Relations between Ancient Theatres, Landscape and Society

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ABSTRACT

In ancient Greece, the landscape and nature, with all their topographical and environmental changes, were influential in the design of theaters. While major locations of Greek and Hellenistic theatres were located within the temple complexes out in areas with great majestic natural views. Thus the spiritual feelings for the landscape affected their building concepts and the theatre was the model of this approach. The theatre in its architectural design reflected the actual social structure of the society, the theatrical presentations were considered as a big event.

The Roman theatre as an introvert conception in relation with the landscape had a lot of differences in its architectural features. Unlike Greek theaters, which were situated on natural slopes, the Romans were not restricted to build their Theatres on the slopes of hills; the Romans created new structural elements that solve this problem like Vaults, Arches. With these structural elements they were able to build their theatres on flat areas and in different shapes of the topography and landscape of the city.

The building of the Roman theatre was one unit building, which gives the feeling of privacy, rather than the Greek theatre.

Introduction

To the Greeks, the city was essentially a community of citizens sharing common political, religious and social traditions. Anthropologists who wrote about the origin of the drama as a theatre performance were all agreed that the Drama emerged out of religious believes and myths, and it began as a religious ceremony this religious ritual evolve into Greek theatre through major celebrations, in honor of the Greek god Dionysus¹. It was until the early 6th century B.C., that the theatre had a separate architectural space in the city for drama performance². The earliest theatre in Athens was the Theatre of Dionysus. Its earliest phase refers to the late 6th century B.C. (~534 B.C.); it was simple, consisted of leveled circle Platform, located between the Temple of Dionysus and the southern east slope of the hill below the Acropolis, which was used by the spectators. This Platform was called "Orchestra", and used for

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¹ Oscar Brockett (1977) mentioned that studies of the ancient theatres by scholars started since late 19th Century, and theatres have not been paid the attention they deserve. He added that many theories had been raised behind the erection of these theatres, and the most objective one was that the origin of the drama had been emerged out of primitive ritual and myths. Brockett, Oscar (1977), p. 3

dancing. Between this Orchestra and the Temple, a Tent was built for the actors to change their performance dresses, this was called “Scaena”.

**Greek and Hellenistic Theatre**

While the most important area of a Greek city was the Agora, which served as the political, religious, social and economic focal point of the community, the major locations for theatres tended to be around temples\(^4\) so various gods could look at certain plays that were either for them or about them. Later on however, theatres began to be built on hillsides (hill provided extra support and is easier to build on), with a strong relation between the theatre and the temple. Theatres started out as simple, temporary wooden structures. The theatre of Aeschylus, Sophocles, Euripides and Aristophanes, was a temporary wooden structure built for the festival (the City Dionysia) and dismantled when the celebration was concluded. The audience probably sat on wooden benches (theatron) and the actors and chorus performed on flat dirt floored acting area (orchestra)\(^5\), roughly circular.

\(^3\) Robertson, D. (1974), p. 64  
\(^7\) Arthur Segal, ( 1997) ,p 22  
\(^8\) Arno tt. 1959, p.32
The Greek Theatre was developed later, the slope (Cavea) was covered by circle rows of built stone seats, the Skene was built also of stone, and it had a simple stage in front of it looking to the cavea and Orchestra. It was composed of three separated of three main elements open to the air. Fig. 1: (1) the area for the audience was the "theatron" which means "seeing place"; open to the nature landscape (2) in front of it and partially surrounded by it lay the orchestra with a complete circular shape; (3) The "skene", as theatre Building formed the background for the orchestra. The skene, a tent or small wooden hut was probably added in the middle of the fifth century. The skene, the source of our word: scene, was the palace (or scene house) at the rear of the acting space, and probably did not exist for Aeschylus' early tragedies. It had at least one, and perhaps as many as three openings (doors?) which could be used as entrances. The Theatre at Epidaurus (4th century B.C.) Fig. 2 is considered as the best example for Greek Theatres. The cavea or auditorium containing the tiers of seats for the audience was designed with great skill to ensure its adaptation to the landscape, superb acoustics and the easy movement of the spectators.

