

Part III

Topography and Representation in the Microscale of Koumasa and Korakies Hill

Introduction

The architectural remains of Koumasa, beside the tholoi, primarily date to one phase, with the destruction level within this phase corresponding to LM I. As discussed in Chapter 2.3.1, the main buildings excavated are concentrated on the settlement plateau, but the building activity extends on the slopes, as evident from surveys and the identification of the LM building at the northern slope of the Korakies hill.⁶⁷² The slope is seen as the main reason for the bad preservation of buildings on it. The structures on the plateau seem to have been built within a unified masterplan, as the walls follow a grid (35° on a southwest-to-northeast axis on the plateau, with a slight deviation on the ‘sanctuary’, whose grid is at 45°). This fact will be further demonstrated in future excavations.⁶⁷³ Up to date, the total number of excavated walls is 73, with a total length of 466 m.

In certain areas, such as the magazines and parts of the ‘sanctuary’, construction partially incorporates Protopalatial structures or reuses older walls. At the same time, other sections are built directly on the bedrock during the LM I period. The area was abandoned simultaneously during the LM I period, after which no evidence of construction activity was observed until the Hellenistic period.⁶⁷⁴ The dating of the mostly undecorated ceramic of this phase, pending a study of the material, has been consistent with LM I, without clear differentiation between LM IA and B. However, a hemispherical cup with a painted spiral decoration on the floor of the building in Trench 16 offers a dating possibility.⁶⁷⁵ This hemispherical cup finds comparison in the LM IB of the Knossos area and, therefore, represents a point of reference for the chronology not only for the room but also for the entire LM I phase of Koumasa, due to the simultaneous abandonment of it.⁶⁷⁶ Another object that could be dated to LM IB is a conical cup Rhyton from the ‘sanctuary’ area which affirms this result.⁶⁷⁷

The hill slopes also show architectural elements that are still not excavated. To be mentioned is a square building of Neopalatial dating, with dimensions 13.5 m. and

672 Pfeiffer et al. 2015, Fig. 13.

673 Panagiotopoulos 2019b, 455.

674 Panagiotopoulos 2019b, 455; Panagiotopoulos 2023a, 197.

675 For the location of this trench within the settlement, see Panagiotopoulos 2024, Fig. 27.5.

676 Panagiotopoulos 2022a, 50; Panagiotopoulos 2022b, 333, Fig. 24.

677 See Footnote 747.

12.5 m. and a total area 170 m², situated at the base of the hill, 90 m. NE of Tholos E (see Figure 4).

Since ragged terrain defines the Koumasa settlement, insight into the three dimensions is possible with the use of GIS and DEM methods for definitions of routes and viewshed, following a trend of research that has already appeared in Aegean archaeology, as presented in Chapters 4, 5.⁶⁷⁸

Beyond the built structures, the microscale of Koumasa is analysed here using these methodologies as a collection of overlapping layers of everyday experiences. This approach extends the traditional definition based on movement within the settlement to encompass viewing, hearing, and all interactions shaped by the area's topography and constructed edifices.

The settlement is then approached as part of the landscape and subject to the techniques of landscape archaeology. The study of the microscale of the settlement correlates first with the traditional practice of the archaeological study of a certain region, and it is a much-needed action as the three waves of excavations and cleanings have unearthed a large amount of information, which will aid the analysis in this part of the study. The topographical importance of the area of the 'sanctuary', as Chapter 6 shows, is predominant. For this reason, in Chapter 7, a preliminary evaluation of the archaeological data from the old and new excavations of the 'sanctuary' area will be undertaken to elucidate the results of this Chapter further. These results are part of the preparation for a systematic publication of the archaeological finds. The documentation and analytical presentation of the results rely on the thorough examination of the excavation notebooks, a systematic analysis of the architectural remains and movable finds and last but not least, the results of micromorphological and material analyses.

On the basis of these data, previous interpretations of the 'sanctuary' have already been critically presented (in Chapter 1.2), and recent theoretical models will be implemented in Chapter 8, attempting a structured approach. Here, space syntax and architectural liminality serve as useful tools for addressing this subject, complemented by elements of architectural theory. Space syntax analysis will be employed as part of the broader analytical framework.⁶⁷⁹ Furthermore, as a second step, the utilisation of the phenomenological approach as introduced by Norberg-Schulz in architecture will be useful. This approach does not rely solely on the quantitative aspects of the data gathered per se but facilitates a secondary level of analysis, in which the liminal nature and potential of the architectural elements are incorporated.⁶⁸⁰ The use of this method in Minoan archaeology is a relatively recent trend and is considered essential for approaching architectural elements as *Things*.

678 Refer to such a study in the case of the visibility ranges of the Apesokari tholoi in Déderix 2019.

679 Hillier – Hanson 1984, 147–155.

680 Palyvou 2018, 3–5.

6 Microscale of Koumasa. Settlement Movability and Visibility Analysis with a Local DEM

Preparation

Utilising drone images, a .obj model was generated with Agisoft, which underwent georeferencing and was subsequently exported as DEM models of various resolutions that were further analysed in GIS programmes. The analyses in this Chapter were conducted based on a 1-meter pixel DEM. Higher resolution DEMs were also produced, with 50 cm. and 28 cm. resolution, whose implementation did not cause significant differences in the results but were helpful in the cross-sections.

The total area of the DEM encompasses 10.76 ha. Figures 57 and 58 illustrate the extent of the DEM-covered area, encompassing the settlement plateau to the east of Peaks 1 and 2 and Peak 3 to the north. Peak 3 pertains to a secondary hill distinct from



Figure 57: Watershed of the area of Koumasa, computed on a 28cm.-DEM.

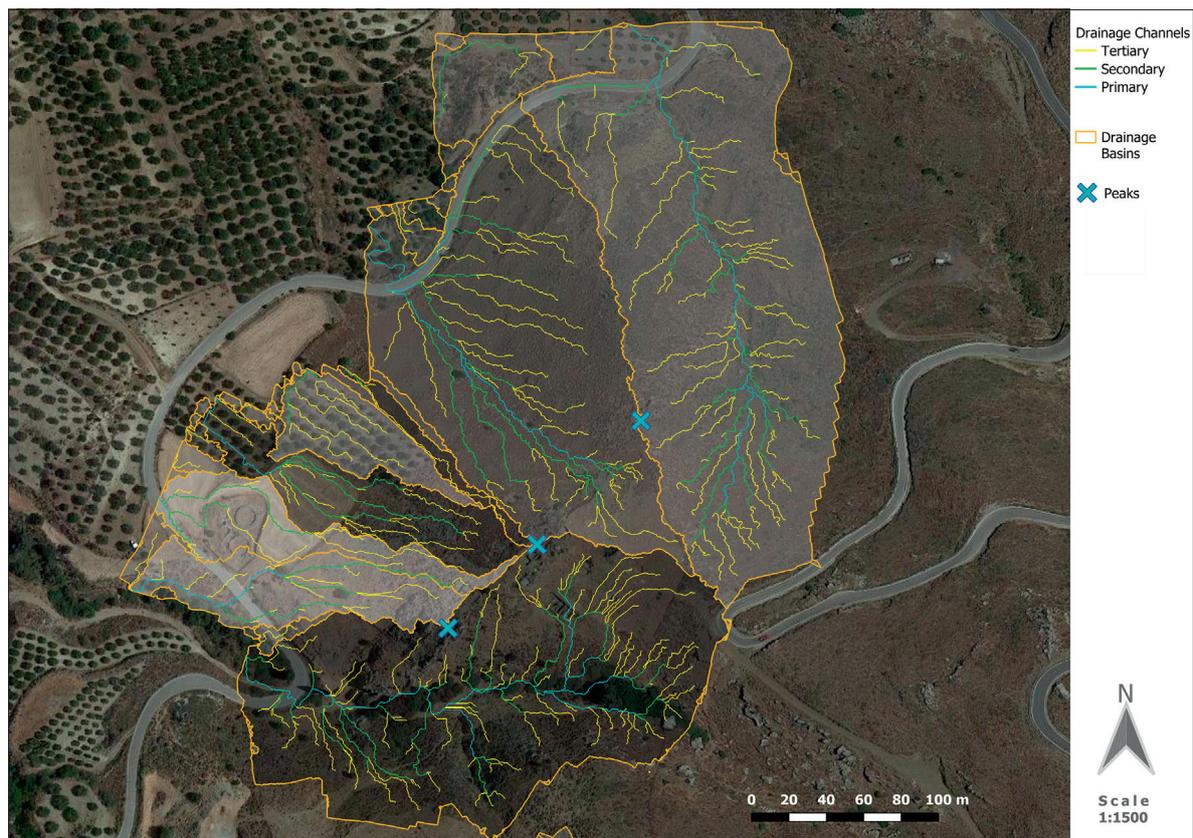


Figure 58: Watershed of the area of Koumasa, computed on a 28cm.-DEM.

Korakies hill and separated by a small ravine. The hill's topography, slope, and contour lines are illustrated in Figures 3 and 4 in Chapter 1.1.

Figures 57 and 58 show the drainage catchment based on the methodology of the watershed in GIS, as presented in Chapter 5.5. The effect of the slope in defining the regions of Koumasa is illustrated.⁶⁸¹

6.1 Viewshed

Viewshed can be used in a more local extent than the wider utilisation seen in Chapter 5.4.⁶⁸² The viewshed analysis above illustrates the observable terrain based on observation points, with definable observer and target heights. As in the case above, both the observer's and target's heights are set at 1.6 m., corresponding to an average height of a

⁶⁸¹ Only in this case, the DEM with 28 cm. accuracy was used, as it yielded more accurate results than the 1 m.-DEM. To be noted, that the watershed analysis is subject to the edge effect, so that at the edges of the DEM smaller catchments appear, that are to be considered virtual, due to the limited area of the DEM.

