

**Part V**  
**Experiencing the Mountain**  
**as a Cultural Landscape**



# 11 The Mountainous Mesocosm of Koumasa of Central Asterousia: The Nodes of a Mountain Cultural Landscape

## 11.1 Walking

In continuation of the exploration of the Mesocosm in Chapter 9, this Chapter will focus on the mountainous part of the Asterousia around Koumasa and the paths within it. This pertains to identifying the role of the location as per this mountainous region, as well as verifying and examining the results of computational analysis and theorising on the role of this area presented in the chapters above.

The exploration of the terrain upon which settlements emerged has gained widespread acceptance and utilisation in archaeological methodologies, particularly within the field of landscape archaeology and beyond.<sup>1077</sup> This has found ample applicability in the case of historical Crete.<sup>1078</sup> This approach facilitates the comprehension of networks connecting settlements and, more heuristically, opens up the experiential aspects of ancient inhabitants' lives. Such an exploration provides deeper insights into the diachronic nature of landscape experiences. This insight extends to everyday aspects of life, encompassing elements that traditionally receive less emphasis when studying places of interest, including considerations of the horizon, visibility, and the dynamic interaction with the landscape, thereby transcending a focus solely on the ground plans of buildings, and introducing a landscape-driven cultural biography. In the case of Crete, the mountains defined the way of life, but their role extended to enact an agency of their own, interacting with the dwellers' daily experiences.<sup>1079</sup> On Crete, the four mountain ranges offer fixed points of reference that act as a spatial orientation and an active interface of land and sky, as Bollnow puts it. The four mountain ranges, and for the case of Messara, the peaks of Psiloritis and Kophinas by the Asterousia, flank the horizon, rendering the space around one to a finite and manageable surrounding, again

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1077 Bollnow 1994; Haaland – Gunnar 2011; on the propagation of the term Landscape Archaeology out of Britain and gradual incorporation of Mountain Archaeology in it, see Widmann 2014, 123.

1078 Rackham – Moody 1996; Chaniotis 1996a; Widmann 2014; Nowicki 2014a; Kalantzopoulou 2022.

1079 Widmann 2014, 120–126.

to use Bollnow's words.<sup>1080</sup> This can be seen in the etymology of Messara as "the area between the mountains".<sup>1081</sup>

The mountain life has been interwoven with the culture and identity of Cretans, with the mountain peaks not only acting as a common point of reference but adding to a sense of security and at-homeness. "To Cretans, the high mountains have always been a well-known part of the island's culture. (...) High mountains are revered as a place of solitude and, on occasion, the last stronghold of the eagles of freedom. Although the average Cretan probably never sets foot in them, it is the sight of the mountains that has brought courage in the dark days of the past."<sup>1082</sup> This development is connected with the need for security, as, from the early Middle Ages, pirates have forced populations to seek refuge inland.<sup>1083</sup> A brief mention of this fact is seen in the experience that the early traveller Fynes Moryson documents.<sup>1084</sup>

For a better understanding of the impact of the landscape, a study of the act of walking is necessary; in this chapter, this is presented for the mountainous areas around Koumasa. Movement is not merely an accessory to knowledge, but, as Ingold and Vergunst eloquently assert, the act of walking itself constitutes a distinct way of knowing.<sup>1085</sup> This perspective, which finds resonance in Minoan archaeology, was already articulated by Pendlebury in his thoughts on maps, which he regarded as a supplementary tool in the context of the aforementioned evaluation. He emphasised time rather than distance as the most crucial factor and noted that the terrain of Crete, in particular, is less compatible with the utilisation of cartography.<sup>1086</sup> Bintliff underlined the importance of walking time rather than map distances and described catchment areas delimited by a given walking time threshold.<sup>1087</sup> Walking through a landscape without dependence on modern technology, as evident in ethnographic research, represents a fusion, or rather an integration, of two seemingly contradictory emotions: fear and confidence.<sup>1088</sup> This is particularly pronounced in mountainous terrains, a phenomenon substantiated by psychological studies.<sup>1089</sup> Walking on a mountain presents a contrasting experience to

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1080 Bollnow 1994, 77.

1081 The name in various variations is found in many islands, such as Thera, Andros, or in Cyprus where it appears as Messaoria, supporting this etymology. An alternate etymology is refereeing to an area in the inland of the island.

1082 Rackham – Moody 1996, 193.

1083 *Knossos II*, 85. A similar behaviour could be seen in other periods of instability, such as LM III.

1084 See Footnote 1104 below.

1085 Ingold – Vergunst 2008, 5.

1086 See Footnote 535.

1087 Bintliff 1977, 112–113.

1088 Conclusion based on the walking habits of the Batek tribe of Malaysia, their customs and linguistic analysis of words referring to walking (Tuck-Po 2008, 32).

1089 For the perspective evolutionary psychology offers for the human's perception of the mountain, see Chapter 12.3.

movement in a plain or urban environment. Walking in an urban setting has been considered a social activity, characterised by “the way the person’s movements are continually responsive to the movements of others in the immediate environment”.<sup>1090</sup> By contrast, the interaction when walking a mountain is not social but a sensory one, interacting with the landscape itself. Movement on a mountain demands adaptations in each step; an elevation here, an unstable rock there. Thus, contrary to the social nature of movement in a city, navigating a mountain introduces a unique form of dialogue. In this context, the mountain serves, on the one hand, as a steadfast counterpart in terms of the view and far peaks, but one that is, on the other hand, elusive in its incremental and step-by-step behaviour, fostering a dynamic interaction with the natural environment. Walking is, then, related with the sense of feeling as a sensory input; not only through movement and through the feet on the ground,<sup>1091</sup> but also the resistance of the ground, felt through the walking stick by the hands.

The other crucial sensory input, that of seeing, should also be considered. These landscapes offer an ever-shifting panorama of depths and heights, invoking an element of uncertainty that is mitigated solely by the confidence derived from experience in these rugged mountains. “The walker experiences the material depth of the proximate environment through binocular vision and through the effect of motion parallax created by the blurring of near objects in contrast to those further away. The touched, smelled and heard proximate material world is thereby woven into the walker’s sensory field, leading him or her to experience the landscape as a topological realm of contiguous places”.<sup>1092</sup> Perception is not defined from a static point, but rather from continuous movement along the path, being thus a “path of observation”,<sup>1093</sup> with the parallax impacting the senses at a primal level, as the human brain is not adapted to accept it as natural, hence inducing a sense of awe and otherness.<sup>1094</sup> These effects give visibility a dynamic aspect during walking.<sup>1095</sup> Thus, the landscape is created by the viewer’s perception and is not a static characteristic but a collection of experiences and viewpoints.<sup>1096</sup> Here, one touches on the philosophical discourse moving between phenomenology and Berkeleyan idealism. The latter links the existence of physical objects with their perception by the mind, being revealed or “materialising” through the multisensory character of experiences, and it is understood particularly in perceiving landscapes.<sup>1097</sup> This is often

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1090 Ingold 2004, 328.

1091 Ingold 2004, 319–321.

1092 Olwig 2008, 84.

1093 Ingold 2004, 331.

1094 On this phenomenon see Footnote 1273; for a discussion of the role of evolutionary psychology in perceiving mountains, see Chapter 12.3.

1095 Peatfield 2009, 257–258.

1096 Haaland – Gunnar 2011, 24–25.

1097 Schmidt 2020, 267.

summarised in the principle of “being is to perceive”, that leads to ontological perceptions that have been the subject of philosophical discourse.<sup>1098</sup> This thesis can be seen in relation to, but also a reversal of, traditional platonism or Kant’s views, summarised traditionally in the aphorism of “Das Ding an sich” (the thing-in-itself), where reality is understood as independent of our perceptions, but accessible through our mental faculties. A middle ground could be seen in the phenomenological principle emphasising the embodied nature of perception.<sup>1099</sup> The idea is that our perception of the world is fundamentally tied to our lived, bodily experiences.<sup>1100</sup> It argues for a kinaesthetic consciousness, a term which is akin to kinaesthetic sensation, and the union of viewing and touching, an element, interestingly, strongly derived from Berkeleyan Idealism.<sup>1101</sup>

Returning to Minoan studies, many of the mountainous areas on Crete have not been well studied.<sup>1102</sup> This is particularly the case for the mountainous heart of the Asterousia range, which has attracted little attention because of its marginality.<sup>1103</sup> Despite its relatively modest width, in the area of central Asterousia specifically, movement is governed by a limited number of narrow paths, often obstructed by precipitous gorges.

The Ayiofarango valley, despite being less rugged terrain – an aspect that contributed to its selection as the primary route toward the southern Asterousia during Hellenistic and Roman times, albeit resulting in a longer distance from Gortyn – was still acknowledged for its challenging nature. This difficulty was documented in one of the earliest modern accounts of the area by the traveller Moryson.<sup>1104</sup>

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1098 For a review of the “Esse est percipi” principle, see Muehlmann 1978, 89–92.

1099 Schmidt 2020, 276; Husserl 1977.

1100 Merleau-Ponty 2012; Husserl 1977.

1101 Schmidt 2020, 264.

1102 Kalantzopoulou 2022, 1.

1103 See discussion in Chapter 2. It is characteristic that Asterousia is absent from the study of Cretan mountains, as seen in, for example, Wildmann’s analysis (Wildmann 2014).

1104 Fynes Moryson described the way from the harbour of Kali Limenes towards the Odighitria Monastery that his party took in 1596, and which he does not depict as a particularly enjoyable experience: “... they shewed me about the wilde Rockes, called Calisminiones, a Monastery of the Greeks, some three miles distant, and called Santa Maria Ogidietra. We being left alone, and staying there fasting till noone, at last espied, and called to vs two men passing by vpon the Mountaines, but they thinking vs to bee Pirats, fled away as fast as they could. Presently behold, my man comming out of the Wood, and bringing with him an Asse, which hee had found there, who perswaded me to lay my baggage on that beast, and so to walke softly towards the Monastery. I willingly tried my strength, and leaning vpon our two swords for want of a staffe, and yet often falling, went forward like a snaile, till despairing of going further, I fell vpon the ground. After an howers space, a Shepheard passing by, and I shewing him gold, and naming Monastery, which word he vnderstood, he swiftly ran to the Monastery, and telling the Monkes (called by the Greekes Caloiri) our state and condition, they presently sent a seruant to vs, who in the Italian tongue telling vs the great danger wherein we should be, if we staid vpon those Mountaines till night, aduised vs to make haste to the Monastery. Thus driuen with feare, and encouraged by his company, I tried againe to goe forward, and with great trouble passed one mile ouer the Mountaines. For leaning, as I said on two swords, and vpon the passage of any steepe Mountaine, by reason of the lightnesse of my head, creeping vpon hands and feete, with great difficulty I went so farre. And now being not able to goe any further, no not to saue my life, behold a boy, who came to water his Assears Fountaine adioyning, to whom the seruant of the Monkes gaue a piastro, and so whether he would or no

The southern slope of the Asterousia range is characteristically steep, as seen from the density of the contour lines in the map of Figure 92 below, often presenting areas that are impassable for groups carrying heavy loads (indicated by the highlighted areas in the map). This pronounced ruggedness is primarily attributed to the steeper nature of the southern slope when compared to the northern one, as can be seen in the cross-sections of Figure 18 in Chapter 3.3. Another noteworthy aspect of the Asterousia is its dual symmetry, wherein one can invariably perceive either the sea or the valley at each location. This characteristic serves to demarcate one's position on either side of the range. Transitions from one side to the other typically occur during the shift from ascending to descending segments of the paths. These transitional points are considered liminal, and their significance extends beyond their strategic value, as will be discussed in the case of the path to Trypiti. They also hold psychological significance, marking the shift from the realm of the sea to that of the valley, and vice versa.

For an initial comprehension of the Asterousia from the viewpoint of a Minoan archaeologist, one needs not look beyond the accounts provided by Evans and Pendlebury in the first half of the 20<sup>th</sup> century. Evans traversed these mountains while exploring what he believed to be the route between Knossos and the Messara region, while Pendlebury offered a more analytical description of paths from Miamou to Vassiliki and from there to Trypiti.<sup>1105</sup> These belong to the region of western-central Asterousia and the borders with central Asterousia (as defined in Chapter 9.1), so that the central Asterousia area remained underexplored. While walks towards Kophinas has been undertaken, the topography of the central Asterousia itself remained outside the primary focus of those studies.<sup>1106</sup>

For present day research, a tool often utilised for evaluating walking is based on GIS methods, as discussed in Chapters 4 and 5. When addressing questions of topography and walking distances, one cannot, however, rely solely on the algorithms of GIS and map analysis.<sup>1107</sup> While these tools are undeniably essential and insightful, they remain quantitative instruments for understanding a particular location. True comprehension necessitates physical exploration and firsthand experience of the terrain in question, to form a qualitative approach. After all, a landscape is created by the viewer's perception, as discussed above. So, for evaluating it, an eye-witness account is essential.

In an attempt to comprehend the role of Koumasa within the network of routes in central Asterousia, the author embarked on a series of walking expeditions. These journeys were based on prior surveys conducted in the region and supported by GIS methods, as well as information gleaned from interviewing local residents of Koumasa, Loukia, and Kapetaniana regarding established paths and their usability. These

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tooke his Asse, and set me vpon it, and so at last wee passed the other two miles (longer then three English miles) and came to the Monastery. The Caloiri or Monkes receiued vs courteously ..." (Moryson 1617, 253).

1105 *Knossos II*, 81–87; Pendlebury et al. 1935, 83, 85–89.

1106 See Footnote 359.

1107 See Footnote 584 and discussion on page 117.

investigations, notably the expeditions to access the sea and Kophinas peak, offered valuable insights into the exertion required, and the time investments demanded by such treks. The focal point was determining viable paths for the transportation of goods and cargo with the aid of animals, prioritising routes that circumvent the need for climbing – a preference sometimes not held by locals, who primarily employ such paths for shepherding and hunting.

To create a comprehensive picture of the path networks, five treks were documented using a smartwatch equipped with GPS capabilities. This technology not only tracked the routes taken, but also provided essential data on total distance covered and the duration of each trek. Four of these treks started at Koumasa, with the starting point, for consistency, in the area directly north of the tholoi. These routes concluded either at the sea-shore, on locations considered as Minoan harbours, or at the Kophinas peak. The path from Salamias to Ayios Ioannis was measured as an extra trek. Additionally, a sixth trek charted an alternative path originating from Ayios Ioannis and passing through Kapetaniana, so that these paths are interconnected. For an overview of all paths, see Figure 92.