During the Hellenistic period (333-63 B.C.), many alterations happened to the Theatre building; however, it is still built on slopes and close to temples. The shape of the Orchestra start to changed to be semi-circular, the level of the Stage became higher than the orchestra pavement, the Scene was built into two floors, and new element appeared, called (Proscenium) which represented the inner elevation of the skene (skene Fronts) and the stage with its front elevation (Pulpitum). Later on, the Proscenium became the regular place for acting. Subsequent developments saw the encroachment of the proskenion on the orchestra and the latter lost its clear circular form. Priene theatre is considered as a good example of the Hellenistic theatres. This was the beginning of a process of an introvert trend in the history of the ancient theatre. The traditional Greek theatre auditorium "theatron", Koilon is horseshoe-shape around a circle-shaped Orchestra. This shape will continue in the Early Hellenistic theatres, as in Miltos theatre (300 B.C.-133 B.C.), Assos theatre ca. 250 B.C. with a horseshoe-shaped Cavea, were the angle subtended by the end retaining walls is greater than a semicircle, while the traditional Roman theatre plan is a D-shaped. Most Greek, Hellenistic and Roman theatres follow this rule.

As we can see from the selection of the 164 Greek theaters excavated in Greece, there are 3 minimal requirements: they are all built into a hill, provide a breathtaking view to the audience, and offer a flat performance area according to the landscape formation of the site. In Greek, theaomai means "to view" and theatai were the people who viewed the performance, or the "spectators" in a theatron, or "viewing area" with nice landscape. To solve the problem of lighting and sound - the theatres were outdoors, all ancient Greek theatres were open-air structures with no proscenium. Poets sometimes took advantage of the fact that the Greek theatre was not a building enclosed by walls and a roof by incorporating nature into the plot. Thus

14 "Roman "auditorium," conversely, comes from the Latin word audio, "to hear."
the Greeks were careful in choosing sites for their theater which were built on hillsides, preferably on those with a slight inward slope. This provided a natural semicircle; Seats were built up in rows, either of earth and stone or of wood to provide an arena, at the base of which plays could be per-formed.

The Greek theatres are known for their almost magnificent acoustics for speech. One can hear a drachma drop from the farthest seats in the theatre at Epidauros. The acoustics in these theaters were usually very fine and people had little trouble hearing, even in the highest rows of seats. The sound was also amplified by the large masks the actors wore Fig.7. The chanting of the chorus also helped to carry the sound further.

To aid viewing, the actors wore oversized, well-padded costumes, and boots with raised soles to add to their height. The masks not only were oversized but also had exaggerated features so that they could be seen clearly at large distances. Greek theatre was based upon a written text and sound was indeed a main component in Greek theatre and its role was crucial. The visual component was reduced to a minimum. Space defined in Greek & Hellenistic theatre was clearly an acoustic space: The Koilon acquired big declination and as a result the theatre had better visual and acoustic qualities; while the chanting of the chorus helped to carry the sound further. Greek theatres normally exhibit a more expansive orchestra than the later Roman theatre, because in early Greek theatre communication between the low stage and this area was important to the action. In the Roman theatre the action had moved away from the lower orchestra and onto the stage proper. As a result of this theatrical development the orchestra lost its importance and diminished in size with the Roman stage moving forward and closer to the auditorium.

**Roman Theatre**

The Roman Architect Vitruvius, who lived in the first century B.C, discussed in his Fifth Book on Architecture, the construction and proportions of the Greek and Roman Theatres\(^{15}\). He mentioned that two factors were taken into consideration while choosing the site of the theatre, the Healthy place and good Orientation for the theatre which should be to the North that prevents the spectators from direct sun-light. The careful choice of a situation for the theatre, taking a special precaution that it be not exposed to the south; for when the sun fills the cavity of the theatre, the air confined in that compass being incapable of circulating, by its stoppage therein, is heated, and burns up, extracts, and diminishes the moisture of the body. If due care be taken in the choice of the situation, the effect of the voice will be improved, and the utility of the theatre increased.

