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UNESCO Region: ASIA AND THE PACIFIC

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**SITE NAME:** State Historical and Cultural Park "Ancient Merv"

**DATE OF INSCRIPTION:** 4<sup>th</sup> December 1999

**STATE PARTY:** TURKMENISTAN

**CRITERIA:** C (ii) (iv)

**DECISION OF THE WORLD HERITAGE COMMITTEE:**

Excerpt from the Report of the 23<sup>rd</sup> Session of the World Heritage Committee

The Committee inscribed the property on the World Heritage List on the basis of criteria (ii) and (iii):

Criterion (ii): The cities of the Merv oasis have exerted considerable influence over the cultures of Central Asia and Iran for four millennia. Seljuk City in particular, influenced architecture and architectural decoration and scientific and cultural development.

Criterion (iii): The sequence of the cities of the Merv oasis, their fortifications, and their urban lay-outs bear exceptional testimony to the civilizations of Central Asia over several millennia.

The Committee congratulated the State Party for nominating its first World Heritage site, which has enhanced the representativity and balance of the World Heritage List.

**BRIEF DESCRIPTIONS**

Merv is the oldest and most completely preserved of the oasis cities along the Silk Route in Central Asia. The remains in this wide oasis span four thousand years of human history and a number of monuments are visible, particularly from the last two millennia.

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**1.b State, Province or Region:** Mary Vilayet

**1.d Exact location:** 37° 42' N, 61° 54' E

**NOMINATION OF PROPERTIES FOR INCLUSION ON  
THE UNESCO WORLD HERITAGE LIST  
CULTURAL HERITAGE**

**NOMINATION OF**

**MERV**

**The Adjacent Walled City Sites,  
the Bronze and Early Iron Age Cities in the north  
and the Monuments in the Oasis**

**Ministry of Culture**

**GOVERNMENT OF THE REPUBLIC OF**

**TURKMENISTAN**

**1998**

## 1. Identification of the Property

- a. Country: Republic of Turkmenistan
- b. State province or Region: Mary Vilayet
- c. Name of Property: State Historical and Cultural Park 'Ancient Merv'
- d. Exact location on map and indication of geographical coordinates to the nearest second.
  - i. The historic urban centre of the Merv oasis, Erk and Gyaur Kala, 500 BC - 1100 AD; Sultan Kala, 800-1400 AD; and Abdullah Khan Kala, 1409-1850 AD - N 37 40 03; E 62 10 39, all contained within the Archaeological Park, Ancient Merv;
  - ii. Iron Age centres, 1200-300 BC, Yaz and Gobekli Tepes, N 37 44 65; E. 61 59 53; Takhirbaj Tepe, N 38 03 58; E. 62 05 10.
  - iii. Bronze Age centres, c. 2500-1200m Kelleli; Adji Kui; Taip, N 38 15 00, E. 61 44 08, Gonur Tepe, N 38 12 58; E. 62 02 12; Togoluk, N 38 07 15, E 62 00 00.
  - iv. Principal Islamic Monuments within the State Historical and Cultural Park 'Ancient Merv', N 37 40 03; E 62 10 39: Mausolea of Sultan Sanjar, Muhammad ibn Zayd, Kiz Bibi, the Timurid iwans or Askhab, Yusuf Hamdani; the secular buildings, the Greater and Lesser Kiz Kala, the 'Organ Pipes' koshk, the Koshk-i Murat, Porsoy koshk, Potter's house koshk, *kepter khamas* in northern suburb and citadel of Sultan Kala; the palaces in the citadels of Sultan Kala and Abdullah Khan Kala; the 'Seljuk House' in Sultan Kala; Koshk Imaret near Abdullah Khan Kala; dings near Bairam Ali Electricity Station, the three Icehouses.
  - v. Principal Islamic Monuments outside the immediate environs of the State Historical and Cultural Park 'Ancient Merv' but protected by that Park. Mosques and Mausolea: the Mausoleum of Abdullah ibn Buraida; the mosque and minaret at Uly Kishman N. 41 99 395. E. 42 14 10, and minaret at Garry Kishman; the Mosque/Mausoleum of Talkhattan Baba, N. 37 24 724, E. 62 10 182; the Mausolea of Imam Bakr and Shafi, N. 37 23 500, E. 62 05 500; the Mausoleum of Huday Nazar; the Mausolea of Gok Gumbaz; N. 61 15 E. 42 10. Mausoleum of Imam Qasim. The Koshks; Garam koshk, N. 37 43 000 E. 62 09 000; Besh Agyz koshk, N. 37 52 199 E. 62 04 053; Thulli koshk, N. 37 47 489 E. 62 02 981; the Greater and Lesser Nagym Kalas, N. 37 41 676 E. 61 57 882; Kelte Minara koshk, N. 37 23 637 E. 62 00 529; Ovliali koshk, N. 37 30 00 E. 62 04 000; Yaki Pir koshk, N. 37 44 553 E. 61 58 907; Durnali koshk, N. 37 53 01 E. 62 05 111; Kurtly 'caravanserai' N 37 52 039 E. 62 07 629. Bairam Ali Ding, N. 37 37 500 E. 62 08 000.
- e. Maps and/or plans showing boundary of area proposed for inscription and of any buffer zone
  - i. Map 1, Central Asia showing the location of Merv
  - ii. Map 2, The Merv Oasis with the principal sites.

iii. Map 3. The historic urban centre of the Merv oasis, the cities and principal monuments.

f. Area of property proposed for inscription (ha.) and proposed buffer zone (ha.) if any.

i. The State Historical and Cultural Park ‘Ancient Merv’ with the four cities and their associated monuments, c. 1200 hectares.

ii. The sites and monuments in the oasis with their buffer zones, c. 500 hectares. Each isolated site or monument should have a buffer zone of at least 15 m.

## **2. Justification for inscription**

### **a. Statement of significance.**

Merv and the Murghab Delta qualify for inclusion on the World Heritage List under the following counts:

i. Merv’s position as a major city in an important oasis on the Silk Road facilitated the exchange of goods and ideas over millennia. The medieval city, in particular, influenced developments in architecture and related arts (stucco, cut brickwork, pottery), scientific and cultural development.

ii. The range of major city-sites both in the historic urban centre and the Bronze Age centres in the north is outstanding on many counts. Not only are the cities highly significant in themselves for each of the periods they represent, but also the fact that they have not been developed since their abandonment means that they have remained uniquely archaeologically accessible. The walls of the four historic cities, for instance, provide an unsurpassed record of changing military architecture in mudbrick through two millennia.

iii. The Mausoleum of Sultan Sanjar is a masterpiece, a unique artistic and architectural achievement comparable in importance to the Dome of the Rock in Jerusalem and the Taj Mahal.

iv. Merv is associated with kings, scientists, astronomers, poets, including Omar Khayyam, and geographers, such as Yaqut al Khamavi, of world historical significance. It was an imperial capital city in the Abbasid and Seljuk periods, as well as in others.

v. The traditional, characteristic and little known Central Asian corrugated buildings are vulnerable under the impact of irreversible ecological change (the rising water table).

vi. Important technological advances in metal-working occurred at Merv.

### **b. Possible comparative analysis (including state of conservation of similar properties).**

It is the unusual pattern of shifting urban settlement that has preserved at Merv a unique record of urban settlement through time, rather than settlement remaining in a single site, often to the present day, as at Beirut or Jerusalem. Until the 1950s the cities were preserved in a near-desert climate.

The Bronze Age centres in the north, preserved in the desert until recent advances in irrigation agriculture, form part of the rich and complex Bronze Age civilization uniting Bactria, India, Central Asia and Iran.

The Seljuk mausolea in the oasis, including the unique Mausoleum of Sultan Sanjar and the series of small mausolea decorated with cut brick work, present an important and little known chapter in the story of Seljuk architecture, of which comparable examples can be found in

Central Asia, Iran and Turkey. The Timurid monuments also form an integral part of the architectural history of this important period, again with links with buildings in Central Asia, Afghanistan and Iran.

c. Authenticity/Integrity

Since 1988, the city sites and monuments of the oasis have been protected by their inclusion in the State Historical and Cultural Park 'Ancient Merv'. The walled and moated city-sites of the historic urban centre represent different periods of settlement from 500 BC, essentially undisturbed since their abandonment. Earlier cities dating to the Middle and Late Bronze Age and Early Iron Age in the north of the oasis take the record of urban settlement back to the third millennium BC. The surviving Islamic monuments dating from perhaps the seventh century AD each have a different conservation history: essential conservation has had to be carried out since the early 20th century, particularly on the baked brick monuments. Records of recent work are preserved in the State Historical and Cultural Park 'Ancient Merv', while a photographic dossier of changes since the late 19th century is in preparation by the International Merv Project. That concerned with the secular buildings should be ready for press in 1999, that of the religious buildings in the following year. The material is readily available for consultation in the Institute of Archaeology, University College London.

d. Criteria under which inscription is proposed (and justification for inscription under these criteria).

- i. The Mausoleum of Sultan Sanjar is a **masterpiece of the creative genius** and is itself worthy of World Heritage Status. It is preserved in the centre of its city, with outstanding fortifications, street layout, citadel and other monuments.
- ii. The cities of the Merv oasis have **exerted considerable influence over the civilizations of Central Asia and Iran for four millennia**. Located in an oasis on a major east-west trade route, known popularly as the 'Silk Road' they have facilitated the exchange of goods and ideas. The Seljuk city in particular influenced developments in architecture and architectural decoration, scientific and cultural development.
- iii. The **sequence of separate major cities**, the series of fortifications, the ability to study different street lay-outs across the cities, and the **Mausoleum of Sultan Sanjar are unique**.
- iv. **The corrugated monuments, built of mudbrick, are characteristic examples of Central Asian buildings**, the preservation of which is rare. The majority survive in the Merv oasis, with two outstanding examples to the west of the Seljuk city. Recent discoveries of advanced early Islamic steel furnaces indicate Merv was a major technological centre.
- v. The mudbrick monuments of Merv, such as the corrugated buildings, pavilions and icehouses, are **characteristic traditional structures** of the area, fragile by nature and vulnerable under the impact of irreversible environmental and socio-economic change.
- vi. **Numerous major events and personalities of historic importance** have been associated with Merv. These include Abu Muslim, who initiated the Abbasid revolution, the Seljuk sultans and scholars attracted to the libraries and observatory of Merv, such as the geographer, Yaqu al Khamavi, and the poet/astronomer, Omar Khayyam.

**3. Description**

a. Description of Property.

The oasis of Merv (Slide 1), currently occupying c. 85 x 74 km., in the Karakum desert is strategically located between Serakhs and Amul (modern Charjou), the crossing point of the Amu Darya on the main west-east route to Bukhara and Samarkand (Map 1). Until recent times the oasis received its water entirely from the river Murghab: this was supplemented in the 1950s by the waters of the Kara Kum canal. The oasis was formed by the silt brought down by the Murghab river, creating an alluvial delta fan, tilting slightly to the north. The landscape is essentially flat, except where disturbed by irrigation works, and is interspersed with a dense pattern of ancient sites. Settlement began in the Bronze Age in the north of the oasis, where simple canals could be drawn off the various branches of the river before it fanned out into the desert. This area was subsequently deserted, as more complex irrigation systems were developed, dependent on the construction of dams. A network of canals increased agricultural potential, and settlements moved further south. The historic urban centre developed on the eastern edge, close to modern Bairam Ali, well located for starting out on the desert route to Amul.

A major expansion in modern agriculture occurred in the 1950s with the arrival of the Kara Kum canal and the employment of diesel pumps and large agricultural machines. The creation of large fields, the removal of trees and a rise in the water table not only changed the modern appearance of the oasis, but destroyed archaeological sites and the ancient landscape.

About 1,000 archaeological sites have been identified across the 18,000 sq. km. of the Murghab delta. They represent an unique complex of monuments documenting the hinterland of Merv throughout its history, as well as its formative processes as a major centre of civilization in Asia from the Bronze Age c. 2,500 BC. Many are monumental complexes landmarking the alluvial plain and in an exceptional state of preservation. The following sites are to be included in a scheme of protection. Bronze Age (c. 2500-1200 BC), *Kelleli, Adjı Kui, Taip, Gonur Tepe* and the *Togoluk Site Complex*: Iron Age (c. 1200-300 BC), *Yaz/Gobekli Depes and Takhirbaj Tepe*. Each centre is surrounded by clusters of minor settlements.

*The Historic Urban Centre* located on the east of the oasis, near the modern centre of Bairam Ali, comprises four adjacent walled city-sites. *Erk Kala*, the earliest, subsequently served as the citadel of the Hellenistic metropolis, Antiochia Margiana, modern *Gyaur Kala*. The medieval city, *Sultan Kala*, one of the greatest cities of its day, developed to the west. The post-medieval city, 2 km. to the south, was smaller.

#### *1. The Bronze Age Centres in the North*

Kelleli 3 and 4. An area of settlement, under threat from modern agricultural expansion, includes sites, which give their name to the Middle Bronze Age phase of the Murghab sequence. Kelleli 3, nearly 4 hectares, has a double external wall with towers flanking four symmetrical entrances. An area of housing was cleared in the south-west. Kelleli 4, c. 3 hectares, was also enclosed by a double outer wall with towers flanking the surviving entrance. A large square building was cleaned. Although poorly preserved, the sites represent important evidence of Middle Bronze Age Margiana.

Adji Kui 8, c. 8.5 hectares, partially excavated by Sarianidi at the end of the '70s, is a Middle Bronze Age settlement with a buttressed external wall and a large, well-planned housing unit. Under threat from agricultural expansion.

Taip (Slide 55) illustrates a transitional phase between Middle and Late Bronze Age. Two close but separate mounds consist of a walled square area, c. 3.5 hectares and a large courtyard building in the north. Excavations recovered important cylinder seals, unique to Bactria and Margiana in the early second millennium. The southern mound, c. 8 hectares, unexcavated, is probably contemporary. The Taip settlements are of paramount importance in the cultural sequence of the Murghab delta because they represent an important transitional stage from the Central Place settlement organization of the Middle Bronze Age to a different settlement pattern based on smaller fortified villages, typical of the Late Bronze Age.

Gonur Depe 1 is the largest Bronze Age site of the Murghab delta, occupying c. 55 hectares, with two apparently distinct mounds and two graveyards dating from the Middle to the end of the Late Bronze Age (Slides 56-57). The major mound, Gonur 1 north, extends for nearly 50 hectares to a height of c. 4 m. above the surrounding *takhir*. A huge palace and a building interpreted as a fire temple have been excavated between 1993 and 1998. The Palace has a double wall with rectangular towers. The internal planning is well organized with large courtyards, living quarters and spacious possibly official rooms. In the north-eastern sector a large building with long narrow storage rooms has been partially excavated. The Palace was rebuilt at least three times, the first being destroyed by fire. Except for thin top layers, the mound dates to the Middle Bronze Age (Namazga V period). To the west is a large contemporary necropolis (c. 10 hectares).

In the following Namazga VI period or Late Bronze Age, a fortified village was built over nearly 3 hectares of Gonur 1 south, excavated 1988-92. Enclosed in a massive square wall with circular towers at each corner and semi-circular towers along each side is domestic housing with a possible temple in the south-west. There were at least two phases, with at the end (Takhirbaj phase) a fortress built on the abandoned Late Bronze Site. The state of preservation is good.

The Togoluk area was densely inhabited during the Bronze Age. Togoluk 1 is characterized by four mounds, with occupation from the Middle to the Late Bronze Age (Slide 59). The mound excavated by Sarianidi from the seventies contained a large fortified square building, perhaps a temple. A second excavated site is Togoluk 21, which contains a large complex structure, nearly 2 hectares in size, dating to the Late Bronze Age. A square central building with circular towers at the corners and semi-circular towers along the sides is enclosed by two concentric walls with typical circular and semi-circular towers. The central building is well-planned with living and storage areas. It deteriorated after excavation, and restoration work was undertaken, although this is affected by lack of maintenance.

The complexes at Gonur and Togoluk represent the most impressive proof of the architectural attainments of Margiana during the first half of the second millennium BC.

## *2. The Iron Age Centres in the North*

Takhirbaj depe (THR-1), at the northern limit of Iron age settlement clusters in the eastern Murghab delta, 21 km NNE of Yaz depe and 45 km N of Old Merv, is the most prominent site in the vast area between the Yaz depe and the Togolok oasis (Slide 60). Excavations show a sequence ranging from the Late Bronze Age-Early Iron Age to the end of the Achaemenid period and is providing the basis for a redefinition of the Lower Murghab chronology. Settlement consisted of a walled and moated citadel, built during the last phases of the Bronze Age and restored many times in the next period Yaz I and Yaz II. A large extramural area occupied during Yaz I-III period suggests that the site was the most important centre of the eastern Murghab Delta during the Iron Age. Also to be listed are the type site of the Iron Age ceramic sequence, Yaz Tepe, and the well-preserved adjacent Partho-Sasanian square fortress of Gobekli, 180 x 90 m.

### *3. The Historic Urban Centre*

1. Erk Kala (Slide 2), c. 20 hectares, is a walled and moated polygonal site with walls surviving to a height of c. 30 m. and with an internal citadel. It was probably founded c. 500 BC.

2. Gyaur Kala (Slide 2) This essentially square city measures c. 2 km. a side. Within Gyaur Kala points of interest include the central mosque, the Buddhist stupa, the Oval Building and fortifications close to the south-west corner. The Beni Makhan mosque is thought to be the earliest mosque in the city of Merv. The mosque itself is obscured by excavated dumps, although the associated cistern is visible and illustrates how the ancient city was watered by underground canals. The Buddhist stupa and monastery in the south-east corner is the westernmost excavated example of a Buddhist structure known to date. The Oval Building in the north-west quarter, located on a platform, is a striking structure, consisting of rooms around a courtyard. The fortifications in the south west corner present an impressive excavated sequence of a series of walls, in use from the Hellenistic to the Late Sasanian periods.

3. The medieval city of Sultan Kala or Marv al-Shahijan (Royal Merv - Slides 3-4) located to the west of Gyaur Kala began as a suburban development, only walled in the 11th century. The city is much the same size as Gyaur Kala, c. 4 square km., although extensive walled suburban areas to north and south occupy another 2-3 square km., making it one of the largest cities of its day. The Mausoleum of Sultan Sanjar (1118-1157) was constructed in the centre of the Seljuk city (Slides 4, 9-14). This cube-like building was not an isolated structure, as it appears today, but formed part of a major religious complex, the courtyard of which can be seen from the air and from the galleries below the dome (Slides 9 and 10). It was one of the greatest architectural achievements of the age. Features include the elegant brickwork, fine carved stucco and surviving paintings (Slides 11-14), both hallmarks of Seljuk architecture.

The walls of the medieval city and of the citadel, Shahriyar Ark, are unique. They illustrate two consecutive periods of construction in the military architecture of the 11th-13th centuries. Towers, posterns, stairways, gallery walks and even crenellations (Slides 5-8) are all preserved in different areas of the 12 km. circuit of the walls, preservation of the earlier phase being ensured by its encasement in the later revetment. Buildings in the



citadel in the north-east corner (Slides 3-4 and 49) include a small corrugated building or kepter khana, and the ruins of a palace. Other monuments within the city include the köshk known as the 'Organ Pipes', to the north of the road, and the so-called 'Seljuk House' in the south-east corner (Slides 40 and 51).

#### A. Monuments in the vicinity of the Cities

*Mausoleum of Muhammad ibn Zayd* (Slides 17-21) was built in 1112 for Muhammad ibn Zayd, a descendent of the Prophet. It is one of the best examples of an Islamic mausoleum in the Merv oasis and consists of a domed chamber with a fine Kufic inscription. Part of the original decorated brick facade can be seen in the prayer hall (Slides 20 and 21).

*Mausoleum and mosque of Kiz Bibi* originally consisted of a complex of buildings including a mosque and *khanaqa*. The mausoleum is a square building (7.50 sq. m.) with a single chamber roofed with a dome. It has been heavily restored.

*The Timurid iwans or Askhab* (Slide 25) consist of two tall iwans with two mausolea (rebuilt) in front, and a modern prayer hall, built on older foundations.

#### C. Residential Buildings in the Vicinity of the Cities

One of the most characteristic architectural features of the oasis are the monuments known as Köshks. The basic form consists of an isolated square or rectangular structure, usually two storeys in height, although occasionally there are three. In most examples the walls above a skirt or glacis are divided into a series of corrugations which give the buildings their distinctive appearance.

The Greater and Lesser Kiz Kala form two of the most impressive koshks in the oasis (Slides 30-32). Their corrugated walls rise above a sloping glacis and were originally topped with crenellations. The principal rooms were arranged round a courtyard on the first floor, while the rooms of the ground floor were dimly lit by narrow slit windows. Little of the external walls of the Porsoy Köshk (Slides 44-45) to the west of Merv kolkhoz survives, but what is preserved survives to an exceptional height. The walls of this koshk were battered rather than corrugated, and contained three floors of rooms.

A small pavilion of the Timurid period, the Köshk Imaret, consisting of a single room is located in a field 800 m. to the north of Abdullah Khan Kala. Nearby is one of three icehouses (Slide 52). The tops of the domes of these conical structures have collapsed.

#### The post-medieval city, Abdullah Khan Kala

Apart from the walls and moat of the 15th century city, 2 km. to the south (Slide 15), only a few walls of the palace survive in the citadel (Slide 16). It was the smallest of the cities. The surviving fortifications are, however, of considerable importance, since they continue the remarkable record of military architecture, preserved in a series of walls at Merv from the 5th century BC to the 15-16th centuries AD.

The city of Merv and its closer oasis surroundings were defended toward the northern steppes in ancient times by a complex system of fortifications, including a continuous earthen wall that can still be followed for some 30 km. across the ground, and three still-standing imposing fortresses at the sites of Gobekli, Uly Kishman and Garry Kishman. There are many major sites in the oasis of the historical period, including Changly, Durnali, Chilburj, Kyrk Tepe, and Kurtly.

The principal Mosques and Mausolea in the oasis include: an early mosque and minarets at Garry and Uly Kishman; three fine mausolea at *Geok Gumbaz* of the Timurid period (Slides 26-28); a small mausoleum, Abdullah ibn Bureida, with the remains of an exceptionally fine stucco inscription (Slide 24); the superb Seljuk *Talkhattan Baba Mosque* (Slides 22-23), probably built in the early 12th century; the mausolea of *Imam Bakr* and *Imam Shafi*, located in the Talkhattan cemetery, both extensively restored; and the *Imam Qasim* mausoleum.

The best preserved koshks in the oasis are Besh Agyz (Slides 34-35), Garam (Slides 36-37), Thulli (Slides 38-39), the Greater and Lesser Nagym Kalas (Slides 33 and 41), Kelte Minara (Slide 43), Ovliali, Yaki Pir (Slide 46) and Durnali (Slide 43). Another important building is Kurtly 'caravanserai' (Slides 47-48). There are also a series of towers or 'dings', probably of the 18-19th centuries, of which the best surviving examples are near Bairam Ali (Slide 53).

**b. History and Development:**

The oasis has supported a series of major urban centres since the third millennium BC. The earliest Bronze Age centres (c. 2500-1200 BC) were located in the north of the oasis, where the river came to the surface and could be easily utilized. With the development of more advanced irrigation, the centres moved further south, with a series of important Early Iron Age sites. The historic urban centre, developed c. 500 BC, moved to the east of the oasis, where it was well sited to take advantage of routes to the east. It consists of a series of four adjacent walled cities, occupying an area in excess of 1200 hectares. The oldest of these, Erk Kala, is attested in written sources in the Achaemenian period (519-331 BC). The oasis formed part of Alexander the Great's empire, and Pliny (NH VI, 16-17) suggested that the Hellenistic city was founded by Alexander. The city, rebuilt by the Seleucid king, Antiochus I Soter (281-261 BC), was known as Margiana Antiochia, identified with Erk Kala and Gyaur Kala. It was occupied for some 1500 years, through the Parthian and Sasanian periods and into the early Islamic period, before being used as an industrial zone between the 8th and 10th centuries, although even then the central mosque continued in use as late as the 11-12th centuries.

