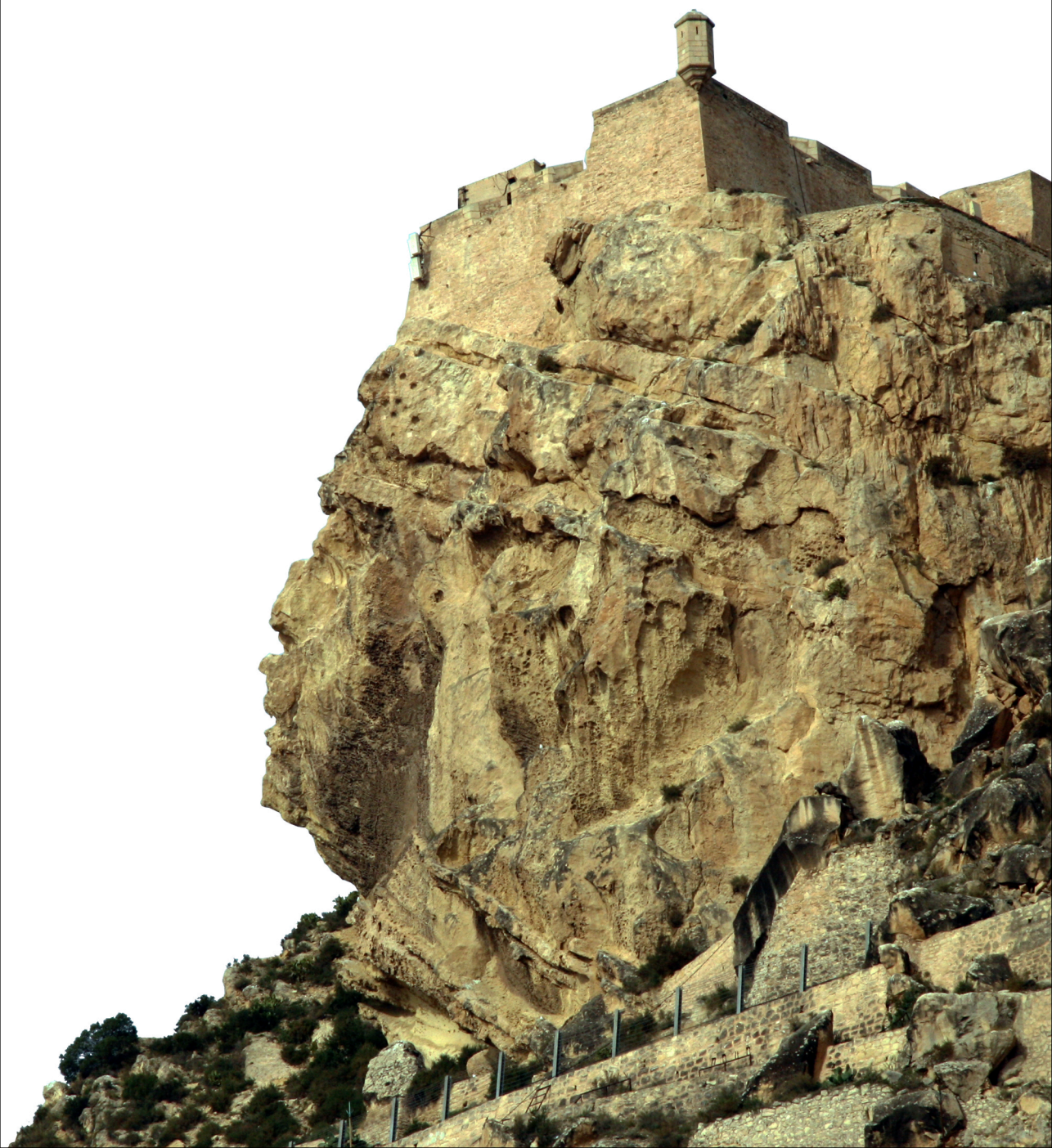


5 DEFENSIVE ARCHITECTURE OF THE MEDITERRANEAN

XV to XVIII Centuries

Víctor ECHARRI IRIBARREN (Ed.)