Roman structures being a direct evolution of their Hellenic counterparts, though engineering advances such as the use of *Opus Caementicium* allowed for a free-standing cavea and hence a more flexible building type\(^{16}\). In the Roman period (63 B.C.-324 A.D.), the Romans in spite of their knowledge and practice in drama since (240 B.C.), they did not build a stone theatre before (55 B.C.); the date of the building

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\(^{15}\) Vitruvius, V, Chapter VI, article 2, Chapter VII, article 2.

\(^{16}\) Adam J., (1990) p. 67
of their first stone theatre (Pompey Theatre) at Rome. The form of the theatre remains rather Greek, but the location of the temple immediately behind the cavea is unusual and may have provided inspiration for Pompey's edifice. The Roman theatre was laid out similar to that of the Greek theatre. There was a backstage area, seating arrangements for the audience, and an orchestra. Fig. 3.

The facing of structures in Opus Quasi-Quadrata suggests an attempt to imply the antiquity of the settlement and hence its legitimacy in the landscape. The seating capacity of Rome's Teatro Marcello, the largest theatre in the Roman Empire, was approximately 12,000. The cavea (the semi-circular bank of seats) would hold another 2,000 standees, bringing the total to about 14,000. Although the theatre was an open air structure, it was architecturally enclosed.

![Fig. 3: Typical plan of the Roman theatre.](image1)

![Fig 4: Reconstruct model of the west theater](image2)

Unlike Greek theaters, which were situated on natural slopes, the Romans were not restricted to build their Theatres on the slopes of hills; the Romans created new structural elements that solve this problem like Vaults, Arches, retaining walls and Stone Foundations. Thus Roman theaters were supported by their own framework of piers and vaults and thus could be constructed in the hearts of cities.

Good example is the West Theatre of Gadara. From the Reconstruct model by the computer of the surface contours with the different building level of the west theater Fig. 4. It can be concluded that the architect who designed the West Theatre wanted to exploit the possibilities offered by a landscape, which could be enhanced by a building. He conceived his plans having been firmly based on the natural foundations. As it seems, geometrical patterns formed the basis for the design scheme of the theatre, which will probably be more complicated by using arithmetic calculations when we will look at the details. In this way, the West Theatre of Gadara reveals that the architect must have been quite familiar with design techniques that are very similar to those we already recognize as Roman building principles. With these

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18 The theatre was begun in 46 BC under the reign of Julius Caesar and dedicated to Claudio Marcello by Augustus Caesar between 13 and 11 BC.
structural elements they were able to build their theatres on flat areas and in different shapes of the topography and landscape of the city. The building of the Roman theatre was one unit building, which gives the feeling of privacy, rather than the Greek theatre which was open and consisted of three main separated elements.

The Roman theatre as an introvert conception in relation with the landscape, had a lot of differences in its architectural features, the Orchestra became half circle, and was used by the important people of the city as a setting area, the relation between the theatre and the Temple decreased in this period, the building of the Roman theatre was one unit building, which gives the feeling of privacy, rather than the Greek theatre which was open and consisted of three main separated elements. Typically the frons scaenae included several openings for actors to make their exits and entrances, the openings representing the various doors of separate private houses built along the public street. This was the beginning of the second process of the introvert conception of the ancient theatre.

The Roman concept of theatres as an introvert trend, was translated by the “water theatre” in which parts of the natural landscape, water in this case, were introduced. Actually many theatres in both the western and the eastern provinces of the Roman Empire have an orchestra encircled by a wall high enough for such purposes, such as the function with the theatres at Wadi Sabra, Caesarea, and Neapolis.

