THE PERSPECTIVE IN ANCIENT GREECE
AN ORIGINAL WAY OF CONSTITUTING THE SPATIAL COMPOSITION

Abstract:

The perspective in Ancient Greece presents an original way of constituting the architectural ensembles: the perspective at two vanishing points and the perspective with an open axial view. It results from the adjustment of the architectural compositions to the relief and from a long exercise of visual perception.

A comparative view of the most representative ancient ensembles shows that the Egyptian perspective is a frontal one, conferring a symbolic and monumental character to the ensembles. The Roman perspective has common characteristics with the Egyptian one but differs from Greek perspective. It influenced the Renaissance's and the Baroque perspective, imposing itself until the modern period.

The way the Greek architectural ensembles were organized asks for reconsideration. It may reveal long lost principles and methods of composition, which are in the same time essential and very practical

Introduction

The architectural ensembles of Ancient Greece point out an original way of placing the architectural objects in space, on the basis of some principles of composition that haven't been taken over subsequently. The location of the objects of architecture was made depending on the mechanisms of the visual perception, taking into account the perspective images seen from the main points of view.

The history and theory of art and architecture have been more preoccupied with the perspective as an artistic bi-dimensional image and much less as a manner of organizing the spatial compositions. This study fills in this gap, the organization of the objects of architecture in space in Ancient Greece, being a self-evident example of using the perspective as a point of view, as a mechanism of the visual perception.

In Ancient Greece the perspective was a way of optically correcting the object of architecture but also the main way of controlling the spatial composition. For this reason, the use of perspective in Ancient Greece is interesting not only as a bi-dimensional representation but also as a point of view.

From seeking spatial depth to urban thinking

The bi-dimensional representations and organization of ensembles in Ancient Greece reveal the fact that the Greeks had a profound interest for spatial depth.

Comparing the three great cultures of the Antiquity, from the point of view of research of the spatial depth, one may observe that the Greeks looked for depth, they discovered it. They built the amphitheatres in the field's concavities. They were experts in the science of perspective as bi-dimensional representation, and they were very fine observers, realizing even optical corrections in space. The refinement of the optical illusions at the Parthenon is in fact a refinement of the perspective images.

The Greek temple's evolution is a demonstration of the permanent search for spatial depth by the emphasis of the depth of the temple's colonnade, as time went by. The evolution of the sculptural shapes suggests the same search for depth: from rigid, almost prismatic silhouettes of the archaic period, to the tentacular silhouettes in the classic period, up to the sinuous, contorted silhouettes from the Hellenistic period (Fleming 1983, 49-52).

An important feature of Ancient Greece's ensembles is the adaptation to nature, to the relief. This may be observed even from the prehistoric period or archaic period. The general view of the Acropolis at Mycenae reveals the natural pursuit of the relief curves, the citadel developing concentric curves in the way that decorations on the pottery pursue the shape of it, whether they are geometrical or figurative. (Figure 1)

With regard to the general composition, during the classical period, the edifice was thought of as an isolated object but also as part of an ensemble . *"It is not always easy to remember that these complexes were built by the Ancient Greeks not as isolated objects, as we see them today, but as parts of a dynamic urban environment"* (Doxiadis 1972, 4).

There was concern for the best perception. The architectural object was rather a sculpture in space than a functional space. The Greek temple, similar to a sculpture, is more an object than a container. The religious ceremonies didn't take place inside the temple but outside; the temple was just a background, and its interior space was destined only for the gods. *"The most important feature of classical Greek religion was the sacrifice, which was performed outside temples or shrines dedicated to particular deities."* (Connolly 1998, 56).

The Hellenistic epoch is the evident passage from the type of temple – object in space (convex) to the *U* shaped temple (concave) and this is another step in the conquest of the depth (Fleming 1983, 95). This epoch is also the passage from the edifice – an isolated object, to its integration into the ensemble. In the Hellenistic period, the edifice becomes part of an urban ensemble. There are preoccupations for the relationship between the buildings and the environment, as a result of urban thinking.

It was often said that the Greeks didn't conceive the architectural object in reference to the ensemble and that the composition of the object itself was essential and not its location (Fleming 1983, 114). However, through the adjustment at the relief, through the placement, depending on the new access ways and depending on the main sight lines, the Greek ensemble constitutes a unitary whole, maybe the most valuable example of putting a value on the object of architecture or art.

Principles of space organization

The way of placing the objects of architecture may be observed at the ensembles of Ancient Greece (on the Athens' Acropolis end in the Ancient Greek Cities).

