

# Turkey

## Hierapolis-Pamukkale

### Brief description

Deriving from springs in a cliff almost 200 m high overlooking the plain, calcite-laden waters have created at Pamukkale (Cotton Palace) an unreal landscape, made up of mineral forests, petrified waterfalls and a series of terraced basins. At the end of the 2nd century B.C. the dynasty of the Attalids, the kings of Pergamon, established the thermal spa of Hierapolis. The ruins of the baths, temples and other Greek monuments can be seen at the site.

### 1. Introduction

**Year(s) of Inscription** 1988

#### Agency responsible for site management

- General Directorate of Cultural Heritage and Museums  
II.TBMM Binası Ulus  
06100 ANKARA  
e-mail: [orhan.duzgun@kulturturizm.gov.tr](mailto:orhan.duzgun@kulturturizm.gov.tr)  
Web-site: [www.kulturturizm.gov.tr](http://www.kulturturizm.gov.tr)

### 2. Statement of Significance

**Inscription Criteria** N (iii) C (iii) (iv)

#### Justification provided by the State Party

The plan of the town of Hierapolis follows the Hellenistic tradition, with roads crossing at square angles with the main way. The latter is lined by the main buildings. These were built in successive periods (as a result of the earthquakes whereby some buildings were destroyed and then re-built), thus presenting a good example of the development of the history of architecture. This can easily and precisely be followed, thanks to the presence of an enormous number of epigraphs whereby a correct datation can be traced, within its socio-economic context.

Buildings and monuments of great artistic and historical interest are:

1) Theatre, build in Hellenistic times within the town, since a previous and smaller one, built over the hill, had been destroyed by the earthquake of the second half of I century AD. The monument is

unique because of the *frons scaenae* built in Severian times (beginning of the III century A.D.). The cycle of sculptures and basso-rilievi is almost complete (only one and a half slab are missing) and represents Apollon and Arthemis and various scenes of their mythology. (It must be pointed out that usually in such *frons scaenae* the myth of Dionisus is represented).

2) Octagonus, a building dominating the town from the backwards hill. It was built at the end of the IV century according to a very original and unique plan which probably took inspiration from the imperial court in Constantinople. It develops over an octagonal plan inscribed into a square with two hedges formed by a vault and a stairway access on the side towards the town. The floor is in marble and mosaics.

3) Temple of Apollon, with columns and a portico over the cave from which gases of carbonic anhydride were and still are exhaling. The complex was built over different periods; dwellings have revealed architectural decorations of great value, epigraphs of historical interest and sculptures of high artistic importance.

4) Monumental gate, the arch of the via domiziana, the main entrance street. The gate, restored by the Italian mission, was built to mark the end of the works of rebuilding of the town after the earthquake of Nero times. The gate has an inscription of domitian age and has the typical setting of the honorary gates of Asia Minor.

5) Nymphaeum, a building rich in water plays and fountains, located in the middle of the town. Originally with a *ipostile* front with two overhanging orders, it can now be restored by *anastylosis* (that is to say, the re-assembling of existing but dismembered parts) at least in the first order.

6) Necropolis, a source of primary importance of information on the socio-economic conditions of the town and of historic and artistic documents. The tombs, located proximal to the north and east roads of access to the town, are of various type and age and furnish an exceptional number of epigraphs (presently under study).

The basic feature of the natural property is the presence of highly mineralized warm springs. Prior to use by man, these springs built a bench of travertine terraces along the southwestern foothills of the Cökelez Mountains. The springs within the area are part of a complex hydraulic system extending 70 kilometers to the Northwest to Alasehir and westward along the valley of the Menderes river.

The feature unique to Pamukkale is the formation of many shallow pools located along the edge of the main travertine terrace. By a natural, self-renewing process, the mineralized waters in the course of spilling down the sides of the terrace have built semi-circular pools with vertical, or even overhanging, outer sides. Series of these pools occur in a stair step-like procession down the upper one-third of the slope. Some have steps of less than a meter in height while others, on the steeper sides of the terrace, have vertical sides as high as six meters. Fresh deposits of calcium carbonate give the pools a dazzling white coating leading the Turkish inhabitants to name the site 'cotton castle' (Pamukkale).