Ancient Roman Theatres in Jordan

Theaters were popular in all parts of the empire; impressive examples may be found at Orange (early 1st century AD), in France, and Sabratha (late 2nd century AD), in Libya. At least, 125 permanent theatres were built during the Roman Empire in the world. From Asia Minor through North Africa into Europe, 41 theatres (32, 8%) are in Great Syria, 14 (3 theatres in both of Jerash, Petra, 2 theatres in both of Amman, Gadara (umm Qais), Abila (Queible), theatre in both Pella and Beit rass) theatres are in Jordan (11, 2%). This means that, Great Syria has 1/3 of the Roman theatres in the World & Jordan has 1/3 of those.

Taking the theatres in Jordan as a case study, we can search the location of theatres which was affected by the general planning of the city. In general, the location of theatres is directly related with the main elements, forming the urban form, such as the Cardo and Documenus, the Forum of the city and Temples. e.g. (Amman forum is adjacent to the theatre, the cardo & forum of Jerash lead to the theatres).

The relation between the Theatre and temples in Jordan is clear theatres of Jerash were located close to Temples abiding by the Hellenistic tradition of the West. A small shrine was located at the top of the theatre of Amman, (an example of the western Roman tradition). The theatre of Umm Qais was dedicated to the Goddess of Tyche. While most of the theatres in Jordan were oriented to the North, as mentioned

22 Arthur Segal, 1995, pp.13-4, 39,0,80.
23 Arthur Segal, 1995, pp19-20
by Vitruvius, especially in open air theatres\textsuperscript{24}, while small theatres (Odeon) were oriented to the West. In general those theatres oriented to the West in Great Syria and Jordan was of small scale theatres (Odeon).

**Landscape and Structural Systems**

The Roman theatres of Jordan were mostly built according to the Roman tradition, and were constructed according to the landscape formation of the site. Bearing and retaining walls, of local lime and Basalt stone were used in their construction of most of the theatres, except for Umm Quis western theatre were basalt was used. There were three types of Structural Systems according the topography and landscape of the city:

1. **On pure slope hill site**: e.g. The Roman theatre of Amman, North theatre of Umm Qais, festival theatre of Jerash & Abila.
2. **On pure flat site**: e.g. the Odeon of Amman
3. **Combination of slope & flat site**: where natural slope supported the lower seating cavea, while the upper cavea was built on Basalt or lime stone vaults, e.g. Western theatre of Umm Qais and Pella. North and Southern theatre of Jerash Fig. 5. A natural slope supported the lower seating tiers, while the upper tiers were supported by lime stone vaults\textsuperscript{25}.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{image}
\caption{Plan and section of the Southern theatre of Jerash.}
\end{figure}

**Theatre and Society**

**Greek Hellenistic Theatre**

The theatrical presentations were considered as a big event. Ancient theatre, in which took place not only dramatic productions but also as a huge multi-functional, social, religious, and political meeting space\textsuperscript{26}. The rich Athenians - during the golden era of Pericles (5\textsuperscript{th} century BC) - were considered to be honored if they were appointed to sponsor the play during a "dramatic game" (paying for the costumes, the fee of the actors, of the chorus and of the tragic poet) with the "horrifies". The state was paying the entry ticket to the poor.

\textsuperscript{24} water was collected at the centre of the orchestra, and then directed in underground channels to the outside towards the public space, passing under the proscenium.

\textsuperscript{25} Al-Dahash, M. (1993), p. 115 -6

\textsuperscript{26} Frederiksen, R. (2002), pp. 91-92
Greek theatrical experience takes place outside in a prominently established site capable of holding thousands of people. Up until about the time of Thespis, theatrical performances in honor of Dionysus in Athens took place in the agora. The Athenian theatre focused on the Dionysus, god of: fertility (main duty), wine, agriculture, sexuality. Athenians had an annual fertility festival in March with one week of public wine drinking. The first permanent theatre was built under Macedonian rule in the middle of the fourth century BC. During the 4th century BC, when the temporary wooden benches were replaced with stone slabs, the 78 rows of the Theatre of Dionysus would seat between 15,000 and 16,000 people, approximately one third the population of Athens.

