Ancient Greek Stadia

Introduction

The word "stadium" derives from the Greek word « $\sigma \tau \dot{\alpha} \delta \iota \sigma v$ », which used to be an ancient Greek unit of length, that varied from place to place, usually of about 177,55 up to 192,27 meters. The length of one stadium, which equals to 600 feet, used to be the course for footraces in ancient Greece. It was from this one stadium distance that occurred the open-air, properly ac-

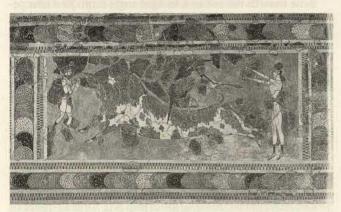
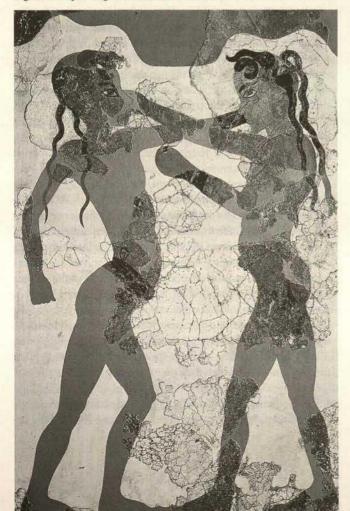


Fig. 1: Wall-painting from the palace of Cnossos

Fig. 2: Wall-painting from Santorini



commodated structures called «στάδια» in Greek and "stadia" in Latin and other modern languages.

All the ancient gymnastic races took place in these stadia, during the four main Greek athletic games such as the Pythia, at the sacred site of Delphi dedicated to Apollo, the Isthmia, near the famous city and harbour of Corinth dedicated to Poseidon (or Neptune), the Nemea near Argos, the most ancient city in Europe, dedicated to Zeus and Hercules and, finally, the Olympia or otherwise very well known as Olympic games, at the sacred site of Olympia dedicated initially to Cronos and Rea and finally to their son Zeus.

Apart from these four pan-Hellenic athletic games, where the stadium together with the dedicatory temple of the god was the heart of each site, many other Greek cities used to organise local athletic games. In these instances the stadium played the central role, such as on the island of Delos, the island of Rhodes, the city of Epidaurus, the city of Athens, the city of Courion on the island of Cyprus and so on.

Even though, according to the archaeological evidence, athletic games were introduced to Greece from the earlier eastern cultures and mainly from Egypt, the so-called Olympic spirit was born (Fig. 1) and grown (Fig. 2) on Greek soil. So, the primitive gymnastic exercise and games, which had as a starting point the natural tendency of human beings for a spectacular demonstration of their physical ability, developed as a noble rivalry (in Greek « $\alpha\mu\lambda\lambda\alpha$ ») between free-men (Fig. 3) of equal rights and opportunities, deifying the human body and courage and unifying all Greeks, wherever they used to live (i.e. Greek peninsula, Asia Minor, Italy and Sicily and so on). For that reason, at the time of the games it was agreed to declare a truce so that all hostilities and wars were at least suspended.

The architecture of ancient stadia

The general plan of a stadium can be of simple long rectangular shape (Fig. 7) or horseshoe shape with a semi-circular end (Fig. 12) just opposite the entrance, which was called sling (in Greek $\langle \sigma \varphi \varepsilon v \delta \delta v \eta \rangle$). The space where the games used to take place was called arena (in Greek $\langle \kappa o v i \sigma \tau \rho \alpha \rangle$) from the word $\langle \kappa o v \iota \varphi \rangle$ meaning dust, because of the ground covering its surface. The length of the arena was just one stadium, i.e. 192,27 m in Olympia or 177,55 m in Delphi. The beginning of the race was called line, starting post or remission (or discharge) (in Greek $\langle \gamma \rho \alpha \mu \mu \eta \rangle$, $\langle \beta \alpha \lambda \beta i \zeta \rangle$ or $\langle \dot{\alpha} \phi \varepsilon \sigma \iota \zeta \rangle$). A special system was provided for the simultaneous starting off of the athletes' race, which in Greek was called $\langle \dot{\nu} \sigma \tau \iota \lambda \eta \gamma \xi \rangle$ (Fig. 4).

The places for the spectators were on the ground banks around the arena (Fig. 13). Therefore, the best site for the creation of a stadium was between two close together low hills, the slopes of which by a proper arrangement could form the spectators' places. In other cases, the structure could make use of the natural slope of only one hill while the other slope could be an artificial one, constructed by technical works. The places for the



Fig. 3: Athenian amphoreus of the painter of Berlin

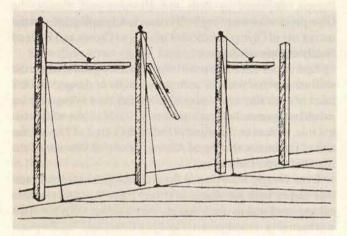
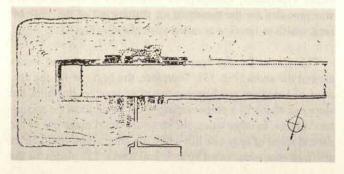


