

Eastern Crete vs. central Crete. Reassessing the function and distribution of so-called defensive architecture in the Early and Middle Bronze Age

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In this paper, I present an ongoing study on the so-called defensive architecture attested in settlements of Early and Middle Bronze Age Crete, corresponding to the Minoan periods of Prepalatial (Early Minoan I-Middle Minoan IA), Protopalatial (Middle Minoan IB-IIB) and early Neopalatial (*i.e.* Middle Minoan III)¹. For this contribution, I will focus only on the evidence of Prepalatial and Protopalatial times, not dealing with that of the successive Neopalatial period.

Following the typology proposed by T. Alusik in 2007², I will concentrate on one type of defensive architecture, namely the enclosure walls in settlements, with particular attention to their chronology, function and different distribution in central - North and South - and eastern Crete (fig. 1). Despite the inclusion by several scholars of the Lasithi plateau in central Crete³, in this paper it is considered as part of eastern Crete.

The main objectives of this paper are: (1) to understand the function of the enclosure walls in Minoan settlements, attempting to define their military, political, social, and/or symbolical role; (2) to identify potential differences in the function of this architecture in a diachronic perspective, that is from the Prepalatial through the end of Protopalatial period; (3) to understand the reasons for a different distribution of settlements with en-

closure walls across the island, and especially in central and eastern Crete. In particular, following the topic of the *Schemata* conference, I am attempting to answer the following questions: (1) What is the connection of the enclosure walls with the foundation of settlements and especially of palatial sites? (2) Since the defensive architecture is well-attested only in eastern Crete, whereas in Central Crete, and especially in the south-central part of the island, the defensive architecture is much less present, my question is: is this absence of defensive architecture in southern Crete connected with the geographic location of the southern settlements or rather with a different socio-political and economic definition of the territory?

In the following pages, first I will define defensive architecture on Crete and present the typology recently elaborated by Alusik. I will then focus on the evidence of defensive architecture in Early and Middle Bronze Age Crete, following a chronological order, and finally I will attempt to identify and explain differences both from a diachronic perspective and according to the geographic distribution from central and eastern Crete.

1. Defensive architecture on Crete

Monumental structures in the form of enclosure walls, towers or simply houses, built with a megalithic technique (called frequently cyclopean) are commonly defined as “defensive architecture”, implying that their main role is to defend a site from potential enemies. Although evidence of this kind of architecture on Crete is not straightforward, the

1 In terms of absolute chronology, in a very schematic way, the Prepalatial period corresponds to 3100-1900 BC, the Protopalatial period to 1900-1700 BC and the Neopalatial period to 1700-1430 BC. See table in the volume.

2 ALUSIK 2007.

3 ALUSIK 2007.



Fig. 1 - Pianta di Creta con indicazione dei siti menzionati nel testo.

island provides massive structures and walls that can be interpreted as defence works, but whose function can also be two-fold or multiple (see *infra*). The first significant works devoted to the possible existence of defensive walls on Minoan Crete are represented by two papers by S. Alexiou⁴ who documented some massive walls dating to the Late Prepalatial (EM III-MM IA) and Protopalatial periods not only in palatial sites (*i.e.* Knossos and Malia), but also in a number of sites characterized by massive structures and/or terraces and located at some height along main routes both in north-central and eastern Crete. In the 1990s, systematic works were devoted to the study of defensive architecture on Crete, ranging from the publication of J.P. Zieliński⁵ on the “cyclopean architecture” to those by K. Nowicki on defensible sites of Dark Age Crete and in general on sites with defensive structures⁶. Numerous papers published in the *Polemos* book edited by R. Laffineur in 1999 have also enriched our knowledge on Cretan sites with defensive architecture⁷, as shown, for example, by the papers

by K. Nowicki on the fortified sites of the Protopalatial and LM III periods⁸, by N. Schlager on the Aspro Nero settlement⁹, and by the contribution of M. Tsipopoulou dedicated to the fortified building of Chamaizi and to the Petras palace, surrounded by remains of enclosure walls and bastions¹⁰. Both the paper by Tsipopoulou and the contribution by J. Driessen highlighted the multifunctional nature of fortified sites. In particular, Driessen wrote: “... they were also often the embodiment or material expression of the central places of the territories at the same time as being monuments glorifying an emerging leading power”¹¹.

Moreover, the publication of the survey conducted in the 1980s in eastern Crete by Y. Tzedakis, S. Chryssoulaki and other scholars brought to light a high number of rectangular structures that have been interpreted as guard houses or watchtowers used for military purposes, namely, to control and protect communication roads¹². In the successive years, S. Beckmann instead proposed that these

4 ALEXIOU 1979, ALEXIOU 1980.

5 ZIELINSKI 1998.

6 See NOWICKI 1999, NOWICKI 2000.

7 LAFFINEUR 1999; see also papers by J. Driessen (DRIESSEN 1999), M. Tsipopoulou (TSIPOPOULOU 1999), K. Nowicki (NOWICKI 1999)

and S. Chryssoulaki (CHRYSSOULAKI 1999) in the *Polemos* book.