⁶⁸² Déderix 2019; 2023, 12–13, 23–29, Figs.5–9.

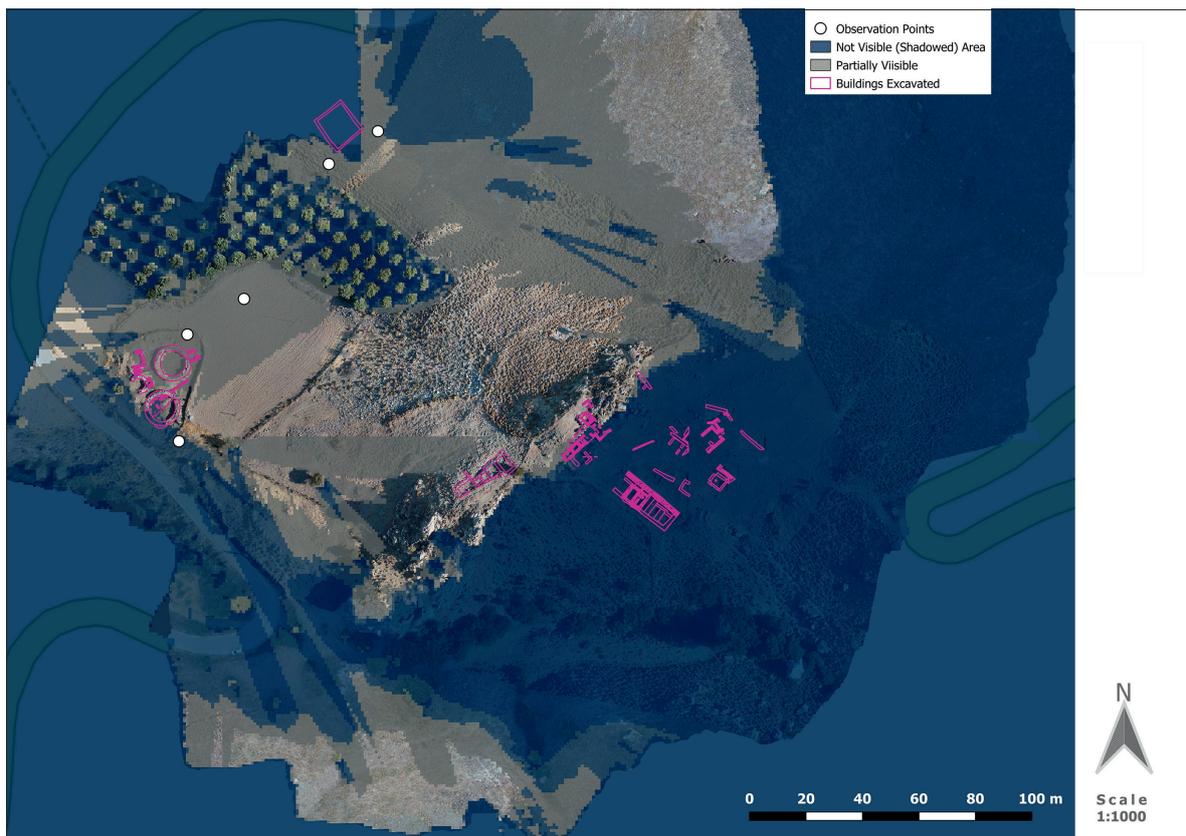


Figure 59: Iteration 1. Viewshed from points to the immediate west of the Korakies hill.

premodern individual.⁶⁸³ The maps depict the lines of sight or visibility from observers to observation points to standing individuals across the landscape within the limits of the DEM.

In the iterations below, the viewshed is shown in grades of visibility, with full visibility rendered as completely transparent and the other degrees shown in shades of yellow and grey for partial visibility and black for non-visible areas. The 1m.-DEM was used, as the higher resolution does not add more information while adding an unnecessary computational effort.

In the initial iteration (Figure 59), five observation points were defined alongside the start of the hill's slope along the same contour line of 380 m. (which passes through the tholoi in their excavated state).

As seen in the image above, the plateau remains invisible. The area between Peaks 1 and 2, where the 'sanctuary' is located, is the frontal scene for the observation points, especially in the terrace area. This area, with partial visibility for targets with 1.6 m. of height, is the only area of the plateau with direct frontal visibility of the valley below.

683 See Footnotes 658, 659.

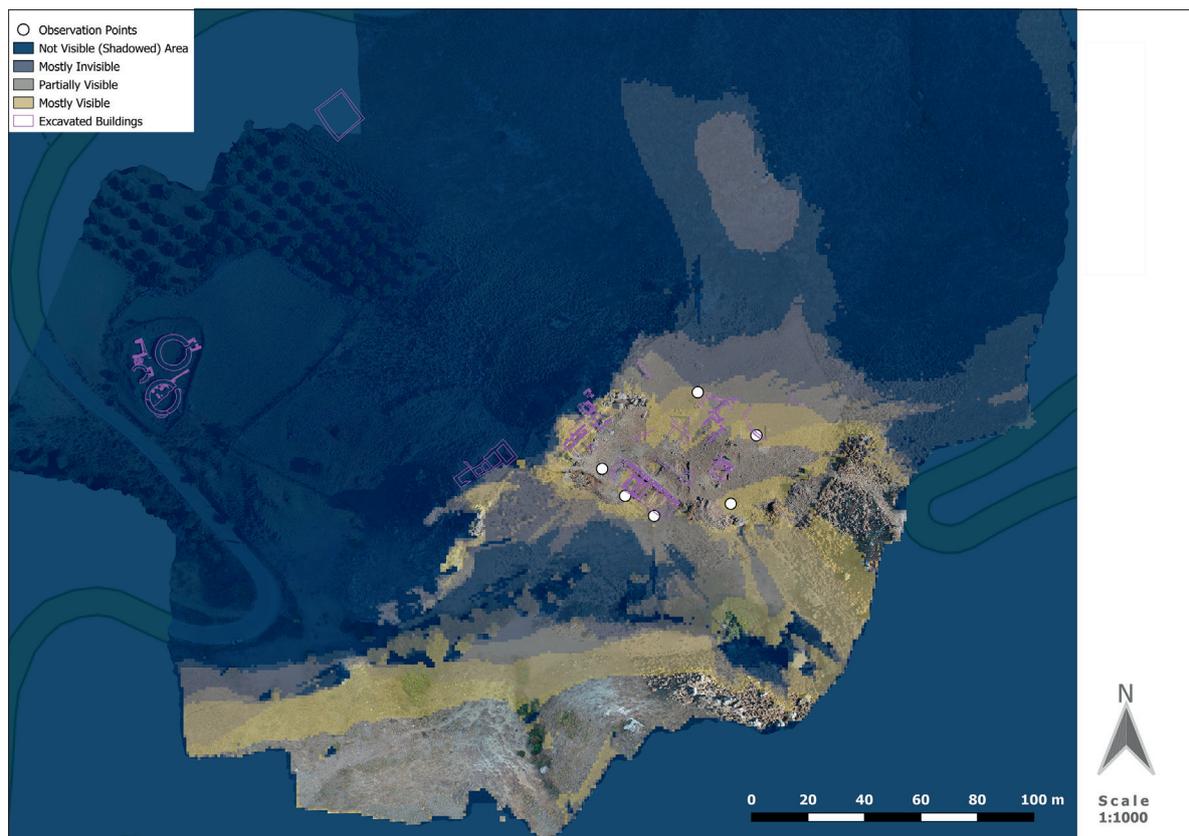


Figure 60: Iteration 2. Viewshed from points on the settlement's plateau.

The second iteration makes the optical seclusion of the plateau clear, as six points were set along its surface, as can be seen in Figure 60.

As it can be seen, the western and northern slopes are mostly shadowed, as is part of the 'sanctuary'. The visibility of part of the 'sanctuary' is attributed to the two easternmost observation points, located along the 420 m. and 424 m. contour lines. Also, built structures on the 'sanctuary', especially those at Rooms 3 and 4, would add a further optical block to the view from the Plateau (see fourth iteration below).⁶⁸⁴ It is to be noted that from the northern observation points, the greater Messara valley is visible (a fact not captured in this local DEM), and the restriction concerns only the descending north slope, which becomes partially visible only if one stands at the northern edge of the Plateau.

As demonstrated in Iteration 1, accessing the terrace – the westernmost part of the 'sanctuary' – is necessary to explore the optical connection with the descending slopes, where the two viewsheds discussed above partially overlap. Therefore, in the third iteration, the observation points are positioned along the western side of the terrace of

⁶⁸⁴ Rooms 3 and 4, especially when considering built structures, form the eastern front of the 'sanctuary' (see discussion in Chapter 8.3 and Figure 76).

