

Ai Khanum Reconstructed

GUY LECUYOT

UMR 8546 CNRS-ENS

BETWEEN 1965 AND 1978 EXCAVATIONS WERE CONDUCTED in Ai Khanum, the great Graeco-Bactrian city situated in the north-eastern corner of present-day Afghanistan, by the French Archaeological Delegation in Afghanistan (DAFA) and its director Dr P. Bernard. Since then, many publications have appeared, and this major discovery is now well known in the scientific world and also among the general public.¹ Today, the ancient city of Ai Khanum is central to the study of Greek expansion in the Eastern world. The mix of Greek and Oriental traditions that can be found there is a key element for understanding the Hellenization of the East. The publications offer many plans and pictures of the ruins but no complete graphic restoration, and it is difficult indeed to imagine what the city actually looked like.

In the year 2000 we had the opportunity to enrich our view of the site with computer graphic (CG) images. A producer from the Japanese TV channel NHK, Mr Kikuchi, visited us in Paris and proposed to make a film about Ai Khanum.² In addition to giving a historical account of the city, the film scenario involved using CG views. These images were created by the TAISEI corporation which specializes in this line of work.³

I was in charge of the documentation and correction of the CG images created by the senior architect Mr Ishizawa. To carry out this work, I went twice to Japan. The film is now completed and was shown on Japanese TV in June 2003. It was shown in December 2004 on French T.V. (France 5). In reconstructing the images, we were very

¹From 1964, date of the first investigation carried out by D. Schlumberger and P. Bernard, to 1978, the French Archaeological Delegation in Afghanistan (DAFA) conducted on this site several archaeological expeditions, the results of which were published by P. Bernard in the *Comptes rendus de l'Académie des Inscriptions et Belles-Lettres (CRAI)* between 1966 and 1980 and in the *Bulletin de l'Ecole française d'Extrême-Orient (BEFEO)*, LXIII (1976) and LXVIII (1980). Moreover, detailed or brief studies have been published in article form in different scientific journals. The definitive publications are available in the collection *Mémoires de la Délégation archéologique française en Afghanistan (MDAFA)*, *Fouilles d'Ai Khanoum* (8 volumes have been published).

²NHK, Special Programme, Eurasian Empires, Episode 2: The illusive Alexandrias.

³In 2004, a 3-year cooperative agreement was signed between the Archaeology department of the Ecole Normale Supérieure (UMR 8546 CNRS-ENS) and the TAISEI corporation to allow the use and evolution of the CG images in line with research findings.

careful to respect the archaeological remains, but we also seized the opportunity to artificially complete the ruined monuments and to restore them to their supposed original height (Lecuyot 2004).

The image of the city that we wished to show was that of the town towards the middle of the second century BC; this period corresponds to the final architectural phase of the city, the stage which is most clearly documented.

Ai Khanum

This large city, situated at the confluence of the Kokcha and of the upper course of the Amu Darya rivers (the Darya-i Pandj), covers a triangular area and is surrounded on its three sides by fortifications (Fig. 1).

Ai Khanum is divided into two parts: the lower city, on the one hand, and, on the other, the upper city which stands 60 m above the plain. At the foot of the upper part, a large street runs southwards for 1.5 km from the main gate situated on the north wall. Most of the excavations have been conducted in the lower city where the main official and religious buildings were located: these include a palace, a temple, a gymnasium, a theatre, a residential quarter and mausoleums constructed in honour of the city's dignitaries.

The town was a Greek foundation and probably dates from the beginning of the Seleucid period. It was abandoned by the Greek population in 145 BC. Monuments such as the gymnasium and the theatre are typical of Greek culture, but the general architecture of the buildings was more Oriental than Greek. The plans of the temples, houses, and palace, which show many corridors, are inspired by the Oriental tradition of Mesopotamia and Achaemenid Iran (Bernard 1976 and Lecuyot 1993). On the other hand, the decorations of the Greek columns and capitals, and also of the antefixes, are obviously Greek. It is this architectural mix which characterizes the city of Ai Khanum. The monuments were constructed mostly of unbaked bricks. The buildings were all one-storey constructions and the walls were covered with whitewash. In the palace, traces of paint were found on the capitals of the columns and of the pilasters as well as on unbaked clay decorations, such as friezes and statues.

