MINISTRY OF CULTURE AND SPORTS

EPHORATE OF ANTIQUITIES OF PREVEZA

DIAZOMA

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ANCIENT THEATER OF CASSOPE
SPONSORSHIP FILE

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CONTENTS

I. INTRODUCTION

The Theatre of Cassope is located in the ancient city Cassope, home of the Thesprotian sub-tribe of Cassopeans. The city was founded in the early 4th century BC on a plateau at the foothills of the mountain massifs of Zalogo. Set in a naturally fortified location of strategic importance, the city could control the shores of the Ionian Sea and Ambracian Gulf, while having secured control of a particularly rich hinterland. Its geostrategic advantages gave it fast economic and political prosperity in the late 3rd century, and made it grow in population. Life in the city continued normally until 31 BC, when its inhabitants were forced to move to the newly city of Nicopolis, at the neck of the peninsula of Preveza. Nicopolis was built by Octavian, Cesar Augustus, to commemorate his victory against the troops of Marc Anthony and Cleopatra.

Leaving the city by force and abandoning its buildings is the reason some of its public and private buildings are impressively good preserved today. Among the landmarks that impress today both researchers and visitors are the urban ensemble of the Agora, the austere Hippodamian System with which the city was built, and of course the Theater which is the biggest and most impressive structure in the ancient city.

1. Panoramic view of the Theater of ancient Cassope,
which dominates majestically over the entire peninsula of Preveza. (photo: Diazoma/2012)

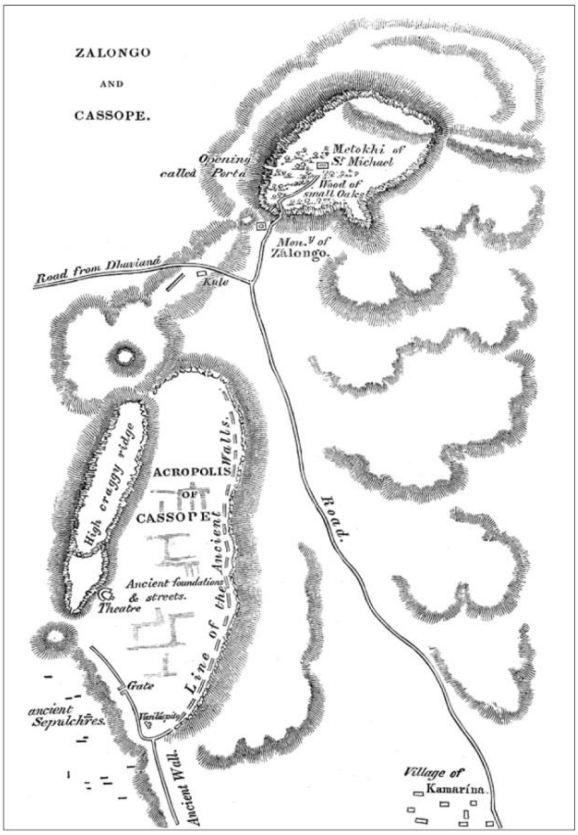
2. Aerial view of ancient Cassope and its "periphery."
(archives of Ephorate of Antiquities of Preveza, publication: Th. Kontogiannis, 2006)

It seems that the theater attracted the researchers' attention as early as in the beginning of last century. Travelers who portrayed the virgin landscapes of Epirus, in their

depictions included both the ruins of the ancient city and the site of the ancient theater specifically. Later, researchers and archaeologists at the site recorded the location and size of the theater in their topographic charts of the ancient city, without proceeding to a detailed mapping or investigative excavation.

In recent decades, during works for the enhancement of the site to become a modern and visitor-friendly archaeological site[1], the area was sporadically deforested and the monument was cleaned and partially cleared from the lush vegetation. This included, the removal of a fallen rock in the western part of the auditorium, which was undertaken by the then competent 12th Ephorate of Prehistoric and Classical Antiquities.

Since 2011 the competent Ephorate of Antiquities of Preveza - formerly 33rd Ephorate of Prehistoric and Classical Antiquities – has been working on the Project "Enhancement of the theater district of Cassope," which is part of the O.P. "Thessaly - Mainland Greece - Epirus 2007-2013." The project is about the enhancement of the great theater in the archaeological site of Cassope through systematic deforestation of the vegetation, extensive cleanings, limited investigative excavation and partial restorations.