8 NOWICKI 1999.

9 SCHLAGER 1999.

10 TSIPOPOULOU 1999.

11 DRIESSEN 1999, p. 16.

12 TZEDAKIS *et alii* 1989, 1990; see also CHRYSSOULAKI 1999.

sites with massive structures “must have been agricultural in character, not military or defensive”¹³, being mainly used to facilitate the distribution of products within the region. During the survey conducted by N. Panakiotakis¹⁴ in the Pediada region, north-central Crete, the scholar interpreted many of the identified Pre- and Protopalatial sites located on a hill and along the routes between Knossos and the Pediada as part of an important guard and communication system probably controlled by Knossos. In 2007, a seminal work on the evidence and role of defensive architecture on the island was undertaken by Alusik¹⁵, who was the first to define defensive architecture and propose a typology of this kind of architecture on Crete. In his book he discerned five types of the architecture in question: (1) Enclosure walls, which also encompass (2) the tower-like structures, namely towers or bastions as parts of enclosure walls or buildings respectively; (3) Guard houses, that are freestanding structures in the landscape as well as nearby the settlements, which have been differently interpreted in function (military, political, economic/administrative)¹⁶; (4) Guard rooms, which are spaces located in the entrances and/or corridors of buildings; and (5) Modifications of access systems, that is partial/entire closing of buildings entrances by architectonic means. The latter were first identified by J. Driessen¹⁷ and are mainly attested in the Neopalatial period. Alusik’s work has considerably enriched our knowledge on the effective evidence of defensive architecture on Crete, on the typology of this kind of architecture existing on the island and also on its long chronological span, ranging from the Final Neolithic to the end of the Late Bronze Age. Less attention was, instead, devoted to the symbolic functions of this architecture and to the reasons of both its different distribution throughout the island and of its rarity - or even absence - in south-central Crete.

13 BECKMANN 2019, p. 4; see references to BECKMANN 2012 (non vidit).

14 PANAGIOTAKIS 2003, 2004.

15 ALUSIK 2007. See also ALUSIK 2005a-b and more recently ALUSIK 2010, 2016.

16 On their different interpretations, see: TZEDAKIS *et alii* 1989, 1990; MACGILLIVRAY 1997; CHRYSOULAKI 1999; ALUSIK 2007 with bibliography; BECKMANN 2012, 2019.

17 DRIESSEN 1997.

2. Prepalatial Crete

For this paper, I decided to start from evidence of the Early Bronze Age Crete, although it is well-known that defensive architecture is already attested in the Final Neolithic period in many Cretan sites found in coastal zones, on hills, sometimes in defensible locations¹⁸.

The mid to later 3rd millennium (EM II) saw a substantial expansion of occupation at village level, with villages of larger size and small port towns such as Chania-Kastelli and Mochlos, together with many new settlements, especially in eastern Crete (e.g. Malia, Sissi, Gournia, Myrtos Pyrgos and Phournou Korifi, Vasiliki, Palaikastro and Zakros). In southern Crete there is the foundation of several hamlets, like Ayia Triada, some of which connected to tholos tombs cemeteries.

The Late Prepalatial period (EM III-MM IA) saw an increase in the expansion of future central palaces (Knossos, Phaistos, Malia), but also of smaller towns like Gournia, Mochlos, Vasiliki, Myrtos Pyrgos, while some centres had already gone out of use (e.g. Myrtos Phournou Koriphi).

2.1. Evidence of enclosure walls in settlements of Prepalatial eastern Crete

In the Prepalatial period, eastern Crete has revealed a good number of settlements — villages or hamlets— showing enclosure walls, sometimes with towers. The best examples are offered by the settlement of Myrtos Phournou Koriphi, located in south-eastern Crete, near the modern Hierapetra, and dating to EM II (A-B), and by the so-called fortified buildings of Ayia Photia and Chamaizi (fig. 1), both located in the Siteia Bay and dated between MM IA and MM II¹⁹.

P. Warren, in his seminal 1972 publication²⁰, discusses the reasons why the settlement of Myrtos was built on the hill of Phournou Koriphi, that is 66 m above the shore. The site is on a defensible position, on the summit of the hill, and is also surrounded by an outer wall in the southern and western sides. The wall is only 50-60 cm thick, thus it could not have been used for actual protection and

18 On the topic, see NOWICKI 2014 with previous bibliography.

19 TSIPOPOULOU 1999, 2012.

20 WARREN 1972.

defence, but for the excavator it “clearly provided some measure of defence”²¹ and is “continuous save for the two entrances”²², which are located on the western and southern ends of the settlement. Along the outer wall, a possible bastion is located near the southern entrance and two rooms, potentially used as defensive towers, are at the south-western point of the settlement²³.

Both the structures of Chamaizi and Ayia Photia, interpreted as farm buildings, are in a defensible position, with a view over the Sitia Bay, and are surrounded by an enclosure wall, usually taken to be a fortification. At Chamaizi, the building is surrounded by a wall at least from three sides – northern, western and eastern – which has an oval shape reflecting local topography²⁴. The wall is preserved to the height of two courses of masonry and is up to 1.3-1.5 m wide. On the northern part of the enclosure walls there are three almost semi-circular spaces indicating bastions. The rectangular building as well as the fortification wall are usually dated to MM IA²⁵. At Ayia Photia, the settlement consists of a rectangular building arranged around a central court and surrounded by an enclosing wall with three projecting bastions²⁶. The fortified building is dated to MM IA. Many scholars have noted analogies not only between the two fortified buildings, but also with the nearby settlement of Petras (see *infra*), which was founded in MM IB, after the abandonment of Ayia Photia, and probably of Chamaizi²⁷. What is notable about Myrtos, Ayia Photia and Chamaizi is that they all are in a defensible position, but all the three sites have enclosure walls.