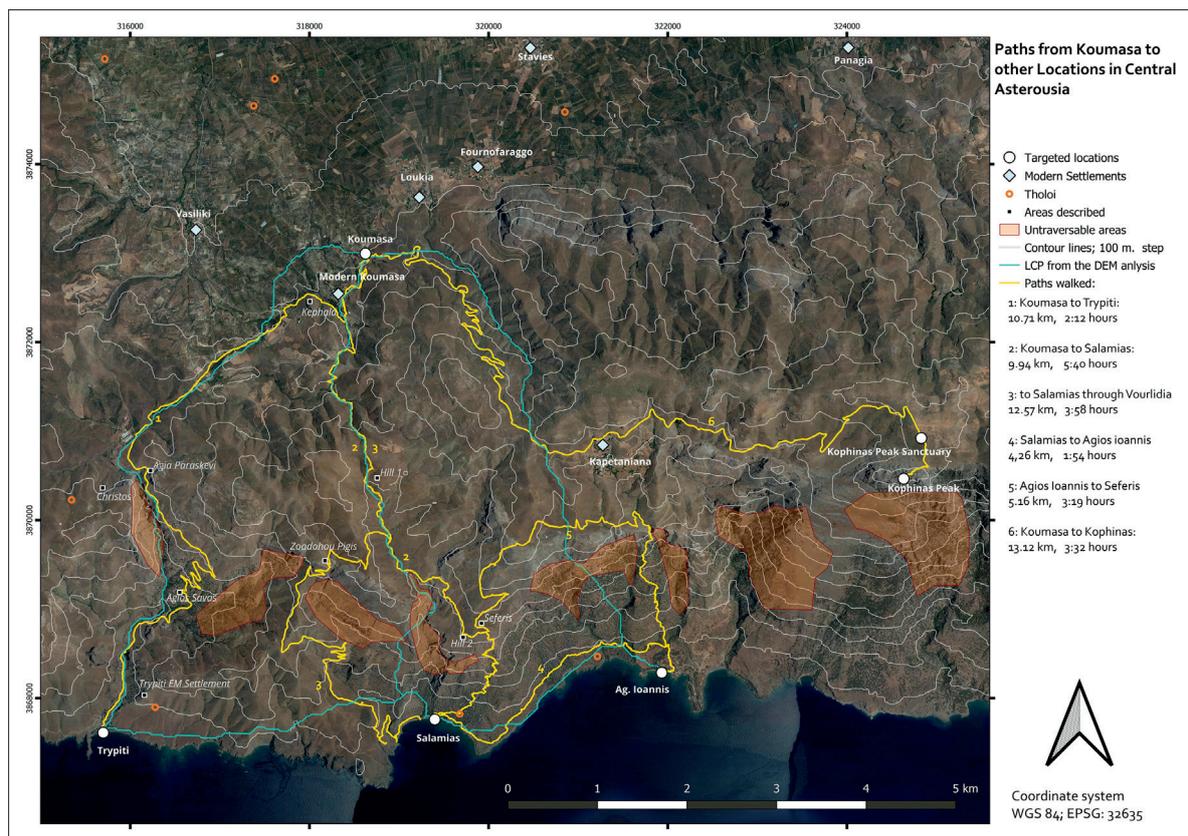
The integration of GIS analysis and walking was taken into consideration in the preliminary assessment of potential paths offered by the programme.<sup>1108</sup> However, a genuine evaluation of their feasibility can only be attained through physical exploration and walking these paths in person. The author undertook to walk some of them, especially those which did not seem probable, judging by the contemporary road and path systems. The GIS suggestions to directly access the sea are the routes to Salamias – Ayios Ioannis and Trypiti. Of those, the most surprising was the suggested route to Salamias from Koumasa, which seems to offer a shortcut that rendered Salamias as the nearest place to access the sea.<sup>1109</sup> The fact that in these locations a Minoan presence is known increased the credibility of the assumption of such a connection. The author's efforts to traverse the mountains were complemented with interviews with locals, who often undertake such excursions for hunting and caring for their flocks.<sup>1110</sup> Walking alongside, or close to, the line suggested by GIS helped to understand the logic of the algorithm, allowing for its evaluation, which will be presented for each path separately. On a large scale, the routes proved to be good suggestions and, amongst the possible routes, were some not mapped by modern paths. An inaccuracy at the small scale, as expected, was also seen; for example, where a human would walk around a small gap or a large stone, the algorithm would indicate a direct line through the obstacle. These inaccuracies, stemming from the pixelation of the DEM raster, having a pixel resolution

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1108 Martini 2020. Although this article considers a modern urban environment, which differs from the aims of this study, the methodology of comparing empirical experience and the algorithmically calculated paths is still valid.

1109 See related discussion in Chapter 5.2.

1110 Including Markos Skordalakis, Dimitris Tsiknakis, Giorgos Tsiknakis, Stelios Tsiknakis, Konstantinos Kokkinakis.



**Figure 92:** Illustration of the documented paths within central Asterousia.

of 20 m., were to be expected. Each pixel has eight neighbours, and movement through a fairly straight gorge, for example, will appear straight, not taking into account the small-scale zigzagging required to traverse the terrain. These uncertainties can be seen represented by the GIS paths as straight lines that are longer than 20 m., which does not represent the reality of walking. Of the three calculated least-cost-paths (LCPs) beginning from Koumasa southwards (blue lines in the Figure below), this effect is primarily seen in (1) the Gourlofarango gorge, which Path 1 bypasses from the east; (2) the beginning of the Salamias gorge, that the LCP follows, which in reality must be bypassed through Hill 2 (Path 2) and through Zoodochou Pigis (Path 3); and finally, (3) the eastern one passing through a difficult peak east of Seferis, that Path 5 bypasses from the east.<sup>1111</sup>

<sup>1111</sup> The contour lines were produced by editing a 30 m. SRTM DEM in QGIS, with an API key obtained by <https://portal.opentopography.org/>. LCPs calculated on the 20 m.-DEM.

### 11.1.1 Walking to Trypiti

From an archaeological perspective, the route to Trypiti was initially delineated by Evans,<sup>1112</sup> who began his description from the tholos of Christos, proceeding downward as indicated below. With regards to access from the Messara region, the most obvious route involves passing through the contemporary village of Vasiliki. Its location serves as a pivotal juncture, connecting several villages within the Asterousia range, including Koumasa to the east,<sup>1113</sup> and other areas to the west with paths leading southwards but also towards Miamou<sup>1114</sup>. This second route traverses the vicinity of the tholos of Porti while proceeding upstream. Notably, various tholoi are situated adjacent to these streams, as previously discussed.<sup>1115</sup> Within the immediate vicinity of Vasiliki, several positions yielded surface finds, as identified by Pendlebury, albeit no longer observable today. Among these locations is Gyrokephala, which, based on its description, could be associated with the Kandila cemetery, featuring EM, MM, and Roman pottery sherds.<sup>1116</sup> Vasiliki itself presents MM I pottery sherds, located, according to the precise description provided, to the north of the village near the school,<sup>1117</sup> situating them in proximity to the Vasiliki stream. Other locations mentioned by Pendlebury and Nowicki have been noted in Figures 80, 86 and 89 above. These, showcase this characteristic of the location of Vasiliki, as it lies on the southern edge of the semicircular extension of the valley, which is shown in the contour line of 300 m. that passes above the village. The contour lines of 360 m. and 400 m. that pass just above the tholoi of Koumasa also accentuate the semicircle-shape of this region of the Messara.

The path taken by Pendlebury, and conceivably also by Evans, leads directly from the area of Vasiliki point to the summit of Ayia Paraskevi, where the Goulofarango gorge, known today as the Ayios Savas gorge, commences. In its entirety, the route followed by Pendlebury takes less than two and a half hours.<sup>1118</sup> The author, who proceeds at a slower pace than Pendlebury, completed the distance in 2:40 hours, benefiting from the modern road infrastructure that reduces travel time.

An alternative route taken by the author commences at the tholoi of Koumasa and deviates from the downhill route leading to Vasiliki (Path 1 in the map of Figure 92),

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1112 *Knossos II*, I 82–83.

1113 Pendlebury et al. 1935, 86–87.

1114 See Pendlebury 1939, Map 2. This was also seen in the analysis in Chapter 9.2.2.

1115 The identification of these by Pendlebury, as well the path connecting Apesokari to Vasiliki through Vasilika Anoyia can be seen on the map Pendlebury et al. 1935, Fig. 2.

1116 Described as a local rise 15 m. north of Vasiliki; the cemetery of Kandyla is the only topographical feature that satisfies this description. At 10 minutes, the distance is a bit shorter than that described by Pendlebury from the traditional centre of Vasiliki, but it is accessed through a modern road, which reduces the travel time.

1117 Pendlebury et al. 1935, 87.

1118 Pendlebury 1939, 11.

which from the elevated position of Koumasa seems counterproductive as it lies 100 m. lower as the contour lines show, and, most importantly, the other way is exclusive to Koumasa. Instead, it proceeds directly southward, traversing the modern village of Koumasa and passing at the base of the summit of Kephala, where a settlement is indicated by EM I–II house remains, while FN II–EM I pottery is seen on its northern slope.<sup>1119</sup> This would make it contemporary with the earliest documented use of the Koumasa tholoi area. This hill is less than 1.6 km. from the tholoi area, requiring 25 minutes to reach. As with the other two locations,<sup>1120</sup> this early location is at a fortified position, at the northern end of the Asterousia, and in addition, Kephala is the closest in walking distance from the coast, in this case, the Trypiti area.

The route from Koumasa to Trypiti spans a total distance of 10.7 km. and takes approximately 2:20 hours to complete via modern roads. While the preindustrial path may have taken slightly longer, the time required is still comparable to that from Vasiliki, with only a 20-minute difference. Around the 5 km. mark, halfway along the total distance, this route, the terrain of which rises slightly upwards but without any abrupt gradient in the slope, reaches the summit of the Gourlofarango gorge, known today as the Ayios Savas gorge, or Katsakné, and intersects with the road originating from Vasiliki. At this junction, the southern horizon unfolds, offering a first glimpse of the sea, albeit at a modest azimuthal angle. Shortly after, the promontory of Phylakas at Trypiri (near the goal of the path) comes into view, thus rendering this junction a liminal point in this path. The perceived landscape is illustrated in Figure 93.

On the one side of this junction, roughly 20 minutes to the southwest, above the western slope of the gorge, one encounters the tholos of Christos with a timespan covering EM III or MM IA to MM IB.<sup>1121</sup> Within an area of 50 m<sup>2</sup>, 15 sherds of FN II–EM I dating were found.<sup>1122</sup> On the nearby hilltop of Volakas, settlement activity was noted, characterised by Xanthoudides as Minoan, which led to its identification as a ‘sanctuary’.<sup>1123</sup> However, the dating of the site seems to be later. The extent of the small settlement of ca. 3,000 m<sup>2</sup> yields surface finds of late LM III and Early Iron Age, being topographically similar to small refuge settlements.<sup>1124</sup> Indeed, its position is highly defensible, with an overview of a large area and control over the route described here, but at the same time, it is not directly visible to those walking along the gorge.

On the other side, approximately 5 minutes eastward from the junction, the church of Ayia Paraskevi is situated atop a small summit that Pendlebury believed to be a fort,

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1119 Panagiotopoulos 2015a, 545; Nowicki 2018, 21. For a view of this hill as seen from Koumasa, see Panagiotopoulos 2015a, 560, Fig. 30.

1120 On Kephala, Afentis Christos and Kalamaki, see discussion on page 241f.

1121 See Footnote 934.

1122 Nowicki 2018, 25.

1123 Xanthoudides 1924, 70; *Knossos II*, 81.

1124 Rutkowski – Nowicki 1990, 114.



**Figure 93:** Above: first glimpse of the Trypiti bay and Phylakas promontory. Christos settlement and tholoi behind the Volakas hill on the right. Below: view towards the Volakas hill beyond the Gourlofarango gorge. Christos tholoi and settlement on the other side of the hill.

based on the presence of architectural remnants and pottery sherds.<sup>1125</sup> Most notably MM I pottery sherds were identified at this location, coinciding with the final phase of use of the Christos tholos.<sup>1126</sup> Unfortunately, these elements could not be verified, except for very small pottery fragments that could not be dated. The current church is a modern structure whose construction could have eliminated these features. The topographical features of this area, including the view of the sea and the strategic positioning at the beginning of the abruptly descending path to Trypiti, lends credence to the possibility of it serving as a fort or checkpoint, as Pendlebury assumed.<sup>1127</sup> Moreover, it is situated at a bottleneck, and ca. 1 km. before it is where the roads from Miamou and Krotos (the location of two more tholoi), Vasiliki, and the direct route from Koumasa converge. At that point the round structure at Plakouras was identified.<sup>1128</sup>

The road downwards has a greater gradient in contrast with the first half of the trek. Evans provides a literary-style description that underscores the desolate nature of the terrain. He details a route that commences at Christos and proceeds through the gorge of Ayios Savas, after which there is a narrow passage that he describes in a dramatic tone as a “Chasm” (Figure 94).<sup>1129</sup> In contrast, Pendlebury does not ascribe a specific level of difficulty to this gorge.

It is worth noting that the initial section of the Gourlofarango gorge is impassable without climbing, suggesting that access must have been via the road that traverses the church of Ayia Paraskevi. This alternate route, followed by the author along the modern road, continues along the eastern flank of the gorge, following a zigzag pattern. Located at the base of the gorge is the church of Ayios Savas, where Pendlebury identified pottery dating to the LM I and LM III periods, as well as Roman pottery, and a structure.<sup>1130</sup> Although remnants of a possible structure are still visible, precise dating remains unattainable due to the presence of modern pavements and other buildings in the area. Access to the bay itself is facilitated through a natural opening in the rocks mentioned above, forming an impressive tunnel that serves as a torrent bed. Following rainfall, this opening can become a hazardous watercourse. Beyond this point lies the isolated bay of Trypiti, which is well sheltered from the prevailing west winds and is largely detached from the broader Asterousia region.<sup>1131</sup> The path along the gorge marks the sole direct path leading to Trypiti, with the other being a traversable but longer path, of similar

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1125 Pendlebury 1939, 125; Pendlebury et al. 1935, 87.

1126 Of the two tholoi in the area, the first (no. 61 in the catalogue of Branigan 1970) is of unknown dating, considered by Xanthoudides as an unfinished tholos (Xanthoudides 1924, 70), while the second (no. 11 in Branigan 1970) spans the period EM III–MM I. (On these two tholoi, see Legarra Herrero 2014, 171–172). See also Footnote 934.

1127 Pendlebury et al. 1935, 87.

1128 See Footnote 937.

1129 *Knossos II*, 82. For its location, see Figure 100.

1130 Pendlebury et al. 1935, 87, Pl. 13a; 1939, 235.

1131 Evans' description is very accurate (*Knossos II*, 82–83).



**Figure 94:** Evans’s “Chasm”, beyond which lies the secluded Trypiti bay.

difficulty, that passes through modern Krotos and the tholos, approaching Trypiti from the west via Trachoulas.<sup>1132</sup> The tholoi of Krotos and Christos can thus be seen to be located midway on the two paths from Trypiti towards the Messara.

At Trypiti Pendlebury describes a Geometric settlement,<sup>1133</sup> and also Roman buildings are known,<sup>1134</sup> but to us the area is known mainly for its Minoan features. Their overview and the implications they have for Trypiti's role as a harbour are analysed in Chapter 11.3.1.