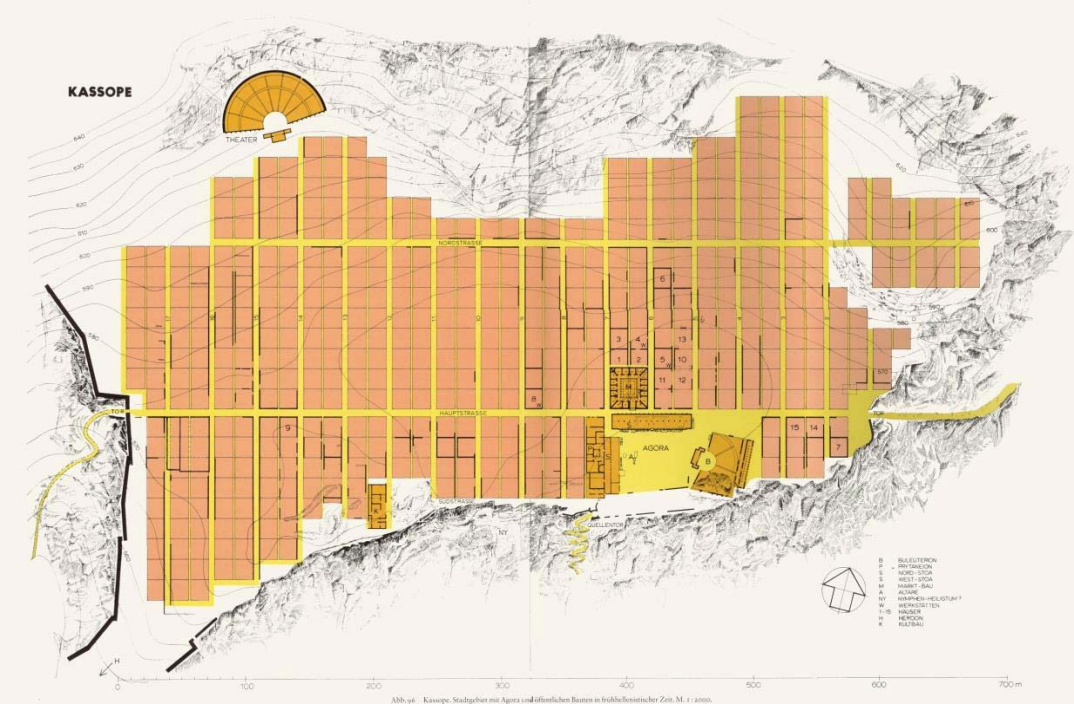


3. Topographical plan of the area Cassope-Zalogo made by traveler W.M.Leake, noting also down the big Theater. (Leake, 1835, by W. Hoepfner – E.L.Schwandner, 1994)

1 The enhancement works taken place in the context of the (CSF-3 integrated) project "Enhancement – development of the archaeological site of Cassope," were mainly focused on the improvement of the infrastructure at the archaeological site and the improvement of visitors service. (Kontogiannis, 2006)

II. ARCHITECTURAL – MORPHOLOGICAL FEATURES

The Theater of Cassope is situated in the northwestern sector of the ancient city, on the slopes of the highest of the two hills - citadels of the ancient city. The monument is still impressing today's visitors when they see it gradually revealing itself as it approaches the west side of the town. It is more than certain that also in the ancient times its size and position made it impose itself in the general urban ensemble. ''Cut off" from the administrative and commercial center of the ancient city, yet being the city's most magnificent public buildings that deserved a special place in public life, the theater fits perfectly into the natural terrain of the rocky hill and oversees the urban setting and the "periphery" of the ancient city, with spectacular views to the Ambracian Gulf, the Preveza peninsula, the Ionian Sea, the islands of Lefkada and Meganissi, as well as the Acarnanian Mountains.



4. Topographical plan of ancient Cassope by researchers W. Hoepfner – E.L.Schwandner, showing the big Theater (W. Hoepfner – E.L.Schwandner, 1994)

Although the monument has not been, until now, subject to a systematic archaeological research, it clearly retains its key architectural features, mainly due to its sharp downhill direction on the slope of the hill where it was constructed, which prevented it from being swallowed in by earth fillings during the centuries following its abandonment.