The medieval city developed to the west of Gyaur Kala, becoming the urban centre as Gyaur Kala declined. According to medieval sources, it was walled in the 11th century by Sultan Malikshah (1072-1092), while further suburban developments to north and south were walled by Sultan Sanjar (1118-1157). This city was the capital of the Empire of the Great Seljuks (11th-13th centuries) and was one of the principal cities of its time, occupying more than 600 hectares. Famed for its libraries it attracted scholars from all over the Islamic world, including the astronomer/poet Omar Khayyam and the geographer Yaqut al Khamavi. This brilliant period of the city's life was brought to an end when it was sacked by the Mongols in 1221-22 AD. According to medieval sources, they slew the population and devastated

the complex water system, which together would indeed have rendered Merv a 'desolation' for some time. However, such accounts were exaggerated and there is evidence for continued, although diminished occupation during the Mongol period.

The next city was built on a new site to the south by Shah Rukh (1408-1447): this is known today as Abdullah Khan Kala. Its smaller size reflected Merv's diminished importance at the time. Increased population in the 18th century led to a walled extension of Abdullah Khan Kala, known as Bairam Ali Khan Kala, now mostly destroyed.

c. Form and date of most recent records of property.

An Archaeological Survey and Map of the Murghab Delta, undertaken by teams from the Russian Academy of Sciences and the Istituto Italiano per l'Africa e l'Oriente (Professors G. Koshelenko and M. Tosi), has just been published - see bibliography. This lists the principal pre-Mongol sites throughout the oasis.

The most recent published accounts of the monuments were by G. Pugachenkova in 1958 and 1963, and by E. Atagaryev and V. Piliavskii in 1973, see bibliography. Detailed records of work undertaken on the monuments are kept by the Office of the State Historical and Cultural Park 'Ancient Merv' at Merv. New publications of the standing monuments and of the historic centres are in preparation by the International Merv Project, a Turkmen-British archaeological collaboration. Prior to their publication the large archive of photographs and plans are available for consultation in the Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY.

d. Present state of conservation.

The city-sites forming the historic urban centre are abandoned walled cities, preserved as archaeological sites within the State Historical and Cultural Park 'Ancient Merv' and protected from modern development. They are subject to erosion by wind and weather and to rising damp and salts from the high water table. Sites in the north of the oasis are less well protected.

The Monuments: The most endangered buildings are constructed of mudbrick, although fired brick structures are also at risk. The erosion of the bases of the walls seriously undercuts them and leads to collapse. The mosques and mausolea are in urgent need of structural surveys. To give an indication of the range of work required, problems affecting four buildings in and around Sultan Sanjar are outlined herewith. Similar problems affect the other religious buildings.

The recent cement capping of the dome (1996) of the *Mausoleum of Sultan Sanjar* is making the adjacent brickwork damp; there is a deep crack in the dome. The programme of the conservation of the paintings in the interior initiated by the Russians in the 1990s should be completed. There are several unstable areas in the *Mausoleum of Muhammad ibn Zayd*, one of the most attractive buildings in the area, particularly the semi-domes at either end of the prayer hall and the dome over the antechamber. The very fine inscription running round the walls of the interior of the mausoleum is being damaged by the pigeons which fly in through the now open window in the dome, which also cause problems in the Mausoleum of Sultan Sanjar. The insensitive restoration of the *Mausoleum of Kiz Bibi* with the cement, wire and nails covering the original interior walls and iwan arches should

be removed. *The Iwans and Mausolea of the Askhab* are not stable. The vaulted roof of the western iwan is in poor repair.

*Secular Monuments.* The secular monuments are constructed in the main of mudbrick. Well preserved in near-desert conditions until the intensification of agriculture in the 1950s, they are now at risk from rising damp and salts, leading to deep undercutting of the walls. *The Great and Little Kiz Kalas:* Although no major wall has collapsed since the 1970s, the Great Kiz Kala is in an unstable state and a structural survey is required. The base of the walls is eroded and undercut, especially at the corners. There is deep vertical cracking. Emergency repairs are a priority. The Little Kiz Kala has already suffered from considerable and continuing collapse and is in a perilous state.

*Other monuments, köshks, dings, icehouses, etc.* Numerous major monuments are located in agricultural land and urgently need protection with buffer zones. For instance, the Porsoy Köshk to the west of Merv kolkhoz is standing in agricultural land near a canal. Housing of this expanding kolkhoz has already reached the banks of the canal. Unless secured within a protection zone, the köshk will be surrounded by housing. The structure itself is unstable, sections having fallen since 1992.

e. Policies and programmes related to the presentation and promotion of the property.

The city-sites and monuments of the Merv oasis are the responsibility of the Ministry of Culture. Locally they are under the management of the State Historical and Cultural Park 'Ancient Merv', itself an office of the Ministry of Culture.

Tourism is the responsibility of the Ministry of Tourism. The Ministry has an office in Mary, the principal town of the Merv vilayet.

#### **4. Management**

a. Ownership.

Ministry of Culture of Turkmenistan

b. Legal status.

Property of the State of Turkmenistan. Decree 357 of December 2, 1987, provided for the setting up of the State Historical and Cultural Park 'Ancient Merv' to protect the ancient monuments and city sites. This was opened on August 8, 1988.

Excavations in Turkmenistan require official permits, authorized by the host institution and by the Ministry of Culture. The attendance of an official from the Ministry of Culture is obligatory.

c. Protective measures and means of implementing them.

The city-sites of the historic urban centre and monuments in the vicinity are within the State Historical and Cultural Park 'Ancient Merv'. The Office of the State Historical and Cultural Park is responsible for the preservation and conservation of the sites and monuments within the park and of all standing monuments in the oasis. They have a Park Office located not far from Sultan Sanjar. The office staff consists of a Director, Assistant Director, an archaeologist,

office staff and wardens. The Archaeological Park has two additional offices in the Mary Vilayet to enable it to monitor outlying monuments.

d. Agency/agencies with management authority

The Ministry of Culture and its local offices, the State Historical and Cultural Park 'Ancient Merv'.

e. Level at which management is exercised (e.g., on property, regionally) and name and address of responsible person for contact purposes

The responsible official in the Ministry of Culture in Ashgabat is Deputy Minister, Dr. Vasova Galina. The director of the State Historical and Cultural Park 'Ancient Merv', appointed in 1997, is an architect, Rejeb Jeparov.

f. Agreed plans related to property (e.g., regional, local plan, conservation plan, tourism development plan)

The sites are protected by the laws of the State Historical and Cultural Park 'Ancient Merv'. Plans for the development of tourism are in preparation.

g. Sources and levels of finance

Financial resources are limited. Entry charges to the Park are in place.

h. Sources of expertise and training in conservation and management techniques

Only local materials, techniques and equipment are available. There is no access to modern conservation techniques and materials.

I. Visitor facilities and statistics

The number of tourists visiting the site has increased significantly over recent years. In the autumn of 1992 visitors probably numbered less than a dozen in all, whereas in 1996 there were 355 tourists, and 123 tourists in transit. In 1997 there were many busloads of tourists on organized tours, as well as individual tourists. The Director of Tourism in Mary reported that in the six months to June 1997, 492 tourists in organized groups visited the site. In addition, there were 197 visitors in transit from Uzbekistan to Iran. Most visits occur during the summer months. These figures have been supplied by the Director of the Mary office of the Ministry of Tourism.

Visitor carrying capacity: The cities of Merv and their monuments occupy more than 1000 hectares. There is much to see. However, the present road and parking facilities would be inadequate for mass tourism. Vehicle access and parking must be improved at many points in order to accommodate simultaneous tourist groups. Alternative routes for different itineraries must be clearly marked.

j. Property management plan and statement of objectives (copy to be annexed)

Development plans are in preparation by the Ministry of Tourism, in consultation with UNDP and UNESCO.

There is an ongoing programme of scientific research into the monuments, as well as archaeological excavations. This work is undertaken by local architects and archaeologists working with foreign specialists from Britain, Italy and Russia.

k. Staffing levels (professional, technical, maintenance).

Staff of the State Historical and Cultural Park 'Ancient Merv' in 1997 included archaeologist, A. Annaev, supplies manager, Alty Karyagdyev, economist, Lida Grigorievna Alipova, personnel officer/secretary, Svetlana Voronina, officer in charge of monument protection, Rejeb Akhmedov, chief accountant, Yelena Romanova Krutikova, museum wardens, Soltan and Alek (there is currently no museum), a welder, Chari, a research officer, half-time, Azim Makhemedovich Akmedov, an electrician, a driver, Agimurat, and five wardens responsible for individual monuments. There are no facilities and virtually no equipment infrastructure within the Park complex.

The Office of the Ministry of Tourism in Mary has a Director, Jumadurdyev Muhametmyrat Orazmyradovich, and a deputy, Yedzheba Gerdieva, a legal officer, a hotel representative and an accountant or cashier.

**5. Factors Affecting the Property**

a. Development Pressures (e.g., encroachment, adaptation, agriculture, mining)

There is a considerable increase in the population of the oasis, now in excess of a 1,000,000. This has obviously led to a major expansion in housing and subsequent damage to sites. Some sites are surrounded by irrigated agricultural land, causing problems with rising damp and damage by machinery. Isolated monuments unprotected from vandalism are used as adventure playgrounds for children and motorcyclists. They are liable to have bricks or earth removed, or even in extreme cases, be bulldozed.

b. Environmental Pressures (e.g., pollution, climate change)

The principal damage at Merv is caused by the high water table, the result of increased irrigation since the 1950s turning what was a relatively arid area into one practising intensive agriculture, with resultant damage by rising damp and salts. This raised water table has also increased the growth of tamarisk, camelthorn and reed. Photographs of the 1950s show cities and sites as essentially without vegetation. Today the low areas of the cities are obscured with a dense growth of tamarisk and camelthorn, while sites are surrounded with undergrowth.

c. Natural disasters and preparedness (earthquakes, floods, fires, etc.)

Earthquakes are a natural hazard of the region.

d. Visitor/tourism pressures

The sites are large and is able to absorb current visitor numbers. However, for increased usage some management and preservation measures would be essential, such as a visitor trail, visitor boards, protection of regularly walked trails, increased parking areas, and better guides.

e. Number of inhabitants within property, buffer zone

Within the main archaeological park, there are essentially no residents. These live in villages outside the city walls. There is use of some areas as modern cemeteries, continuing a long tradition.

In the oasis, many sites and monuments are isolated. The oasis as a whole has more than a million inhabitants.

f. Other.

There is an excellent Museum in Mary, part of the National Museum Service, with permanent exhibitions devoted to the History and Archaeology of the oasis and Ethnography. The Museum is open every day from 9-6, and can be opened by request if shut. The charge is \$3.

**6. Monitoring**

a. Key indicators for measuring state of conservation

Visual examination and photographic comparisons.

b. Administrative arrangements for monitoring property

The officers of the State Historical and Cultural Park 'Ancient Merv' are responsible for monitoring the property.

c. Results of previous reporting exercises.

Reports on buildings are kept in the Park office of the State Historical and Cultural Park 'Ancient Merv'.

**7. Documentation**

a. Photographs, slides and, where available, film

- Slide 1. Satellite image of the Merv, on the right, and Tedzhen oases. Note the river and the course of the Kara Kum canal
- Slide 2. Aerial view of the ancient and medieval cities of Merv: the citadel, Erk Kala, in the foreground, the walls of Hellenistic-Early Islamic Gyaur Kala; in the background, part of the medieval city, Sultan Kala.
- Slide 3. Aerial view of the citadel of Sultan Kala from the south. Note the remains of the palace and the *kepter khana* and the street layout.
- Slide 4. Aerial view across the citadel of Sultan Kala to the Mausoleum of Sultan Sanjar. Note the remains of the palace and the *kepter khana*.
- Slide 5. The medieval walls of Sultan Kala, a tower on the east wall.
- Slide 6. Both phases of construction of a tower of the medieval walls of Sultan Kala are visible.
- Slide 7. As in Slide 6, noth phases of construction of a tower are visible: note the well-preserved crenellations of the earlier phase.
- Slide 8. In the second phase of the walls they were strengthened by being made solid. Access was via stairs and posterns, visible in this section from the north wall of the citadel.
- Slide 9. Aerial view of the Mausoleum of Sultan Sanjar, showing outline of courtyard walls.
- Slide 10. View of the Mausoleum of Sultan Sanjar from the south-west.
- Slide 11. View of the interior of the dome of the Mausoleum of Sultan Sanjar

- Slide 12. Detail of the ribs of the dome with original paint of the Mausoleum of Sultan Sanjar.
- Slide 13. Part of the stucco decoration on the walls of the Mausoleum of Sultan Sanjar.
- Slide 14. Detail of the painted decoration on the walls of the Mausoleum of Sultan Sanjar.
- Slide 15. Aerial view of the Timurid city, Abdullah Khan Kala.
- Slide 16. A surviving section of the palace in the citadel of the Timurid city, Abdullah Khan Kala.
- Slide 17. The Seljuk Mausoleum of Muhammad ibn Zayd.
- Slide 18. A squinch from the interior of the Seljuk Mausoleum of Muhammad ibn Zayd.
- Slide 19. A detail of the elaborate stucco inscription running round the walls of the Seljuk Mausoleum of Muhammad ibn Zayd and dating it to 1112-13 AD.
- Slides 20 and 21. Details of the superb brickwork facade of the Mausoleum of Muhammad ibn Zayd, now within the building.
- Slide 22. An interior view of the Seljuk Mosque/Mausoleum at Talkhattan Baba.
- Slide 23. Some of the magnificent decorative brickwork from the facade of the Seljuk Mosque/Mausoleum at Talkhattan Baba, closely comparable to that of M. ibn Zayd, cf. Slide 21.
- Slide 24. Detail of the superb stucco decorative inscriptions in the Mausoleum of Abdullah ibn Bureida, near the Mary Airport.
- Slide 25. The decorative tilework surviving within the Timurid iwans, to the south of Sultan Kala.
- Slide 26. Two of the three Timurid Mausolea at Geok Gumbaz, to the north-west of the oasis.
- Slide 27. A Timurid Mausoleum at Geok Gumbaz.
- Slide 28. Detail of pendentive in a Timurid Mausoleum at Geok Gumbaz.
- Slide 29. The Mosque at Kishman.
- Slide 30. Aerial view of the Great and Little Kiz Kalas, the best preserved corrugated koshks.
- Slide 31. View from the south of the Little and Great Kiz Kalas.
- Slide 32. The stepped tunnel vault over a stairway in the Little Kiz Kala.
- Slide 33. The Great Nagym Kala, a koshk as large as the Great Kiz Kala.
- Slide 34. The Besh Agyz koshk, about half the size of the Great Kiz and Nagym Kalas.
- Slide 35. A vaulted room in the ground floor of the Besh Agyz koshk.
- Slide 36. The Garam koshk, similarly sized to Besh Agyz.
- Slide 37. An unusual vaulted room in Garam koshk.
- Slide 38. Thulli koshk.
- Slide 39. Detail of the corrugations at Thulli koshk.
- Slide 40. The Organ Pipes koshk in Sultan Kala.
- Slide 41. The Lesser Nagym Kala, a really small koshk.
- Slide 42. The koshk at Durnali, like the Lesser Nagym Kala, a small koshk.
- Slide 43. The Koshk at Kelte Minara. In this example the corrugations are beginning nearly from ground level, instead of emphasizing the importance of the first floor.
- Slide 44. Porsoy koshk, a three storey koshk with battered walls, no corrugations.
- Slide 45. A detail from the interior of Porsoy koshk.
- Slide 46. Yakipir Koshk, another three storey koshk with battered walls.
- Slide 47. A 'caravanserai' or palace at Kurtly.
- Slide 48. Detail of the interior of the Kurtly building.



- Slide 49. Detail of the palace and kepter khana, or 'pigeon house, in the citadel of the Seljuk city, Sultan Kala, cf. Slides 3 and 4.
- Slide 50. The kepter khana or 'pigeon house in the northern suburb of Sultan Kala.
- Slide 51. The so-called 'Seljuk' house in the south of Sultan Kala.
- Slide 52. One of the three conical 'ice-houses' of the Merv Park.
- Slide 53. One of the best-preserved and most interesting 'dings' or towers, probably of the 18th-19th century. Located near Bairam Ali.
- Slide 54. Air view of Kelleli Site 4. Middle Bronze Age.
- Slide 55. Air view from the north of the shrine and fortress in the background at Taip. Middle Bronze Age.
- Slide 56. Air view of fortified palace, south mound of Gonur Depe, Middle Bronze Age.
- Slide 57. Air view of excavations in north mound of Gonur Depe in 1991. Middle Bronze Age.
- Slide 58. Air view of shrine and fortifications at Togolok 21. Middle Bronze Age.
- Slide 59. Air view from west of lower town and cttadel in background of main mound of Takhirbaj 1. Late Bronze Age to Early Iron Age.
- Slide 60. Air view from north of cttadel mound and lower city in background at Yaz Depe. Iron Age, first half of 1st millennium BC.

b. Copies of property management plans and extracts of other plans relevant to the property

1. Copies of a report prepared by G. Herrmann, Director, International Merv Project, for the Tashkent Office of UNESCO in 1997.
2. Gubaev, A., Koshelenko, G. and Tosi, M. *The Archaeological Map of the Murghab Delta, Preliminary Reports 1990-95*, Rome, 1998.
3. *Ancient Merv, A Visitor's Guide*, prepared by G. Herrmann of the International Merv Project, 1997.

c. Bibliography

- Gubaev, A., Koshelenko, G. and Tosi, M. *The Archaeological Map of the Murghab Delta, Preliminary Reports 1990-95*, Rome, 1998.
- Masimov, I. Bronze Age Sites in the Lower Murghab in Kohl, P. (ed.), *The Bronze Age Civilisation of Central Asia, Recent Soviet Discoveries*, New York, 1981.
- Sarianidi, V.I. *Drevnosti stranii Margush*, Ashgabat, 1990.
- Sarianidi, V.I. *Margiana and protozoroastrianism*, Athens, 1998.
- The most important sources on the monuments of Merv are in Russian and include:
- Atagaryev, E. & Pilyavskii, V.I., 1974. *The Architecture of Turkmenistan*, Leningrad.
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- Pugachenkova, G.A. 1958. *The Architecture of Southern Turkmenistan in Antiquity and the Middle Ages*, Trudy YuTAKE VI, Moscow.
- Pugachenkova, G.A. 1963. 'Medieval Monuments of the Merv Region', Trudy YuTAKE XII, Ashgabat.
- Pugachenkova, G.A. 1967. *Art of Turkmenia*, Moscow.
- Pugachenkova, G.A. 1968. 'Two Castles', *Monuments of Turkmenistan* 2(6), 24-5.
- Zhukovsky, V. 1894. *The Ruins of Ancient Merv*, St. Petersburg.

See also the UNESCO *History of Civilizations of Central Asia*, Volumes I-IV, 1992-98 and continuing, various editors; R. Frye, *The History of Ancient Iran*, 1984, and *The Heritage of Central Asia*, 1996; G. Herrmann, *The Iranian Revival*, 1977; "Merv, 'Queen of the World', Uncovering a city on the 'Great Silk Road'", *Minerva* 7/6, November/December, 1996, 15-22; *Ancient Merv, A Visitor's Guide*, 1997; 'Early and Medieval Merv, A Tale of Three Cities' in *Proceedings of the British Academy* 94, 1997; R. Hillenbrand, *Islamic Architecture*, 1994; St J. Simpson, 'Digging on Iran's Doorstep', *British Museum Magazine* 24, 1966; D. Sinor (ed.), *The Cambridge History of Early Inner Asia*, 1990; G. Le Strange, *Lands of the Eastern Caliphate*, 1905; Giles Whittel, *Central Asia - The Practical Handbook* (Cadogan Guides 1995). For preliminary reports on the first six seasons of work by the International Merv Project, see *Iran*, the journal of the British Institute of Persian Studies 31-36 (1993-98); for a series of articles on the coinage of Merv, see S. Loginov and A.B. Nikitin, in *Mesopotamia* 28, Turin, 1993.

d. Address where inventory, records and archives are held.

Park office of the State Historical and Cultural Park 'Ancient Merv', Bairam Ali, Mary vilayet, Turkmenistan.

Archaeological survey of the oasis, Professor M. Tosi, Istituto Italiano per l'Africa e l'Oriente, Via Merulana 248, 00185 Rome, Italy.

Historic urban centre and principal monuments: Dr. G. Herrmann, Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY.

**8. Signature on behalf of the State Party**

7/14/86

Date received:  
Identification No:

886

Convention concerning the protection of  
the World cultural and natural heritage

WORLD HERITAGE LIST

Nomination Form

Under the terms of the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by the General Conference of Unesco in 1972, the Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, called "the World Heritage Committee" shall establish, under the title of "World Heritage List", a list of properties forming part of the cultural and natural heritage as defined in the Convention and which it considers as having outstanding universal value in terms of such criteria it has established.

The purpose of this form is to enable States Parties to submit to the World Heritage Committee nominations of properties situated in their territory and which they consider suitable for inclusion in the World Heritage List in accordance with the criteria adopted by the Committee which are given in the "Operational Guidelines for the Implementation of the World Heritage Convention". Only those nominations received at the Secretariat before 1st October will be considered by the World Heritage Committee during the following year. States Parties are reminded of the Committee's decision not to consider cultural properties which are not included in the tentative list of cultural properties. Also, priority is given to the consideration of natural properties which are included in a tentative list submitted by the State Party concerned.

The States Parties' attention is drawn to the fact that all nominations submitted will be subject to technical evaluation by non-governmental organizations (ICOMOS for cultural properties; IUCN for natural properties)

Notes to assist in completing each page of the form are provided in the Annex. Please type entries in the spaces available. Additional information may be provided on pages attached to the form.

It should be noted that the World Heritage Committee will retain all supporting documentation (maps, plans, photographic material\*, etc.) submitted with the nomination form.

The form completed in English or French should be sent in three copies through the Unesco National Commission and/ or Permanent Delegation of the State Party to Unesco to:

The Secretariat  
World Heritage Committee  
Division of Cultural Heritage (for cultural properties)  
or  
Division of Ecological Sciences (for natural properties)  
Unesco  
7, place de Fontenoy  
75700 Paris (France)

\* Please fill out the attached Authorization Form to allow Unesco to use photographic material, whenever possible, for promotional activities.