Reconstruction

The first task in the reconstruction project was to create a model showing the geographical relief of the site. The second stage was to visualize the general layout of the different buildings in order to have a basic view of the urban plan. This was the basis for all the future work. Afterwards, the individual buildings were fully conceptualized with appropriate architectural details and the reconstruction was completed (Pl. 1). The final phase of the project thus involved the collaboration of archaeologists and a computer specialist.

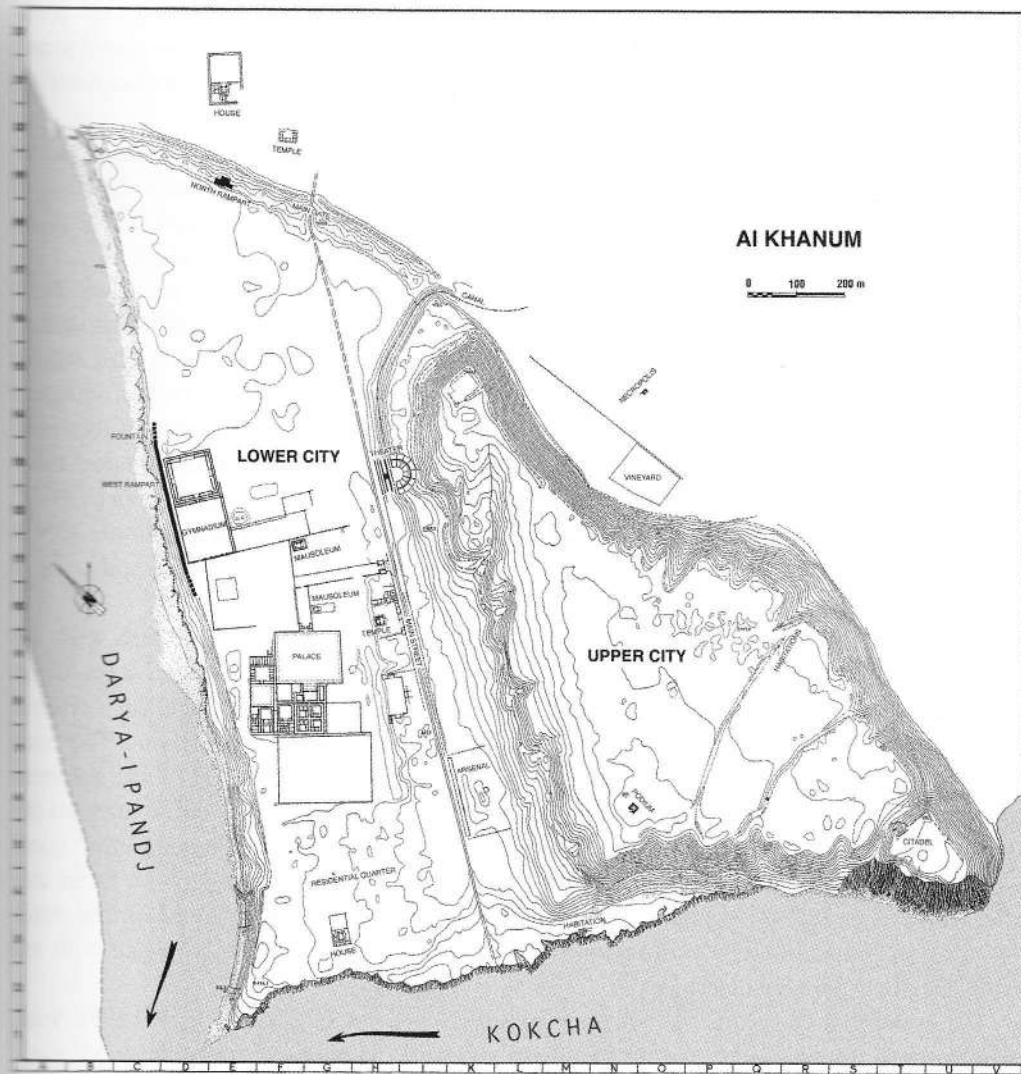


Figure 1. Ai Khanum. Plan of the town (drawing J.-Cl. Liger).

Some remains were very poorly preserved while others remain unexcavated. This was the case for the fortifications which appeared clearly in photos and in the aerial view but which had not been completely uncovered (Leriche 1986). 'The mud-brick fortifications conform totally to the Hellenistic system. They strictly follow the form of the topography along the rivers and on the northern edge of the upper town and adopt a straight line in order to enclose the lower town to the north. The rampart is thick and

massive, strongly defended by massive square towers and the only exit toward the plain is defended by a massive main gate situated at the end of the main street and a small postern on the east side' (Leriche 2002, 120). The well preserved fortifications of Dura-Europos provided a model for this reconstruction.

The main temple was very well documented. It stood on a platform, and deep niches decorated its thick walls. The fragments of a cornice, which had fallen from the edge of the roof, were very helpful in determining the general appearance of the façade. The plan, elevations and axonometry were used to create the CG images (Fig. 2 and Pl. 2).

Little is known about the religious practice in the city. Three temples have been excavated and they do not look at all Greek. Some statue fragments (notably a sandalled foot found in the ruins of the main temple which belonged to the acrolith cult statue; probably a Zeus that was worshipped here), have allowed us to reconstruct a sculpted figure which we freely modelled on the statue of Zeus at Olympia. In order to reconcile the Greek and Oriental cult practices, we imagined a composite form of the god associating Zeus and Mithra, following the hypothesis made by Fr. Grenet (Grenet 1991).