5. Aerial view of the big theater of Cassope before the deforestation works.
(source: http://www.archaiologia.gr/blog/publishig)

6. Panoramic view of the theater from the NE, during the deforestation works.
(photo: Diazoma/2012)

The arc-shaped auditorium is slightly smaller than a semicircle and has a maximum diameter of about 82 m. and a particularly noticeable incline. All seats are attached on the natural rock and are made of local limestone, as one can see macroscopically. It is estimated that the auditorium could accommodate approximately 6,000 spectators. The theater was constructed following purely the Greek theater design principles. Based on the present excavation data there is no evidence of significant phases of rearrangement or conversion throughout the subsequent periods. Ten rows of radially arranged staircases divide the seats along the periphery of the auditorium into nine tiers. A passage (diazoma) intersecting the aisles also divides the seating area into two sections, up and down. According to visual observations, the lower section has twenty-three rows of seats and the upper section (epitheater) has eleven rows of seats. The documentation of these geometrical data may be verified scientifically in the future, since the architectural members of the auditorium have been displaced in a small or larger scale.

7. Revealing raw lines and preserved seats during the deforestation works.
(photo: Diazoma/2012)

The auditorium is bounded on both ends by strong retaining walls, structured with large stones following the system of polygonal masonry – the main structural feature of buildings of ancient Cassope. The walls bear inherent supporting struts at regular distances. At the top of the upper auditorium runs a corridor bounded by an outer perimetric wall built in the masonry technique of the island of Lesvos. On the eastern side of the perimetric wall, a small door-like opening has been detected. It is possible that future works might reveal the location of similar openings in the sections of the central or/and the western part of the perimetric retaining wall. S. Dakaris too refers to an extra opening in the upper levels of the auditorium. He believes that the layout and the carved quoins on the western edge of the middle tier means that there was a door there leading to and external staircase, similar to that of the theater of Dodona. Besides the theater of Cassope is typologically very similar to the Dodona theater in that important sanctuary of the time. This fact makes many to believe that the two theaters were constructed in about the same period, placing the erection of Cassope's theater in the early 3rd century B.C.

8. General view of the western retaining wall of the auditorium before the deforestation works. (source: www.diazoma.gr)

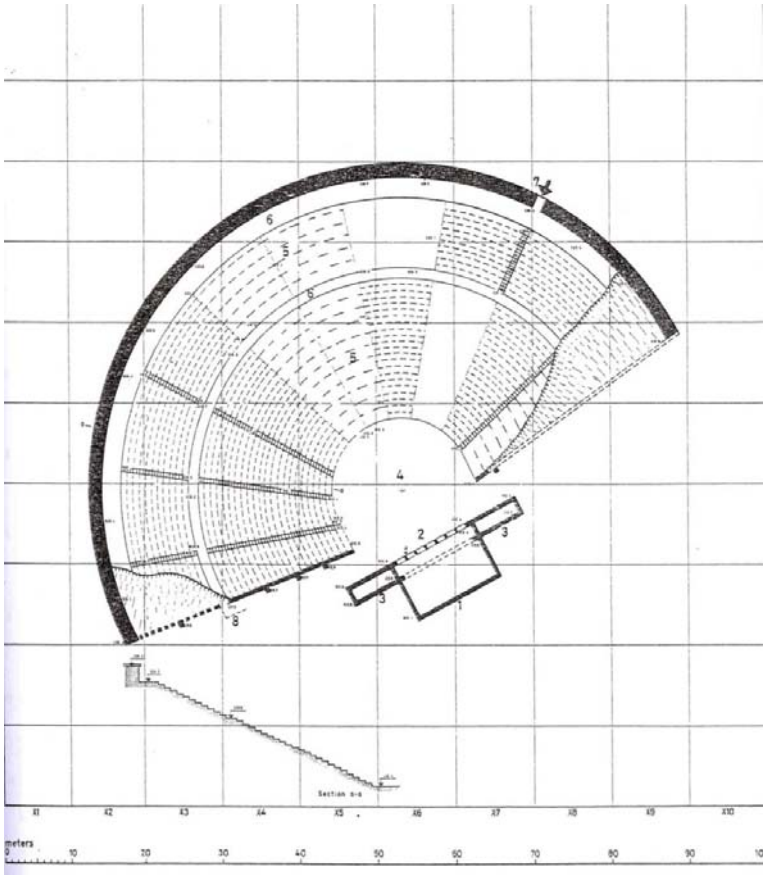
9. Detail of the western retaining wall of the auditorium before the deforestation works.
(source: www.diazoma.gr)

10. Detail of the western retaining wall of the auditorium after the deforestation works.
(photo: Diazoma/2012)

The theater's orchestra has a diameter of about 16 m. but it doesn't form a complete circle. It has rather the shape of an arc segment larger than a semicircle, which is intersected by the stage building. It has earthen floor, like most Greek theaters and in its perimeter runs a rainwater drainage channel covered by stone slabs. Most part of this system was revealed during the recent cleaning works that were carried out by the competent Archaeological Service.