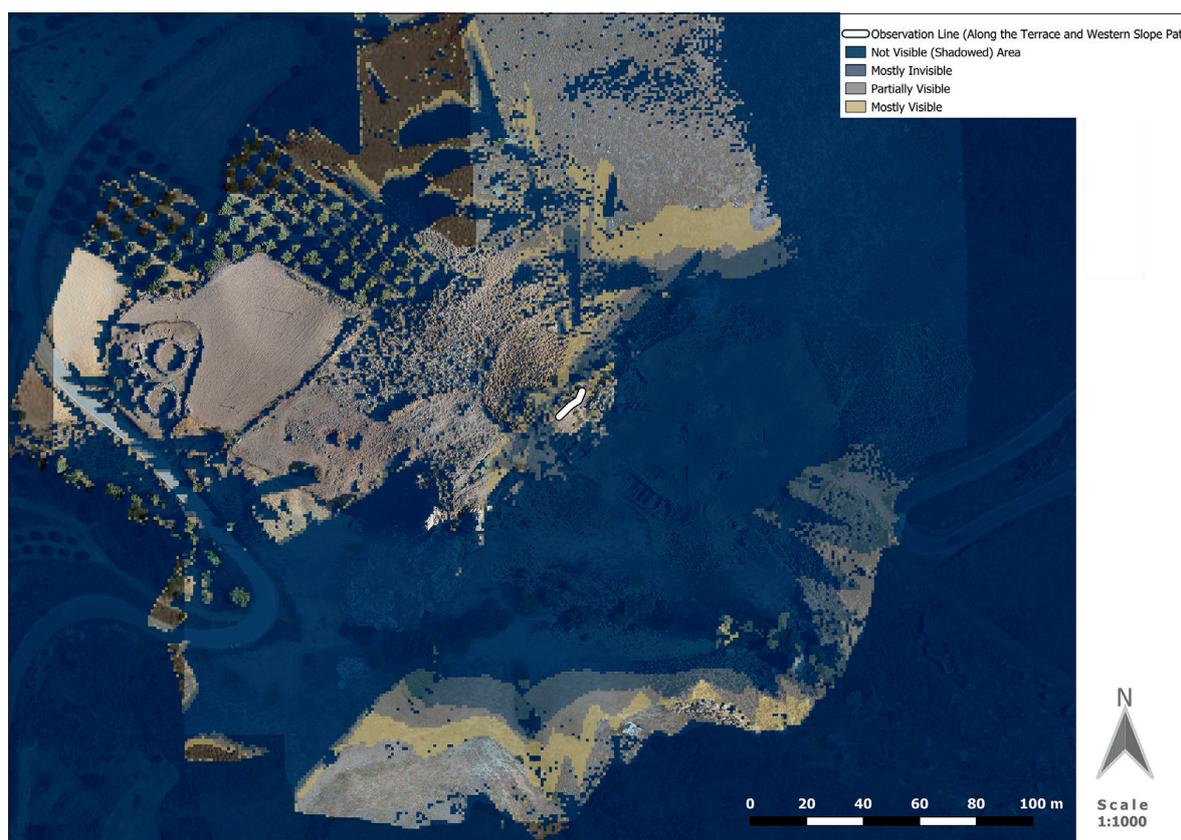


Figure 61: Iteration 3. Viewshed from points along the western path (western corridor).

the ‘sanctuary’ and the last part of the western path leading to it on the slope of the hill (Figure 61).⁶⁸⁵

As shown in the image above, the view of the western slope, including the tholoi, is prominent and aligns with empirical observations. As is logical, in the west slope, it reproduces the visibility map seen in the first iteration. Still, the areas that were partially visible from below are now well-seen, as the high ground of the terrace offers a good viewing position. In simpler terms, the viewer from the terrace sees everything below, but not all from below see each other. However, the settlement plateau is not visible to the east of the terrace, as it is obstructed by Peak 1 and Rooms 1 and 2.

The restricted visibility of the terrace itself would be even more constrained when accounting for potential structures alongside Walls a, b, and the height in Rooms 3, 4 (as discussed in Chapter 7.2). Topographically, the terrace of the ‘sanctuary’ is part of the hill and the plateau; however, in terms of visibility, it is connected with the area at the foot of the slope. This distinction would have been more pronounced if the structures in the ‘sanctuary’ were considered. A similar observation applies to acoustics, as the area of the terrace is acoustically more connected to the western slope than to the plateau, as

⁶⁸⁵ For more on this assumed western corridor, see Chapter 7.2.4.

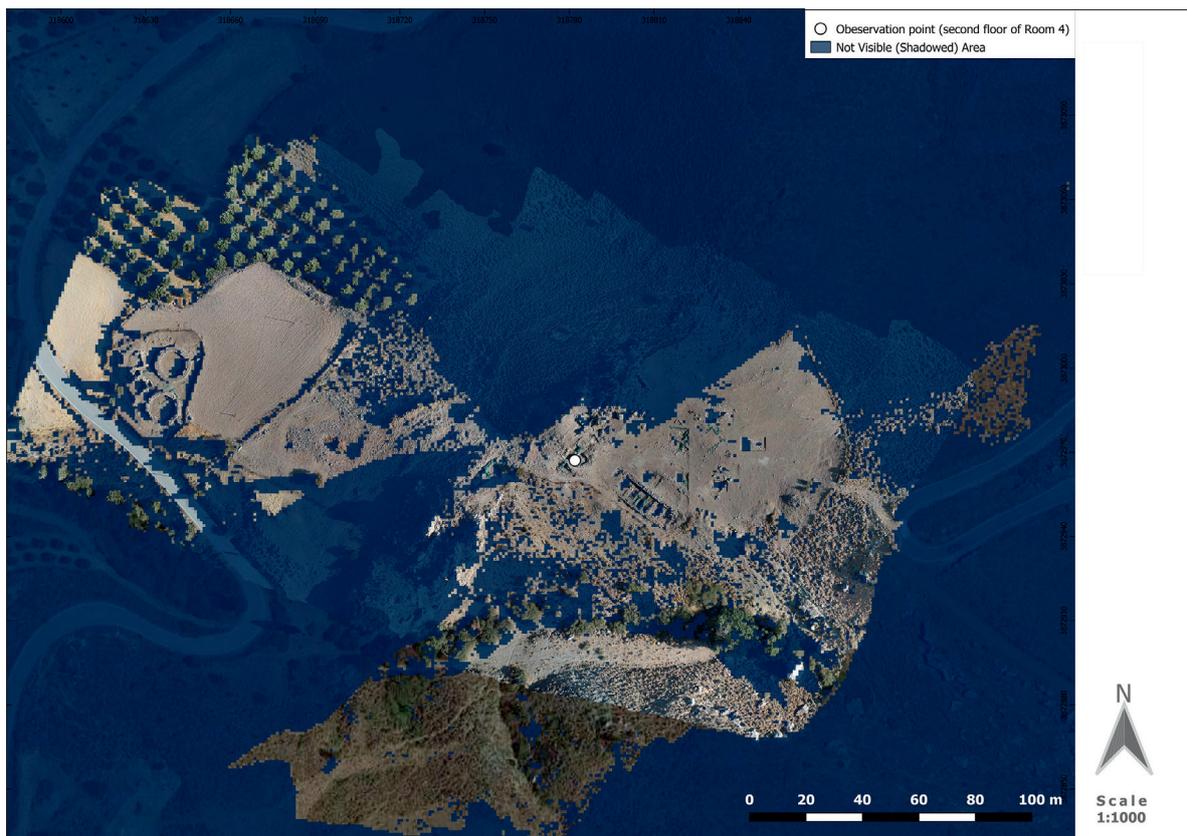


Figure 62: Iteration 4. Viewshed from the point of an observer standing 3 m. above the column base of Room 4, approximating standing observers on the roof of the building in Room 4.

empirical observation has shown. This is attributed to the topography of the descending southern slope, which focuses sound waves. The presence of buildings in the area of Rooms 1, 3 and 4 would have added to the dimming of the acoustic connection between the plateau and the terrace further. Thus, the modalities of visibility and acoustic range place the terrace into the sensory environment of the slope and the tholoi area, diverging from its geographical categorisation.⁶⁸⁶

A detailed examination of the ‘sanctuary’ area, coupled with a preliminary analysis of its layout and finds, is essential for understanding the interplay of visibility and design in this topographically prominent feature of the Korakies hill.

The nodal position of the ‘sanctuary’ between the plateau and the area below is emphasised in the fourth iteration, which takes into consideration the architectural layout in Room 4 of the ‘sanctuary’. There, a column base, as well as the archaeological finds, indicate a second floor (See Chapter 7.2). Taking the conservative view that the roof of the second storey was not walkable, the viewer position is considered on the roof of the first storey, taken here as 3 m. from the floor level of Room 4 (Figure 62).

⁶⁸⁶ For the sensory aspects of a place, see Feld 2005, 182–185. See also discussion on page 216.