At Malia, on the basis of the evidence, stretches of massive walls have been reported in several parts of the town: to the north of the future palace²⁸;

under the House Zβ in Quartier Z²⁹, located in the south-eastern area of the town; to the North and North-east of Villa Alfa³⁰, situated in the northern part of the town, not far from the coast; and to the South of Quartier E³¹, in the southern zone. The dating of these walls is however not certain. For some scholars these walls (especially the ones under the House Zβ) could date to EM III-MM I³², while for others they could date to the MM I-MM II, *i.e.* Protopalatial period, mainly on the basis of the construction technique³³. Some scholars have suggested that these walls were possibly connected each other, being part of a system of enclosure walls that would have encircled the entire town³⁴. If this is the case, Malia would be the only palatial centre of Crete displaying enclosure walls already in Prepalatial times.

From EM II to MM IA, most of hamlets or villages with enclosure walls are attested in eastern Crete. As reported by Alusik, on the basis of surviving stretches of walls, it is possible that a higher number of sites in eastern Crete was entirely or partially encircled with walls in the Late Prepalatial period (*i.e.* EM III-MM IA)³⁵, but the date and the function of these walls are uncertain; he mentions for example the site of Vasiliki, near the modern Hierapetra.³⁶

2.2 Evidence of enclosure walls in settlements of Prepalatial North-Central and South-Central Crete

There are few settlements located in north-central Crete with evidence of enclosure walls that can be certainly dated to the Prepalatial period.

We will see in section 3.2 that the site of Knossos has revealed some stretches of massive walls, whose date is uncertain, ranging from the end of the Prepalatial period (MM IA) to the end of the Protopalatial period (MM IIB).

In south-central Crete, the evidence of sites with enclosure walls is less manifest than in eastern Crete. First of all, differently from palatial sites of Knossos and Malia, the site of Phaistos has not re-

21 WARREN 1972, p. 11.

22 WARREN 1972, p. 11. See also plan of p. 11.

23 WARREN 1972, pp. 11, 79-80. The bastion is Room 62, while the two possible defensive towers are Rooms 86 and 87. According to P. Warren (1972, p. 79), the two Rooms 86 and 87 could have supported a roof and have been used for defensive purposes, as they are situated in “the exposed southwestern corner of the settlement”.

24 XANTHOUDIDES 1906; DAVARAS 1972.

25 A discordant voice is represented by M. Tsiopoulou (TSIPOPOULOU 1999, p. 185, n. 23), who suggested to date it to MM IB/MM IIA.

26 TSIPOPOULOU 1999.

27 TSIPOPOULOU 1999, pp. 184-185.

28 ZIELINSKI 1998, p. 200; see also ALUSIK 2007, pp. 89-90, fig. 73.

29 DESHAYES, DESSENNE 1959, pls. I, IV.

30 DEMARGNE, GALLET DE SANTERRE 1953, pl. LX.

31 ZIELINSKI 1998, pp. 200; DRIESSEN 1997, pp. 72-73.

32 VAN EFFENTERRE 1980; see also ALUSIK 2007, p. 149.

33 DRIESSEN 1997; ZIELINSKI 1998.

34 DRIESSEN 1997; MACGILLIVRAY 1997; ZIELINSKI 1998.

35 ALUSIK 2007, p. 118.

36 ALUSIK 2007, p. 105.

vealed any stretches of enclosure or boundary walls of megalithic nature. Not even the nearby village of Ayia Triada, with its EM II houses and its tholos tomb necropolis in use from EM II to MM II³⁷, has yielded any traces of enclosure walls.

For some Prepalatial settlements connected with tholos tomb cemeteries (e.g. Koumasa, Porti, Moni Odiyitria), Alusik reports walls of massive and/or “cyclopean” nature which have been interpreted as defensive walls³⁸. For most of them the date is not certain, and the function is not so readily definable as defensive. For example, in the case of Koumasa, the stretches of walls reported by Alusik³⁹ as defensive walls in the area of the sanctuary probably belonged to the settlement dwellings that have been excavated by D. Panagiotopoulos since 2012⁴⁰. At Moni Odiyitria, the enclosure walls reported by Alusik as part of possible defensive walls have instead been interpreted as retaining walls of terraces by A. Vasilakis and as enclosure walls for bordering the settlement by K. Branigan⁴¹.

3. Protopalatial Crete

In the Protopalatial period (MM IB-MM IIB), together with the emergence of the First Palaces at Knossos, Phaistos, Malia, and probably Zakros, and of the small palaces at Petras and Monastiraki (fig. 1), there was the expansion of coastal towns like Gournia and Palaikastro in eastern Crete, and Kommos in southern Crete. There was also a significant development of villages, such as Myrto Pyrgos, in south-eastern Crete, Ayia Triada and Apodolou, in south-central Crete.

Besides these sites, southern Crete has revealed small hamlets that are associated with the tholos tombs cemeteries, most of which began to develop in EM II and lasted until MM I-II, with some examples remaining in use until the Neopalatial period. Protopalatial hamlets connected with tholos tomb cemeteries are exemplified well by Porti, Apesokari, and Koumasa.

For this period, the surveys conducted in the Pediada region, in the Kavousi area and in far eastern Crete have revealed new foundations of settlements located on hills⁴².