The earliest Greek dramas, especially those by Aeschylus (525-456 BC), drew their plots and characters from Greek mythology. This type of dramas did Aeschylus, Sophocles, and Euripides write were Tragedies. Old Comedy was written before 400 BC was mostly political satire. New Comedy dealt with domestic affairs: Boy meets girl, boy loses girl. New Greek Comedy was written after 400 BC. The reason for the change is that the new political rulers -- the Macedonians who united the independent City States under the leadership of King Philip II (382-336 BC) and his son: Alexander the Great (356-323 BC) --would no longer accept criticism, hence playwright’s stopped writing political satire.

The theatre environment did not escape the dominance of visual elements as well. Producing a play increasingly meant creating a complex set of scenery, costumes, gestures, facial expressions and the actor’s placement within a three dimensional space. In Greek theatre the absence of proper scenery and lighting on the one hand and distance on the other created an almost exclusively acoustically perceivable environment. Sight was kept at an idle pace. This situation gradually changed and earring would in turn become idle. In this visually rich context, sound is of secondary importance. The visual environment of Greek theatre relied mainly upon masks. Masks played a major role in building the visual dimension of Greek theatre. They drew the character’s main features and created a permanent reference. Unlike theatre’s acoustic environment, masks created a univocal process as no information was reflected back.

**Roman theatre and Society**

The Roman view of theatre is totally different from the Greek originators. It was now possible to build larger and more lavishly, and the construction of larger buildings led naturally to greater architectural emphasis on the buildings' interiors, as in the case of the stage theatre and greater emphasis on interiors led to changed social habits.

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27 Their religious rite was performed with ancient dances and chant to the fertility god, normally performed while drunk. This festival celebrated the birth of the wine god, Dionysus and the great grapes that made the wine.

28 Peter D. (1989.) p.46

29 Forman, R.J. (1989) , p. 93

The theatre in its architectural design reflected the actual social structure of the society, the theatrical presentations were considered as a big event. From the beginning, seating in the theatres of the Roman Empire was designed to separate the different ranks of society using parapets\textsuperscript{31}. The Greeks, however, had a more democratic approach to seating where each tribe had their own section within the same gallery.

The Romans, who eventually over throw Greece's Macedonian rulers (168 BC), considered Euripides (ca. 480-407 BC) a greater playwright, hence taking better care of his manuscripts. Aristotle (384 to 322 BC) tell us that Greek tragedy grew out of the dithyramb and this theme can frequently be seen in the positioning of such structure within Roman cities, the Theatre of Pompey being a prime example of the interrelationship between theatre and religion. The "Roman Aristotle?" Horace (65 to 8 BC). In his \textit{Ars poetica (The Art of Poetry)} (19 BC) he argued that comedy and tragedy should be distinct forms; that tragedy should draw its characters from the noble class while comedies should deal with the middle class; and that the function of drama was not only to entertain but to teach a moral lesson\textsuperscript{32}. Roman audiences preferred comedies to tragedies. Theatre was very important in the lives of the Romans\textsuperscript{33}.

\begin{figure}[h]
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\includegraphics[width=\textwidth]{roman_actors_masks.png}
\caption{Roman actors with masks}
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\begin{figure}[h]
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\includegraphics[width=\textwidth]{greek_roman_masks.png}
\caption{Greek and Roman theatrical masks}
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Theatre was another way of keeping people busy and happy so they would not plot against the emperor. Emperors such as Nero used the theatre as a way of showing their own talents - good or otherwise. Nero actually used to sing and would not let anyone leave until he was finished. Although Romans of all classes enjoyed the plays, they thought the actors were strange people. Women were not allowed to sit near the front, in case they were tempted to run off with one of the performers! Women were not allowed act, so their parts were normally played by a man or young boys wearing a white mask. \textbf{Fig.6.}

\begin{figure}[h]
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32 The Romans also invented new types of performances, such as mime and pantomime, in which an actor danced and told a story without speaking while others sang and played music. The mime was a favorite of the ordinary townsfolk. It was a sort of crude comedy, and was very different from modern mime, because the actors spoke. Regular plays were performed in the large theatres, but mimes were performed on rough wooden stages set up in the streets. The actors did not wear masks, and women played female roles. Mime had regular characters, like fool.