Fig. 4: System of simultaneous starting of footrace. Stadium of Isthmia



Fig. 5: The site of Epidaurus

Fig. 6: Plan of the stadium of Epidaurus



spectators could be from simple ground to marble seats. The places were divided in sections, which were wedge-shaped tier of seats (in Greek « $\kappa \epsilon \rho \kappa (\delta \alpha »)$), while at the upper side of the slopes used to be a corridor, which in some cases was covered by a portico (in Greek « $\sigma \tau o \dot{\alpha} »$). At the lower part were marble slabs (in Greek « $\theta \omega \rho \dot{\alpha} \kappa \alpha \sigma a$) and a system of rainwater drainage. The seats for the judges (in Greek « $\epsilon \lambda \alpha v o \delta (\kappa \epsilon \varsigma »)$) and other officials were in the middle of the two long sides of the stadium (in Greek « $\epsilon \delta \dot{\omega} \lambda \iota \alpha »$). Some of the stadia had a monumental *propylaeum* in front of the entrance of their narrow side.

Some examples of ancient Greek stadia

- a) The stadium of Epidaurus (Fig. 5-6) lies outside the sacred site and before we reach the famous theatre, formed into a dip in the ground. The stadium, which dates from the 5th century BC, is of a clear rectangular plan, as the earlier ones. Its first five series of seats are carved into the natural rock and those towards the east end, in right-angle form. At a later period, stone seats were added on its ground slopes, divided in tiers by staircases. A vaulted passage constructed in sand-stone leads to the sanctuary and formed the entrance for the athletes and officials. The arena's dimensions are 196,44 x 23,06 m and include the main stadium's length of 181,30 m and a smaller part for other games. Along its three main sides there is a limestone aqueduct for the use of athletes and spectators. Its total length of 600 feet is divided in smaller sections of 100 feet each, for other than race games.
- b) The stadium of Olympia is the most ancient of all Greek stadia (Fig. 7). Its structure is very simple and it consists of five successive phases. Rectangular in plan (Fig. 7), as the previous one, it lies on the south slope of a hill, where the northern tier was formed by the ground, taking advantage of its proper geometrical natural formation. In its three other sides, artificial low banks were added for the formation of the other tiers. The seats for the judges were at the middle of its south side. The stadium initially could accommodate 20.000 spectators and later on 45.000. The most important phases of this stadium were the first one, with the creation of an artificial south bank, and the one created during the 4th century BC when the arena was transferred to the east and the south tier was enlarged. During the Hellenistic period a vaulted passage (Fig. 8) was added under the northwest corner of the west tier. Through this passage, which in Greek was called «κρύτττη» meaning hidden, the athletes and judges entered the stadium during the games. The stadium must have always been constructed from compacted ground, apart from its later Roman phase, when it seems to have been provided with wooden seats. Along the sides of the arena an aqueduct used to bring fresh water from the nearby river, for the use of both athletes and spectators. The late excavations of the site, conducted by the German Archaeological Institute, permitted the study of many other parameters/details of the most important stadium of the ancient world. Since the year 776 BC and every four years after for many centuries, this simple stadium was the place where Greek athletes from every part of the ancient world used to gather, in order to participate in the famous Olympic games. Their aim was to be awarded the much desired simple wild olive wreath, for which they exerted such great effort.
- c) The stadium of Delphi (Fig. 9), situated in the grandiose landscape of the site since the 5th century BC, lies to the

north (Fig. 10) of the surrounding wall of the sanctuary and to the west of the theatre. While the northern tier of the stadium was created on the natural slope of the mountain of Parnassus, the southern one needed a special retaining wall, which was discovered after excavations conducted by the French School of Athens. The entrance to the arena from the east side still preserves the remains of a monumental vaulted structure/propylaeum which was formed by arches on square piers dating from the Roman period. This stadium, which is the best preserved, presents a curvature, along its long sides, which extends to 3 m deflection in the middle. This curvature is supposed to help the view of the games by the spectators, but it can also be explained on aesthetic reasons, similar to the curvatures observed on many ancient Greek temples, and mainly on the Parthenon. The seats of the northern tier did not exceed the arena's level but ended on a podium 1,3 m high. In the middle of this side, a special stand (in Greek called « $\varepsilon \xi \epsilon \delta \rho \alpha$ ») was built later on for the officials.

d) The stadium of Athens (Fig. 11 - 12) (in Greek called «Παναθηναϊκόν»), situated within a small valley between the hill of Ardhettos and another lower one, was initially made from natural ground but in a second phase, during the rule of Lycourgos in the mid 4th century BC, was provided with limestone tiers. Later on, in 143 AD it was rebuilt in white pentelic marble and sponsored by Herodes Atticus. The stadium was ruined during various historic adventures and decays until 1870, when excavations, carried out by the German architect Ernst Ziller, uncovered its original form. It was completely restored in 1895 (Fig. 13) by the architect Anastasios Metaxas and sponsored by means of Georgios Averof, in order to serve the first Olympic games of modern times in 1896 (Fig. 14). This magnificent stadium, totally in marble, has a semicircular sling and the dimensions of its arena are 205 x 33 m. As at the stadium of Delphi, a curvature occurs also here, along its long sides, which extends to 2 m deflection in the middle. Furthermore, the seats of all tiers do not exceed the arena's level but end on a podium of 1,53 m height. The same curvature and podium occur again to the 24th of the total 44 series of seats. It is not sure that the stadium had special Propylaea, but for the needs of the Olympic games of 1906 an improvised structure was made in Corinthian order, not matching with the rest of the monument. This structure was removed in 1952 and since then the stadium preserves its authentic form.