Regarding the evaluation of the route suggested by the GIS, it initially recommends a path that starts from Koumasa, veers towards Vasiliki, but subsequently turns southward before reaching it. While this route is not entirely implausible, it introduces unnecessary complexity just in order to avoid the initial uphill ascent undertaken by the author, which, in reality, is not particularly challenging. Additionally, at the gorge of Ayios Savas, the GIS evaluation fails to acknowledge the difficulties encountered in its initial stages due to the sudden vertical drops of the stream, resembling a cataract-like formation. This oversight is attributed to the inherent limitations of DEM, as it does not discern abrupt changes in terrain at the median level of each pixel (pixelation effect). Of the functions used on the 20m.-DEM (see Figure 23), only the second degree-polynomial – called here as the exponential – diverges significantly, choosing the way through Krotos to approach Trypiti from the west, from the direction of Trachoulas. As mentioned above, this is indeed the other way to Trypiti, but is longer. It is noted that it is this path that the algorithm proposes when a route from Apesokari to Trypiti is queried (see Figure 26). When using the 30m.-DEM, the Bell-Lock function diverges but in a less practical way, following the route to Krotos but reverting to the main path (Figure 24). This is yet another example of the Bell-Lock being less accurate on the mountainous terrain.<sup>1135</sup> Applying peripheral points along the south coast, a route close to the path taken is the only main access to Trypiti, based on the raster slope and the Ox-cart function, as seen in Figures 30 and 31.<sup>1136</sup>

The flow accumulation based on the Tobler and Bell-Lock (Figure 39) also lead to Trypiti almost as expected, with Bell-Lock diverging slightly, again as expected. By utilising the exponential approximation of the cost surface (Figure 40), GIS analysis produced a secondary path until the Ayia Paraskevi region, continuing with a tertiary path through the Trypiti gorge until the chasm, whose opening of 7–9 m., being less than a single 20 m. pixel, is not perceived, hence the existence of a blockage; this contrasts to

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1132 This path was proposed by implementing the exponential function, as seen in Figure 23 and discussed on page 124f.

1133 Pendlebury et al. 1935, 88, Pl. 12d.

1134 See Footnote 1170.

1135 See Footnote 1169 and discussion on page 304.

1136 It is noted that the cut-off slope implemented in iteration 3 of Study 3 in Chapter 5.3 does not affect the path significantly.

the least-cost path, where the way was forced, as a beginning and end for the journey is required. The actual path therefore is very similar to the result of the least-cost path.

In summary, the DEM-derived routes serve as a useful reference for identifying the suggested path but may benefit from further refinement to account for the intricacies of the terrain as seen in the author's journey. Certainly, they offer a finer understanding of the terrain *post evento*, after one has walked the route.

### 11.1.2 Walking to Salamias

The route to Salamias (Path 2 in map) is an off-road journey, the first two-thirds of which represent only one of several possible paths up to the Seferis summit. The path was chosen because it aligns with the one generated by GIS, in order to assess it. It proved to be the best choice up to a certain point, as discussed below. The total distance covered is 9.94 km. and required 5:40 hours. It begins from the tholoi and passes through the modern village of Koumasa, following two natural stream beds known locally as Amygdalos and Goulas up to 30 m. below a local peak (635 m.), situated ca. 500 m. east of the Diakoniaris summit. At this point, designated as *Hill 1* in Figure 92, with an elevation of about 600 m., the valley disappears from view, and the sea becomes visible, as seen in Figure 95; this marks the first third of the route, covering the initial 3.5 km., and was traversed in 1:10 hours. The abrupt change in scenery allows its characterisation as a liminal point.

The second third of the journey is a gradually descending path spanning from the 3.5 km. point to the 7 km. point of the journey, and required 2:30 hours.<sup>1137</sup> The terrain is relatively even and without significant slopes. The stream bed followed downhill develops into a gorge, called Salamias gorge, which, after a certain point, is not walkable without climbing (at the point where Path 2 diverges from the LCP path in Figure 92). So, the trek to Salamias should either deviate eastwards to the area called Flomias, which is the continuation of Path 2, or turn shortly before this blockage towards the west (see discussion on Path 3 below). Continuing on Path 2, the view of the sea becomes quite commanding, extending from the Kophinas peak in the east to Lentas and beyond in the west, unobstructed by any obstacles. Towards the conclusion of this segment, which passes through the region known as Flomias, the path reaches a local hill just southeast of Seferis. This hill, with an elevation of ca. 500 m. (designated as *Hill 2* in Figure 92), was in the recent past utilised by shepherds, who constructed stone enclosures related to shepherding. Among these enclosures, older ruins are discernible, possibly remnants of terracing, where Roman pottery sherds were seen. From this point on, Ayios Ioannis becomes visible to the southeast.

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<sup>1137</sup> This time is certainly less for one familiar with the terrain, as the author's slow pace due to uncertainty added to the time needed.



**Figure 95:** View from Hill 1. First glimpse of the sea.



**Figure 96:** View from Hill 2. View from Hill 2.



**Figure 97:** Salamias bay, as viewed at the beginning of the final third section of the path, beneath Seferis. The steepness of the mountain is visible.

The third and final part of the route involves a steep descent, necessitating zigzagging along the only viable path that leads to Salamias beach (see Figure 97). This section spans from the 7 km. point to the end of the route at Salamias, up until the 9.94 km. mark of the journey at the seashore, immediately beneath the Minoan building complexes, and requires 2:00 hours to traverse. The beginning of this downward path is situated to the south of the Seferis summit. The only other feasible descending path leads southeastward directly to Ayios Ioannis. Testimonies from the locals suggest that the inhabitants of Kapetaniana in the 20<sup>th</sup> century utilised this path to obtain salt, with the help of donkeys.<sup>1138</sup> This is substantiated by the presence of structured retainer elements for the zigzagging path that are still visible, as well as a horseshoe seen near Hill 2.<sup>1139</sup> Around Hill 2, which is surrounded by small structures, like the mitata that are still used by shepherds, elements of older walls are visible, and pottery fragments that, though undated, could be Roman at the latest. The archaeological interest of the Salamias bay will be discussed in the next chapter.

1138 Based on testimonies from the villages of Kapetaniana, Koumasa and Loukia.

1139 The fact that this path downhill is not frequented has led to it being more difficult to walk, as its state has deteriorated due to fallen rocks.

As mentioned above, the southern slopes of the Asterousia are particularly steep which allows only for a couple of easily walkable paths to the bays of the southern side. This rugged terrain contributes to the isolated nature of Salamias, and this also applies to Ayios Ioannis (see also the cross-sections in Figure 18 and refer to the areas marked as untraversable in Figure 92). The region around Koumasa serves as a natural nexus, facilitating connections between this area and the Messara region – an exclusivity that is more pronounced than in the case of Trypiti.

Again, the first segment of the route aligns very well with the GIS-generated path, particularly in recognising the two stream beds of Amygdalos and Goulas, which were known to the inhabitants of modern Koumasa. However, the second part, where GIS estimates a path through the Salamias gorge, is less likely to have been a frequent route for the exchange of goods by parties utilising pack animals due to its high level of difficulty. As mentioned previously in the discussion of Trypiti, the GIS's limitations are associated with its inability to account for sudden, cataract-like changes in elevation, which are not captured in the raster elevation pixels. The third part of the route (descending from Seferis Hill) corresponds to trekking paths connecting Salamias to Kapetaniana. The flow accumulation based on the cost surface (Figure 40) and the Tobler (Figure 37) indicate this path with a secondary path up until the beginning of the Salamias gorge, and then through it with a tertiary path, which, as discussed above, is not easily walkable. However, this indication led the author to try and find a direct way, so this method is deemed valuable as a suggestive tool. As per the other functions utilised, all but the Bell-Lock yield a similar path both in the least-cost-path and the flow accumulation methods.<sup>1140</sup>

As previously mentioned, prior to encountering the obstacle presented by the Salamias gorge, there exists an alternative route to Salamias by heading westward and then proceeding toward Salamias via the modern road that links the Zoodochou Pigis church to Vourlidia (Path 3 in Figure 92). Departing from Vourlidia, there is a relatively challenging coastal path that leads to Salamias, an option chosen by the author. Alternatively, a somewhat easier but slightly longer route descends from the hilltop, north of the FN fort of Salamias West.<sup>1141</sup> This path from Koumasa to Salamias through Vourlidia spans a distance of 12.57 km. and requires approximately 3:58 hours to complete. Although it is roughly 3 km. longer than Path 2, it requires 1:40 hour less time, largely owing to the descent portion, which covers the distance from Zoodochou Pigis to the seashore along a milder slope. The presence of modern roads in parts of this descent is also a factor. The flow accumulation based on the cost surface suggests the path towards Zoodochou Pigis, as a tertiary path from the beginning of the Salamias gorge, at which point it stops as the elevation descends from that point. Tobler also indicates this path (Figures 39, 40).

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1140 See discussion in Chapter 5.2 and Chapter 5.3.

1141 See Footnote 1175 below; point b in Figure 102.

### 11.1.3 Walking to Ayios Ioannis

The bay of Ayios Ioannis is situated almost directly beneath the Kophinas peak (Figure 98; see also cross-section in Figure 18) and can be accessed from the east via a lengthy path leading to east Messara (in the direction of Treis Ekklesies) and from the west via a mountainous path descending from the hill of Seferi (interestingly, only the Ox-cart function suggested this path in the LCP analysis, see Figures 23 and 24).

However, its most direct connection is from Salamias, along a 4.26 km. path requiring 1:53 hours (Path 4). This path terminates at the shore by the Minoan complex described by Hadjidaki.<sup>1142</sup> A Minoan presence in this region is further corroborated by tholos tombs and other sites detailed in the following chapter.

The GIS-suggested path runs alongside the shoreline but offers limited utility, as it mainly follows the coastline or passes through the terrain which has a uniform slope, so that the algorithmic input is not particularly insightful.

Two additional routes extend northward from the bay, leading toward the modern village of Kapetaniana. One follows a zigzagging path similar to the modern paved road, while the other ascends via the mountain pass above the Ayios Ioannis gorge, covering a distance of 4.21 km. and taking approximately 2:50 hours (Path 5). Although traversable, this path cannot be considered suitable for transporting heavy loads due to its steep sections (refer to the contour lines of Figure 92). After reaching the relatively even terrain south of Kapetaniana, one can descend toward Seferis Hill (a descent lasting slightly more than 30 minutes), and continue on to Messara through the Koumasa area. Alternative paths through the northern slope of the Asterousia, along the Koumasa–Kophinas route, are also feasible.

This network of paths underscores that easy access to and from the Messara valley, or Kophinas peak to Salamias and Ayios Ioannis, is primarily attainable via the Seferis hill, which is a local focal point for movement in this area.

Eastward of Ayios Ioannis, a path along the shore leads to the cave of Ayios Antonios, Koudoumas monastery, and ultimately to the bay of Tris Ekklesies.

With the exception of the Ox-cart function that suggests the route to Ayios Ioannis from Seferis (see also the emerging network paths in Figures 23, 31), the other functions suggest a walk through the mountainous ridge south of Kapetaniana, which is not traversable (Chapter 5.2, Study 1). It is, therefore, in this instance that the GIS methods show the maximum divergence from the reality of walking. The flow accumulation, based on the other reclassifications (Chapter 5.3.2), indicates that there is accessibility almost towards Kapetaniana with a secondary path, with a less practical route again through the main gorge south of Kapetaniana, but also over the non-traversable ridge.

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1142 See below in Chapter 10.3.3.



**Figure 98:** View of Ayios Ioannis from Seferi. To the north (left) Kophinas peak is visible.

#### 11.1.4 Walking to Kophinas

Numerous paths lead from the valley to Kophinas, offering different approaches from its northwest through Kapetaniana or directly from the north. The most direct route commences from the area around the village of Panayia, while longer but more level paths originate from the areas of Koumasa and Loukia, leading to Kapetaniana. From Kapetaniana, one road leads to the Kophinas peak and through the Kophinas sanctuary. The documented route embarked from the same starting point as the others, reaching the Kophinas peak via the peak sanctuary. This path (Path 6) follows the modern roadway and continued on the dirt road from Kapetaniana, covering a distance of 13.12 km. and lasting approximately 3:32 hours.

At around the 6 km. mark, nearly halfway through the total distance, one reaches a liminal point where the valley to the north fades from view, the Kophinas Peak becomes visible, and a vista of the sea to the south unfolds (see Figure 99). A bit further, around the 7 km. point, lies the village of Kapetaniana, which, in the context described here, holds a similar role to that of Ayia Paraskevi on the route to Trypiti or, along Path 2 towards Seferis and Salamias, the area between Hill 1 and Hill 2, providing an equivalent setting from a topographical point of view; isolated from the valley and with command



**Figure 99:** First glance of the seashore and Kophinas peak.

of the view southwards. The Kophinas peak offers a spectacular point of reference. The road remains relatively even until reaching the Minoan peak sanctuary.

After Kapetaniana, the road continues, passing by the Tris Ierarches church and the location of the Late Byzantine monastery. At the 3-hour mark, with a total distance of 12.25 km. covered, the peak sanctuary of Kophinas is reached. From there, the peak itself, which requires some climbing in its final section, lies another 900 m. away, a journey completed in approximately 30 minutes. From there, a wide view is available, including the Messara to the north. The view to the north includes most of the Messara valley and Psiloritis peak to the northwest, and Phaistos to the west. A line of sight exists to Youktas,<sup>1143</sup> Liliano, Kastelli Kephala<sup>1144</sup> and the sanctuary of Tylissos to the north.<sup>1145</sup> To the south, the view includes almost all the coastline of the Asterousia,

1143 Soetens 2009, 264; Fig. 22.1.

1144 Rethemiotakis 1997.

1145 Peatfield 1994; Kyriakidis 2005; Briault 2007, 134–137. On the lines of sight, see Soetens et al. 2008 155–158, Fig. 6. The view of Damantri and Phaistos is used for discussion as indicators of territoriality (Soetens et al. 2008 155–156, Fig. 4). Kyriakidis (2005, 17–19) notes that the sanctuary's location not being on the peak

with the cape of Aspro Mouri to the south east and the Ayios Ioannis bay directly to the south. Towards the west, the shoreline is visible until the cape of Salamias, and then the promontories of Trachoulas and Lentas, up until the western end of Asterousia at Kali Limenes, together with the island of Megalonisi and up to Cap Lithino due west, and, weather permitting, even to Gavdos.<sup>1146</sup> For the archaeological information and evaluation of Kophinas peak and the peak sanctuary, see Chapter 11.4 below.

As for the GIS indications, in the LCP analysis, a path similar to the one taken is suggested by all functions except the Bell-Lock, which yields an access from the north, suggesting a path that partially traverses the valley. This is indeed possible, but the limitations of this function, as discussed above regarding its applicability in mountainous terrain and the emphasis on favouring valley routes, is again relevant (see Figures 23 and 24). However, in the flow accumulation, the Bell-Lock leads more directly to the peak than the Tobler (Figure 39). In the flow accumulation based on the cost surface (Figure 40), the path to Kapetaniana described above branches out to a tertiary path leading, as with the rest of the functions, more or less on the path traversed up to the peak.

## 11.2 The Southern Asterousia Coastline and Harbours

The investigations described above pertain to the mountainous network of routes in the central Asterousia, with the harbours themselves being described in Chapter 11.3, and the mountain itself in 11.4. The model of the regional survey in the area was pioneered by Blackman and Brannigan who, in their survey area, defined the Ayiofarango as a research unit based on environmental and geographical factors, aiming to investigate evolving social and economic patterns in the valley and trends over time to characterise the natural surroundings of the human activity there.<sup>1147</sup> A similar approach is pursued here for the central Asterousia, which is also a confined geographical location. It is similar to the Ayiofarango survey not only for the geographical proximity, but also its seclusion, definition by a handful of paths, and relative lack of known locations, in contrast to broader surveys in the mountains of east Crete, where the relative density of finds allows for different methodologies.<sup>1148</sup> However, when addressing the question of harbours on its coastline to the south, the locations studied cannot be considered in

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itself should not be considered as falling within the class of the peak Sanctuaries, although many of its characteristics and finds are ascribing it as such.