Two systems of development of the ancient Greek settlements have existed. First of all, there are the older cities created through natural growth. The most typical example for this is Athens that developed around a hill: the Acropolis which became the heart of the city. To this it has been added, at the foot of the acropolis, *the agora*. The most important streets of the city lead to these centers. The second system consists of the development of the cities according to a pre-established plan. There are the Hippodameian cities. The system appeared, in general, in colony cities and had as features parallel streets and the use of a grid in planning. Although different, the two systems also had common features: both of them emphasized the natural landscape and created spaces at a human scale (Doxiadis 2006, 193-194).   The shape of the city was simple, easy to perceive from every point of the city because the organization of the Greek cities was made according to the human capability of perceiving the city: auditory or visual perception.

For this reason in Ancient Greece it is interesting to study the perspective as representation in space not only as a bi-dimensional, artistic representation. From this point of view there are two fundamental principles of organization of the Greek ensembles that make them different from the urban ensembles of the other cultures of Antiquity.

The perspective at two vanishing points

A main characteristic of the Greek ensembles, as it results from the study of the Ancient Greek Cities, is the perspective at two vanishing points (two point perspective). This principle is not emphasized by Doxiadis in his writings, although it is an important characteristic of the Greek ensembles. Doxiadis emphasizes other important features of the site. He studies the angles of vision, the sight distances and the sequence of elements of nature and architectural objects within the field of vision (Doxiadis 1972, 5).

Dynamic, surprising and with a great expressive force, the perspective at two vanishing points of the architectural object was achieved by the oblique access of the roads among the monuments, by disposing the main objects of architecture inside the main sight axis or by the emplacement of the entrances in the corners of the squares, as main points of view. (Figure 2)
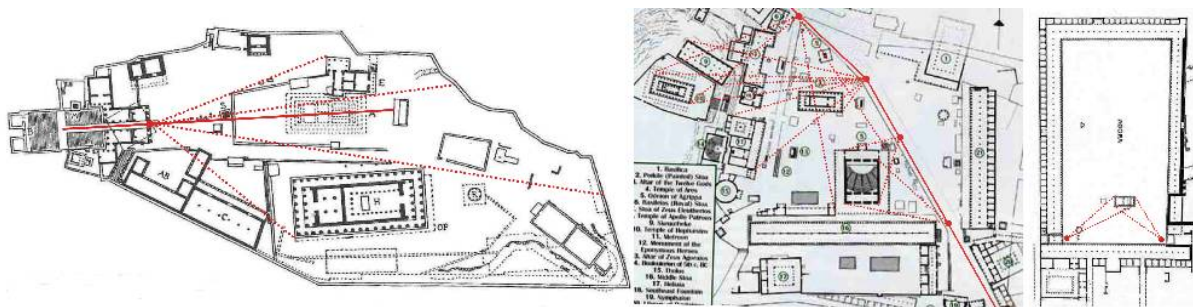
On Athens' Acropolis, the Parthenon, which is placed aside of the main direction of sight, is presented as a characteristic image in perspective at two vanishing points. This image occurs before the exit from the Propylaea, surprisingly, as the second main sequence, the first being the Erechteum, which is beside the open view in axis. In the main sight point, at the exit from Propylaea, this image of the Parthenon is maintained (Figure 3).

The perspective at two vanishing points of the architectural object appears unconditionally and surprisingly. In the Agora at Athens the main approach, the Panathenaic Way, being obliquely traced among the façades of the temples, the perspective of the buildings at two vanishing points occurs, which is very dynamic.

On the Acropolis, the main sight line is determined by access through the Propylaea. So, the Parthenon and the Erechtheum are exposed, to one's sight, in the form of a perspective at two vanishing points. The characteristic image of the Parthenon is asymmetrical and dynamic, by the lateral disposition from the main sight line, even if the Parthenon has a symmetrical form. The architectural composition of the Erechtheum denotes the same preference for asymmetry and dynamism. The Parthenon also offers frontal images, thus emphasizing its symmetry. But these images occur from secondary sight points. The Greeks' preference for asymmetry is proven by the avoidance of the frontal perspective (one-point perspective) which emphasizes the symmetry of the architectural object. In Ancient Greece, the objects of architecture, although symmetrical, are offered to the sight as perspective at two vanishing points. This may be observed in all Greek ensembles (the Parthenon and the building of the Agora at Athens, the temple of Poseidon at Sounion, the temple of Athena at Pergamon, the temple of Apollo at Delphi, the temple of Aphaia at Aegina, the agora from Miletus, the temple of Zeus, the Heraion and the Metrom at Olympia, the Heraion at Samos in the classical period, the temple of Athena seen from the Agora at Priene, the temple of Arthemis seen from the agora at Magnesia, the temple of Zeus at Magnesia). Only in the years close to the Roman period and in the Roman period itself, the architectural ensembles have sight points which emphasize the symmetry of the objects of architecture: The Corinthian

temple at Palmyra, The Delphineion at Miletus (after the Ist c. A.D), the Altar of Zeus at Pergamon, the Asclepeion at Cos, the Sacred Precinct of Artemis at Magnesia, the Corinthian Temple at Pergamon.

