

# Projets de paysage

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**The "construction" of the Greek landscape in the Hellenistic era**

*La "construction" du paysage grec à l'ère hellénistique*

## **Introduction**

### **Scope of the Thesis**

Should one take into account the importance of landscape as a crucial factor in the birth and evolution of civilizations, this study will attempt to identify firstly, whether the Greek landscape was «constructed» in the Hellenistic era and secondly, the possibility of the existence of architectural principles of spatial organization which dictated the former action. It is almost certain that these principles reflected the political and social values of that historical period.

The aim of the research is the description of a theoretical framework regarding the perception of landscape by the societies of the past and the ways this perception defined its «construction». The methodological tools in that process will be derived from the field of landscape archaeology, on account of the idea of landscape as a «palimpsest » of human activities in the course of time.

The main issue to be questioned during this process is whether one is entitled to use the term «landscape» in the Hellenistic era. Landscape is perceived in theory either as a designed condition or as the product of cultural interrelations. The connection of the ancient Greek architecture and urban planning to landscape allows for both approaches, as the studies by C.Doxiadis, G. Lavvas and V. Skully have shown<sup>1</sup>. The common conclusion of all of them is the belief that ancient Greek architecture appears to have been imposed on the existing landscape in a designed way which either completes or highlights the latter.

The theoretical analysis of the principles by which the Greek landscape was «constructed» in the Hellenistic era will be informed constantly throughout this process by the findings of the most thoroughly excavated town of that period, the ancient Messene. The conclusions based on the analysis of the digital model of reconstruction of the archaeological site - as it was back in the Hellenistic era - will constitute an additional measure of testing the hypothesis of this thesis.

### **Methodology**

The doctorate thesis of C. Doxiadis<sup>2</sup> will be used as the basis upon which the current thesis will develop its own arguments related to the ways the particular characteristics of the ancient Greek landscape dictated a pre-defined course through the built and unbuilt environment, which was perceived as an inseparable unity. Besides the allocation of the observer within a geomorphological context, the formation of that course suggests also the description of the entities.

Particular emphasis will be given on the architectural documentation of the buildings' location within a given settlement and on the existence of landmarks in the Greek landscape as fundamental elements both in the perception of the latter as well as the of the formentioned pre-defined course.

### **The theory introduced by C. Doxiadis**

According to C. Doxiadis, the design of cities in the Classical and Hellenistic eras was conducted with a mathematical precision which could not be directly acknowledged by descendant generations, who knew and practiced only the rectangular system of

coordinates. The design never took place on a horizontal plane but on the landscape itself, which, by definition, the formerly mentioned system cannot be related to. On the contrary, the dominant design principle was the human viewpoint, setting a system of polar coordinates according to which each point on a plane is determined by a distance from a fixed point and an angle from a fixed direction.

C. Doxiadis clearly states that "one of the most profound beliefs of the ancient Greeks was that man was the measure of all things. This concept was given visible expression in the organization of the human environment: man himself was the center and point of reference in the formation of architectural space."<sup>3</sup>

Space-built and unbuilt-was regarded as a unity. Buildings were situated in such a way as to integrate or accentuate elements of the surrounding landscape, resulting thus, in the perception of the city through the sequence of the organized revelation of its urban entities. What C. Doxiadis proposes is that the mathematical analysis of any given site of that era shows conformity of relationships between angles of vision and distances between buildings. The relative minor deviations in the practice of the spatial organizational model introduced by C. Doxiadis show not a flawed mathematical model but individual case studies such as the construction of a city over several centuries (extensions or differentiations depending on various demands) or even the topographical characteristics which constituted physical limitations to the application of the city plan.

However, there seem to be two problems with the theory introduced by C. Doxiadis, which were taken into account during this doctorate thesis, as they might be in conflict with the conclusions extracted from the study of the archaeological site of ancient Messene up to this point<sup>4</sup>. The first one is that C. Doxiadis has based his arguments on the study of the spatial organization of the ancient city on a horizontal plane, which completely disregards the third dimension (i.e. the height of the buildings). This could either complement the theory he proposed or totally alter it. The second problem is more profound. C. Doxiadis analyses the organization of architectural space in nearly thirty sites of ancient Greece using a system of visual angles for any observer who stands on their main entrance and only there. The question is then, what happens should the observer move through these sites. Does the «harmony» which characterizes their spatial organization disappear or still remain?