Conservation and restoration policy

Since 1964, when the International Charter for the conservation and restoration of monuments and sites – the well known Venice Charter – was approved by the second International Congress of the Architects and Technicians of Historic Monuments which took place in Venice, the conservation and restoration policy had to be altered.

According to the article 15 of the Charter "... Ruins must be maintained and measures necessary for the permanent conservation and protection of architectural features and of objects discovered must be taken. Furthermore, every means must be taken to facilitate the understanding of the monument and to reveal it without ever distorting its meaning. All reconstruction work should however be ruled out a priori. Only anastylosis, that is to say, the reassembling of existing but dismembered parts can be permitted. The material used for integration should always be

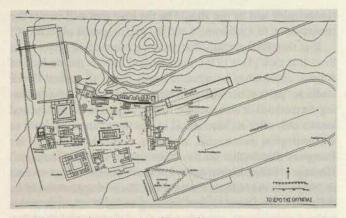


Fig. 7: General plan of the site of Olympia



Fig. 8: The vaulted passage of the stadium of Olympia

Fig. 9: The stadium of Delphi



recognizable and its use should be the least that will ensure the conservation of a monument and the reinstatement of its form".

It is therefore obvious that great reconstruction projects, as these that took place in the years around 1896 at the stadium of Athens, could never be repeated again. Thus, all ancient Greek stadia as "parts of our historical heritage that are investigated using the methods of archaeology, mostly hidden in the ground and known only after archaeological excavations" are considered as archaeological monuments, according to the definitions of the European Convention on the Protection of the Archaeological Heritage (1969) – known as the London Convention – as revised in 1992 – by the Valletta Convention. Their treatment would be different if they were always standing and still in use as architectural monuments, according to the definitions of the other European Convention on the Protection of the Architectural Heritage (1985) – the well known Granada Convention.

For the above reasons, the ancient stadia of Epidaurus, Olympia, Delphi etc can only be conserved or partly restored, as the future restoration project at the southern side of the stadium of Delphi, scheduled by the Ministry of Culture/Directorate for Ancient Monuments Restoration, or even rarely re-used, as the annual 100 m race with naked feet at the stadium of Nemea, or even remained as found, as the stadium of Olympia, ordered by the German Archaeological Institute.

It is not yet known if these ancient stadia will be used for athletic or other activities, during the next Olympic games at Athens in 2004. In case of any use, we hope that this will respect all international principles mentioned above and will be fully adapted to the character of each monument. But, the recent conflict about the inappropriate use of the historic battle-field of Marathon, for the creation of Rowing Canoe/Kayak installations, must keep alert all conscious experts and admirers of ancient Greek history and civilization, together with all competent national and international non-governmental organizations on these matters.

Bibliography

- CH. BOURAS, Lectures on the history of architecture, volume 1, National Technical University of Athens, 1980 (in Greek).
- D. CONSTANTINIDIS, Lectures on the history of architecture, part 2, volume 2, National Technical University of Athens, Athens, 1973. (in Greek).
- M. HOLEVAS S. TSIKRA, The Olympic Games in antiquity, (video tapes A – B), Foundation of the Hellenic World, Athens, 2000.
- M. PETZET, Principles of Monument Conservation, ICOMOS Journals of the German National Committee XXX, München, 1999.
- R.V. SCHODER, Das antike Griechenland aus der Luft, Gustav Lubbe Verlag, Bergisch Gladbach, 1975.
- E. SPATHARI, The Olympic spirit, ADAM editions, Athens, 1992.

Fig. 10: General plan of the site of Delphi





Fig. 11: The stadium of Athens

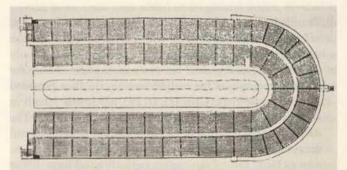


Fig. 12: Plan of the stadium of Athens

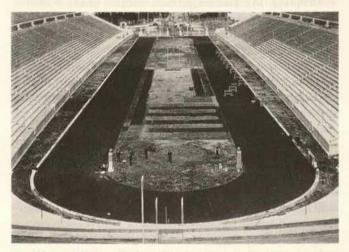


Fig. 13: The stadium of Athens after the restoration in 1895

Fig. 14: The stadium of Athens during the Olympic Games of 1896