<p><b>1. Specific location</b></p> <p>a) Country</p>	<p>Turkmenistan</p>
<p>b) State, Province or Region</p>	<p>State of Turkmenistan, Region (<i>vilayet</i>) of Mary, District (<i>etrap</i>) Bairam Ali</p>
<p>c) Name of property</p>	<p>Archaeological Park 'Ancient Merv', consisting of the four walled cities, Erk/Gyaur Kala, Sultan Kala, Abdullah Khan Kala and Bairam Ali Khan Kala, and the complex of archaeological sites in the Murghab delta.</p>
<p>d) Exact location on map and indication of geographical coordinates</p>	<p>The cities of Merv, 500 BC-1100 AD Erk/Gyaur Kala: 800-1400 AD Sultan Kala: 1400-1850, Abdullah Khan Kala - N. 37 40 03; E. 62 10 39. Iron Age sites (1200-300 B.C.): Jaz Tepe - N. 37 44 65; E. 61 59 53; Tahirbaj Tepe - N 38 03 58; E. 62 05 10; Aravali Tepe - N. 37 55 10; E. 60 36 00. Bronze Age (c. 2500 - 1200 B.C.): Gonur Tepe (N 38 12 58; E. 62 02 12; Togoluk - N 38 07 15; E. 62 00 00; Taip - N 38 15 00; E. 61 44 08.</p>
<p>e) Maps and/or Plans</p>	<p>The following cartographic documents are enclosed with the present application form, to be upgraded for the final presentation.</p> <p><b>I. General Maps:</b></p> <ol style="list-style-type: none"> <li>a. 1:200,000 Map of the Murghab delta with hydrography and archaeological sites in a single sheet.</li> <li>b. 1:100,000 of the same in four sheets.</li> <li>c. Digital version of the same map in DXF format on two diskettes.</li> <li>d. 1:100 of the cities of Merv</li> <li>e) <i>Boundaries of Archaeological Park 'Ancient Merv'</i></li> </ol>
<p><b>2. Juridical data</b></p> <p>a) Owner</p>	<p>Ministry of Culture of Turkmenistan</p>

2. Juridical Data  
(cont'd)

b) Legal status

Property of the State of Turkmenistan. Decree 357 of December 2, 1987, provided for the setting up of the Archaeological Park 'Ancient Merv', to protect the ancient monuments and city-sites. The Archaeological Park was opened on August 8, 1988.

c) Responsible national agency

Archaeological Park 'Ancient Merv', Ministry of Culture, Bairam Ali, Mary Vilayet.

d) Collaborating national agencies and organizations

Mary Vilayet.  
National Archaeological Centre,  
Academy of Sciences of Turkmenistan  
Turkmenistan State University

3. Identification

a) History

The large and fertile Murghab delta in the Kara Kum desert, known in ancient times as Margiana, is strategically sited on the 'Great Silk Road' linking roads from China via Samarkand, Bukhara and Merv to the West, reaching Iran via Serakhs and Nishapur, and to India in the south via Herat and Kandahar. The oasis has supported major urban centres since the Bronze Age. The oldest city of Merv preserved in the 'Archaeological Park Ancient Merv' is attested in written sources in the Achaemenian period (519-331 B.C). The oasis formed part of Alexander the Great's conquests, and Pliny (NH VI, 46-47) suggested the city was founded by Alexander. The city was rebuilt and renamed by the Seleucid king, Antiochus I Soter (281-261 B.C.), as Margiana Antiochia, which has been identified as the sites of Erk and Gyaur Kala. Erk and Gyaur Kala together continued as the capital through the following Parthian and Sasanian periods and into the Islamic Period. *(continued on next page)*

b) Description and Inventory

The urban centre of Merv is unique, consisting of four adjacent walled cities, essentially undisturbed since the time of their abandonment. They offer unique opportunities to understand the layout and fluctuating fortunes of this important centre.

*Erk and Gyaur Kala:* The polygonal walled citadel of Erk Kala occupies some 20 hectares and has massive mud-brick walls, preserved to a height of 20 metres. There is a central mound, crowned by Late Sasanian-Early Islamic buildings. Erk Kala served as the citadel to the approximately rectangular walled city of Gyaur Kala, c. 2 km. square, whose walls survive to a height of some 15-18 m. Excavated monuments include an early Islamic mosque and a Buddhist stupa and monastery.

*Sultan Kala* is located immediately west of Gyaur Kala. Settlement began during the 8th century, while Gyaur Kala was still flourishing, and the city was walled in the eleventh century. In addition to the citadel, containing the remains of a palace, a fortified building and many other structures, there was a major inner city, approximately rectangular in form, with walled suburban areas to north and south, giving the city an overall oval shape and measuring a total of some 630 hectares. The city was sacked by the Mongols, after which there was only limited occupation.

*Abdullah Khan Kala:* The Timurid city (15-18th centuries) is sited 2 km. to the south of Sultan Kala and was smaller than the preceding cities (44 hectares). It contained a citadel, palace, mosque, bathhouse, and other buildings. In the eighteenth century a walled extension known as *Bairam Ali Khan Kala* was built to the west. *(continued on next page)*

c) Photographic and/or cinematographic documentation

Photographic documentation to follow: Postcards of Mausoleum of Sultan Sanjar and the corrugated building known as the Great Kiz Kala attached.

Application to UNESCO by Ministry of Culture of Turkmenistan for  
Merv - continuation of Sections 3 a and 3 b.

3(a). History continued

Occupation began at the adjacent site of Sultan Kala c. 800 A.D., which became the capital of the Seljuk Empire (11-13th centuries). It was sacked by the Mongols in 1221, after which there was only limited occupation. Thereafter, a new city was founded at Abdullah Khan Kala (Timurid, 15-18th centuries), and a walled western suburb was built, Bairam Ali Khan Kala, in the 18th century.

3(b). Description and Inventory continued

The many important standing monuments within the archaeological park include the *Mausolea of Sultan Sanjar (1118-1157)*, *Muhammad Ibn Zeid*, *Yusuf Hamadani* and the tombs of the *askhabs*, numerous fortified buildings of which the *Great and Little Kiz Kala* are the best known, three ice-houses and a pavilion (*Darvaza*).

About 1,000 archaeological sites have been identified across the 18,000 sq. km. of the Murghab delta. They represent an unique complex of monuments documenting the hinterland of Merv throughout its history as well as its formative process as a major centre of civilization in Asia, from the Bronze Age, c. 2,500 B.C. Many are monumental complexes landmarking the alluvial plain and in an exceptional state of preservation. The following sites are to be included in a scheme of protection and exploration.: Bronze Age (c. 2500-1200 B.C.), Gonur Tepe, Togolok Site Complex, Taip. Iron Age (c. 1200-300 B.C.) Jaz Tepe, Tahitaj Tepe, Aravali Tepe. Each centre is surrounded by clusters of minor settlements.

The city of Merv and its closer oasis surroundings were defended toward the northern steppes in ancient times by a complex system of fortifications including a continuous earthen wall that can still be followed for some 30 km. across the ground, and three still-standing imposing fortresses at the sites of Gobekli (N 37 54 06; E 61 59 03), Ufy Kishman (N. 37 55 11; E. 62 07 50) and Garry Kishman (N. 37 55 05; E. 62 12 33). There are many monuments between the northern frontier and the city of Merv of the historical period, mainly Parthian and Sasanian, including Changly, Durnali, Gechigran, Chilburj, Kyrk Tepe, Nagym Kala and Kyz Kala, which confirm the prosperity of the oasis at that time and which represent a unique source of information on the material culture, art and architecture.

3. Identification  
(cont'd)

d) Public awareness

Major national monument with considerable public awareness in Turkmenistan and neighbouring regions, whose people are well aware of its outstanding historical and cultural significance. Internationally still little known, although visits by foreign tour groups and tourists are steadily increasing.

Two major international projects are currently collaborating in the Merv oasis. One, the International Merv Project, a Turkmen-British-Russian collaboration working at the urban centre of the oasis since 1991, is studying the ancient cities through a programme of mapping, recording and modern scientific excavation and raising international awareness of this major centre through articles in the Turkmen and International press, as well as preparing popular booklets and a book, *Merv, A Forgotten City on the Silk Road*.

The other, the 'Archaeological Map of the Murghab Delta', a Turkmen-Russian-Italian programme operating since 1990, is concluding the numerical mapping of the archaeological sites in their geological setting, including a data bank organized in a Geographical Information System, to be enclosed as background information for the presentation of Merv to the World Heritage Programme of UNESCO.

e) Bibliography

Literature on the history and monuments of Merv and its oasis include Bader, A., Gaibov, V., Koshelenko, G., 'Materials for an Archaeological Map of the Merv Oasis: Koine Kishman', *Mesopotamia* XXVII, 1992, 225-50.  
Barthold V.V. *On the History of Merv*, in *Collected Works*, vol. 6. Moscow, 1966.  
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*Cambridge History of Iran*, multi-volume work published in Cambridge, England.  
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*Encyclopaedia Iranica*, multi-volume work, New York  
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Gubaev, A., Koshelenko, G., Novikov, S., 'Archaeological Exploration of the Merv Oasis', *Mesopotamia* XXV, 1990, 51-60.  
Hermann, G. et al., 'The International Merv Project...', *Iran* 31 (1993) and 32 (1994).  
Koshelenko, G., Bader, A., Gaibov, V., 'Materials for an Archaeological Map of Margiana: The Changly Region', *Mesopotamia* XXV, 1991, 165-86.  
*(continued on next page)*

4. State of preservation/  
conservation

a) Diagnosis

The cities of Erk/Gyaur Kala, Sultan Kala and Abdullah Khan Kala are abandoned cities, preserved as archaeological sites within the Archaeological Park 'Ancient Merv' and protected from modern development. They are subject to erosion by wind and weather and to rising damp and salts from the high water table. Only a small area of the eighteenth century western suburb, Bairam Ali Khan Kala, has survived. Baked bricks from both Abdullah Khan Kala and Bairam Ali Khan Kala were reused in the 19th century. A modern road cuts the site and some development has occurred.



Application to UNESCO by Ministry of Culture of Turkmenistan for  
Merv - continuation of Section 3 (e). Bibliography.

- le Strange, Guy. *Lands of the Eastern Caliphate*, Cambridge, 1905.
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'Margiana', in Koshelenko, G.A., ed., *Drevnejsie gosudorstva Karkosca: Srednej Asii*, Moskva, 1985.
- Materials on the History of Turkmenistan and the Turkmenians*. In Russian. Vols. 1-2. Moscow-Leningrad, 1939.
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- Works of the YUTAKE (South Turkmenian Archaeological Multidisciplinary Expedition). Ashkhabad, vol. 1, 1949; vol. 2, 1951; vol. 14, 1972; vol. 15, 1974
- Zhukovsky, V.A. *The Ruins of Ancient Merv* (in Russian), St. Petersburg, 1894.

**4. State of preservation/conservation (cont'd)**

**b) History of preservation/conservation**

The office of the Archaeological Park 'Ancient Merv' is responsible for the preservation and conservation of the monuments within the park and of all standing monuments in the oasis. They have a Park office located in the Archaeological Park, not far from Sultan Sanjar, with an adjacent building yard and brick kiln. The office staff consists of a Director, Assistant Director, two architects and restoration experts. The architects regularly monitor the monuments and initiate necessary restoration and conservation work. They undertake the planning of all buildings before and after conservation and maintain full records.

The Archaeological Park 'Ancient Merv' has two additional offices in the Mary Vilayet to enable it to monitor outlying monuments.

**c) Means for preservation/conservation**

Only local materials, techniques and equipment are available. There is no access to modern conservation techniques and materials.

**d) Management plans**

There is an ongoing programme of scientific research into the monuments, as well as archaeological excavations in the city-sites. This work is undertaken by local architects and archaeologists working with foreign specialists from Britain, Italy and Russia. The office architects regularly monitor the monuments and initiate necessary restoration and conservation.

Much wider use of the monuments is planned in connection with the development of tourism. The Jubilee commemorating 2500 Years of the History of Merv, scheduled for 1995, will, it is hoped, make the area better known.

5. Justification for inclusion in the World Heritage List

a) Cultural property

(i) reasons for which the property is considered to meet one or more of the World Heritage with, as appropriate, a comparative evaluation of the property in relation to properties of a similar type

(ii) evaluation of the property's present state of preservation as compared with similar properties elsewhere

Merv and the Murghab Delta qualify for inclusion on the World Heritage List under the following counts:

5a.ii. Merv's position as a major city in an important oasis on the Silk Road facilitated exchange of goods and ideas over millennia. The Seljuk city, in particular, influenced developments in architecture and related arts (stucco, cut brick work, pottery), scientific and cultural development.

5a.iii: The adjacent cities are unique;

5a.iv. Important technological advances in metal-working occurred at Merv;

5a.v. The traditional Central Asian corrugated structures are vulnerable under the impact of irreversible ecological change (the rising water-table).

5a.vi. Merv is associated with kings, scientists, astronomers, poets and geographers of outstanding historical importance.

Since the second millennium B.C. Margiana has acted as the main intermediary region between the civilizations of southern and western Asia and the nomads in the Eurasian steppes of the North. Powerful currents of exchange passing through Margiana channelled ideas and goods from the extremes of Asia.

The city-sites of Merv, a series of adjacent walled cities, are unique. Each represents a discrete period of time and carry no recent overburden. Merv presents, therefore, an outstanding archaeological resource for the study of urban planning at different periods, the early phase with the 360 hectare city of Erk/Gyaur Kala, a city the size of mediaeval Damascus or London; the Seljuk city of Sultan Kala (630 hectares); and the smaller Timurid city of Abdullah-Khan-Kala (44 hectares): the different sizes reflect the rising prosperity of the oasis from c. 500 B.C. to the Mongol sack in 1221 followed by relative decline.

Standing monuments, of mud and baked bricks, dating to the early Islamic, Seljuk and Timurid periods include the famous mausolea of the Seljuk Sultan Sanjar (1118-57) and Muhammad ibn Zeid, and the *askhab* tombs, as well as many mud brick, fortified buildings, pavilions and ice-houses..

The actual ruins of the cities and standing monuments would be sufficient to merit inclusion in the World Heritage List as an archaeological site of outstanding importance. However, the city of Merv also had a long and distinguished history and is known for its cultural and scientific achievements, particularly during the well documented years when it formed the capital of the great Seljuk state. In the 12th century Merv was the home of many illustrious  
*(continued on next page)*

The archaeological sites representing the urban centres of Merv from 500 B.C. to the 19th century are exceptionally well preserved, lacking over-burden and protected from modern development since 1988 by being secured within the Archaeological Park 'Ancient Merv' (Decree 357 of December 2, 1987). The Park Office, located on site, has both administrative and specialist architectural and conservation staff to safeguard the standing monuments.

The many sites in the north of the Murghab delta are in an exceptional state of preservation.

Application to UNESCO by Ministry of Culture of Turkmenistan  
for Merv - continuation of Section 5(a) i.

medieval scholars including astronomers, historians, and poets. Using the Sultan's observatory, the famous astronomer/poet Omar Khayam compiled his astronomical tables, the 'Jelal ad-din Calender'. It was in Merv that Yakut al-Khamavi compiled his detailed geographical dictionary of countries (*Mujam al-buldan*). The concentration of scholars in Merv led to the creation of major libraries in the city, resulting in Merv becoming one of the most important cultural and scientific centres of Central Asia.

Much is also known of the earlier cities, Erk/Gyaur Kala, of the varied religions which flourished there - Zoroastrianism, Christianity (Merv was the seat of a Nestorian bishopric), Buddhism (the remains of two stupas), and Judaism - their cosmopolitan citizens and their trades. Recent archaeo-metallurgical work has established Merv as the home of carbon steel production while palaeo-archaeobotanical work has proven that cotton was grown commercially as early as the sixth century as well as enabling us to trace the transfer of plants between east and west.

(iii) indications as to the authenticity of the property

**There is no doubt as to the authenticity or identification of Margiana and the ancient urban centres of the Merv Oasis.**

**5. Justification for inclusion in the World Heritage List (cont'd)**

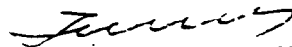
**b) Natural property**

(i) reasons for which the property is considered to meet one or more of the World Heritage criteria with, as appropriate, a comparative evaluation of the property in relation to properties of a similar type

(ii) evaluation of the property's present state of preservation as compared with similar properties elsewhere

(iii) indications as to the integrity of the property

Signed (on behalf of State Party)



Full name Geldimurad Nurmurkhammedov

Title Minister of Culture

Date October 10, 1996

# LAW OF TURKMENISTAN

## On the protection of the historic and cultural heritage of Turkmenistan

### 1

#### SECTION 1 GENERAL PROVISIONS

*Article 1.* The present law regulates relations in the field of the protection of Turkmenistan's historic and cultural heritage regardless of its provenance.

*Article 2.* The protection of Turkmenistan's historic and cultural heritage involves a system of government measures to identify, determine the condition of, inventory, safeguard, conserve, restore and renovate it, and to create the most favourable conditions for its proper maintenance and effective use.

*Article 3.* Complexes, individual sites, buildings and noteworthy locations, objects and artefacts connected with events in the history of the Turkmen people and the development of its society and State, and physical and intellectual works which are of historical, scientific, artistic or cultural interest, are recognized as belonging to the historic and cultural heritage of Turkmenistan.  
The historic and cultural heritage of Turkmenistan includes:

*the historic heritage* - buildings, constructions, fortresses, caravanseraï, minarets, mosques, mausoleums, tombs; cemeteries, the superstructure of tombs, noteworthy locations, objects and artefacts connected with the most important events in the history of the Turkmen people, with the development of its society and State, and with the development of science, technology, culture and everyday life;

*the archaeological heritage* - sites of ancient settlements, kurgans, remains of ancient settlements, fortifications, works, canals and roads, ancient burial grounds, stone sculptures, rock inscriptions, ancient objects, sections of the historical cultural layer of ancient settlements;

*the urban and architectural heritage* - groups and complexes of buildings, historic town centres and quarters, squares, streets, remains of the ancient layout and constructions of towns and other settlements, religious and popular architecture, and works of monumental,

figurative, decorative, ornamental, garden and park art and the natural landscapes which are associated with them;

*the artistic heritage* - works of monumental, figurative, decorative, ornamental and other arts forms, including folk art;

*documentary material* - documents of State authorities and administrations, other written and graphic documents, cinematic and photographic material, audio and video recordings, manuscripts, books, archive material and rare printed editions.

Other unique or characteristic sites or objects of scientific or cultural interest, whether conserved in their entirety or in a fragmented or damaged condition, whether or not they are recognized by the State as natural heritage sites or associated with natural historic heritage sites, may also be recognized as belonging to the historic and cultural heritage of Turkmenistan.

Antique carpets and related artefacts, felt articles produced in Turkmenistan and made of gold, silver, precious metals and other materials, patterns and embroidery, which feature traditional ornamental designs and are works of art, rare books, manuscripts, archive material, archaeological finds of scientific, historic, cultural, educational and informative significance, are identified as specially protected items of the historic and cultural heritage in view of their exceptional value and vulnerability to speculation and smuggling.

All elements of the historic and cultural heritage on the territory of Turkmenistan shall be protected by the State.

*Article 4.* The heritage may be subdivided into movable and immovable items. Movable items include ethnographic property, archaeological finds, works of decorative and ornamental art, features of buildings and monuments, manuscripts, rare books and cinematic and photographic material. The immovable heritage may be divided into single and composite items. Single items of the immovable heritage include historic and memorial sites, works of monumental art and architecture (including works of monumental and decorative and ornamental art associated with them). Natural and historic heritage sites, State historic and cultural reserves, monuments of history, urban art and architecture, and archaeological monuments count as composite items of the immovable heritage. State protection for composite items shall cover not only the individual items of which they are formed, but all sites in the surrounding area that are crucial to their preservation.



**SECTION II  
OWNERSHIP OF THE HISTORIC AND CULTURAL HERITAGE**

- Article 5.* Turkmenistan's historic and cultural heritage may be owned by the State, collectively or by individual citizens.  
All Turkmenistan's historic and cultural heritage, irrespective of the kind of form of ownership, is regarded as national property.  
Historic and cultural complexes, sites, constructions, objects, artefacts, physical and intellectual works connected with the history of the Turkmen people and other cultural property comes under State and collective ownership.  
Objects forming part of the people of Turkmenistan's physical and intellectual culture which are of particular scientific, historic, artistic or cultural interest may be the property of individual citizens.
  
- Article 6.* The transfer of ownership of elements of the historic and cultural heritage owned by individual citizens or groups, and changes in the rules governing their use are permitted on condition that the State heritage protection agency is notified in advance. State agencies for the protection of the historic and cultural heritage take precedence over other buyers and in the event that they decide not to exercise their right, the owner may, on expiry of a ten-day period following the date of notification, transfer ownership of his or her property to any legal person or citizen of Turkmenistan and effect the corresponding re-registration with the above-mentioned agencies. Failure to comply with this provision automatically invalidates the transfer of ownership concerned.
  
- Article 7.* The State shall take the necessary steps to ensure that parts of the historic and cultural heritage which are not in Turkmenistan once more become the property of Turkmenistan, and are subsequently given into the keeping of museums, libraries or archives. State agencies whose functions are relevant to the implementation of the work shall be responsible for organizing the search for and recovery of parts of the historic and cultural heritage that have been removed from the territory of Turkmenistan.
  
- Article 8.* Historic and cultural objects discovered in the course of exhibition and restoration work shall be declared part of the historic and cultural heritage.  
All historic and cultural objects discovered during excavations, building, land improvement or other work, or found by citizens, and which do not belong to anyone, shall become State property and be handed over to the local State heritage protection agency for exhibition in a museum.  
Historic and cultural property of scientific, informative or artistic significance confiscated from legal persons or individual citizens in accordance with the law shall acquire the status of heritage and be handed over to a State protection agency.

**SECTION III**  
**STATE ADMINISTRATION AND CONTROL OF THE PROTECTION OF THE**  
**HISTORIC AND CULTURAL HERITAGE**

*Article 9.* State administration and control of the protection of the historic and cultural heritage shall be carried out by the Government, councils of people's deputies and their executive bodies, and specifically authorized State heritage protection agencies.

The Government shall establish an Inventory of the Historic and Cultural Heritage to be protected by the State and amend it as necessary, and propose and adopt State programmes to conserve and restore the historic and cultural heritage and finance the work.

Local councils of people's deputies and their executive bodies shall constantly seek to identify items which might be included in the Inventory of the Historic and Cultural Heritage to be protected by the State; gather, process and store information; monitor the condition of the property, irrespective of the kind or form of ownership and the use made of it, where necessary changing the latter; draw up a programme and determine the extent of conservation and restoration work necessary; organize and finance the work; do everything possible to assist craftworkers with traditional skills to obtain the materials necessary to revive, develop and disseminate ancient national decorative and ornamental designs.

*Article 10.* The protection of the heritage shall be the responsibility of an independent, specially authorized State agency for the protection of the historic and cultural heritage, the Ministry of Culture, the Academy of Sciences, the Main Archive Service of the Government of Turkmenistan, the local subsidiaries of all these bodies, and other State organs whose statutory duties include performing the above-mentioned functions.

To assist it in its efforts to identify, recover, inventory, protect and monitor the use made of heritage, the State agency for its protection shall set up voluntary advisory bodies on scientific and methodological matters whose members shall be leading academic specialists, archive and museum workers, skilled traditional craftworkers, jewellers and representatives of the creative intelligentsia.

*Article 11.* The State agency for the protection of the historic and cultural heritage of Turkmenistan shall direct the inventorying, search for and recovery of the historic and cultural heritage, lay down scientific principles for the conservation, restoration, use and dissemination of information on property listed in the Inventory as coming under its protection, monitor and co-ordinate work carried out by other State bodies and provide them with

scientific, technical and organizational assistance and help create conditions conducive to storing and processing information

*Article 12.* The agencies for State administration and control of the protection of Turkmenistan's historic and cultural heritage shall, within the limits of their authority, establish Regulations and Rules for the inventory, preservation, restoration, use and dissemination of information on the heritage. These Rules and Regulations shall be binding on enterprises, organizations and establishments, irrespective of the ministry responsible for the sector in which they operate, and on individual citizens.

**SECTION IV  
STATE INVENTORY AND REGISTRATION OF THE  
HISTORIC AND CULTURAL HERITAGE**

*Article 13.* Turkmenistan's historic and cultural heritage must be inventoried and registered by the State, irrespective of ownership. The Rules for this State inventorying and registration shall be adopted by the Government of Turkmenistan.

*Article 14.* Expeditions to identify items of the historic and cultural heritage and determine their scientific, historic, artistic and cultural value must be authorized by a State agency for the protection of the heritage, and archaeological and ethnographic expeditions must also be authorized by the Turkmenistan Academy of Sciences.

Owners, proprietors and users of sites being investigated shall, when so requested by representatives of State agencies for the administration and control of the protection of the historic and cultural heritage, provide the necessary assistance in inspecting such sites and determining their condition. They shall also be responsible for the conservation of the sites from the moment work on them begins. In exceptional circumstances, when conservation proves impossible (physical destruction, natural disaster) the local State heritage protection agencies shall carry out an exhaustive description of the state of the site and, if necessary, transfer fragments to museums. Suitable building materials and other material resources shall be provided free of charge by State establishments for the protection of Turkmenistan's historic and cultural heritage.