1146 See Chapter 5.4 for the visibility map from Kophinas peak (Figure 47) and for the visibility line of sight between the peak and the southern coast towards the west (see Figure 48).

1147 Blackman – Branigan 1977, 13.

1148 Kalantzopoulou 2022; also, the forthcoming publication of Xenaki's dissertation (related to her presentation "A view from the mountain's top: modelling the use of mountainous areas in eastern Crete" presented on January 9<sup>th</sup>, 2024, at the British School at Athens).

isolation, as, despite what their access possibilities to the north may be, the coastal sites present a similar level of connectivity between them, being in generally even distance between them and spread in a way that makes best use of the natural harbours and the relatively few even areas. Furthermore, throughout most of history, the settlements on the coast of the Asterousia, from Cape Lithino and Martsalos to the west until the Viannos region to the east, exhibit common patterns in their social trajectories, allowing them to be considered within a common regional framework, and they should first be addressed as a whole, as was presented in Chapter 3, before focusing on the central Asterousia in the following chapters.

The social trajectory within the Asterousia region is characterised by homogeneity, primarily shaped by the significance of harbours and their role in sustaining life.<sup>1149</sup> The mountainous areas, although utilised for economic purposes, have a thinner width compared to other mountainous regions in Crete. Unlike places like Lasithi, the Asterousia lacks extensive plains that could serve as a permanent anchor for settlements. Instead, the utilisation of areas and the presence of communities are intrinsically linked to the presence or absence of harbours below, that would determine the need for, and the frequency of use of, the available routes.

It is important to note that the analysis of Asterousia in Chapter 3 is based on evidence from the western part of the Asterousia, up to Lebena, and from the northern side of the Asterousia, at the edge of the valley; Vasilakis' work in Trypiti represents the closest that analysis has been made on the eastern side of the central Asterousia. However, new finds in the areas of Ayios Ioannis and Salamias would indicate that this image needs to be updated.

### 11.3 Harbour Areas Connected to Koumasa

As discussed earlier, one of the objectives of this work, as outlined in its goals, was to investigate the connection between the settlement of Koumasa and the sea. This investigation was prompted by the need to provide an explanation for several aspects, including the opulent nature of the settlement; the presence of storage features in LM architecture, the evidence of MM storage activities revealed in modern excavations, and the concentration of EM tholoi, but also the decline in the Postminoan periods. The evidence suggesting that fish served as a primary source of nutrition for individuals interred in the tholoi added an extra dimension to the inquiry.<sup>1150</sup> The presence of seashells, triton shells, and pebbles, likewise suggested a connection to the sea. The walking expeditions undertaken in central Asterousia, the most relevant of which are detailed in Chapter 11.1, demonstrated the potential routes to access Trypiti, Salamias,

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1149 McEnroe 2010, 24; Vasilakis – Sbonias 2018, 281.

1150 See Footnote 429.

and Ayios Ioannis from the Messara region. Among these, Koumasa appeared to be the most strategically positioned, especially for reaching the latter two areas.

These regions exhibit signs of activity, which, while comparable to the better-known evidence in the western Asterousia, is somewhat less visible and less explored, with the exception of Trypiti.

### 11.3.1 Trypiti

Trypiti was first mentioned in the reports of Evans and Pendlebury, as seen in Chapter 11.1.1, while more information was offered by the excavation of the EM settlement by Vasilakis. Beyond this, with regards to the neighbouring coastline, we rely only on surveys, such as the Survey by Vasilakis extending to the Phylakas region, at the west of Trypiti bay, the wider survey of west Asterousia and the more recent ones by Nowicki.<sup>1151</sup> The distribution of places of archaeological interest is seen in Figure 100.

As to the earliest phase of habitation, a LN presence has been identified on the southern edge of the Trachoulas promontory, based on sherds and chipped stone. Its low defensibility is noted, as opposed to the trend characterised by the settlements of the next period (location d in Figure 100).<sup>1152</sup> The first location in the area, which includes building structures, seems to be the Trypiti Maroulas settlement at the summit, which includes buildings and a defensive enclosure, dating to FN II–EM I (location b in Figure 100). It is arranged in three terraces, with a total surface area greater than 2,000 m<sup>2</sup>.<sup>1153</sup> Its position overlooking the opening in the rocks (that “Chasm” in the words of Evans) that opens up into the Trypiti plain, and with an elevation of 1.1 km., can only be characterised as strategic and defensive.

An EM presence in the area is established by the tholoi. Beside the known tholos to the east of the EM settlement, two tholoi are recorded about 500 m. west of the Phylakas promontory,<sup>1154</sup> while another structure that possibly constitutes a tholos is located around 100 m. west from it.<sup>1155</sup>

The settlement “Stou Adami to Korphali”, excavated by Vasilakis, offers additional insight on the defensible aspects of the settlements and on their economy.<sup>1156</sup> The connection to the sea-economy is obvious with a high number of seashells from secure EM II contexts. More than 4,000 pieces were found, constituting the biggest concentration of seashells encountered in an archaeological site on Crete and the third largest

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1151 Vasilakis 1989, Vasilakis – Sbonias 2018; Nowicki 2014; 2018.

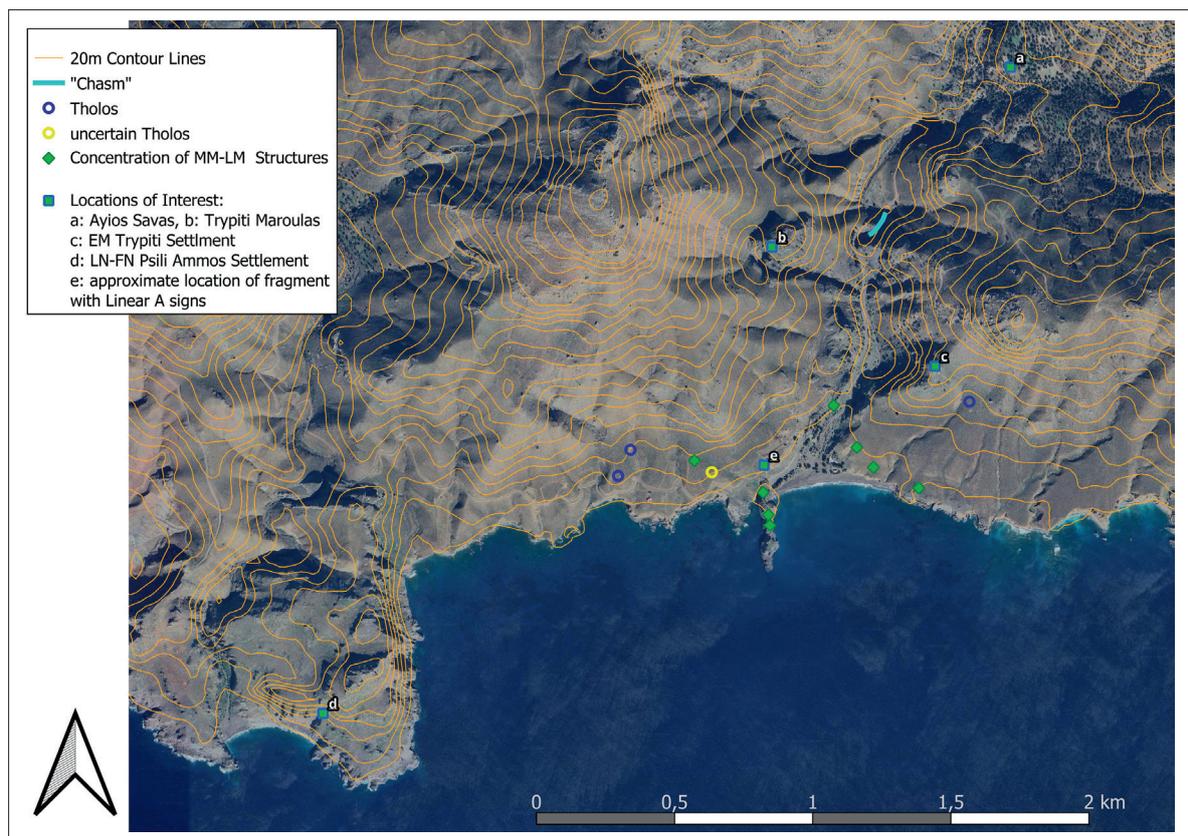
1152 Nowicki 2018, 37–38; location 312.

1153 Nowicki 2018, 24–25.

1154 Vasilakis 2000, 124.

1155 Vasilakis – Sbonias 2018, 284.

1156 Vasilakis 1988; 1995.



**Figure 100:** The area around Trypiti with locations of archaeological interest. To the east overlapping with the map in Figure 102.

within the Aegean, after Polyochni in Lemnos and Archontiko in Giannitsa. In addition to the practical motivations of nourishment, food consumption has been associated with a form of cultural expression, in this case a direct link to the sea.<sup>1157</sup>

Regarding the MM and LM periods, within his survey project in Trypiti, Vasilakis documented the existence of habitation scattered around the shore in the Protopalatial or Neopalatial periods, which included buildings, and a concentration of pottery.<sup>1158</sup>

Beneath the EM settlement (Kalokampos plane), scattered pottery can be seen, whilst the sherd density increases in the lower parts near the sea, although they extend over the whole area. Standalone buildings coincide with this distribution. The existence of buildings closer to the sea and with easy access to it, indicate that securing a fortified position was not a priority in this era. On the Phylakas promontory, a settlement was observed with a development phase extending from MM I to MM II, while the pottery is also dated to LM. The settlement is characterised by standalone buildings with 20 to 30–35 m. between them. The pottery from this region is mainly MM and LM, but

1157 Veropoulidou – Vasilakis 2018, 178–182.

1158 Results of a survey published in Vasilakis – Sbonias 2018, 275–290.



**Figure 101:** View from the Kalokampos and the area of the tholos looking westwards, with the promontories of Phylakas and Trachoulas in the background.

the presence of EM I and EM II pottery was also noted, possibly associated with the tholoi.<sup>1159</sup> The layout falls under the typical pattern of harbour sites.<sup>1160</sup>

Since the Protopalatial period, the area evolved to constitute a significant harbour region, as there is a dispersion of building activity and habitation in MM to LM across the entire Trypiti plateau, as evident by the pottery and architecture remains near the shore and on Phylakas.<sup>1161</sup>

The area directly north of Phylakas has not yielded results, as it has been disturbed by modern activities, but a continuation of the settlement pattern is assumed. It is noteworthy that this is the area in which Evans recorded MM II and LM I pottery and found a fragment of a clay larnax inscribed with Linear A signs (approximately by point e on the map above).<sup>1162</sup> Evans' own observation of MM II and LMI pottery in the area fits well with the narrative of a coastal settlement, whereas the Linear A fragment could

1159 Vasilakis – Sbonias 2018, 283–284.

1160 Vasilakis 1991/93, 295–6; Vasilakis – Sbonias 2018, 284.

1161 Vasilakis 1991–93, 293; Vasilakis – Sbonias 2018, 282.

1162 *Knossos II*, 83, Fig. 40.

allude to ritual activity in the region, which would fit in the area's role as a trade node, in connection with the wider Messara context.<sup>1163</sup>

It is indicated that habitation was dispersed, as the buildings seem scattered, and although the majority of the finds are palatial, there is evidence of habitation from the beginning of the Minoan period, as the two main clusters on either side of the Trypiti bay are located near tholoi.<sup>1164</sup> The lack of centralisation is indicative of the absence of direct threats or of a temporary use of the facilities, as no great agricultural activities can be assumed for the region. The continuation of habitation in the area of the tholoi, albeit in a different way, being more drawn to the sea, is, for Vasilakis, an example of a divergent trajectory, that is paralleled in other areas such as Doukiania in the Kephali area of western Asterousia.<sup>1165</sup> Elements supporting an administrative function for Trypiti – needed in order to assume a trade centre – could be suggested by the cultic activity, alluded to by Linear A evidence described above.<sup>1166</sup> This function could be considered to have helped in maintaining the settlement structure in this area; in this respect, the connection with the Messara, particularly the Apesokari and Koumasa regions, could have aided in this stabilisation. This connection has most recently been argued by Flouda.<sup>1167</sup>

Finally, along the western part of the shore Evans noted buildings that he dated as Minoan.<sup>1168</sup> These, however, are not recorded in subsequent research. Pendlebury mentions a Geometric settlement which is also not easy to identify, possibly relation to the early Roman structures.<sup>1169</sup> These are the only secure post Minoan activity, with a group of structures at the beginning of the beach, along the stream, mostly destroyed by locals.<sup>1170</sup>

### 11.3.2 Salamias

Salamias bay stands out as perhaps the most isolated and rugged of the areas under consideration. It features a seashore in the shape of an arc, with a length of approximately 750 m., which accounts for only the walkable portion of the bay. As one moves

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1163 To be noted that the only other known sample of Linear A from central Asterousia is from the Kophinas peak sanctuary (see Footnote 1228).

1164 Vasilakis – Sbonias 2018, 283–285.

1165 Vasilakis – Sbonias 2018, 285–286.

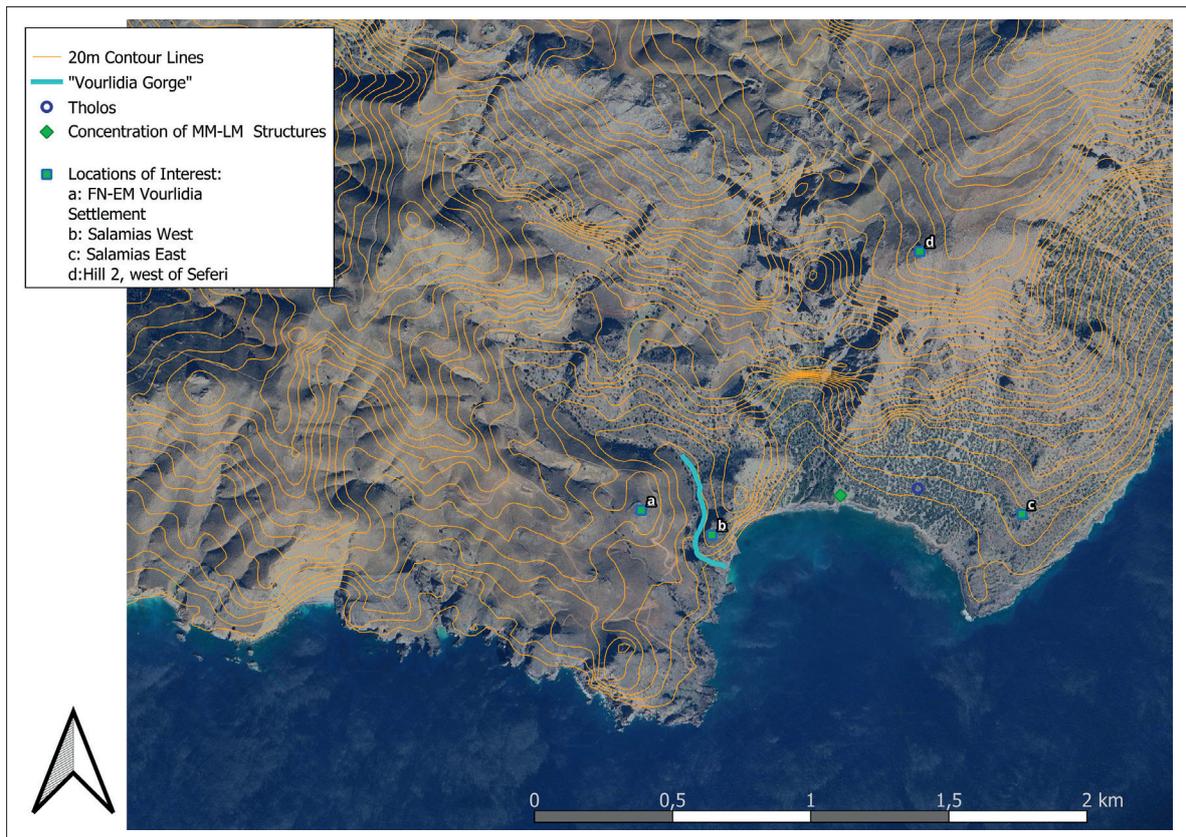
1166 Showing cult practice akin to that shown in larger centres or sanctuaries, alluding less to a local tradition and rather following a trajectory parallel to that of the wider Messara.