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Observations on the architecture of Thermisi fortification in Argolid from 15th to 18th century

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Abstract

The castle of Thermisi was built on a strategic location of Eastern Peloponnese on the abrupt ridge supervising the adjacent salt-ponds and maritime routes of Ermionis in Greece. The fortification consists of the acropolis and an external defensive wall that protects the settlement while residential relics are also lying out of the walling system. Although the first written reference dates back to the fourteenth century with probable anterior historical phases, the castle became subject to important modifications from fifteenth to eighteenth century, changing hands between Byzantines, Venetians and Ottomans.

The current essay is based on recent architectural documentation material and ongoing research. It aims to supply with further analysis and detail about the site with emphasis on the post-medieval alterations that molded in a big scale the current form of the fortification. It investigates the defensive character, typology and construction evolution and the specific role that the fortification played in the controlling of salt lakes area, as well as the interrelation with the wider defensive system of the region.

Keywords: fortifications, transformations, military architecture

1. Introduction

After the Latin conquest of Constantinople in 1204, the Frankish Principality of Achaia is founded in 1205 (Bon, 1969; Georgopoulou-Verra & Athanasoulis, 2004), and a turbulent period begins. Between these centuries the Greeks recapture parts of the Peloponnese while vital ports, like Methoni, Nauplio, Koroni, Argos, and other cities change hands between Greeks, Venetians and Ottomans who in 1460 seize Morea. The following centuries until 1685 when the Venetians reconquer Peloponnese, many wars known as Venetian - Ottoman wars are carried out. In 1715 the Ottomans once more recapture Peloponnese.

The castle of Thermisi which is mentioned for the first time in the will of Gautier II (VI) de

Brienne, Lord of Argos and Naulplia, which is dated in 1347 (McLeod 1962, p. 379), had an exceptional strategic importance due to the salines that protects.

The researchers dealing in depth with Thermisi, McLeod (1962) and Benakis (1968), who incorporated in their studies older bibliography, have described the castle and its history referring to written sources and have published pictures and a basic plan. Another important reference is in the valuable for crusader Peloponnese book of Bon (1969, 275, 495, 658). Useful elements can also be extracted from publications of general interest. (Sfikopoulos, 1968, 113-114; Peppas, 1990, 297-298; Karpodini, 1990, 240; Jameson, Runnels & Van Andel, 1994, 121-122; Isaías, 2005, 90-293).

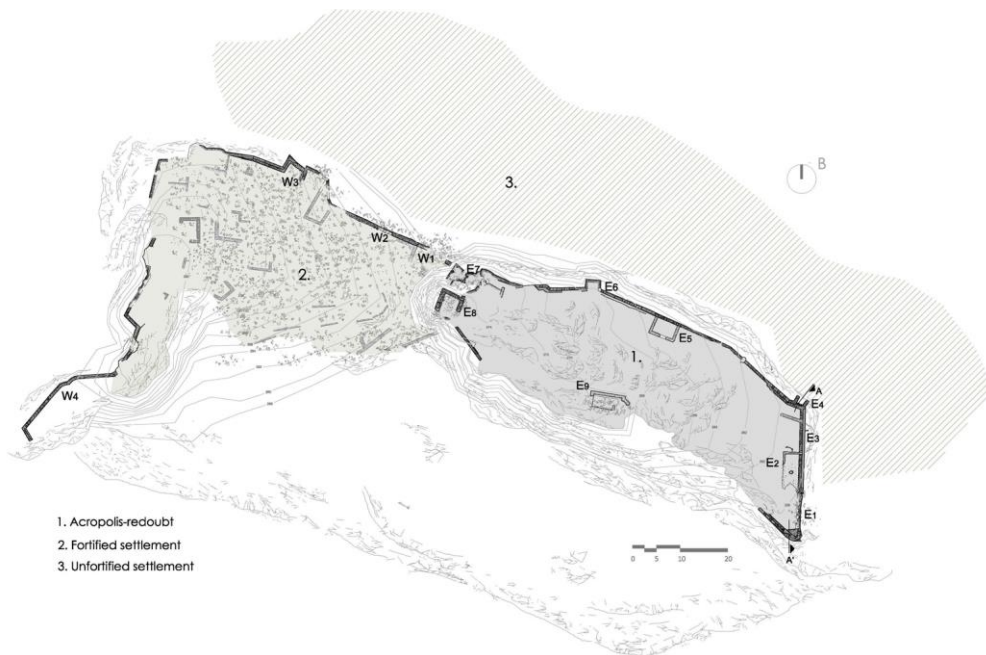


Fig. 1- Thermisi general ground plan

The aim of the description that follows is to present further research observations on construction and building evolution based on a recent survey of the castle in order to understand in a more integrated way the significance of the fortification during post-byzantine times. A basic topographic survey has been conducted in the frame of NSRF for the Digital enhancement of Castles of Argolid, Arcadia and Corinthia under Hellenic Ministry of Culture and a more elaborated architectural survey based on those plans is now presented by the writers.