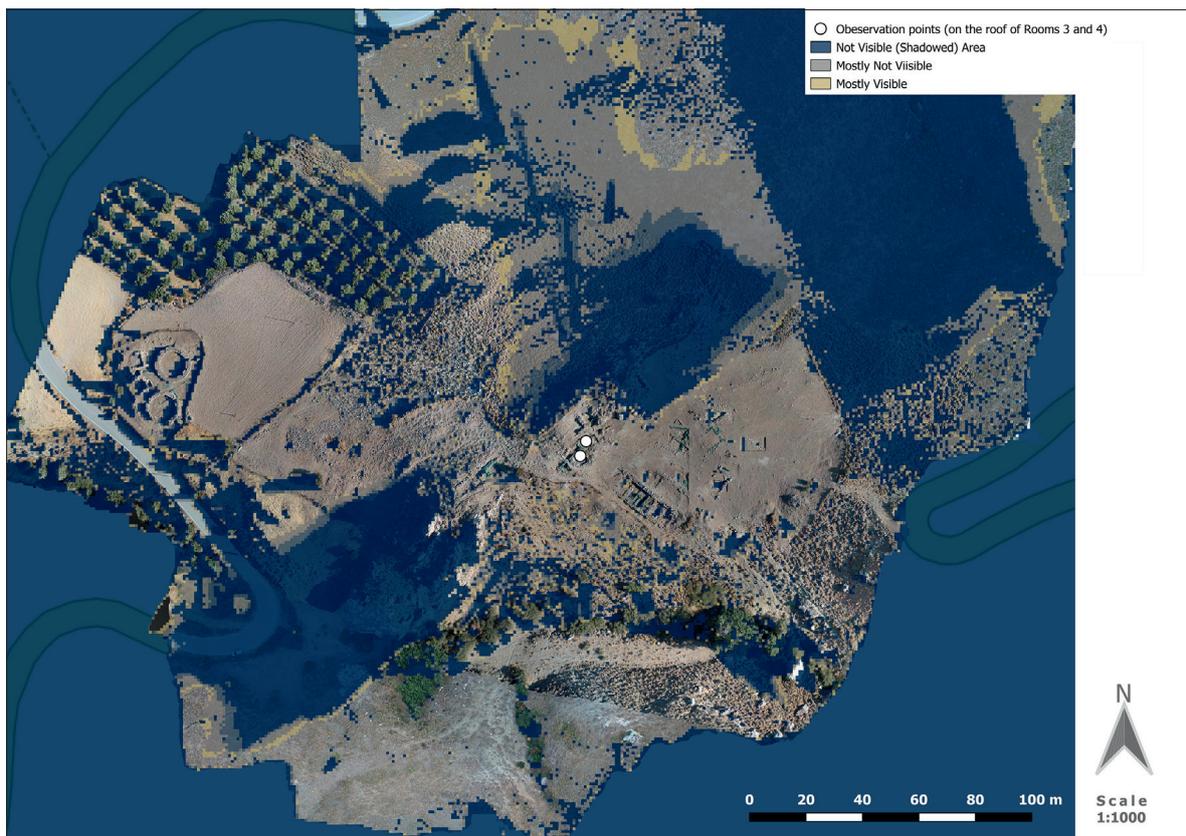


Figure 63: Iteration 5. Viewshed from the point of observers standing on the roof of the second floor of Rooms 3 and 4.

As seen in the image above, a viewer on the top of the roof of Room 4 would have an optical connection to a large part of the slope reaching from the valley to the area of the tholoi and both the plateau and the tholoi area. Interestingly, the path from the valley through the western slope discussed in the Chapter on least-cost-path analysis below (Figures 66 and 67) would be fully visible from that position. However, an approach from the northern slope paths is not visible.

Further, the viewshed extends to the plateau, as is logical; hence, the viewshed coincides with the two fairly level areas of the Koumasa area, best illustrated in Figures 5 and 64.

A similar, and more pronounced visibility coverage is accomplished in the fifth iteration, where the viewer position is considered to be the roof of the second storey of Rooms 3 and 4, the two rooms that had column bases, as discussed in Chapter 7 (Figure 63).

In this case, the invisible areas are minimal and concentrated southwest of Peak 2, northeast of Peak 1, and the northeastern gorge beyond Peak 3.

6.2 Least-Cost Paths

The second phase of the DEM analysis involves illustrating the influence of topography on pedestrian movement. The methodology employed for this purpose is the least-cost-path analysis, which includes generating a slope map and subsequently reclassifying it, as seen in Chapter 5.2. The rationale behind reclassification is to enhance the slope data with parameters that account for the natural patterns of human mobility, as expounded upon in Chapter 4. This involves primarily the slope's influence rather than time in these generally short distances.

The reclassification process utilised cost values based on the approximation of the second-degree polynomial in 5-degree steps. This approach was chosen as more granular classifications tend to yield comparable outcomes, as elucidated earlier.⁶⁸⁷ Figure 64 shows the resulting reclassified cost map.

Illustrated in this image are the level areas (depicted in yellow and dark yellow shading, featuring slopes ranging from zero to 10 degrees) situated (1) west of Korakies hill around the tholoi area (also extending to the region covered by olive trees in the DEM, where the elevation noise due to the trees can be disregarded for this analysis); (2) on the settlement plateau; (3) to the south in the ravine south of the plateau, bordered by steep slopes on both sides (indicated by the purple and black shading, corresponding to 30 degrees and more); (4) and to the north, where the modern road flanks the northern part of the hill and extends further north at the edges of the DEM.⁶⁸⁸

Additionally, the secondary hill of the Korakies, with its summit marked as Peak 3 (see Figures 57 and 58 above), is highlighted, showcasing steep slopes flanking it from the west and east. To its east, the northward ravine is also depicted as highly steep, aligning with on-site experiences of the terrain and fitting with the watershed basins presented above. The west and northwest slopes of the Korakies hill are presented as mildly steep, suggesting the relatively more straightforward connection of the settlement plateau to the valley from these directions.

In the first iteration of the least-cost-path analysis, using the 1m.-DEM, a starting point in the valley to the west of the tholoi area is assumed, and four destination points are identified: one in the gorge south of the settlement, two on the plateau (one on its southern edge and one on the northern edge), and a fourth point east of the northeastern ravine. Least-cost paths were generated towards these points, that highlight the topographical characteristics of the area, as seen in Figure 65.

⁶⁸⁷ See above, Footnote 619.

⁶⁸⁸ The yellow colour of the road itself corresponds to an induced error, as it is shaded thusly due to the artificial pavement of the street and should not be taken into consideration. It being peripheral, further coding to exclude it was not deemed necessary.

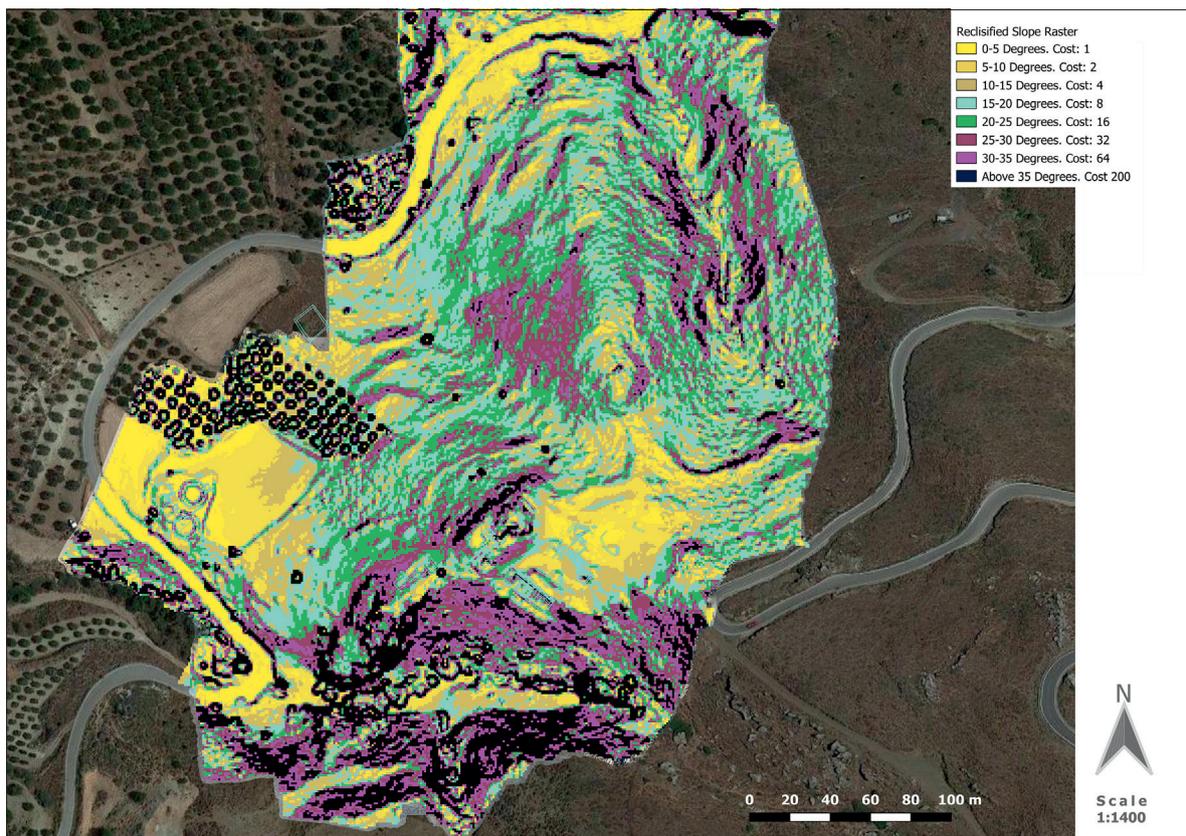


Figure 64: Reclassified slope of the 1m-DEM.

The slope raster was used here as the background image to the extent of the DEM, which demonstrates the relatively flat areas of the valley below, the southern gorge and the settlement plateau with darker colours.

The paths towards the southern gorge and the point east of the northeastern ravine, as logical, bypass the Korakies hill entirely. Both paths make use of the modern road, and while it is paved on the natural earth, it nevertheless causes minimal disruption to the terrain so that the induced error is considered minimal. The paths to the two points on the plateau ascend the hill, bypassing Peak 1 and the ‘sanctuary’. One path bypasses it to the north, while the other goes south of it. Further iterations (not shown here) indicate that these two access paths are chosen based on the destination point to the north or south part of the plateau, respectively. It is noteworthy that the southern path does not change and consistently passes near the tree between Peaks 1 and 2 in all iterations, corresponding to empirical data indicating the bottleneck observed empirically, restricting movement there. The exact trace of the northern path varies slightly in the various iterations (not shown here).