## **The concept of landscape**

### **Space - Place (Topos) - Landscape**

Space constitutes an abstract concept. It is a simple container whose value is defined by its elements. Space does not have a character or particular characteristics. Its substance is merely dictated by the presence of human activities which fulfill it with forms, functions, feelings and notions, transforming it into place (topos)<sup>5</sup>.

Landscape reflects the cultural interpretation of «topos» either descriptively through a theoretical aspect which aims at the production of knowledge or through the practical aspect of spatial transformations. The history of mankind is interrelated to landscape, should one consider that each generation modifies, transforms and becomes attached to its surroundings in a unique way. The landscape, as a canvas of past activities oriented towards

the expression and fulfillment of personal needs, is perceived as the record of collective memories whose superimposition defines its form.

The notion of landscape simultaneously refers to both a defined geographical unit as well as its perception by at least one person, rendering it a cultural device which selects, interprets and re-evaluates the elements of the formentioned unit. This argument is reinforced by A.B.. Knapp and W. Ashmore who state that «landscape is an entity that exists by virtue of its being perceived, experienced and contextualized by people», acknowledging thus, landscape as a cultural product<sup>6</sup>.

### **Landscape and Architecture**

Architecture, impregnated with practices and symbolisms, alters concepts through various scales (spatial transformations in dimensions and uses) and thus, is constantly subject to evolution. The design process uses characteristics of the contemporary space in regards to the human relationships it integrates, which pre-supposes an articulation of volumes, proximities and sizes. Therefore, the form of the designed object is conceived in relation to the form of both the space it belongs to as well as the activities it allows for. If architecture produces not only designed objects but also, the architectural space which contains them, then that space is conceived as «topos». In turn, landscape constitutes then, the representation of the space where architectural creation takes place at<sup>7</sup>.

Landscape architecture is a multi-dimensional, human-centered science par excellence, since it includes the design and planning of the landscape as well as its management, under a framework of social, aesthetical and environmental values. On account of the perception of landscape as a cultural product subject to constant re-interpretation<sup>8</sup>, landscape architecture is asked to deal with an extensive variety of landscape typologies, the organization and characterization of which depends on the ways their ecological, social and aesthetical values inter-relate.

The complexity of this field of architecture relies on the combination of the formentioned variety of landscape typologies along with an analysis of landscape scales - small, medium, large -, in an attempt to meet the human needs for better living conditions in a cultural and ecological context<sup>9</sup>.

### **The landscape of the Greek antiquity**

The landscape of the Greek antiquity consisted of both the city and its surroundings. The basic unit of the ancient Greek world, the city ( *polis* ), integrated the urban centre («asty») and its surrounding landscape («chora»), as well as additional smaller cities and villages, acting thus, as a unity. The mountains of Greece divide the agricultural lands into discrete geographical units, limited at all sides by sea and mountains. This topographical arrangement favors not only a sense of regionalism from a purely spatial point of view but also, an organizational pattern based on the idea that any small geographical unit is controlled/managed by the city.

The Greeks' life was closely related to landscape as a large part of the population lived in the urban centre and commuted daily in the outskirts of the city, in order to work in the farmlands. This implies that, as the agricultural production and cattle farming were the only

sources of food for the urban centre, there could be no urban unit without its surrounding landscape. Y. Despotopoulos elaborates further on this idea by claiming that the landscape of the Greek antiquity can be solely perceived as the « sum » of three interrelated landscapes: the agricultural (the private - for farmers), the urban (the common) and the sacred (reserved for gods)<sup>10</sup>.

Cities in ancient Greece developed in two ways: either gradually or due to a specific historical action. In both cases, the city ( *polis* ) «produces» its own urban landscape and is, at the same time, integrated in the broader geographical landscape, being part of which both politically and financially. The city and its landscape flourish and decline together, yet there is always a visual contrast between them. The urban area has strictly defined limits, regardless of whether these take the form of defensive walls or gates. The rural population is either politically subject to the city or has political rights and these can be only exercised in the city. In any case, these differentiations, as a result of various historical processes, have an enormous effect on the urban environment and subsequently, on its landscape.