2. The topography

The castle of Thermisi is located at the south coast of the Argolic Akte, opposite Hydra island. Thermisi fortification abtains nearly 2 km from the center of the contemporary settlement of Thermisia and 1,5 km from the nearby lagoon. From a glade at the north-west of the foothill the still visible historic uphill footpath approaches the fortification to the north. The dramatic rock outcrop formation that springs up in the landscape of north-east Ermionis supervising Thermisi area and Argosaronic Gulf was decisive for the selection of the building

location. The geological subdivision of the rock in two successive saddles with direction E-W, was also the cause for the architectural shaping of the fortifications that follow the natural ridge. They are built in two distinct parts with irregular elongated shape, housing the acropolis at the east and the protected settlement at the west. In their meeting point they have a notable altitude difference.



Fig. 2- North view of the fortification

The walls and relics of buildings of the acropolis can be found in a respectively medium state of conservation. There are also relics of the settlement's expansion outside the fortified area and relics that may date from prehistoric times (McLeod 1962, p. 387).

3. Architectural description

The Acropolis occupies the eastern peak. The walls that embrace an area of 1700m² (with maximum general dimensions 90 x 32 m.) are built on the north, east and west spine while the south part is left partially unwallled due to the natural defensible formation of the rock. The abrupt rocky ground of the Acropolis permitted the erection of only a few buildings, mainly attached to the fortification walls. Nowadays, within the acropolis a few buildings are maintained, namely the apse and walls of a church to the south (position E9), the central tower (position E8) dominating to the highest peak of the rock, supervising both the Acropolis

and settlement, the cistern at the east (position E2), and a rectangular building in the middle of the north wall (position E5). The walls of the northern part of the Acropolis have a surprisingly low external height ranging from 3 to 6 meters if calculated from the foot of the rock (including the battlements). There are parts of the masonry where the battlements have very small height, and due to backfillings the rampart walks are not visible or non-existent. Reaching the east part of the Acropolis, the height of the walls increases significantly (max. 9,7 m) and frames the east side of the cistern and supplementary buildings that are not yet excavated.

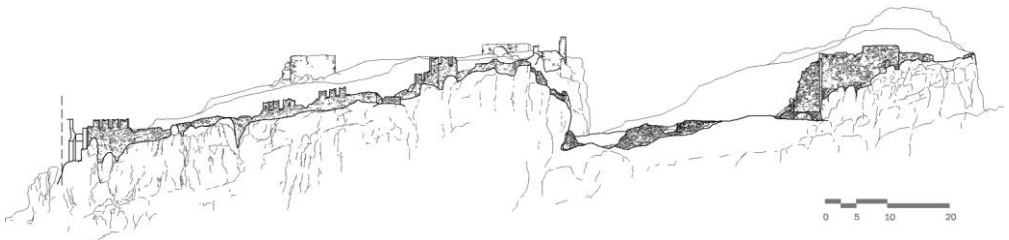


Fig. 3- North elevation of the fortification

The west part of the fortification (with maximum general dimensions 65 x 40 m.) that protected the settlement is defined by a tall defense line that extends to the west fringe. The wall that follows a broken line arrangement was framing the northern and west part of the settlement and connecting the west peak to the acropolis. It has been supported (McLeod, 1962, 387; Benakis, 1968, 55), that a defensive wall was not necessary due to the natural geomorphological character of the area. However, there must be further archaeological investigation in order to safely conclude if the remaining wall traces to the south could be fortification works or just retaining walls of the settlement. Several unidentified relics of buildings that can be found both within and outside the protected area require removal of backfilling and excavations for a safer survey and study of the settlement.

4. Observations on construction and building evolution

The fortification building activity follows the rich history of changing hands between conquerors. The contemporary form of the castle

is a result of historic modifications and repairs. The remaining walls have been dated in two different phases by the previous researchers, the first from 1394 to 1537 and the second from 1537 to 1686 (McLeod, 1962, 389). Nevertheless, building phases' discrimination is a complicated process that demands great precaution while the building techniques of roughly coursed rubble masonry do not differentiate significantly to each other. Subsequently, in some cases it is not clear whether building process occurred in different chronological periods or if there were repairs and re-adaptation of the construction at the same building phase. However, the Acropolis's building modifications should have been done in three different stages comparing the different masonry techniques and special building traces.