The second and final iteration involves a starting point at the terrace of the ‘sanctuary’, specifically from the point where the wall separating Rooms 1 and 2 ends. Four destination points were defined, including one deep in the southern gorge, one at its

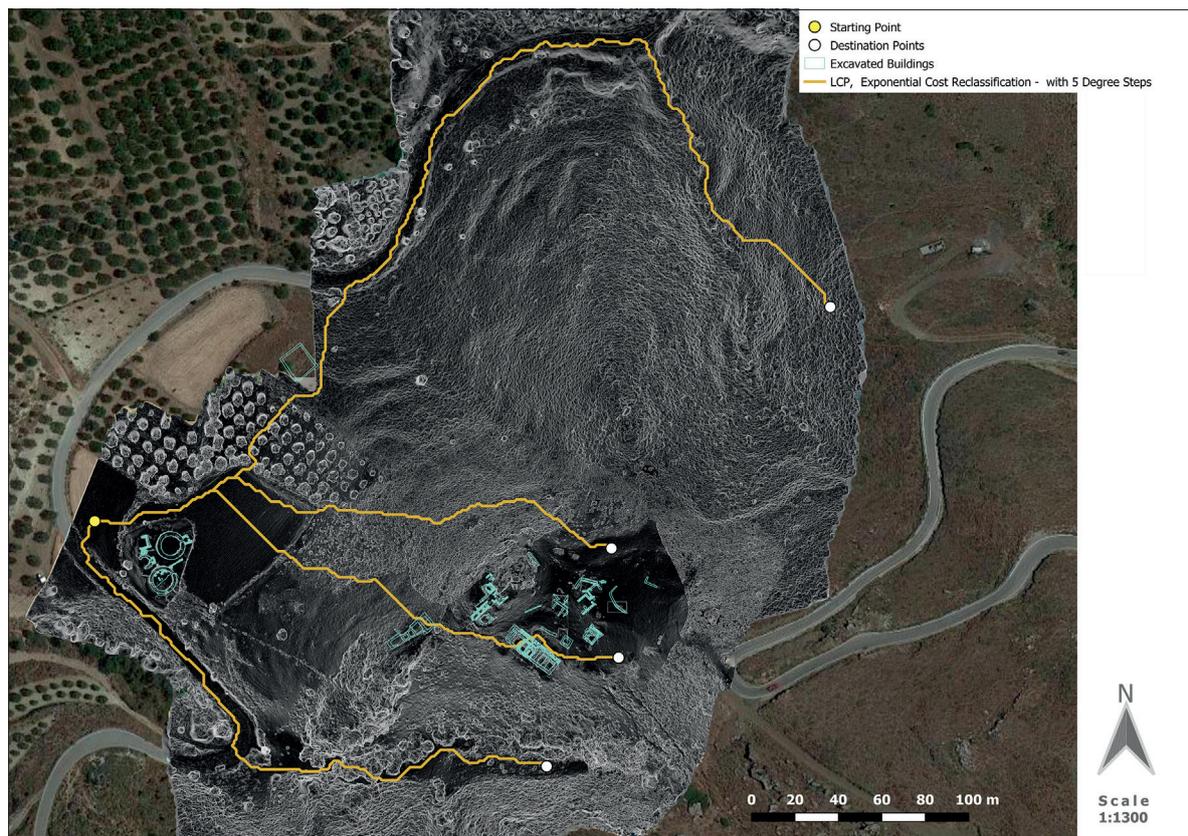


Figure 65: Iteration 1 of least-cost-path analysis on the 1m.-DEM.

entrance, one to the north-west of the tholoi and south of the olive grove, and the last to the north of the hill at the position of the Neopalatial building identified there. The results are shown in Figure 66.

The path leading downhill to the west is strongly linked with the path towards the entrance to the southern ravine. This access route is very close to the one used today as the main access point from the west (a discrepancy at the beginning of the hill is due to the fence surrounding the field east of the tholoi). The path to the areas to the north, leading to the Neopalatial building, follows the natural shallow ravine and should be considered secondary, as these natural paths often are. The way to the eastern part of the southern ravine passes near the magazine building. It is a very steep path and is not shown if a cut-off is inserted for slopes greater than 30 degrees (not illustrated here). It is walkable through zigzagging, as empirical walking has shown from that area downhill.

The results of this final iteration should be seen in combination with the viewsheds that stress the 'sanctuary's' strategic position, denoting it as the focal area of the microscale of Korakies hill and the surrounding areas.

Further refining of the algorithm, such as inserting a possibility for zigzagging would produce different results, better fitting the reality of human movement, but here

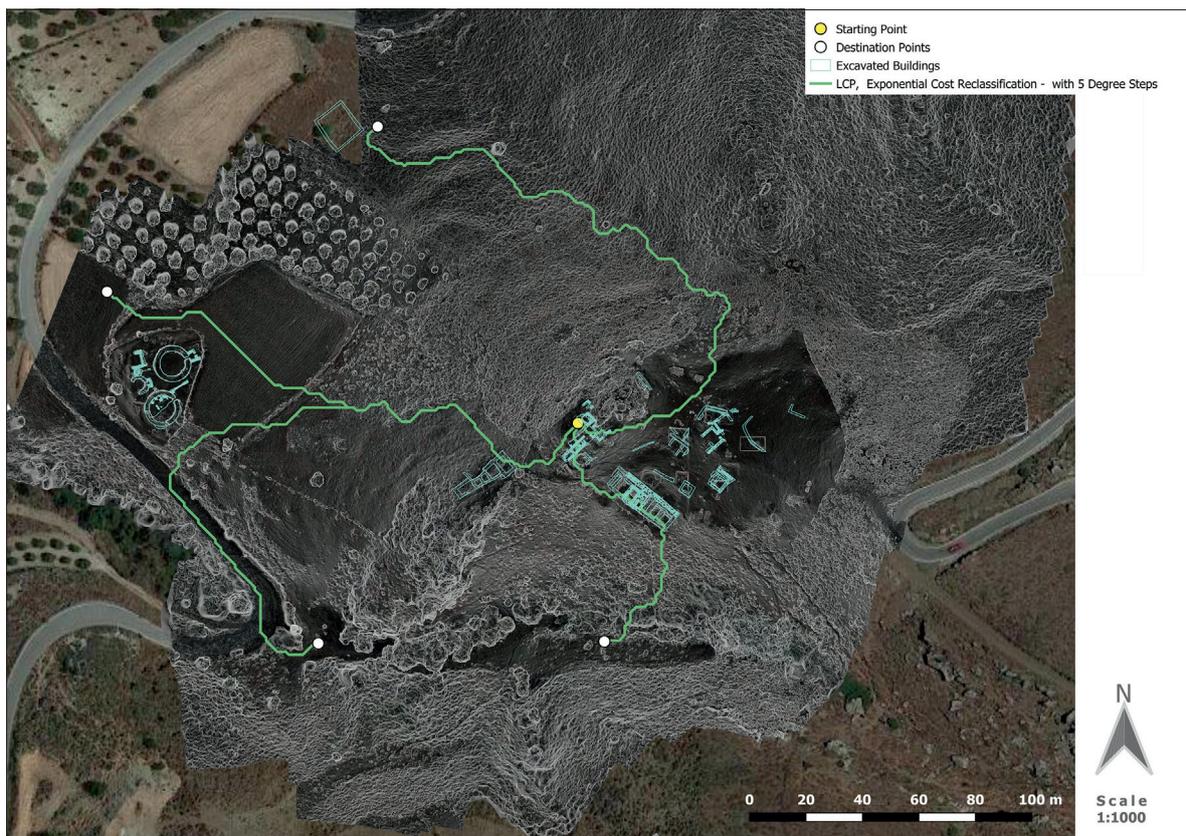


Figure 66: Iteration 2 of least-cost-path analysis on the 1m-DEM.

this is deemed as redundant, as the paths shown satisfy to a great degree the reality of walking around and on the Korakies hill.

The last point in this Chapter is to stress the need for reclassification, which is demonstrated in the image below. Paths from the ‘sanctuary’ (with the same targets as in the second iteration) are calculated based on the slope raster as a cost raster, i.e., without reclassification. The resulting paths are interlaid with the paths from the iteration above to make the difference clearer (Figure 67).

It is clear that no reclassification produces paths that do not correlate with human walking patterns (yellow lines) and are, therefore, unusable.

Discussion

In conclusion, the strict definition of the archaeological site of Koumasa as uphill and downhill lacks the input of sensory archaeology. Seeing and acoustics show a relative seclusion of the main area of the plateau from the immediate slopes to the west and north. The merging characteristics of the up and downhill areas are seen around Peaks 1 and 2. These become more pronounced through the architectural layout of the ‘sanctuary’ complex.

