

## **The stadium of Olympia: a dialogical composition.**

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### **Abstract**

*The article proposes a renewed interpretation of the relation of the antique stadium of Olympia with its built environment. It is argued that the stadium, far from being isolated from the city as commonly considered, was connected to the Altis through a series of visual relations, adopting principles of dialogical architecture: composition, significant location, functional routes, perceptions, role of architectonic elements and spatial characteristics. This argument is illustrated through computer-generated perspectives of the stadium.*

### **1. Introduction: the relation stadium – city**

After the boom in sporting events and the renaissance of the Olympic Games during the 19<sup>th</sup> century, the architecture of stadiums changed rapidly during the 20<sup>th</sup> century. These changes were not only due to construction and technical reasons, but also to requirements related to performance in sports and standards of play, including the management of movement by spectators and required adaptations to contemporary means of communication. As stadiums changed, so too did their relationship with the cities nearby which they are located.

This paper will consider the Olympian stadium in relation to its location and the built environment, presenting a possible reinterpretation of the stadium “as part of a city at large”. Our approach is based on an analysis of the relationship between the stadium and the Altis of Olympia during the Hellenistic Period. The site of Olympia is World Cultural Heritage (UNESCO, 1989).

We suggest that the terms “distancing and separation” referring to the relationship between the Olympian stadium and the Altis after its departure from the Sanctuary, do not reflect the richness of the conception of the whole built environment.

We will propose a broader reading of the stadium architecture in relation to social and cultural references. The social dialogue that characterized the Hellenistic period and the Olympics universal significance influenced the stadium location, orientation and configuration, i.e. its own archetypical essence.

The following section proposes a description of the site. Then, we will present the interpretation of the Olympian stadium in terms of its composition, significant location, functional routes, perceptions, role of architectonic elements and spatial characteristics from a dialogical perspective. This analysis will consider the

stadium as it was during the Hellenistic period. Plans and views will illustrate this interpretation. The final part of the paper will examine the historical archetype of the Olympian stadium and the significance of its space.

## 2. Description of the site of Olympia

The Olympian stadium is the most ancient of all Greek stadiums (Charkiolakis, 2002). Initially the site of Olympia included the entirety of the sanctuary of the Gods (Altis) and the Archaic stadium that had been part of the sacred precinct. This first stadium was hence located inside the sanctuary and there was only a *dromos* (Romano, 1993). Its finishing line faced the altar of Zeus. Later, the stadium was moved to the east. Embankments were provided for spectators of the second stadium. Owing to the secularization of the Games and the great interest people had in these, the third stadium was relocated outside the Altis, moving again to the east and to the north when the great temple of Zeus was built. This is the position "in which it can now be seen" (Valavanis, 2004, p.100). The two principal temples of the Altis were the Temple of Hera (6<sup>th</sup> century BC) and the temple of Zeus (5<sup>th</sup> century BC). The Echo Colonnade (Stoa), erected in the second part of the 4<sup>th</sup> century BC, was a multipurpose building situated between the Altis and the Stadium. The main entrance for the athletes (Crypte) was erected at the west side, in the late Hellenistic period (UNESCO/CLT/WHC, 2012; Yalouris & Yalouris, 1991). The Stoa was built on a dominating position in 270 BC (Valavanis, 2004, p. 122). The ultimate stadium of Olympia is part of the late Classical period and the Hellenistic Age, rebuilt during the 1st century AD. This stadium and the other facilities (official housing, assembly rooms, sports structures, thermal baths, lodgings, accommodation for guests) complete a "U" around the site of the Altis of Olympia, largely opened in the direction of Mount Kronion (Figure 1).