*Article 15.* Turkmenistan's historic and cultural heritage shall be classified as being either of national or of local significance, on the basis of uniqueness and scientific, historical, cultural, educational and artistic value. The Government of Turkmenistan and the executive committees of local councils of people's deputies shall be responsible for assigning heritage to one or the other of

collection in locations which guarantee their proper conservation, the provision of State insurance for the collection and the addition to it of further valuable items of outstanding historic and cultural interest. Information about collectors and collections shall only be provided with the written permission of the owner. Such information may be obtained without the agreement of the owner under specified legal conditions.

**SECTION V  
ENSURING THE SAFE KEEPING OF THE HISTORIC  
AND CULTURAL HERITAGE**

*Article 17.* Enterprises, organizations, establishments and individual citizens who own elements of the historic and cultural heritage of Turkmenistan shall be responsible for their safe keeping and must comply with the provisions of this Law. The rules for protecting, using and restoring historic and cultural heritage drawn up by the Government of Turkmenistan shall also allow access for inspection, scientific research and cultural purposes.

*Article 18.* Investigating work shall only be carried out on natural and historic heritage sites, State historic and cultural reserves and other historic and cultural sites with the permission of the Government of Turkmenistan. Use of this land for agricultural purposes is forbidden.  
Collective farms, State farms and other enterprises, establishments and organizations with historic and cultural sites on their land shall be obliged to comply with established heritage protection procedures.  
Any activity on territory containing historic and cultural heritage sites which endangers their safe keeping shall be prohibited. Executive committees of local councils of people's deputies and organizations and institutions of the heritage protection agency shall be responsible for monitoring compliance with established heritage protection procedures.

*Article 19.* The safe keeping of the immovable heritage and its surroundings shall be ensured by establishing protected areas, restricted building zones and protected natural landscape areas and procedures governing their use shall be laid down in the Regulations adopted by the Government of Turkmenistan. The proprietors of land in protected areas shall be responsible for observing the procedures for the use of such areas.  
Protected areas, restricted building zones and protected natural landscape areas around historic and cultural heritage sites shall be designated by the executive committees of provincial, district and municipal councils of people's deputies on the proposal of the relevant State historic and cultural heritage protection agencies.  
Protection areas around immovable heritage shall be established on the basis

of prior study of its condition and the compilation of the requisite supporting historical documentation, and shall be regarded from the outset as an obligatory component in the formulation of local planning projects, and in the overall and detailed planning projects of towns and settlements.

Historic and cultural heritage protection areas, irrespective of their dimensions and the area occupied, shall be taken into account in the formulation of general plans and detailed urban planning and construction projects and must be approved by the relevant State historic and cultural heritage protection agency.

Land improvement, construction and other work, and agricultural activity within the above-mentioned areas without the permission of the relevant State historic and cultural heritage protection agencies is prohibited.

Should the movement of vehicles on roads adjacent to historic and cultural heritage sites or crossing protected areas constitute a threat to the existence of the monuments, the movement of vehicles on such roads shall be restricted or forbidden on the decision of the executive committee of the appropriate local council of people's deputies.

*Article 20.* The protection and use of sites in the surrounding natural environment that are connected with historic and cultural heritage sites shall be ensured by the State heritage protection agency together with nature protection agencies and other interested agencies.

*Article 21.* Irreplaceable complexes of unique historic and cultural heritage, town centres and quarters and groups of buildings of special scientific, historic, artistic or cultural interest shall be declared a historic and cultural reserve by the Government of Turkmenistan. They shall be protected on an individual basis in accordance with specific provisions adopted by the Government of Turkmenistan.

*Article 22.* Organizations carrying out explosive, construction and installation, land improvement, road or any other type of work or undertaking in a protected area surrounding immovable heritage, shall be obliged to reach agreement on the execution of the work or undertaking with the competent State heritage protection agency. Funding for the above-mentioned undertakings shall be provided by the organization carrying out the work. Work or undertakings which damage the item of heritage and do not comply with conditions for its safe guarding are prohibited.

In the event that an archaeological or other site of scientific, historic, artistic or cultural interest is discovered in the process of work being carried out by enterprises, organizations or institutions, they are obliged to report this to the State heritage protection agency and halt any further work.

*Article 23.* Persons carrying out archaeological investigations are obliged to ensure the safe guarding of items discovered, to draw up a list of archaeological finds

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and hand them over to the care of the museums, library or archives of Turkmenistan, and to inform the relevant State heritage protection agency of newly identified sites without delay, so that measures can be taken to protect them and halt any further work.

Persons violating this provision of this Law shall no longer have the right to carry out archaeological investigations on the Republic's territory. They shall be responsible under this Law for these actions and obliged to return archaeological finds through the proper channels and where this is not possible, to compensate for the loss sustained.

*Article 24.* Elements of the historic and cultural heritage which are being used in a way inappropriate to their original purpose or character or are in danger of destruction or damage may be taken away from the enterprise, organization or institution concerned, using the procedures established by the duly authorized State heritage protection agency, and transferred within Turkmenistan to the possession, temporary use or protection of other organizations or persons.

Proprietors, users and custodians of items of heritage shall be responsible for their conservation, unless other arrangements have been made with the specific agreement of the owner.

If an individual citizen does not ensure the conservation of any element of the historic or cultural heritage belonging to him or her, refuses to comply with recommendations of State heritage protection agencies and impedes inspection, the heritage protection agencies shall issue a written warning. Inappropriate maintenance of an item of heritage by the owner which continues after the warning shall be sufficient grounds for depriving the owner of the right of ownership of the property by due legal process with payment of costs and transfer of the item of heritage into State ownership.

The owner or proprietor shall be obliged to report the loss or theft of the item to law enforcement agencies without delay and to inform the local State heritage protection agencies.

*Article 25.* The demolition of immovable historic and cultural heritage is prohibited. The relocation or modification of immovable heritage is permitted only with the express approval, specific to each case, of the Government of Turkmenistan. An organization which has received such permission must, during the relocation or modification of the item, ensure that the provisions of Article 14 of this Law are observed.

*Article 26.* State heritage protection agencies must carry out systematic inspections of the condition of the heritage in order to make arrangements for repair, conservation and restoration work. Plans for the restoration, conservation and repair of the historic and cultural heritage are subject to the approval of the State heritage protection agency.

The basic methods for the rehabilitation of single sites are the implementation

of preservation measures, conservation, restoration and, for composite items of heritage, this also includes the conservation of the natural, historic structure.

Work to repair and restore heritage shall be carried out by specialized State, co-operative and joint organizations, provisional collectives or individual specialist restorers, with official approval by State heritage protection agencies according to the complexity of the work carried out.

## SECTION VI USE OF THE HISTORIC AND CULTURAL HERITAGE

*Article 27.* The basic documents regulating the rights and obligations of users of State-owned items of heritage are the protection-rental agreement or the protection contract, concluded by the user with the local heritage protection agency, or the protection obligation between them.

*Article 28.* State or voluntary organizations or individuals may be granted permission to use State-owned items of heritage by local heritage protection agencies, under the supervision of the State agency, which has the right to amend the rules governing their use.

Owners of items of heritage must notify heritage protection agencies of any movement of items of heritage and of changes in their possession or use.

Where it is not possible to ensure the appropriate use of State-owned items of heritage of local significance, the executive committees of the local councils of people's deputies shall, with the agreement of the relevant heritage protection agencies, have the right to sell the items of heritage into collective or individual ownership with the transfer to the new owner of all obligations regarding the items' protection. An estimate of the item's value shall be made using the Methodology for Determining Financial Value adopted by the Government of Turkmenistan.

*Article 29.* Payment for the use of State-owned heritage and the land on which it is situated shall be determined by local State heritage protection agencies on the basis of the Scales adopted by the Government of Turkmenistan for immovable heritage, and paid into their special accounts.

The payment of land tax on the grounds of single items of the natural and historic heritage, historic and cultural reserves and other archaeological, historic and cultural heritage sites shall be regulated by the Land Codex of Turkmenistan.

**SECTION VII**  
**ECONOMIC BASIS FOR THE PROTECTION OF**  
**THE HISTORIC AND CULTURAL HERITAGE**

- Article 30.* Specific funding for work to protect the historic and cultural heritage shall be ensured by the creation of a special State Fund for the protection of Turkmenistan's heritage, under the State heritage protection agency of Turkmenistan.
- The resources allocated to heritage protection and to efforts to identify heritage items and secure their purchase and return shall be the subject of a separate line in the annual social and economic development plan and State budget of Turkmenistan.
- Article 31.* The State Fund for the protection of Turkmenistan's heritage shall be constituted from the resources of State and local budgets, voluntary contributions and financial contributions from State, voluntary, co-operative and other organizations, irrespective of the form of ownership and management, from individual citizens, income from events organized for the benefit of the Fund, special lotteries, production, publishing, and other forms of activity, including foreign trade, gifts and bequests of property to the Fund, works of art, money and other receipts.
- Donors shall retain the right to determine the use made of their contributions. Procedures for accepting property as a donation to the State fund for the protection of Turkmenistan's heritage shall be established by the Government of Turkmenistan.
- Article 32.* The fund's financial resources shall be used for the scientific, productive and material development of restoration workshops; the search for and recovery of forgotten traditional skills; the acquisition of materials needed to revive the old crafts of Turkmen folk art; the creation of new works, and for other purposes connected with conserving and adding to the historical and cultural heritage, as identified in the Constitution of the Fund adopted by the Government of Turkmenistan.
- Article 33.* Industrial and agricultural enterprises situated in State historic and cultural reserves or on territory occupied by natural or historic items of heritage may be required to move outside the area of influence and cease their activities without delay; enterprises whose activity has an adverse effect on items of heritage shall be obliged to pay between 0.5 and 5 per cent of their income to local State heritage protection agencies, depending on the scale of the damage caused by their activity. The scale of the damage shall be determined by the local State heritage protection agencies, and the percentage level of the payment shall be decided by the local council of people's deputies whatever the type of enterprise.



*Article 34.* Immovable items of heritage of national significance must be insured if their use on a temporary basis is granted. An expert assessment of the value of the item of the land within the heritage protection area shall be taken into account when it is being insured.

*Article 35.* Tourism organizations and other legal persons using historic and cultural items of heritage in their activities shall transfer part of their resources, including foreign currency, to the account of the State heritage protection fund of Turkmenistan. The amount of these payments shall be determined by the Government of Turkmenistan.

**SECTION VIII  
ACTIVITY OF VOLUNTARY HISTORIC AND  
CULTURAL HERITAGE PROTECTION ORGANIZATIONS**

*Article 36.* Voluntary heritage protection organizations shall assist State heritage protection agencies in studying, protecting and publicizing the heritage, collecting and making social and individual donations to those ends and in drawing up and carrying out programmes to conserve, seek, return and use items of heritage.

State heritage protection agencies shall provide voluntary organizations with all the necessary information about items of heritage and their use and restoration work plans, and shall take into account suggestions from voluntary organizations, creative groups and individuals when carrying out measures to protect historic and cultural items of heritage.

*Article 37.* Voluntary heritage protection organizations shall be involved in the approval of general plans and projects for the development, reconstruction and use of State historic and cultural reserves, important memorial groups, and of projects to restore individual items of heritage. They shall halt the progress of work endangering the conservation of items of heritage, communicating the final decisions to State heritage protection agencies. In the event of a violation of the provisions of this law, voluntary heritage protection organizations shall have recourse to the competent law enforcement agencies with a view to instituting criminal proceedings, or shall act in the capacity of plaintiff, and shall appeal in civil proceedings to higher courts against unlawful acts by inspection and executive bodies, including State heritage protection agencies. They shall organize repair and restoration workshops to rehabilitate the heritage.

**SECTION IX  
IMPORT AND EXPORT OF HISTORIC CULTURAL HERITAGE**

- Article 38.* The basis for the import into Turkmenistan of inherited historic and cultural property which has come to light abroad shall be legally certified official documents confirming the legality of the inheritance and that the items form part of the inheritance.  
Items of heritage which are owned by foreign citizens, companies or State or voluntary organizations and are brought into Turkmenistan on a temporary basis shall be protected by the State and guaranteed exit from Turkmenistan on the basis of a certificate attesting their entry.
- Article 39.* The export of items of heritage outside Turkmenistan is prohibited, with the exception of the personal effects of citizens of Turkmenistan which are in constant use and are to be used during the journey.  
With the aim of preventing the export of historic and cultural heritage outside Turkmenistan, specialists with professional knowledge in the field of antiques and heritage shall be included in the staff of customs and other domestic supervisory agencies.
- Article 40.* The temporary removal from Turkmenistan of items of heritage for the purpose of developing international cultural exchanges shall be permitted provided the rules and conditions specially laid down on each occasion by the State heritage protection agencies are complied with.

**SECTION X  
RESPONSIBILITY FOR VIOLATIONS OF LEGISLATION ON THE  
PROTECTION OF THE HISTORIC AND CULTURAL HERITAGE**

- Article 41.* Individuals guilty of violating the legislation and the Rules for the protection of Turkmenistan's historic and cultural heritage shall bear disciplinary, material, administrative and criminal responsibility in accordance with the law.

**SECTION XI  
INCENTIVES IN THE MATTER OF PROTECTING HISTORIC AND  
CULTURAL HERITAGE**

- Article 42.* Proprietors and owners of historic and cultural heritage items, which may be enterprises, organizations, establishments or private citizens, may be offered incentives under the procedures established by the Government to make donations, gifts and bequests of such items.

**SECTION XII  
INTERNATIONAL AND INTERGOVERNMENTAL TREATIES  
AND AGREEMENTS**

*Article 43.* Relations involving the identification, study, protection and return of historic and cultural heritage shall be regulated by the standards of international law and intergovernmental treaties and agreements.

**II**

1. The law of Turkmenistan 'On the protection of the historic and cultural heritage of Turkmenistan' shall enter into force on the day of its publication.
2. The following law is no longer in force:  
The law of the Turkmen SSR of 20 May 1977 'On the protection and use of historic and cultural heritage' (Gazette of the TSSR Supreme Soviet, 1977, No. 10, p. 71).
3. By 1 September 1992 the Government of Turkmenistan shall have:  
prepared and brought before the Supreme Soviet of Turkmenistan proposals for the introduction of legislation in Turkmenistan in connection with this law;  
brought existing legislation of the Government of Turkmenistan into line with this law,  
ensured that ministerial decrees which contradict the present law have been reviewed.
4. Local councils of people's deputies shall take the necessary measures to comply with the provisions of this law.

President of Turkmenistan S. Niyazov Ashkhabad  
19 February 1992  
No. 661-XII

THE ARCHAEOLOGICAL PARK  
'ANCIENT MERV'  
TURKMENISTAN

DRAFT FIVE YEAR MANAGEMENT PLAN

drawn up for the

HEAD OF THE UNESCO OFFICE TASHKENT

by

GEORGINA HERRMANN  
DIRECTOR  
THE INTERNATIONAL MERV PROJECT



The Mausoleum of Sultan Sanjar,  
Archaeological Park 'Ancient Merv'

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Figures 1-7. Illustrations of the entrance and office of the Archaeological Park 'Ancient Merv'; aerial and other views of the Mausoleum of Sultan Sanjar and the Great Kiz Kala.	

## 1. Introduction

This draft report and plan has been drawn up by Georgina Herrmann, Director of the International Merv Project (IMP), in consultation with officials of the Ministries of Tourism and Culture in Ashgabat and Mary, the Mary Velayet, the Bairam Ali etrap and the Director of the Archaeological Park 'Ancient Merv', at the request of the Head of the UNESCO Office in Tashkent, M. Barry Lane. The IMP is a Turkmen-British collaboration studying the history and archaeology of Merv. The Turkmen co-director is Dr. K. Kurbansakhatov, Director of YuTAKE, Department of History, the Academy of Sciences of Turkmenistan, the British co-Directors are Dr. Georgina Herrmann, Institute of Archaeology, University College London, and Dr. St John Simpson, British Museum, London. The IMP has been working at Merv since 1992 and their most recent Collaboration continues until the year 2000. They have undertaken a programme of surveys, excavations and the recording of existing standing monuments and walls. They are also working to make the site better-known internationally through popular and scientific articles, conference papers and public lectures. They have prepared a guide for visitors to the site, *Ancient Merv*, written in English and Russian, and are writing a popular book.

## 2. The oasis and its environment

The oasis of Merv in the Karakum desert is strategically located between Serakhs and Amul (modern Charjou), the crossing point of the Amu Darya on the main west-east route to Bukhara and Samarkand (Map 1). Until recent times the oasis received its water entirely from the river Murghab, which originates in the Afghan mountains: this was supplemented in the 1950s by the waters of the Kara Kum canal, drawn from the Amu Darya and crossing Turkmenistan to exit into the Caspian Sea.

The oasis was formed by the silt brought down by the Murghab river, creating an alluvial delta fan, tilting slightly to the north. The landscape of the oasis is essentially flat, except where disturbed by irrigation works, interspersed with a dense pattern of ancient sites. Settlement began in the north of the oasis in the Bronze Age, where simple canals could be drawn off the various branches of the river before it fanned out into the desert. This area was subsequently deserted, as more complex irrigation systems were developed, dependent on the construction of dams where the river entered the oasis in the south. An elaborate network of canals was constructed, offering greater agricultural potential, and settlements moved further south. The historic urban centre of the oasis was developed on the eastern edge, close to modern Bairam Ali, and well located for starting out on the desert route to ancient Amul.

A major expansion in the area under irrigation in the oasis occurred in the 1950s. One reason was the arrival of the waters of the Kara Kum canal, together with the employment of powerful diesel pumps to aid its distribution throughout the oasis: the other was the advent of large agricultural machines. These two factors resulted in a dramatic change in the appearance of the oasis because of the creation of fields suitable for large-scale agriculture. The levelling of areas suitable for modern irrigation resulted in many archaeological sites and much of the ancient landscape being destroyed. Another effect was a rise in the water table. The present appearance of the oasis with its large fields and relatively sparse tree cover contrasts with that described in medieval accounts: a Chinese source of c. 765 described how ‘the villages and fences touch each other and everywhere there are trees’.

Outside the towns, local people have been settled in *kolkhoz* or Collectives of modern housing. Many colourful traditions survive. Many women still wear the typical long Turkmen dress and flowing headscarves: herds of camels and flocks of sheep and goats are taken out to graze around the oasis and the city-sites; people can be seen travelling in donkey carts, and bringing back loads of camelthorn for winter feed. The rural life of the community continues around and through the ancient cities of Merv and gives them a valuable feeling of ‘life’.

### 3. Description of the Cities and Monuments of Merv

#### Ancient Merv and the ‘Archaeological Park “Ancient Merv”’

Although there are numerous important ancient settlements and monuments located throughout the oasis, this report will concentrate on the historic urban centre of Ancient Merv and the monuments in the vicinity, that is those readily accessible to tourists. In future tourists should be encouraged to visit the Bronze Age centres of Gonur and Togolok in the north, and some of the finer monuments such as those at Talkhatan Baba, Nagym Kala, Kurtly-depe, Kishman-depe East and West and Geok Gumbaz. These sites will only be briefly commented on.

The city sites and monuments of Merv are of exceptional historical, architectural and archaeological importance. They consist of a series of adjacent walled city-sites of different periods, as well as a variety of monuments, located inside and adjacent to the walled cities (Map 2). These have been protected from recent development by being preserved in an ‘Archaeological Park’: for the status of the State Historical and Cultural Park ‘Ancient Merv’ see Appendix 1. The walled cities of ancient Erk Kala and Gyaur Kala, and medieval Sultan Kala are all within the territory directly administered by the Archaeological Park and are reasonably well protected, although their sheer size, more than 10 square kilometres, means that they cannot be

under constant observation. The cities are easily defined by the great mounds left by their walls. There are active cemeteres in both the northern and southern suburbs or *rabats* of Sultan Kala, focused on the the Mausolea of Yusuf Hamadani and the Askhab or Timurid iwans.

The post-medieval city of Abdullah Khan Kala and its 18th century extension Bairam Ali Khan Kala are less well protected, located as they are on the edge of the modern town, while the medieval city-site of Shaim Kala to the east of Gyaur Kala, dated between the 8th and 13th centuries, is essentially almost totally destroyed and is only of archaeological interest.

Monuments in the immediate vicinity of the ancient and medieval cities are reasonably secure from vandalism. However, those elsewhere are mostly totally unprotected, even by a fence or board defining their protected status. Many are sited in the middles or edges of fields, with ploughing occurring right up to their bases. The irrigation of the fields exposes them to further damage by rising damp and salts. Some



are within modern housing. A number have been destroyed in recent years, or are likely to be destroyed, perhaps by soil being taken for fertiliser or for bricks.

### 3A. The City-sites

1. Erk Kala is a polygonal site with an internal citadel, probably founded c. 500 BC, during the Achaemenian Persian period when Margiana formed part of the Achaemenid empire. This walled centre itself formed the citadel of the much larger Hellenistic city, founded by Antiochus I (281-261) and known as Antiochia Margiana: today it is called Gyaur Kala (Fig. ).

The lookout tower at the southern end of Erk Kala is the best place from which to gather an impression of the cities and monuments of Ancient Merv. It is necessary to walk up the 30 m. high walls to the top of the tower. This is probably one of the highest points in the oasis and gives a superb overview of the site.

2. Gyaur Kala, the Hellenistic foundation and Partho-Sasanian city. This essentially square city measures c. 2 km. a side and covers, therefore, nearly 4 square kilometres. It continued to be occupied for some 1500 years, through the Parthian and Sasanian periods and into the early Islamic period, before being used as an industrial zone between the 8th and 10th centuries, although even then the central mosque continued in use as late as the 11-12th centuries. Within Gyaur Kala there are four points of visitor interest: the central mosque, the Buddhist stupa, the Oval Building and fortifications close to the south-west corner.

The Beni Makhan mosque is located in a central position in Gyaur Kala close to the road. This building is exceedingly important, as it is thought to be the earliest mosque in the city of Merv: it continued in use long after occupation had moved to the adjacent Sultan Kala, when large areas of Gyaur Kala had been turned over to industry, only falling out of use in the Seljuk period. The mosque itself is obscured by excavated dumps, although the associated cistern is visible and is an impressive illustration of how the ancient city was watered by underground canals.

The Buddhist stupa and monastery in the south-east corner. Again this is a building of major significance, being the westernmost excavated example of a Buddhist structure known to date. It was probably constructed in the 4th-5th centuries: major finds included fragments of a monumental clay statue of Buddha and the famous 'Merv Vase', currently on display in Ashgabat.

The Oval Building in the north-west quarter. This impressive oval walled structure is located on a high mound and is dated to the 5th-6th centuries. It has been suggested that it was a Christian monastery, but there is little evidence to support this. The building itself on its high platform, is a striking structure, consisting of a series of rooms around a central courtyard.

The fortifications in the south west corner of Gyaur Kala present an impressive excavated sequence of a series of walls, being reconstructed from the Hellenistic to the Late Sasanian periods.

3. The medieval city of Sultan Kala or Marv al-Shahijan (Royal Merv) developed to the west of Gyaur Kala on the opposite side of the Razik canal: it began as a suburban development around the Majan canal. Gradually the city centre moved to this new area, while Gyaur Kala was more or less abandoned except for the central mosque and industrial areas. According to medieval sources, the city was only walled in the 11th

century by Sultan Malikshah (1072-1092), while the suburban developments to north and south, the rabat, was walled by Sultan Sanjar (1118-1157), whose Mausoleum is located at the centre of the city. The size of the main city is much the same as that of Gyaur Kala, c. 4 square km., however the extensive suburban areas to north and south occupy another 2-3 square km.

In 1221 Merv was sacked by the Mongols, who, according to medieval sources, slew the population and devastated the complex water system, which together would indeed have rendered Merv a 'desolation' for some time. However, such accounts were exaggerated and there is evidence for continued, although diminished occupation during the Mongol period.