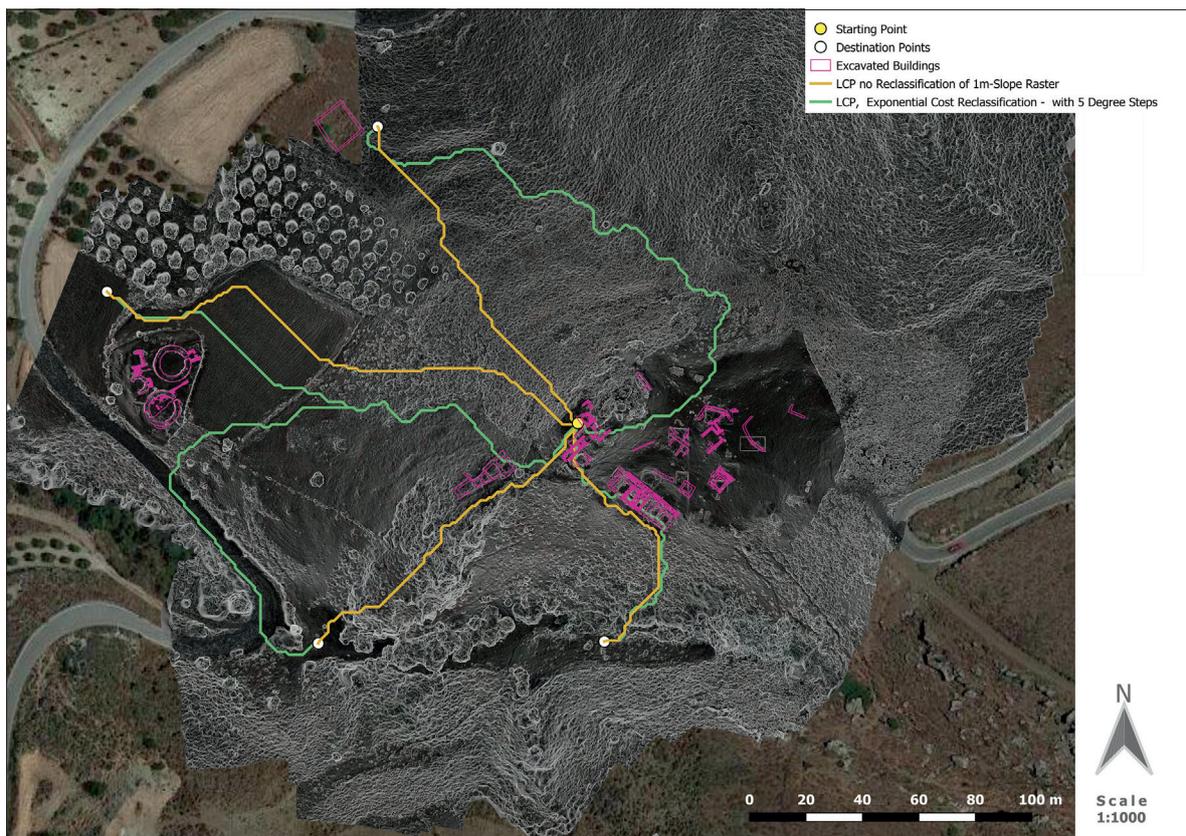


Figure 67: Interpolation of iteration 2, with and without reclassification.

The results of the least-cost-path analysis indicate the northern slope as a possible main access point to the plateau from the valley, as proposed by Pfeiffer et al.⁶⁸⁹ This possibility also fits with the relative abandonment of the area of the tholoi after the end of their use.⁶⁹⁰ However, different access points from the route between Peaks 1 and 2, or even from the south (with the latter being significantly more difficult), would act as part of a constructed exclusivity in approaching the plateau. Again, the area of the ‘sanctuary’ is seen to represent the focal point of the whole area.

A final observation arises from an analogy with topographical analysis employing fractals. The concept of fractals, increasingly utilised in landscape characterisation, is defined by the self-similarity between the broader context and its individual components. This mathematical principle has been seen to capture the “essence of a landscape”.⁶⁹¹ Indeed, a mountain is not only perceived as a collection of ragged shapes, being codified in a triangle surface (referring to the meshing during the production

689 Pfeiffer et al. 2015, Fig. 13.

690 See discussion page 48f.

691 Xu et al. 1993, 245–248, 253.

of the DEM model) but also includes a level of internal repetition. This alludes to the fractal characteristics (most commonly encountered in the problem of estimations of shoreline lengths) that also extend on a psychological level.⁶⁹² This somewhat abstract concept holds tangible significance for those walking and moving in any given area.

Positioned at the transition from the settlement to the western slope, topographically, the area of the ‘sanctuary’ functions as a fractal second factor, mirroring the broader image of Koumasa in the transition between the Asterousia and Messara, being the fractal factor 1, if this mathematical model is followed. Moreover, the architecture in this area adapts to and leverages the location’s features, such as its exposed bedrock and abrupt drops. This adaptation imparts a tangible, material dimension to the concept of an *integrated landscape* – a notion that Minoan architecture sought to emulate in palatial centres or to accentuate in sanctuaries.⁶⁹³

For these reasons, archaeological evidence from the only fully excavated settlement area, the so-called ‘sanctuary’, will be elucidated in Chapter 7 to showcase the motifs emerging from the analysis in this Chapter, which will be further evaluated in Chapter 8.

692 In a fractal, a geometric allocation repeats itself so that the smaller part repeats and contains the entire pattern. The more one enlarges (“zooms in”), the more the whole repeats itself in an endless series. Mathematically: The more one increases the fractal factor or iteration step, the more repetitions appear. Or to better describe the narrative: The closer one looks, the more the picture enlarges and the more similar subcategories appear. This is an effect demonstrated in the mountains and is applicable to the location of Koumasa, which includes in its inner structure (with the transition from the plateau and the peaks to the valley beneath) the macroscopic structure of transitioning from the mountain to the valley, as seen in Chapter 1.1. For considerations of fractals in the perception of the mountains, see Joshi 2019.

693 Hitchcock 2007.

7 Insights of the Archaeological Research of the ‘Sanctuary’

The archaeological finds from the ‘sanctuary’ will be presented here in a preliminary summary, emphasising topographical features rather than individual finds. This focus is considered appropriate, as the site’s topographical characteristics offer significant insights into the symbolic significance and spatial utilisation of the mountainous region – one of the central themes of this study. Figures have been selected accordingly to highlight these aspects, while a more detailed presentation will occur within the Koumasa Project in the future.

Finally, the ‘sanctuary’ is the only region of the settlement that has been mostly fully excavated, allowing for a well-based discussion of this specific unit. The results will be presented based on the notebooks of the current excavation and their summaries.⁶⁹⁴

7.1 Layout of the ‘Sanctuary’

Although it is perceived as a whole, the ‘sanctuary’ complex can be divided into two parts.

The northern area includes the top of the hill, which provides a view of the Messara plain. Peak 1 itself is characterised by barren, uneven, harsh rock with an area of ca. 175 m², which does not offer any possibility for building activity. To its northeast, a monumental wall 1 m. wide and 7.7 m. long was found,⁶⁹⁵ without indications of interlocking with the rock. Its function seems, therefore, not to be that of a retaining wall but as a separation of the area to its east from the rocks above. It has two phases; the earlier is dated to MM II at the latest – based, amongst others, on a cup found within its base.⁶⁹⁶ This phase was followed by erecting a retaining or, rather, a separating wall in or post-MM III, after which the area between the wall and the bedrock continues to be used, forming small spaces that produce evidence of a magazine function.⁶⁹⁷ These are

694 Panagiotopoulos 2012a, 213–215; 2013, 316–322; 2014, 428–29; 2015b, 531–33; 2018, 483–85; 2019, 447–451.

695 In Trench 17, as seen in Panagiotopoulos 2024, Figs. 27.2, 27.5a.

696 For this cup, a wheel-thrown plain handleless cup with a curvilinear profile, see Panagiotopoulos 2024, 450, Fig. 27.5b.

697 For this area, see Panagiotopoulos 2018, 487–489; trench 17 in Panagiotopoulos 2024, Fig. 27.5a.

defined by three walls vertical to the monumental wall, of less than 2 m. in length and situated less than 3 m. apart.

The southern area includes the main ‘sanctuary’ area with its main rooms (see Figure 68). To the southwest of the peak, there is an abrupt elevation drop in the rock of ca. 3 m. at the base of which the northeastern side of Room 1 and the Corridor are located (see cross-sections in Figure 69). It is the main area excavated by Xanthoudides.⁶⁹⁸ There, Rutkowski identified 6 to 8 rooms, of which a preliminary plan was produced. He correctly spotted that more structures would appear to the south of Room 2.⁶⁹⁹ To their west, Rooms 1 and 2 open up to an exposed area, where traces of plaster could be identified on the otherwise barren bedrock. From this area, already referred to as the Terrace, a clear view of the western hillside up to the tholoi and a significant part of the Messara is available (see Chapter 6). Behind these two rooms to the east, a small narrow path can be seen, dubbed as the Corridor, which is adjacent to architectural remains that extend up to the peak rock. It represents the main artery of the ‘sanctuary’ as it is positioned between axes 1 and 2 (see below). These areas are where mainly Xanthoudides, as well as Kanta and Karetsoy, were partially excavated and cleaned and where the ongoing excavation programme under Panagiotopoulos commenced.⁷⁰⁰ The initial finds – which cover the period from MM II to LM III, and sporadically Post-Minoan – are, as previously mentioned, without clear context, making the formation of secure suggestions regarding the nature of activity in this area difficult, as has been presented by Georgoulaki in her study.⁷⁰¹

The architectural remains in this area were primarily uncovered during the three distinct archaeological campaigns, with the publication of finds pending. Although the excavation is largely complete, a comprehensive study of this area remains both challenging and essential. This complexity stems from the complex excavation history and the site’s prominence as a primary source and focal point in the ongoing discourse surrounding the Koumasa ‘sanctuary’. As discussed in the previous Chapter, this area serves as a pivotal element within the broader landscape.

The south-western part of the main area of the ‘sanctuary’ lies lower than the north-eastern area. Southwest of Room 2, the Corridor, and Room 3, the ever slightly decreasing slope becomes noticeable. This area is undoubtedly connected with the one above and must have constituted one access point towards it. It also connects the plateau of the settlement with the slope leading westwards towards the tholoi. This area comprises a number of walls and rooms, alluding either to a complex area or a densely built one. Of the rooms, some were possibly two-storied, a fact that was proven with certainty for Room 4.

698 See Panagiotopoulos 2013, 317, and discussion in Chapter 1.2. This observation derives from the descriptions of Xanthoudides and from the filling found in a lower area, which is attributed to previous excavations.