### **Archaeology and landscape**

To archaeology, landscape has always been considered as an artifact, being either an « object » or the «subject» of studies. In the first case, archaeological research has focused on the ways each society transformed its surroundings and in turn, on how this landscape defined the human relationships and social evolution (through demographic and financial data). In the second scenario, the study of landscape aimed at the «re-construction» of past images of the landscape as these were expressed in certain time periods. However, the complexity and multiplicity of the notion of landscape rendered both approaches one-sided and led to the creation of a new theoretical approach to landscape. This was based on the idea that the latter is a time-dependent and spatially referenced, ideologically constructed model by any given society<sup>11</sup>. Landscapes are thus, perceived and understood in many different ways, depending on the historical and social context of the viewer.

This new approach of landscape archaeology underlines the way archaeological research acts more as a generator of cultural landscapes in a broader context and less as a unified landscape which reflects a linear process of spatial transformations in the course of time.

### **The landscape of the Hellenistic era**

#### **Historical framework**

The Hellenistic era (323 B.C.-31 B.C.) defines a new historical period during which the autonomy of individual cities of the Classical era disappeared, allowing for the will of the large kingdoms (Ptolemaic, Antigonid, Seleucid and Attalid dynasties) to diffuse the Greek civilization throughout the Middle East. As time went by, the gradual decline of the cities both from a financial and military point of view, favored the Roman influence and shortly after, the Roman dominance in 31 B.C.

#### **Architecture**

During the Hellenistic period, architecture emphasized on decoration rather than function and therefore, the Doric order was abandoned as it was considered too formal and austere.

On the contrary, the architectural style of the Ionic order, being more decorative and elegant, was preferred to suit the aesthetics of the Hellenistic period.

Two new architectural elements were introduced: the arch and the dome. The extensive decorations and the game of light and shadows, in conjunction with an architectural illusionism as well as pseudoarchitectural details in the quest of a scenographic perspective, led to a confusion of proportions and ultimately in Hellenistic type deformations.

### **The urban landscape**

The Hellenistic period was characterized by the shift of interest from the object to the (urban) landscape as a whole, since the study of the relationship between buildings and their surroundings was informed by the newly introduced issues of size and city expansion. The concept of the city-state of the Classical era was questioned, as its ability to provide food for its citizens was reduced.<sup>12</sup> Contrary to the previous «natural» or «organic» growth, the city expanded according to a plan which defined public space and dictated its future evolution.

Under the new urbanization trend of the Hellenistic world, the need of merging smaller settlements into larger ones, led to the creation of urban centers (new cities), whose planning followed a Hippodamian structure. The Hippodamian system was an urban planning concept that organized the layout of cities into an orthogonal grid system, forming building blocks in relation 2:1 (insulae). This plan was pre-determined, strictly geometric in nature, and based on the virtues of the democratic constitution<sup>13</sup>. The common characteristic of all Hellenistic cities with a Hippodamian planning system was the creation of public space of human scale, resulting in planned cities which were easily perceived by their inhabitants.

### **Location and size**

The location of any given new city in the Hellenistic period was dictated by practical issues and defensive needs. Access to water features, natural resources and trade routes as well as the defensive potential of a particular area were among the criteria of a site's evaluation. Vitruvius, the Roman writer and architect, in the description of the ideal location for a city, claimed that «it should have adequate water, it should be close to fertile and thus, productive land and it should also, provide natural defensive structures.»<sup>14</sup>

The planned cities housed «pre-determined» populations who moved to the new cities from adjacent settlements and with the given population growth, those cities' plan extended far beyond the needs of the initial population. Ancient Messene most certainly falls into this category, as its enormous size within the city's walls was designed in purpose, in order to accommodate all citizens - along with all their belongings - in case of an emergency, acting thus, as a «shelter».<sup>15</sup>

The criteria for the city's final size were based in practical issues, on account of the fact that any city extending too much faced the risk of losing its cohesion as a community. In addition to this, the farmlands should be close enough to the city, so that the citizens working there would have enough time to return at dawn back to the city.

