on the basis of the national legislation (Law No 1-80-341 of 25.12.1980, and Decree No 2-81-25 of 22.10.1981), which control any works of repair, restoration, or change and forbid any defacing or demolition of historic structures.

#### Management structure:

The management of the site is the responsibility of the Ministry of Cultural Affairs (Direction of Cultural Heritage, *Centre du Patrimoine Maroco-Lusitanien, Institut National des Sciences de l'Archéologie et du Patrimoine*), the Local Authority (Mayor of El Jadida) responsible for utilities, infrastructures, and planning, the Prefecture of the Province (coordination and supervision), and the Ministry of Tourism (finances and promotion).

Since its creation in 1994, the *Centre du Patrimoine Maroco-Lusitanien* (CPML), in collaboration with the Municipality of El Jadida, has been responsible for the definition of the strategies and objectives for the programme of activities. The scope of the institute is to prepare an inventory of historic structures, identify the typology of all buildings, contribute to research, restoration, conservation, and *mise-en-valeur* of the site, collect and diffuse traditional arts, and promote the study of the common heritage of Morocco and Portugal. There is still need to improve the maintenance and presentation of various parts of the site, which is the concern of the Municipality and the *Centre du Patrimoine*, and also of the *Association pour la Sauvegarde de la Cité*, a grassroots association created spontaneously by the inhabitants.

It was noted by the ICOMOS mission (2001) that there is a need for a clear management plan for the site and its surroundings, as well as coherent guidelines for interventions both in the public domain and in private properties. Particular attention should be given to establishing an extensive buffer zone, which should have appropriate planning control in order to maintain the visual integrity of the fortification. Height control even at a distance from the fort itself is therefore important.

#### Resources:

Finances for the management are provided by the different levels of administration, including state, province and city budgets, as well as the Moroccan-Portuguese collaboration.

There are 3,700 inhabitants in the Portuguese city of Mazagan, and ca. 2000 in the proposed buffer zone.

There are some 50,000 tourists / year lodging in hotels.

#### Justification by the State Party (summary)

*Criterion ii:* The Portuguese city of Mazagan is testimony to considerable influences between Europe and Morocco, from the  $16^{\text{th}}$  to  $18^{\text{th}}$  centuries, concerning architecture, technology and urban planning. The notable buildings include: the cistern, the fortification, the ramparts, and the ditch.

*Criterion iv:* The city of El Jadida, on the route to India, is a foremost example of an architectural ensemble recording the Portuguese rule at the time of the great discoveries. The city is considered the most outstanding and the best preserved military ensemble of the Renaissance, and of the Portuguese expansion in the world.

#### 3. ICOMOS EVALUATION

#### Actions by ICOMOS:

An ICOMOS expert evaluation mission was undertaken to the site in September 2001.

Following the ICOMOS recommendation, the 26<sup>th</sup> session of the Bureau of the World Heritage Committee, in April 2002, decided the following:

While recognizing the outstanding universal value of the proposed nomination, the Bureau decided that further consideration of this nomination be **deferred** subject to the

redefinition of the site to include the whole area of the defensive system (the ditches), the extension of the buffer zone, the completion and implementation of the management plan and conservation guidelines for the site, and the establishment of planning control for the surrounding area, including the clarification of the impact of proposed new development near the fortification.

Taking into account that the present nomination is limited to the Portuguese fortification of Mazagan, consideration should be given to the possibility of changing the name: "The Portuguese City of Mazagan (El Jadida)."

#### Conservation

#### Conservation history:

When the Portuguese garrison left the fortification as a result of the treaty with the Sultan Sidi Mohamed Ben 'Abdallah, in 1769, they mined the main entrance and a large part of the main rampart, which exploded when the Moroccans entered the fort. The city was then abandoned for some fifty years until it was rehabilitated by the Moroccan Muslim and Jewish population in the mid 19th century on the orders of Sultan Moulay 'Abderrahman. With the subsequent development the population formed an international trading centre, representing different religions and races. The destroyed ramparts were rebuilt, to a slightly different design, and the new constructions inside the fort included a mosque, synagogues, and highquality residential buildings. There were relatively small alterations to the fortifications, even though some buildings (churches and chapels) were demolished and replaced with new. The typology of most of the Portuguese houses has since been altered but the original structure of the urban layout has been retained, and the Portuguese street names were again applied in 1937.

#### State of conservation:

Between 1994 and 1998 a number of restoration projects were undertaken in collaboration with Ministries, the Province, and the Municipality. These works have addressed about one-third of the listed buildings, including the external walls and a lateral hall of the citadel, part of the rampart walls and bastions, nearly half the round walk, and the bell tower of the Church of Assumption. Other works remain to be carried out in order to complete the programme.

Works have also included the rehabilitation of the churchsynagogue of St Sebastian as a cultural centre, using some of the spaces of the citadel for exhibitions and the *Praça Terreiro* area as an open-air theatre. A project has been undertaken for the preparation of measured drawings of the buildings within the fortification.

#### Management:

The State Party has responded to ICOMOS' requests with letters dated 26 April and 31 May 2004, confirming that the authorities are implementing the recommendations formulated by the Bureau of the World Heritage Committee in 2002. It is noted that the urban master plan of El Jadida has been updated in 1993. On 15 May 2004, an architect has been appointed to prepare the management plan within one year. The plan will be legally enforced, and will include the norms to be applied in the

conservation management of the Portuguese city and its surroundings. It will also define more precisely the zones of protection and control. In the mean time, a commission, chaired by the Governor of El Jadida, has prepared a framework for the urban management of the area. This is currently being approved by the City Council.

Several projects have been undertaken inside and outside the old city in order to improve the infrastructures, parking, green areas, etc. The area containing the former fortification ditch, now filled in with earth, has been declared a "*zone non aedificandi*", ca. 50m deep. Here, some ruinous structures have been demolished, and the general condition of the area has been improved, with the introduction of a green area. On the seaside, the authorities have initiated a project restoring the old port area. The purpose is to liberate the eastern side of the fortification and to reveal the water ditch. A buffer zone has been established, ca. 100m deep, corresponding to the depth of two building blocks on the landside, where the building heights have been limited to 7.50m and 15.00m.

The project for a new tourist ensemble, foreseen just outside the fortification, has now been suspended. A new project, AZUR, named tourist project "Mazagan", has been launched to be built on the north side of the old town.

#### Risk analysis:

The principal risk of the Portuguese city of Mazagan concerns its visual integrity in relation to the surrounding urban area of El Jadida. The town has been built on the plane of the seashore. At the moment, the Portuguese city is harmonious with the surrounding modern town. However, any tall constructions even further behind would easily risk to break the visual integrity of the site. Considering that the current buffer zone is relatively small, the authorities should be encouraged to complement it with a more general building height control

#### Authenticity and integrity

The significant phases in the history of the city of El Jadida include: 1. Portuguese domination from the16th to the 18th centuries, followed by abandonment; 2. 19th century rehabilitation; and 3. modern development.

Even though a part of ramparts was damaged in the 1769 explosion, the fortification has well resisted the effects of time. The destroyed area was rebuilt in the 19th century in a somewhat different form. The general layout of the urban fabric inside the fortress has been retained, and a number of historic buildings remain from the Portuguese period, including churches and the cistern. However, most of the residential buildings date from the Moroccan period, ie from the 19th and early 20th centuries. The constructions and modifications obviously form part of the historic evolution of the site.

The site continues being inhabited by the local population, who mainly work at fishing and in administration. The fortification wall, which has isolated the fortress from the rest of the town, has helped to maintain its original character until the present day. As mentioned above, the surrounding ditch was filled in and a new entrance gate was opened leading to the main street. The precise outline and the external appearance dominate the views over the harbour area and are obviously an essential feature to maintain. From the point of view of integrity, the urban area surrounding the old town of Mazagan should be given serious consideration in view of the control of any changes or new constructions.

As a whole, the site can be seen to pass the test of authenticity and integrity.

#### Comparative evaluation

The development of firearms and military tactics from the 15th century brought about important changes in the design of fortifications. Many leading Renaissance artists and architects were involved in the development of new design criteria, often associated with the planning of ideal towns. They included, in the 15th century: Alberti, Francesco di Giorgio Martini, Filarete (the ideal city of Sforzinda), and Biagio Rossetti, Ferrara (designed in 1497; inscribed in 1995/1999; criteria ii, iii, iv, v, vi), and in the 16th century: Antonio da Sangallo, Leonardo da Vinci, Albrecht Dürer, Michelangelo, and Girolamo Marini (Vitry-le-François, 1545).

Parallel to these developments, Portugal became the first leader of European colonization overseas, from the late 15th century, establishing strongholds in Africa, Asia, and South America. The new ideas were introduced into the design of fortifications in the 16th century. The fortress of Mazagan (1541–48), built by the team of the Italian Benedetto da Ravenna, the Portuguese Joao Ribeiro, and the Spaniard Juan Castillo, can be seen as one of the earliest examples of the implementation of these new design concepts; its architectural form is also distinct from other Portuguese fortifications built in this period or earlier.

In the World Heritage site of the Forts and Castles, Volta Greater Accra, Central and Western Regions in Ghana (inscribed in 1979; vi), the Elmina Castle can be seen as the closest reference to Mazagan. It was built in the 1480s as the first Portuguese stronghold in this region, but was conquered by the Dutch in 1637. This fort, however, still represents a medieval type, and it is a much smaller structure than Mazagan. The other castles in Ghana are mainly 17th century. In the 15th century the Portuguese also founded the settlement on the Island of Gorée in Senegal (inscribed in 1978; vi), but here the existing constructions are much later in date.

The Portuguese founded a large number of settlements, many of them in West Africa, as well as in Mozambique, Sri Lanka, India, and Brazil. Many of these settlements were later occupied by others, such as the Dutch and the British, and the Portuguese constructions were often substantially modified or replaced. The nomination dossier also refers to Mazagao Nova in Brazil, built by the Portuguese after their departure from Mazagan in 1769, but this is a more modest structure in a different cultural context.

It should be noted that the following historic towns in Morocco are on the World Heritage List: the Medina of Fez (1981; ii, v), the Medina of Marrakesh (1985; i, ii, iv, v), the Ksar of Aït-Ben-Haddou (1987; iv, v), the Historic City of Meknes (1996; iv), the Medina of Tétouan (formerly known as Titawin) (1997; ii, iv, v), and the Medina of Essaouira (formerly Mogador) (2001; ii, iv). However, these cities were founded much earlier, from the 8th to the 11th centuries, and have different characteristics compared to Mazagan, which dates from the 16th century.

#### Outstanding universal value

#### General statement:

The Portuguese City of Mazagan (El Jadida) is an outstanding example of the exchange of influences between Europe and Morocco from the 16th to the 19th centuries. The brothers Francisco and Diogo de Arruda built the first citadel of 1514. This was expanded in 1541–48 into a star-shaped fortress, constructed by Joao Ribeiro and Juan Castillo to the design of the Italian architect Benedetto da Ravenna. The fortress is an early example of the introduction of new Renaissance ideas and their implementation in the context of Portuguese colonies in Africa. After the departure of the Portuguese in 1769 and the subsequent abandonment, the city was rehabilitated in the mid 19th century as El Jadida (The New), becoming a commercial centre and multi-cultural community with Muslim, Jewish, and Christian members.

#### Evaluation of criteria:

*Criterion ii:* The proposed nomination can be considered an outstanding example of the interchange of influences between European and Moroccan cultures. The Portuguese were leaders in the early exploration and exploitation of other continents as colonies starting in the 15th century. The site of Mazagan was one of their early settlements in West Africa, and it was also a stopping place on the route to India. The different cultural influences continued from the Portuguese period through to the 19th century, when the city became an important commercial and cultural centre on the Atlantic coast, a multicultural society with Moroccan Muslim, Jewish, and Christian components. These influences are well reflected in the architecture, technology, and town planning of the site.

*Criterion iv:* Parallel to the exploration of new continents, new types of firearms were developed, leading to the need to improve design concepts in the construction of fortifications as a permanent bastioned systems. An outstanding example of the implementation of the new trends is represented in the Portuguese fortress of Mazagan, an early example reflecting Renaissance ideals integrated with Portuguese construction technology. The admirable choice of the position and the outstanding quality of the design of the fortress no doubt contributed to its defensibility over the two and a half centuries of Portuguese occupation here.

The design and construction of the star-formed fortification represents an outstanding and early example of the new design concepts of the Renaissance period. The form and the overall layout of the fortress have been well retained, representing an outstanding example of its kind. The historic fabric inside the fortress reflects the various changes and influences over centuries. The existing monuments from the Portuguese period include: the cistern, an outstanding example of its kind, and the Catholic Church of the Assumption, both representing late Gothic architecture, the so-called Manueline style of the early 16th century.

#### 4. ICOMOS RECOMMENDATIONS

#### **Recommendation** for the future

ICOMOS compliments the State Party for the efforts already made to meet the requirements for inscription. At the same, it stresses the need to control the building heights and any changes in the existing urban environment, even beyond the buffer zone, so far as these could impact on the visual integrity of the nominated property.

#### Recommendation with respect to inscription

That the property be inscribed on the World Heritage List on the basis of *criteria ii and iv*:

*Criterion ii:* The Portuguese city of Mazagan is an outstanding example of the interchange of influences between European and Moroccan cultures, and one of the early settlements of the Portuguese explorers in West Africa, on the route to India. These influences are well reflected in architecture, technology, and town planning.

*Criterion iv:* The Portuguese fortified city of Mazagan is an outstanding and early example of the realisation of the Renaissance ideals integrated with Portuguese construction technology. Notable buildings from the Portuguese period include: the cistern, and the church of the Assumption, built in the Manueline style of the early 16th century.

ICOMOS, June 2004

## **Orkhon Valley (Mongolia)**

## No 1081 Rev

### 1. BASIC DATA

State Party:	Mongolian People's Republic
Name of property:	Orkhon Valley Cultural Landscape
Location:	Orkhon-Kharkorin Region
Date received:	9 January 2002

#### Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a site. In terms of Operational Guidelines paragraph 39 it is also a *cultural landscape*.

#### Brief description:

The nominated area encompasses an extensive area of pastureland either side of the Orkhon River, within which are numerous archaeological remains and five significant monuments including Kharkhorum, the capital of Chinggis (Genghis) Khan's vast Mongolian Empire.

Collectively these remains reflect the symbiotic links between nomadic, pastoral societies and their administrative and religious centres, and the importance of the Orkhon valley in the history of central Asia over the past two millennia. The grassland is still actively grazed by Mongolian nomadic pastoralists.