Usually, democratic societies develop asymmetry as a free adaptation to nature and dominating societies prefer symmetry, as an instrument of artificial organization, imposed to the nature. Greece, in its democratic period, has developed asymmetrical type of compositions.

 In the Greek ensembles the monuments were placed according to the main sight lines (resulted from the route of the approaches), in a horizontal field or in slope.

In the ensemble from Delphi, the objects of architecture are placed in successive terraces, following the relief curves. The images from the main paths of access are studied. The buildings appear in the perspective at two vanishing points (the Temple of Apollo, the Athenians Treasure). The Apollo's Temple is conceived in ascending and descending perspective, according to the route of the approach in the ensemble, unfolded in a winding road. The Athenians Treasure, disposed at the modulation of the Sacred Way, has very dynamic views in the ascending or descending perspective. The change of the direction of the Sacred Way always offers new main focal points of perspective.

The inverse perspectives are studied: the Athenians Treasure is the main focal point in perspective in the descending route. Once a person arrives at the temple or at the theatre, spectacular images appear towards the site or landscape. The theatre becomes an important place belvedere.

The surprising elements don't miss either. In the main sight point, (the entrance in the ensemble) the theatre is completely covered by the image of the temple. Thus, the temple gains a visual weight and remains the main motivation of the motion. The theatre remains covered along the entire ascending winding road. It becomes visible only after the tour around the temple. Because of this, at the end of the ascension, the theatre appears surprisingly. In the same way, the Athenians Treasure exposes its main facade only when one returns, in inverse perspective. (Figure 4)
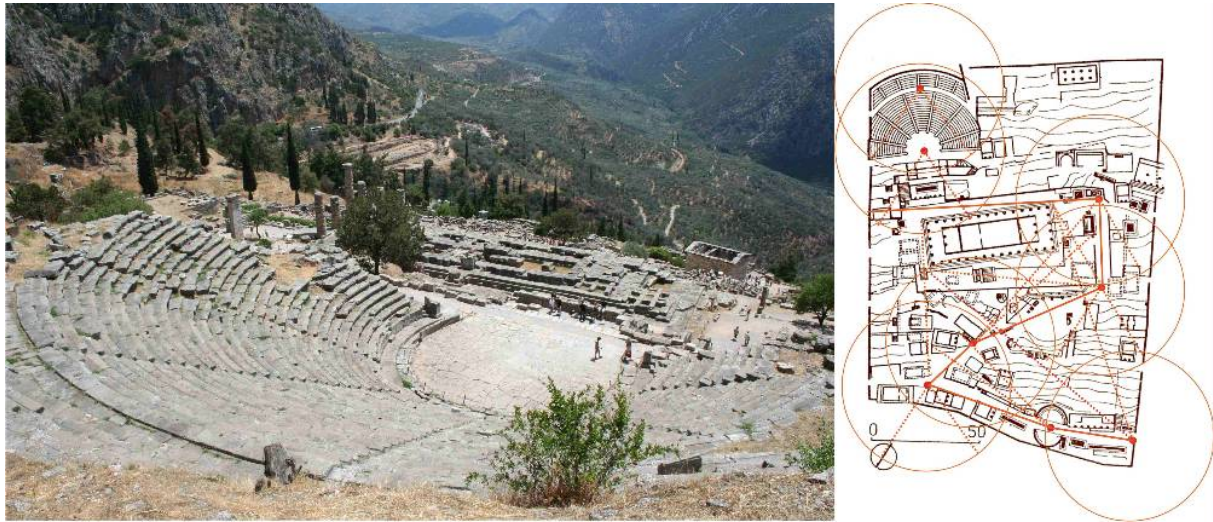
These modalities of pointing out the objects of architecture (the direct perspective, the inverse perspective and the surprising elements) that can be noticed in the ensemble from Delphi and in other ensembles of the Ancient Greece (the Acropolis at Athens, the ensemble from Pergamon) can be found, nowadays, rather from cultures of the Far East than in the western culture. It is another reason to be studied more.

The perspective at two vanishing points of the monuments is present in most of the Ancient Greek's ensembles. It is obvious from the main sight points.