The Mausoleum of Sultan Sanjar is located in the centre of the medieval city and is probably the most famous building of the Merv oasis (see below). Other interesting monuments within the city include the köshk known as the 'Organ Pipes', to the north of the road, and the 'Seljuk House' in the south-east corner.

While the walls of Erk and Gyaur Kala essentially survive on the surface as high rounded mounds with higher areas indicating interval towers, the walls of Sultan Kala are well preserved in some areas. A few areas should be selected for visits by interested groups. These include the main west or Firuz Gate, excavated in 1990, which provides a fine example of a medieval 'bent axis' gate, although it has since suffered from brick-robbing and vegetation growth, and the Kushmeihan Gate (excavated 1990-91) in the north, with its water-control point - both gates have suffered vandalism.

Shahriyar Ark, the citadel of the medieval city, is an attractive walled area of a reasonable scale. It is of interest not only for its walls, which illustrate two consecutive periods of construction, but also for the fine small corrugated building or kepter khana, and the ruins of the palace, see below.

#### 4. Shaim Kala

When the Russian Academician, V.A. Zhukovsky began the study of the cities and monuments of Merv in the late 19th century he marked the walled city of Shaim Kala on his map to the east of Gyaur Kala. This city has been variously dated from the Abbasid to the Mongol periods. Little survives today, the area having been turned over to housing and agriculture. It is difficult to find, of little interest to general visitors and unsuitable for tourists. It is an illustration of what might have happened to the other cities, had they not been protected in an 'Archaeological Park'.

#### 5. The post-medieval city, Abdullah Khan Kala and Bairam Ali Khan Kala

Merv formed part of the Timurid empire in the 15th century. A walled and moated city on a new site to the south was constructed by Shah Rukh (1408-1447): this is known today as Abdullah Khan Kala. This city was considerably smaller than the ancient and medieval cities, only occupying 1 sq. km. This reflected Merv's diminished importance at the time and the Timurid preference for Bukhara, Samarkand and Herat. Increased population in the 18th century led to a walled extension of Abdullah Khan Kala, known as Bairam Ali Khan Kala. The modern town spreads out to the south.

At the end of the 19th century, the layout of much of this city was still visible, together with many of the major buildings. It was subsequently plundered for the fired bricks of which some buildings were constructed. Today, while the plan of the walls and towers can still be recovered, the gates have disappeared, as has most of the internal plan, including that of the citadel and most of its palace.

### 3B. The Monuments of the Merv Oasis

#### A. Mosques and mausolea within and in the vicinity of the Cities

##### *1. Mausoleum of Sultan Sanjar*

The Mausoleum of Sultan Sanjar was constructed in the centre of the Seljuk or medieval city. This cube-like building was not an isolated structure, as it appears to be today, but formed part of a major religious complex, once the main mosque of the city. The outline of the courtyard of the mosque can be seen from the air and from the galleries below the dome (Fig. ). The tomb was built by an architect from Serrakhs called Muhammad ibn Atsys, whose inscription in the dome was plastered over and only discovered in the 1950s. The buildings of the Seljuk sultans are famous: the major surviving structure at their capital of Merv is Sanjar's mausoleum. It was one of the greatest structures of the age, its high double dome covered with turquoise tiles and visible from afar. One of the features of such monumental mausolea is the elegant brickwork and fine carved stucco, both hallmarks of Seljuk architecture.

The mausoleum consists of a square chamber: today there are two entrances, one in the east, the other in the west, although originally there may have been only one. The west arch is heavily restored. The dome is carried on four giant squinches, alternating with blind arches. The transition from octagon to the circular base of the drum is made by stalactite pendentives, above which is a circular moulding. The pendentives form the base of radiating ribs which reinforce the interior of the dome and form a complex interlace pattern with an 8-pointed star in the centre. Between the ribs are large trilobate panels, and at the apex is a small round hole or oculus. Considerable traces of the original paintings which once embellished this magnificent structure survive. Not only were the ribs themselves decorated with arabesques of blue and red on white, but so also were the arches and a series of panels with inscriptions and floral motifs decorated the top of the walls. The tomb in the centre of the floor dates to the early twentieth century.

The exterior of the dome is a complex arrangement of galleries, vaults and buttresses. On the lower level are a series of arches forming vaulted arcades. In between the arches are engaged brick columns and panels of geometric forms. The intrados of each arch is decorated with stucco designs. Originally there were stucco grilles filling the arches.

The first photograph of the mausoleum, then in a fairly ruinous state, was taken by V.A. Zhukovsky (1896), and thirty years later by E. Cohn Wiener. The mausoleum was the only standing structure in the area: the outer dome had collapsed, and the galleries were in a very damaged state, as was part of the south wall. The first detailed structural analysis was carried out by the architect N.M. Bachinskii in 1937 during restoration. Excavations to the east of the mausoleum revealed the foundations of a large mosque adjoining the mausoleum. Further work was undertaken during the 1950s. In recent years extensive changes have been made to the western door and entrance area. The door has been surrounded with new bricks, steps built leading up to it, and a paved and walled forecourt constructed (Figs. ). A new spiral staircase leads to the galleries. The dome was also given a cement capping in 1996.

Inside the wooden scaffolding erected by a team of Russian conservators in the late 1980s is still in place. They were employed to record and restore the wall-

paintings still present on the ribs of the dome, the arches and the upper walls, but did not complete their programme.

The building was constructed on top of earlier buildings, parts of which have been revealed to north and south, although the bathhouse to the south probably formed part of the mosque complex surrounding the mausoleum.

## 2. *Mausoleum of Muhammad ibn Zayd*

This attractive complex consists of a square mausoleum with its antechamber and prayer hall, a covered cistern, known as a sardoba, and a c. 19th century kitchen and domed room. The complex lies adjacent to a large köshk, consisting of a massive mound and one standing wall. All around is a grove of saxaul (haloxylon) bushes, many of which are decorated with colourful rags and tokens, left by superstitious local visitors to the tomb. To the NW of the complex is a traditional Turkmen cemetery, thickly wooded with tamarisk and saxaul trees, and saxaul bushes also grow in the forecourt of the mausoleum and beside it. Votive pieces of material or tiny cloth cradles are often tied on. There is an openair cooking area with *tanurs* and stoves to the east of the complex, used by the shrine's guardian and his family.

The mausoleum was built in 1112 at the command of Sharaf al-Din Abu-Tahir, a governor of Merv in the early 12th century, for Muhammad ibn Zayd, a descendent of the Prophet. It is one of the best examples of an Islamic shrine in the Merv oasis. The mausoleum is the earliest part of the structure and consists of a square chamber covered with a dome resting on four arched squinches alternating with blind niches. A finely carved inscription running around all four walls was written in floriate Kufic. In the west wall there is a mihrab. The cenotaph in the centre of the room probably dates from the 15th century. The mausoleum is currently entered from an anteroom to the east. The prayer hall or mosque to the north is aligned east-west and contains part of the original outer wall of the mausoleum.

The first detailed study was carried out by Zhukovsky (1894, 152-57): most other architectural historians who worked at Merv studied the mausoleum. The identity of the person in the tomb was, however, only solved in 1950 when the inscription was read. The mausoleum has been frequently restored: the most recent major restoration took place in 1937 when the main dome was rebuilt and the outer walls of the mausoleum were encased in a brick cladding with buttresses to keep the walls vertical. In 1968 further work was carried out which included the erection of mudbrick pillars to support the arches of the mosque. In 1985-6 the external walls on the south east corner were reinforced.

The cistern with its circular sunken chamber, was in a ruinous state in 1992. It was excavated and rebuilt in 1994 by the Park authorities with an arched portal and dome covering the cistern. Sections of the feeder canals were uncovered at the same time. The askhana (kitchen and domed room): the domed room was restored in the 1990s and is lived in by the guardian of the shrine. The roofs of the two western rooms, used as a kitchen, collapsed: the rooms have recently been cleared (1996-97) and await reconstruction.

A retaining wall and steps to the complex were constructed in 1990-91.

## 3. *Mausoleum and mosque of Kiz Bibi*

The Kiz Bibi mausoleum lies 150 m. west of the walls of Sultan Sala and north of the Kiz Kalas (Fig. ). It originally consisted of quite a large complex of buildings. C. 14 m. to the south-east is the complex containing an excavated mosque and *khanaqa*

excavated by the Merv Archaeological Park authorities in 1994. 16 m. to the west of the mausoleum is an excavated square structure, c. 9.5 x 9.5 m., built of fired bricks.

The mausoleum is a square building (7.50 sq. m.) with a single chamber roofed with a dome. When photographed by Zhukovsky, the dome had a slightly pointed profile and was capped with a finial. The remains of a wall of a second structure to the north was also visible. By 1937 the upper part of the dome had collapsed and part of the outer wall had been removed. Excavations were undertaken by the YuTAKE in the 1950s. The building was comprehensively restored in 1992, the exterior being rebuilt in modern fired bricks, although the core, built of mudbricks, is preserved within it. In 1992 (and later) early plaster still covered the south west squinch: this no longer survives, although there are traces on the western wall and north west squinch. Much of the interior and the walls of the north and west iwans have been covered with wires held by nails to help fix a cement plaster. There was no cenotaph within the structure in 1992, although one was subsequently placed there.

The walls of the excavated mosque and *khanaqa* were built of mudbrick on fired brick foundations: to simplify restoration the mudbricks were removed, partly replaced with modern fired bricks to a uniform height and capped with cement. In 1997 the fired bricks in the north east corner had collapsed below the cement capping.

The mausoleum is enclosed by a modern low wall, partially equipped with metal railings, and the whole complex enclosed in another low wall with metal bars to fix railings, although no railings are present. A small modern structure, 4.30 m. square, has been constructed c. 24 m. to the north-east for the shrine's guardian.

#### 4. *Askhab iwans, also known as ibn Bureida*

In the southern suburb of Sultan Kala is the monument known as the Askhab iwans or ibn Bureida. Today the complex consists of two tall iwans of the Timurid period, two mausolea in front of the iwans, a prayer hall, reconstructed on older foundations, all of which are constructed on a low mound. The iwans form an important aspect of Timurid Merv, which is less well represented than Seljuk Merv. Until recently these were enclosed within a 2.5 m. high wall (prior to 1992). To the south is a modern askhana and modern cooking area and an early covered cistern or sardoba, fed by canal, which provides water for the complex. All around is an extensive cemetery area, still in use.

The iwans stand side by side and face south: they are joined by a thin wall with an arched doorway. Each iwan was set into a tall *pishtaq* or screen with a rectangular frame. The interior back and sides were decorated with geometric patterns in blue and turquoise tiles. Early photographs prove that the linking wall was also decorated, although few traces now survive.

The domed mausolea in front of each iwan were built in the early part of the 20th century to replace the original buildings, already ruinous in the 1890s. The smaller western mausoleum was in the form of a *chahar taq*, a small arched building open on all four sides, although the eastern one may have had entrances on only three sides. The prayer hall, a rectangular structure was rebuilt in 1993. The recently constructed *askhana* consists of two rooms, built on a cleared area to the north east of the sardoba. The sardoba is a circular cistern, depth 4.20 m., covered with a shallow dome, and entered through a doorway set within an arched porch decorated with stucco with vegetal motifs of the nineteenth century.

The site was first studied and photographed by Zhukovsky. In the 1950s the complex was investigated by Yutake. The site has been frequently restored, most radically post 1992.

##### *5. The Mausoleum of Ahmad Zamji*

This religious complex is located 200 m. west of Sultan Kala, near the Firuz Gate. It consists of three distinct units, an open enclosure with the tomb of the 8th century Muslim saint, Ahmad Zamji, a mosque and a series of rooms for pilgrims.

The shrine was first studied by Zhukovsky (1890) and noted by a number of subsequent scholars. In 1990 the Ministry of Culture commissioned a detailed study of the complex prior to a complete rebuilding in modern fired bricks. This was completed in 1994. A new access path was constructed in 1996 and a sign erected. It is an active focus of worship.

##### *6. Mausoleum and Mosque of Yusuf Hamdani*

This complex is located outside the eastern wall of the northern suburb of Sultan Kala. It consists of a prayer hall located on the west, originally of the Timurid period, a mausoleum, two prayer halls (mostly constructed or reconstructed between 1992 and 1996) and accommodation for pilgrims. The complex was built round the grave of the 12th century dervish Abu Yaqub Yusuf ibn Ayub from Hamadan.

The prayer hall consists of a central iwan, flanked by two tiers of side iwans. The facade has a symmetrical stepped profile, the front is plain except for tiers of rectangular panels containing blind niches. At the back of the main iwan is a mihrab with a flat back and muqarnas hood.

This complex has been rebuilt and restored in the last decade. It is in use as a modern religious building, opened officially during a Presidential visit to Bairam Ali in 1996, and is not always accessible to tourists. There has been much replastering and painting of the prayer hall, and the mausoleum itself is a modern rebuilding of a 19th century reconstruction of the ancient tomb. The mausoleum probably retains the position and basic shape of the original. The small domed building is supported by four thick piers. In the centre is a black marble cenotaph decorated with naskhi inscriptions and floral designs.

#### B. Mosques and mausolea in the oasis

*Talkhattan Baba Mosque* is located approximately 30 km. south east of Sultan Kala. Zhukovsky associated the mosque with Abu Bakr Muhammad ibn al-Fadla ibn Ahmad who lived in Talkhattan until his death in 1095. The mosque was probably built in the early 12th century. It was extensively restored in 1985, when ancillary structures and the enclosure wall were demolished. The Seljuk mausolea of *Imam Bakr* and *Imam Shafi*, located in the Talkhattan cemetery, have both been extensively restored since 1992, and are of little interest. The *Imam Qasim* mausoleum is located approximately 20 km. north east of Merv and forms the centre of a complex with two prayer halls and an askhana. One mosque is joined to the mausoleum and may be contemporary, the other is new. It has been dated to the 18th or 19th centuries. *Huday Nazar Mausoleum* is located c. 24 km. north west of Sultan Kala in a cemetery with numerous saxaul trees. In an advanced state of decay, the dome has fallen in, but the original Seljuk facade is still largely in place on the west facade. Three fine mausolea survive at *Geok Gumbaz*, some 150 km. north-west of Merv. These date to the Timurid period and are in the necropolis of a city founded by the Mongols.

### C. Residential Buildings within or in the Vicinity of the Cities and in the Oasis

One of the most characteristic architectural features of the oasis are the monuments known as Köshks. Within the context of the Merv oasis the word describes large mudbrick buildings, usually with corrugated facades. They are among the most important buildings in the oasis, of which some 25 survive in varying states of repair. Since the monuments are built of mudbrick, preservation is erratic. However, by comparing surviving examples it is possible to build up a picture of the different types of Köshk. They are considered to be feudal castles and are variously dated from the 7th to the 19th centuries.

The basic form consists of an isolated square or rectangular structure, usually two storeys in height, although occasionally there are three. The walls above a skirt or glacis are divided into a series of corrugations which give the buildings their distinctive appearance. The two largest examples are the Great Kiz Kala and the Great Nagym Kala, near Vakil Bazar.

A distinctive version of a Köshk is the *kepter khana*, small, rectangular structures, of which only two examples survive, both in the medieval city.

The Great Kiz Kala: The massive corrugated walls of this köshk form one of the most impressive monuments in the oasis: it is the second largest after the Great Nagim Kala. It is the most easily accessible of this unusual type of building. The corrugated walls rise above a sloping glacis and were originally topped with crenellations. The internal rooms of the first floor have nearly all disappeared, although traces survive on the interior walls of some rooms and of the top of a stairway, once giving access to rooms on the ground floor and the roof.

There are several breaks in the walls, notably on the eastern side where a 7 m. section collapsed since the 1970s. Two buttresses were built on the interior of the east wall in the 1960s by the Merv Park, and there is an archaeological trench excavated up to the exterior facade of the southern wall (Khodjaniasov).

The Little Kiz Kala was similar in design to, although only about half the size of the Great Kiz Kala. The exterior walls are not well preserved and most of the east and north walls have collapsed. Some of this collapse has occurred within the past decade: a photograph taken in 1971 showed the east wall still standing, while others of 1992 prove additional collapse in the north west corner. While the exterior is less well preserved than the Great Kiz Kala, the interior is better preserved with rooms visible on both the ground and the first floor, as well as a staircase.

Interesting Köshks in or near the Archaeological Park include the already-mentioned the Beshparmak or 'Organ Pipes' köshk in the north west corner of Sultan Kala. This is easily visible from the road, and can be reached by a track running beside the west wall; one corner of this köshk is well preserved, with fine corrugations. Little of the external walls of the Porsoy Köshk to the west of Merv kolkhoz survives, but what is preserved survives to an exceptional height and shows parts of the second storey.

Köshks elsewhere in the oasis well worth a visit include the Great and Little Nagym Kalas, Yakirpir Köshk, Besh Agyz and Durnali Köshks, Thuli and Garam Köshks, as well as Kelte Manar Köshk.

The best preserved example of the unusual type of building known as a Kepter Khana occurs in the medieval citadel, Shahriyar Ark. This small corrugated structure is built on a high mound, and the interior walls were lined with deep brick niches.

The palace in Shahriyar Ark, now ruined, was built round a courtyard with four iwans. It is usually considered to be that of the Seljuk Sultans, although its small size may suggest that it is post-Seljuk.

Only a few stumps of wall of the palace survive in the citadel area in the north east of Abdullah Khan Kala, although early photographs showed much of it surviving.

A small building, the Köshk Imaret, consisting of a single room is located in a field 800 m. to the north of Abdullah Khan Kala. This building is all that survives of a pavilion with a portal in front, both dated to the Timurid period. Nearby is one of three icehouses. The tops of the domes of these conical structures have collapsed. They were used as icehouses or medieval refrigerators.

Other interesting buildings in the oasis include the so-called 'caravanserai' at Kishman West, the minaret at Kishman East, and the 'caravanserai' at Kurtly depe.

#### Recent Buildings in Bairam Ali

The Sanatorium, constructed as a hunting lodge for Tsar Nicholas II, and the handsome Russian Orthodox church are two fine early 20th century buildings, constructed from bricks taken from Abdullah Khan Kala. Another excellent early 20th century building is the house of Guljemahan Khan, the wife of the important Turkmen khan, Nurberdy Khan. Guljemahan Khan was the only woman to be appointed Khan and ruled Merv at the time of the Russian take-over. She successfully negotiated a peaceful handover of the oasis to the Russian forces, thus saving many of the inhabitants. Her house is located in Kolkhoz Mekhan: it once contained a small collection, now housed in the Mary Museum.

### 4. Existing Management conditions in Mary and Merv

#### Ministry of Tourism

The Ministry of Tourism has an office in a pleasant early 20th century building by an attractive garden. Staff consists of the Director, Jumadurdyev Muhametmyrat Orazmyradovich, and his deputy, Yedzheba Gerdieva, a legal officer (who speaks some English). The Director and his Assistant are well informed about local conditions, friendly and helpful. There is a hotel representative and an accountant or cashier. There are two 'operators' in Mary and one in Bairam Ali. These cope with requests for accommodation. The office is open from 9-6 each day, and there is a watchman on duty on Sunday.

#### Tourist Bookings and Offices

Most tourist bookings are made by the firm Intour in Ashgabat: there is an Intour representative in Mary. They have a contract with the Hotel Sanjar. Payment is made in Ashgabat for the transport, accommodation, museum entrance and site visit with guide. The Mary office is informed of bookings

Charges for a visit from Ashgabat to Mary are \$60 to include accommodation at the Hotel Sanjar for one night, meals, transport, a visit to the Mary Museum and a 2 hour visit to the site, including charges for entrance and photography. Tourists are taken to the top of Erk Kala, the excavated mosque in Gyaur Kala, the mausolea of Sultan Sanjar, M. ibn Zayd, ibn Bureida, Ahmad Zamji and to the Great Kiz Kala. Despite the Mary Museum being included in the cost of the tour, the Assistant Director informs me that few tourists visit the Museum. They also receive no funds from the charges levied.



An impressive-looking independent tourist office - there are several - is Firma Miras on Ulitsa Kurban Durdiev: unfortunately the Director was absent in Ashgabat when we visited. The office is housed in an attractive modern building, well laid out and well presented. In addition to offices there is a reception room and kitchen. There were two computers. We did not visit the other firms. One is called Piri, with an operator in Bairam Ali. All can arrange transport and guides to Merv. Each has guides, said to speak a variety of languages, including English, Persian, German and Russian. A few are excellent and well-informed: most are linguistically inadequate and know little about the site. The companies have cars for individual tourists, as well as buses. Agents in Mary spot independent tourists and guide them towards the various firms.

#### Alternative Excursions

The tourist companies offer a few other excursions, although Ancient Merv is the most popular. These include visits to the River Murghab, the large dam and power station at Indugush, some reservoirs, the Sanatorium at Bairam Ali and the largest power station in the oasis, Grez. It is also possible for tourists to visit the Bronze Age city of Gonur by Jeep, but to date no-one has requested this, although a few have visited other monuments in the oasis. Gonur is potentially a major tourist attraction. Foreigners resident in Ashgabat sometimes visit Gonur direct from Ashgabat.

#### Accommodation

Most tourists stay in the Sanjar hotel. This is below current international levels and needs a major upgrade or replacement. There are two possible alternative small hotels, which owing to their small size are more suitable for independent tourists than for groups. One is the Yrscal, in the centre of town. It has a south-facing prospect and car parking. This has 11 rooms, capacity 19, costing \$10 for a single and \$20 for a double room. There is a cafe/restaurant bar, open from 7.30 a.m. to 11.00 p.m. It is of a fairly basic standard.

A new hotel, the Rakhat (Serenity), opened in 1997, has been constructed on the Ashgabat-Charjou road, 2 km. outside Mary. This two-storey modern building is attractively designed and well maintained. There are 9 double rooms, built round a central (roofed) courtyard with plants. The rooms are spacious with excellent modern plumbing, baths, flush toilets, washbasins. Accommodation consists of either a spacious room and bathroom at Manats 50,000 (\$10), up to suites with large sitting room and bedroom with bathroom, at Manats 250,000 (\$50) per night. There is a cafe, and extensive parking. This is currently used by long-distance lorry drivers.

There is a hotel in Bairam Ali, of which ten rooms have been upgraded recently (not visited). The Ministry of Tourism is able to arrange bed and breakfast accommodation in Turkmen homes. There are plans for camping sites in the oasis.

#### Museum facilities

The excellent Museum, located in a 19th century merchant's house, was opened in the early 1990s and has recently (1996) been restored with the help of the UNDP and with cases donated by the Turkish Government. The Museum staff have prepared three permanent exhibitions devoted to the History and Archaeology of the oasis and Ethnography. They hope to add new galleries on the ecology and other topics, but unfortunately lack the necessary funds and exhibition cases. There is a Director, Maya Mezhtinovna Asadulina and two deputy Directors, as well as an archaeologist and

various assistants. The Museum is open every day from 9-6, and can be opened by request if shut. The charge is \$3. The staff have prepared souvenirs, including embroidered silk bags and terracotta copies of the famous figurines of Margiana. There are also works by local artists.

Access to the upper galleries, the ethnographic collection, is via a steep staircase. The absence of a lift and the frequent presence of low steps renders this building difficult for less active visitors.

Few tourists actually reach the museum since few tour groups are taken there. Notices supplied by the Museum to the Hotel Sanjar were not, apparently, displayed.

The Mary Museum is responsible for the other museums in the oasis: for financial reasons, they are being encouraged to concentrate on the museum in Mary and to close outlying centres. Currently, there is a museum on the history of cotton in Bairam Ali, and a Kolkhoz Museum at Teze Yol. There used to be one at Guljemahal Khan's house. These museums are hard to discover and therefore rarely visited.

Space is available in the museum for lectures. There are, however, no facilities for lectures, nor are there any arrangements or space for visiting scholars to study and work on the collections, although the Museum staff are friendly and welcoming..