3.1. Evidence of enclosure walls in settlements of Protopalatial eastern Crete

In eastern Crete, remains of enclosure walls, often associated with the presence of tower-like structures, have been documented in almost all the long-term settlements dating to the Protopalatial period, ranging from palatial sites (i.e. Malia and Petras), towns (Palaikastro), villages (Myrto Pyrgos) and small hamlets (Katalimata)⁴³. The coastal town of Gournia has revealed only a massive wall, dating certainly to the Protopalatial period (see *infra*), while its fortification system is Neopalatial in date. Among the palatial sites, we have seen that the site of Malia has revealed some stretches of massive walls - whose dating ranges from EM III-MM IA to MM I-II - that could have been part of an enclosure wall encircling the town (see *supra* 2.2). It remains, however, to ascertain whether they date to the Protopalatial period, as suggested by many scholars.

The small palace of Petras, located in north-eastern Crete overlooking the Siteia Bay, has revealed good evidence of two wall complexes of massive masonry. The first is a retaining wall with massive and “cyclopean” masonry, that the excavator, Tsiopoulou, defined “bastion”⁴⁴. It has been interpreted as part of a major wall running along the eastern flank of the plateau, which could have encircled it at the time when the First palace was constructed in MM IIA⁴⁵. According to her, the bastion was visible from the south-east and its function was not only for a visual control of the area, especially toward the sea, but it also served as a “statement of power”. It seems that the wall complex also remained in use in the Neopalatial period, when the Second Palace of Petras was constructed, and in Postpalatial times too⁴⁶. The second wall is a stretch of a massive wall in the shape of the letter Z located to the North of the

37 For the EM II houses, see LAVIOSA 1972-1973; for the Prepalatial use of the necropolis, see CULTRARO 2003 and CARINCI 2003, 2004.

38 ALUSIK 2007, p. 86.

39 ALUSIK 2007, p. 86.

40 See Fig. 1 in the 2015 online report in: <https://chronique.efa.gr/?kroute=report&id=5439>

41 ALUSIK 2007, p. 93; VASILAKIS 1989-1990, p. 45; BRANIGAN 1993, p. 100.

42 See CHRYSSULAKI 1999; PANAGIOTAKI 2003; HAGGIS 2005.

43 See also ALUSIK 2007, pp. 116-118.

44 TSIPOPOULOU 1999, pp. 183-184, pl. XXIX, (letter D on the plan), XXXIIIa-d.

45 On the Palace of Petras, see TSIPOPOULOU 2012.

46 TSIPOPOULOU 1999, p. 184, pl. XXVIIIb,

palace and discovered on the foot of the hill⁴⁷. The function of this wall is rather unclear and controversial. It was originally considered a part of a MM building by R.C. Bosanquet⁴⁸, then it was explained as town fortification with two or three rectangular towers⁴⁹. The date of the wall is questionable but is usually put in the Protopalatial period, when the first construction of the palace is fixed.

At the palatial site of Zakros, located on the east coast of Crete, there is no evidence of enclosure walls at any time, but only of tower-like structures. The latter – found in the settlement area and in the port, but not in the palace area – are Neopalatial in date (i.e. contemporary with the Second Palace of the site), even if some scholars have suggested a possible Protopalatial date for some of them⁵⁰. It remains to be understood whether the absence of enclosure walls is due to the absence of a proper palace in the Protopalatial period or to the conditions of defensibility of the site.

Myrto Pyrgos is a long-term settlement located in south-eastern Crete and inhabited from the Neolithic period to Neopalatial times⁵¹. According to the excavator, G. Cadogan, in MM IIB (Period III), the site had a Central Building and also defence walls and a tower-bastion located on the north side. According to Cadogan, the tower-bastion (Tower 1), associated with an impressive terrace wall (wall DW), could have been both defensive and a sub-structure for dwellings guarding a large, plastered cistern (Cistern 2)⁵². Cadogan defined Myrto Pyrgos as a “fortified village similar to an Italian borgo”⁵³. Of the same opinion is also Nowicki, who interpreted it as a “fortified citadel”⁵⁴.

Among the coastal towns, Gournia is one of the few Minoan settlements that is provided with a system of fortification walls: two sets of fortification walls with towers were found in the harbour and dated to

Neopalatial times⁵⁵. Together with these Neopalatial fortification walls, the North Trench Area, first excavated by Boyd Hawes, has revealed a wall, defined Wall X-X, which has been originally defined as a defensive wall⁵⁶. Recent work conducted by V. Watrous has found another part of this wall and fixed its date to MM IB. Since it does not belong to a structure, it has been interpreted as part of a circuit wall, even if it seems that the Protopalatial settlement extended beyond it⁵⁷. On the other hand, M. Buell and J. McEnroe have recently stated that this MM IB retaining wall was built using the white crystalline fabric, which is a new monumental masonry fabric (named “monumental rubble”⁵⁸) used at Protopalatial Gournia to construct walls not only of the palace, but also of houses to the north-western area of the town with the aim of increasing visibility⁵⁹. This would point to a non-utilitarian and non-practical function of the wall, which would have been constructed in a massive way to increase visibility rather than as part of a Protopalatial fortification system, as proposed by a number of scholars⁶⁰.

The coastal town of Palaikastro is located on the east coast of Crete, to the north of the Palace of Zakros. During the survey conducted by A. MacGillivray and other scholars and published in 1984, the area of the Palaikastro town has revealed several wall sections interpreted as fortification walls and at least 10 structures that have been interpreted as watch towers or guard houses⁶¹. In particular, a long line with two possible towers have been found to the East of the town⁶². On the basis of the similarities between this wall line with towers and that of Myrto Pyrgos, MacGillivray and other scholars suggested the possibility that a defensive wall could have already existed at Palaikastro in EM and MM

47 The wall is preserved up to the height of 3 to 4 m and today it is partially covered by an asphalt road leading to the village of Petras.