#### 2. THE PROPERTY

#### Description

The nominated Orkhon Valley Cultural Landscape is in central Mongolia, some 360 km southwest of Ulaanbaator, the capital. The site covers around 121,967 ha, along the Orkhon River.. It is surrounded by a buffer Zone of around 61,044 ha – stretching in parts to the watershed of the valley. Over 90% of Mongolia's huge land area, extending to some 56 million km<sup>2</sup>, is high-level pasture or desert wasteland, at an average altitude of around 1,500 m. It is thinly populated by 2.7 million people, the majority of whom are still engaged in pastoralism. The climate is harsh, with severe winters, and dry, with rainfall limited to on average 20 cm per year. Water is at a premium and the river valleys have therefore assumed great importance, becoming the focus for settlements of various kinds.

In Mongolia, nomadic pastoralism, the grazing of horses, sheep, goats, cows and camels, is perceived as much more than the objective technical demands of pastoral life: it is revered and glorified as the heart of Mongolian culture.

In turn Mongolian nomadic culture is part of a much wider distinctive nomadic pastoral culture, embracing many other people besides the Mongols and extending across central Asia. Over at least the past two millennia these nomadic cultures, through economic, political and cultural links, have made an immense impact on the sedentary cultures with which they interacted across Asia and into Europe. Nomadic pastoralists spent their lives moving their herds from one pasture to another, sometimes covering vast distance each year. They operated and moved across their territory within strictly regulated and controlled ways, linked to the specific designation and use of grazing grounds and to territorial rights and social units. Underpinning this movement were fixed points, which could be cities, providing centres of government, crafts, trade and commerce, or religious sites, such as temples and funerary areas. The density of such fixed points varied enormously across the vast Eurasian steppes.

The Orkhon Valley Cultural Landscape is being put forward as one of the key areas in Mongolia where the links between nomadic pastoralism and the associated settlements can be see most clearly, where there is a high density of remains, and where above all these remains are of national and international importance. The Orkhon Valley was at the centre of traffic across the Asian steppes and became the capital of first the Uighur Empire and then later of the Mongol Empire, described in the nomination document, as 'the greatest empire the world has ever known'.

The nominated site straddles the Orkhon River, which flows north, draining into Lake Baikal across the border in Russia. The broad, shallow river valley provides water and shelter, key requisites for its role as a staging post on the ancient trade routes across the steppes, such as those now known as the 'Silk Road', and for its development as the centre of two of the vast central Asian empires.

Specifically the valley provides evidence of:

- 6<sup>th</sup>/7<sup>th</sup> century Turkish memorial sites
- 8<sup>th</sup>/9<sup>th</sup> century Uighur capital of Khar Balgas
- 13<sup>th</sup>/14th century Mongol capital of Kharkhorum
- The earliest surviving Mongol Buddhist monastery at Erdene
- The Hermitage Monastery of Tuvkhun
- Shankh Western Monastery
- Palace at Doit Hill
- Ancient towns of Talyn dorvoljin, Har bondgor, and Bayangol am
- Deer Stones and ancient graves
- Sacred Mountains of Hangai Ovoo and Undor Sant
- Long tradition of nomadic pastoralism

The main monuments are open to the public.

**Turkish Memorials of Khosho Tsaidam:** Located in the Tsaidam Valley Lake along the western part of the Orkhon River, are two memorial monuments associated with the Turkish Empire in the early  $8^{th}$  century. These are the Bilge Khan and Kultegin memorials – commemorating a politician and his younger brother who was Commander in Chief of the armed forces. There are two other smaller memorials and a fifth that has just been revealed.

Large numbers of Turkish remains are known across what was the vast Turkish Empire, which stretched from the edges of China (they besieged what is now Xi'an) in the east, to what is now Iran in the west. Only however in Mongolia have memorials to kings, lords and aristocrats been found. Those at Khosho Tsaidam are the largest and most impressive monuments of their kind. They consist of huge, vertical stone tablets inscribed with the distinctive Turkish runic-like script – the earliest Inner Asian known language - first deciphered in 1893 and providing much evidence of Turkish culture.

The Bilge Khan memorial is set within a walled enclosure. The inscribed stone has a carved twisted dragon at its top and on one of the faces a carved ibex – the emblem of Turkish khans. The slab was set into the back of a carved stone turtle. Found alongside was a beautiful carving of a man and a woman sitting cross-legged – perhaps the Khan and his queen.

The Kultegin memorial, also originally erected on a stone turtle, was similarly set within an enclosure, with walls covered in white adobe and decorated inside with coloured pictures. Fragments of carved figures of perhaps the Khan and his wife have also been found. In both enclosures is there evidence of altars.

The sites were first excavated in 1889. Since 2000, Mongolian and Turkish archaeologists have collaborated in comprehensive excavation and study of the area. Protective fences have been erected around the site and a purpose built building put up to house recovered items and provide work-space for researchers.

**Ruins of Khar Balgas City**: Khar Balgas was the capital of the Uighur Empire, which governed the area for around 100 years in the 8<sup>th</sup> and 9<sup>th</sup> centuries. It served not only as the administrative centre but also as a trading and cultural centre for the empire's extensive network across Asia and into Europe. The large, fortified town – covering 50 square kilometres –, was an important staging post along the Silk Road, and had within its walls a palace, military barracks, shops, temples, monasteries, as well as districts for farmers and craftsmen.

Russians surveyed the palace ruins in 1889. Remains of the city walls and buildings constructed in rammed earth have remained untouched since Russian archaeologists conducted partial excavations in 1949. Little work has yet been done in deciphering the finds, which include engraved stone tablets in the Uighur script based on the Sogd alphabet, some with decorative motifs of dragons.

**Ruins of Kharkhorum City**: Kharkhorum was established as the centre of Chinggis Khan's Mongolian Empire in 1220. It remained the capital until the end of the 14<sup>th</sup> century. From Kharkhorum, Chinggis Khan entertained numerous foreign delegates from as far afield as what is now Iraq, Armenia and Georgia in the west, and from India, China and Korea.

Investigations have been carried out at Kharkhorum intermittently since the end of the 19<sup>th</sup> century. Very little remained above ground.

Since 1999 Mongolian and German archaeologists have conducted joint excavations with remarkable results. Remains of palaces, city gates, workshops houses and paved streets have been identified. Excavated items include domestic fragments as well as relics associated with Islam and Nestorian Christianity.

It is now established that the city covered some  $64 \text{ km}^2$ . Built on high foundations, the palace of Ugedei Khan (Ghinggis's son) had a roof covered with red and green tiles supported by 64 columns of oriental design Within, the floor was paved in green ceramic tiles, the walls decorated with green murals and there is evidence of decorative sculptures.

**Erdene Zuu Monastery:** Buddhism spread across the Mongolian Empire in the 13<sup>th</sup> century becoming the state religion in 1586. Erdene Zuu monastery was the first Buddhist monastery to be established in Mongolia on the southern side of Kharkhorum at the end of the 16<sup>th</sup> century. The monastery is surrounded by a wall interspersed with 108 white subargans (stupas). Within the wall were originally 62 structures, laid out to reflect Mongol town and palace planning. 44 were destroyed as a result of atheistic ideologies between 1937 and 1940. The surviving 18 buildings are gradually being restored, 3 as places of worship, the remainder being used as museums.

**Tuvkhun Hermitage Monastery**: This spectacularly sited monastery on a hilltop 2,600 m above sea-level and with wide views out across the grazing grounds, grew out of meditation caves, natural caves used by hermits.

In the 17<sup>th</sup> century, Ondor Gegeen Zanabazar, one of Chingghis Khan's descendents, who is revered as the person who 'Mongolised' Tibetan Buddhism, built the hermitage monastery around the caves. The monastery created images of the Buddha that were quite distinct in form from those of India and Tibet.

Like the Erdene Zuu Monastery, the Tuvkhun Hermitage monastery suffered destruction between 1938 and 1940. All the main buildings were demolished, only the meditation caves and two wells survived. Parts of the monastery were rebuilt in the 1990s from photographic evidence and using traditional methods and materials.

**Shankh Western Monastery:** Sited on the bank of the Harz River, this monastery dates from 1654. Eight temples were added to it between 1774 and 1885. It was particularly noted for a ceremony associated with the state flag of Chinggis Khan. Like other monasteries, it was largely destroyed in 1937. Renovation work started in 1990.

**Palace at Doit Hill:** This 13<sup>th</sup>-14<sup>th</sup> century palace, thought to be of Ogodei Khan, overlooks a cluster of small lakes near the White Lake of Doit. There are remains of 18 structures, the largest 45 by 60 metres with remaining stones of polished granite.

Ancient towns of Talyn dorvoljin, Har bondgor, Bayangol am: Within the wider landscape there are remains of these three large towns. Each has substantial remaining walls up to 100m across. None has yet been investigated but surface finds indicate 13<sup>th</sup> century dates.

**Deer Stones and ancient graves:** Scattered widely across the nominated site are extensive remains of hundreds of Bronze Age graves some with stones engraved with herds of deer and images of the sun and moon. A few have been excavated.

Sacred Mountains of Hangai Ovoo and Undor Sant: Prominently sited, these two mountains are strongly associated with the Shaman tradition of praying for health and prosperity to the forces of mountains, a tradition absorbed by Buddhism and still extant today. Long tradition of nomadic pastoralism: Integrating all these sites and underpinning them is the tradition of nomadic pastoralism stretching back at least three millennia. This unites the area and still gives it its distinctive character. It produces scant tangible remains apart from graves. More important are the intangible rites, rituals and seasonal traditions associated with this culture, reflected in the management of livestock and the processing of wool, milk, meat and bone. Around 450 families of herders currently winter in the nominated area and many more families move freely through the area throughout the year.

#### History

Modern Mongolia comprises only about half of the vast Inner Asian region known throughout history as Mongolia. It is also only a fraction of the great Chinggis Khan's Mongul Empire, which in the  $13^{th}$  and  $14^{th}$  centuries stretched from Korea to Hungary, covering nearly all of Asia except the Indian sub-continent and parts of southeast Asia. It was the largest contiguous land empire the world has known. Many people from societies conquered by the Mongols have written about them - much unfavourable. On the other hand Mongol sources emphasise the almost god-like military genius of Chinggis Khan whose success rested not just on military skill but also on increasingly sophisticated administrative systems. The empire's success - over nearly two centuries - also depended on the absorption and employment of Chinese, Iranian, Russians and others. Mongolia and its people have thus had a significant and lasting impact on the historical development of major nations such as China and Russia, and periodically influenced the entire Eurasian continent.

Until the mid 20<sup>th</sup> century most of the people who inhabited Mongolia were nomads. The Mongols were one of several distinct nomadic peoples living in Mongolia who over the past two millennia have engaged in constantly shifting alliances, with centralised states such as the Huns, Syanbi, Jujuan, Turkic and Uighur Empires emerging from time to time between the 3<sup>rd</sup> century BC and the 9<sup>th</sup> century AD. Over the centuries, some nomadic peoples moved west to establish the Hun Empire in Europe while others moved into Iran, India and China.

For two centuries, the establishment of Chinggis Khan's Empire, with its centralised control, interrupted this pattern and put in place sophisticated military and political systems, which exceeded in skill and efficiency most others of the time. Under Chinggis and his successors, the Moguls conquered most of Eurasia.

In the early 16<sup>th</sup> century with the waning of the empire, Mongolia once again became a land of warring factions. From the late 17<sup>th</sup> to the early 20<sup>th</sup> centuries, Mongolia was a major focus of Russian and Manchu-Chinese rivalry, leading eventually to the fragmentation of Mongolia, with Inner Mongolia (the south part of Mongolia) being absorbed by the Chinese and with increasing Russian interest in Outer Mongolia. Russia's predominance in Outer Mongolia was unquestioned by 1921 and in 1924 the Mongolian People's Republic was established – under the control of Moscow. Mongolia became an independent State in 1946. Today more Mongolians – around 3.5 million – live in Inner Mongolia, China, than in the Mongolian People's Republic, which has a population of 2.7 million.

#### Management regime

#### Legal provision:

Parliament Resolution No. 43 under the Law on Special Protected Areas, 1994, declared an area of the Khangai Mountains, including the upper part of Orkhon Valley Cultural Landscape, a State Special Protection Area, establishing Khangai Mountain National Park in 1996. The remit of this national park includes addressing issues associated with water, climate change, and ecological balance.

The Northern part of the Orkhon Valley Cultural Landscape has been given "limited protected status" under a Law on Special Protected Area Buffer Zones passed in 1997. This restricts the following activities: agriculture, forestry and mining. Further developments or economic activities require approval from local authorities on the basis of an Environmental Impact Assessment. Within the Buffer Zone, it is suggested that tourism facilities, roads and bridge construction, which are judged not to have a negative effect, will be permitted with permission. Low impact cattle breeding will be allowed but permission will be needed for activities such as the erection of livestock pens, digging wells, making hay, and construction of new buildings.

The five primary sites in the Orkhon Valley have been designated Special Protected Areas. This means that they are subject to State control, and occupation or economic use are prohibited. These designations were prompted by recommendations made to the Government during the course of the Management Plan process.

Within the wider valley, 24 historical and archaeological sites have been designated as Protected Monuments. Of these, 20 are in the nominated area.

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 subject to national ownership and state protection.

The State central administration, local authorities, and local governors are obligated to supervise the conservation and protection of historical and cultural heritage. The legal protection of cultural and historical heritage is assigned either to the state or to local authorities, depending on the nature of the site.

Through a raft of legal measures (detailed in the nomination), the Government plans to limit the commercial activities that could have a negative effect on the nominated site and to support activities that meet proper use requirements.

#### Management structure:

A detailed Management Plan has been prepared for the site. This is very thorough and readable and aims towards the sustainable development of the valley through putting in place a lasting harmony between ecology and nomadic pastoralism, which sustains the value of the property. The Management Plan evolved out of a conference on the Management of World Heritage: the 'Orkhon Valley Cultural Landscape' supported by 60 specialists and 400 stakeholders.

The plan addresses the pastoral economy and ecology of the site as well as the conservation of the five key monuments. The plan gives detailed prescription for addressing many of the key threats to the area. The recommendations identifies Risk Preparedness; Conservation and Protection; Research and Information; Education; Publicity; Public & Economic Interests; Tourism; Development of museums and overall Management of the site as key issues and prescribes measures for the active implementation of the plan within a strict monitoring system.

The Orkhon Valley nominated area and buffer zone covers two administrative units (aimags) and five districts (soums).