Another feature of the site, a combination of a geologic process and man's efforts, is the system of canals leading the thermal water to nearby villages and fields. These canals make use of a characteristic of travertine deposition which makes the canals self-sustaining. In this process, where the ditch is deep and fast-flowing, little deposition occurs but where the flow is shallow and slower moving, such as over a low spot of the canal bank or through a leak, greater deposition takes place. The result is a gradual building up of the canal so that in some cases there are remains of ancient canals on top of thin fins of travertine as much as ten meters in height but only two or three in thickness at the base.

#### **As provided in ICOMOS evaluation**

(ICOMOS): ICOMOS recommends that the proposed cultural property be included on the World Heritage List on the basis of criteria iii and iv

- Criterion iii. Hierapolis is an exceptional example of a Greco-Roman thermal installation expressly established on an extraordinary natural site. The therapeutic virtues of the waters were exploited at the various thermal installations which included immense hot basins and pools for swimming. Hydrotherapy was accompanied by religious practices, which were developed in relation to local cults. The Temple of Apollo, which includes several Chthonian divinities, was erected on a fault from which noxious vapors escaped. The theatre, which dates from the time of Severus, is decorated with an admirable frieze depicting a ritual procession and a sacrifice to the Ephesian Artemis. The necropolis, which extends over 2 kilometers, affords a vast panorama of the funerary practices of the Greco-Roman epoch.

- Criterion iv. The Christian monuments of Hierapolis, erected between the 4th and the 6th

centuries, constitutes an outstanding example of an Early Christian architectural group with a cathedral, baptistery and churches. The most important monument, situated outside the north-west wall of the city, is the martyrium of St. Philip. At the top of a monumental stairway, the octagonal layout of the building is remarkable because of its ingenious spatial organization. Radiating from the central octagon are chapels, polygonal halls and triangular rooms which combine to culminate in a square structure encircled by rectangular cells bordered with porticoes.

#### ICOMOS Observations

The delimitation of the site of Pamukkale in the annex of the dossier conforms to that of National Park project drawn up in 1969, which has not yet received official authorization.

(IUCN): IUCN recommends that the nominated site not be added to the World Heritage List on the basis of its natural features. Although the natural values of Pamukkale are an important basis to its cultural milieu, they are very much secondary to the historical values of Hierapolis. On their own, the hot springs and travertine terraces are not significant on a world scale and thus do not meet the criteria for natural properties. Questions of integrity also suggest caution as the park is still not legally established and there is no overall management authority or presence.

#### **Committee Decision**

Bureau (1988): The Bureau noted that this property had been evaluated by both ICOMOS and IUCN. Although IUCN did not recommend the inscription of this site on the basis of natural criteria, the Bureau nevertheless felt that recognition should be given to the combination of natural and cultural elements of this property. The Bureau agreed with ICOMOS that this site could be recommended for inscription on the World Heritage List under cultural criteria (iii) and (iv) The Bureau recognized however that at present, the site did not benefit from adequate legal protection. The Bureau encouraged the Turkish authorities to approve the proposal for a national park for the site and to update and adopt the management plan which would enable this nomination to be re-considered by the Committee for inscription on the World Heritage List.

Session (1988): The Committee was pleased to note that the Turkish Ministry of Agriculture, Forestry and Rural Affairs has decided to start work on setting up a national park during 1989.

Furthermore, the Committee accepted the ICOMOS proposal to add natural criterion (iii) to cultural criteria.