48 BOSANQUET 1901-1902, pp. 282-285.

49 TSIPOPOULOU 1999, p. 184; see also ZIELINSKI 1998, p. 232.

50 According to the study conducted by T. Alusik (2007, p. 38), the three tower-like structures named Seager Buildings after the excavator Seager could date to the Protopalatial time only because most of these structures - well attested in eastern Crete - date to MM II.

51 CADOGAN 1970-1977.

52 CADOGAN 2011, pp. 47-48.

53 CADOGAN 2011, p. 47.

54 NOWICKI 1999, p. 194.

55 WATROUS 2012; see also WATROUS ET ALII 2015.

56 BOYD HAWES ET ALII 1908, pp. 19-20.

57 WATROUS ET ALII 2015, pp. 418-419, fig. 16.

58 According to the two scholars, the “monumental rubble” is used to replace the cyclopean term and “to denote a wall fabric wherein the stones used are bigger than 70 cm in one dimension, usually length” (BUELL, MCENROE 2017, p. 209).

59 BUELL, MCENROE 2017, p. 215.

60 See ALUSIK 2007, pp. 67-68 with bibliography; see also ALUSIK 2005a.

61 MACGILLIVRAY *et alii* 1984. See also the catalogue of these structures in ALUSIK 2005b. According to Alusik (2005b, p. 9), some of the 10 structures interpreted as watchtowers could date to the Protopalatial times, while most of them seem to be Neopalatial in date.

62 MACGILLIVRAY *et alii* 1984, p. 137, pl. 9c.

I, probably in connection with the nearby north-east route⁶³.

According to Nowicki⁶⁴, in the Protopalatial period a number of forts and defensive sites were constructed in eastern Crete, particularly in natural boundary zones. One of these sites is the fortified Katalimata, located on the eastern side of the Hierapetra Isthmus, whose occupation in the Protopalatial period is limited to then end of MM IIB. For the role of Katalimata in this short period, Nowicki, the excavator, wrote: “became a regional fortified citadel rather than a natural refuge place”⁶⁵, which would have served the communities in the northern area of the Hierapetra Isthmus in case of threat. Aspro Nero is another fortified settlement located in the Ziros area, on the Lasithi mountains, whose occupation in the Protopalatial period is, however, not certain⁶⁶.

3.2 Evidence of enclosure walls in settlements of Protopalatial North-central and South-central Crete

In north-central Crete, remains of possible enclosure walls in settlements dating to the Protopalatial period are very uncertain.

The palatial site of Knossos has not revealed traces of Protopalatial enclosure walls encircling the settlement, but rather stretches of walls that bound sectors of the palace and whose interpretation as defensive walls is not commonly accepted. Examples are represented by the Outer Enceinte Wall near the West Court, the East Enceinte Walls and the wall found south of House B⁶⁷. A defence purpose, as a watchtower, has been suggested by several scholars also for the Early Keep, in the north side of the Central Court⁶⁸. However, its function still remains unclear.

Concerning the Outer Enceinte Wall, located to the West of the West Court, its dating ranges from MM IA (Evans), to MM IB/MM IIA⁶⁹. The defensive nature of this wall is difficult to support, and its

function was mainly to define the outer boundary and to limit access to the West Court of the palace, as pointed out by A. MacGillivray⁷⁰. Alusik also underlined the “psychological function” of this wall, rather than a proper defensive one⁷¹.

According to several scholars, the East Enceinte Walls, which also range in dating from MM I to MM IIB, were probably terrace walls rather than defensive walls.

The wall south of the House B has been interpreted as a defensive wall by some scholars, while others proposed a function as a terrace wall. Its dating to MM I/II is not commonly accepted⁷².

In the Pediada region, there are no attested settlements with enclosure walls, but rather forts and guard houses.

In south-central Crete the enclosure walls in settlements are generally less attested than in the rest of the island. Moving from the palatial site of Phaistos, not only does it not reveal any evidence of a circuit wall dating to the Protopalatial times, but enclosure walls are absent until the end of the Bronze Age⁷³. Even in the nearby settlement of Ayia Triada, there is no evidence of enclosure walls or of any other structures that could be considered defensive in function in the Protopalatial period. Differently from harbours of north-eastern and eastern Crete, like Gournia and Palaikastro, Kommos does not show any traces of megalithic walls around the settlement or near the coast, which could have had a potential defensive function.

Some evidence of enclosure walls is instead attested in the settlement of Monastiraki, in the Amari valley (fig. 1). It is located on the small hill of Charakas, along one of the communication routes between the southern and the northern parts of the island. The site was founded in MM I and collapsed in MM IIB, and was then only reoccupied in Hellenistic times⁷⁴. The excavator, A. Kanta, interpreted the settlement as a small palatial site with a close

63 MACGILLIVRAY *et alii* 1984, p. 137, pl. 9c. See also ALUSIK 2007.

64 NOWICKI 1999, pp. 193-195.

65 NOWICKI 2008, p. 77.

66 SCHLAGER 1999; see also ALUSIK 2007, pp. 22-23.

67 For a more detailed description of the possible defensive walls attested at Knossos, see ALUSIK 2007, pp. 74-85.

68 On the different interpretations of the Early Keep, see ALUSIK 2007, pp. 74-85.

69 MACGILLIVRAY 1994, p. 52.

70 MACGILLIVRAY 1994, p. 52.

71 ALUSIK 2007, p. 76.

72 For discussion on function and dating of this wall, see ALUSIK 2007, pp. 78-80.

73 The walls of the Acropoli Mediana have been interpreted as possible defensive walls by B. Hayden (HAYDEN 1988, pp. 5-6) and Alusik (ALUSIK 2007, p. 63), while E. Borgna (BORGNA 2006, pp. 105-107) recognizes a function of border walls, dating to LM III.