The Ministry of Culture is responsible for the general implementation of legislation regulating the preservation, protection, and exploitation of the Orkhon Valley Cultural Heritage Site, while municipal authorities are responsible for the enforcement of these laws.

Currently there is no co-ordinated administration of the Orkhon Valley Cultural Heritage area. Of the specific sites within the Orkhon Valley, only Erdene Zuu monastery has its own administration, which also has responsibility for the Khosho Tsaidam monuments. Tuvkhun Monastery is guarded by a resident lama, while the Khosho Tsaidam monuments and Khar Balgas ruins are protected by hired guards.

The Management Plan affirms the commitment of the Government of Mongolia to strengthening mechanisms of protection, monitoring, exploitation and co-ordination for these valuable heritage sites, and to providing integrated management through the establishment of a distinct administrative body for the Orkhon Valley World Heritage Site. Detailed administrative arrangements for this body are given in the Management Plan.

#### Resources:

Currently, there is no administrative body in the Orkhon Valley heritage area that has funding to undertake protection and conservation of historic sites – with the exception of the Erdene Zuu museum administration, which obtains its funding directly from tourism. The administration of Erdene Zuu monastery provides additional funds for research, preservation and protection activities. In addition, Erdene Zuu's monastery's Lavrin temple is an active place of worship, which obtains financial support from the monastery's administration. Other historic sites do not receive any funds from the state budget.

At the current time, financial allocations for the protection, restoration and research activities within the nominated cultural landscape are provided from local and foreign investment. In total 3.2 million US \$ have been provided for this purpose during the last five years.

The Management Plan suggests that income for preservation, protection, conservation and restoration activities in the Orkhon Valley could be collected in the following ways:

• Setting annual budget allocations for heritage site management at the state and municipal levels

• Appropriating taxation income from tourismrelated businesses making use of the heritage sites

• Offering fee-based services for the Orkhon Valley Cultural Heritage Administration

• Soliciting financial contributions and assistance from local and international organizations, countries and citizens.

It is however reported in the Evaluation Report that the Mongolian government has recently agreed a national plan to fund the protection of cultural heritage, which will benefit the Orkhon Valley Cultural Landscape as one of its first batch of projects.

#### Justification by the State Party (summary)

The nomadic cultures of central Asia have for millennia been the main cultures over a large part of Asia and have made an immense contribution to the world, through trade, conquest and the transmission if ideas.

The Orkhon Valley represents the way nomadic use of the landscape is underpinned by strategic, military and spiritual centres, which facilitated trade and the growth of empires.

The Orkhon Valley provides striking evidence of the way successive nomadic cultures have used its natural advantages of water, shelter and strategic position to establish centres of power and influence. These are now manifest in a number of key sites: the Turkish funerary monuments of the 6<sup>th</sup>/7<sup>th</sup> centuries, the 8<sup>th</sup>/9<sup>th</sup> century Uighur capital of Khar Balgas as well as the Mongol imperial capital of Kharkhorum and the monasteries of Erdene Zuu and Tuvkhun dating from the 16<sup>th</sup> and 17th century.

The way the valley is used today is still essentially as a resource for a nomadic pastoral culture. The landscape demonstrates the features of nomadic life exceptionally well. In spite of some modern intrusions, the grassland steppe is remarkably unchanged, particularly in the Hangayn Nuruu National Park.

#### **3. ICOMOS EVALUATION**

#### Actions by ICOMOS

An ICOMOS Mission visited the site in August 2002.

The nomination was considered by the World Heritage Committee in June 2003. The Committee agreed that nomination should be *deferred* in order that the State Party could clarify whether or not the nomination was for the Orkhon valley cultural landscape, or for five discrete, archaeological sites.

A revised nomination for one site encompassing the wider cultural landscape was submitted in January 2004.

#### Conservation

#### Conservation history:

The nomination document acknowledges that many of the monastery buildings are in need of conservation and that progress has been slow. Preventative conservation could also be a problem with very few people to look after the buildings and contents to which the public have access. For instance the evaluation report mentions that the Tuvkhun monastery in managed by one lama. Nevertheless work has been carried out within the Erdene Zuu Monastery to protect Buddhist artefacts from visitors and also from theft and fire – the latter grant-aided by UNESCO in 1998.

The lack of maintenance of the mud walls that relate to the two ruined cities is also acknowledged but at Kharkhorum a protective fence has been erected around the site (in 1995). Similarly a protective fence has been installed around the Turkish graves and recovered broken and weathered stones housed in a newly erected building.

In the wider landscape, problems with the lowering of the water table associated with tree cutting and mining, the pollution of watercourses, and the effects of over-grazing are acknowledged and these are addressed in the Management Plan. The vulnerability of intangible traditions is also mentioned. Threats to the traditional, pastoral way of life, through the introduction of mechanised production in the mid 20<sup>th</sup> century were severe. These have now been reversed and there is a strong commitment to giving high recognition to the 'indissoluble' links between the traditions of nomadic pastoralism and the landscape and to put in place measures to allow the sustainable development of these traditions in harmony with the natural values of the grasslands.

#### State of conservation:

The Management Plan fully acknowledges the conservation needs. The administrative structure proposed to deliver the Management Plan would become the key mechanism for developing conservation projects and on-going maintenance programmes and for lobbying for funds.

In terms of specialised conservation, since 2000 the Turkish Cooperation Agency has supported archaeological investigation and conservation of the Turkish monuments.

#### Risk analysis:

One missing element in the Management Plan (an otherwise admirable document) is a chapter on threats and vulnerabilities to the significances. (Historical damage and existing undesirable change is listed but not future threats) Nevertheless the proposed actions imply the threats and risks. These fall into the following three broad categories:

#### Natural:

- Flooding;
- Earthquakes;
- Forest fires;

• Weathering of statues and erosion and possible collapse of mud walls;

• River pollution from unauthorised tree cutting and gold mining

#### **People:**

- Population growth;
- Urban spread from the main town in the valley;

• Overgrazing leading to desertification & wind erosion;

• Over visiting by tourists –steadily increasing in recent years;

- Random vehicular tracks;
- Vandalism and theft.

#### Conservation:

• Reconstruction of buildings which could endanger historical evidence (in the Erdene Zuu monastery);

Neglect of isolated scattered sites.

The management plan addresses these issues. It is a visionary and aspirational plan – no quick answers are proposed. Instead the plan intends to consider many of the fundamental issues, which underlie and link some of these threats. Moves toward more sustainable living in the valley are clearly essential to try and halt the environmental decline, which in turn is threatening the cultural heritage assets. Promoting research and establishing base line indicators are a necessary first step.

#### Authenticity and integrity

Overall the Orkhon Valley has a high degree of authenticity as a continuing cultural landscape, which reflects Central Asian nomadic pastoralism, notwithstanding some damage and degradation.

The agricultural development policies of the 1950s encouraged settlement and arable cultivation in the vicinity of Kharkhorum and Khar Balgas. This process has now been reversed with arable cultivation abandoned and several buildings demolished. The same policies led to collectivisation of the herds and this in turn led to overgrazing of the grassland in some places. Collectivisation has been reversed, and there is now agreement to limit the number of grazing animals after a capacity study has been undertaken.

What both the nomination document and the management plan refer to is the intrusion of roads, power lines and a power generation plant in the ruins of Karakhorum. These are visually intrusive but are 'reversible' and could be removed at a future date. The Plan also refers to intrusive tracks and garbage dumps and some looting of ancient graves for their stones. The problems are recognised but will not be solved immediately.

Outside the nominated area and outside the Buffer Zone is the new Kharakhorin settlement immediately to the west of ancient Kharkhorum. The management plan acknowledges that houses there have been constructed in a 'disorganised manner' and that there are currently no zoning regulations restricting the growth of this settlement. The plan also acknowledges the need for control and clearly without control this settlement could impact adversely on the integrity of the wider landscape as a setting for the nominated area. Very little information is given on the state of the ubiquitous grass – the grazing resource that underpinned the whole development of the valley. It is not clear how much it is still the species-rich pastureland characteristic of upland steppes in Mongolia. The management plan emphasises how vital it is to sustain nomadic pastoralism as a means of managing the grassland and continuing intangible and tangible traditions associated with this way of life.

Many of the temple structures were extensively damaged in the 1930s deliberate ideological destruction of religious buildings. However the surviving buildings appear to have kept their authenticity. The work to repair and re-build damaged building has been undertaken using methods and material traditional to Mongolian society which in one sense has ensured the survival of authentic practices. Nevertheless the issue of whether rebuilding more temples could damage the authenticity of the surviving remains needs to be addressed and this is acknowledge in the nomination

The encouraged revival of the Mongolian Buddhist religion associated with both the new and surviving buildings (something that is happening across Mongolia and Inner Mongolia) means that the buildings still used for Buddhist rituals have a greater authenticy than they would otherwise have had.

As for the ruins and archaeological sites, it seems to be the case that, apart from structured archaeological excavations, most of the ruins are undisturbed and therefore the authenticity of the archaeological components is high.

The integrity of the site relates to the coherence of the valley landscape and the close relationship between the main sites and their surrounding grasslands and minor sites.

#### Comparative evaluation

It is important to consider how the Orkhon valley compares with other cultural landscapes within the grassland steppes of Eurasia.

First of all the high altitude grassland steppes cover a vast area of central Asia – most of Mongolia, large parts Inner Mongolia in China, parts of southern Russia and also eastern Afghanistan and Khirghistan – and in much of these areas ancient pastoral traditions and degrees of nomadism persist. Numerous groups make up these pastoralists but Mongols are probably the largest – in terms of the grazed area they occupy.

In the Orkhon Valley what is distinctive is the combination of grassland nomadic culture with remains of ancient urban, centralised or highly socially structured societies, strong religious evidence and links with international trade routes as well as a landscape that is considered 'beautiful'.

Within Mongolia there are other urban sites such as Baibalyk, a city of the Uighur Empire and Kharbalgas, a trading city of the Uighur Empire and later, whose ruins are better preserved than at Kharkhorum. In southern Russia around the Kharkhiraa River, is Khöndiin city that was the realm of Chingghis Khan's younger brother, Khasar; and others such as Dudn Ereg and Elstei where investigations have uncovered remains of complex administrative trading, craftwork and military centres as at Kharkhorum.

Within China there are numerous abandoned cities scattered across the vast grass steppes and marking the lines of the Silk Road branches. Some have hardly been investigated and many are even without even a name. A good number have survived in better condition than those in the Orkhon valley, such as the ancient city of Jiaohe near Turpan, or Yuanshangdu, much larger than Kharkhorum and one of the capitals of the Yuan Dynasty, just south of Inner Mongolia.

In China there are also spectacularly beautiful grasslands associated with cities such as, for instance, those around Lake Barkol. In China too are grasslands with monasteries associated with annual festivals, such as the Mongolian area of northern Yunnan near Zhongdhian, or the Tagong grasslands of western Sichuan. These have Buddhist temples, which could be said to be better than those of Orkhon in architectural terms.

However what the Orkhon valley displays is more than architectural significance: its value lies in the assembly of structures and their representivity. Nowhere else immediately comes into focus if the field is narrowed to grassland steppes that exhibit a combination of secular and religious monuments, have urban remains from the capitals of two empires, and still retain a vibrant pastoral culture.

However this is an under-researched area. If more work was done on some of the abandoned cities of China or Russia the picture might well change. Nevertheless it could be argued that within the vast expansive steppes of Central Asia it is likely that there are going to be enough distinctive cultural landscapes to justify more than one nomination. This nomination exemplifies the way one valley became the focus of two mighty empires of the Uighurs and Mongol peoples. Elsewhere other valleys could well have provided mercantile and spiritual support for nomadic peoples, but have developed in quite a different way, and in so doing exemplified alternative approaches to resources deployment – but still manifesting cultural remains of universal value.

#### Outstanding universal value

#### General statement:

The wider Orkhon Valley is an outstanding example of an evolving cultural landscape which, through sustainable land-use practices and a spiritual relationship to nature, harnessed the traditions of nomadic pastoralism to support huge empires that had a profound influence on the whole of central Asia and far into Europe, and created built structures whose remains are now of universal significance.

The wider Orkhon Valley Cultural Landscape Site is characteristic of the comparatively sheltered river valleys, which dissect the vast Mongolian steppes. It is distinctive in the way its considerable material remains demonstrate the centralised and urban character at the heart of the vast Uigher and later Mongol Empires which brought much of central Asia within one comparatively unified control.

The remains also reflect the enormous influence these 'nomadic empires' had in economic, cultural and political terms over a large part of Asia and over the major nations with which they interacted from China to the edges of Eastern Europe.

The emerging archaeology of the Turkish commemorative sites and of the city of Kharkhorum testifies to sophisticated cultures with extensive links along the trade routes from China to Europe and India.

The Buddhist remains reflect the adoption of Buddhism as the official religion in Mongolia as well as the distinctive Mongolised form of Buddhism which emerged centred on the hermitage monastery of Tuvkhun.

Over-arching these critical heritage sites is the persistence of Mongolian nomadic pastoral culture, which spawned the empires and still dominates the life of the Orkhon valley and indeed much of Mongolia. Its longevity is reflected in the huge number of burial and ceremonial sites, stone figures and rock paintings, which litter the valley floor of the nominated site and of its Buffer Zone and whose age range spans more than two millennia from the Bronze Age to the modern era.

Finally the strong intangible culture of the nomadic pastoralists expresses itself in, for instance, annual festivals, music, oral literature, horse-riding skills, and also in the vital meanings and associations with which the landscape is imbued.

#### Evaluation of criteria:

The site is nominated under criteria ii, iii, and iv.

*Criterion ii:* The Orkhon valley clearly demonstrates the way the landscape of the valley and more widely its hinterland has, through the use of its resources by a strong and persistent nomadic culture, led to the development of extensive trade networks and the creation of large administrative, commercial, military and religious centres.

The empires that these urban centres 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. This interchange of values is manifest in the design of the Uighur city and of the city of Kharkhorum (with its Islamic style columns and Chinese style roof tiles); in the adoption of the Buddhist religion and its subsequent modification by Mongolian traditions.

It would be difficult to find a society that has had a greater influence – for both good and bad – across such a large sweep of the globe than did the Mongol Empire of Ghinggis Khan. For nearly two centuries the exploits of the great Khans' forces terrorised (both actually and in anticipation) lands to their west -reaching to the gates of Vienna- and east. Their success reflected the skill and organisation of the mounted army, which drew expertise from both Chinese and Muslim siege warfare experts. This consolidation of these conquests, made possible by one of them most formidable war machines the world has known, and the subsequent wide-ranging trade, led to the fortified towns and religious remains in the Orkhon Valley.