- No information available on whether the Statement of Significance adequately defines the outstanding universal value of the site
- Need to seek a decision from the Committee on changes to the statement of significance
- Proposal for revised text has been made by State Party, change is required

#### **Boundaries and Buffer Zone**

- Status of boundaries of the site: adequate
- No buffer zone has been defined, is not needed

#### **Status of Authenticity/Integrity**

- World Heritage site values have not been maintained.
- After inscription, with Turkish Government intervention, six hotels which were built near the archaeological area were demolished. A plan for protection of landscape and environment has been realized

### **3. Protection**

#### **Legislative and Administrative Arrangements**

- Being declared a "First Degree Archaeological Site" the site is subject to the Conservation Legislation. In 1990 the site and the related protected zone were approved as a "Protected Special Area" according to the Environment Law; Pamukkale Conservation Plan was approved and is carried out since 1992
- Protection arrangements are considered highly effective

### **4. Management**

#### **Use of site/property**

- Visitor attraction
- The use as archaeological park is proposed, but not yet approved

#### **Management/Administrative Body**

- Steering group since 01/01/2000
- No site manager/coordinator, but is needed
- Levels of public authority primarily involved with the management of the site: national and local
- The current management system is sufficiently effective

#### **Actions proposed**

- Within the framework of the revised Conservation Legislation put into force in 2004

the preparation of management plans for World Heritage Sites will be considered primarily

### **5. Management Plan**

- Management plan, but not being implemented
- Responsibility for over-seeing the implementation of the management plan and monitoring its effectiveness: A coordination and supervision council will be constituted

### **6. Financial Resources**

#### **Financial situation**

- Major funding comes from the entrance fees
- General budget of the Ministry, Authority of Protected Special Areas
- Italian Archaeological Mission for excavation
- Financial assistance from national and/or regional projects of UNDP, the World Bank or other agencies
- Funding for management is insufficient, funding for protection and conservation is adequate

### **7. Staffing Levels**

- Number of staff: 80

Rate of access to adequate professional staff across the following disciplines:

- Very good: conservation
- Good: management, promotion, interpretation, education, visitor management

### **8. Sources of Expertise and Training in Conservation and Management Techniques**

- Specialized expertise is available in the local museum, the University of Pamukkale (Denizli) and the Italian Archaeological Mission

### **9. Visitor Management**

- Visitor statistics: no figure provided
- Visitor facilities: toilets, site museum, refreshment facilities, information centre, view points, sales points; Thermal pools are under construction
- Visitor needs: Interpretation of the site is not adequate, guiding, information panels, orientation; Communication and health facilities are totally lacking

### 10. Scientific Studies

- Studies related to the value of the site, monitoring exercises, condition surveys, archaeological surveys
- The excavations and conservation projects have provided many important monuments as the Roman theatre and martyrdom of St. Philip, the results of these studies have been used in managing and interpretation of the site

### 11. Education, Information and Awareness Building

- Many signs referring to World Heritage site
- World Heritage Convention emblem used on some publications
- Adequate awareness of World Heritage site among visitors, local communities, businesses and local authorities
- The Italian Mission has started an education program in collaboration with the High School of Art of Denizli. The students are involved in artistic and musical activities in the archaeological area
- Web site available

### 12. Factors affecting the Property (State of Conservation)

#### Reactive monitoring reports

- World Heritage Bureau sessions: 16<sup>th</sup> (1992); 26<sup>th</sup> (2002)
- World Heritage Committee sessions: 15<sup>th</sup> (1991); 25<sup>th</sup> (2001)

#### Conservation interventions

- Since inscription, intensive archaeological excavations and conservation programs have been made, mainly to realize two principal visit itineraries; The Italian Mission has restored monuments, e.g. the Frontinus, a street, the Roman theatre and the necropolis; A new archaeology museum has been established in the Roman baths
- Present state of conservation: good

#### Threats and Risks to site

- Environmental pressure, natural disasters, visitor/tourism pressure
- More than one million tourists every year constitute a very big problem and danger for the conservation of the site

#### Measures proposed/taken

- All actions are taken in the framework of the management plan. At the north and south entrances the car traffic and the connected problems in the archaeological area will be eliminated

### 13. Monitoring

- No formal monitoring programme

### 14. Conclusions and Recommended Actions

- Main benefits of WH status: conservation, social, economic and management
- Strengths of management: Since the inscription the main results are the management plan for protection of landscape and environment and the demolition of hotels built near the archaeological area
- Weaknesses of management: The necessity to control the great number of visitors

#### Future actions:

- The realization of the management plan and the demolition of the asphalt road will eliminate the main weaknesses of the site