<u>The perspective with an open axial view</u>

This principle occurs on the Athens' Acropolis. It takes your breath away after you have ascended, after you have made an effort. The same thing happens in the inverse perspective: the descent among the Propylaea. (Figure 5)
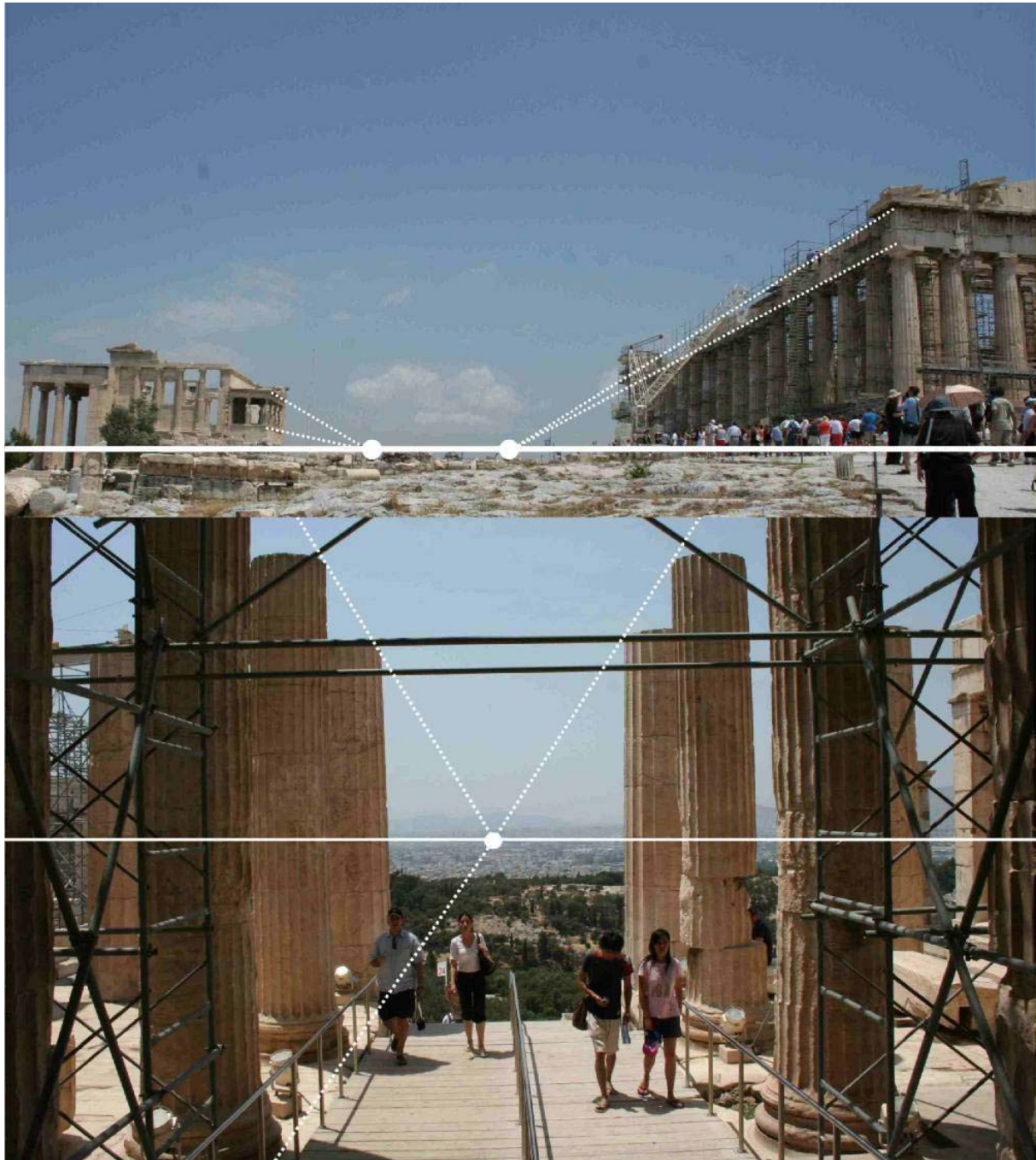
In the main sight axis the Greeks have placed, as main focal point of perspective, an element of nature (the sky, the sea, the hill) or the altar (a horizontal platform of small height, next to the temple).

On the Athens's Acropolis the main sight line is determined by the passing through Propylaea. The first image that appears is the Erechtheum (on the left of the field of vision) and, in the axis, an open view. This is the first significant sequence in a series of other sequences. (Figure 6) The open view in axis is maintained, as an image, the direction of motion being directed by the shape of the Propylaea (Ching 1983, 236).