*Criterion iii:* The Orkhon Valley bears an exceptional testimony to a cultural tradition that is still living. 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. It is also perceived to have a far greater value than the life of settled arable farmers.

The pastoral nomadic traditions are very much alive and the landscape it is argued is a living testimony to the persistence of this culture – both in the grazing traditions and in the remains of cities with which people identify.

*Criterion iv:* It is argued that 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 and thus retains a memory of one of the world greatest empires. Secondly it reflects a particular Mongolian variation of Turkish power – through the distinctive memorial stones – only found in Mongolia. Thirdly, it provided the setting for the Tuvkhun hermitage monastery in which developed a Mongolian form of Buddhism and local Buddhist sculpture. And fourthly, through the remains of Khar Balgas, it demonstrates significant remains of the capital of the Uighur Empire – about which much more needs to be known but which highlights the importance of Uighur urban culture.

#### 4. ICOMOS RECOMMANDATIONS

#### **Recommendation** for the future

The wider Orkhon Valley is clearly of outstanding universal value as a cultural landscape.

Support for the nomination should not ignore real vulnerabilities. However the commitment shown to tackle these vulnerabilities through the development of the Management Plan, with widespread involvement of stakeholders, and the way in which those writing the Plan successfully persuaded the government to grant official protection to parts of the site, has demonstrated a real commitment to the world heritage process. The strong enthusiasm shown by local people and the state party for the nomination should be harnessed.

The original nomination included a proposal to build a visitor centre located directly outside the walls of the old city of Kharkhorum. Such a site would present an unacceptable intrusion into the landscape. The State Party has now agreed to consider alternative sites for this development outside the nominated area.

#### **Recommendation with respect to inscription**

That the property be inscribed on the World Heritage List as a *cultural landscape* on the basis of *criteria ii, iii, and iv*:

*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 centres. The empires that these urban centres 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 Tuvkhun hermitage monastery was 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.

ICOMOS, May 2004

## **Bremen** (Germany)

## No 1087

#### **1. BASIC DATA**

State Party:	Federal Republic of Germany
Name of property:	The town hall and Roland on the marketplace of Bremen
Location:	The City of Bremen
Date received:	22 January 2002

#### Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *monument*. It is a combination of architectural work and monumental sculpture.

#### Brief description:

The Town Hall and Roland on the marketplace of Bremen are an outstanding representation of the civic autonomy and market rights as they developed in the Holy Roman Empire in Europe. The old town hall was built as a Gothic hall structure in the early 15<sup>th</sup> century, and renovated in the so-called Weser Renaissance style in the early 17<sup>th</sup> century. A new town hall was built next to the old one in the early 20<sup>th</sup> century as part of an ensemble that survived the bombardments during the Second World War.

#### 2. THE PROPERTY

#### Description

The city of Bremen is an autonomous Federal Land, situated in north-western Germany, on the river Weser. The site of the medieval town has a oblong form, limited by the river on the south side and the *Stadtgraben*, the water moat of the ancient defence system, on the north side. Apart from the immediate surroundings of the Town Hall, most of the area has been reconstructed after the Second World War.

The town hall is situated in the centre of the eastern part of the old city area, separating the market in the south from the *Domshof*, the cathedral square in the north. The statue of Roland is located in the centre of the market place. The town hall is placed between two churches. The *Dom*, the cathedral church of St. Peter (built from  $12^{\text{th}}$  to  $19^{\text{th}}$  centuries), is located on the east side, and the *Liebfrauenkirche* (the church of Our Lady, built in the  $12^{\text{th}}$  and  $14^{\text{th}}$  century, restored in the  $19^{\text{th}}$  century). On the east side of the market is the modernist building for the municipal institutions, the *Haus der Bürgerschaft*, built in the 1960s.

The nominated property consists of the town hall and the Roland statue (0.3ha). The buffer zone encloses the above mentioned market and the cathedral square with the main

buildings (36ha), surrounded by an outer protection zone (376ha). The town hall has two parts: the Old Town Hall initially built in 1409 on the north side of the market place, renovated in the early 17<sup>th</sup> century, and the New Town Hall that was built in the early 20<sup>th</sup> century as an addition facing the cathedral square.

The Old Town Hall is a two-storey hall building with a rectangular floor plan, 41.5 x 15.8m. It is described as a transverse rectangular Saalgeschossbau (i.e. a multi-storey construction built to contain a large hall). It has brick walls and wooden floors structures. The exterior is in exposed brick with alternating dark and light layers; the decorative elements and fittings are in stone. The roof is covered by green copper. The ground floor is formed of one large hall with oak pillars; it served for merchants and theatrical performances. The upper floor has the main festivity hall of the same dimensions. Between the windows, there are stone statues representing the emperor and prince electors, which date from the original Gothic phase, integrated with late-Renaissance sculptural decoration symbolising civic autonomy. On the market side there is an open arcade with stone columns. Underground, the town hall has a large wine cellar, later extended to the west, and now used as a restaurant.

In the 17<sup>th</sup> century, the town hall was renovated, and the middle three of the eleven axes of the colonnade were accentuated by a bay construction with large rectangular windows and a high gable, an example of the so-called Weser Renaissance. The bay has two levels, occupying a part of the festivity hall in an elaborate carved wooden structure. The lower part of the bay contains a panelled council room (Güldenkammer). Smaller roof gables were placed on both sides of the central gable. An elaborate sculptural decoration in sandstone was added to the facade, representing allegorical and emblematic depictions. The medieval arcade was rebuilt with round arches (instead of pointed arches of the Gothic period) and 'Tuscan columns'; it now forms an open balcony. In the interior, the large festivity hall has one wide span with heavy oak beams; the lower part of the walls is panelled, and the doorways (of different dates) have sculptured polychrome frames.

The New Town Hall was the result of an architectural competition, and it was built in 1909-1913, designed by Gabriel von Seidl from Munich. The building has three main floors, and it was intended for representation and chancellery. The elevations are covered in tiles (clinker); windows and details are built in south-German limestone.

The stone statue of Roland stands in the middle of the market place, in front of the town hall, facing the cathedral church. The statue is ca. 5.5m tall, and it was initially erected in 1404 in representation of the rights and privileges of the free and imperial city of Bremen. Such statues have been common in German towns and townships, representing a martyr who died in the struggle against heathens. The statue of Bremen is associated with the Margrave of Brittany, a paladin of Charlemagne.

#### History

The origins of Bremen go back to the 8th and 9th centuries, when it became a seat for a bishop. Its foundation is referred to Bishop Willehad and Emperor Charlemagne who supposedly granted the initial privileges. In 965, Bremen was given the rights to raise customs and to mint. The citizenry was united in a corporate body, universitas civium, as recognized in a diploma in 1186. There is reference to a city council whose members are called consules, in 1225. The City Council prepared a civic code as a law of the people, of which the 1303-04 version became the principal reference. The town entered the Hanseatic League in 1358. Though having already obtained privileges of civic autonomy, it was formally recognized as Freie Reichstadt (free imperial town) in 1646. From 1947, it is one of the Lands of the Federal Republic of Germany.

The Roland statue in stone was erected in 1404, replacing an earlier wooden statue, and is considered the oldest Roland statue still in place in Germany. The statue used to have a shelter, which was removed in 1885. In 1938, the statue was subject to a major repair, and other restorations followed in 1959 and 1969. In 1983-84, the Roland was again provided by a protective fence as originally; the head was replaced with a copy. Over the years, the statue has had various colour schemes.

The first Rathaus of Bremen existed in the 14<sup>th</sup> century. The current Old Town Hall was built in 1405-1409, and renovated in 1595–1612. The master builder was Lüder von Bentheim (ca. 1555–1612), who already had other projects in Bremen, as well as reconstructing the exterior of the Gothic town hall of Leiden (Netherlands) beginning in 1585. The new architectural elements were designed following the plans by Hans Vredeman de Vries, Hendrik Goltzius, Jacob Floris and other masters of the Dutch Renaissance. The New Town Hall was added in 1909-1913.

The town of Bremen was heavily bombed during the Second World War, and some 62% of the buildings were lost. However, the area of the town hall survived relatively well.

#### Management regime

#### Legal provision:

The owner of the town hall and the Roland is the municipality of the Free Hanseatic City of Bremen. The town hall and the Roland are under the protection of the *Denkmalschutzgesetz* (DSchG, 1975/ 1989, law for the care and protection of cultural monuments) of the Federal Land of Bremen, and are listed as historical monuments. The Lands of the Federal Republic of Germany act independently in educational and cultural matters, a principle which also applies to monument protection. All laws and regulations concerning the protection of cultural monuments are passed by the *Bürgerschaft* (Land parliament) of Bremen. Almost all buildings within the inner buffer zone are under preservation order individually, and the DSchG law applies to the Markt as a whole.

#### Management structure:

In the city-state of Bremen, the lower authority, *Landesamt für Denkmalpflege*, also functions as a specialised monument authority and has the power of decision concerning applications submitted by monument owners in agreement with those owners. Once an agreement is reached, the higher authority: *Senator für Inneres, Kultur und Sport* (Senator for Internal Affairs, Culture and Sport) makes the final decision. The protection authorities are under the control of the Bremen Land government and thus of the senate. The employer is the respective senator responsible for culture.

Any alteration, repair and restoration work carried out in the town hall is done in close collaboration between the specialised monument authorities and the senate chancellery, with the participation of the competent building regulation office and the affiliated authorities. The supervision of the respective project is assumed by the Bremer Bau-Management GmbH, while the municipal corporation Bremer Bau Betrieb GmbH is primarily in charge of the planning and realisation. The competent authority for the conception and determination of city centre development in the general environs of the town hall is the Stadtplanungsamt which draws up binding statements regarding construction project petitions and processes construction plan schedules within the context of the approval procedure. One primary responsibility of this office is the organization of public space.

The area of the nominated property and buffer zone is subject to the regulations of the urban master. All listed buildings have their own conservation plans, established by the *Landesamt für Denkmalpflege*. The nominated property also has a ten-year management plan, which has been prepared together with the World Heritage file, and submitted for approval by competent authorities.

#### Resources:

The finance of all maintenance and conservation work on the property comes from the public funds. During the past ten years this has amounted to 6.5 million DM.

#### Justification by the State Party (summary)

*Criterion iii:* The Town Hall and Roland of Bremen bear a 'unique testimony' to civic autonomy and sovereignty within the framework of a state.

*Criterion iv:* The town hall and Roland of Bremen form an 'outstanding example' of a 'type' of town hall and its symbolism with regard to the theme of liberty.

*Criterion vi:* The town hall and Roland of Bremen are directly associated with political ideas 'of outstanding universal significance'; the idea of civil self-government combined with the autonomous regulation of the legal and economic circumstances of the citizenry.

#### **3. ICOMOS EVALUATION**

#### Actions by ICOMOS

An ICOMOS expert mission visited Bremen in August 2002. ICOMOS has also consulted architectural historians in Central Europe and the Netherlands, as well as its International Scientific Committee on Historic Towns and Villages.

The World Heritage Committee in its 27<sup>th</sup> session, decided to defer this nomination subject to a comparative study, which has since been provided by the State Party. The new information also offers a revised justification of the inscription, on the basis of which ICOMOS has revised its evaluation.

#### Conservation

#### Conservation history:

The nominated property has been under preservation order since 1909 (Old Town Hall) and 1973 (New Town Hall).

Since its construction, the town hall has undergone repair and maintenance. The main gable was stabilised in 1928– 1930. The statues of the south and west façades were replaced with copies in 1959–1963. There was a comprehensive restoration of the exterior and the Upper Hall in 1964–1968. The representative rooms were restored or renovated in 1985-98. Modern lifts were also installed. Maintenance work is currently going on in the façades, including re-pointing the joints and consolidating the stone parts. The copper roof is currently under repair.

#### State of conservation:

At the conclusion of the repair work, the Old Town Hall is expected to be in a good state of conservation. The facades of the New Town Hall show effects of exposure to weather, but restoration is not considered necessary.

Management:

The management and care of the property is well organized.

#### Risk analysis:

There are no risks foreseen.

#### Authenticity and integrity

#### Authenticity:

The town hall of Bremen has had various phases in its history, starting with the first construction in Gothic style, in the early 15<sup>th</sup> century, and the substantial renovation in the Baroque period in the early 17<sup>th</sup> century. Furthermore, there have been various transformations and additions in the subsequent centuries, including the construction of the new town hall in the early 20<sup>th</sup> century. Taking into account this historic evolution, the town hall can be conceived as having historical authenticity in its form and material in respect to the various periods. It has also retained its historic buildings and market squares.

The Bremen Roland is considered to be one of the oldest and most representative still standing of such statues. It has been repaired and restored numerous times, and some of the original material has been replaced, therefore loosing part of its authenticity.

#### Integrity:

While the immediate surroundings of the town hall have survived reasonably well, the rest of the historic town of Bremen suffered serious destruction during the Second World War, and was rebuilt in new forms after the war.

#### Comparative evaluation

The new information prepared by the State Party provides an in-depth analysis of the historical-cultural context of the Town Hall and Roland, allowing a more specific definition of the qualities of the nominated property. The new analyses clarify the architectural typology and its background, as well as the art-historical, architectural and social-political meaning of the property. While previously mainly referred to the Hanseatic League and the Low Lands, the present comparison analyses the town hall in the more general European context.

*Typology of architecture*: the building type of the medieval town hall of Bremen, i.e. a hall construction for representative and public use, developed in northern Italy in the 13<sup>th</sup> century. The variation adopted in Bremen has its roots in the Rhineland and the Low Lands. Of this type, the Bremen town hall is considered a particularly pure example, having preserved its structural and spatial organisation intact. The arcade along the market side represents a typical feature of many town halls, but the Bremen arcade is considered the oldest and most representative of its type. Numerous German town halls were destroyed during the Second World War, and many have been modified. The Bremen town hall remains a rare example of its type to retain its authenticity.

Function of the town hall: the Bremen town hall was expressly built by the municipal authority, the City Council, as a town hall. The upper floor was reserved for representation, and the ground floor was intended for use by the market people, thus joining the population with the authority. These original functions have been retained until today. Other uses have been located elsewhere. In its historical context, Bremen is exceptional, also considering that many town halls have accommodated different uses.