Two lanes were leading to the orchestra and the auditorium. These lanes were leading to two of the city's vertical streets, “Stenopos 15” and “Stenopos16”[2] which were actually connecting the theater with the city's two main streets.

The stage building also preserves its three-faced layout with the main building at the skene and paraskenia on both sides. The building's facade is about 26.5 meters long with a proscenium configured in front of the skene. The stylobates is preserved in place and there are traces of the positions of the six columns from where they were hunging the backdrops of the performance. The inclined surface from both sides of the proscenium is probably infrastructure for ramps or stairs, as found in other Hellenistic theaters.



11. Drawing of the theater of Cassope by S. Dakaris. (S. Dakaris, 1971)

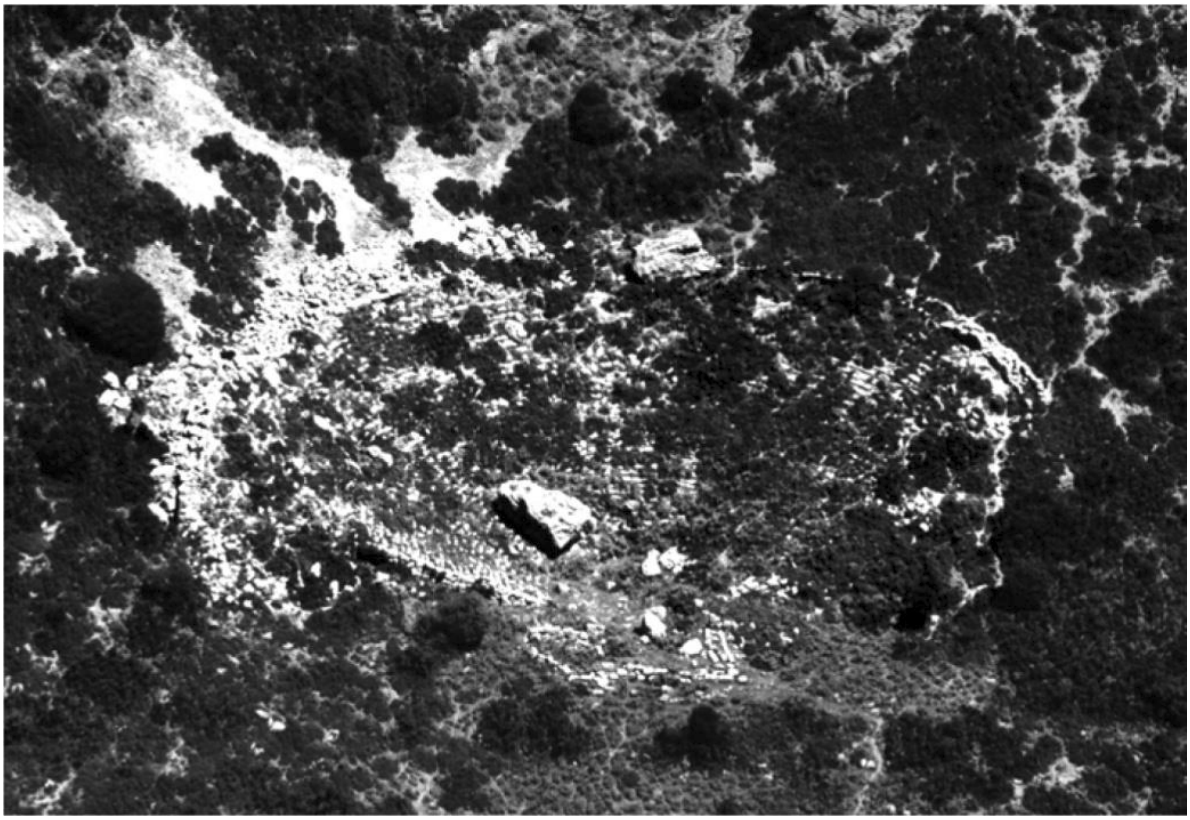
2 Cleaning and revealing the preserved surface of two perpendicular streets is also part of the project "Enhancement of ancient Cassope's theater district" which is undertaken by Eph.Ant. Preveza and integrated in the O.P. “Thessaly - Mainland Greece - Epirus 2007-2013” of the NSRF, having already produced an impressive set in the north district of the city with the majestic theater in its center.