⁴ Among the temples studied, an open-air temple platform situated in the upper city is not at all Greek. It is simply composed of a high podium accessible by a staircase. It probably served for the celebration of an oriental cult.

The palace enclosure contains a great courtyard surrounded by columns with, on the south side, a colonnaded vestibule which gave access to the administrative buildings where we located the throne-room. On the west side we found the treasury (Rapin 1992), and at the north-west corner of the palace the private apartments. The final architectural stage of the palace was also well documented. The height of the columns was determined through examination of all the fragments found during the excavations (Pl. 3). Nothing, however, is known about the general arrangement of the different roofs except that they were flat. The proposed virtual visit of the city led us to focus our attention on some buildings. In the palace, for example, we concentrated on the main hall and on the supposed throne-room to imagine the decoration style in line with the available documentary evidence.

We know that the plans of the dwelling houses are not Greek (Lecuyot 1993). With their courtyard always situated on the north side and the great reception hall (a central living room) in the middle of the building, surrounded by corridors, they are oriental in style. Greek influence can be seen only in the decoration of the pillared porch opening onto the courtyard. The compact nature of the houses and the palace meant that it was difficult for light to penetrate. To provide light we envisaged roofs at different levels.

The remains of the theatre were studied through several extensive soundings. In the reconstruction programme we used as a model the theatre of Epidauros. The theatre

⁴ On the basis of this hypothesis, we placed the solar disk found in representations of Mithra (a disk with emanating rays) behind Zeus' head.