### **City planning and buildings**

In the Hellenistic era, the defensive systems became even more complex, marking with their presence the urban landscape, which was characterized by a contrast between the «open» landscape and the walled city. Based on the archaeological data of the cities of that period, the first experience for the citizen/visitor of a city was his passing through the main gate, acting this as the threshold between the « natural/agricultural » and the «urban» landscape.

The monumental public buildings, serving both the rural population as well as those living within the city's walls, constituted the urban landscape and it was these buildings that differentiated each city from one another. The city planning started with the street grid, followed by the allocation of the agora, the sanctuaries and the public buildings and lastly, by the allocation of the private houses.

### **Gardens**

All kind of gardens that existed in the Classical era continued to be present in the Hellenistic as well: vegetable gardens, vineyards, flower gardens, orchards, sacred gardens<sup>16</sup>. The only vegetated spaces within the Hellenistic city's walls were the sanctuaries and the public spaces such as the agora. In any case, spaces associated with vegetation were always concentrated, in order for citizens to conserve water and land area.<sup>17</sup> Private gardens could be maintained only after their irrigation system had been properly designed for and this was made possible only after the 2nd century A.D.<sup>18</sup>

## **The archaeological data**

### **The case study of Ancient Messene**

Messene is a significant Hellenistic city in terms of its size, form, and state of preservation. It possesses not only sanctuaries and public buildings, but also imposing fortifications, as well as houses and tombs. It has never been destroyed or covered by later settlements, and is located on an unspoiled inland site<sup>19</sup>.

The study of ancient Messene's landscape for this dissertation focuses on issues dealing with viewsheds through buildings, particular characteristics of the landscape related to urban life and with the allocation of volumes and functions in regard to natural resources and perspective views. To this end, it was necessary to reconstruct the ancient city of Messene as it was back in the Hellenistic era, through a digital model which would allow for a three-dimensional walk-through the city.

### **The historical context**

Ancient Messene, the new capital of the free and independent Messenia, was built in 369 B.C. by Epameinondas from Thebes and remained as such for seven centuries. It was well known for its high social and financial status due to the «pax romana», which was established by Caesar Augustus and spanned for two centuries. The city declined in the 3rd century A.D.

In 1895, the Archaeological Society began systematic excavations at the site under the direction of the archaeologist T. Sophoulis, followed by G. Economou in 1909 and half a decade later by A. Orlandos. In 1986 the Board of the Archaeological Society assigned the

direction of the excavation project to professor P. Themelis, whose work continues to the present day with significant progress.<sup>20</sup>

#### **The quest for a new identity - The new city**

Messenians' freedom had an enormous impact on the collective memory of the new nation. The quest for political acceptance and social cohesion forced Messenians to present their power through an extensive building program and declare a sense of common identity which would bring together this heterogeneous population.<sup>21</sup>

#### **The character**

Ancient Messene constitutes an excellent example of a design-build-evolution process, as the city was a «programmed void space», meaning a programmatically «artificial city», designed to be self-sufficient in case of an emergency.

#### **The location**

The location of Ancient Messene is not random and Pausanias<sup>22</sup> explains thoroughly the reasons for which this specific area was chosen. Surrounded by the mountains of Ithome and Eva, both acting as natural fortifications for the city, the new city was geographically located in the centre of the new state of Messenia. Moreover, there was a dominant water feature within the city's walls (the Klepsydra spring), feeding the fountain of Arsinoe. Finally, there was a sentimental attachment to this landscape, as it was the same area where the defeat of the Messenians had taken place in 464.B.C., after which they moved to Nafpaktos.

#### **The archaeological site<sup>23</sup>**

The archaeological site of Ancient Messene includes three types of landscape: the natural, the historical and the contemporary.