4.1 Acropolis – redoubt

The fortifications of the Acropolis are built by rubble masonry with stones of a medium size. Stones and fragments of tiles and bricks bedded-in mortar sporadically to fill up the gaps. The general width of the masonry varies from 90 - 110 cm. The basic part is built by zones of semi-

cut masonry interrupted by random and small size stones and tiles. The walls are reinforced with horizontal wooden ties of raw timber. The superstructure has been object to successive alterations. The part that has been crowned with notched merlons was possibly built later while in

a final phase the crenels were filled in, the height was increased and the superstructure of the fortifications was modified to a continued triangular crown. In the lower parts of the masonry of the east side the wall base is widened and the construction method is rougher.

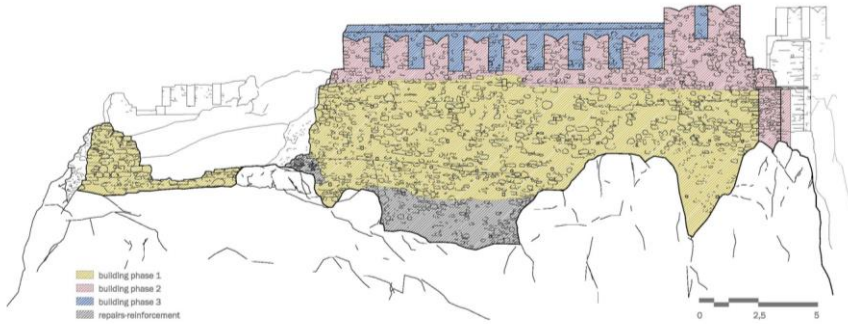


Fig. 4- East elevation of the Acropolis with construction phases indication

In the northeast of the Acropolis (position E4, Fig. 5) two short in length lateral walls are framing the corner. McLeod (1962, 388) talks about the possibility of a pulley-entrance at this point. An interesting fact is that the lower parts of these walls are not knitted to the masonry of the fortification until they reach the height of wooden lateral beams. These wooden beams are embedded to the masonry of the acropolis and are jutting out of the lateral walls' construction. From this height upwards both the lateral walls and the fortification's crenellations are tied together. The function though of this edifice remains unclear. Yet, closer inspection on the east side of the Acropolis reveals masonry traces perpendicular to the east wall possibly belonging to a similar ruined wall's base that was built on the rock foundation (position E3). These three walls may have been supporting a defensive protruding construction in order to reinforce the protection and prolong the range view. Although similar construction with supporting walls hasn't been identified in Greece, the existence of timber extruding structures has been highlighted in rare towers' cases (Mamaloukos, 2012), in contrast to the frequent practice of hours in western military architecture.

It is remarkable that the base of the wall to the north in this particular corner is thicker, until the level of the wooden beams of the perpendicular

walls and masonry seems interrupted. This element could be indicative of the pre-existence of an older understructure before the formation of the swallowtail merlons and the extruding construction. Despite the fact that the masonry technique doesn't change significantly, there are supplementary elements that could possibly belong to that first phase such as openings at the east and north wall of the acropolis below this height and separate thickness of the wall in the north part of the corner.



Fig. 5- North-east corner of the Acropolis

The addition of battlements, as mentioned, belongs to a second building phase when the corner protruding construction was added. The entrance to this structure, still visible in the wall, had been walled in a posterior period and

possibly fell into disuse. It remains unclear whether the two north highest battlements of the east wall had been an intermediate alteration of

the second phase in a way that the staircase of the rampart-walk blocked the entrance or caused its uplift.

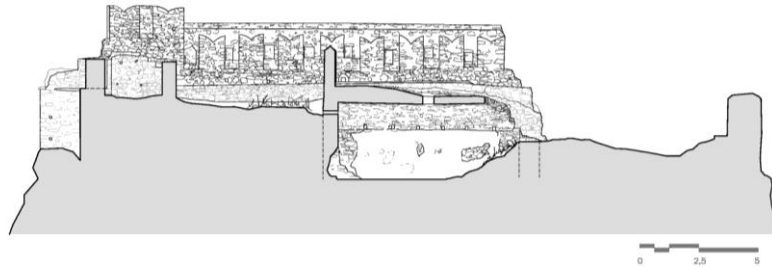


Fig. 6- Section A-A

Later on, in a more mature third phase the crenels of the east wall are being walled and the upper part of the fortifications is transformed to a continuous parapet. The evolution of war technology resulted to the creation of gun-slits in the place of previously crenels. The plaster application covers a big part of the stones and leaves fingerprint-lines.