III. EVALUATION OF THE CURRENT SITUATION - PATHOLOGY

The pathology of the theater of Cassope is characterized by problems associated with the intense geological phenomena presented by the mountain massif of Zalogo in the city's building area. These phenomena are largely determined by the very pathogenicity of the bedrock in the area. In particular, these are the soil creep and the frequent drops of parts of the rock which stands above the theater structure.

A macroscopic inspection of the pathology on the monument itself, shows that its mass moves to the south, following the ground's inclination. This of course has a different effect in the two parts of the ensemble, the auditorium and the stage building respectively, but nevertheless there is a common component that enable us to group the effects of the action of these aggravating factors.

In this light the pathology problems can be examined based on criteria that aim at an objective and effective evaluation of the theater's current situation.



12. Aerial view of the Theater of Cassope with the fallen rock mass inside before its removal. (N. Karabelas, 2008)

13. View of the eastern section of the auditorium with a part of the fallen rock that caused many damages, before its removal. (source: http://www.theatrum.de/1163.html)

14. View of the eastern section of the auditorium after the deforestation works of 2012-2014 and the prior works for the removal of the fallen rock. (photo: Διάζωμα/2012)

A. STATE OF THE BEARING STRUCTURE

Static structural adequacy of buildings of the type of the ancient Greek theater is based on two main factors: integrity of construction and strength, both of which are vital to the whole structure. The first factor relates to the geological behavior of the rocky sloping ground which holds the auditorium and its retaining walls. The second factor is relevant to the structural integrity and durability of both the auditorium and the retaining walls. In the case of the theater of Cassope it seems that the first factor has greatly influenced the static capacity of the second.

Briefly, the most serious problems occur in the eastern retaining wall, which shows a significant deviation from the vertical position and most of it has collapsed. This has resulted in the loss of the wall's buttress capacity, thus it has ultimately contributed to a discontinuity in the original static model which was ensuring the stability of the whole system by biding together the circular area of the auditorium. The situation is similar in the western retaining wall, with deviations and collapses being limited in the section of the upper part of auditorium. Although the two retaining walls have the same kind of problems, there is a considerable degree of variation in the intensity of those problems, which leads us to the conclusion that the collapse of the eastern wall is mostly due to the high mobility of the soil in this area and less to poor workmanship.

In the case of the perimetrical retaining wall, problems are mostly occurring due to rocks and stones falling down from the mountain massifs behind the monument and less to a manufacturing failure. Problems are mainly identified on three spots but their extent, however, can be described as quite large.

The seats at the auditorium have been significantly displaced following the slope of the ground towards the orchestra. The intensity of this phenomenon is being reduced as we approach the western retaining wall. There also visible traces of damage caused by occasional rockfalls.

15. Panoramic view of the Theater of Cassope from the east.
(source: http://lefkadaslowguide.gr)

B. DISTORTION OF GEOMETRIC OUTLINES

Naturally, with the static role of retaining walls being cancelled, as was briefly reflected above, the consistency of successive rows of seats seized and this led to the geometric distortion of the ancient outlining. The seats have significantly deviated from their horizontal position and present a continuous sinking and sliding tendency.

The structure of the stage building has been profoundly disrupted and displaced in its southeastern corner.

Γ. EVALUATION OF ANCIENT/PRIMARY BUILDING MATERIAL

The theatre of Cassope does not seem to have suffered from any systematic stone looting and this classifies it in the list of monuments with minimum losses of ancient material. It should be assumed that over 70% of the ancient material is found in situ or scattered inside and on the perimeter of the monument. This gives the opportunity for renovation and restoration of masonry without making extensive use of new material. Erosion on local stone by the weather conditions over time does not become a prohibitive factor for the restoration of the architectural members and the seats of the theater.

Δ. THE AESTHETIC DETERIORATION OF THE MONUMENT

The area does not have any nearby installations or disturbing facilities that could pose an aesthetic charge on the monument and the landscape remains largely unchanged since antiquity. This gives the monument the necessary splendidness, since it dominates the archaeological site due to its size, becoming thus an attraction for visitors.