Placing the objects of architecture on the Acropolis also has a spiritual justification that belongs to the religious aspect. The Panathenaic Way, that crossed the Athenian Agora, belonged to an important road (Sacred Way) that unfolded from Eleusis to the top of the Acropolis, at a distance of 25 kilometres. Eleusis was situated on the edge of the sea, on the west side, at the end of the Sacred Way. Here there was a sanctuary, with an oracle function. Once a year, in autumn, a great procession took place; people walked from Athens to Eleusis for the initiation ceremonies (Connolly 1998, 59).

The Panathenaea was another important procession that took place every summer; it was the festival dedicated to the birthday of the Athena goddess, the protector of the city. The main aim of this annual procession was to dress the goddess's statue with a sacred tunic, replaced every year *(a new peplos).* The procession crossed the Ancient Agora on the Panathenaic Way. In this motion, the Acropolis has become the main focal point of perspective**.** The ceremony was preceded by chants, dances and hymns dedicated to the goddess Athena and culminated with sacrifices of animals. The sacrifices took place at the entrance of the Acropolis and on the altar (Connolly 1998, 80-87). The altar was placed on the left of the Parthenon, on the main sight axis. In this way the perspective with an open view in its axis has appeared. This open view has been preserved in all the development phases of the Acropolis.

The perspective with an open view in its axis, as a principle of composition, appears not only in the Athens' Acropolis. It appears in most of the ensembles: the Sacred Precinct of Aphaia at Aegina (the Vth c. B.C.), the Agora at Miletus (from V[th] c. B.C. to the IIth c. A.D.), the Atlis of Olympia (the Vth - IVth c. B.C.), the Sacred Precinct of Poseidon at Sounion (the Vth c. B.C.), the Sacred Precinct of Athena at Pergamon (the IIth c. B.C.), The Sacred Precinct of Athena at Sounion (The Vth c. B.C.). These open views don't appear oriented exclusively to the altar, they also appear oriented to important elements of the landscape: hills, sunrise or sunset, the sea. Thus, a harmonious alternation between mass and void, between nature and

constructions is obtained, balancing the image. "…*an attempt was made, when ever possible, to bring the outline of the buildings into harmony with the lines of the landscape*". (Doxiadis 1972, 8).

These elements of nature have, at some moments, a visual weight comparable with the objects of architecture nearby. On the Athens' Acropolis, the image of the Parthenon is balanced, on the left, by the hill of Lykavittos, beside the Erechteum. These elements of nature belong to the overall organization at a large scale. Thus, on Athens' Acropolis, the Parthenon is placed on the axis determined by the hill of Lofos Filopappous and the hill of Lykavittos. The two peaks take each other's place in the sight from the Acropolis.

From these examples one may observe that this principle was used especially during the classical period. It is a feature of the sites that integrates naturally with the nature, in the same time taking into account the meaning of space.

This kind of perspective, with an open view in its axis, is desirable every time nature can replace a terminal element of perspective. In the traditional settlements this principle occurs where there is a remarkable element of nature. This is the case of the old costal cities on the edge of the sea with streets that lead to the sea, the settlements on the river banks whose streets opened to the quay, the cities with hills or mountains in which streets lead the sight towards the hills.

 The Mediterranean settlements sometimes show this kind of perspective. In the old areas of these cities there are narrow streets which, at their beginning, show an open view as the main focal point of perspective. Then, in the end, the image of the sea appears on the main sight line.

In the contemporary period, Athens, even with its accelerated development from the modern period, still preserves, in isolated areas, these characteristic images. Thus, there are, in modern Athens, many long and straight streets that lead the sight to an element of nature, as the terminal element of perspective: the mountain or the sea (Figure 7). Exceptionally, nowadays there are certain urban ensembles that, partially, use the perspective with an open view in its axis (the Arche de la Défense-Paris, Puerta de Europa Towers - Madrid) but these compositions emphasize some features of the city, not of the landscape.

Simonds points out the importance of using perspective in a landscape arrangement, as a modality of control upon the spatial composition. This author also reveals some principles of composition in perspective, generally valid, but also some principles specific to the Far East, which are rarely used today in the western culture (Simonds 1967, 383-389).

The use of the perspective with an axial open view, as a principle of composition, would also be necessary today. It could be a way of returning to nature (the nature from which we have estranged from more and more). *. "... we have effected the greatest improvements not by striving to subjugate nature wholly (...), but rather by consciously seeking a harmonious integration. This can achieved by modulating ground and structural form with those of nature, by bringing hills, ravines, sunlight, water, plants and air into our areas of planning concentration..."* (Simonds 1998, 6).

Of course, there are plenty of streets in the contemporary cities without a terminal element of perspective. But this absence must be justified, as it is justified in the cities of Ancient Greece or in the traditional settlements that make a place, in the background, to an element of nature, on the main sight line.