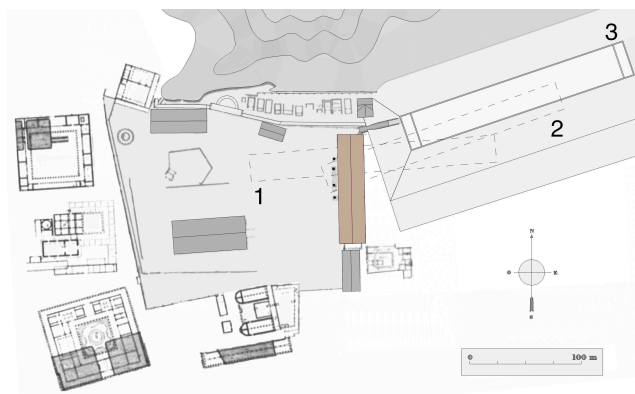


Figure1: The plan of Olympia with the location of the 3 stadiums

This third and definitive stadium of Olympia, the late Classical stadium has been most precisely examined and studied through archeological surveys. These confirm the descriptions of Pausanias (Pausanias, 174 BC, 2002). "Archaeological and historical records show that little has changed at this site over the past few millennia" (Kenderine, 2001, p. 46). The late Classical stadium and the Hellenistic stadium are well known thanks to historical and archaeological writings. Our study is based on this data insofar as the analysis of

the space of the stadium is concerned. The plans we analysed are based on Lackenbach (Romano, 1993) and Adler (Doxiadis, 1972). In his description of the Altis of Olympia, Doxiadis explains how the position, orientation, and distance of the buildings from important points, as for example the entrances, "are determined on the basis of a 30° angle" (Doxiadis, 1972, p.72). At the same time the analyses of Doxiadis about the Altis show that the space of the sanctuary was designed in accordance with principles of composition and perspective that had been established through a visual study (Tsiambaos, 2009).

The measures of the track in the late classical stadium were 192.28 m x 30.74 m. In order to improve the visual perception, the track with its width of 34.33 m on the middle line had a slightly curved-in form. The space of the stadium was the object of visual studies considering the role of the sporting event. Mathematical and visual studies were possible as early as the Archaic period, as noted by Romano (1993), thanks to the use of simple technical means.

The stadium at Olympia is an important reference point for many writings about sports and the historical development of sports facilities. The establishment of the stadium of Olympia outside the sacred rectangle of the Altis is often interpreted as a "separation" and "isolation" from the built environment of the sanctuary (Duràntez, 2004). The idea of a "definitive separation" from the Stoa is often considered to express the development of the Olympian Stadium over time (Finley & Pleket, 2004, p. 90; Yalouris & Yalouris, 1991, p. 15). The playing field was not taken into consideration in many of these studies as a spatial form of porosity between two areas. We will therefore refer to the last stadium of Olympia, so as to illustrate the possible dialogue between a stadium<sup>1</sup> and the built environment of the Altis.

### **3. Interpretation of the stadium of Olympia from a dialogical perspective**

We are concentrating in the framework of this article on the relation of the stadium with its built environment. Taking into account the basic principles identified by Doxiadis (1972, p.72), the description of the sanctuary site (Doxiadis, 1972, p. 84) and the fact that visual studies have probably been applied to the stadium (Romano, 1993) we propose an interpretation of the site from a dialogical perspective. We consider the starting line of the east side of the stadium as a very significant point in this respect. Spatial perception has to be considered here from the point of view of the athlete, the protagonist in this space and his specific route, i.e. the *dromos*. We describe the functional, visual and symbolical role of Temples, Stoa, Crypte and other elements, in terms of the stadium space and the site as a whole.

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<sup>1</sup> "Olympia is directly and tangibly associated with the games, an event of universal significance" (UNESCO/CLT/WHC). The rhetorician Isocrate highlighted the tradition of a place for reassembling people at the occasion of the 100<sup>th</sup> Olympiade (Chamoux, 1977 p. 223). Concerning the ultimate stadium we could add that the Hellenistic period is of particular interest because it was marked by cultural diversity, inspiring the dialogical philosophy of Bajtin (1982) and the architectural dialogical concept (Leddy, 1994; Muntañola, 2010). This Stadium, part of the Classical period and the Hellenistic Age is determined by the willingness to reflect the values of one's epoch and to be a place for meeting people and for remembering (Kiuri, 2009).