#### Storage of artifacts

The National Museum service, which includes the Mary Museum, is responsible for permanent curation of archaeological and ethnographic materials. This is a heavy responsibility, particularly over the long term. Storage facilities are inadequate: those for archaeological artefacts consist of two small rooms, overcrowded, inadequately secured and lacking climate or dust controls. Additional secure and suitable storage is urgently needed. There is an alternative building elsewhere in the town for the ethnographic collection (not visited). This too is likely to lack proper storage conditions to preserve the valuable textile and paper archive collections.

There is a complete absence of conservation or photographic facilities. There is little provision for the proper recording and cataloguing of the museum collections. There is no computer or copying equipment: communications are inadequate. There is an absence of trained staff. There is an urgent need for a training programme and the suitable equipping of the Museum, whose dedicated staff do their best with what they have. There is no transport.

#### Other Tourist Attractions in Mary and Bairam Ali

There are interesting Sunday Markets in Mary and Bairam Ali, where many handicrafts can be purchased. These include locally produced silk, attractive embroidered traditional garments, sheepskin hats and coats, and the colourful felt rugs (cashma). There is still an active domestic craft industry making these and other items such as painted furniture and tools.

The first tourist shop, Kemal, has recently been opened in Mary by a poet: it is a private venture. It stocks Turkmen dresses and coats, jewellery, books in Russian and Turkmen, bags, paintings, and modern items such as new clothes and plants. Prices were moderate and in manats at the time of writing.

There is a pizza parlour next to the museum.

#### Current Tourist Interest

The number of tourists visiting the site has increased significantly over recent years. In the autumn of 1992 visitors probably numbered less than a dozen in all, whereas in

1996 there were 355 tourists, and 123 tourists in transit. In 1997 there were many busloads of tourists on organized tours, as well as individual tourists. The Director of Tourism in Mary reported that in the six months to June 1997 492 tourists in organized groups visited the site. In addition, there were 197 visitors in transit from Uzbekistan to Iran. Most visits occur during the summer months, from June to September inclusive. These figures have been supplied by the Director of the Mary office of the Ministry of Tourism. They document a steady increase in tourist interest, despite the present inadequate facilities.

There is interest from the expatriate community in Ashgabat: however, these independent visits are unlikely to form part of the Ministry's records, nor do they usually pay charges. While visits organized via the Ministry of Tourism and the tourist firms in Mary should provide an income (entrance to the site is charged at the rate of \$2 in manats, and the right to photograph at \$3), it is currently difficult to profit from transit visitors, although sometimes admission charges can be levied at the entrance. There are at present no opportunities for visitors to purchase the Visitor's Guide, postcards, posters, etc., nor are there any supplies of these items. Neither can they buy drinks or light refreshments, nor use toilet facilities.

#### Availability and Standard of Guides

This is a serious problem on two fronts. One is the linguistic ability of the guides, which is usually totally inadequate. The other is their poor knowledge of this large and complex site. Visiting the cities of Merv with a good guide is a rewarding experience, particularly if not undertaken under the full heat and glare of the midday sun - the time when most tour buses visit the site. All too frequently, the visit must be an endurance test. Furthermore, all too little of the site is shown.

#### The Archaeological Park 'Ancient Merv'

The city-sites and monuments of the Merv oasis are the responsibility of the Ministry of Culture. Locally they are under the management of the Archaeological Park 'Ancient Merv', itself an office of the Ministry of Culture. The Park Office (Fig. ) is in charge of the security and recording of all the city sites and monuments in the oasis, not just those in the vicinity of the historic urban centre. There is an L-shaped building located to the left of the Park Gates, behind which lies a second building with separate toilet block known locally as a guest-house (gastinitza) but generally reserved for archaeological expedition accommodation during excavation seasons.

Staff in 1997 consisted of the recently appointed Director, Rejeb Jeparov, trained as an architect and formerly one of the assistant directors; supplies manager, Alty Karyagdyev, economist, Lida Grigorievna Alipova, personnel officer/secretary, Svetlana Voronina, officer in charge of monument protection, Rejeb Akhmedov, chief accountant, Yelena Romanova Krutikova, museum wardens, Soltan and Alek (there is currently no museum), a welder, Chari, a research officer, half-time, Azim Makhemedovich Akmedov, an electrician, a driver, Agimurat, and five wardens responsible for individual monuments. In October the former Park archaeologist, A. Annaev, was reappointed. There are no other facilities and virtually no equipment infrastructure within the Park complex.

Prior to Rejeb Jeparov's appointment as Director in late 1996, the staff consisted of a Director, Nursakhed Mamedov, a deputy director, Azim Akmedov (now research officer), an archaeologist, A. Annaev, an architect, R. Jeparov, office staff and an office guard. The Park Office was responsible for the recording of buildings prior

to conservation, and for any necessary excavations. The conservation and restoration of buildings was the responsibility of a separate office (Director Ashir Gurdov), housed in a compound of buildings on the opposite side of a small canal. This department included a brick factory which made bricks for the rebuilding programme: this has been dismantled.

#### 1997 Change in Management of Park

The Department of Restoration has recently been amalgamated with the Park Office and placed under the Directorship of Rejeb Jeparov. This should improve the former system, when the responsibility for the protection and care of endangered buildings was divided between two organizations, separately accountable and financed.

The entrance to the main park is marked by a pair of curved concrete pillars with two small lodges (Fig. ). The lodges are occasionally but not always manned. There is no information available about the site at this entrance, although a board announcing charges has just (October) been erected. Tickets are not issued, although money is occasionally collected from incoming tourists. Equally there are no site museum or rest rooms.

Information boards (mostly old and usually written only in Russian and Turkmen) can be found at some monuments, for instance the Mausolea of Sultan Sanjar, Muhammad ibn Zayd, Askhab iwans, Ahmad Zamji, Yusuf Hamadani and the Great Kiz Kala (Fig. ).

Training: there are few or no opportunities for training. Furthermore, the lack of facilities currently render any training of questionable value. Indeed, archaeological expeditions using this complex are obliged to bring all necessary equipment, ranging from light bulbs and furniture to buckets, shovels and computers.

#### Legislation for Excavations

Excavations in Turkmenistan require official permits, authorized by the host institution and by the Ministry of Culture. The attendance of an official from the Ministry of Culture is obligatory. See Appendix 2 for the Code of Practice as agreed April 23, 1997.

### 5. Principal natural and man-made impacts affecting the preservation of the site

The principal damage at Merv is caused by the high water table, the result of increased irrigation since the 1950s turning what was a relatively arid area into one practising intensive agriculture. Indeed when the Kara Kum canal was first opened, so high was the level of water that parts of the sites were initially flooded. Drainage canals were cut to solve this problem. However, these are poorly maintained and choked with weed (Fig. ). This results in parts of the sites being waterlogged even in the autumn with the resulting problems of rising damp and salts. These are destructive to any building, ancient or modern.

This raised water table has also made possible a considerable increase in the growth of tamarisk and camelthorn. Photographs of the 1950s show the interior of the cities as essentially without vegetation. Today the low areas of the cities are obscured with a dense growth of tamarisk and camelthorn, which is encroaching on the walls and areas of former occupation.

Thanks to the Turkmen authorities having protected the city-sites and monuments (with the exception of Shaim Kala) in the Archaeological Park 'Ancient Merv', man-made impacts affecting the preservation of the main city-sites have been minimised, although not eliminated. A site of such size is difficult to keep under constant observation, and small antiquities from the surface are often retrieved by visitors, as well as occasional brick-robbing from walls. There is also some fly-tipping of building rubble and other debris in Sultan Kala and Abdullah Khan Kala.

While monuments and sites in the vicinity of the ancient and medieval cities are reasonably well protected, many others nearby and throughout the oasis, nominally under the control of the Archaeological Park, are inadequately guarded. Many are surrounded by agricultural land or are encroached on by recent housing. These monuments are entirely unprotected from vandalism - indeed they are often used as adventure playgrounds for children and motorcyclists. They are liable to have bricks or earth removed, or even in extreme cases, be bulldozed (Fig. ). Many monuments have been destroyed since the 1950s: only four of the 18 or more dings near the Electricity Station in Bairam Ali survive, and these are threatened.

## 6. Recommendations for Urgent Work

Protection or buffer zones: It is essential that monuments outside the protected city zones should be provided with a buffer zone extending at least 50 m. from the outside of each structure. These monuments should be equipped with notice boards specifying that the named monument belongs within a Protected Zone belonging to the Ministry of Culture. Each site should be regularly visited. For this duty, the Park must be equipped with transport and qualified wardens.

Drainage Channels. It is essential that drainage channels are cut and maintained to control the level of ground water in the vicinity of the cities and the monuments.

The Erosion of Monuments: The most endangered buildings are constructed of mudbrick, although fired brick structures are also at risk. As is well-known, there is no generally accepted treatment to conserve mudbrick, although many alternatives have been tried at sites in the Americas, the Middle East and Central Asia. These include impregnating the surface with chemicals; constructing roofs over the site and encasing the monument. None of these have been proved to be successful and none are practicable at a site the size of Merv. Suitable experts should be asked for advice.

One of the principal dangers to the monuments - after the rising damp and salts which causes much of the erosion - is the erosion of the bases of the walls, seriously undercutting them and leading to collapse. As an emergency measure, the eroded bases of walls, either of monuments or of city walls, should be packed with earth or mudbricks. Ideally this task should be undertaken in June, so that the hot summer can bake the rammed earth hard. The resultant surface should be carefully formed to channel water away from the base of the buildings. This packing should be checked

and renewed annually. Attention should be paid to the tops of walls, which might require regular capping with mud plaster. Adequate channels for the drainage of rainwater should also be constructed.

Excavations: If excavations have revealed a building of sufficient importance to warrant continued exposure, then the walls should be capped with a suitable, environmentally friendly capping, such as annually renewable mud plaster rather than cement. Adequate drainage of the site should be set up and maintained. Otherwise, excavations should be backfilled, leaving a permanent marker in place to enable archaeological relocation at a future date, thus preserving the integrity of the site.

## 7. Specific Proposals for the ancient, medieval and post-medieval cities of Merv

### General Points

- Information boards, sensitively placed and multi-lingual, should be erected at all points of visitor interest.
- Recommended routes for visitors should be clearly signposted: tours of different lengths should be devised and colour-coded.
- If visitor traffic increases, access roads and parking areas will require enlargement. The asphalt road between the east wall of Sultan Kala and the west wall of Gyaur Kala is too narrow and needs widening and upgrading, as would the asphalt access roads in Gyaur Kala.
- The amenity value of all sites and monuments could be considerably improved by the relocation of unsightly electricity pylons and telephone poles in their vicinity.

Erk Kala: Access onto the walls of Erk Kala is presently uncontrolled. There is limited vehicle parking on the end of the present tarmac road, but this needs to be improved and widened. Excessive visitor traffic up the walls to the so-called 'Southern Castle' is causing damage and is encouraging rainwater gullying. Some sensitive method of preservation of the surface of the walls is essential. To construct a formal pathway with handrail - as completed at Old Nysa - although possibly but not certainly preserving the surface, would seriously damage the appearance of the site. Advice might be sought by UNESCO from organizations such as the British National Trust with extensive experience of long-term site management of environmentally sensitive areas with heavy visitor usage.

Ascent to the top is slightly hazardous and not recommended for the less agile: it also lacks shade during the main part of the day.

Gyaur Kala: There a number of areas of possible visitor interest.

1. *The central mosque and cistern.* There is an area of hard-standing adjacent that is suitable for vehicle parking and temporary stalls. The mosque is obscured by excavated dumps and the walls have suffered from partial collapse and brick robbing. The dumps need removal and the walls require to be carefully capped: adequate channels for drainage require construction.

A fallen panel of decorated stucco has been left in situ, protected by being covered, by the excavator (Professor Terkesh Khodjaniasov), because he lacked the skilled conservation facilities essential for raising this. The present state of this stucco

is unknown and cannot be assessed without re-excavation and conservation advice. Ideally, if surviving, it should be carefully lifted, restored and displayed in the Mary Museum, as it is an important example of Seljuk stucco from Merv. Funds for this expensive restoration and conservation task might be attracted from abroad.

2. *The Buddhist stupa and monastery* in the south-east corner. This building presents more of a restoration and conservation problem than the mosque because it is located in a low area prone to waterlogging. It is heavily contaminated with salts. Access is by unpaved track: a metalled road is required if vehicles are regularly to visit the site. Consultation with suitable experts is recommended.

3. *The 'Oval Building'* in the north-east corner. The plan is partially obscured by dumps. These could be cleared, the walls capped and good drainage installed. A path for visitors to reach the site would require to be built, as the steep-sided monument is located in a saline and bushy depression. This would require sensitive siting.

4. *Fortifications in south-west corner* of Gyaur Kala. An area for parking needs preparation and an access pathway cleared. An information panel with site location plan and map are required.

The medieval city of Sultan Kala: In addition to the Mausoleum of Sultan Sanjar, see below, there are a number of monuments within the city, as well as the fortifications which are of interest. The walls of Sultan Kala are of exceptional importance, the only such example of mudbrick Seljuk fortifications. However, each year sections of wall fall. They require similar conservation to the monuments: good drainage, and the packing of undercut sections of the wall with rammed earth. A few well-preserved areas on the north, east or south walls could be selected for visits by interested groups. Access paths would require construction, signposting and information boards erected.

The main west or *Firuz Gate* excavated in 1990 could be cleared of vegetation and rubble prior to restoration. It is easily accessed from the existing tarmac road that enters Sultan Kala from the Park Offices. Equally, the *Kushmeihan Gate* (excavated 1990-91) in the north, with its water-control point could be restored: an access path or metalled road would require to be built as it is c. 400 m. from the nearest road. Both gates have suffered from vandalism and the robbing of fired bricks for reuse.

A number of areas of the medieval city suffer from uncontrolled spoil-heaps resulting from fly-tipping: this should be stopped.

Shahriyar Ark, the citadel of the medieval city: Access is currently by climbing over or driving through the recent breaks in the wall. In the long term this will damage the walls, and a visitor pathway should be constructed in order to control access. The only practicable conservation of the walls surrounding the Ark, the palace, kepter khana and other standing walls is probably proper management of the adjacent canal and drainage, and packing of undercut walls.

Abdullah Khan Kala and Bairam Ali Khan Kala: Located as they are on the outskirts of the rapidly growing modern town of Bairam Ali, they are under constant threat. Most of the walls of Bairam Ali Khan Kala have already been demolished and built over, and modern housing is encroaching close to the southern wall of Abdullah Khan Kala. The interior of Abdullah Khan Kala is used for tipping rubbish, although this was partially removed in 1996-97. Much of the original surface is obscured. An unmetalled track, the original road, crosses the site from west to east, and is used by

traffic. The area around the city, especially to the east, is often waterlogged, and there is evidence for considerable rising salt.

An adequate protection zone should be put in place, the track crossing the city closed, and rubbish dumping stopped. The drainage of the area should be improved, so that the walls, particularly in the south east corner, are not waterlogged. Apart from the walls, Abdullah Khan Kala is currently unsuitable for visiting by tourists. It is, however, a unique site, worthy of preservation and further study.

## 8. Specific Proposals for some of the Monuments of the Merv Oasis

*Mausoleum of Sultan Sanjar (Figs.   )*: This highly important building urgently requires a full structural and conservation survey. The recent cement capping of the dome (1996) appears to be making the adjacent brickwork damp, and there is a deep crack in the dome. It is essential that the dome continues to be kept watertight and the foundations are monitored. Modern debris from the galleries, which themselves have been insensitively restored, should be cleared, and the galleries made safer for visitors: an excellent view over the city is provided from them. The programme of the conservation of the paintings in the interior initiated by the Russians in the 1990s should be completed, with full recording of these outstanding paintings. Once completed, the existing temporary wooden scaffolding within the building and shrouding part of the exterior galleries should be removed.

The metal cabins currently in the mosque courtyard at the rear need removal, as do the metal towers adjacent to the former mihrab in the east wall and on the north wall. The various poles and wires in the vicinity need replacing with more discrete alternatives. Information boards should describe both the mausoleum and the remains of the surrounding mosque complex to provide the building with much needed 'context'.

*Mausoleum of Muhammad ibn Zayd*: The building, one of the most attractive in the area, urgently requires a full structural and conservation survey. There are several unstable areas, particularly the semi-domes at either end of the prayer hall and the dome over the antechamber. Fired bricks are being removed from the north-west corner, thus weakening the structure: they are reused as votive deposits. The interior is unsympathetically lit by two bare electric bulbs. Provided it was installed by competent electricians, better lighting would improve visibility of the very fine inscription running round the walls of the interior of the mausoleum. This is being damaged by the pigeons which fly in through the now open window in the dome. They should be discouraged. New information boards should be erected to enable visitors to understand both the mausoleum and its prayer hall and the complex with covered cistern, kitchen, house and adjacent köshk.

*Mausoleum of Kiz Bibi*: A structural survey should be undertaken to ensure the safety of the structure, the cement, wire and nails covering the original interior walls and iwan arches should be removed: the low modern walls and sections of railing around the Mausoleum and enclosing part of the complex should be removed. The structure as shown today is of relatively little tourist interest, although important to those interested in architectural history. Information boards with plans and elevations of the



excavated structures should be erected to enable visitors to understand the complex as a whole.

*The Iwans and Mausolea of the Askhab or ibn Bureida:* The iwans are not stable. The structures require a full architectural survey, and sensitive conservation, after consultation with the relevant experts. The tops of both iwan screens have disappeared, although one was extant in the 1890s. The vaulted roof of the western iwan is in poor repair.

Only a few areas of tiling survive in situ and are obviously unstable - in some places planks have been nailed over the surface, in an attempt to prevent further loss of tiles: again expert advice should be consulted, prior to their conservation.

The sardoba or covered cistern is in reasonable repair and the dome has been restored recently. However, the 19th century screen requires urgent stabilization, as do the remnants of the stucco decoration.

*The Great and Little Kiz Kalas (Fig. ):*  Although no major wall has collapsed since the 1970s, the Great Kiz Kala is in an unstable state and a full structural survey is urgently required. The base of the walls is heavily eroded and deeply undercut in some places, especially at the corners, on the eastern end of the north facade and the southern end of the east facade (Fig. ). There is visible deep vertical cracking (Fig. ). The high water table is causing problems with rising damp and salts. Emergency repairs are a priority.

The Little Kiz Kala has already suffered from considerable and continuing collapse and is in a perilous state.

Recommendations: that the drainage channels around the monuments be cleared and restored to working order. That the undercut sections of walls be protected by a packing of rammed earth, carefully formed to encourage rain water to run off rather than form erosion gullies. That the excavation trench close to the southern facade of the Great Kiz Kala be filled in.

*Other monuments, köshks, icehouses, mausolea etc.* Numerous major monuments are located in agricultural land and urgently need protection with buffer zones. For instance, the Porsoy Köshk to the west of Merv kolkhoz is currently standing in agricultural land near a canal. The kolkhoz is rapidly expanding and housing has already reached the banks of the canal. Unless secured within a protection zone, the köshk will soon be surrounded by housing.

The structure itself is extremely unstable, sections having fallen since 1992. Little can probably be done about propping up these high walls unless unsightly buttresses were constructed, but a buffer zone and packing of undercut sections may postpone further collapse.

Other important sites in the oasis requiring urgent attention, the provision of buffer zones, the clearing of drainage channels and the packing of undercut areas include Yakipir Köshk, Besh Agyz Köshk, Garam Köshk, Thuli Köshk, Durnali Köshk, Kelte Manar Köshk, Kharoba Köshuk, Kurtly Caravanserai, Kishman East Minaret, Kishman West Mosque, the mausolea of Huday Nazar, Geok Gumbaz and Talkattan Baba, the icehouses and the Köshk Imaret. Many of these are located in agricultural areas, with ploughing undertaken right up to their bases. Boards announcing the protected status

of the monuments should be erected and access paths constructed. Many of these are worth encouraging tourists to visit.

## 9: A draft 5-year management plan

Some General Points: To expand tourism it is necessary to make a visit to Turkmenistan a pleasurable experience, one which tourists recommend to their friends on their return, and one which Western tour agencies find easy to organize. A number of tour agencies no longer include Turkmenistan on their itineraries because of problems with bureaucracy, transport, hotels and inadequate tour facilities.

Visas and Customs: It is essential that bureaucracy over visas and customs should be minimised. Both the arrival and departure from Ashgabat International Airport is a lengthy, bureaucratic and disagreeable experience. The many essential forms are frequently difficult to find and only in Russian, the officials are neither friendly nor helpful. Delays on the way out are unnecessarily lengthy and often result in highly stressed passengers and planes departing late. There are too few luggage trolleys.

Internally the acquisition of Turkmen-Uzbek transit and/or entry visas should be simplified, and the border crossing between Turkmenistan and Uzbekistan made quick and easy for tourist buses. A feature should be made of the dramatic crossing of the Amu Darya. The aim is to make the journey and the visits as enjoyable and stress-free as possible.

Transport: consideration should be given to improving transport links. The average tourist makes a 10-14 day tour to 'Central Asia' or 'cities of the Silk Road'. They do not want to spend long hours on buses with little to look at. Advantage should be taken of the excellent airport at Mary. Attention should be paid to the possibility of transporting tourists by air from Ashgabat to Mary, and then on to either Kunya Urgench or Uzbekistan, or to fly direct to Mary from Bukhara. When tourists are travelling by bus, convenient, high-quality resting places with restaurants, toilet facilities and suitable sights should be established en route.

In the longer term, thought should be given to upgrading the railway system. The flat terrain of much of Turkmenistan would be ideal for modern, high-speed trains. A 'tourist special train' could take visitors in considerable comfort from the Caspian via Dehistan/Mishrian, Old Nysa, Ashgabat, Abiverd, and Merv to Charjow or Kunya Urgench, before continuing to Uzbekistan and points east.

Age Profile of many Tourists: Account should be taken of the fact that many tourists are elderly, and some relatively disabled. Yet they have the will to travel, the money to pay for it and time available. They are a valuable market.

A Possible Development Framework: There already appears to be an efficient information network linking tourist entry points and relevant tourist organizations. However, although some of the basic infrastructure is in place, most facilities are sub-standard and unlikely to encourage tourism. The following recommendations are proposed within a two stage framework, with a possible third stage if visitor demand is sufficient.

- Stage 1. A cost-effective and practical first stage to improve both tourist enjoyment and to create additional revenue. This could be implemented before the next tourist season in 1998, paid for in manats and undertaken with current resources.
- Stage 2 involves the essential upgrading of hotel accommodation in Mary, the construction of a Visitor Centre, Study Centre, Restaurant and offices at Merv, a major training programme for staff in Mary and Merv, including the training of guides, and the provision of improved infrastructure.
- Stage 3 would only be worth considering if tourist numbers continue to grow and there is demand for the development of a hotel complex at Merv. This would complement the by then already-existing Visitor and Study Centre.