During the modern period, the usual principle of composition in perspective is the emplacement of an object as a terminal element of perspective. This principle, used in Ancient Rome, has been overtaken by the Renaissance and has influenced the modern period. Ancient Rome didn't overtake the Ancient Greece's principle: the perspective with an axial open view, too.

The perspective with an axial open view and the perspective at two vanishing points are not principles of composition specific to only some emplacements. They are generally valid principles that can be also used nowadays.

A long exercise of visual perception

These performances in the spatial composition, although not premeditatly sought can be explained through the extraordinary adaptation of the architecture to the emplacement, and then to the relief. This adaptation can be explained through a long exercise of visual

perception. The Greeks were great specialists in perspective; their remarkable performances aren't the result of theoretical knowledge but especially of a long observance of the typical Greek temple. The evolution of the Greek Doric temple, from the archaic period up to the Parthenon, emphasizes this; it goes from the improvement of the ensemble proportion and of the constituent elements until the refined optical corrections. The Greek temple, this huge sculpture in space, was created by some architects / sculptors who improved the artistic form by a long empiric notation upon the previous forms. This perfection in time of the same shape, culminating with refined optical corrections in space, was made by simple visual perception, not by a pre-projection based on complex theoretical knowledge. This way of improving the architectural forms wasn't transmitted to us subsequently. (Figure 8)

In the architectural ensembles the placement of the objects of architecture was made depending on the mechanism of human vision. Here we are talking about an extraordinary exercise of visual perception. The sight angles were, usually, those recommended in the actual theory of perspective: 30-37º. The buildings were placed on arcs of a circle whose radius constituted the optimum distance of visual perception (as the distance of the buildings from the observer). The field of vision unfolded in rotation, as a cylindrical tableau of perspective that is more natural than the vertical tableau of perspective. See the paradoxes on the vertical tableau of perspective (Gombrich 1996, 215-216). It probably wasn't a previous rigorous projection of the ensemble. Because of this, there weren't any right angles, parallel directions in the Greek ensembles. The right angles and the parallel directions weren't used within the ensembles, but only to trace the objects of architecture.

I imagine that the "projection" of the ensemble was made directly on the field. The main sight point was fixed, (usually the entrance in the enclosure or exit from the Propylaea), the distances were traced (from which the buildings had to be seen), the emplacements of the buildings were determined approximately. Then, the position of each building was studied (from the main sight point). The plan of the building was oriented depending on this sight, not on the relationships between the buildings. Still, the independence of the buildings, and not the superposition (in the images perceived from the main sight point) was sought. In the same time, the silhouette of the ensemble was sought, as the ratio between mass and void. At the overall silhouette, elements of the landscape also participated. Anyway, it is obvious that the

emphasis upon the symmetry of the buildings was not sought, nor the symmetrical arrangement of the ensemble. The frontal perspective (one-point perspective), characteristic for the Ancient Egypt and Ancient Rome, can't be found here.

As extraordinary observers, the Greeks didn't need theories of perspective. They have improved the shape of the architectural objects and the overall organization of the monuments looking along the centuries**.**

A comparative view

By comparison with Ancient Greece, Ancient Egypt follows the other way.

The Egyptians didn't look for depth in plastic representation; they preferred the frontal representation (Fleming 1983, 20). They preferred the mass and the bi-dimensionality for their symbolic value. In the evolution of the sculptural shapes one may observe the evolution from ronde-bosse to the prismatic shape and finally to bas-relief.

As for the spatial depth, Egypt follows the other way around from Ancient Greece. This may be observed in the evolution of the pyramid's shape, comparative to the Greek temple: from the complex pyramid in steps, to the rhomboidal pyramid and finally to the pyramid-pure form. The typical Egyptian temple, with its axed composition and its frontal perspectives, is a gradual passing from the exterior to the interior, from light to dark, from void to mass (Lützeler 1986, 50).

The Egyptian perspective is a frontal one. The frontality is also sustained by symmetry. The accesses, the temples are symmetrical and the plastic representations of the human body are represented as symmetrical as possible, on behalf of frontality. The main sight line is horizontal, at a constant rate and the axis of motion is straight, strong**.** In order avoid the monotony, the ending point is very strong (the Pharaohs' statues) and the intermediate field is rhythmic by the lateral colonnades. The Egyptians introduced the axis as a compositional principle, this type of composition being favorable to the large horizontal surfaces.

Ancient Rome was a gate through which we received the styles, the ideas of the Mediterranean civilization (Fleming 1983, 148). Ancient Rome's civilization was not a civilization developed following the line of the tradition (as Greece and the Ancient Egypt did). But, being a civilization which absorbed its vigor from many sources, it synthesized their stylistic and technical performances.