The plans presented in the article were realized with "Sketchup 7"© and the views - with "Artlantis studio 3"©. The plans and views are based on dimensions and layout of buildings, documented by archaeological studies. Temples and Stoa building heights were estimated from the existing solid model of the site. Various sections explore the Stoa floor opening to the stadium. Some models of the sanctuary of Olympia include the Stoa opened to the stadium space. Our images/views are not meant to be an archaeological reconstruction of the buildings. The heights considered here are approximations derived from our studies, where we considered several possible versions. The cross-section of the Stoa is also illustrative. Its purpose is to present the possible functional and visual connection with the stadium. It allows to illustrate the scenographic effect of the sanctuary as a result of the visual composition between buildings and the stadium starting line at the east.

### 3.1. The starting line of the racing track (*dromos*) in the eastern part of the stadium as a significant location and the *dromos* as a functional route

The location of the starting line has an important meaning for the space of the stadium. Foot races were the only sport during the first Olympic Games. This course was called "stadion" and did correspond to the length of the "dromos" of the stadium between the lines (Valavanis, 2004). The name of the winner of the *stadion* course would be used to identify the Olympiad (Van Looy, 1992). This course was orientated towards the west. In the later Classical and in the Hellenistic stadium, even for competitions called "diaulos" and "dolico", the last course was always oriented towards the sacred rectangle of the Altis. The bands and posts, elements at the lines of the racecourse, *dromos*, confirm this (Vanhove, Laporte, Bultiau & Raepsaet, 1992). The *dromos* is the principal route in the stadium space. The point of view of the athlete and his movement turns out to be a determining factor in the composition of the ensemble. In the stadium it is the racecourse, in its space, which plays an important and distinctive role. The (starting) line in the eastern part of the stadium is hence hereby considered as a very significant location (Figure 2).

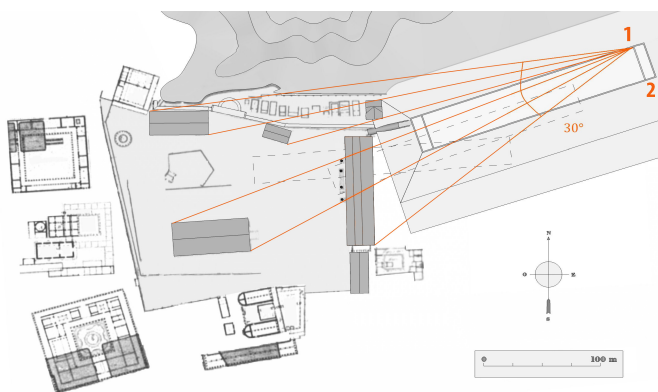


Figure 2: The visual composition (point 1 and point 2 of the east line of the stadium)



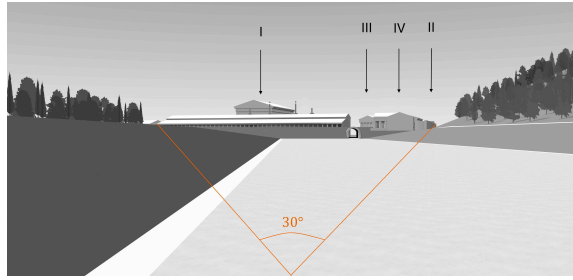


Figure 3: The views of 30° from the starting line  
(point 1: northeast point of view)

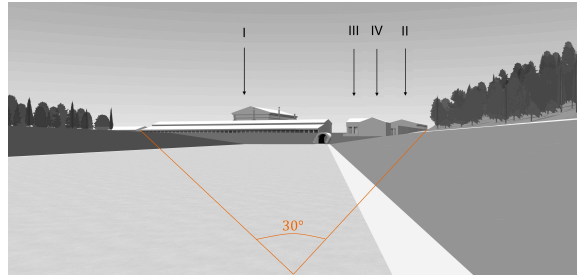


Figure 4: The views of 30° from the starting line  
(point 2: southeast point of view)

At this point the athletes had before them the finishing line as a distant point in perspective, either at the start, or before the final race. Visual perspectives have been calculated from this point of view.