74 KANTA 1999.

connection to the First Palace of Phaistos⁷⁵. In the site area, there are sections of well-preserved massive walls, which are thick and built with megalithic stone blocks. To the south, the walls are more than 2 m high. They form the southern border of the settlement. They have been interpreted as cyclopean walls with defensive function and compared with the Petras fortification by Alusik⁷⁶. The nearby settlement of Apodolou⁷⁷, equally located in the Amari Valley and connected to the Phaistos palace, which was founded in MM I and collapsed in MM IIB, has not revealed enclosure walls or any kinds of defensive architecture. Some of the small settlements associated with the typical tholos tomb cemeteries of the Mesara plain and of the Asterousia area are provided with stretches of megalithic walls, whose function is not clear. They have been variously interpreted by scholars as defensive, retaining or border walls. In the case of Porti, Xanthoudides reported a stretch of a huge wall around the settlement identified on the summit of the hill near the tholos tomb⁷⁸. He interpreted this wall as defensive, but its function will remain uncertain as the wall is no more preserved⁷⁹.

4. Concluding remarks

4.1 Chronology and distribution of enclosure walls in settlements across the island

It appears that in the Prepalatial period the evidence of settlements with enclosure walls and towers/bastions (e.g. Myrtos Phournou Koriphi), as well as of fortified buildings, like Chamaizi and Ayia Photia, is limited to eastern Crete. Less certain is the situation of Malia, where there are some stretches of walls - in its north-eastern, eastern and probably also in its southern part -, which could have been constructed at the end of the Prepalatial period, i.e. EM III-MM IA.

In the Prepalatial north-central Crete, the evidence of enclosure walls in settlements is not attested. The site of Knossos has not revealed enclosure walls en-

circling the town, but only some walls, likely used as boundaries for some parts of the palace. We have already observed that their dating ranges from the end of the Prepalatial period to the beginning of the Protopalatial period (see *supra* 3.2).

In south-central Crete, there are only a few settlements connected with tholos tomb cemeteries that could have revealed stretches of massive walls, whose function as defensive walls rather than as retaining walls remains unclear. Likewise, their dating to the Prepalatial period is uncertain (see *supra*, Moni Odiyitria).

Following the survey conducted by Alusik, in the successive Protopalatial period the sites with enclosure walls and/or tower-like structures increase⁸⁰. In eastern Crete, we observed remains of enclosure walls at the palatial site of Petras and at the village of Myrtos Pyrgos, and in the hamlet of Katalimata. With the exception of Petras, where the enclosure walls are likely contemporary with the foundation of the palace (i.e. MM IIA), in the other two sites the fortifications encircle the settlements only at the end of the Protopalatial period, i.e. MM IIB. Less certain is the chronology of the above-mentioned stretches of walls found at Malia and at Palaikastro (see *supra* 2.2).

For Protopalatial eastern Crete, it is interesting to note that enclosure walls are attested at all settlement levels, whatever palatial sites, towns, villages and hamlets.

For north-central Crete, we observed that the Protopalatial town of Knossos did not reveal enclosure walls, while the First Palace probably yielded massive walls bordering its important marginal areas.

In south-central Crete, the only settlement attesting enclosure walls with tower-like structures is Monastiraki, in the Amari Valley, on the road between the Mesara plain and the northern coast of Crete. The main Protopalatial settlements of the Mesara plain, namely Phaistos, Ayia Triada and Kommos, do not show any evidence of enclosure walls. Interestingly, among the three main palatial sites of Knossos, Malia and Phaistos, the latter is the only centre that does not yield any traces of massive walls either in Prepalatial or in Protopalatial times. Likewise, the harbour of Kommos, whose monu-

75 See KANTA 1999, 2012.

76 ALUSIK 2007, p. 110 with bibliography.

77 TZIGOUNAKI 1999; CIVITILLO, GRECO 2003.

78 XANTHOUIDES 1924, p. 54.

79 VASILAKIS *et alii* 2019, p. 6.

80 ALUSIK 2007, p. 118.

mentalisation begun in MM II, has not revealed any kinds of coastal fortification, even in the successive Neopalatial times. This represents an exception in the scene of the Minoan harbours, if compared to Gournia, Palaikastro and Zakros.

As observed for the Prepalatial period, it appears that also in the Protopalatial period most of sites yielding enclosure walls are located in the eastern half of Crete. Moreover, following the results of surveys conducted by Chryssoulaki and Haggis in eastern Crete⁸¹ and by Panagiotaki⁸² in the Pedada region, in the Protopalatial period there is an increase in the number of guard houses distributed along the roads connecting sites respectively in the two above-mentioned parts of the island. On the contrary, south-central Crete seems to remain poor in this kind of architecture also in the Protopalatial period.