## Stage 1

1. Erection of discrete information boards at each monument, with text in English, Russian and Turkmen, with plans, site-location maps and reconstructed elevations. These should be produced locally. Costs: material and labour, all in manats.
2. Erection of signs to indicate colour-coded routes to monuments. A number of different routes should be devised, offering visits of short, medium or long duration, or alternatively a number of different visits. Costs: material and labour.
3. Improvement and possible enlargement of one of the lodges at the Park Gates to make a temporary Visitor Centre. This should be manned for the collection of entrance charges: numbered tickets should be issued to all visitors and the entrance charge clearly displayed (board erected in October). It should be equipped with copies of the Visitor's Guide, *Ancient Merv*, with postcards and posters, and with drinks for sale. It could also have small souvenirs. Toilet facilities must be made available and rendered adequate for tourist needs. Cost of refurbishing and perhaps expanding visitor centre, in manats.
4. Sale of Visitor's Guide, *Ancient Merv*, produced by the IMP. The first edition, published in English in 1996, was paid for by the British Ambassador, Neil Hook, and distributed by him to Museums and Ministries. 2,500 copies of a second edition in English and Russian has been provided to Air Turkmenistan, paid for by the Boeing Corporation. Camera ready copy of the Guide will be provided to the Ministry of Tourism to print in Ashgabat. Copies of the guide should be provided to the Mary and Ashgabat Museums, hotels, the Mary and Bairam Ali Hakimliks, the Park Office and tourist organizations. There is considerable visitor demand for this, and it should make the Ministry a profit.
5. Postcards, posters, calendars. Again, IMP are happy to provide colour slides if required, for such material to be printed in Ashgabat. There are, however, excellent photographers in Ashgabat. The Mary and Ashgabat Museums, and tourist shops, should stock this material, which again should make a profit.
6. Tour buses need to make stops on the route between Ashgabat and Mary, and Mary and Charjou. Facilities at Abiverd - close to the ruins of the Sasanian-Islamic town and in sight of the Bronze Age city-site of Namazga - should be upgraded to provide a pleasant restaurant with adequate toilet facilities. Access to the attractive site should be organized, together with information boards. A second restaurant and toilet stop should be set up between Tedzhen and Mary. The Desert Research Station at Repetek would make an excellent stopping place on the 'Desert Route' between Mary and Charjou. A simple restaurant and adequate toilet facilities

should be installed, and the existing small Natural History museum upgraded. Entrance charges are already in place but should be collected in return for numbered tickets. Postcards and calendars illustrating desert flora and fauna should be available for sale.

7. The Mary office of the Ministry of Tourism lacks a board, and the interior is run-down. It would be inexpensive to prepare a board, make the courtyard attractive, renovate the rooms, and equip an information bureau. The premises and staff are already present. The bureau should be equipped with maps of Mary and Merv, tourist guides, and it could perhaps run a small tourist shop.
8. The Mary Museum: there is an absence of boards in different languages outside the Museum, and charges are not listed. Inside, there are relatively few maps, and the labelling of artefacts, usually only in Turkmen and Russian, is inadequate. Such tourists as do arrive are usually shown round individually, a pleasant but impracticable arrangement should numbers rise.

## Stage 2

While Stage 1 can be completed at minimal cost in time for the next tourist season in 1998 and should indeed provide an income, the most important longer term essential is the provision of an hotel to international standards. The best location for such an hotel is currently Mary. There are numerous reasons, primary among which is water. Water supplies at Bairam Ali are inadequate for the needs of the modern tourist. Purity of the water supplies is also essential for food preparation, although drinking water can be supplied in bottled form from Ashgabat. Such a hotel need not be particularly large: a visitor capacity of say, 70-100, should be adequate: plans are under discussion at the present time with a British firm. Few tourists are likely to stay longer than one night, unless more distant sites such as Gonur are developed as tourist-friendly attractions.

Plans have been suggested both by UNESCO in Tashkent and by Ashgabat for an ambitious new hotel-complex close to the Merv site, designed to provide accommodation for the tourist industry. This is unlikely to be viable. Even allowing for double the present number of visitors, c. 1000 visitor nights per annum, this is insufficient to cover the costs of construction and running. However, a hotel based in Mary could be economically viable as it would also serve the needs of newly-developing businesses, such as the gas industry. As Mary develops, so also will reasonable restaurants and shops, based on both new businesses and on tourism, thus improving facilities in the town.

An additional advantage of locating the hotel in Mary is the presence of the excellent Museum, already open in Mary. There is also the attraction of the Sunday market. Some tourist businesses are located in Mary and should be persuaded to develop additional excursions, encouraging a longer stay and additional income to be earned from tourists.

### Possible additional excursions in the Mary oasis

The local tourist firms, in collaboration with the office of the Ministry of Tourism, could develop a number of well-organized excursions.

1. To the early 20th century barrage and regulator at Yolatan, which has a pleasant environment, combined with visits to the mausolea at Talkhattan and Imam Qasim.

2. Visit to the Greater and Lesser Nagym Kalas near Vakil Bazar and the Kara Kum canal with a short boat journey along the canal.
3. Visit to the monuments at Kishman East and West in the desert, to Kurtly 'caravanserai', the fortress at Chilburj or other selected monuments.
4. Visit to the important Bronze Age city of Gonur by Jeep, via the impressive fortress of Parthian Gobekli-depe.
5. Long or short helicopter trips over Ancient Merv and/or up to Gonur to enable them to assess the sites and countryside from the air.
6. Early 20th century Merv, with visits to Bairam Ali Sanatorium, Orthodox Church and Cotton Museum, set within the context of late 19th-early 20th century political history of Central Asia, the 'Great Game' and the history of the Turkmen people.

#### Development of Park Office

It is essential in Stage 2 that the current Park Office and the small Stage 1 Visitor Centre be expanded and equipped with modern facilities and a trained staff. Staff minimally should consist of a Director and Assistant, an Architect and draughtsman, an Archaeologist and assistant, a photographer (and photographic laboratory), a restorer of the buildings, a conservator of antiquities (and conservation laboratory), a curator to run a small exhibition centre with photographs and other graphic displays, maps and models, an accountant, and secretarial assistants. There should be a team of site wardens, both for the main urban centre and at the outlying monuments. There should be staff to man the Visitor Centre, a restaurant to serve meals, drinks, tea and light refreshments. There should be multi-lingual audio-guides for independent visitors.

#### The Proposed New Visitor Centre and Park Office

One possible development would be to build an attractive four-iwan courtyard-style building with an iwan entrance in Islamic style to form the new Visitor Centre and Park Office and act as an introduction to the cities and monuments of Merv. The current Park Offices could be used for additional services.

Entrance through the iwan portal would lead into an attractive courtyard with a central fountain and trees, providing both shade and a cooler environment. The Visitor Centre could be on the right of the entrance and could consist of an attractive shop for the collection of entrance charges and the sale of books, videos, audio-guides, maps, postcards and souvenirs, such as the local silks and small felt rugs or cashma. Adjacent should be a small site exhibition centre, with models of the site, photographs and temporary displays of recent archaeological research, including fragments of ceramic from the various periods to illustrate cultural change. However, valuable pieces and objects should be exhibited in the Mary Museum in the interests of greater cost-effectiveness and security. The restaurant and kitchen should occupy one side of the courtyard, which should be made pleasant with trees, a garden, a fountain and a vine arbour where tourists could sit drinking their tea. Such a setting would provide an agreeable environment for tourists to relax and enjoy themselves before and/or after their visits, and offer opportunities for the purchase of souvenirs. The staff of the Visitor Centre should include shop assistants, refreshment staff, curator of exhibition centre, accountant, and secretarial staff, as well as competent site guides.

The Director's Office in the courtyard should be located between the rooms allocated to the Visitor Centre and the Park offices. Park offices could be located both in rooms in the new centre and in the existing Park offices, after suitable upgrading.

Rooms would be required for the Director and his team of administrators, architects, archaeologists, restorers and conservators, photographers and draughtsmen.

Within the Visitor Centre provision should be made for a Study Centre. A lecture room with projection facilities would be essential and could be booked either by visiting tourist groups and/or resident, long-term archaeological teams.

Located in either the new Visitor Centre or the Old Park Offices should be a laboratory for conservators, bench space and adequate sorting areas for specialists working with assorted archaeological material, a drawing office and a dark room for photography. Accommodation for archaeological teams is currently in an L-shaped block near the Park Offices: this could be upgraded with better kitchen, toilet and shower facilities. The Visitor Centre, Park Offices and Study Centre would require modern communications, telephone, fax and e-mail. Space would need to be allocated for a centre for the wardens.

Adequate segregated vehicle parking for coaches, cars and caravans should be ensured, both for tourists and for staff.

Such a centre should serve all tourism needs for the foreseeable future. Both the site and the centre would be able to cope with up to several hundred visitors a day.

Visitor carrying capacity: The cities of Merv and their monuments occupy more than 1000 hectares. There is much to see. However, the present road and parking facilities would be inadequate for mass tourism. Vehicle access and parking must be improved at many points in order to accommodate simultaneous tourist groups. Alternative routes for different itineraries must be clearly marked.

Training and facilities: This is a priority, with training urgently required in all aspects of the conservation and sympathetic restoration of monuments, tourist management, architectural recording, modern archaeological excavation, the care and conservation of antiquities, guiding.

#### Mary Museum

Technical infrastructure, communications, laboratories and computers, needs to be installed. There is an urgent need for the training of technicians in current conservation methodology and the setting up of a conservation laboratory and secure climate-controlled storage facilities. There is considerable need for conservation of metals, often affected with bronze disease, of ceramics, salt-soaked and requiring desalinisation and rebuilding, and glass. Uncarbonised organic remains require separate treatment; stuccoes and painted wall-plaster pose further conservation problems. The metal objects ideally require dehumidified storage with regular monitoring. Likewise, monitoring of material on permanent display is also required. Staff training, adequate laboratories, secure and satisfactory storage, enhanced display information, etc. are all urgently required.

### Stage Three

Plans have been drawn up in both the UNESCO offices in Tashkent and in Ashgabat for a large Hotel and Visitor Complex on land adjacent to the present entrance. A hotel in Merv should, perhaps, be deferred until such time as visitor numbers suggest demand. It would be unlikely that visitors would stay longer than a single night. Until

numbers are larger and better spread throughout the year, this would seem to be financially unviable. Furthermore, extensive investment would need to be made in both the supply of power (currently intermittent) and of water, substandard in quality and quantity and unable to support the demands of the international tourist.

The Bairam Ali etrap wishes to build a hotel within the walls of Bairam Ali Khan kala. Again, the financial viability of such a venture should be considered, together with the provision of alternative attractions within the town, such as restaurants, tourist shops, etc.

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## Merv (Turkmenistan)

No 886

### Identification

<i>Nomination</i>	State Historical and Cultural Park “Ancient Merv”
<i>Location</i>	Mary Vilayet
<i>State Party</i>	Republic of Turkmenistan
<i>Date</i>	7 November 1996

### Justification by State Party

The Mausoleum of Sultan Sanjar is a masterpiece of human creative genius and is itself worthy of World Heritage Status. It is preserved in the centre of its city, with outstanding fortifications, street layout, citadel and other monuments. **Criterion i**

The cities of the Merv oasis have exerted considerable influence over the civilizations of Central Asia and Iran for four millennia. Located in an oasis on a major east-west trade route, known popularly as the Silk Road, they have facilitated the exchange of goods and ideas. The Seljuk city in particular influenced architecture and architectural decoration and scientific and cultural development. **Criterion ii**

The sequence of separate major cities, the series of fortifications, the ability to study different street layouts across the cities, and the Mausoleum of Sultan Sanjar are unique. **Criterion iii**

The corrugated monuments, built of mud brick, are characteristic examples of Central Asian buildings, the preservation of which is rare. The majority survive in the Merv oasis, with two outstanding examples to the west of the Seljuk city. Recent discoveries of advanced early Islamic steel furnaces indicate Merv was a major technological centre. **Criterion iv**

The mud brick monuments of Merv, such as the corrugated buildings, pavilions, and icehouses, are characteristic traditional structures of the area, fragile by nature and vulnerable under the impact of irreversible environmental and socio-economic change. **Criterion v**

Numerous major events and personalities of historic importance have been associated with Merv. These include Abu Muslim, who initiated the Abbasid revolution, the Seljuk sultans, and scholars attracted to the libraries and observatory of Merv, such as the

geographer, Yaqut al Hamavi, and the poet/astronomer, Omar Khayyam. **Criterion vi**

### 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*.

### History and Description

#### History

The oasis of Merv in the Karakum Desert has supported a series of urban centres since the 3rd millennium BC. The earliest Bronze Age centres (c 2500-1200 BC) were located in the north of the oasis, where the Murghab river came to the surface and could easily be utilized. With the development of more advanced irrigation techniques, the centres moved further south, and there is a series of important Early Iron Age sites.

The historic urban centre developed around 500 BC to the east of the oasis, where it was well sited to take advantage of routes to the east. It consisted of a series of adjacent walled cities, occupying an area of more than 1200ha. The oldest of these, Erk Kala, is attested in written sources from the Achaemenian period (519-331 BC), most notably on the famous trilingual inscription of Darius the Great at Bisitun in western Iran

The oasis formed part of the empire of Alexander the Great, and Pliny the Elder suggested in his *Natural History* (VI, 16-17) that the Hellenistic city was founded by Alexander himself. The Seleucid king Antiochus I Soter (281-261 BC) rebuilt it and named it *Margiana Antiochia*; it is identified with Erk Kala and Gyaur Kala. It was occupied for some 1500 years, throughout the Parthian and Sasanian periods and into the early Islamic period. It has been suggested that Greek and Roman soldiers, survivors of the crushing Parthian defeat of the Romans at Carrhae in 53 BC, may have been settled at Margiana. Islam became dominant with the death of the last Sasanian king, Yazdigird III in 651. However, Merv was little more than an industrial zone in the 8th-10th centuries, although the central mosque continued in use as late as the 11th-12th centuries.

The medieval city of the Seljuks developed to the west of Gyaur Kala, replacing it as the urban centre as the latter declined. It was walled by Sultan Malikshah (1072-92), and further suburban developments to the north and south were later also walled by Sultan Sanjar (1118-57).

The city, extending over more than 600ha, was the capital of the Great Seljuk Empire (11th-13th centuries), and was one of the principal cities of its period. Its famous libraries attracted scholars from all over the Islamic world, including the astronomer-poet Omar Khayyam and the geographer Yaqut al Hamavi.

This brilliant flowering came to a violent end in 1221-22, when it was sacked by the Mongols, who slew many of its inhabitants and destroyed the complex water

system. It survived in a much diminished form, as part of the empire of Timur (1370-1405) The new and much smaller city, known today as Abdullah Khan Kala was built on another site to the south by Timur's successor, Shah Rukh (1408-47).

In the 16th century Merv came under the domination of the Uzbek Turks, who ruled from Bukhara, and a century later it was incorporated into the Persian empire. An increase in population in the 18th century led to the creation of a fortified extension, known as Bairam Ala Khan Kala, now mostly ruined.

#### *Description*

The oasis of Merv currently occupies an area of 85km by 74km in the Karakum Desert at the crossing point of the Amu Darya on the main east-west route to Bukhara and Samarkand. It was formed by the silt brought down by the Murghab river which created an alluvial fan. The landscape is flat, except where it is disturbed by irrigation works, and it is interspersed by a dense pattern of ancient sites dating from the Bronze Age to the post-medieval period.

#### *- The Bronze Age centres (2500-1200 BC)*

The earliest settlements were in the northern part of the oasis. Five of these are to be included in a protection programme - Kelleli, Adji Kui, Taip, Gonur, and Toguluk.

Kelleli is an area of settlement with two major sites. Kelleli 3 (4ha) has a double external wall with towers flanking four symmetrical entrances.; an area of houses has been cleared in the south-western sector. Kelleli 4 (3ha) also has a double outer wall with towers. Both sites are poorly preserved, but they contain important evidence of Middle Bronze Age *Margiana*. From the same period is Adji Kui 8 (8.5ha).

The transition from Middle to Late Bronze Age, and from one form of settlement pattern to another, is illustrated by Taip. Two close but distinct mounds consist of a walled square area of 3.5ha with a large courtyard building in the south.

The largest Bronze Age site in the Murghab delta is Gonur Depe (55ha). The enormous northern mound survives to a height of 4m above its surroundings. Excavations have revealed the existence of a huge palace and a probable fire temple, both from the Middle Bronze Age. There is a large contemporary necropolis lying to the west of it.

The much smaller southern mound (3ha) had a village erected on it in the Late Bronze Age. It is enclosed by a massive square wall with circular corner towers and semicircular towers along each side. This site is well preserved.

The Toguluk area was densely occupied during the Bronze Age. Excavations have revealed the remains of several large fortified buildings.

#### *- The Iron Age centres (1200-300 BC)*

Two Iron Age centres are to be included in the overall protection scheme - Yaz/Gobekli Depes and Takhirbaj Depe.

Iron Age settlement was also in the northern part of the oasis. Takhirbaj Depe is the most prominent site in the whole area. Excavations have revealed that settlement began in the Late Bronze Age with the construction of a walled and moated citadel and subsequently extended considerably. It was the most important Iron Age centre of the region and it continued in occupation through to the Achaemenid period.

Yaz Depe is of special importance less for its archaeological remains as for the fact that it has produced abundant ceramic finds that provide the basic typology for the period. Nearby is the well preserved Partho-Sasanian rectangular fortress of Gobekli.

#### *- The historic urban centre*

This consists of three principal elements - Erk Kala, Gyaur Kala, and the medieval city of Sultan Kala or Marv al-Shahijan.

Erk Kala (20ha) is a walled and moated polygonal site with walls surviving to *c* 30m and an internal citadel.

Gyaur Kala is roughly square in plan, with walls *c* 2km long. In the interior there are the remains of a number of important structures. The central Beni Makhhan mosque is partly obscured by excavated dumps, but its cistern demonstrates how water was distributed by means of underground canals. The Buddhist *stupa* and monastery in the south-east corner is the westernmost excavated structure of this kind known to date. The "Oval Building" in the north-west quarter consists of a series of rooms around a courtyard on an elevated platform.

Medieval Sultan Kala, which lies to the west of Gyaur Kala, began as a suburban development and was not walled until the 11th century. It is about the same size (4km<sup>2</sup>), but another walled area of 2-3km<sup>2</sup> was later added to it. The Mausoleum of Sultan Sanjar (1118-57) was constructed in the centre of the Seljuk city. The cube-like structure that survives originally formed part of a large religious complex. Its fine detail, such as the elegant brickwork, the carved stucco, and the surviving mural paintings, make it one of the most outstanding architectural achievements of the Seljuk period.

The walls of the medieval city and of the citadel (Shahriyar Ark) are unique. They represent two consecutive periods of 11th-13th century military architecture. The 12km circuit of the walls includes towers, posterns, stairways, galleries, and in places crenellations; the earlier work is preserved by being encased in the later structures.

In addition to these main urban features, there is a number of important medieval monuments in their immediate vicinity. The Mausoleum of Muhammad ibn Zayd was built in 1112 for a descendant of the Prophet. Its domed chamber has a fine Kufic inscription, and part of the original decorated brick facade is still visible in the prayer hall.

One of the most characteristic architectural features of the oasis are the monuments known as *köshks*. These are isolated square or rectangular structures, usually of two storeys. The walls above glacis level are divided into corrugations, giving them a characteristic appearance. Two of the most impressive are the Greater

and Lesser Kiz Kala, in which the principal rooms are arranged around a courtyard on the first floor; the rooms on the ground floor are dimly lit through slit windows.

- *The post-medieval city, Abdullah Khan Kala*

Apart from the walls and moat of the 15th century, only a few walls of the palace survive in the citadel. However, the walls are of exceptional interest, since they continue the remarkable continuous record of the evolution of military architecture from the 5th century BC to the 15th-16th centuries AD.

There are many major monuments from the historical period in the oasis. The imposing fortresses at Gobekli, Uly Kishman, and Garry Kishman formed part of the 30km of earthen ramparts built for protection against threats from the northern steppes.

There are many fine mosques and mausolea from this period in the oasis. Among them are the three mausolea from the Timurid period at Geok Gumbaz, the magnificent 12th century Seljuk Talkhattan Baba Mosque, and the extensively restored mausolea of Imam Bakr and Imam Shafi in the Talkhattan cemetery. There are also several well preserved *kōshks* and defensive towers (*dings*) from the 18th and 19th centuries.

## Management and Protection

### *Legal status*

Merv is covered by the provisions of the 1992 Law on the Protection of Turkmenistan Historical and Cultural Monuments. The State Historical and Cultural Park "Ancient Merv" was created by decree in 1997. All interventions, including archaeological excavations, within the Park require official permits from the Ministry of Culture.

### *Management*

The Park is the property of the Republic of Turkmenistan. It comes, along with the seven other State Parks, under the aegis of the National Department for the Protection, Study, and Restoration of Monuments, an agency of the Ministry of Culture. Management and conservation of the sites and monuments within the Park and of all standing monuments within the oasis is the responsibility of the Office of the Park, which comes under the National Department.

The staff of the Office, the headquarters of which is situated close to Sultan Sanjar, consists of a Director, an Assistant Director, an archaeologist, office clerical staff, and wardens. There are two subsidiary offices in Mary Vilayet responsible for monitoring of outlying monuments.

A draft Five-Year Management Plan has been drawn up by Dr Georgina Herrmann (Director of the International Merv Project - see "Conservation history" below) for the UNESCO Office in Tashkent. This makes a number of specific proposals for urgent work to be carried out at vulnerable monuments. General recommendations

concern the provision of interpretation facilities and recommended routes for visitors and infrastructural improvements (enlarged parking facilities, upgrading of roads, the relocation of power and telephone poles and pylons in the vicinity of monuments). There are very detailed specific proposals for individual monuments concerning conservation needs, access and safety facilities for visitors, clearance of debris, drainage, structural surveys, removal of unsightly modern structures and scaffolding, and the provision of effective buffer zones around individual monuments.

A three-stage implementation programme is put forward for the improvement of tourist facilities. In the first stage this will be confined to improvement of interpretation and reception provisions. The second stage concerns upgrading of hotel facilities in Mary, the construction of visitor and study centres, restaurants, and offices at Merv, and a major staff and guide training programme. The third stage, dependent upon a substantial increase in visitor numbers and tourist revenue, considers the possibility of the creation of an hotel complex at Merv itself.

## Conservation and Authenticity

### *Conservation history*

There has been no systematic conservation of the Merv monuments and sites, which were neglected during the Soviet period. They have only been treated as a group since the State Park came into being, and since that time most of the work has been *ad hoc*, in reaction to urgent threats. The Islamic monuments, particularly those built in baked brick, have been subject to emergency conservation actions since the early 20th century. However, no further work is being undertaken on major monuments, to avoid the potential for degradation following their uncovering.

All conservation work is carried out by the staff of the Park under the supervision of the Scientific Methodological Council on the Study and Restoration of Historic Monuments, chaired by the Deputy Minister of Culture and composed of experts from the Monuments Protection Department, the Academy of Sciences, the State University, and the Ministry of Culture.

There has been no vandalism or intrusion since the Park was established, and unauthorized construction in the neighbourhood has been halted permanently. The only modern intrusions are the roads in Sultan and Gyaur Kalas, which are used for the access of visitors.

The International Merv project is a joint Turkmen-British archaeological collaboration between YuTAKE, the South Turkmenistan Multidisciplinary Archaeological Expedition, Department of History, Academy of Sciences (Ashgabad) and the Institute of Archaeology, University College London. It is supported by a variety of official bodies and private foundations, from the United Kingdom, the USA, and elsewhere. It has a wide-ranging programme, covering survey, mapping, inventarization, excavation, conservation, and analysis.

Records of all work carried out since the creation of the Park are maintained at the Park Headquarters. A photographic dossier of all changes in the sites and monuments since the late 19th century has been prepared by the International Merv Project and is due to be published, that on secular buildings in 1999 and that on religious buildings in 2000.

#### *Authenticity*

It is difficult to generalize about the authenticity of so vast and complex a property as the State Historical and Cultural Park "Ancient Merv," which is the subject of this nomination.

The archaeological sites have been relatively untouched and so their authenticity is irreproachable. Restoration and conservation interventions at some of the Islamic religious structures during the present century have not been carried out according to current conservation principles, though they may be defended as essential to stabilize and ensure the continuity of these "living" monuments. They have been well documented and it is possible to reverse them if required. In any case, they represent only a minute proportion of the totality of this ancient landscape and its monuments.

#### **Evaluation**

##### *Action by ICOMOS*

An ICOMOS expert mission visited Merv in December 1998. ICOMOS has also benefited from discussions with the Director of the International Merv project.

##### *Qualities*

The long history of human occupation of the Merv oasis is preserved to a remarkable degree in its sites, monuments, and landscape. It is a unique material record, largely untouched, of this culturally significant but relatively unknown region over a period of more than four millennia.

##### *Comparative analysis*

There is a number of prehistoric and historic settlements in Central Asia along the Silk Road. None, however, is comparable with Merv in terms of the special nature of the wealth of material evidence over so long a period, and none exhibits the special pattern of shifting urban settlement to so high a degree.