*Stylistic and artistic values*: the current appearance of the Bremen town hall results from the renovation in the early 17<sup>th</sup> century, representing the so-called 'Weser Renaissance'. This style refers to developments in the cultural region formed around the Weser Valley, in northern Germany, in late 16<sup>th</sup> and early 17<sup>th</sup> centuries. The sources of this style are in Italian Renaissance treatises, e.g. Sebastiano Serlio, in the work of the Flemish artist, Hans Vredeman de Vries, as well as in local artistic and building traditions. The impact of the graphic work and the treatises of de Vries was felt in many parts of Europe, from the Low Lands to Prague, but few of his architectural works survive. In this context, the Bremen town hall is considered a highly representative example.

*Political and cultural values*: the symbolism of the Town Hall and Roland of Bremen carries strong references especially to Emperor Charlemagne, the bishopric, and the City Council, the founders and the principal authority of the city. This symbolism reflects the autonomous status of the Bremen city state, a status that it has retained up till today. Of the numerous imperial cities only Hamburg and Bremen remain, both having retained their autonomy within the Federal Republic of Germany. Hamburg, however, has no medieval fabric left. Roland statues, symbolising market rights and freedom, were common in European marketplaces; today some 40 still remain. The Bremen Roland is distinguished in having a proven historic reference: Count Roland, a paladin of Charlemagne. It is also one of the oldest and the most representative.

*The Free Imperial City* (German: *Freie Reichsstadt*) referred to the cities and towns of the Holy Roman Empire that were subject only to the authority of the emperor. Initially the position was assigned to a small number which had won independence from ecclesiastical lords (in particular: Basel, Strasbourg, Speyer, Worms, Mainz, Cologne, and Regensburg). Later, this recognition was assigned to further cities, increasing the number to over eighty in the 16<sup>th</sup> century. These cities had considerable political impact through their position and their alliances. Subsequently, the number was reduced due to changing political situations. After the Napoleonic period, only four remained, and from the end of the Second World War only two: Hamburg and Bremen.

#### Outstanding universal value

#### General statement:

Referring to the revised justification, ICOMOS considers that the Town Hall and Roland on the marketplace of Bremen are an outstanding representation of the civic autonomy and market rights in the Holy Roman Empire. The nominated property is an exceptionally well preserved example of a medieval town hall, a typical Western European model. It is also an outstanding representation of the late Renaissance architecture of northern Germany, the so-called Wester Renaissance, reflecting European-wide trends at the end of the 16<sup>th</sup> and early 17<sup>th</sup> centuries. Bremen is a city of imperial foundation, maintaining its status as a 'free city state' in the modern political framework of the Federal Republic of Germany.

Criterion iii: the autonomy and sovereignty of cities in Europe arose in the 10<sup>th</sup> and 12<sup>th</sup> centuries, starting from Northern Italy and the Low Lands. Bremen, in Northern Germany and close to the Low Lands, was one of the cities to refer their foundation to Emperor Charlemagne. Its civic autonomy developed from the 12<sup>th</sup> century, though formally recognized as a free imperial city only in the 17<sup>th</sup> century. It had the designation as 'civitas' (city), in reference to ancient Rome and the early-medieval development of Episcopal cities. Apart from Hamburg, it is today the only city to have retained its status as one of the lands of the Federal Republic of Germany. The town hall was built to represent the civic authority, the City Council, with clear reference to the imperial foundation and the bishopric. The statue of Roland at the marketplace again recalls the Emperor. The town hall and Roland of Bremen can thus be considered to bear an exceptional testimony to civic autonomy and sovereignty as these developed in Europe over the centuries.

*Criterion iv*: the town hall of Bremen is an exceptionally well preserved example of a type of medieval town hall, so-called *Saalgeschossbau*, which developed in German lands from north-Italian origins. Most of the other town

halls of the same type have been either modified or destroyed. In the renovation around 1600, while retaining its medieval attributes and strengthening the symbolism of communal autonomy and imperial foundations, the town hall acquired a new appearance. It became an outstanding example of the north-German Weser Renaissance style. It is also a rare example of the direct contribution to architecture by Hans Vredeman de Vries, whose influence was felt in many parts of Europe through his graphic work and paintings. The statue of Roland represents a typical feature in marketplaces, particularly in Central Europe, symbolising market freedom. The Bremen Roland is considered the most representative and one of the oldest extant today.

Criterion vi: The title of a Free Imperial City recognized a status of self-government, legal and economic autonomy, and were only subject to the authority of the emperor. The government was in the hands of the City Council, representing the citizenship, which developed from the earlier Episcopal council. The Bremen town hall was specifically built for the use by the City Council, who occupied the upper floor; the ground floor was related to marketplace functions. The architecture and sculptural decoration of the building symbolise relationship with the imperial and Episcopal foundations of the city, as well as the politics of self-government guided by the City Council. The Roland statue refers to a paladin of Emperor Charlemagne and symbolises market freedom. The statue refers to Roland, the subject of La Chanson de Roland (c. 1100), the earliest and most significant French 'chanson de geste', a significant influence to European epic poetry (e.g., German, English, Scandinavian, Italian). These include Orlando Furioso by Ludovico Ariosto (1516), the most significant epos of the Italian Renaissance. Roland statues were erected in market places particularly in Central Europe, symbolising market rights and freedom. The Bremen Roland carries a clear reference to historical Roland, and underlines Charlemagne as the founder of the city and the privileges granted to the city by the emperor.

#### 4. ICOMOS RECOMMENDATIONS:

#### **Recommendation** with respect to inscription

That this property be inscribed on the World Heritage List on the basis of *criteria iii, iv and vi*:

*Criterion iii:* the Bremen Town Hall and Roland bear an exceptional testimony to the civic autonomy and sovereignty, as these developed in the Holy Roman Empire.

*Criterion iv:* The Bremen Town Hall and Roland are an outstanding ensemble representing civic autonomy and market freedom. The town hall represents the medieval Saalgeschossbau-type of hall construction, as well as being an outstanding example of the so-called Weser Renaissance in Northern Germany. The Bremen Roland is the most representative and one of the oldest of Roland statues erected as a symbol of market rights and freedom.

*Criterion vi*: the ensemble of the town hall and Roland of Bremen with its symbolism is directly associated with the development of the ideas of

civic autonomy and market freedom in the Holy Roman Empire. The Bremen Roland is referred to a historical figure, paladin of Charlemagne, who became the source for the French '*chanson de geste*' and other medieval and Renaissance epic poetry.

ICOMOS, June 2004

## **Pico Island (Portugal)**

## No 1117 Rev

#### **1. BASIC DATA**

State Party:	Portugal
Name of property:	Landscape of the Pico Island Vineyard Culture
Location:	Azores
Date received:	31 January 2002

#### Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a *site*. In terms of Operational Guidelines paragraph 39, it is also a *cultural landscape*.

#### Brief description:

Pico is a volcanic island lying among the archipelago of the Azores, some 1500 km out into the Atlantic due west of Portugal. Surviving around its north and western edges is a remarkable pattern of spaced-out, long linear walls running inland from, and parallel to, the rocky shore. Their enclosed spaces contain thousands of small, contiguous, rectangular, stone-walled plots ('currais') constructed in a rectilinear pattern. Many hectares of these plots, especially around villages, are still cultivated for vines such as Criação Velha south of Madalena where perfectly preserved plots grow vines out of the basalt rock under a strict management regime designed to sustain both economic viability and authenticity.

#### 2. THE PROPERTY

#### Description

The archipelago of the Azores is situated nearly halfway across the Atlantic, 1,500 km west of Portugal. Pico is the second largest (447 km<sup>2</sup>) of the nine islands. Pico Mountain (a stratovolcano) dominates the island. It reaches a height of 2.351 m above sea level, the highest point in the Azores and Portugal. Pico appears to have been uninhabited until its settlement by Portuguese from the mid  $15^{\text{th}}$  century onwards.

The nominated area of 987 ha comprises two thin coastal strips approximately 50 metres deep on the north-west and north of the island. It is surrounded by a buffer zone of 1924 ha, very narrow in places (*see below*), stretching to the south and south east of the nominated sites and providing a buffer between the nominated coastal sites and the interior of the island.

The nominated site is the best remaining areas of a once much more widespread practice which encircled the island of growing vines in small soiless stonewalled fields on flat land along the coast unsuitable for arable cultivation.

Part of the site is an actively-farmed viticulture area immediately south of the island's main town, Madalena; to the north the area was formerly used for growing vines and figs but has since been largely abandoned and is now extensively covered by vegetation, mainly clumps of heather as much as several metres high.

Within the nominated Criação Velha area, traditional winegrowing continues, producing a sweet, much-prized and once-widely exported desert wine called 'Verdelho'.

The nominated site consists of:

- Network of small walled fields
- Field shelters
- Rock tracks along shore and between the fields
- Small ports & functional buildings
- Tidal wells
- Houses, manor houses & churches

**Network of small walled fields**The most dramatic part of this nomination is the intense network of small dry fields that intensively cover the strip of flat land along the coast. Constructed from irregular weather-worn black basalt stones, gathered on site, these tiny fields covered rocky land of no use for arable cultivation.

The fields stretch in a largely geometrical network all over the nominated site. They were constructed to shelter vines from sea breezes with walls around two metres high. Most of the small fields are almost square. Groups of fields have two types of patterns. In the first, six small fields form a group with one main entrance; in the second and more common arrangement two parallel groups of fields 'interlock' with narrow gaps at the ends of cross walls to allow access along the strip. The continuous parallel walls are usually perpendicular to the sea but occasionally are diagonal to take advantage of higher solar exposure or wind protection.

No plans exist of the walled structures in the nominated areas, though such plans are currently being created by airphotographic plotting. It is claimed that if all the walls were joined in one continuous line, it would pass around the Equator twice.

In general the fields were used for growing vines. Traditionally and still, cultivation and cropping is entirely by hand. Vehicles are restricted to the main tracks between the fields. No wheeled vehicles or mechanical devices are used or allowed within the small fields.

None of the enclosures contain soil. Crops were grown by inserting roots into cracks in the rock. The purpose of the little walled plots was to protect the crops, as is still the case today with the vines in the Criação Velha area, from Atlantic winds and salt spray; and for the walls to provide support for the vines themselves. Their tendrils and, later, fruit, are draped over the walls to keep them off the ground.

In the northern part of the nominated site, fig trees are grown around the fields to provide extra shelter to the vines, to compensate for the higher wind exposure. An example is Cabeco Debaixo da Rocha between Cais do Mourato and Formosinha.

Here too some of the fields are circular rather than square or rectilinear, such as in Lajido de Sant Luzia.

The reticulated land arrangement of the coastal plain does not appear to exist on the uplands. Instead, in a totally pastoral landscape, large irregular fields are enclosed by stone walls or land. Only a proportion of the nominated area contains currais in a good state of repair. Almost all the remainder of the nominated are and the buffer zone is designated as 'currais to recover' as the basic fabric still exists under the invasive vegetation that has replaced the vines. A tiny percentage of the buffer \zone has no remains of currais.

#### **Field Shelters**

Punctuating the field patterns are small stone shelters with mono-pitch tile roofs. They were used to shelter viticultrualists and their tools. There are dozens of such shelters all over the nominated site usually associated with a water-tank.

#### Rock tracks along shore and between the fields

Immediately below the farmed zone, but still within the core areas, is a strip of lava coastline, roughly 50-100 m deep and too exposed to wind and salt spray to be used for crops of any kind. Along it ran a track, occasionally madeup but otherwise on the bare rock where, in places, the wheels of ox-carts loaded with produce ground out permanent ruts. The track was joined by other tracks running down through the vineyards at right angles to it. The whole network was connected with storage sheds and small ports along the rocky shore.

#### Cellars, distilleries and warehouse

Small groups of cellars (or wine stores) are located in the settlements and near to cultivated land. These small onestorey or sometimes two-storey buildings, built of dry random, black, basalt stones, with shallow clay tile roofs, were inhabited seasonally during the grape harvest, with the upper storey being used as accommodation. Some settlements have as many as thirty cellars.

Warehouses are larger storage buildings, similarly constructed. The nominated site contains over thirty warehouses.

Distilleries were often associated with tidal wells and water tanks and contained large barrel vats for initial storage of the fruit.

#### Small ports and 'ancoradouros' or harbours

These allowed access for people along the coast when sea travel was easier than land travel and also the transport of wine barrels.

Lajido village, near Santa Luzia, is one of the larger of such ports, inhabited and now very much officially conserved. Its installations in place include a small quay, a ramp for sea-access, church, warehouses, tide well, and a manor house with redundant wine-press and cellar available to the public as an *in situ* museum.

#### **Tidal wells**

Due to shortage of surface water, wells were dug through the rock to pick up underground water-courses. Either rectangular or square, their deep shafts are lined with random stone. Around 20 still survive in the nominated area providing often brackish water for household use.

#### Houses, manor houses & churches

In the northern part of the site there are several nucleated settlements with a strong urban character such as Cachorro de Santa Luzia. Here are the houses of the viticulturalists together with many cellars and warehouses. In the west there are fewer small towns and more scattered cellars. Altogether there are 15 small towns, 8 in the nominated area and 7 in buffer zone.

A few 'manor' houses of ca 1800 were the summer homes and estate centres of the major landlords who lived in neighbouring Faial Island and spent the summer in Pico.. In general the local vernacular architecture is most immediately characterised by brilliant white exteriors and detailing. A distinctive architectural character lies in rarer, black-walled buildings, notably in Lajido.

Churches are characterised by dressed stone quoins and door surrounds and with the rubble stone of the walls plastered over and painted with bright white limewash. – forming a striking contrast with the black dressed detailing.

In many of the settlements there has been erosion of local character through the use of imported materials

#### History

The documentary history of Pico and its winegrowing has been well-researched but the fields themselves have hardly been studied, certainly not archaeologically and structurally. It is difficult at this stage to correlate the two types of evidence.

Documentary references to wine-growing in the second half of the 15<sup>th</sup> century have understandably encouraged a local belief that the system of land enclosure as we see it now is of that date. It may well be that the nominated areas, especially the Criação Velha area, embrace an area of early viticulture and might even include fragments of early enclosure; but there is no proof of the original date of construction of the system of land allotment now existing on the ground. It clearly is not, in any case, of one period, since its structure shows phases and changes which suggest development over time.

In very broad terms, after initial clearance around the first, widely-spaced settlements, clusters of stone-walled fields probably developed as land was cleared in the 16<sup>th</sup>-17<sup>th</sup> centuries. The main axial arrangements may well have been laid out in the 18<sup>th</sup> century when a small number of land-lords, symbolised by the manor houses, owned much of the land. While small plots would always have been necessary for practical reasons, much of their present extensive rectilinear pattern could well be of the 19<sup>th</sup> century when, instead of large estates, social and agricultural change encouraged the growth of a mosaic of land holdings cultivated by numerous 'small farmers'.