4.2 Exploring possible functions of enclosure walls in settlements

The enclosure walls attested in Prepalatial settlements do not seem to have had a proper and actual defensive function. In the case of the EM II Myrtos Phournou Koriphi, the walls are not thick enough to represent a proper defensive wall, but we might think of other possible functions, connected both with the spatial and socio-political definition of the settlement and with its visibility. In this sense, an interesting case is represented by the site of Malia. If the remains of defensive walls date to EM III-MM IA, this could have had multiple functions. These walls could have had the function of delimiting the growing settlement of Malia, especially in a period corresponding to a new reorganization of the settlement, with levelling works of the future courts of the palace⁸³. Second, considering both the vicinity of the settlement to the sea and the non-defensibility of the site, it is likely that they represented a defensive system of the town. Moreover, as suggested by Maud Devolder (pers. comm.), it is possible that these walls were constructed in order to be visible from the sea, not necessarily by potential enemies, but also by sailors and visitors. The visibility of walls from the sea could be connected to a “state-

ment of power”, as proposed by Tsipopoulou for the Protopalatial walls at Petras.

Returning to the function connected to the spatial definition of a settlement, it is worthwhile pointing out that most of the enclosure walls attested on Crete were constructed in the Protopalatial period, i.e. when there was the first transformations of villages into towns, for instance at Myrtos Pyrgos, and when the palaces were first constructed, as at Petras and Monastiraki. This is also the case at Neopalatial Sissi, where the first construction of a megalithic wall at the foot of the palace hill was contemporary with the construction of the court-centred building in MM IIIB⁸⁴.

Special cases are represented by Knossos and Gournia. At Knossos, despite the absence of proper enclosure walls, the above-mentioned stretches of walls probably had the function not only of bounding and defining some parts of the palace, but also of increasing visibility of very crucial public spaces of the palace, such as the West Court with its Outer Ancient Wall. We have observed that this specific function has recently been attributed to the Protopalatial Wall XX of Gournia by Buell and McEnroe⁸⁵. Among the main palatial sites of the Protopalatial period, it remains, however, to understand why Phaistos does not yield any remains either of enclosure walls or of megalithic single walls. One answer might lie in the fact that its defensibility is given by the hill where it was constructed, but, as discussed below, this does not explain the absence of any traces of enclosure/border walls potentially pointing not only to define spatially and/or symbolically the whole (or parts of) the palace, but also to celebrate the palatial leadership.

It appears that in eastern Crete the enclosure walls served not only to define the space of a settlement, but also to defend it. Most enclosure walls constructed with this dual function seem to appear at the end of Protopalatial period, i.e. MM IIB. This is the case at Myrtos Pyrgos, with its walls and bastions, at Katalimata, and also at Palaikastro and Zakros – if the identified walls could date back to MM II, rather than to the Neopalatial period. These

81 CHRYSSOULAKI 1999.

82 PANAGIOTAKI 2003.

83 DEVOLDER 2019; DEVOLDER, CALOI c.d.s.

84 On the megalithic wall, see JUSSERET 2011, pp. 172-174, figs. 7.11-7.12; on the construction date of the court-centred building, see CALOI 2018.

85 BUELL, MCENROE 2017, p. 215.

sites are all located in the eastern half of Crete. Together with these sites, it is worth recalling that the MM II phase also saw a new increase in settlement occupation in the Kavousi area and the increase in the number of guard houses and forts, both in the Pediada region and in the far eastern Crete. The proliferation of these forts, associated with an increase in fortified settlements (like Myrtos Pyrgos and Katalimata), and of coastal towns with enclosure walls, have prompted several authors to interpret the end of the Protopalatial period as a period of unrest and instability. Already in 1991 M. Wiener⁸⁶ suggested that in eastern Crete there were more forts because this part of the island was more exposed to overseas raids or because of a new hegemony of Knossos. In 1997, MacGillivray highlighted that encircled towns are attested only in eastern Crete⁸⁷ and arrived at the conclusion that the countryside of eastern Crete was in dispute during the Protopalatial period. In 1999, Nowicki compared the end of the Protopalatial period with the LM IIIC period, defining the MM II as a time of internal conflict, which generated the construction of forts and other defensive sites along the natural boundaries⁸⁸. Moreover, in 2013 Cadogan wrote that the eastern half of the island shows a “surge (...) of defence works” exactly at the end of the Protopalatial period⁸⁹.

According to these scholars, in eastern Crete the main reason for the construction of enclosure walls is due to the need of defence against enemies. For Wiener⁹⁰, the enemies could be both internal and external, the latter referred to overseas raids from the Anatolian coast. This hypothesis could be corroborated by the fact that in the Protopalatial period the most active ports for the trade with Egypt and the Levantine coast are located on the north-eastern coast⁹¹. Thus, arrivals of ships to Crete were mainly from the East or North-East. This would also probably explain the absence of fortification

walls in the harbour of Kommos.

For most scholars, the enemies are internal⁹². The instability of eastern Crete would be explained by the arising of more centres in the island, a phenomenon that would have increased competition among them, but also a need for greater control of their respective territories by the regional centres, like Knossos and Malia.

If this hypothesis is correct, and the increase in defensive walls can be connected not only to a statement of power of emerging centres, but also to a real need of defence, this picture would effectively only work for eastern Crete, and to a lesser degree, for north-central Crete.

This period of unrest, instability and dispute is not evident in south-central Crete, where no single site was provided with enclosure walls during the Protopalatial period, except for Monastiraki, which is, however, located in the Amary Valley, on the road to the north.

Here, some questions naturally arise: Why do the palatial centre of Phaistos and the other hamlets, villages (e.g. Ayia Triada) and harbours (e.g. Kommos) of south-central Crete, not have enclosure walls with a possible defensive function? Was southern Crete excluded from this kind of unrest suggested by several scholars for the MM IIB Crete? Is it possible that this period of instability and unrest arose in MM II only in the eastern half of the island because competition/rivalry among different centres is more evident in this part of Crete rather than in the South?