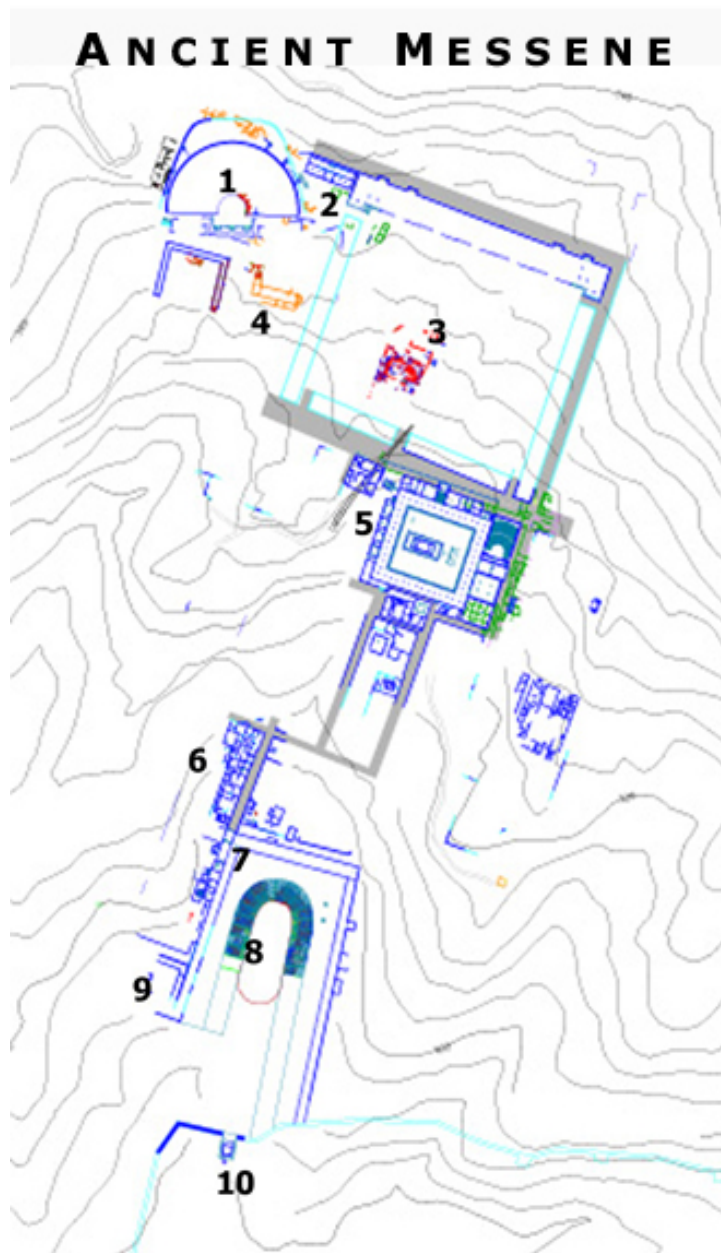
The natural landscape includes the 5.000-6.000stremma valley which extends southwest of the mountains of Ithome and Eva.

The historical site, integrated in the natural landscape, consists of the fortifications (including the Arcadian and Laconian gates), the acropolis on top of the Mt. Ithome and public buildings of political or religious importance (the theatre, the Arsinoe fountain house, the agora, the Asklepieion, the stadium and gymnasium).

The contemporary landscape includes the adjacent villages of Mavromati and Arsinoe and the connecting routes between those two villages and the village of Meligalas through the Arcadian Gate.

#### **The monuments**





1. THEATRE
2. ARSINOE FOUNTAIN HOUSE
3. AGORA
4. BASILICA
5. ASKLEPIEION
6. ROMAN HOUSE
7. GYMNASIUM
8. STADIUM
9. PALESTRA
10. HEROON

*Themelis, P., The Ancient Messene , Ministry of Culture, Athens: T.A.P.A. editions, 2002.*

- The fortifications - The Arcadian and Laconian Gates

Ithome was the strongest natural and man-made fortress in Messenia. Remains of the walls and the square-shaped towers are evident along its entire course (9.5km). The eastern Laconian Gate was destroyed in the 18th century. The western Arcadian Gate is preserved in relatively good condition and is basically, a monumental construction built of gigantic, awe inspiring limestone blocks.

- The theatre - The Arsinoe fountain house - The agora

The first monument one encounters on the way to the archaeological site is the theatre, used for large scale assemblies of political character. The theatre sits on an artificial fill supported by a strong semicircular retaining wall, the exterior of which is built in exactly the same way as the fortification walls and towers of the city.