Wine making was introduced by the Portuguese, probably in the 15<sup>th</sup> century. During the 16<sup>th</sup> century the Franciscan and Carmelite orders introduced improvements. The production reached its climax in the 19<sup>th</sup> century when wine production was so extensive that significant quantities were exported.

Most of the formerly-cultivated area of stone-walled plots has been progressively abandoned since the phylloxera disease in the mid-late  $19^{\text{th}}$  century and during rural desertification throughout the  $20^{\text{th}}$  century.

#### Management regime

#### Legal provision:

Nearly all decisions affecting the area, including the discharge of international obligations, are the responsibility of the Autonomous Regional Government of the Azores. Government revival of the wine industry started in 1980 with the creation of the Vinicultural Region of the *Verdelho* of Pico (Regional Decree 25/80/A). Subsequent laws to protect the standards of wine production were passed in 1988 and 1994.

In 1986, the area was classified by Decree as a Protected Landscape, banning mechanical farming within the lajido zones, and protecting the traditional architecture of the area. This Decree was amended in 2003 to allow for grants for improvement. In 1994, the Regional Directorate for the Environment established directing and consultative committees for the Protected Landscape of Regional Interest of the Viniculture of the Island of Pico. In the Regional Act of Law 10 of 2002, four levels of protection were set out for these areas, including two zones of reticulated vineyards or currais - the small lajidos of Criação Velha and Santa Luzia - which were to be strictly protected for high quality wine production. The buffer zones are covered by other protective polices within the Protected Landscape, though the Protected Landscape also includes some other areas which are outside the buffer zone altogether.

Several plans apply to the area of the Protected Landscape. For example, a detailed four volume 'Safeguarding Plan' for the Protected Landscape was prepared in 1993 as a basis for the 1994 legislation. More recently, an action plan ('Dynamizing Plan') was adopted by the Regional Secretariat. This is a programme to be undertaken over the period 2001-2006 so as to co-ordinate the activities of vine growers and agencies responsible for environment, roads, ports, water and public lands, waste disposal, buildings, culture, tourism, licensing and funding.

The whole area of core and buffer zones falls within a Category V Protected Area, carefully zoned in a hierarchy of planning control. At one extreme, there is a complete ban on any new building and the use of mechanical equipment in the Criação Velha nominated area; at the other, although there are planning constraints on buildings, normal village life is lived in Lajido.

A management plan for the proposed World Heritage site has recently been prepared and approved (see below). (

#### Management structure:

Management is at the regional, island, municipality and protected landscape levels. A Management Committee, appointed by the Regional Secretary (Minister) for the Environment, is responsible for the Protected Landscape, which includes the nominated area. An executive Technical Department for the Protected Landscape area (and so for the nominated site), based in Madalena, receives support e.g. in a public awareness campaign, from other regional services. The Pico Island Department of the Environment provides in particular scientific expertise. The municipalities of La Madelena (Criação Velha) and San Roque (Santa Luzia) exercise planning control. Regarding local management responsibilities:

• The vineyard plots and private buildings are the responsibility of the many private owners, though their actions and methods are tightly constrained by tradition, law and regulation (see above);

• The local roads are the responsibility of the Regional and local authorities;

• Small ports are administered by the Regional Secretary for Agriculture and Fishery;

• Other Public Property is the responsibility of the Regional Directorate for Territory Ordinance and Hydraulic Resources.

#### Resources:

Many officials and others are involved with the nominated area, but it has no specifically dedicated staff (though a fixed-term team is very successfully promoting Criação Velha as a potential World Heritage site with school children and local communities). The newly prepared Management Plan does not give any indication of future resource needs or how these are to be met.

The Technical Department is currently preparing a detailed data-base for the Protected Landscape, including a Sites and Monuments Record. Large-scale prints of recent vertical air photography are being digitised and detailed archaeological mapping of the reticulation is already demonstrating some interesting morphological and chronological points.

An active programme seeks to reinforce the economic base of the *lajido* landscape by promoting the sales of Verdhelho wine.

#### Justification by the State Party (summary)

• This landscape is based on a balance and partnership between Man and Nature since the first settlers up to the present.

• People have turned unproductive stone into their sustenance by planting vines in it, protecting the plants from strong winds and salty breezes by building a huge and structured mesh of walls. This reticulation forms a unique ambience impressive through its perfection and grandiosity.

• With it has developed a diverse heritage of manor houses, wine-cellars, warehouses, tide wells, ports and ramps, conventual houses, churches and other structures.

• Wines of exceptional quality produced locally from the verdelho grape have been widely exported, play an important part in the Pico economy, and still involve a people proud of their past, maintaining traditional rituals and practices and protecting their architectural heritage.

• The nomination is of the most representative and the best preserved area within the viticultural zone of the island, keeping alive the striking characteristics of this landscape.

#### **3. ICOMOS EVALUATION**

#### Actions by ICOMOS

A joint mission with IUCN was carried out in July, 2002.

The nomination as a mixed site was considered by the World Heritage Committee in 2003. As the two nominated areas were seen as insufficient to represent the particular landscape traditions of Pico, assuming that in time the remainder of the vineyard landscape atrophies, the nomination was deferred for possible resubmission by the State Party on cultural criteria alone, covering a more extensive area, and as a cultural landscape.

It was further recommended that any new nomination should await the outcome of the ICOMOS thematic vineyard survey.

The thematic vineyard study became available at the end of May 2004.

#### Conservation

#### Conservation history:

There is no conservation history in the conventional sense. One of the two areas has been farmed apparently continuously for perhaps four-five hundred years during which its walls have doubtless been modified and rebuilt many times; but it exists in good condition. The other area of stone-walled plots was progressively abandoned during the later 19<sup>th</sup>-20<sup>th</sup> centuries and is now almost entirely derelict but largely undisturbed.

#### State of conservation:

Similar stone-walled systems of land allotment formerly existed around much of the island but have either been destroyed or fallen out of use. Even around the Criação Velha nominated area, markedly on the outskirts of Madalena, former extents of stone-walled plots are being fragmented or destroyed in housing and other development.

In some parts of the nominated area, the walls of the reticulation are in excellent condition, with almost literally hardly a stone out of place particularly around Criação Velha. The plots are fully in use, carefully maintained and as carefully safeguarded. The windmill, the most prominent of vertical features overlooking them, is being restored as a visitor centre and lookout point. In the north the system of walls is largely overgrown but generally walls survive in undisturbed if derelict condition beneath the vegetation.

In the settlements a small proportion of the buildings are in ruins and there are an equal number of discordant structures. Since 1998 efforts have been made to 'recuperate' some of the ruins.

#### Risk Analysis:

#### Decline in Traditional vinicultural:

Perhaps the most dangerous threat is the least physical. The authenticity of the Criação Velha nominated area depends not only on the maintenance of the current walled landscape but on its continued working by traditional, nonmechanical methods. Those responsible are well aware of the challenge but, given what is happening economically elsewhere in agriculturally marginal, rural areas of the world, for this highly specialised landscape to continue in good heart as a working landscape and not just as a museum landscape, it will have to go against the trend. Elsewhere the abandoned walls will need to be brought back into some sort of use if there are to remain largely intact and justify maintenance. Recently a financial aid system has been introduced to support the re-planting of vineyards in currais amounting to around 3,500 euros per hectare per year.

A lack of labour for traditional vinicultural activities is also of concern. As is the high average age of viniculturalists.

#### **Development pressures:**

- *Airport development*: Pico airport, just to the west of the Santa Luzia area, is soon to undergo expansion to take direct flights from Lisbon. The Protected Landscape team has secured modifications to the design to their satisfaction, so that it has no direct physical impact on the core area (though there is an intermittent aural impact).

Pico is currently protected environmentally by its relatively cumbersome access (air to, then half-hour ferry journey from, the neighbouring island of Faial). Direct flights are bound to stimulate tourism, and it is crucially important for the well-being of the prospective World Heritage site that it is appropriately safeguarded from outside and within.

- *Expansion of housing:* There is clearly a danger that, despite planning controls, a growth of Magdalena could easily lead – from a World Heritage point of view – to undesirable development within existing 'reticulation' on the town's margins and in particular around the edges of the Criação Velha. The presence of new housing south of Madalena and west of Criação Velha is already potentially serious. It requires effective controls to ensure that the setting of the site, and in particular the views from it towards the summit of Pico, are not degraded.

- *Stimulation of tourism*: Although tourism can bring positive benefits, without lack of controls it can also be highly damaging. It is not clear from the papers quite how tourism will be harnessed to advantage and the less attractive development pressures constrained.

#### Traditional building techniques:

In some of the settlements imported material are beginning to lead to an erosion of detail and authenticity. In particular stuck on stone is mentioned. Recently a support system has been introduced to enable the re-building of ruins and the elimination of dissonant architectural features.

The nomination includes a detailed analysis of threats and weaknesses but also considered opportunities and strengths. One of the opportunities is seen to be the possibility of World Heritage status which could act as a catalyst for sustainable regeneration of wine based rural development.

#### Management:

The whole area of core and buffer zones is apparently very well-managed.

A Management Plan has recently been prepared and was formally approved in October 2003 by the Regional and Local government. This has allowed the Regional government to adopt measures to correct 'dissonant 'architectural features, reconstruct ruins, revitalise abandoned vineyards and to 'guarantee the revitalisation of the landscape through the progressive increase of cultivated vines under traditional methods.'

The management plan sees the landscape as a living working landscape where the only chance of sustaining the complex field patterns and their associated structures and houses is to through trying to ensure that the distinctive wine-making traditions which created the landscape can be made relevant in the present time.

The Plan is an inspirational document aiming to 'start an active and integrated process of dynamic planning and management which allows the preservation of natural and cultural heritage as well as the self-sustainability of the site'.

It also includes strategies and a detailed costed action plan for the next five years. These include the setting up of a detailed database, the creation of an interpretation centre and research and training in the built vineyard heritage.

#### Authenticity and integrity

Authenticity is about as high as can be expected of a landscape that has developed over 500 years. To all intents and purposes, the field landscape is intact, extraordinarily well-preserved, and without the addition of irrelevant or untoward structures or other features. It remains unmodified and almost entirely fixed in time in the 19<sup>th</sup> century when the windmills were added as the last significant accretion. The main change since then has been field abandonment and vegetational recolonisation. The major exception is the airport near Santa Luzia; minor exceptions are changes in building techniques and the building of some jarring new buildings in the settlements. The intention is to maintain this authenticity. No mechanical methods of cultivation are allowed in core zones, and farming is by individual owner farmers. Not all the owners live in the immediate vicinity; some are residents of the neighbouring island of Faial (as has traditionally been the case). A realistic appreciation of economic possibilities, respecting the need to maintain authenticity in life-style as well as in the landscape physically, needs to be based on wine marketing, with appropriate ecotourism and craft promotion.

#### Comparative evaluation

Much of the cultural detail about this nominated site is particular to Pico, but it is in general not quite so unusual in several respects as a field system or as an agricultural landscape devoted above all to vine-growing and wine production.

The Pico field systems have much in common with examples on the Hawaiian archipelago, also volcanic (and homeland of the evocative lava names 'aa' and 'pahoehoe'). There, long, axial swathes of stone-walled fields apparently largely abandoned by ca 1870 have been archaeologically investigated. They too form part of a much-used landscape with its own range of lava-built structures. Unlike the Pico landscape of Portuguese colonists, however, the Hawaii systems were originally an indigenous creation, pre-dating European arrivals.

In Europe, the Pico reticulation is morphologically paralleled in the type of stone-walled field systems now familiar in – for example – prehistoric Britain, particularly

those around 1300 BC on the granite uplands of Bodmin Moor and Dartmoor in south-west England. These too have axial land arrangements subdivided into smaller units.

Close parallels exist in other respects at two recently inscribed World Heritage Sites, Cinque Terre, Italy, and Alto Douro, Portugal. Both are visually more striking than Pico in that the cultivation of their steep hillsides has created dramatic vertical effects, both cover larger areas, both concentrate on vine-cultivation through physical adaptation, and both are highly marginal areas by agricultural standards. As on Pico, rural depopulation has created areas of abandoned landscape at Cinque Terre, while at Alto Douro, as at Pico, vines grow on barren rock but, in contrast, the production of an internationallyfavoured wine has brought prosperity to the landscape and its peoples.

There is also some similarity with the tiny enclosures for vines on the lava of Lanzarote, in the Canary Isles. On Faial, the Azores Island immediately west of Pico, blocks of landscape are also marked out in long, parallel hedges and fences. They may be fragments of earlier landarrangement before the roughly rectangular fields of presently enclosed land, and they hint at an historic tendency in the Azores, not just on Pico, to divide land in long, parallel swathes. Around the slopes of Mount Etna in Sicily are also found tightly walled small fields – but with soil within.

#### Outstanding universal value

#### General statement:

The Pico Island landscape reflects a unique response to viniculture on a small volcanic island and one that has been evolving since the arrival of the first settlers in the  $15^{\text{th}}$  century.

Evidence of this viniculture is manifest in the extraordinary assembly of small stone-walled fields, in houses and manor houses, in wine-cellars and in associated buildings such as churches and ports. The wines produced on the island are of high quality and have thus helped to extend the influence of this small island around the world.

Although many of the small fields have now been abandoned, the practice of winemaking, and the strong cultural traditions associated with it, is still flourishing on the island.

The extraordinarily beautiful man-made landscape of the island is testimony to generations of small-scale farmers who, in a hostile environment, created a sustainable living and much-prized wine. Their landscape reflects continuity in adversity. Overall it is an agricultural monument in stone, which incidentally has high aesthetic value.

#### Evaluation of criteria:

The Landscape of the Pico Island Vineyard Culture was nominated on the basis of four of the six cultural *criteria i*, *iii*, *iv* and *v*:

*Criterion i:* Although not deliberately created as an aesthetic form, the intensively stone-walled landscape is now appreciated for its aesthetic value. Nevertheless this criterion is not normally applied to collective utilitarian creations now appreciated for their aesthetic beauty.

*Criteria iii* and v: Both these criteria are applicable for similar reasons. The landscape reflects a distinct, local and now traditional interaction with a hostile environment over several centuries, which produced a sustainable living and much prized wine. However, part of the relevant landscape is now abandoned and the traditional viniculture is but tenuously alive.