16. Panoramic view of the Theater of Cassope from the north.
(source: http://lefkadaslowguide.gr)

IV. RESTORATION SPECIFICATIONS – ESSENTIAL STUDIES

Searching for the best solution in the monument's pathology problems requires the preparation of an overall rehabilitation and enhancement study, as well as a series of other supporting studies. The prioritization of the pathology problems described above demonstrates the need for the following studies, which aim at solving the problems recorded, in cooperation with the competent Eph.A. Preveza.

A. Architectural study for the restoration and overall enhancement of the ancient theater of Cassope

The study for the restoration and overall enhancement is needed to provide solutions of the monument's main management problems through proposals which will result from the detailed documentation and interpretation of the monument's preserved elements.

Given that the monument's floor plan had been mapped during the execution of the theater enhancement project in previous years, the documentation of the current situation should be completed by rechecking the floor plan and its detailed documentation in height. This will require general drawings on a scale of 1:100 and mapping critical details on a smaller scale of 1:50 (1:25, 1:20, 1:10 depending on the situation) aiming at the best possible description of the monument. Thus, it is essential to design plans of general sections for each tier and upwards staircase, sides and sections of the retaining walls, the auditorium and the skene, detailed mappings of areas of severe pathology problems and mappings of selected architectural members. Another critical issue of documentation is the creation of an organized photographic archive which will provide a detailed description of the monument and its construction.

The study must adequately manage the pathology problems to be described in detail by the architectural mapping, proposing solutions and interventions that respect the architectural form of the monument and the accepted restoration principles. Therefore it is important to investigate if there were any building phases or alterations and proceed to their to graphic restoration.

Furthermore, where possible, we should attempt to identify the initial position of the architectural members and the rest of the building materials, having in mind that especially for the retaining walls the whole effort may be restricted only on the visible and easily accessible members of masonry, as it has not been possible until now to transfer and place them in a way that facilitates their documentation.

The study will also focus on the proposal for the organization of the worksite where the proposed measures will be implement. Issues to be discussed and decided at the worksite are the placement positions of the architectural members for conservation and study, the construction of temporary storage and laboratory space, possible solutions in matters of accessibility to the monument by trucks and cranes and, in general, solutions to problems of a purely worksite nature.

Finally, an integral part of a comprehensive architectural study of restoration and enhancement is the drafting of detailed budget for the implementation of the proposed actions and interventions.

The necessary time frame for the implementation of the study is estimated at 6 - 8 months.

B. Geotechnical study and study for the containment of the risk from collapsing rock pieces behind the theater of Cassope

As mentioned above the theater of Cassope is suffering from the effects of soil creep and frequent rock falls. So it is critical and essential to have a study that will document the magnitude of the problem and propose buffer solutions. Upon its preparation, a significant part of what international rehabilitation agreements describe as "Proactive Protection" will have been achieved.

The necessary time frame for the implementation of the study is estimated at 4 - 6 months.

C. Structural restoration study for the retaining walls of the theater of Cassope

This study will provide the static solution of the architectural design proposals for parts of the monument that require structural reinforcement. It will also include the measurements of the dimensions for the metal welding joints of architectural members.

The necessary time frame for the implementation of the study is estimated at 3 - 4 months.

D. Stone analysis study and study for the proposal for compatible plaster welding and sealing

This study will identify the types of stone used to build the monument in order to define the kind of material to be used in the fillings with new stone or any potential composition of artificial filling stones. It will also propose the compatible plasters for the required welding of architectural members.

The necessary time frame for the implementation of the study is estimated at 2 - 3 months.

V. COST ESTIMATE

Budget of studies:

- Architectural study for the restoration and overall enhancement of the ancient theater of Cassope .....55.000,00 €
- Geotechnical study and study for the containment of the risk from collapsing rock pieces behind the theater of Cassope .....10.000,00 €
- Structural restoration study for the retaining walls of the theater of Cassope.....7.000,00 €
- Stone analysis study and study for the proposal for compatible plaster welding and sealing.....3.000,00 €

TOTAL .....75.000,00 €

(The cost of implementing the planned objectives of the studies will be assessed upon completion of the respective studies)

Preveza, December 2014

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* Proceedings of the Archaeological Society at Athens

17. Panoramic view of the Theater of Cassope from the north.
(photo: Diazoma/2012)