##### *ICOMOS recommendations*

The draft Five-Year Management Plan (see "Management" above) is admirable and well suited to the current requirements of this property. ICOMOS recommends the Bureau of the World Heritage Committee to seek assurances that the Plan will be approved and fully implemented with the minimum delay.

ICOMOS wishes in particular to draw the attention of the State Party to the need to increase the security staff available for this enormous property and provide it with the necessary equipment (vehicles, communications).

#### **Brief description**

Merv is the oldest and most completely preserved of the oasis cities along the Silk Route in Central Asia. The remains in this wide oasis span some four thousand years of human history, and a number of monuments are visible, particularly from the last two millennia.

#### **Recommendation**

The Bureau recommended that this nomination should be *referred back* to the State Party, requesting assurances that the Five-Year Management Plan should be approved and fully implemented before the end of 1999 and a map showing the precise boundary of the site. At the time this evaluation was prepared for printing, nothing had been received. In the event of such assurances and the map being provided by 1 October 1999, ICOMOS recommends that this property should be inscribed on the World Heritage List on the basis of *criteria ii and iii*

**Criterion ii** The cities of the Merv oasis have exerted considerable influence over the cultures of Central Asia and Iran for four millennia. The Seljuk city in particular influenced architecture and architectural decoration and scientific and cultural development.

**Criterion iii** The sequence of the cities of the Merv oasis, their fortifications, and their urban lay-outs bear exceptional testimony to the civilizations of Central Asia over several millennia.

ICOMOS, September 1999

## Merv (Turkménistan)

No 886

### Identification

<i>Bien proposé</i>	Parc national historique et culturel de l'« Ancienne Merv »
<i>Lieu</i>	Région de Mary
<i>État partie</i>	République du Turkménistan
<i>Date</i>	7 novembre 1996

### Justification émanant de l'État partie

Le mausolée du sultan Sanjar est un chef d'œuvre du génie créateur humain et, à lui seul, mérite déjà l'inscription sur la Liste du patrimoine mondial. Il est préservé au centre de la ville, qui présente également des fortifications, un tracé de rues unique, une citadelle et d'autres monuments remarquables.

#### Critère i

Les villes de l'oasis de Merv ont exercé une influence considérable sur les civilisations d'Asie centrale et d'Iran depuis quatre millénaires. Situées dans une oasis qui se trouve sur un grand axe commercial est-ouest, couramment appelé la route de la Soie, elles ont facilité les échanges de produits et d'idées. La ville seldjoukide, en particulier, a influencé l'architecture et la décoration architecturale, ainsi que le développement scientifique et culturel.

#### Critère ii

La séquence des grandes villes séparées, l'ensemble de fortifications, la possibilité d'étudier les différents schémas de rue d'une ville à l'autre et le mausolée du sultan Sanjar sont uniques.

#### Critère iii

Les monuments ondulés, faits de brique crue, sont des exemples typiques des édifices d'Asie centrale, dont peu subsistent à ce jour. Ils se trouvent dans leur grande majorité dans l'oasis de Merv, avec deux exemples remarquables à l'ouest de la ville seldjoukide. Les fours islamiques pour la fabrication de l'acier récemment découverts indiquent que Merv était un centre technologique majeur.

#### Critère iv

Les monuments de brique crue de Merv, édifices ondulés, pavillons et glacières, sont des structures traditionnelles caractéristiques de la région, fragiles par nature et vulnérables à l'impact d'une irrémédiable évolution environnementale et socio-économique.

#### Critère v

De nombreux événements majeurs et personnalités d'importance historique sont associés à Merv. Parmi eux, on compte Abû Muslîm, qui fut à l'origine du mouvement révolutionnaire abbasside, la dynastie des sultans seldjoukides, et les érudits attirés par les bibliothèques et l'observatoire de Merv, tels le géographe Yâqût al-Hamavi, et le poète et astronome Umar Khayyâm.

#### Critère vi

### Catégorie de bien

En termes de catégories de biens culturels, telles qu'elles sont définies à l'article premier de la Convention du Patrimoine mondial de 1972, il s'agit d'un *site*.

### Histoire et description

#### Histoire

L'oasis de Merv, dans le désert du Karakoum, héberge depuis le III<sup>e</sup> millénaire avant J.-C. toute une série de centres urbains. Les plus anciens centres, datant de l'âge du Bronze (2500-1200 avant J.-C., approximativement), étaient situés au nord de l'oasis, où le cours du Mourgab affleurerait à la surface et pouvait aisément être mis à profit. Au fur et à mesure que se développaient des techniques d'irrigation plus avancées, les centres se déplaçaient vers le sud ; on trouve dans cette région d'importants sites du premier âge du Fer.

Le centre historique urbain se développa aux alentours de 500 avant J.-C. à l'est de l'oasis, emplacement de prédilection pour tirer avantage des routes vers l'Orient. Il se compose d'une série de cités fortifiées adjacentes, qui couvre plus de 1 200 hectares. L'existence de la plus ancienne, Erk Kala, est déjà attestée par des sources écrites de la période achéménide (519-331 avant J.-C.), et plus particulièrement par la fameuse inscription trilingue de Darius le Grand à Bisitun, dans l'Ouest de l'Iran.

L'oasis faisait partie de l'empire d'Alexandre le Grand et Pline l'Ancien suggère, dans son *Histoire naturelle* (VI, 16-17) que la cité hellénique fut fondée par Alexandre lui-même. Le roi séleucide Antiochos I<sup>er</sup> Sôter (281-261 avant J.-C.) la reconstruisit et la baptisa *Margiana Antiochia* ; elle est identifiée à Erk Kala et à Gyaur Kala. Elle fut occupée pendant quelques 1 500 ans, pendant l'intégralité des périodes parthe et sassanide et au début de la période islamique. Selon certains, des soldats grecs et romains, survivants de l'écrasante victoire des Parthes sur les Romains à Carrhes en 53 avant J.-C., pourraient s'être installés à Margiana. L'islam devint dominant avec la mort du dernier roi sassanide, Yazdgard III, en 651. Toutefois, du VIII<sup>e</sup> au X<sup>e</sup> siècle, Merv ne fut guère plus qu'une zone industrielle, même si la mosquée centrale resta fréquentée jusqu'aux XI<sup>e</sup> - XII<sup>e</sup> siècles.

La cité médiévale des Seldjoukides se développa à l'ouest de Gyaur Kala, la remplaçant en tant que centre urbain au fur et à mesure que cette dernière déclinait. Le sultan Malikchah (1072-1092) la fortifia, et d'autres

développements urbains au nord et au sud furent également fortifiés par le sultan Sanjar (1118-1157). La cité, qui s'étendait sur plus de 600 hectares, était la capitale du grand empire seldjoukide (XI - XIII<sup>e</sup> siècles), et l'une des principales villes de son époque. Ses célèbres bibliothèques attirèrent des érudits des quatre coins du monde islamique, notamment l'astronome et poète Umar Khayyâm et le géographe Yâqût al-Hamavi.

Ce brillant épanouissement prit brutalement fin en 1221-1222 : la ville fut mise à sac par les Mongols, qui massacrèrent une grande partie de sa population et détruisirent le complexe système d'irrigation. Elle survécut sous une forme très diminuée, en tant que partie de l'empire de Timour (1370-1405). La nouvelle ville, beaucoup plus petite et connue aujourd'hui sous le nom d'Abdullah Khan Kala, fut construite sur un autre site au sud par le successeur de Timur, le shâh Rukh (1408-1447).

Au XVI<sup>e</sup> siècle, Merv tomba sous le joug des Ouzbeks, qui régnèrent depuis Boukhara, et, un siècle plus tard, fut intégrée à l'empire perse. Au XVIII<sup>e</sup> siècle, l'essor démographique entraîna la création d'une extension fortifiée, connue sous le nom de Bairam Ala Khan Kala, aujourd'hui quasiment totalement en ruines.

#### *Description*

L'oasis de Merv occupe actuellement une superficie de 85 km sur 74 km dans le désert du Karakoum, à l'intersection de l'Amou-Daria et de la principale route est-ouest vers Boukhara et Samarkand. Elle fut formée par le limon charrié par la rivière Mourgab, qui créa un cône alluvial. Le paysage est plat, excepté lorsqu'il est bouleversé par des travaux d'irrigation, et il est quadrillé par un réseau dense de sites anciens datant de l'âge du Bronze jusqu'à la fin de la période post-médiévale.

- *Les centres de l'âge du Bronze (2500-1200 avant J.-C.)*

Les plus anciennes installations se trouvent au nord de l'oasis. Cinq d'entre elles doivent être incluses dans un programme de protection : Kelleli, Adji Kui, Taip, Gonur et Toguluk.

Kelleli est une zone d'installation regroupant deux sites majeurs. Kelleli 3 (4 ha) possède une double muraille extérieure, avec des tours flanquant quatre entrées symétriques ; une zone d'habitations a été nettoyée dans le secteur sud-ouest. Kelleli 4 (3 hectares) présente également une double muraille extérieure et des tours. Les deux sites sont dans un état de conservation médiocre, mais ils abritent des témoignages importants de la *Margiana* de l'âge du Bronze moyen. Adji Kui (8,5 ha) date de la même époque.

La transition de l'âge du Bronze moyen à l'âge du Bronze tardif, d'un schéma de peuplement à un autre, est illustrée par Taip. Deux tells proches mais distincts composent une zone carrée de 3,5 hectares entourée de murailles, avec un grand édifice et sa cour au sud.

Gonur Depe (55 ha) est le plus grand site de l'âge du Bronze dans le delta du Mourgab. L'énorme tell au nord

s'élève encore aujourd'hui à 4 mètres au-dessus de ses alentours. Les fouilles ont révélé l'existence d'un gigantesque palais, et très probablement d'un temple du feu, remontant tous deux à l'âge du Bronze moyen. Une grande nécropole contemporaine s'élève à l'ouest.

Sur le tell du sud, beaucoup plus petit (3 ha), se dresse un village de l'âge du Bronze tardif. Il est entouré d'une massive muraille carrée, avec des bastions d'angle circulaires et des tours semi-circulaires le long de chaque côté. Le site est bien préservé.

La zone de Toguluk accueillait une population dense pendant l'âge du Bronze. Des fouilles ont ainsi révélé les vestiges de plusieurs grands édifices fortifiés.

- *Les centres de l'âge du Fer (1200-300 avant J.-C.)*

Deux centres de l'âge du Fer doivent être inclus dans le programme global de protection – Yaz / Gobekli Depe et Takhirbaj Depe.

Une installation de l'âge du Fer se trouvait également au nord de l'oasis. Takhirbaj Depe est le site le plus remarquable de la région. Des fouilles ont révélé que le peuplement a commencé à l'âge du Bronze tardif, avec la construction d'une citadelle fortifiée et entourée de fossés, et qui s'est considérablement étendue par la suite. C'était le centre le plus important de l'âge du Fer dans la région, et il resta occupé jusqu'à la période achéménide.

Yaz Depe est d'une importance toute particulière, non pas tant par ses vestiges archéologiques que pour les abondantes céramiques qu'il contenait et d'après lesquelles on a pu établir la typologie fondamentale de la période. Tout près s'élève la forteresse rectangulaire partho-sassanide de Gobekli.

- *Le centre historique urbain*

Il se compose de trois éléments principaux – Erk Kala, Gyaur Kala et la cité médiévale du sultan Kala, ou Marv al-Chahijan.

Erk Kala (20 ha) est un site polygonal entouré de murailles et de fossés, dont les murailles subsistent encore sur quelques 30 mètres de long, et qui compte également une citadelle intérieure.

Gyaur Kala est de plan approximativement carré, avec des murs qui atteignent environ 2 km de long. À l'intérieur subsistent les vestiges de plusieurs structures importantes. La mosquée centrale de Beni Makhan est en partie cachée par les déblais des fouilles, mais sa citerne témoigne du mode de distribution de l'eau, au moyen de canaux souterrains. Le *stupa* et le monastère bouddhistes à l'angle sud-est sont les structures de ce type les plus à l'ouest qui aient été mises à jour à l'heure actuelle. L'« édifice ovale », dans le quartier nord-ouest, se compose d'une série de pièces autour d'une cour, sur une plate-forme surélevée.

Sultan Kala la médiévale, qui s'élève à l'ouest de Gyaur Kala, vit le jour comme un développement suburbain, et ce n'est qu'au XI<sup>e</sup> siècle qu'elle fut fortifiée. Elle couvre



approximativement la même surface (4 km<sup>2</sup>), mais une autre zone fortifiée de 2-3 km<sup>2</sup> lui fut ajoutée ultérieurement. Le mausolée du sultan Sanjar (1118-1157) fut érigé au centre de la cité seldjoukide. La structure cubique qui subsiste faisait à l'origine partie d'un grand complexe religieux. Ses détails élaborés, tels que l'élégant briquetage, le stuc sculpté et les peintures murales intactes, en font l'une des plus remarquables prouesses architecturales de la période seldjoukide.

Les murailles de la cité médiévale et celles de la citadelle (Chahriyar Ark) sont uniques. Elles illustrent en effet deux périodes consécutives d'architecture militaire des XI<sup>e</sup> - XIII<sup>e</sup> siècles. Le circuit de 12 km des murailles est jalonné de tours, de poternes, d'escaliers, de galeries et, à certains endroits, de créneaux, les ouvrages les plus anciens ayant été préservés par leur intégration au sein des structures ultérieures.

En sus de ces éléments urbains principaux, on dénombre plusieurs importants monuments médiévaux dans leur voisinage immédiat. Le mausolée de Muhammad ibn Zayd fut construit en 1112 pour un descendant du Prophète. Sa chambre en forme de dôme présente une magnifique inscription coufique, et une partie de la décoration d'origine de sa façade de brique est toujours visible dans la salle de prière.

Parmi les traits architecturaux les plus caractéristiques de l'oasis, figurent les monuments connus sous le nom de *kōshks*. Il s'agit de structures carrées ou rectangulaires isolées, généralement de deux niveaux. Les murs au-dessus du niveau du glacis sont ondulés, ce qui leur donne un aspect caractéristique. Les Kiz Kala supérieur et inférieur sont deux des édifices les plus impressionnants : les pièces principales s'organisent autour d'une cour située au premier étage, les pièces au rez-de-chaussée sont faiblement éclairées par des fenêtres en fente.

#### - *La cité post-médiévale d'Abdullah Khan Kala*

À l'exception des murailles et des fossés du XV<sup>e</sup> siècle, seuls quelques murs du palais subsistent dans la citadelle. Toutefois, les murailles sont d'un intérêt exceptionnel, car elles permettent de suivre de façon remarquable l'évolution de l'architecture militaire du V<sup>e</sup> siècle avant J.-C. jusqu'aux XV<sup>e</sup> - XVI<sup>e</sup> siècles après J.-C.

De nombreux monuments majeurs de la période historique subsistent dans l'oasis. Les imposantes forteresses de Gobekli, Uly Kishman et Garry Kishman faisaient partie des remparts de terre de 30 km construits pour se défendre des menaces venues des steppes septentrionales.

L'oasis abrite encore beaucoup de splendides mosquées et mausolées de cette période. On note parmi eux les trois mausolées de la période timouride à Geok Gumbaz, la magnifique mosquée seldjoukide du XII<sup>e</sup> siècle Talkhattan Baba, et le mausolée restauré de l'imam Bakr et de l'imam Shafi dans le cimetière de Talkhattan. On dénombre également plusieurs *kōshks* bien préservés et des tours défensives (*dings*) des XVIII<sup>e</sup> et XIX<sup>e</sup> siècles.

## Gestion et protection

### *Statut juridique*

Merv est couverte par les dispositions de la loi de 1992 sur la protection des monuments historiques et culturels du Turkménistan. Le parc national historique et culturel de l'« ancienne Merv » a été créé par décret en 1997. Toutes les interventions au sein du parc, notamment les fouilles archéologiques, nécessitent des permis officiels du ministère de la Culture.

### *Gestion*

Le parc est la propriété de la république du Turkménistan. De même que les sept autres parcs nationaux, il est sous l'égide de la direction nationale de la Protection, de l'Étude et de la Restauration des Monuments, un organisme du ministère de la Culture. La gestion et la conservation des sites et monuments dans le parc et de tous les monuments subsistant dans l'oasis sont sous la responsabilité de l'Office du parc, sous l'égide de la direction nationale.

Le personnel de l'Office, dont le siège est situé près de Sultan Sanjar, se compose d'un directeur, d'un directeur adjoint, d'un archéologue, de secrétaires et de gardiens. Il y a deux offices annexes dans la région de Mary, responsables du suivi des monuments isolés.

Le Dr Georgina Herrmann (directrice du projet international de Merv – Cf. « Historique de la conservation » ci-dessous) a rédigé un projet de plan de gestion quinquennal pour le bureau de l'UNESCO à Tachkent. Ce projet avance plusieurs propositions spécifiques pour des travaux urgents à réaliser sur les monuments vulnérables. Les recommandations générales concernent la mise en place d'installations d'interprétation, des itinéraires recommandés pour les visiteurs et des améliorations de l'infrastructure (agrandissement des zones de stationnement, rénovation des routes, délocalisation des poteaux et pylônes électriques et téléphoniques situés à proximité des monuments). Il compte également des propositions spécifiques très détaillées portant sur les monuments individuels, leurs besoins en conservation, les installations d'accès et de sécurité pour les visiteurs, le nettoyage des débris, l'écoulement des eaux, les études structurelles, la démolition des structures modernes et des échafaudages indésirables et l'établissement de zones tampon effectives autour des monuments individuels.

Un programme de mise en œuvre en trois étapes est proposé pour l'amélioration des installations touristiques. La première étape se limitera à l'amélioration de l'interprétation et de l'accueil. La deuxième concerne l'amélioration des installations hôtelières de Mary, la construction de centres de visite et d'étude, de restaurants et de bureaux à Merv, ainsi qu'un programme majeur de formation du personnel et de guides. La troisième étape, qui dépend de l'accroissement du nombre de visiteurs et des recettes touristiques, envisage la possibilité de la création d'un complexe hôtelier à Merv même.

## Conservation et authenticité

### *Historique de la conservation*

Il n'y a jamais eu aucune conservation systématique des monuments et sites de Merv, qui ont été négligés pendant la période soviétique. Ils ne sont traités comme un groupe que depuis la création du parc national et, depuis lors, les travaux ont pour la majorité été ponctuels, en réaction à des menaces urgentes. Les monuments islamiques, particulièrement ceux de brique cuite, ont fait l'objet d'actions de conservation d'urgence depuis le début du XX<sup>e</sup> siècle. Toutefois, les monuments majeurs n'ont pas fait l'objet d'autres travaux, afin d'éviter les dégradations potentielles suite à leur mise à nu.

Tous les travaux de conservation sont effectués par le personnel du parc, sous le contrôle du Conseil méthodologique scientifique sur l'étude et la restauration des monuments historiques, présidé par le ministre adjoint de la Culture et composé d'experts issus de la direction de la Protection des Monuments, de l'Académie des Sciences, de l'université d'État et du ministère de la Culture.

Il n'y a eu aucun vandalisme ni intrusion depuis l'établissement du parc, et un frein définitif a été mis à la construction non autorisée dans le voisinage. Les seules intrusions modernes sont les routes d'accès de Sultan et de Gyaur Kala, qui servent à l'accès des visiteurs.

Le projet international de Merv est une collaboration archéologique turkmène-britannique entre IouTAKE, l'Expédition archéologique multidisciplinaire du Turkménistan du Sud, le Département d'histoire, l'Académie des Sciences (Achgabat) et l'Institut d'archéologie de l'université de Londres. Il est soutenu par divers organismes officiels et fondations privées, du Royaume-Uni, des États-Unis et d'ailleurs. C'est un vaste programme, couvrant l'étude, la cartographie, l'inventaire, les fouilles, la conservation et l'analyse.

Les enregistrements de tous les travaux effectués depuis la création du parc sont conservés au siège de ce dernier. Un dossier photographique de l'évolution des sites et monuments depuis la fin du XIX<sup>e</sup> siècle a été préparé par le projet international de Merv et doit être publié, en 1999 pour ce qui est de celui qui porte sur les édifices séculiers, et en 2000 pour celui qui concerne les bâtiments religieux.

### *Authenticité*

Il est difficile de généraliser sur l'authenticité d'un bien aussi vaste et complexe que le parc national culturel et historique de l'« ancienne Merv », qui fait l'objet de la présente proposition d'inscription.

Les sites archéologiques sont restés relativement intacts ; leur authenticité est donc irréprochable. Les interventions de restauration et de conservation sur certaines des structures islamiques au cours de ce siècle n'ont pas suivi les principes de conservation actuels, quoiqu'on puisse arguer qu'elles ont joué un rôle

essentiel dans la stabilisation et la continuité de ces monuments « vivants ». Elles ont en outre été bien documentées, et il est possible de revenir en arrière si besoin est. Dans tous les cas, elles ne représentent qu'une minuscule partie de la totalité de ce paysage ancien et de ses monuments.

## Évaluation

### *Action de l'ICOMOS*

Une mission d'expertise de l'ICOMOS a visité Merv en décembre 1998. L'ICOMOS a également eu l'occasion de s'entretenir avec la directrice du projet international de Merv.

### *Caractéristiques*

La longue histoire d'occupation humaine de l'oasis de Merv est préservée par ses sites, ses monuments et ses paysages dans une remarquable mesure. C'est une archive matérielle unique, en grande partie intacte, de l'histoire de cette région, d'une grande signification culturelle mais relativement inconnue, sur une période de plus de quatre millénaires.

### *Analyse comparative*

En Asie centrale, la route de la Soie est jalonnée de nombre d'établissements préhistoriques et historiques. Aucune cependant n'est comparable à Merv en termes de richesse et de particularité des preuves matérielles sur une si longue période, et aucune ne présente à un degré si élevé ce schéma spécial d'évolution des installations urbaines.

### *Recommandations de l'ICOMOS*

Le projet de plan de gestion quinquennal (cf. « Gestion » ci-dessus) est admirable et parfaitement adapté aux exigences actuelles de ce bien. L'ICOMOS recommande que le Bureau du Comité du patrimoine mondial cherche à obtenir des assurances quant à l'agrément et à la mise en œuvre intégrale du plan dans les plus brefs délais.

L'ICOMOS souhaite en particulier attirer l'attention de l'État partie sur la nécessité d'augmenter les effectifs de sécurité disponibles pour ce bien gigantesque et de leur fournir l'équipement nécessaire (véhicules, communications).

## Brève description

Merv est la plus ancienne et la mieux préservée des cités oasis le long de la route de la Soie en Asie centrale. Les vestiges de cette vaste oasis couvrent quelques quatre milliers d'années d'histoire humaine, et un certain nombre de monuments, particulièrement des deux derniers millénaires, restent visibles.

## Recommandation

Le Bureau a recommandé que cette proposition d'inscription soit *renvoyée* à l'État partie, en demandant des assurances afin que le plan de gestion quinquennal soit agréé et intégralement mis en œuvre avant la fin de l'année 1999 et, une carte indiquant clairement les limites du site. Au moment où cette évaluation est préparée pour l'impression, aucune information n'est parvenue. Si ces assurances et la carte sont fournies pour le 1<sup>er</sup> octobre, l'ICOMOS recommande que ce bien soit inscrit sur la Liste du patrimoine mondial sur la base des *critères ii et iii* :

*Critère ii* Les villes de l'oasis de Merv ont exercé une influence considérable sur les cultures d'Asie centrale et d'Iran depuis quatre millénaires. La ville seldjoukide, en particulier, a influencé l'architecture et la décoration architecturale, ainsi que le développement scientifique et culturel.

*Critère iii* La séquence des cités de l'oasis de Merv, leurs fortifications et leur paysage urbain sont des témoins exceptionnels des civilisations d'Asie centrale sur plusieurs millénaires.

ICOMOS, septembre 1999