*Criterion iv:* The only way this criteria would be relevant was to cite the impact of colonists on a previously empty landscape. There are two problems with this. First, in the absence of dating criteria for the walls, it is difficult to ascribe many of them to the impact of colonists. Secondly it could be argued that colonists have had greater impact in terms of influencing world history in other parts of the world. On Pico the colonists had a significant impact through the introduction of wine making – but this was part of a broader development by the Portuguese of wineries across many of their earlier colonies. Pico is therefore only part of a bigger picture.

#### 4. ICOMOS RECOMMENDATIONS

#### **Recommendation** for the future

The re-nominated site, particularly when its buffer zone is included, represents a significant proportion of the vineyard landscape, which in the  $19^{th}$  century encircled the island. Although only part of the site is still in viticultural production, the remainder of the stone walled enclosures, although abandoned, could be restored to use if the invasive undergrowth were removed. The Management Plan forms the basis of a plan of action to try and achieve this revitalisation.

Currently the nominated site is part living landscape and part fossil landscape. However the intention is not to manage the site in order to maintain these distinctions. The aim is to use World Heritage site inscription in order to show that cultural heritage can underpin sustainable development. On Pico the 'product' is a wine that was and still is highly valued. Thus the landscape has the potential to produce high value local produce and to provide income to encourage the persistence of the community and its strong local traditions.

The ICOMOS Thematic Vineyard Study has aimed to define the characteristic of vineyard cultural landscapes. These are landscapes that provide evidence of a distinctive, intensive and productive way of working land to produce valued wine. They are often reflection of a highly sophisticated interaction between people and their environment, which optimised the potential of land to produce good wine. These landscapes may be aesthetically pleasing but they were not created as artistic monuments: rather their value lies in the way they reflect how people have worked with the grain of the land to produce sustainable viticulture.

The Pico vineyard landscape encompasses this type of tradition and display all tangible components of viticultural activities. Moreover its winemaking traditions are still alive as are the associated cultural traditions of music and dance.

#### **Recommendation with respect to inscription**

That the property be inscribed on the World Heritage list as a *cultural landscape* on the basis of *criteria iii and v*:

*Criteria iii and v*: Both these criteria are applicable for similar reasons.

The Pico Island landscape reflects a unique response to viniculture on a small volcanic island and one that has been evolving since the arrival of the first settlers in the 15<sup>th</sup> century. The extraordinarily beautiful manmade landscape of small, stone walled fields is testimony to generations of small-scale farmers who, in a hostile environment, created a sustainable living and much-prized wine.

ICOMOS, June 2004

## Bam Citadel (Iran)

## No 1208

#### 1. BASIC DATA

State Party:	Islamic Republic of Iran
Name of property:	The Bam Citadel (Arg-e Bam) and its Related Sites
Location:	Kerman Province, Bam District
Date received:	11 May 2004

Category of property:

In terms of the categories of cultural property set out in Article 1 of the 1972 World Heritage Convention, this is a: *Site.* According to the Operational Guidelines for the Implementation of the World Heritage Convention, this is a *continuing cultural landscape.* 

#### Brief description:

The Bam Citadel (Arg-e Bam) and its Related Sites are situated in a desert environment on the southern edge of the Iranian high plateau. The origins of Bam can be detected to the Achaemenid period ( $6^{th}$  to  $4^{th}$  cent. B.C.). Its heyday was from the 7<sup>th</sup> to 11<sup>th</sup> centuries, being at the crossroads of important trade routes and known for the production of silk and cotton garments. 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. Arg-e Bam is the most representative example of a fortified medieval town built in vernacular technique using mud layers (*Chineh*).

#### 2. THE PROPERTY

#### Description

The city of Bam is situated between Jebāl Bārez Mountains and the Lut Desert at an altitude of 1,060m above sea level in south-eastern Iran. It is 200km south-east of Kerman on the road linking the latter to Iranshahr and to the Oman Sea; it is 120km north-east of Jiroft, the centre of an ancient civilisation. The region of Bam has desert climate, and the temperature varies between +49C and -9C. The city was affected by the 6.5 Richter scale earthquake, at 05.26 AM local time, on 26 December 2003. More than 26,000 people lost their lives (as reported on 25 March 2004), and a large part of the town was destroyed, including old and new structures.

The city of Bam grew in an oasis created mainly thanks to an underground water management system ( $qan\bar{a}ts$ ), which has continued its function till the present time. The fortified citadel area (Arg) enclosing an important part of the old town is situated in the northern part of the city, on and around a small rocky hill (45m high). The more recent urban development extends to the south and south-west of the Arg. The main highway runs in east-west direction on the southern side of the town. The main open water course, Posht-e Rud, is a floodway, north of Arg-e Bam, which however is dry most of the year. The lands to the west and east of the Arg are mainly palm groves, for which Bam is famous, and some fruit trees. The system of *qanāts* brings water to this area from the sources and mountains in the west and north-west.

A seismic fault, the 'Bam fault', runs in north-south direction on the east side of the city. The epicentre of the earthquake was on the west side of this fault, just south of Bam. This is a hidden fault, going down to the bedrock. It is covered by thick sediments and fissures are only visible in a few places on the surface. Now more fissures have arrived as a result of the seismic action. The ground level is some 20-25m lower on the east side of the fault scarp, where the neighbouring town of Baravat has developed with a cultivation of date palms (3x7km). The irrigation of the area is based on a large number of *qanāts*, bringing water from the west side. The seismic fault acts like a dam, allowing water to accumulate on the west side. Each qanāt thus brings several times more water than what is common in such systems. Furthermore, the difference of ground levels at the fault scarp allows an easier irrigation of the cultivated land. The series of *qanāt* in this area is datable at least to the Parthian (Hellenistic) period if not Achaemenid.

The principal core zone of the nominated property consists of the Citadel (Arg-e Bam) with its surroundings. Outside this area, the specified remains of protected historic structures include: Qal'eh Dokhtar (Maiden's fortress, ca. 7<sup>th</sup> cent.), Emamzadeh Zeyd Mausoleum (11-12<sup>th</sup> cent.), and Emamzadeh Asiri Mausoleum (12<sup>th</sup> cent.). Recent archaeological explorations have revealed remains of two ancient villages or towns to the east of the Arg, including the remains of a fire temple and remains of ancient *qanāts*. There are historic *qanāt* systems and cultivations southeast of the Arg, which date at least to the Hellenistic era, continuing some 20 kilometres to the south, and irrigating the palm groves in the town of Baravat.

The Enclosure of the Citadel (Arg-e Bam): This area is a somewhat irregular oblong rectangle (ca. 430m x 540m), from which the north-east section has been cut. The fortified enclosure has 38 watchtowers. The principal entrance gate is in the south, and there are three other gates. A moat, 10-15m wide, surrounds the outer defence wall, which encloses the Governmental Quarters (the actual Arg called Hakemneshin) and the historic town of Bam. All structures are built in traditional technique combining the use of mud layers (*chineh*), sun-dried mud bricks (*khesht*), and vaulted and domed structures.

The impressive *Governmental Quarters* are situated on a rocky hill (45m high) in the northern section of the enclosure, surrounded by a double fortification wall. This area includes the *Governor's Residence*, the *Chaharfasl* (a 17<sup>th</sup>-century Safavid kiosk) and the *Garrison*. To the west of the entrance gate there is a large structure containing the Stables.

*The main residential quarter* of the historic town occupies the southern section of the enclosure. This is built following a quasi orthogonal street pattern. The notable structures include the bazaar extending from the main south entrance toward the governor's quarters in the north. In the eastern part, buildings include the *Congregational Mosque*, the *Mirza Na'im* ensemble (18<sup>th</sup> cent.), and the *Mir House*. The mosque may be one of the oldest mosques built in Iran, going back to the 8<sup>th</sup> or 9<sup>th</sup> century, probably rebuilt in the 17<sup>th</sup> century. The north-western area of the enclosure is occupied by another residential quarter, *Konari Quarter*, consisting of the remains of some more modest houses.

Outside the fortified enclosure, north-east of the Citadel, there is a large *Icehouse* (*Yakhchāl*). This structure is covered by a large dome in mud brick (now partly broken). Ice was produced during winter nights as water would freeze in a vast shallow pool shaded by a long and high wall. Removed from the pool at dawn, the ice was then stored in a large tank under the dome of the Icehouse for the summertime. The building had been restored and transformed into an auditorium used for meetings (before the earthquake). The core zone also includes the remains of the Hazrat-e Rasul Mosque, another early mosque.

The cultural landscape of Bam has testimonies of the development and strategic importance of the site, which has evolved since the pre-Islamic times, i.e. Achaemenid, Parthian and Sassanian periods. There are the remains of an ancient fire temple, and recent exploration has brought to light the remains of ancient settlements with their irrigation systems.

#### History

The beginnings of Bam are fundamentally linked with the invention and development of the *qanāt* system. The region of Iran was central to this technique, as a large part of the country would be not habitable and cultivable if water were not brought there even from long distances. The technique of using *qanāts* was sufficiently well established in the Achaemenid period (6<sup>th</sup> to 4<sup>th</sup> cent. B.C.) to justify its systematic promotion in the different parts of the empire. The archaeological discoveries of ancient *qanāts* in the south-eastern suburbs of Bam, on the fault, are datable at least to the beginning of the 2<sup>nd</sup> cent. B.C. (Parthian period), where the agricultural fields were then and still are (close to Baravat area). There are also structures in the citadel that are datable to the Achaemenid period.

A popular belief attributes the foundation of the town itself to Haftvad, who lived at the time of Ardashir Babakan, the founder of the Sassanian Empire ( $3^{rd}$  cent.). The name of Bam has been associated with the 'burst of the worm' (silk worm). Haftvad is given as the person who introduced silk and cotton weaving to the region of Kerman. Bam is first mentioned by Islamic writers in the  $10^{th}$  century, when it was a well established trading place. It was reported to be surrounded by agricultural settlements. It had 3 mosques: the main mosque was inside the fortified enclosure, and the Hazrat-e Rasul Mosque was outside. Bam was then well known for the production of elegant garments, its strong fortress and busy bazaars, as well as for growing palm trees. The writers also refer to the *qanāt* system providing drinking water and irrigating the cultivations.

At the death of Toqrol Shah the Seljukid in Jiroft, in 1168/69, there started a war of succession among his sons. The political situation worsened and, in 1179, the Kerman province with Bam became subject to a destructive invasion by the Ghoz nomads, a Turkish tribe related to the Seljuks.

In 1213, the whole south-eastern Iran was conquered by the Great Lord Master of Zuzan. In Bam, the defence walls were destroyed. The Mongol attacks, starting in 1220, concerned mainly the north of Iran, but the consequent instability was felt also in the south. Bam was exempted from paying taxes, and the fortifications were rebuilt. The citadel was recaptured by the king Amir Mobarez al-Din, in 1342, and the walls were again restored. Around 1408-09, a Timurid general occupied Bam. He ordered the citadel to be restored and the people to build their houses inside the fortified enclosure.

From the 16<sup>th</sup> to 18<sup>th</sup> centuries, Iran experienced a period of calm and prosperity. At that time, Bam was still the centre for silk and woollen garments as well as cashmere. In the 18<sup>th</sup> century, it also had a strategic role as a frontier fortress. It was twice occupied by the Afghans, first in 1719 and then 1721-30. It was taken back by the Persian government (Afshar, Zand, and the Qajar dynasty). In 1841, during the Qajars, Bam and Kerman were occupied peacefully by the Ismailis for a short period.

From the 19<sup>th</sup> century, the town grew outside the walls, and a new settlement with gardens and date groves was established ca 1km south-west of the Arg. Inside the fortified area, the residential quarters were gradually reduced to ruins. In 1881, due to the increase of the control by the central government in Tehran towards the remote eastern provinces (Baluchistan and Makran), Bam lost its position in favour of Bampur in the SE as the seat of the governor, though it was still used as his summer residence. The population and commercial activities continued to grow. From ca. 6,000 inhabitants in the 1880s, the number grew to 13,000 in 1895, and to 30,000 in 1976. At the time of the earthquake, in 2003, the population was nearly 100,000. Arg-e Bam remained mainly a military base until the 1930s, when the army moved out. The site was protected as an archaeological site under national legislation in 1945, and the first restoration was carried out in 1948. A more extensive restoration campaign started from 1976.

#### Management regime

#### Legal provision:

The nominated property (Arg-e Bam) is owned by the state, through the Iranian Cultural Heritage Organization (ICHO). Some of the listed buildings outside the Arg are property of other governmental institutions, but any changes are subject to permission by ICHO.

The citadel area with its surroundings is 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.

There are two buffer zones. 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 ICHO. An extended landscape protection zone is provided, covering the entire town, the irrigation areas and cultivations in Bam and Baravat. This will allow land use control. The skyline and views of the Arg will be protected, and building height limited to 10m. Agricultural activity will be allowed so far this will not require constructions disturbing the landscape. Any mining or quarrying will be forbidden if it affects the sight of the mountains visible from Bam. The balance between palm groves and built areas would be retained the same as before the earthquake.

#### Management structure:

The main management authority for the nominated property is ICHO, who will consult and collaborate with other national and local authorities. Following the earthquake, a Task Force has been set up by ICHO in order to ensure timely and effective planning and implementation of relevant activities. Management involves collaboration particularly with the Religious Endowment Organization (Sazeman-e Owqaf), Ministry of Housing and Town Planning (Vezarat-e Maskan va Shahrsazi), and the Municipalities (Shahrdari) of Bam and Baravat. ICHO has two offices in the region, the regional office of Kerman, and the Task Force office in Bam.

The previous urban master plan of Bam is no longer valid after the earthquake. The preparation of the new master plan is in progress. An emergency management plan has already been set up to cope with the post-earthquake situation, and to guarantee protective and conservative measures in Bam. The plan was also approved by the International Scientific Workshop in Bam, 17-21 April 2004. It includes safety measures for structures, removal of debris, building facilities for staff, research, and daily monitoring. The new master plan was also discussed by the Workshop, who made recommendations regarding the heritage issues to be taken into account. New aerial maps are in preparation with assistance from France.

#### Resources:

There are three types of governmental funds: development budget, income from revenues and income from providing services to visitors. There is an international fund based on grants allocated to Bam after the earthquake. Projects have also been proposed to be funded by the World Bank and Japan.

The number of persons working in the Bam Task Force of ICHO is 104, which is increased from the previous 65 in the local conservation office. Visitor facilities are currently being re-established.

#### Justification by the State Party (summary)

The Citadel of Bam (Arg-e Bam) is considered to be the largest extant mud brick complex of its type in the world, which has kept its traditional architecture and town planning undisturbed.