The fountain house of the Agora was named after Arsinoe, mother of Asklepios, and received the water from the Klepsydra spring. Arsinoe fountain house includes a cistern of 40m.-long, located at a short distance from the theatre. The Arsinoe fountain house, along with all the other secular and sacred buildings of the city of Messene, were abandoned between 360-70 A.D. due to the economic decline of the Roman Empire and the final disintegration which was aggravated by barbaric raids and earthquakes.

The Agora covers a huge area of about 40 acres and is surrounded by stoas on all its four sides. Only the western part of the North stoa has been brought to light.

- The Asklepieion

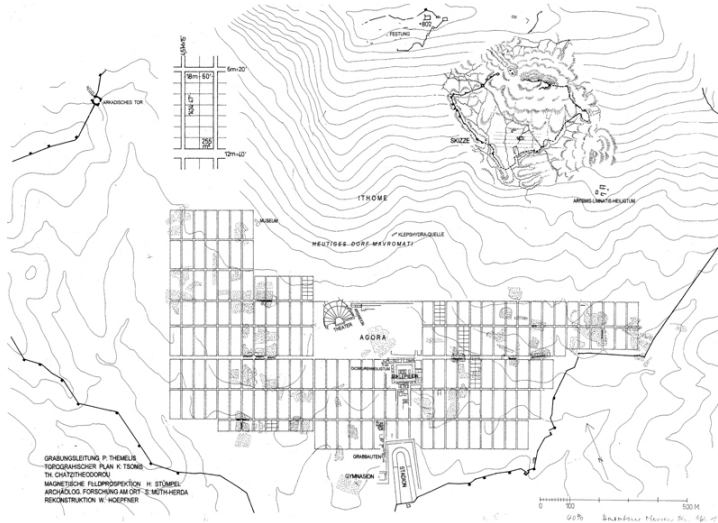
Pausanias describes the Asklepieion as a museum of art works (mainly statues), rather than its more common role as a sanatorium for sick patients. It was the most prominent site in Messene and the center of the urban public life, functioning as such along with the nearby Agora. The Asklepieion consists of an almost square area (71.91 x 66.67 m.), with four internal stoas opening onto the central open-air courtyard, where the imposing Doric temple of Asklepios and its large altar are located. In the last decades of the 4th century A.D. the sanctuary was abandoned.

- The stadium and gymnasium

The Stadium and Gymnasium count among the most impressive and well preserved

building complexes of the site. The stadium is enclosed on its three sides by Doric stoas with most of their columns standing in place. Its colonnades belong to the Gymnasium which, along with the Stadium, formed one single architectural unit.

### City planning



*Themelis, P., The Ancient Messene, Ministry of Culture, Athens: T.A.P.A. editions, 2002.*

Ancient Messene's city planning followed the Hippodamian system, which was adapted in the particular geomorphological conditions of that area and thus, fully integrated into the existing landscape. This is the reason why the city's planning system constitutes an exception to the Hippodamian system's application, as the insulae vary in size. However, all buildings adapt to the insulae, with each insula including 14 houses, organized 7 by 2 parallel to each other. The various sizes of the insulae result in the creation of large building blocks, which is extremely rare for this planning system, possibly due to the rapid city planning and construction works under enormous pressure at the risk of a new war with Sparta.

### Conclusion

The digital reconstruction of the archaeological site of ancient Messene offered invaluable information on the way urban planning integrates the surrounding landscape and as the research is still on-going, more conclusions will be derived in the future. The application of the theory introduced by C. Doxiadis failed to reveal the organization of architectural space based on certain visual angles, for reasons related to the unique history of the Messenians. A thorough study of the digital model leads to the conclusion that the criteria for the allocation of the city in the whole were more crucial than those of the individual buildings within the urban grid. The six criteria described by Pausanias are fundamental, in terms of

historical and political importance and thus, they prevail in the allocation of the new capital.

As for the allocation of the buildings, there seems to be a preference for geomorphological characteristics (rocky cavity for the theatre's retaining wall) and natural resources (water spring for Arsinoe fountain house). Finally, the digital model shows that the layout of each building allows for views of the surrounding landscape, which proves the inseparable connection of the city to its surroundings.



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## Notes

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