The silhouette of the Altis forms part of the visual frame of the stadium and its embankments: Temple of Zeus (I) (5th century BC), Temple of Hera (II) (6<sup>th</sup> century BC), the Metroon (III) (4<sup>th</sup> century BC), the Treasury buildings (IV) (6<sup>th</sup> and 5th centuries BC). From the northeast point 1, the Temple de Zeus appears to be framed by two columns situated in the Altis and erected in 270 BC in front of the Stoa (Valavanis, 2004) (Figure 3).

From the southeast point 2 a perspective opens up toward a visual composition, in which the space of the stadium and the silhouette of the Altis form a group. The Stoa remains in the frame of the stadium as a pedestal for the main temple. The rise of the land to the north of the stadium «supports» the Temple of Hera and the Metroon, while the Stoa «rests» upon the southern incline of the same. The northern façade of the temple of Zeus appears to be framed by two columns situated in the Altis. The silhouette of the sanctuary (Altis) forms part of the visual frame of the stadium and its embankments (Figure 4).

The views of the finish line confirm the possible visual connection between athletes and Stoa spectators. The two columns, situated in the Altis remain visible as reference of the location of the main temple.

### 3.2. The Stoa as a dialogical element between the Stadium and the Altis

The finishing line of the racecourse is oriented towards the west and the sanctuary. Views from the finishing line confirm the visual connection between athletes and persons standing in the Stoa. The sanctuary as a reference for the

course suggests a relation that is maintained between the two spaces. The physical separation of the stadium from the Altis is transformed into an instrument for generating a dialogical space, permeable on the visual level where perspectives open up towards the whole. The Stoa was a multipurpose building (Valavanis, 2004). So it may have been a double oriented area between two spaces, the Altis and the Stadium. It is possible that the Stoa communicated with the stadium by its second storey, which dates back to the Hellenistic Period. The construction of two upper storeys of the Greek Stoa, during the Hellenistic period, was mainly intended to afford a panoramic view of the place to someone standing on the upper floor (Coulton, 1976, p. 56). "*The Hellenistic period is normally and rightly considered as the period of stoas par excellence*" (Coulton, 1976, p.55).

The Stoa, more than a separating element, is an element that belongs both to the Altis and to the stadium. Interpretations agree that there was a separation from the sanctuary, which resulted in the construction of the Stoa. In fact this portico replaced an pre-existing wall. A wall obviously has the characteristic of causing a separation, while the Stoa is rather a place for communication. In Olympia, it was the place for heralds and trumpeters during the Olympic event.

### 3.3. The Crypte – an Arch as a dialogical element

At the north-west point of the stadium the monumental entrance for the athletes (Crypte stoa) has been built in the late Hellenistic period, defined by an arch as its architectural accent upon this point of connection and exchange between different spaces, that of the Altis and that of the stadium (figure 4). This entrance is accentuated from the side of the Altis by the statues (the *Zanes*) that led to the entrance.

The Arch communicates, suggests, intrigues. A more subtle and creative level in terms of conception and the connection between spaces is in the process of opening up.

### 3.4. The athlete's perception, a mechanism of visual composition

Vision, position and human movement are essential instruments for the conception of space. The stadium at Olympia is probably one of those cases where the interaction between immobile space and bodies in movement are best taken into consideration. The point of view of the human being and his movement turns out to be a determining factor in the composition of the ensemble (Altis, Stoa and Stadium). The visual characteristics of point 1 and point 2 on the east line suggest further studies of the Olympian athlete's ritual and movement. In the stadium it is the racecourse, in its space, which plays an important and distinctive role, revealing unique spatial characteristics.