*Criterion i*: The antique agrarian sites along the Fault and their sophisticated network of  $qan \hat{a}ts$  are planned to be included in the site in the future, and would justify this criterion.

*Criterion ii*: The Citadel and its satellite sites are a living testimony to local, national and international cultural interchange. Situated on the southern edge of the deserts on the Iranian plateau, Bam has been and still is a key point on the national and international south-western Asian roads. Whether qualified as "Silk" or "Spice" roads for the

passed centuries, or as "Asiatic Highway" (Shāhrāh-e Asiyāii) during the past decades, these roads included Bam in their network. ... The combination between built areas and the underground water system has created in Bam a harmonious landscape. With the new discoveries on the Bam Fault, this landscape will reflect two thousand years of continuous evolution in the history of the *qanāts* from nearly the times they were invented until now.

*Criterion iii*: Bam is, and has been, a perfect manifestation of life in a desert town. ... The "tangible and intangible heritage" of Bam in this perspective incorporates the "cultural landscape composed of the desert environment, ingenious water use, management and distribution system (e.g. *qanāts*), agricultural land use, gardens, and built and urbanized environment".

*Criterion iv*: The ensemble of the Citadel, especially its upper fort (Governmental Quarter) and its walls, constitute an outstanding example of military architecture in unbaked brick. ... It represents fourteen centuries of continuous recorded military actions: from the Arab invasion in the 7<sup>th</sup> century up to the 20<sup>th</sup> century when the earthen walls became obsolete and no more a match for bombes and heavy artillery. The two-thousand-year old sophisticated network of the *qanāts* in Bam is in its turn a unique example of its kind in use over such great span of time.

*Criterion v*: Bam together with its Citadel is undoubtedly an outstanding example of a traditional human settlement and land use representative of a culture having become vulnerable: Living on its traditional underground irrigation system ( $qan\bar{a}ts$ ), the ensemble is a desert town now in disarray after the earthquake which "caused major structural damage to the Arg-e Bam and affected the visual and functional nature of its relation to the city and its traditions."

*Criterion vi:* Bam bears scars from the earthquake which devastated it on 26 December 2003. This tragedy unfortunately makes Bam eligible under this criterion in conjunction with other criteria.

#### **3. ICOMOS EVALUATION**

#### Actions by ICOMOS

ICOMOS was co-organizer in the Ninth International Conference on the Study and Conservation of Earthen Architecture, in Yazd, Nov.-Dec. 2003, which included a visit to Bam to discuss its conservation policies. Following the earthquake, ICOMOS organized an emergency mission to discuss international safeguarding campaign. ICOMOS was also co-organizer of the International Scientific Workshop in Bam in April 2004, which prepared the Bam Declaration and Recommendations for the emergency management and the preparation of the new territorial master plan for Bam and Baravat.

#### Conservation

#### Conservation history:

From the 19<sup>th</sup> century, due to the wish of the inhabitants to move to the new settlement outside Arg-e Bam, the residential quarters gradually fell into ruins. The governor's quarter and the walls were, instead, maintained as the site remained in use by the army until 1930. From 1945, the site was protected as part of national heritage. From 1976 until the 2003 earthquake, the property was subject to conservation and restoration programmes as one of the major heritage sites in Iran.

#### *State of conservation*:

The 2003 earthquake caused extensive damage to a large part of the city of Bam. Another, minor earthquake hit the region in May 2004. The region is an active seismic area, and there have been earthquakes at some distance. Nevertheless, no major shocks have been recorded in Bam itself. Particularly affected was the territory along the west side of the Bam Fault. The epicentre of the main shock was here, and also the after shocks concentrated in this area. The worst affected zone in the new town of Bam was destroyed 80-100%, while further away the impact was gradually less. These recent buildings were mainly mixed structures, combining earth with steel and reinforced concrete. Damage was also caused to the underground *qanāt* system. Its continuous functioning is fundamental to the survival of agricultural activities and palm tree cultivations, and its repair started immediately as a main priority.

Also Arg-e Bam suffered damage due to the shocks. This is particularly visible in the collapse of the main entrance, in the damaged defence walls and the governor's quarters, which were in the best state of conservation prior to the shocks. Access to visitors is now only allowed along an illuminated footpath that runs from the main entrance to the Governmental Quarters in the north. There are critical cracks and fissures in various massive earthen structures, which require urgent attention. Most of the residential area was already in ruins before the earthquake. However, here the debris has filled the streets and made access difficult and risky. It is noted that the debris contains archaeological information and also gives support to the standing walls. Some buildings have been less damaged, including the recently restored Stables.

As a result of the destruction, the archaeologists have discovered new evidence of the history of the place in the Arg itself and in the surrounding territory. This includes remains of ancient settlements and irrigation systems, dating at least to the Parthian-Hellenistic period, 2<sup>nd</sup> century B.C.

#### Management:

Before the earthquake, the city of Bam had a master plan, which was being implemented, and the Arg-e Bam site was one of the major conservation projects in Iran. At the distance of a few months from the earthquake (May 2004), the emergency plans have now been adopted and are being implemented. This regards the whole city and its infrastructures, where providing shelter and services for the inhabitants is priority, as well as taking care of the damaged heritage areas.

There have been several missions organized by UNESCO, involving the UNESCO Tehran Cluster Office and the World Heritage Centre. There have also been missions by ICOMOS and other organizations and specialists from foreign countries. The initiatives have included the International Workshop for the Recovery of Bam's Heritage, 17-20 April 2004, attended by national and foreign conservation specialists as well as by the planning authority of Bam. The workshop examined the situation in Bam, and prepared the Bam Declaration, as well as making recommendations for the action plan and master plan.

The World Heritage nomination initially included principally Arg-e Bam and its immediate surroundings. Subsequently, the core area has been extended to the territory on the west side of the Bam Fault, including the old qanāt system. The earthquake has revealed evidence of some of the early historic phases of the site, and their archaeological exploration has initiated. The management programme also includes the provision of services and facilities for visitors.

#### Risk analysis:

A major disaster, such as that of Bam, obviously brings with it problems that affect heritage values in various aspects. The physical condition of the damaged but still standing earthen structures is precarious and requires urgent intervention. The impact of future earthquakes is a key issue to be faced. Another question is the removal of debris. This will be a long process as the debris also contains archaeological and technical information. In long term, the environmental factors, such as differences in temperature, humidity, and rain in the cold season, will contribute to the erosion and decay of the unbaked earthen structures.

In the new town, much of the structural damage was caused by the lack of observance of building norms, inconsiderate changes to existing structures, and lack of maintenance. In the future, attention must be given to the verification and appropriate implementation of such norms taking into account heritage values. This does not exclude the correct use of earthen structures.

Pressures from urban development and from agriculture do exist. So far, these have been controlled and the integrity of the landscape around the Arg has been respected. The question may become a new challenge due to the present emergency situation in view of the new master plan. Large numbers of visitors have wanted to see Arg-e Bam, which is a potential problem due to lack of safety. Thus, a wooden pathway has been built to allow limited visitor access.

#### Authenticity and integrity

The *Bam Declaration* (April 2004) states: "The heritage of Bam and its surrounding area are a cultural landscape composed of the desert environment, ingenious water use, management and distribution systems, (e.g. *Qanāts*), agricultural land use, gardens, and built environment." The damages by the 2003 earthquake caused serious destruction in the city of Bam and in Arg-e Bam. Damage also affected the underground water canal system which is vital for the continuity of cultivation in Bam. Nevertheless, as a whole, this cultural landscape has preserved its cultural-historical integrity.

In Arg-e Bam, the character of the unbaked earthen structures and the history of the place have caused a continuous building process over centuries. Nevertheless, the urban form and the type of construction have been retained. While the earthquake destroyed part of the structures, including recent restorations and rebuildings, it also revealed underlying layers of history, increasing the research potential of the site. The overall integrity of the site has still been retained.

Current economy of the city of Bam is based on agriculture (cultivation of date palms) and commerce. In the second half of the  $20^{th}$  century, the population of the city has tripled, increasing the housing areas particularly south of the Arg. Nevertheless, the landscape around the Arg has been kept open, keeping the traditional relationship of the fortified ensemble with its context.

#### Comparative evaluation

The historic town of Bam grew at the crossroads of important trade routes in the desert region, at the southern side of the Iranian central plateau. There is evidence of habitation at least in the Achaemenid period (6<sup>th</sup> to 4<sup>th</sup> century B.C.). In Oman, underground water supply systems, *qanāts*, have been documented at least at the end of the second millennium B.C. The systems using *qanāts* take advantage of underground water-table, guaranteeing continuous water supply from mountain slopes to distant desert areas. Iran has vast regions where life is fundamentally dependent on such systems. In fact, the *qanāt* system was an important part of the development strategy of the Achaemenids, who also introduced it to Egypt at that time.

It is not easy to find archaeological evidence for dating *qanāts*, considering that the system is continuously repaired and maintained. In Iran, most *qanāts* in use today are of relatively recent construction. Bam makes a remarkable exception, and its *qanāts* have been dated at least to the Parthian period ( $2^{nd}$  B.C.) or earlier. The irrigation system of Bam also represents a rare example of the use of the seismic fault. Forming a kind of dam, the fault has allowed water to accumulate on the mountain side, to the west of the fault. This means shorter canalisation and abundant water.

There is a large number of fortified cities in Central Asia, including: Meybod, Zuzan, Rey, and Nishapur, in Iran, or Herat in Afghanistan. The construction technique used in Arg-e Bam, a mixture of mud layers (*Chineh*) and mud bricks (*Khesht*), can be found in a region, which extends from Central Asia to East Africa. E.g., the Bahla Fort in Oman was built in a similar technique. In this context, Arg-e Bam is distinguished by its age, its size, and the complexity of its fortification system. Even though Bam was injured in the recent earthquake, the cultural landscape and the remaining structures still represent an outstanding example of this type of settlement.

#### Outstanding universal value

#### General statement:

The Bam Citadel (Arg-e Bam), and its Related Sites form a cultural landscape in the desert area in south-eastern Iran. Bam was an important crossroads of trade routes and cultural exchange, linking Iran to the northern shore of the Sea of Oman, and through Bampur to the present-day Pakistan and the Indus Valley. Bam also had contacts with Egypt and the Near East. There is evidence that silk production was introduced to Iran in the early Sassanian

period (3<sup>rd</sup> cent.), in the region of Kerman. In fact, Bam developed into an important trading place, especially in silk and cotton garments. Its heyday was from the 7<sup>th</sup> to the 11<sup>th</sup> centuries.

The geographical areas around the Central Desert of Iran, such as the cities of Yazd, Kerman, Kashan, Birjand and Bam, use the technology of  $qan\bar{a}ts$ , developing a distinct cultural system, which has been called the *Qanāt civilization*, sharing cultural, socio-economic and political characteristics that distinguish it from others. In fact, the existence of Bam is fundamentally based on the development of  $qan\bar{a}ts$  that bring water from the mountains in the west. Bam has preserved the oldest archaeological evidence of such systems still in function in Iran, going back some two and a half millennia. The site is distinguished due to the ingenious use of the seismic fault to facilitate water management and irrigation.

The history of the fortified settlements in Bam has been documented to the Achaemenid period, and even beyond. The earthquake has also revealed layers on the history of the site not known previously. In the Arg itself, evidence has been revealed of the different phases of construction. Arg-e Bam represents vernacular heritage. Even though an archaeological site it is the most representative of its type.

#### Evaluation of criteria:

Criterion iii: Arg-e Bam and its related sites represent a cultural landscape and an exceptional testimony to the development of a trading settlement in desert environment in Central Asia. Its history goes back to the Achaemenid times, and it has preserved earliest known archaeological evidence to the development the  $qan\bar{a}t$  system still in use in the Iranian high plateau.

Criterion iv: Arg-e Bam represents an outstanding example of a fortified settlement and citadel, as these developed in the Central Asian region. Bam is seen as the most significant example of a complex fortified structure using in its construction a combination of mud layers (*Chineh*) and mud bricks (*Khesht*), also designed to resist seismic action. Even though damaged in the recent earthquake, Arg-e Bam can still be considered to have retained its cultural-historical representivity.

Criterion v: The cultural landscape of Bam is an outstanding representation of the interaction of man with the desert environment. It has only been possible through a complex water management system involving  $qan\bar{a}ts$ , and Bam has preserved the earliest known evidence for this in Iran. In order to function properly, the system of  $qan\bar{a}ts$  must be based on a strict social system with precise tasks and responsibilities. In the case of Bam, this system has survived until the present. It is significant that the damaged  $qan\bar{a}ts$  were repaired as the foremost priority after the earthquake. In the current emergency situation, this system however has become vulnerable to change, and requires particular attention in relation to the development of the new urban master plan and the strategies of intervention in the entire cultural landscape.

Criterion ii: Bam developed at the crossroads of important trade routes linking Iran to India and the Sea of Oman, as well as trading with Egypt and the Near East. Through these contacts, Bam developed into a multicultural society, involving the different religions, such as Zoroastrian, Jewish, Islamic, Christian, etc. Arg-e Bam is an early and impressive example of a medieval fortified settlement, still considered the most representative example of its type in this cultural region.

Criterion i: The State Party has proposed this criterion in reference to the development of the  $qan\bar{a}t$  system. Nevertheless, ICOMOS believes that this aspect is already covered under the other criteria.

Criterion vi: The State Party proposes this criterion in reference to the recent earthquake. While recognising the serious losses of human lives, ICOMOS does not consider the use of this criterion relevant.

#### 4. ICOMOS RECOMMENDATIONS

#### **Recommendation** for the future

Considering the serious emergency situation in Bam after the recent earthquake, and the efforts being made for the revival and reconstruction of the urban habitat and the preservation of the heritage resources, ICOMOS recommends that the Committee consider its inscription to the World Heritage List in Danger.

ICOMOS endorses the Bam Declaration (April 2004) and the recommendations therein regarding short- and longterm action in the conservation management and sustainable development of the site as a whole, and urges the State Party to implement them as a priority.

#### **Recommendation** with respect to inscription

That the property be inscribed on the World Heritage List and on the World Heritage List in Danger as a *cultural landscape* on the basis of *criteria ii, iii, iv and v*:

*Criterion ii*: Arg-e 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*: Arg-e Bam and its related sites represent a cultural landscape and an exceptional testimony to the development of a trading settlement in the desert environment of the Central Asian region.

*Criterion iv*: Arg-e 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  $qan\bar{a}ts$ . 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.

ICOMOS, June 2004