Moreover, might we suggest that the absence of defensive architecture and especially of enclosure walls both at Phaistos and in the other settlements of the Phaistian region, is possibly the result of a different political situation of the Mesara plain in comparison with that of other Cretan regions governed by palatial centres?

The MM IIB period in southern Crete represents both the peak of the palatial power at Phaistos and the new, increasing development of important settlements, like those of Ayia Triada and Kommos, which cannot be interpreted as “competitors”, but rather as satellite villages of Phaistos. Recent stud-

86 WIENER 1991, p. 336

87 MACGILLIVRAY 1997, p. 23.

88 NOWICKI 1999, pp. 192-194.

89 CADOGAN 2013, p. 209. He wrote: “Here I believe we can see from present evidence a surge (an appropriate word, I think) of defence works in the eastern half of the island in late Protopalatial times, i.e. Middle Minoan IIB”

90 WIENER 1991, p. 336.

91 CARINCI 2000; SOLES 2005; CALOI 2013.

92 See WIENER 1991; MACGILLIVRAY 1997; NOWICKI 1999, NOWICKI 2008; CADOGAN 2013.

ies on Protopalatial Phaistos have indeed shown that the palatial site was not in competition with the other nearby settlements of its territory, but rather the catalyst centre of a regional, integrated system⁹³, which arose in MM IB with the emergence of the Phaistos palace and disintegrated at the end of MM IIB with the palace's collapse. This would probably justify the "unnecessity" of defence works to protect from internal enemies and would also explain why the majority of hamlets/villages of the Mesara plain (with the exception of Ayia Triada and Kommos), but also of the Amari Valley (namely Apodoulou and Monastiraki), went out of use with the collapse of the Phaistos Palace at the end of the MM IIB.

It is worth noting here the contradiction reported by Warren in a recent definition he gave of the First Palace of Phaistos: "Its location demonstrates two contrasting socio-political realities. On the one hand the site commands the Mesara plain, yet it is scarcely defensible in intra-site terms and could not have been selected without communal agreement"⁹⁴.

A last point concerning the site of Monastiraki, in the Amari Valley, which is often considered part of the region dependent on Phaistos, still remains to be fully understood. We have observed that this is only settlement of southern Crete with bastions and enclosure walls of cyclopean nature. I believe this could be explained by its location on the road between the South and the North: if the site was somehow dependent on Phaistos, as proposed by several scholars, it is possible that the Phaistos Palace had a major requirement to control the routes crossing the island.

It is interesting to point that also in the successive Neopalatial period the Phaistos Palace, as well as the southern part of the island, continued to not provide evidence of any potential defensive architecture. This absence is significantly attested also at Knossos, where the Outer Ancient Wall seemed to have gone out of use at the end of the Protopalatial period. However, most sites of eastern Crete, whether palatial centres (Malia, Petras, Zakros), villages (Myrtos Pyrgos) or coastal towns (Palaiakastro, Gournia), still had defensive walls. It appears that enclosure walls in settlements are quite

typical of the eastern half of the island, leaving southern Crete – and probably also north-central Crete – not so much peaceful, but at least less open to negotiation.

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93 CALOI 2015; see also MILITELLO 2012.

94 TODD, WARREN 2012, p. 53.

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RIASSUNTO – In questo contributo si presentano i risultati preliminari di uno studio sull'architettura cosiddetta difensiva attestata in insediamenti dell'Antico e Medio Bronzo a Creta, e precisamente dei periodi Pre- e Protopalaziale. Ci si concentrerà, in particolare, sulle mura di cinta degli insediamenti minoici, con specifica attenzione alla loro cronologia, funzione e distribuzione nelle regioni centrali e orientali di Creta. Gli obiettivi sono multipli: comprendere la funzione di questa architettura, sia essa militare, politica, sociale e/o simbolica; le eventuali differenze riscontrabili nella lunga prospettiva, nello specifico dal periodo Prepalaziale al Protopalaziale; ed infine spiegare le ragioni della diversa distribuzione di questa tipologia di architettura all'interno dell'isola. Nel confronto con la Creta orientale, si ipotizza infatti che la quasi totale assenza di mura di cinta negli insediamenti della regione meridionale dell'isola sia da attribuirsi ad una differenza nella definizione socio-politica ed economica del territorio.

SUMMARY – In this paper, I present an ongoing study on the so-called defensive architecture attested in settlements of Early and Middle Bronze Age Crete, corresponding to the Minoan periods of Prepalatial (Early Minoan I-Middle Minoan IA: 3100-1900 BC) and Protopalatial (Middle Minoan IB-IIB: 1900-1700 BC) Crete. I will focus only on one type of this architecture, namely on enclosure walls in settlements, paying special attention to their chronology, function and different distribution in Eastern and Central (northern and southern) Crete. The main objectives are to understand the function of the enclosure walls in Minoan settlements, attempting to define their military, political, social, and/or symbolical role; to identify potential differences in the function of this architecture in a diachronic perspective, that is from the Prepalatial through the end of Protopalatial period; to understand the reasons for a different distribution of settlements with enclosure walls across the island, and especially in central and eastern Crete. It will be argued that the absence of defensive architecture in southern Crete in comparison to Eastern Crete could be the result of a different socio-political and economic definition of the territory.

Parole chiave: Creta – insediamenti minoici – architettura difensiva – mura di cinta.

Keywords: Crete – Minoan settlements - defensive architecture – enclosure walls.

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