In the same period some repairs should have been done, mainly plastering works of the external façade of the wall, as can be observed to the binding material. In a different phase the wall was externally reinforced, in a way that the masonry base was widened. This element can be identified by the use of different mortar, and also by the existence of squared and circular putlogs on the masonry.

The rest parts of the walls present one or more phases respectively. The south-west wall of the Acropolis, which suffers from partial collapse, has a triangular crowning. Its construction could be attributed to the latest building phase. It is the only place where the wall slit openings were constructed to have significant size, possibly due to the necessity of having big firing range to the south gully.

4.2 Settlement's west defense works

The north wall of the settlement has been modified in different periods. The west angular protrusion (position W3, Fig. 8) could be a tower extruding from the main body of the north wall before it was flanked by an addition to the east. The tower's masonry combines elongated stones and intrusion of very dense fragments of ceramic tiles and bricks in the joints, especially retained

in the outer lower part. This kind of construction technique presents similarities to parts of the church's masonry. The strong mortar used is responsible for the preservation of the height of walls that is reinforced by raw timber, still visible in the deteriorated areas. The tower has been subject to various alterations. Its superstructure is obviously reformed in a late phase while its base is repaired by adding strong patched plaster. Similar is the fate of the wall standing on tower's west. Its rampart walk was disrupted and wall height was increased, possibly in the third construction phase if concluding from the top alterations. Building condition of the west wall of the settlement with several collapsed parts is hard to be interpreted.

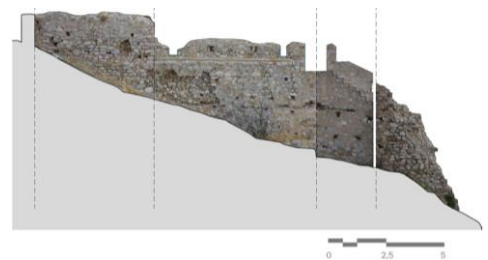


Fig. 7 Unfolded elevation of the north wall of the settlement (internal view)

On the other hand the wall on the east side connecting to the saddle of the redoubt, presents notable construction differences. There is a considerable lack of ceramic splinters and the mortar used is weaker. There are several parts where traces of a second internal wall can be recognized, where the building condition permits, attached to this one. An excavation on that point is absolutely necessary for the interpretation of the walls.



Fig. 8- North wall of the settlement & W3 tower

The descending walling of the south-west peak that frames the settlement is a construction that was applied in two distinguishable phases. The first resembles in technique the building of the battlements of the acropolis while the second is a small uplift.

4.3 Problems of entrance placement

There is poor archaeological evidence on the placement of the main entrance to the castle. McLeod (1962, 387-388) beyond the possible pulley entrance to the north-east corner, recognized traces of a staircase in the south-west of the acropolis, descending to the west saddle (position E7) and supports the possibility that the entrance to the settlement “must have been from the north, by the way of the saddle, either just at the foot of the redoubt or further west”. Benakis (1968, 55) also supports two entrances, one for each saddle. Actually at the north-west of the acropolis there are successive retaining walls that were crowing the rock framing this path. Nevertheless, the type of additional construction that should have been used to cover the height of 8 m it’s difficult to be identified. In fact, in the lowest retaining wall there are indications that it was directly connected to the north external fortification wall of the settlement and the connection might have been possible through the rampart-walk or a movable stair. It’s not unlikely that a stair construction could have been attached to that particular corner.

However, it is not evident that this could be the only or principal entrance to the acropolis. Worthy of attention is the south east part of the wall of the acropolis (position E1), close to the cistern which is now in ruins and has been susceptible to various repairs. Another gate construction could have been located there,

taking into account that it is the only point where the terrain would allow a natural way-in.

As for the entrance to the west settlement, there are two places on the wall’s masonry that provide indications for its placement, taking into account the vertical jambs that can be observed, both on the north wall (positions W1, W2).