33 Arthur Segal, 1995, p. 7-9
Social Indications from the scale and the architectural design of Roman theatres

The ratio between the Orchestra diameter and the outside diameter in Jordan theatres varies from (25%) to (30%), this was tested in other Theatres at Greet Syria, Turkey, Greece and Italy, and gave the same ratio. This leads that it was constructed due to the population number of the city, while the theatre plan was designed and prepared before. There is a relation between the capacity of the theatre and the length of the outside diameter, of which the area theatre could be determined. The net area of the Cavea and Orchestra which was used for actual sitting by spectator's equals (80 %) of the whole area of the cavea and the Orchestra, this ratio was approximately the same in many Roman Theatres. Thus the theatre in its architectural design reflected the actual social structure of the society, while the importance of the city was reflected on the number and scale of its theatres.

The entrances from the right and left side to the orchestra (as they were faced by the spectators) indicated the place from where the heroes were coming. The right entrance was a sign that they were coming from the palace or the town and the left from the fields, the port or another town in the front rows, luxurious marble seats were installed for eminent public figures34. The huge amount of people present still held problems for the sound as the audience would not always stay quiet. To solve this problem, costumes and mask were worn to show the type of person on stage. The actors wore masks35 - brown for men, white for women, smiling or sad depending on the type of play. The costumes showed the audience who the person was - a purple gown for a rich man, a striped toga for a boy, a short cloak for a soldier, a red toga for a poor man, a short tunic for a slave etc.

The visual environment went through a gradual but radical change. Theatre buildings became smaller and the importance of the smallest visual details grew. The homogeneity of acoustic space was dissected: shadow and light indicate the playing and sitting areas. Acting techniques changed, in particular, gestures and facial expression gained a new importance. Audience participation, which was quite vigorous and mostly carried out through sound almost ceased, and it was reduced to thin applause prompted by light. An elaborate set of techniques including stage settings, costumes, lighting, gesture and movement within the playing area became a pivotal element in the rendering of the play. Slowly, the visual elements became dominant and accordingly the role of the mask changed. Masks as we traditionally understand them were also used regularly in Roman theatre36. Masks as static visual references in counterpoint with the dynamics of the acoustic environment disappeared and their role progressively became that of a mere prop, perhaps not far from the use of make-up.

Concluding Remarks

35 Roman actors were men who wore colorful masks (women could appear only in mimes). The masks indicated the types of characters - young and old, male and female, gods and heroes. They were lightweight, but hot to wear. Actual masks were probably made of shaped and stiffened linen.
36 Ashby (1984) In Chapter 11, "Validation by Repetition, (p. 157),
The theatre was considered to be a kind of "school" that everyone had to attend. The spectators knew in advance the plot of the play. The Romans copied theater from Greece and the best actors of Roman plays were usually Greek. Stage shows were first put on as part of religious festivals, and were later paid for by the wealthy to gain popularity. Tickets were free-if you could get them.

One of the crucial differences between Greek and Roman theatres is the way in which the cavea is built. In Classical Greek as well as Hellenistic theatres the cavea was always built on a natural slope that was hewn out and shaped to this end. The cavea or auditorium containing the tiers of seats for the audience was designed with great skill to ensure its adaptation to the landscape, and the easy movement of the spectators. As the seating area of a theatre became enlarged, it became necessary to build supporting walls for the theatron called analemmata. In general Roman theatres were constructed according to the landscape formation of the selected site. All over the Roman Empire theatres were erected to entertain the masses. The location and orientation of theatres found that they were represented by three types of structures, these are: 1-on slope hill site. 2-on pure flat site and 3- Combination of slope & flat site.

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