1167 Flouda 2023, 65–66.

1168 *Knossos II*, Fig. 39.

1169 Pendlebury et al. 1935, 88; Pl. 12d.

1170 Two Rooms of a building originally containing five rooms were possible to investigate, with a dating in 1<sup>st</sup> century BCE. to 1<sup>st</sup> century CE, but most of the structures were destroyed (Vasilakis 1992, 561–562).



**Figure 102:** The area around Salamis with locations mentioned. To the west, overlapping with the map in Figure 100.

northward, the terrain becomes steeply inclined, limiting habitable areas to a maximum of 15 to 18 hectares at most. In recent times, starting in the early 20<sup>th</sup> century, this area was used for salt collection. Salt was transported to Kapetaniana using donkeys, a practice that persists today with the use of boats towards areas connected with the street network.

Apart from a couple of sheds related to this recent activity, the only other man-made features are the following: a tholos located 140 m. from the sea, measuring 5.2 m. in diameter, with a still-standing trilithon door and a vestibule and two rows of large stones that remain upright (see Figure 103). In a brief description, Kanta characterised it as MM without specifying if any finds were seen.<sup>1171</sup> Solely based on the architecture, as very fragmented pottery sherds could not be dated by the author, an EM dating for the construction seems possible.

Approximately 280 m. to the west, directly above the bay's centre, rows of stones arranged in clear lines suggest the presence of a complex of connecting walls, indicating the existence of at least three buildings. Most of these structures are integrated with the

1171 Kanta – Serpetsidaki 2015, 59. See also discussion above, Footnote 423.



**Figure 103:** View from the Salamias tholos towards SE.

natural bedrock, while a free-standing rectangular building measuring 20 m<sup>2</sup> is situated 20 m. to the west of the complex. Kanta, in her description, also found MM pottery.<sup>1172</sup> Nowicki dates it as EM–MM I.<sup>1173</sup> The pottery fragments seen by the author include undecorated light ochre pieces crafted from fine clay and segments of coarse reddish cooking ware, all compatible with a MM to LM I dating (see Figure 104). Architectural elements could also be aligned with a LM I dating. Other pottery fragments were seen in the shoreline area, mostly near the Minoan complex. Nowicki identified some sherds to the east of the seashore as FN II–EM I.<sup>1174</sup>

Three more locations have been identified on either side of the gulf of Salamias, almost symmetrical in relation to the complex described above, at the centre of the bay. The first (point b, Figure 102), which is 500 m. west-southwest from the complex, at 70 m. from sea level, is on the hill separated from Vourlidia via a walkable but steep gorge. (the view from this hill towards the bay eastwards is seen in Figure 105). Access

1172 Kanta – Serpetsidaki 2015, 59.

1173 Nowicki 2018, 23.

1174 Nowicki 2018, 23.



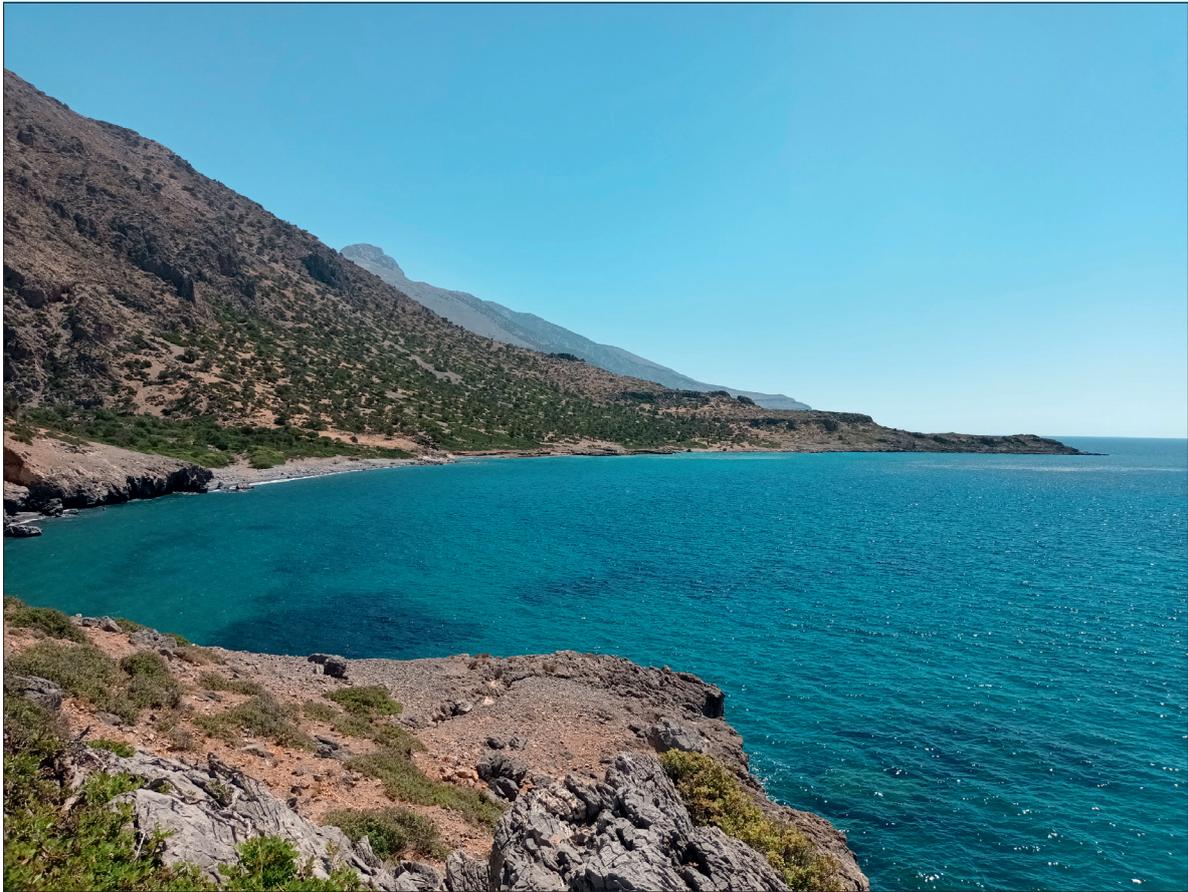
**Figure 104:** Scattered sherds near the Salamias coast.

to it is possible only from the north, via going uphill either from the Salamias bay or from the Vourlidia stream bed, the latter route being very steep.

The defensible nature of the position was noted by Nowicki, who identified the location as a FN II–EM I settlement, laid out in two parts, the lower one being a terrace with an area of 30 by 30–40 m., where the FN II material was located.<sup>1175</sup> The upper part was rich in pottery, including examples of the red ware fabric group and pithoi fragments, which Nowicki identifies as the same type as examples found on sites on the coastal strip of the Asterousia coast and contemporary sites elsewhere, extending to the east Siteia region, in itself an indication of the seafaring activity in this early period.<sup>1176</sup> On another hill, west of the Vourlidia ravine, another FN II–EM I site was located,

<sup>1175</sup> Nowicki 2018, 22; No. 204 in his Gazette.

<sup>1176</sup> Nowicki 2018, 22–23; Pl. IV.



**Figure 105:** View of Salamias bay from its western promontory.

covering an area of ca. 500 m<sup>2</sup> (point a on the map of Figure 102). As part of his theory of the external colonisation of the seashore of Asterousia, Nowicki interprets this location as a fort built by the first settlement with the purpose of securing the area from any aggression coming from the north (implying from the Messara population).<sup>1177</sup> The author sees it rather as an establishment on the other side of the relatively steep ravine, offering a fortified point for the plateau of Vourlidia, which extends over a large area towards Trypiti, with its fortified position reflecting that of early habitation sites in the area, without any particular targeting to any direction other than towards the sea.<sup>1178</sup> The duality of these two locations reflects the two locations of Trypiti, the EM settlement and Trypiti Maroulas, as seen above. Nowicki does not provide another gazette number for this second hill. The third location shows usage through different eras,

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1177 Nowicki 2018, 23.

1178 Noteworthy is such a fortified use in the modern era, during the Second World War, with a German fort or observatory still standing ca. 300 m. south of point a, overlooking the Vourlidia and Salamias bays. The lower part of the 10 × 6 m. structure still stands today.

covering FN II, EM, LM and Graeco-Roman periods, as the pottery remains show.<sup>1179</sup> Rows of stone indicate structures (two or three, according to Nowicki) from different chronological phases. This location is documented in Figures 102 and 107 as point c. Sherds that could be considered Roman were also seen on Hill 2, as discussed above (point d in Figure 102).

### 11.3.3 Ayios Ioannis

On the route to Ayios Ioannis (designated as Path 4 on the map of Figure 92), the path traverses the stream bed of Gerakia, where the cave of Peristerias is situated along the shoreline. The point where the path meets the stream bed is located at the 2.9 km. point, or 1.36 km. when approaching from Ayios Ioannis (see Figure 106). On the western side of this stream, to the south of the path (Peristerias ridge), a circular man-made structure, defining the perimeter of a tholos, was shown by the guide but could not be closely investigated.<sup>1180</sup> According to accounts from local residents, there are two additional such structures in the vicinity.<sup>1181</sup> If verified, these would represent three previously unknown tholoi in the area. It is worth noting the presence of the Peristerias cave, where locals have mentioned the discovery of antiquities. However, further details were not readily disclosed, as this area is associated with illicit networks involved in the illegal trade of antiquities. A future survey of this area to substantiate these claims and, at the very least, to visit the aforementioned cave, constitutes a *desideratum*.

The bay of Ayios Ioannis is notably more hospitable for habitation compared to Salamias, as it offers a habitable area exceeding 35 hectares, providing ample space for agricultural activities, which are still practiced there by modern inhabitants.

At the shoreline of Ayios Ioannis, situated directly west of the main promontory (place name Plaka), a total of 21 structures were observed and surveyed by Hadjidaki. These structures yielded pottery from EM II and MM III periods and possibly LM.<sup>1182</sup> This complex extends for approximately 500 m. along the seashore and stretches 600 m. northward towards the mountain (see indication of MM–LM structures in Figure 107). Some of the walls within this complex reach lengths of up to 8 m. Additionally, a reef in its direct vicinity appears to have been adapted for use as a mole or breakwater, with enhancements made to its northern portion.<sup>1183</sup> However, the raised sea level should

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1179 Nowicki 2018, 23.

1180 The potential tholos has been recorded by Goodison, dubbed as Tholos x in her forthcoming new catalogue. The existence of a doorway, even if badly preserved, and the structure's diameter of 3 m. leaves few other possibilities for the purpose of this building.

1181 As the goal was documenting the pathway, deviations from this or other paths were not made. Further investigation will be undertaken in the future.

1182 Hadjidaki 2004, 59.

1183 Hadjidaki 2004, 55–56.



**Figure 106:** View of Ayios Ioannis Bay as approached from the west (photograph taken along Path 4 [see Figure 92], after crossing the Gerakias ravine, a little after bypassing the tholos and the Peristerias Cave).

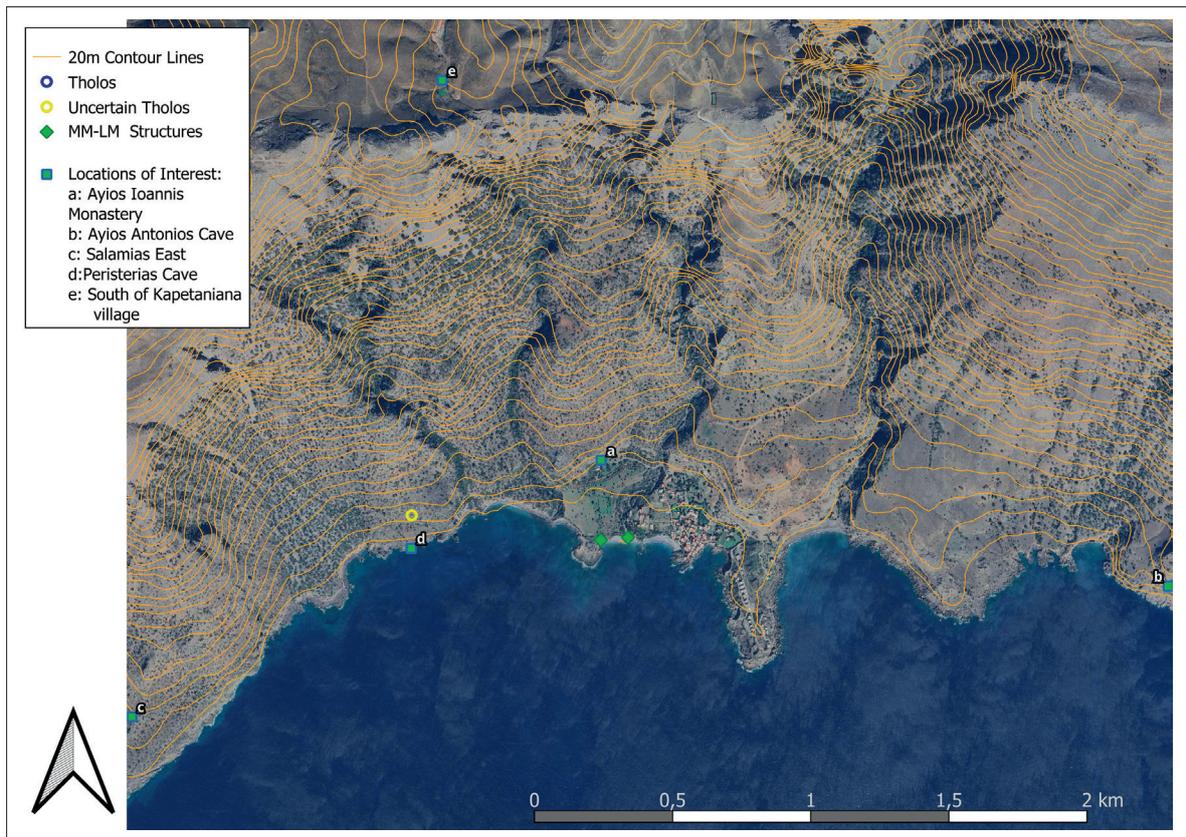
be taken into account (see Chapter 3.4.1). This location served as the point to which Paths 4 and 5 of Figure 92 extend.<sup>1184</sup> For the tholos mentioned above and the Peristerias cave near it, see Figure 107. Aside from the Minoan harbour facility, no other Minoan activities are known from the bay itself. At the Ponta promontory, there are also Minoan-built structures recorded.<sup>1185</sup>