The Roman perspective has some similarity to the Egyptian one: it is frontal (the access obliges to a main sight axis), symmetrical and monumental. The monuments are placed in a geometrical centre or in axis.

The Roman forums look more like the Egyptian temples through their closing, symmetry, frontality and axed composition. (Figure 9) These characteristics are seen from the interior of the forums, not from the exterior as at the Egyptian ensembles. So, the space has a pronounced closed character even if it is open. The symmetry of the interior space doesn't continue in the exterior. It is an imposed symmetry. In the Egyptian ensembles, the symmetry and the monumentality continue outside. They are more natural because they were developed on a large horizontal plan, in comparison with the imposed symmetry and the axed composition of the Roman imperial forums which were sometimes developed on hilly ground. The Roman space is a container, a recipient. It is also a halt- space, not a way-space like the Egyptian space (Lützeler 1986, 47-51).
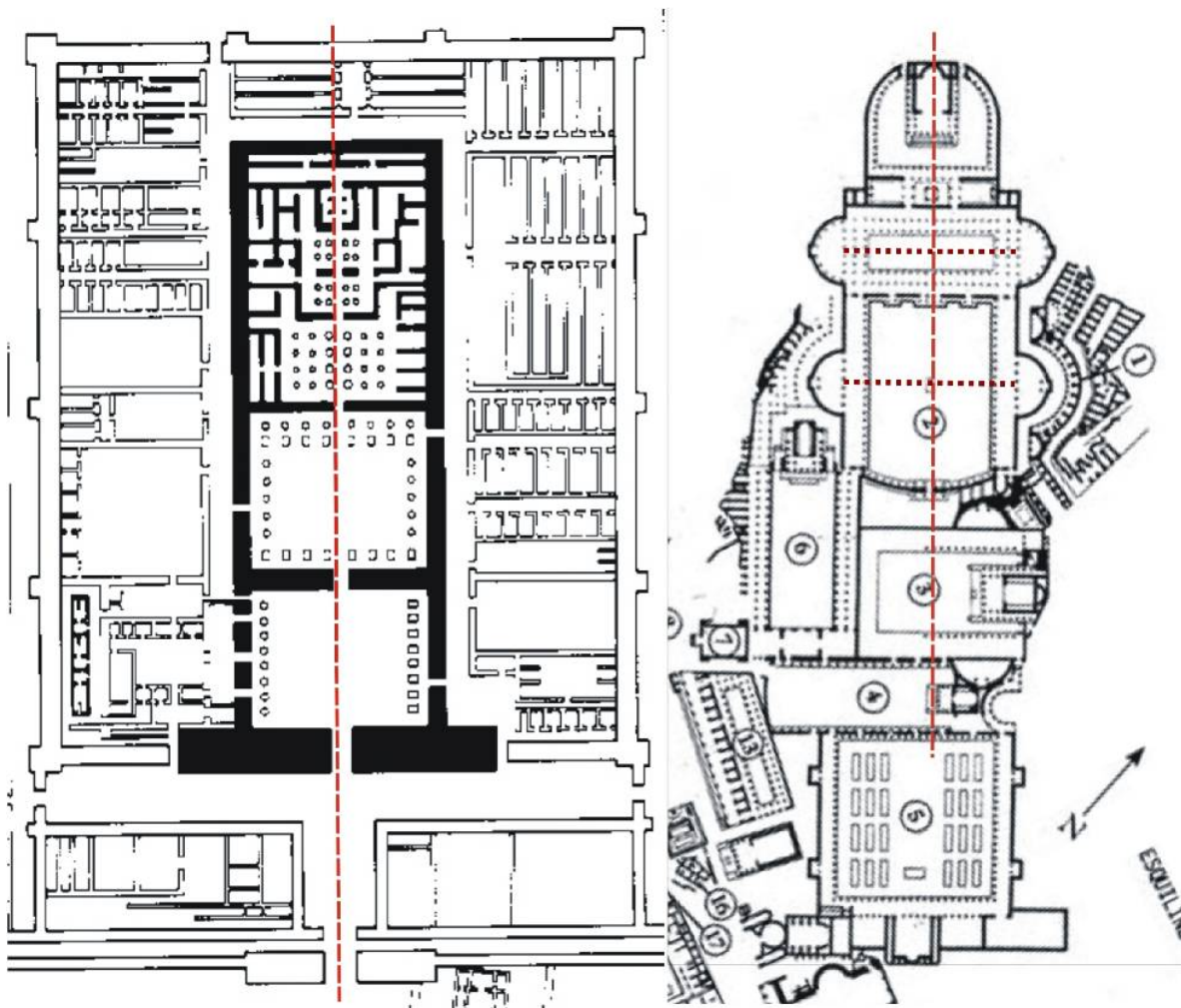
Although Greek art has been the source of inspiration for the art of Ancient Rome, the principles of composition in space of Ancient Greece have never been used by the Romans. The Romans didn't take over the subtleties of the Ancient Greeks in the organization of the space and in the modeling of forms. The organization of the objects of architecture in space, specific to Ancient Rome, is closer to Ancient Egypt than to Ancient Greece.