## 4. Synthesis between nature and culture

The space of the stadium holds a dialogue not only with its natural, but also with the built environment, highlighting specific points in the stadium. This dialogue generates spaces in relation with a tradition that has become part of our culture. The entire space of the stadium is made to seem more significant through this

means. At the same time, the space belongs to a real location. The silhouette of the sanctuary gives a cultural identity to last Olympic stadium.

Probably, the terms "distancing" and "separation" referring to the distance between the Olympic stadium and the Altis, present in the texts on the development of the former, do not reflect the richness of the conception of the whole environment. The stadium gets further away from the Altis but remains in visual and physical communication with it. The Altis is present in the stadium through the scenographic effect of its monumental silhouette. This can be appreciated at a key location, that is, from the starting line of the racecourse, or from the last part of the course before the end point.

In its historical development, the stadium of Olympia became independent relative to the sanctuary for functional reasons and because of its progressive secularization, but it remained linked to the site of the sanctuary through a dialogical architecture: composition, functional routes, perspectives, built and natural elements, symbols. In paying homage to its religious origins, it was moved away from the sanctuary, responding to increasing technical demands of sport and the popularity of the Games, while still being connected to its cultural origins, which were linked to that place and which gave the stadium an identity. Its space was thereby transformed into a cultural space: the space of the stadium dialogues with its natural and built environment, at the same time highlighting specific locations for various activities within the stadium. The relation between the Olympian stadium and built environment allows to better understand the object stadium within its broader context in terms of its "cultural significance", i.e. multiple heritage values (Mason, Avrami & de la Torre, 2000, p.7; Kiuri & Teller, 2015). This characteristic could be part of the archetypical definition of the Olympian stadium because it gives identity to the stadium space.

The stadium at Olympia not only received its name "stadium" at this place but also left us a model of the enclosure of a sporting event, a lesson about the integration of a stadium through an architecture of the void, a cultural space.

## **5. Conclusion**

The message left by the antiquity concerning Olympian stadium consists in the permeability between the stadium space and the built environment, expressed by a dialogical architecture. The emplacement outside of the Altis, the distance and orientation of the track of the last Olympian stadium, was probably the result of a visual composition, related to the sport activity. The dialogical elements and buildings conceived later on are coherent with the idea to create permeable spaces. The stadium at Olympia is probably one of those cases where the interaction between space and bodies in movement is best taken into consideration.

This article highlighted that the stadium became independent relative to the sanctuary for functional reasons and because of its progressive secularization. Still it remained linked to the Altis through a dialogical architecture. The orientation of the Hellenistic stadium and its location are related through a visual

composition considering the most salient elements of the place. The space conceived for the Olympic event is a symbolically configured space that gives the identity of the whole stadium. It is connected with the landscape and with the built environment, tangibly expressing a synthesis between culture and nature.

We consider this characteristic as a principle that could be part of the archetypical definition of the Olympian stadium and reinterpreted in modern stadiums. As recalled by Hernández León (2010), "architecture also depends upon the historical archetypes it has created, although it has to assume a requirement of perpetual transformation. It cannot leave its origins without destroying its own status as a discipline. What remains is the modelling of the resemblance, that brings us closer to the limits of formal dissolution and to the possibility of representing sensations as a basic content of spatial experience" (Hernández León, 2010, p. 24).

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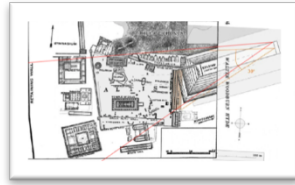
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Plans:

Kiuri, M., Hamoir, L. (ULg); Horcajada, R. (UPM) after plans "i" & "ii": Luckenbach (Romano, 1993) and Curtius & Adler (Doxiadis, 1972); after picture "iii" from the Olympic Museum, Barcelona (Kiuri, 2010); (source: model Sanctuary of Olympia, Gent, Bouwhuis).



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