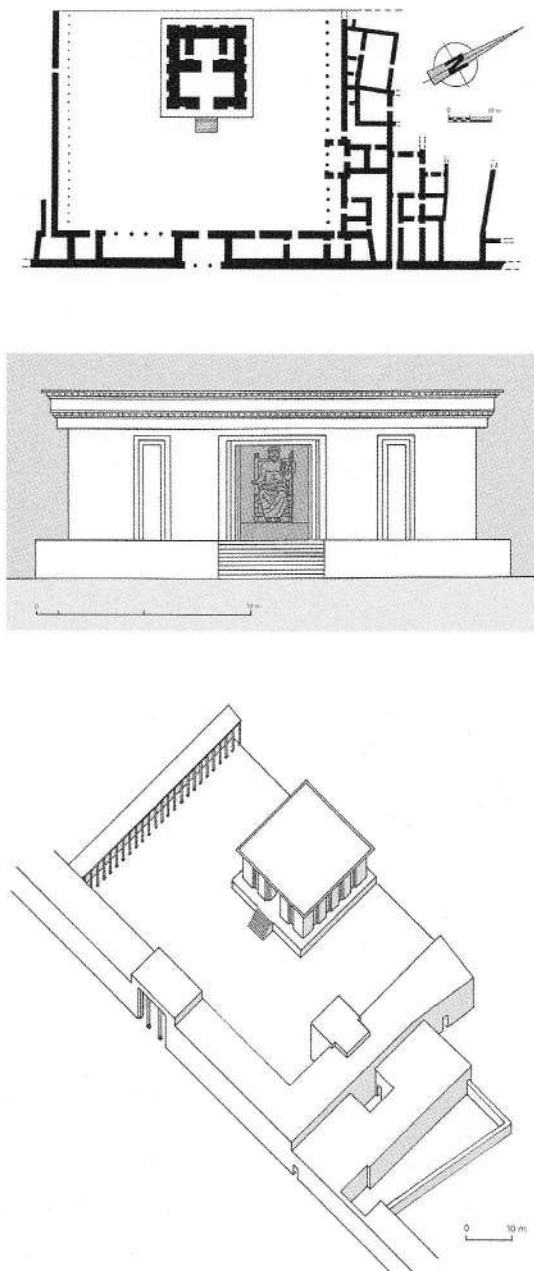


Figure 2. Ai Khanum. Plan, elevation and axonometry of the main temple (drawings J.-Cl. Liger et G.L.).

had a very special feature. In the cavea we found three loggias which were probably reserved for the king and the court. A similar arrangement appears in the theatre of Babylon. For the stage, we imagined a light wooden construction.

The gymnasium (Veuve 1987) also deserves special mention. It is one of the most typical Greek monuments. The gymnasium is composed of a large square courtyard surrounded by buildings. A portico was constructed in the centre of each side of the courtyard. Six columns decorated the entrance to the northern portico while two columns stood on the three other sides (Pl. 4).

This work completely changed the idea we had of the city. With animated 3D views and life-size human representations populating the city, we can better appreciate the huge dimensions of some buildings, especially those of the palace.

Recent photos of the city reveal the great damage done by vandals and robbers, especially in the lower part of the site where hundreds of holes were dug (Bernard 2001). If the robbers concentrated their efforts in this area (and especially in the northern part of the city which is generally considered to have contained no buildings), it is because they expected to find antique objects there.

The holes dug by the robbers lead us to imagine a more dense urbanization of the town. We will probably never have a complete picture of the city, because the concentration of the holes unfortunately compromises the archaeological study of the site for ever.

The 3D images appear now as an ideal view of the town, the true splendour of which we can only imagine.