To gain insight into the topographical characteristics of this region, the evidence for Post-Minoan activities at the site are worth examining. Possible connections with the Asclepius cult were presented in Chapter 3.5.<sup>1186</sup> The only other period with secure use of the area is documented in the Late Byzantine period. Before reaching the village of Ayios Ioannis, the path passes by the eponymous monastery, constructed within shallow caves and adorned with wall paintings dating back to 1360 CE (point a in Figure 107). Furthermore, approximately 2 km. to the east, the Ayios Antonios church was

1184 For a sketch of the structures at the Plakias bay, see Hadjidaki 2004, Fig. 4.3, 4.9, 4.10.

1185 Vasilakis 2017, 77.

1186 See discussion on pages 53ff., 62.



**Figure 107:** The area around Ayios Ioannis with locations mentioned. To the west overlapping with the map of Figure 102.

established within a cave, also in the 14<sup>th</sup> century (point b in Figure 107).<sup>1187</sup> This monastic activity aligns with the upsurge in monasticism throughout the entire Asterousia region. Its spiritual centre was situated to the south of Kophinas, led by Philagrios, a prominent figure in the new wave of monasticism in the area. His teachings emphasised dwelling in caves, and he was particularly active after 1367 CE. In 1393 CE, he founded the Tris Ierarches church, located along the route from Kapetaniana to Kophinas, which subsequently developed as the spiritual hub of this movement.<sup>1188</sup> The church of Ayios Michail, located 500 m. east of Kapetaniana, was established in the 14<sup>th</sup> century, and the decoration of the Panayia church in Kapetaniana was completed in 1402 CE, with both facts attributed to the proximity of Kapetaniana to Tris Ierarches.<sup>1189</sup> The presence of the churches of Ayios Ioannis, the closest cave complex to the centre of this monastic movement, suggests a connection with the three paths linking Kapetaniana and Ayios

1187 Andrianakis – Papitsoglou 2012, 137.

1188 Paliouras 2017, 13–14.

1189 Andrianakis – Papitsoglou 2012, 136; Paliouras 2017, 14.



**Figure 108:** View to the Ayios Ioannis bay from the north. Photograph taken along Path 5.

Ioannis. The most direct of these paths is described in Path 5 above. The presence of cisterns in both monasteries also underscores the common challenge of water scarcity in the region.<sup>1190</sup> But in general, this bay is more amenable to habitation, based on its space and possibilities for arable land, than Trypiti and Salamias. For Ayios Ioannis, Hadjidaki argued against the possibility of self-sustained cultivation in this area, although the feasibility of such cultivation, albeit challenging, cannot be entirely ruled out, particularly if small-scale agriculture was practised. Her argument gains validity, however, when considering the Salamias complex. The existence of the Salamias tholos, along with the potential tholoi near Ayios Ioannis discussed above, suggest the presence of permanent habitation.

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1190 Andrianakis – Papitsoglou 2012, 137.

### 11.3.4 Discussion

The existence of habitation and harbour functions in these coastal regions in the period coinciding with the palaces raises the question of dependency. Certainly, the larnax fragment carrying Linear A in Trypiti would speak for this argument, or at least for the interaction with networks bearing palatial ideology. Regarding Ayios Ioannis, Hadjidaki correctly observed that a dependence on centres such as Phaistos is unlikely, due to the considerable distance. She instead posited that these coastal communities relied on trade with the Messara region, exchanging their marine resources for goods imported through seaborne trade.<sup>1191</sup>

Focusing on a chronological examination of central Asterousia's topography and communication networks, there is an ongoing debate about the role of external influence in developments during the FN, given the lack of continuity from the LN period, versus seeing the changes in Crete as an internal development.<sup>1192</sup> In both cases the communication of mountain and valley is of relevance.

The Prepalatial period encompasses the appearance and development of settlements and the tholoi culture (see Chapter 3.1). The expansion of those east of Trypiti, as the new evidence from Salamias and Ayios Ioannis shows, and the presence of a tholos at Tris Eklissies,<sup>1193</sup> i.e. the eastern Asterousia, alludes to an expanse of this culture along the southern shore of Asterousia. As discussed in Chapter 9.3, the association of tholoi with nearby settlements was presented, focusing on issues of ownership.<sup>1194</sup> Another explanation that has been proposed for the positioning of settlements and tholoi in the central Asterousia region is based on the topographical characteristics of the landscape, and attempts to link them with the functional needs of each type of establishment (see Chapter 9.4).

These proposals are applied in the area under study: the new evidence from Salamias and Ayios Ioannis aligns with the broader narrative. For instance, the Salamias tholos is situated between earlier and contemporary settlements: 750 m. from the settlement of Salamias West (dating from the FN II–EM I period), 350 m. from the settlement at Salamias Vourlidia (points b and c in Figure 102), and 280 m. from the palatial complex on the shore. Furthermore, the Salamias tholos is positioned alongside a stream bed, the smaller of the two seen in the Salamias bay, fitting the pattern regarding waterways discussed in Chapter 9.3.3.

Similarly, the tholos near Ayios Ioannis is located near the Gerakias ridge, and approximately 1,300 m. from the settlement Salamias East and about 1 km. from Ayios Ioannis (Figure 107). This tholos, although at a relative distance from the two closest

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1191 Hadjidaki 2004, 59. See discussion on page 309.

1192 Nowicki 2011–12, 8.

1193 See Footnote 908.

1194 See Footnote 974 and discussion on page 253.

known settlements,<sup>1195</sup> is nonetheless in proximity to the ravine of Gerakias. In these cases, it appears that the position of the tholoi is determined by their proximity to running water rather than any specific settlement. Similarly, the tholos at Trypiti is located only 20 m. from the stream bed, indicating a closer association with the water source than the settlement 180 m. uphill. Expanding the view to the nearest mountainous tholoi, this holds true also for Krotos, while the Christos tholoi is situated near the Ayia Paraskevi ridge, suggesting the presence of a settlement or fort. Their position is less than 400 m. from the stream bed, which is further than the average distance of the other tholoi to streams, although still within the margins discussed above. One further possible explanation for this placement could be related to the observation that the location of this tholos is concealed behind the peak at the beginning of the gorge. This arrangement may have been deliberately chosen for security reasons or other factors, although the exact motive remains speculative.

By considering the landscape's influence on settlement patterns and the functional needs of tholoi, research can gain insights into the dynamic interplay between human communities and their environment in central Asterousia with a broader application of this methodology.

Moving to the main period of harbour usage in the area, and with reference to Hadjidaki's assessment of the assumed settlement of Ayios Ioannis and its codependent trade network with the Messara discussed above,<sup>1196</sup> this line of investigation interestingly runs parallel to the discourse that has emerged regarding the earliest habitation of the area during the FN period.<sup>1197</sup> This discussion centres around the concept of distinct groups inhabiting the southern coast, potentially maintaining separate, and even antagonistic, relationships with those in the Messara region. Nowicki's research further supports the notion of separate and potentially contrasting groups residing on either side of the mountain. Summarising his observations on five sites established in defensive positions on the northern slopes of the Messara, spanning from FN I to EM I, he wrote that: "their defensive characteristics are located more on the Messara than the Asterousia side. They dominated the Asterousia foothills, often lying near settlements (their successors) founded in the late EM I or early EM II period on lower hills, closer to the plain or on the plain itself. The defensible characteristics of these sites and their later fate indicate that the northern edge of the Asterousia mountains was for some time at least (approximately during the last centuries of the fourth and the first centuries of the third millennium BC), a division line between different groups of people confronting each other rather than building up a single community".<sup>1198</sup>

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1195 With the distance being normally less than 400 m.; see Footnote 945. The unexplored nature of this area should, however, be taken into consideration.

1196 See Footnote 1191 and the presentation of the area on page 309.

1197 Nowicki 2018, 7–9.

1198 Nowicki 2018, 8–9.

This notion corresponds with the perception of these harbour sites as secluded settings. While the evidence from these locations spans various periods of the Minoan era, particularly the timeframe from EM II to early LM occurs in all sites discussed here. This overlaps with the main phase of presumed interactions between Koumasa and the three harbour regions.

A methodological concern arises in this chapter, as it involves examining the relationships between various locations across different time periods. The framework used for this analysis primarily focuses on landscape characteristics and their potential significance in facilitating interactions. The topography constitutes a palimpsest of repeated activity, always bound by the margins defined by the constant background that is the landscape. It is important to clarify that this approach does not imply that the societies of the FN, Bronze Age, Greek/Roman periods, and the Byzantine monasteries, along with the pre-modern inhabitants of Kapetaniana, operated under the same behavioural patterns or shared social structures. However, they did exist within a common landscape and faced similar challenges related to mobility. The exploration of the opulent characteristics of Koumasa and its potential connections to the seashore is one of the main aspects of this work. It is within this context that the examination and evaluation of interactions spanning different historical periods play a crucial role in shedding light on the historical dynamics of the region. This approach enables us to gain a deeper understanding of the role of the landscape in facilitating human activities and relationships across time.

Hadjidaki's solution to the question of dependency, positing autonomous settlements as a counterargument to a dependence on Phaistos, may inadvertently fall into the logical fallacy of a *false dilemma* by excluding the possibility of relationships with centres closer to these shores. Furthermore, it predisposes a hierarchical structure for settlement interrelations. Taking Kapetaniana as an example, the village's interactions with Salamias and Ayios Ioannis in the 20<sup>th</sup> century, where the latter was settled by residents from Kapetaniana, as well as the Late Byzantine period when monastic life expanded from the area of Kapetaniana and Kophinas to Ayios Ioannis, underscores the interconnectedness of these regions and the role a centre on the mountain has with the settlements on the shore. This role for the Minoan times could have been Koumasa, based on the evidence presented. However, this interconnectedness does not necessarily indicate interdependence, but rather an extension of the activities of the more privileged mountainous region, with its further resources from the valley. It reflects a sense of homogeneity rather than stark differences between these communities.

The degree of homogeneity and shared group identity between the shores of Ayios Ioannis and those of Kapetaniana and Kophinas is based on the relative vicinity and the exclusivity of their connection. As demonstrated by the explored paths, the connectivity between these harbours and sites in the Messara, with Koumasa being the closest, allows for daily travel back and forth. Being thus the main hub, it is plausible that the harbours were under its sphere of influence or rather, that they belonged to the same cultural-economic subgroup of the wider Minoan world.

#### 11.4 The Central Asterousia Ecosystem and the Role of Kophinas as a Cultural Anchor

As mentioned above,<sup>1199</sup> the existence of the trade route to the Near East is considered vital for the existence of the assumed Phaistian state, but also as a lifeforce to the region of central Asterousia, independently of the existence of a wider state. The presence of harbours to the south of Asterousia and settlements on the northern side of Messara suggests a co-dependency, forming a local ecosystem. During periods of higher central authority, this system could have been integrated into the broader structure of a Phaistian state, represented by the expansion of Phaistian-style material and later to the Knossian. In times of fracture, this local system might have provided a degree of autonomy to the wider central Asterousia region. Further, this proliferation of a Phaistian style could be seen as an internal development of local elites, imitating the central influence, rather than understanding it necessarily as imposed.

The role of the Kophinas sanctuary as a binding element for the nearby settlements should not be underestimated. Reachable from the Messara, through routes that, amongst others, start in the Koumasa region (see Path 6 in Figure 92), the pilgrim would have an overview of the small harbours of the southern Asterousia, starting with Salamias and Ayios Ioannis and optically reaching westwards to Lentas, Kali Limenes and Cape Lithino at the furthest reach of Asterousia.<sup>1200</sup> It acts as a topographical anchor for the senses, a point of reference and recognition from both sides of the mountain; for sailors and for farmers of the Messara. The posited role of Koumasa in relation to this sanctuary is based, as mentioned, on the fact that it lies among natural paths for those in the western and central Messara, which could be seen related to the figurine parts seen in Koumasa.<sup>1201</sup>

The ritualistic use of Kophinas fits Hodder's approach perfectly, in the sense that both the location and most of the finds there denote something deliberately odd; it does not fit a functional or economic explanation and is unusual, striking, and symbolic when placed within its temporal and spatial context.<sup>1202</sup>

The site, discovered in 1959 by Nikolaos Platon, was excavated first by Platon and Davaras in 1961<sup>1203</sup> and further in 1991 by Karetsou and Rethemiotakis.<sup>1204</sup> It consists of an approximately 240 m<sup>2</sup> rectangular area, at 970 m. above sea level, just below the actual peak on its northern side, in the location called Mezzolati.<sup>1205</sup> A large amount of

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1199 See Footnotes 1053, 1058, 202.

1200 See Figures 47 and 48 and discussion in Chapter 11.1.4.

1201 Panagiotopoulos 2022b, 330; see also Panagiotopoulos 2013, 425–426; 2018, 480, Fig. 7.

1202 Hodder 1982, 164.

1203 Platon – Davaras 1961; Alexiou 1963.

1204 Karetsou 2014. The later excavation was in response to illicit excavation carried out previously.

1205 Spiliotopoulou 2015, 281.

ceramics were unearthed, predominantly consumption ceramics.<sup>1206</sup> While later Geometric to Hellenistic pottery was also found,<sup>1207</sup> the majority of the Bronze Age finds are Neopalatial, with the earliest finds dating to the early MM III, with its main period covering the entire MM III.<sup>1208</sup> Later usage phases are indicated until LM IA, although there are some LM IB finds, with a resurgence in LM III C.<sup>1209</sup> The cultic presence, as expected in a peak sanctuary, is indicated by a large amount of figurine shards, mainly of animal figurines (exceeding 5,000 in number), and more than 3,000 human ones, mostly representing male figures.<sup>1210</sup>

An interesting subcategory of the clay figurines are 18 boat figurines.<sup>1211</sup> Another sea-related find is a 6 cm. bronze fishing hook, indicating the association of the votives with the local means of prosperity, which fishing activities had provided.<sup>1212</sup>

The homogeneity of the clay of figurines assumed a local production, however they show a similarity of technique with that of other distant places. If the travelling workshop theory proposed for the Kophinas find is assumed true, this would be an explanation.