699 Rutkowski 1989, 48–49, Fig. 1. The naming of the room was kept in all subsequent excavations.

700 Panagiotopoulos 2013, 317.

701 Georgoulaki 1990, 21–22.

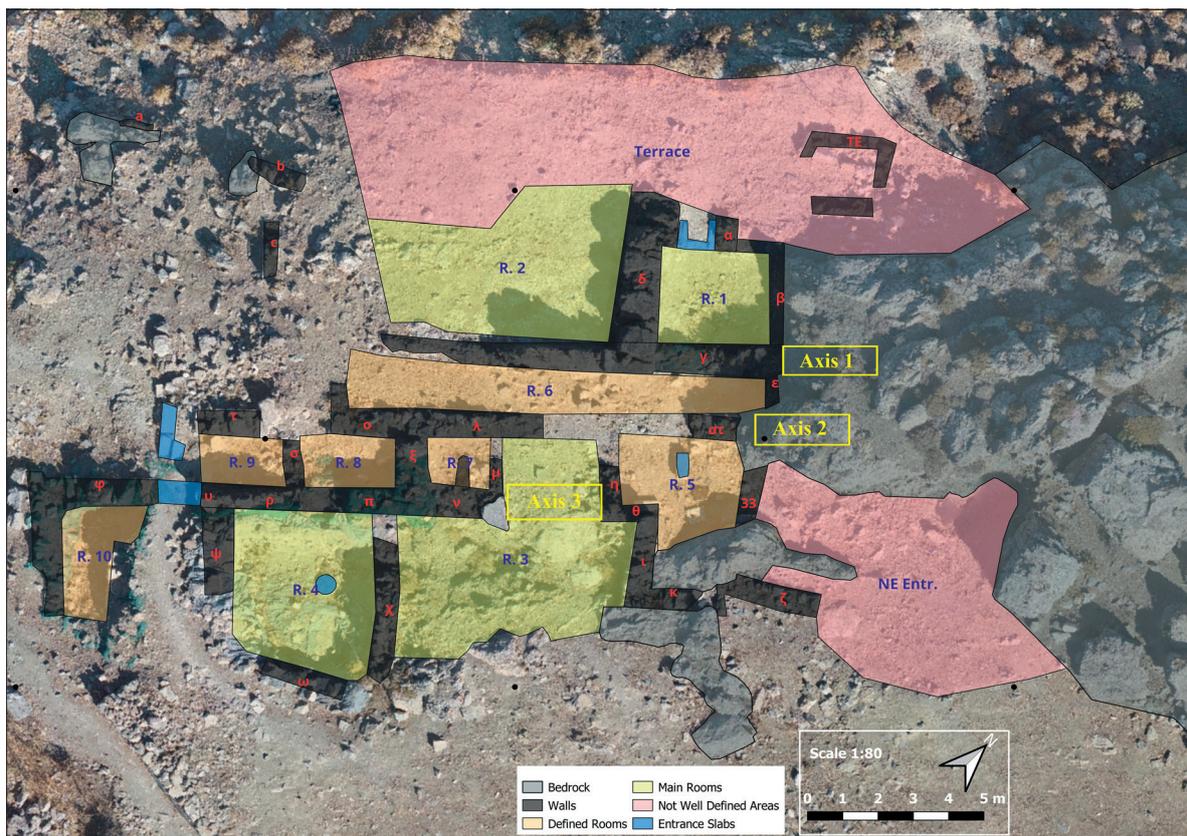


Figure 68: The main area of the 'sanctuary'.

In general, the majority of finds and pottery from the ongoing excavation in the southern area 'sanctuary' date to the early LM period, corresponding to the final layout of the area during LM I. However, there are finds stretching from the MM to LM III, as well as Post-Minoan ones on the surface areas (see Chapter 2.4 and 2.5.1). The proposed reuse of certain rooms further complicates the interpretation of the architectural layout.⁷⁰² The excavation of this part of this main part of the 'sanctuary' has nevertheless yielded results that are helpful in clarifying the layout (such as the suggestion regarding the plan of the rooms, their entrances and accessibility) and in determining its boundaries.

The structures follow a grid that is defined by three partially continuous walls, partially using the naked bedrock, worked with chisel to fit the layout. These walls have 2 m. distance between them, and although none of them exceeds 15 m. in length, the total distance from the beginning of the first until the end of the third to the southwest is 22 m. (see Figure 68). These three walls will be referred to as the axes of the 'sanctuary'. They have a northeast to southwest orientation at an angle of 45°. This grid is generally noticeable for the whole settlement, but within the 'sanctuary', there is a slight deviation from the grid used in the rest of the settlement, which can be measured to be

⁷⁰² Kanta – Karetsou 1991, 94–99.

7 Insights of the Archaeological Research of the 'Sanctuary'

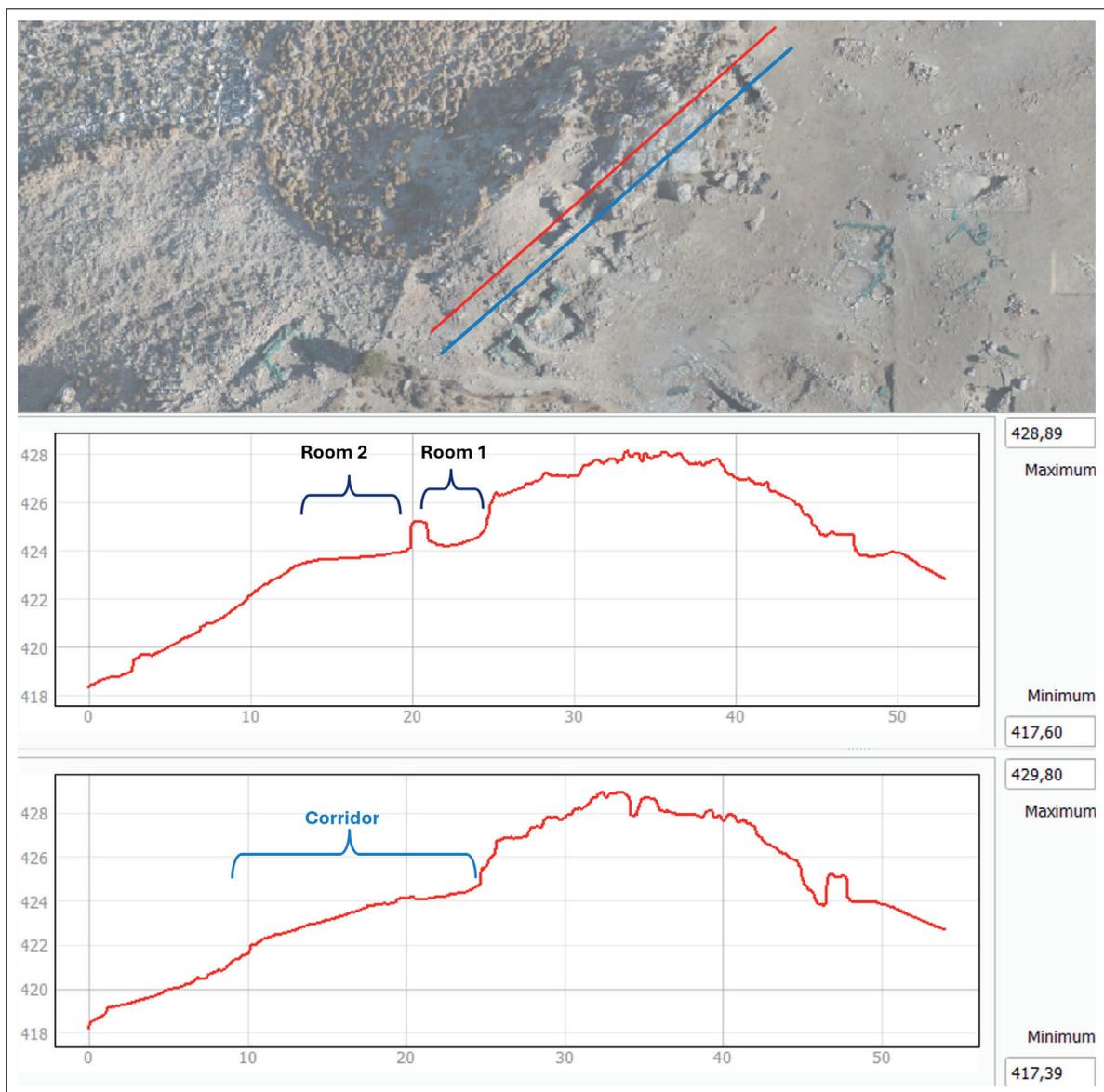


Figure 69: Two horizontal section cuts: the northwestern one (red in the overview on the top) crosses Rooms 1 and 2 and the main rock formation on the summit; the southeastern one (in blue) follows the corridor and cuts wall the northeastern wall.