Ancient Rome brought, as a novelty, the container-space unlike Ancient Greece, which conceived the space as a simple presence of the shapes in space (Fleming 1983, 143). The container space of Ancient Rome was reviewed only during the Renaissance. The Ancient Greeks put more emphasis on the exterior space, the buildings being conceived as huge sculptures in space, being built more for the exterior perception, as the interior is usually inaccessible. The Athenian Agora is rather an adaptation to the field; it has an organic development, with preoccupations for the perception of the architecture as an object in itself. The Roman ensembles were thought through entirely, according to geometric principles.

Theatres are again an example in the sense of the closed, defined space. The Greeks placed the steps on a sloping ground, they adapted them to the relief; the Romans built them on earth and enclosed them. The Greeks looked for depth and revealed it, whereas the Romans built it.

Similitude with the Greek art can be found in their Roman decorative art. The Greek performances in rendering the depth of space occur in the bi-dimensional representations of Ancient Rome (Fleming 1983, 144).

In the organization of the ensembles, the Romans have inspired from the Hippodameian system, a geometric way of organization with axis and right angles. This system was closer to the possibility of development of the territories conquered according to a pre-established plan. In time, the development of Roman cities hasn't been done according to the same principles as the Greek cities, created through natural growth. Rome, beyond the forums, was a labyrinth of streets with buildings which appeared at random (Elsen 1983, 12). The system of natural growth, by the adaptation to the field, can be found very obvious only in Ancient Greece.

The system of the development according to a pre-established plan would constitute a source of inspiration for the Renaissance, influencing the modern period. The Romans took over the Greek principles of composition at the level of the object, but not at the level of the ensemble. The disposal of the buildings according to the distance from the viewer, the introduction within the general silhouette of the elements of the landscape, the perspective at two vanishing points, the opening to the landscape, the perspective with open view in axis, all have not been assumed by the Romans. They introduced the right angle, the parallel directions between the sides of the ensemble, the one-point perspective; they closed the sight towards the landscape and they completely removed, from the composition, the altar as terminal, symbolic element. In the evolution of the ensemble from Olympia, the open field of vision toward the hill is closed by an exedra during the Roman period, in 200 A.D. (Doxiadis 1972,

76). Similarly, at the ensemble Heraion from Samos, the open view towards the altar from the classical period was closed by the Romans in the Ist century A.D. (Doxiadis 1972, 116). Here, it can be clearly seen that the Romans introduced the axis as a principle of composition, the parallel lines and the right angle.

The principles of organization of Ancient Rome influenced the perspective of the Renaissance and Baroque spaces. The Renaissance and Baroque perspective influenced the modern spatial organizations by axed compositions, the alignment of the buildings to the streets and the disposal of monument-the main focal point of perspective-in the main sight axis.

The only similarities with the system of natural growth of the cities from Ancient Greece can be found, partially, in the medieval ensembles through the surprising perspective images, the natural spontaneous development and the human scale.

Conclusions

From my conclusions, in the context of the spatial organizations of historical interest, the perspective in Ancient Greece constitutes an original modality of composition in space, presented as a natural adaptation to nature, in conformity with the stages of visual perception.

This study of the compositions in space, through the perspective image, is necessary in the contemporary period when, with the help of the computer, we have the possibility of checking the perspective images. The study through perspective has been neglected for centuries. The design to the board, starting with the gothic period and culminating with the modern period, has moved the architects away from the lived experience of the space. Thus, a method of checking used since ancient times has been lost. This method which refers to the usage of the perspective as a means of correction and control of the architectural shapes and of the urban compositions was used practically in Ancient Greece. This is why it is necessary to restart a study of the Greek principles of composition. It may reveal long lost principles and methods, which are, in the same time, essential and very practical.

On the other hand the organic development of the ancient Greek settlements deserves to be studied because it reveals an extraordinary adaptation to nature, which is neglected nowadays. The adaptation to the relief is not the only explanation of these original features. The ancient Greeks paid a great deal of attention to the spiritual factor; the modern spaces have lost a lot of this meaning in regards to space. During the modern period only the function of the space has been taken into account, not the symbolism of space.

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