As for the role of the mountain peaks, a more modern explanation for their emergence involves the adaptive character of man – nature relations on the basis of the existing climate. As discussed in the chapter dealing with the events of climate change, the emergence of cave worship, as well as the peak sanctuaries, is correlated with the aridity event around the beginning of MM I.<sup>1213</sup> Taking this factor into consideration would offer an explanation for the development towards a usage of this landscape that extends beyond just using the paths or seasonal grazing pastures while the mountain maintained a passive role, towards interacting with it as an active landscape, not only as a transition or separation area, but that of more active dwelling and connecting, or as Moody put it, a change from a natural landscape towards a sacred landscape.<sup>1214</sup> This would also hold when considering the theory that the peak sanctuaries succeed the tholoi as focal points of religiosity.<sup>1215</sup>

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1206 Conical cups dominate the finds (Karetsou 2014, 128–134).

1207 For the function of this area in historic times, see Footnote 262 and discussion on page 54ff.

1208 Karetsou – Spiliotopoulou 2018, 167.

1209 Spiliotopoulou 2015, 285. For the repurposing of older cultic sites in the LM III C, see Footnote 223.

1210 Karetsou – Spiliotopoulou 2018, 169. Of interest is also a fragmented bull-head ceramic Rhyton (Spiliotopoulou 2015, 285).

1211 The catalogue of which is to be seen in Karetsou – Spiliotopoulou 2018, 171–173. Although some are fragmentary, the largest dimension is assumed to be 30 cm.

1212 Karetsou – Spiliotopoulou 2018, 169.

1213 See Footnote 494.

1214 Moody 2009, 241; Stevens 2023; Dal Zovo 2023, 65.

1215 Perrakis 2021, 75–76.

Central in the mountainous landscape, the surroundings act as a palimpsest, under the influence of a certain agency emitted diachronically as an ever present cosmological projection.<sup>1216</sup>

### Discussion

The figurines and the boat offerings can be attributed to Aegean ritual within the methodological criterion of them being characteristic signifiers that defy a domestic explanation,<sup>1217</sup> and, for that matter, in the case of marine symbols with a signification that mirrors certain notions that are particular to the dwellers in the area.

Most approaches to prehistoric ritual in the Aegean have treated it as a separate domain of activity, in isolation from the domestic or that which is daily, familiar, and habitual.<sup>1218</sup> That is certainly the case with the peak sanctuary of Kophinas (if not for peak sanctuaries in general), where analyses, when not focusing on the finds, tend to focus on qualitative comparisons with other peak sanctuaries, and less on the integration of this sanctuary within the surrounding environment, with topographical notions usually linked with the traditional preoccupation with intervisibilities, that tends to put secondary focus on the immediate lived landscape;<sup>1219</sup> for example, the distances towards it, and the experience of visiting it for the participants of the ongoing ritual in peak sanctuaries as part of the mountainscape.<sup>1220</sup> The route coming from Koumasa, and, by extension, those approaching from the western Messara (as presented above), takes 3 hours and covers 12.25 km. From the sea, access to the plain of Kapetaniana, and from there to Kophinas, is accessed also from Salamias (at the junction of Paths 2 and 5 at Seferis) and Ayios Ioannis (along the first portion of Path 5). From Trypiti, Path 1 should be followed at least until Ayia Paraskevi before going eastwards, or continuing until Koumasa and walking from there. From the east, e.g. Tris Ekklesies, other paths lead to Kophinas from the east, and from eastern Messara, the paths from the area of Panayia lead southwards to the peak.

The arrival from the north requires climbing a significant distance. Those arriving, taking the route from Koumasa into consideration, are coming from further inland – from the Messara, passing near the Koumasa region, which would offer a pit stop, or starting from the region of Koumasa itself. The arrival at Kophinas is denoted by the wide view of the sea with the southern harbours, coming abruptly in contact with the sea after the liminal point, mentioned above, west of Kapetaniana. In this regards, offerings of a marine type would indicate an acknowledgment of the transition to a liminal realm, coming into contact with the seascape, otherwise foreign to the everyday life

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1216 Dal Zovo 2023, 65. See also Georgiadis 2023.

1217 Renfrew 1985, 19–20; 1994, 51–52.

1218 Tomkins 2012, 63.

1219 Briault 2007, 123.

1220 Georgiadis 2023.

of the dwellers of the valley. As for arrivals from the southern side, the Kophinas peak offers almost a bird-eye view of their world, where offerings denote, in a miniature symbolic way, their everyday activity; an affirmation of their identity in stark contrast with the activities on the mountain or the valley. It is noteworthy that the Kophinas peak is considered to have been a main landmark for seafarers.<sup>1221</sup> In both cases, and regardless of how the sanctuary is related to the two realms, it unites three worlds, that of the agriculture of the valley, the herders on the mountain, and those dependent on the marine economy. And it is the one place all can come together, creating a point of reference to their common identity. Discussions on the sense of connection with the divine as being nearer the sky add another element,<sup>1222</sup> and indeed the boat figurines have been considered as being representations of *divine vehicles*.<sup>1223</sup> Thus Kophinas constitutes a landmark that unites the land – sea – and skyscape of the whole Messara-Asterousia region and the groups associated with each of them.

Evans's observations regarding the meaning of the Youktas sanctuary were strongly based on the impact of the mountain dominating the central court of Knossos.<sup>1224</sup> A similar connection of Kophinas with Phaistos has been assumed.<sup>1225</sup> In the case of Kophinas, the peak dominates the local landscape without the immediate presence of a local palace. The effect of the mountain does not need a mediator of civically developed centralised religion, but rather stems from the physical topography, as it serves and marks the local economy while at the same time defining it, with the clear division of the rural north and the marine-based economy to the south.

Yet the Kophinas sanctuary cannot be viewed as an isolated local sanctuary. The finds can indicate a local character of the shrine, but a commonality of the peak sanctuary is observed, so that they have been considered as part of the palatial ideology, or a type spanning Crete and extending beyond it.<sup>1226</sup> Indeed many similarities with other peak sanctuaries puts Kophinas within the pan-Cretan map of similar structures and rituals.<sup>1227</sup> Beyond the similarity of finds and function, the Linear A evidence from

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1221 Karetsou – Spiliotopoulou 2018, 166. See also Figure 48.

1222 Soetens 2009.

1223 Soles 2012, 197–198. Without delving into debates of Egyptian influence in Minoan religion (for an argumentation in favour of this connection, see N. Marinatos 2010; MacGillivray 2009), this notion would put forth a further similarity with Egyptian cult, as the depiction of deities in a boat traversing the heaven is a common depiction, amongst others in literature adjacent to the Book of the dead (Amduat). This concerns deities who are traversing the sky in a barque. See the Book of Night (Roulin 1996), Litany of Re (Hornung 1975–76), and the Book of the Gates (Zeidler 1999).

1224 Where the goddess supposedly physically presided over the palace in a physical extension of the deity's dominion over the palace (*Knossos I*, 154).

1225 The theory of Kophinas acting as a relay for the communication network between Knossos and Phaistos was mentioned above; see Footnote 1145.

1226 Peatfield 1987, 89; Briault 2007, 125–131.

1227 Similarities of peak sanctuaries, in general, can be seen in Peatfield 2009. Archaeobotanical investigations showed a similarity in the charred archaeobotanical assemblages in Knossos Anetaki, Kophinas and Petras, three rather distant peak sanctuaries. In all three, similar fruit and nut offerings were studied, indicat-

Kophinas indicates a common formulation with inscriptions from other sanctuaries, alluding to a common ritual. Owens noted, however, local deviations in these formulae.<sup>1228</sup> Evans's notion, which was influential to the perception of peak sanctuaries as an extension of Knossian religiosity, is seen here as reversed. It is not the peak that was rendered an abstraction of the divine (or palace goddess in the view of Evans)<sup>1229</sup>, but the mountain itself intrinsically held a religiosity that needed to be expressed; it, as a landscape element, seems to be the attractor around which a communal identity, and perhaps sacred identity, was formed as the ritualistic nature of the finds indicates.<sup>1230</sup> This could have then been adapted to the worship framework of the time, i.e. the peak sanctuary (thus allowing for an explanation for the existence of the peak sanctuary so far from the nearest palatial centre). Any assumed Knossian supervision is then seen as a catalyst of an existing trend.

The localised character of Kophinas is stressed by its distance to the main palatial site, as the distance of Kophinas to Phaistos has been shown to exceed the average distance of peak sanctuaries to their nearest palatial centre by more than double the walking time.<sup>1231</sup> Rather than ascribing Kophinas to a particular palatial centre, its locality can be embedded within the macrocosm of the Minoan culture, as indicated by common motif of the shrine and also similarity in the finds.

This conscious understanding of the sea routes as vital for the region could have been expressed in a specific category of clay finds deemed as votives in the Kophinas sanctuary, that of the clay boat, that, although few in number, provide the missing link between the rural areas, the sea and the mountain.<sup>1232</sup> It is the place of the Asterousia where the seascape, as mentioned by Vavouranakis, meets the predominant mountain-scape in the most emphatic way.<sup>1233</sup> The boats' role can be, of course, for fishing, as indicated by the find of the bronze hook mentioned above, alongside a ritual aspect.

The appearance of the boat figurines is assumed not to have been realistic, so perhaps the maker was not aiming at a functional depiction but rather a symbolic offering.

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ing a similar cult practice, albeit with variations (Henkel – Margaritis 2022, 7–8). An interesting distinction in Kophinas may be the grape offerings, where the whole fruits were subjected to the flames of this pyre, possibly in the form of a plant sacrifice. This is the only documented case of a Bronze Age plant sacrifice on Crete, with the other one coming from the sanctuary at Mt. Lykaion on Mainland Greece (Henkel – Margaritis 2022, 13–14).

1228 Owens 2017.

1229 A goddess whose assumed association with peak sanctuaries is still echoed in modern research. See Karetsou – Spiliotopoulou 2018, 170.

1230 Here a similar approach of ritual places is undertaken, similar to Tomkins' approach of cave rituals (Tomkins 2012, 63–66).

1231 Megarry 2012, 220.

1232 Karetsou – Spiliotopoulou 2018, 169.

1233 Vavouranakis used the term to codify the collective experience and perception of the maritime scenery (Vavouranakis 2001, 91) and can be linked with finds from the sea or destinations across the sea.

## 12 Mountain Terrain and Sanctity

In Chapter 11, alongside the practical usability of the mountain for economic exploitation, the reverence for the mountain terrain itself was discussed, as well as an explanation of aspects of religiosity associated with mountain peaks. The adjacent role of Kophinas within the wider area (mesoscale) of Koumasa has already been examined in that respect.<sup>1234</sup> Evidence of the impact of walking on the slopes of mountains, and on the Asterousia in particular, was also presented in Chapter 11.1.

Besides the archaeological and topographical analyses, however, in this chapter, a more holistic view will be attempted regarding the question of the relation of Man and peaks. It is not only obvious answers such as strategic value and economic use that influence the choice for a settlement, but also the point of importance within and near it. As seen in the discussion, these choices sometimes lead to positions of importance that deviate from the otherwise more fitting position near main routes. These observations allow for a discussion of the fundamental and pananthropic reasons behind the connection of man and mountains.<sup>1235</sup> For this, the relationship with nature, particularly that of participants in traditional, preindustrial cultures, must be examined.

Trigger suggested a cross-cultural uniformity in some human responses to their surroundings that do not necessarily postulate a universal environmental determinism. On the other hand, these cross-cultural aspects go beyond what he calls “neo-evolutionary” approaches,<sup>1236</sup> referring to the entropy-based studies of cultures.<sup>1237</sup> In Chapter 12.1, the relationship between humans and nature will be revisited, followed by an analysis of this connection, particularly to the mountain in Chapter 12.2. This discussion will be further expanded in Chapter 12.3, incorporating the often-overlooked perspective of evolutionary psychology. Amongst others, this showcases the role of empirical observation, which, to a certain extent, can be considered akin to that of the prehistoric dweller, as the criteria for inducing certain reactions and feelings are not only culture-related but, to a large extent, genetic. The analysis will rely on an evolutionary model, which, besides etymology, has very few in common with the “neoevolutionary”

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1234 See discussion on pages 157f., and Chapter 11.4.

1235 For the impact on the senses, and behaviour, see discussion on page 28of.

1236 Trigger 1990, 119.

1237 Such an approach for the area of Koumasa was pursued in Chapter 10.2. This is not seen as supplementary and not contradictory to Trigger’s approach mentioned here.

concept that Trigger criticises, aspects of which have been discussed above and should not be confused with it.<sup>1238</sup>

This approach is ultimately, to some extent, aligned with Trigger's perspective, although fundamentally, it represents a cross-section of both environmental and cultural determinism concerning settlement and architectural elements, as summarised by Palyvou.<sup>1239</sup>

## 12.1 Man and Nature

As noted by Ingold, previous research has tended to favour the assumption that pre-modern civilisations perceived wild nature as a source of life requiring careful treatment to ensure successful coexistence rather than viewing it as a medium for adaptation or development.<sup>1240</sup> The actual occurrence of the latter could be considered a natural evolution of which participants were not necessarily consciously aware. This excludes the phenomenon of certain long-term planning that our post-industrial culture is accustomed to.

This perspective has shaped the work of researchers who have assumed a dichotomy between humans and their environment. Within this framework, the environment is regarded as an external element that individuals must engage with and appropriate. This perceived dichotomy by researchers between the domesticated and the wild environment has led to less emphasis being given to the interaction with *scapes* (such as seascapes and landscapes), into which the human environment is part of.<sup>1241</sup>

Another aspect of the nature-culture dichotomy is the understanding, by previous researchers, of the human factor as the active element, whereas nature appeared as a passive object, as a mere source of resources.<sup>1242</sup> The notion that the earth was given to humanity for exploitation is a recurring theme in major religious beliefs since the Middle Ages, a notion that can be argued to have significantly shaped prevailing cultural perceptions.<sup>1243</sup> Elaborating on Eliade's distinction between the modern and pre-modern world, religious life has become increasingly detached from nature in common monotheistic doctrines, which is often regarded as a culturally secondary product. This perception continues to influence contemporary cultural perspectives. Thus, within this

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1238 See Footnote 1039 in Chapter 10.2.

1239 Palyvou 2018, 27–28.

1240 Ingold 2000, 42.

1241 Ingold 2000, 42, 72; Hodder 1990, 302–305.

1242 Zimmerman 1985, 250.

1243 An example in the scripture of Jewish and Christian religion is the verse: "The heaven, even the heavens, are the Lord's: but the earth hath he given to the children of men." (Psalms 115:16; King James Version). Also in Islam, an equivalent notion is to be found in the verse: "He is the one who made the earth subservient to you, so move about in its regions and eat from his provisions." (Quran 67:15; author's translation).

framework, nature is often regarded as a culturally secondary product; the cosmos is perceived by modern humans as mute.<sup>1244</sup> Of course, this view is not absolute, as nature was brought forth in various movements of Western culture, such as (but not limited to) the Romanticism movement.<sup>1245</sup> However, it can be argued that, at a subconscious level, it has influenced many perspectives of the research.

This discussion aims at contextualising the discussion made elsewhere in this study on the focus of modern interests in man-nature relations, which, if anything, shows the growing tendency of the academic community towards this subject.<sup>1246</sup> However, this retrospective on the nature of our modern inclinations is deemed necessary.