5. Defensive role of Thermisi

The position of the fortification is doubtless naturally defensive and so decisive to the protection of the salt pans that extend to the south. The salines were so important that in a document of 1451 they are mentioned as “le più notabile saline che sia in tuto Levante, de lequal se poria cavar un pozo d’ oro”. (Thiriet 1971, 3, 169; Panopoulou, 2003, 163). In 1530 the production of salt exceeded the 12000 modii (unit for measurement). The significance of the salines and the castle of Thermisi is also proved by the fact that in 1479 they had been object of negotiations between the Ottomans and the Venetians, and they remained under Venetian occupation (Panopoulou 2003, 165). During the second Ottoman occupation, the salines were still in use. In 1720 the production of salt must have been 27000 kilos. (Balta-Yilmaz, 2004).

The centuries that followed the Ottoman occupation of Peloponnese found the area of Hydra Gulf in great motility. The gulf stays for a century in Venetian hands despite the general turmoil. Consequently, from 15th to 18th century, places with rare previous habitation such as the neighboring islands are being inhabited by people from the mainland, forced by the political conditions of the Veneto-Turkish competition on the Greek territories and frequent pirate raids. The first settlement of Kiafa in Hydra island is being fortified probably after 1460 and soon becomes a nautical power. (Argoliki Vivliothiki, 2011) In the same island the inlet of Mandraki is being equipped with two facing forts. Southern to Thermisi, Kastri fortification in cape Bisti with a first known reference placed in 1480 (McLeod, 1962) should have been active till 1537, when sieged by the Ottomans, before Thermisi was surrendered to them. Later, in second Venetian dominion the fortification of Dokos island at the south is being

repaired in 1680 by Morozini (Kyrou, 1995). The Venetian activities of creating a defensive web and the continuous claims of capturing and repairing the fortifications by Ottomans and Venetians, reveal their increased interest in controlling the naval passage way of Hydra Gulf. The passage was important for the trade maritime roads of Eastern Mediterranean and was a known route mapped in portolans of medieval times for the passage to Monemvasia (Kyrou, 1995). The role of Thermisi should be decisive in that web while its favorable location ensured a contact to the mainland of Argolid and a panoramic view of the gulf.



Fig. 8- Map showing Venetian fortified positions in Hydra Gulf

In the 15th century the defensive character of existing cities in the Balkans is reinforced while new fortifications present low walls with irregular contour, towers of open back and follow the existing building tradition with limited insertion of new defensive elements (Manousou Della, 2011). Later on, the prevalence of artillery evolution affects significantly the design process and the need to resist to the power of firearms brings radical changes to the fortifications (Athanasoulis, 2002). The defensive alterations that took place in Thermisi, basically during the early transitional period of war evolution didn't follow the major alterations of the late years because the natural morphology of the ground neither allowed nor demanded alterations of that kind. The improvements of the redoubt are mainly focused on the crenellations' modernization for the use of small arms and not in the changing of the general arrangement. The walls of inaccessible areas of the acropolis remain impressively low while the fordable part of the settlement needs higher walling protection,

reshaping and reinforcement. It seems that the natural defensive position is the major factor for shaping the castle and the reason for applying the aforementioned unusual defensive solutions.

6. Epilogue

Thermisi ideally located was offering an unobstructed view of land and naval roads and ensuring protection of saltpans' source of wealth. It was doubtless an important conquest for both Venetians and Ottomans, so that they invested efforts on its reinforcement, repair and modernization. Both rivals' contribution to the evolution of defensive architecture of Peloponnese is generally recognized. Though, the relatively small research dedicated to the structural and defensive techniques they developed isn't yet determinant for a clear dating of building phases on Thermisi. Especially, when referring to strongholds naturally defensible, the limitations of material availability implied the use of similar building techniques between both conquerors. Further comparative investigation on the critical period of Veneto-Turkish competition in Peloponnese will bring to light elements that can be safely attributed to one or another. The study of Thermisi, focusing on unknown construction elements, underlined the importance of investigating the fortified architecture of Veneto-Turkish Peloponnese in order to render necessary future excavation, enhancement and restoration works of castles of the modern era in Greek territory.