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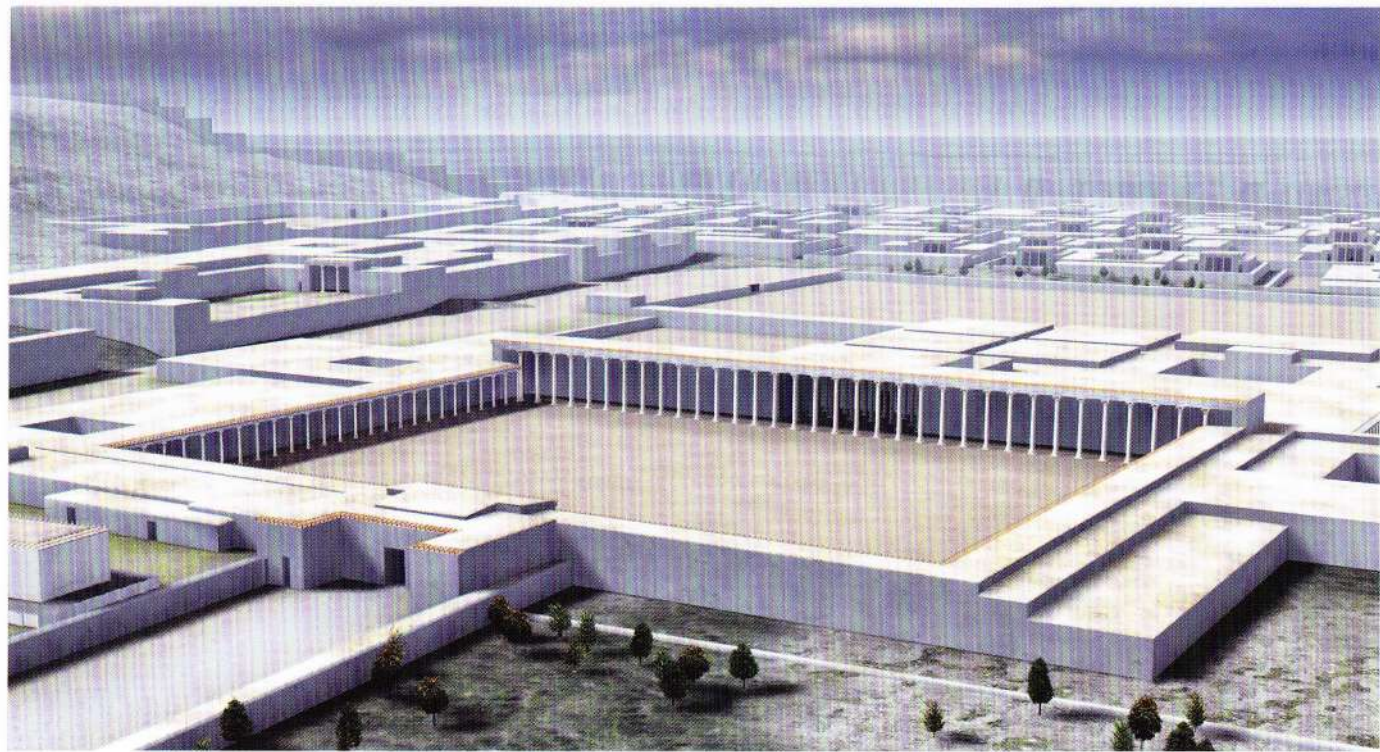
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| <i>BCH</i> | <i>Bulletin de correspondance hellénique.</i> |
| <i>BEFEO</i> | <i>Bulletin de l'Ecole française d'Extrême-Orient.</i> |
| <i>CRAI</i> | <i>Comptes rendus de l'Académie des Inscriptions et Belles-Lettres.</i> |
| <i>JA</i> | <i>Journal asiatique.</i> |
| <i>MDAFA</i> | <i>Mémoires de la Délégation archéologique française en Afghanistan.</i> |
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Ai Khanum. Reconstructed view of the town (CG image by O. Ishizawa, NHK/TAISEI).



Ai Khanum. Reconstructed view of the main sanctuary (CG image by O. Ishizawa, NHK/TAISEI).



Ai Khanum. Reconstructed view of the palace (CG image by O. Ishizawa, NHK/TAISEI).



Ai Khanum. Reconstructed view of the town from the gymnasium courtyard (CG image by O. Ishizawa, NHK/TAISEI).

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