Following the tendency of current explanatory approaches, the comparison between Koumasa and other settlements may be made by focusing on the environment, which will not merely be perceived as an external entity but as an integral part of a process in which people participate actively and produce meaning through an entanglement with space and time. The daily practices are not only limited to ritual and ceremonial acts but also concern more everyday experiences, such as habitation and moving in space, which constitute a way of everyday entanglement with the environment through which the world is actively perceived.<sup>1247</sup> An environment signified by the human presence, and not only the opposite; a presence that is physical but also active. Subsequently, the human agency can be tackled, offering the possibility of a more meaningful comparison basis.

## 12.2 Choice of the Peak Religiosity

As discussed, Koumasa is observed to incorporate the transition to the mountain on two levels. The first, on a macroscopic scale, as evidenced by satellite images or from a distance, refers to the transition between the mountain and valley, which is further noticeable in situ through variations in the flora, fauna and geology.<sup>1248</sup> The other pertains to the microscale level, specifically the transition observed within the settlement itself, as evidenced by the shift observed around the Korakies hill, which engulfs the greater, macroscopic transition.<sup>1249</sup> In other words, the transition of mountain to valley occurs within the expanse of the Koumasa settlement (refer to Figure 15). The utilisation of it within the inner architecture for reasons pertaining to representation was discussed in Chapter 8. It can also be assumed to expand on the strategic position of the settlement

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1244 Eliade 1990, 127–128.

1245 For a discussion on this subject, see Abou Nasr 2002.

1246 Mainly Chapter 5.4, in the introduction to Chapter 11 and Chapter 11.4.

1247 Ingold 2000, 189–190.

1248 See discussion on page 67. Also, Figure 14 shows Koumasa seen from the northern Messara. Figures 21–22 show a DEM view; see also the satellite image in Panagiotopoulos 2015a, 935, Fig. 3.

1249 On the parallelisation with a fractal structure, see Footnote 692.

to incorporate representation or symbolic aspects related to the mountain routes, seeing its location as liminal on the route from the western Messara to the Kophinas sanctuary or the shore.

This symbolic aspect can only be theorised upon, based on modern notions of linking mountains and mountainscapes with a specific aspect of the human social and psychological behaviour that often translated to spirituality.<sup>1250</sup> According to Eliade, the spiritual person lives in an open world, which connects him to the divine and makes him part of the cosmos. The open space here reflects the open world with which the person correlates.<sup>1251</sup> People tend to seek a place, a centre, where the experience of the divine is made possible. As Eliade states, the place of residence acts as a microcosm. Beginning with one's self, extended to one's house or residence and extended to the cosmos.

Ritual is generally understood to denote something deliberately odd, in the sense that it belies functional or economic explanation and is unusual, striking, and symbolic when placed within its temporal and spatial context.<sup>1252</sup>

Architectural forms, such as those discussed in Chapters 7 and 8 for the 'sanctuary' area, have been seen to actively emit (extrovertedly) and embed (introvertedly) the essence of *homology*, as another chain between man and cosmos, in which the triad man-house-cosmos are seen as analogous.<sup>1253</sup> In some cultures, parts of the house are equated, in the sense of sacral architecture, to the body. In a metaphorical sense, Eliade refers to the trend in various cultures to equate the various components of the house or temple to the structure of the cosmos and of the body. Her main examples in this are the Hindu and Buddhist traditions but she is also referring to pre-modern Western Christian societies, arguing that the religiosity in premodern times is open to the cosmos. The examples to which she refers make this analogy cognitively. It is interesting to examine the ways that societies tend to follow this path unconsciously: "The house as the centre of the world".<sup>1254</sup>

In this study on Koumasa, the settlement itself is seen as part of this analogy and added as a fourth chain in the triad body house cosmos, where a settlement atop and around a hill can act as a miniature cosmos, engulfing the topographical transitions mentioned above and expanding beyond them.

In a region characterised by a mountainous landscape, it is fitting to seek a location that embodies this type of agency at the summit of the settlement, from where the ascending slope to the north extends towards the majestic mountain range to the south. This dynamic relationship seems to be summarised in the slope of the settlement itself,

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1250 E.g. Dal Yovo 2023; Georgiadis 2023; Stevens 2023.

1251 Eliade 1990, 124.

1252 Hodder 1982, 164.

1253 Eliade 1990, 125.

1254 "Das Haus als Mitte der Welt" (Bollnow 1994, 123).

which acts as a small-scale re-enactment of the surrounding environment – a microcosm of it. By adapting this idea to the architectural design around a peak, as discussed in Chapter 8 for the case of the ‘sanctuary’ and the Terrace, the open spaces amidst the dense build environment can be seen as an effort to emit this type of connectivity to this surrounding environment.

In the level of the house, the elevated openings, such as chimneys, towers, and domes, are seen as a communication possibility or access to the outside and hence, in their metaphorical role, as access to the realm of out-of-the-orderly or the divine.<sup>1255</sup> These openings align with the perception of the axis mundi, a vertical elevation serving as a stabilisation of the world.<sup>1256</sup> This role within the settlement is assumed by the summit of the hill, embodying at the same time the region in which it lies, acknowledging the two different levels over which it presides while also acting as a continuum within it.

Within this view of a continuum, the dwellers of Koumasa would have considered elevations such as the Kophinas sanctuary within their realm, as per the inhabitants of the valley of the Messara, and could have acted to an extent in their anchoring of identity and affirmed their position as per other areas of the mountain, such as the harbour regions and Kophinas.<sup>1257</sup> The discovery of parts of human figurines in Koumasa has been attributed to the site’s connection with the Kophinas peak sanctuary, owing to the parallels with the figurines there.<sup>1258</sup>

The significance of the elevation proposed here will be further reinforced if we revisit the aforementioned plant offerings in the Kophinas sanctuary.<sup>1259</sup> The burning of offerings at this location has been proposed as an indication that a deity received the sacrifice, in line with cultural parallels that position fire as the mediator to the divine.<sup>1260</sup> This pananthropic habit is likely attributed to the fact that its smoke ascends into the sky.<sup>1261</sup> “In this respect, Kophinas – as an open-air site situated at a higher elevation – provides an ideal location for this type of ritual activity, and its archaeobotanical remains potentially serve as the earliest evidence for the occurrence of a plant sacrifice in the Aegean region”.<sup>1262</sup>

In the next chapter the background of the mountain religiosity will be examined, as a fact coded in the genetics of humans.

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1255 Eliade examines the analogy of the house in those societies and makes a comparison of the cosmological meaning and symbolism in their architectural design with the luck thereof in the modern western arrangement (Eliade 1990).

1256 Eliade 1990, 26–27.

1257 See discussion on page 316.

1258 Panagiotopoulos 2022, 330, Fig. 16. See also Panagiotopoulos 2013, 425–426; 2018, 480, Fig. 7.

1259 See Footnote 1227.

1260 Kaliff 2011.

1261 Soetens 2009.

1262 Henkel – Margaritis 2022, 13–14.

### 12.3 A Perspective of Evolutionary Psychology

After examining the projection of the understood natural order within manmade structures, a closer look must be taken at the religiosity that surrounds the mountains.<sup>1263</sup> This idea is often regarded as self-evident or, even worse, is given a trivial explanation that excludes a significant number of possibilities.

Since prehistory, humans have not passively adapted to their landscape but have actively shaped it. Within the realm of evolutionary psychology, landscape preferences have been associated with processes related to biological adaptation.<sup>1264</sup> These preferences encoded in pananthropic behaviour constitute an aesthetic reaction to a certain type of surroundings.<sup>1265</sup> Overlooking them as trivial diminishes our understanding of the choices any society makes when adapting to a given environment. This perspective can also undermine the experience of the modern traveller, suggesting it is solely shaped by contemporary cultural influences and thus not relevant for assessing the ancient ones.

As various studies show, the landscapes that humans prefer, or feel closest to, are those that resemble the savanna environment.<sup>1266</sup> According to these investigations, humans do not possess an innate preference for mountainous regions as for savanna-like settings. Following this, the explanation of mountainous regions as choices for settling must be attributed to their practicality and strategic advantages, as the lack of space, the harshness of the terrain as well as the predisposition of human nature would have been negative factors. This pragmatistic approach is well attested, as the increase of remote settlements in times of unease clearly shows.<sup>1267</sup>

However, a less explored factor is the counterbalance to the impracticalities of daily life in the mountains or near them. In recent publications, there is a tendency to address senses and evoked feelings; aspects of everyday experiences that are not easily quantifiable in the archaeological remains but nevertheless constitute part of the human experience of the *locus*, as discussed in Chapter 8.1. Thus, the senses can be viewed as

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1263 Panagiotopoulos 2008, 117–118.

1264 Appleton 1975, 73.

1265 Durrant – Ellis 2003, 9–10; Wang – Yu 2018; Albuquerque et al. 2020.

1266 This notion is studied within the realm of evolutionary psychology (see Ulrich 1993) and is dubbed the *Savanna Hypothesis* (for a general review of this hypothesis, see Rathmann – Korpela – Stojakowits 2022). Natural selection forged the need for various types of hominids, ranging from early hominids to sapiens, to have preferences for certain landscapes that are most suitable for their survival. The rise in relevance of cultural evolution alongside these biological adaptations is assumed to continue to happen in the various stages of human migration, allowing thus for the adaptability of humans in various environments (Stephenson – Brotherton 1979) whilst maintaining the instinctual need to associate their habitation with savanna-like places (Durrant – Ellis 2003, 9–10).

1267 In late Minoan culture for example a preference for remote difficult to access settlements in the LM III period, dubbed as refuges, such as Karfi, Vrokastro, Kavousi Kastro (Nowicki 1987). This tendency is attributed to uncertain times caused by outer factors, which continued to the geometric age and the role of the Greek Acropolis (Nowicki 2002, 155–157).

part of the archaeological understanding and subject to archaeological investigation.<sup>1268</sup> Investigations of this type include the effect of light in the built environment but also the effect of landscape. However, the primary evolutionary feeling surrounding the mountains,<sup>1269</sup> though present in other faculties such as evolutionary psychology, is mostly less regarded in Aegean archaeology. This feeling is awe.

Awe is an emotion that arises when one encounters something so strikingly vast that it defies one's current knowledge structures and provokes a need to update one's mental schemas. The characteristic related to the theory of evolutionary psychology, or Darwinian psychology, is its permanent latency even if one is in permanent contact with the source emanating this sensory experience.<sup>1270</sup>

The feelings related to awe, such as wonder, uneasiness and admiration are linked amongst others with religious experiences but also with exposure to natural wonders.<sup>1271</sup> Experiences of awe are often tinged with a primal fear when one encounters something that contradicts what is deemed normal within the evolutionary predisposition. In addition to instilling a sense of alertness, awe is regarded as a positive emotion, as it can induce self-transcendent feelings, thereby reducing the focus on the individual self.<sup>1272</sup> Subsequently, this is linked with religiosity.

The feel of vastness and uncontrollability that surrounds a mountainous landscape, being vastly different than the savanna landscape towards which humans are predisposed to feel at ease through the lens of evolutionary psychology, induces a sense of uneasiness that at the same time seems not only untameable but also the environment itself seems to human minds unreachable and much larger than oneself both literally and figuratively. Even the perception of distance in mountainous regions is flawed, as human vision did not evolve to cope with abrupt changes in altitude in the field of vision.<sup>1273</sup> As the environment where humans would feel at home resembles a

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1268 For further elaboration, see Hamilakis 2002a; Hamilakis 2011, 216–217). Hamilakis mentioned that one of the aims of 'archaeology of the senses' is to tackle issues related to sensory experiences that research had considered as rather ephemeral and immaterial (Hamilakis 2011, 209). I consider the interaction with the landscape and the feeling evoked through it – pertaining to the subject matter of this work – as a subject of this field.

1269 Recent examples are the studies in Dakouri-Hild – Boyd 2016. The works above focus primarily on the senses implying the evoked feelings.

1270 For an introduction to evolutionary psychology, see Durrant – Ellis 2003; Buss 2019; Medicus 2020. For initial efforts to form a methodology for the integration of evolutionary psychology in archaeology, see Wynn 2016; Mithen 1997; O'Brien – Lyman 2000; Wynn – Coolidge 2022. These models pertain mostly, but not exclusively, to the Palaeolithic period.

1271 Keltner – Haidt, 2003.

1272 Zhao et al. 2018; Piff et al., 2015.

1273 The detection of motion parallax between various points of a mountain range will not be perceived accurately from the human brain, and therefore, the gradients will be perceived similar to those of a flat image (Gibson – Flock 1962, 503). These observations, although unknown to Gibson and Flock, apply very well with the evolutionary theory of the predisposition of the human mind for the perception of distances in a savannah-like environment.

savanna-like plain and smooth terrain, the inhabitants of the mountains would sense their surroundings with a subconscious sense of uneasiness. Experiments have shown a link between spirituality induced by a feeling of awe, stemming from appropriate nature scenes.<sup>1274</sup> The catalyst for the spiritual search is the feeling of uncertainty, which is the direct result of the emotion of awe.

The projection of this wonder and awe of the vastness could have caused the association of the peaks with what we associate as divine, i.e. with a supernatural and unfathomable force, as many religions testify. Awe appears to operate on two levels. On one hand, it may foster the feelings of connectedness that often accompany religiosity and/or spirituality.<sup>1275</sup> On the other hand, it spawns an uncertainty and an uneasiness that can be mitigated by perceiving a hidden author.<sup>1276</sup> Although the reason why awe is related to a sense of spirituality is not straightforward, it is clear that there is a correlation, as each can induce the other.

The perceived proximity to the sky, which was discussed above as a factor of spirituality, is an added factor in this perception. Beyond this, the mountainous terrain itself evokes a profound sense of awe, which religious beliefs either seek to articulate or represent as an attempt to provide a logical framework for understanding this feeling. As discussed earlier, the act of walking in the mountains encapsulates the seemingly contradictory sensations of fear and confidence, intertwining vulnerability with a sense of empowerment.<sup>1277</sup>

Another interesting take on the psychological dimensions of awe is offered through the field of evolutionary psychology, although this emotion has remained until recently understudied.<sup>1278</sup> Indeed, seen from the perspective of evolutionary psychology, the phenomenon of awe originates in the fundamental emotional response that members of the first human clans would have had towards the powerful group leader.<sup>1279</sup> The experience of this feeling by the mountains, sparked from the factors described above, would induce the association with, literally, a higher power, if one follows the analysis of Keltner and Haidt.<sup>1280</sup>

Thus, the long-established view that the correlation between mountains and religious activities is the fact that mountains were perceived as closer to the sky and thus to the divine, although it hits the mark, is an oversimplification, at least. The mountain-

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1274 Valdesolo – Graham 2014.

1275 Van Cappellen – Saroglou 2012, 7–9.

1276 Valdesolo – Graham 2014, 177.

1277 See Footnote 1088.

1278 Keltner – Haidt 2003, 297.

1279 Keltner – Haidt 2003.

1280 Keltner – Haidt 2003.

ous terrain in itself can be understood to comply with Foucault's definition of "other spaces".<sup>1281</sup>

These factors could be considered when dealing with the establishment of a centre such as Koumasa at an area of clear transition from the valley to the mountain and its relation to areas of worship and ritual, such as the mountainous tholoi and the Kopinas peak sanctuary. Further, the rendering of its highest level, the 'sanctuary' area, to a miniature performative arena could benefit from this scope.

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1281 Foucault – Miskowiec 1986.