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References

- Andrews, K. (2006), *Castles of the Morea*, The American School of Classical Studies in Athens, Princeton New Jersey.
- Agoston, G. (2014), Firearms and Military Adaptation: The Ottomans and the European Military Revolution, 1450–1800, *Journal of World History*, 25 (1), pp. 85-124.
- Αργολική Αρχαιακή Βιβλιοθήκη Ιστορίας & Πολιτισμού. (2011) Ύδρα. Available from: <https://argolikivivliothiki.gr/2011/01/26/%CF%8D%CE%B4%CF%81%CE%B1/>
- Athanasoulis, D. (2002), The Venetian rule in the Ioanian Islands, Western Greece and the Peloponnese, in *Venetian and Knights Hospitallers Military architecture Network*, Hellenic Ministry of Culture Eds., Athens, pp.35-46.
- Athanasoulis, D. (2009), *The castle of Acrocorinth and its enhancement project*, Hellenic Ministry of Culture and Tourism/ 25th Ephorate of Byzantine Antiquities Eds, Ancient Corinth, p. 76-77.
- Benakis L.G. (1968), Die Mittelalterliche Festung von Thermisi/Argolis, in Πεπραγμένα: Η' Επιστημονική Σύνοδος = Actes VIII. Réunion Scientifique = Atti VIII. Congresso Scientifico = Proceedings VIII. Scientific Meeting = Akten VIII. Wissenschaftlicher Congress / Διεθνές Ινστιτούτον Φρουρίων, Αθήναι, 25-29.4.1968, Athens, 55-58.
- Bon A., *La Morée franque. Recherches historiques, topographiques et archéologiques sur la principauté d' Achaïe (1205-1430)*, 2 vols., Paris 1969
- Balta, E. & Yilmaz, F., (2004) Salinas and salt in Greek lands during the Ottoman Period, in *Tuz Kitabı* E. G. Naskali, M. Şen, İstanbul, pp.248-257.
- Jameson M.H., Runnels C.N. and T.H. Van Andel (1994), *A Greek Countryside. The Southern Argolid from Prehistory to the Present Day*, Stanford, 121-122.
- Isaias A.I. (2005), *Ιστορικές σελίδες του δήμου Ερμιόνης και των δημοτικών διαμερισμάτων Ηλιοκάστρου και Θερμυσίας. Κοινωνική, πολιτική και εκκλησιαστική πορεία στο πέρασμα των αιώνων με τοπογραφικά στοιχεία*, Athens.
- McLeod, W. (1962) Kiveri and Thermisi. *Hesperia*, 31 (4), pp. 378-392. Available: <http://www.ascsa.edu.gr/pdf/uploads/hesperia/147236.pdf>
- Ohio State University. (2012) The survey of Dokos. Available from: <https://isthmia.osu.edu/projects/survey-dokos> [Assessed 19th April 2017]
- Karpodini, E. (1990), Κάστρα της Πελοποννήσου, ΑΔΑΜ Eds., Athens.
- Κυρου, Α. (1995) Περιπλανήσεις αγίων λειψάνων και μια άγνωστη καστροπολιτεία στον Αργολικό, *Λακωνικάί Σπουδαί* 21, pp. 97-118.
- Mamaloukos, S. (2012), Observations on the construction history and architecture of the fortress of Livadeia, *DChAE*, 33, pp. 7-20.
- Mamaloukos, S. (2015), Notes on the Architecture and the Building History of the Medieval Fortifications of Nafpaktos, in *Ναυπακτιακά ΙΗ'(2014-2015)*, Εταιρεία Ναυπακτιακών Μελετών, Νάυπακτος, pp. 13-24.
- Manousou Della, K. (2011, October) Οχυρώσεις πόλεων στην Ελλάδα κατά την πρώιμη εποχή του πυροβολικού, paper presented to *Οχρωματική Αρχιτεκτονική στην Πελοπόννησο (5ος – 15ος)*, Loutraki September-October 2011).
- Miller, W. (1908) *The Latins in the Levant A history of Frankish Greece (1204-1566)*, Dutton and Company Eds., New York
- Panopoulou, A. (2003), Παραγωγή και εμπόριο αλατιού στην Πελοπόννησο (13ος – 16ος αι.), in Χρήμα και αγορά στην εποχή των Παλαιολόγων, Moschonas N.G. (ed.), Athens, 157-179.
- Peppas, I.E. (1990), *Μεσαιωνικές σελίδες της Αργολίδας, Αρκαδίας, Κορινθίας, Αττικής*, Athens
- Sfikoropoulos I. (1968), *Τα Μεσαιωνικά κάστρα του Μορριά*, Athens.