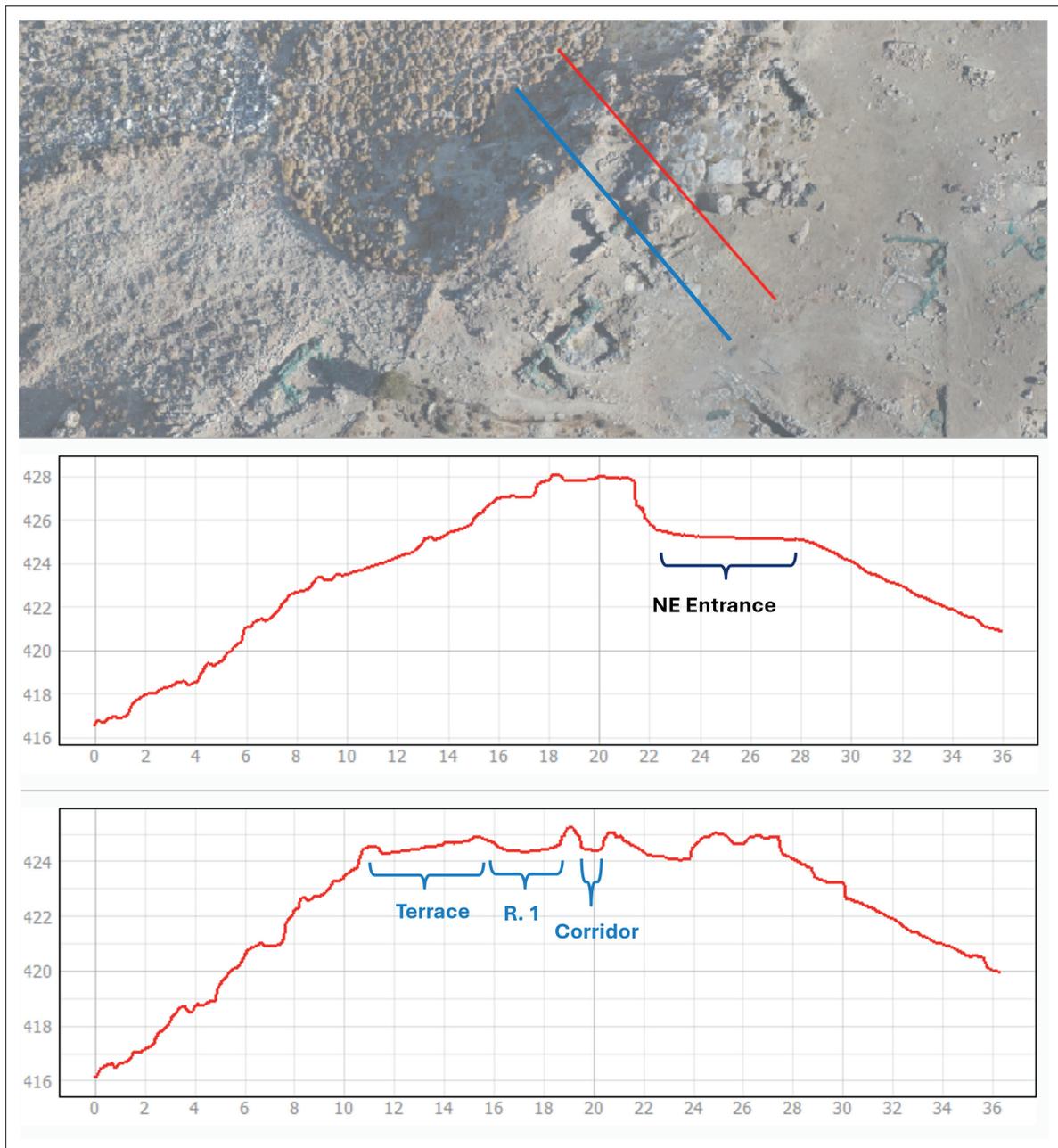


Figure 70: Two vertical section cuts: the northwestern one (red in the overview on the top) crosses Rooms 1 and 2, the main rock formation on the summit; the southeastern one (in blue) follows the corridor and cuts wall X to the north.

ca. 35°. The discrepancy noted could be ascribed to planning inaccuracies induced by the elevated terrain. However, a more plausible explanation is that the grid adheres to the natural slope, which often dictates the overall design, as elaborated below.

The region, delineated by the three axes that serve as its architectural backbone, encompasses approximately 770 m², with the uneven rock terrain around the peak covering 175 m². It has two clear entry points, one from the settlement plateau to the north-east of the complex and one from the southeast at the point where the path from the western slope reaches the plateau. These two access points can be seen in correlation with the two main ways of accessing the plateau from the valley below.⁷⁰³ A third access point, this time linked with the main plateau, is from the SE of the complex, from the area of Room 10.

Cross-sections of the ‘sanctuary’ area, derived from the locally produced 28cm.-DEM, reveal the slopes on all four sides of the ‘sanctuary’, highlighting its character as a raised terrace. These sections also provide insight into the inner topography of the ‘sanctuary’.

Figure 69 illustrates two 55 m. cross-sections, taken parallel to the primary grid, crossing the southern area of the ‘sanctuary’ and the primary rock formation at the summit. Notably, the even ground level in Rooms 1 and 2 is evident, as is the case for the Terrace located to their west. Additionally, the wall situated to the northeast of the summit is discernible in the second (blue) cross-section.

Two 36 m.-long sections were conducted perpendicular to the grid (Figure 70), highlighting the level terrain at the northeastern entrance area, Room 1, and the Terrace. The second section (depicted in blue) traverses the rock formation associated with Wall κ.

7.2 Main Areas

7.2.1 NE Entrance Area

One entry point to the ‘sanctuary’ is located in the northeast, positioned between the rising bedrock to the northwest and the diminishing slope toward the settlement to the south. At this location, a relatively smooth incline extends from the northeastern wall’s corner, running alongside the main rock formation to an open area measuring 37 m².⁷⁰⁴ Especially to its south, it was much disrupted, with evidence of previous activities and the presence of modern disturbances. Its interpretation as part of the ‘sanctuary’ for the entirety of its use has been the most problematic.

703 See iterations of least-cost paths of Chapter 6, pages 179f.

704 Exc. Notebook 2013; 2014; Units 31, 33, 34, 36, 37, 38.

It holds a central position, aligning with the Rutkowski plans,⁷⁰⁵ and Wall 33 could be interpreted as situated behind and northeast of the wall documented in the 1909 photographic documentation (see below). Rutkowski positioned the now missing wall, or more accurately, the stone layers beneath it, to its currently reconstructed location.⁷⁰⁶ If this interpretation is correct, the entrance plateau had a wall defining it in relation to the main area of the ‘sanctuary’ to its south. However, this wall does not appear to function as a strict barrier, as access seems to have been possible, as evidenced by the old photographs (discussed further in relation to Room 3 below). Wall 33, if originally taller, could have potentially blocked this area, as it is positioned in a bottleneck between two rises of the bedrock. It could be part of the LM I phase, or it could well belong to a later repurposing of the area, but unfortunately, secure dating of this wall has not been established, and while its use as a threshold cannot be ruled out, it remains a matter of speculation. However, a similar threshold function of a small wall is assumed for the Corridor area in the interpretation of the old photographic documentation, allowing for this possibility.

The NE Entrance area was filled with many stones, many of which slab stones, which might be reminiscent of the well-dressed floor seen in the photograph of 1909 for Room 3, as a reminder of what has sadly been lost. To its immediate southeast, three remaining stones are formed to simulate an entrance threshold or slab.⁷⁰⁷

The NNW part of this plateau produced conical cups and coarse pottery, indicating a secondary room within the ‘sanctuary’. The finds show a less well-dressed room with no presence of plastered surfaces or indicative pottery sherds.⁷⁰⁸ Grinding stones were found near Wall ζ, whose edges fuse with the rock to its south.⁷⁰⁹ These indicate workshop activity there, the dating of which, however, cannot be secured. Such grinding stones were also found more centrally, adjacent to the eastern wall of Room 1.⁷¹⁰ The even distribution of such tools alongside the edge of the rock, disregarding the architectural elements, suggests a potential Postpalatial use of the area directly beneath the central rock as a grinding workshop. It must be stressed that the layers were disturbed. Debris and rocks fallen from above have made the situation even more uncertain.

705 Two walls from rooms 4 and 5, as dubbed by Rutkowski (plan in Rutkowski 1989, 49, Fig. 1), correspond to the NE entrance area and Room 3.

706 For the reconstruction of the walls, see Chapter 7.2.6.

707 This remnant interpreted as a slab is located in Room 5.

708 Exc. Notebook, Unit 36.

709 Exc. Notebook, Unit 37.

710 Exc. Notebook, Unit 32.

7.2.2 Room 1

The small room encompasses an area of 8.5 m². Its northeastern (NE) boundary is formed by the smoothed natural rock on the northeast side, which is dressed with a double row of small stones (Wall β). During the documentation of Kanta – Karetsou, it was observed that the upper part of the rows had collapsed, exposing the bare rock that continues upwards for 1.6 m. The lower part of the second row had nearly disappeared.

The SW side (Wall δ), which separates Rooms 1 and 2, is formed in its SE part by a built wall composed of large stones, 1.05 meters in width. Its continuation to the NW utilises the natural rock, which is 1.5 m. wide and extends beyond the room to the west.

The NW side of Room 1 (Wall α) forms a corner with the rock on the SW part. The rock, which extends northwards, has been chiselled to accommodate the NW entrance, which is 1m wide. The NW side of the Wall α north of the entrance is also formed of rock, which is covered with small and middle stones on its inner (SE) side. This wall survives at a lower height in comparison to the SW wall.

The SE side (Wall γ) is constructed from layered stones, measuring 0.9–1 m in width. This wall was added during a later phase of the area’s use, which initially comprised the northern part of the Corridor (Room 6). The wall’s northern side, adjusted to the main northern rock, seems damaged. To the southwest the wall continues in Room 2, forming its SE side.

Already in the first levels, as noted by Kanta – Karetsou, the plaster covering the inner side was noted in all the walls, including red, blue and white plaster. This room, alongside Room 4, proved to be the richest in plaster fragments. The lower parts of the walls contain white plaster *in situ*. The amounts of red plaster would indicate its usage in the upper part of the room (see Room 4 and discussion in Chapter 7.3.1). The soil on the sides of the room had a different, harder consistency than that in the middle, indicating that it was not excavated by Xanthoudides.⁷¹¹

The finds included pottery, loom weights, grinding stones, wall appliques, and some obsidian pieces. During the cleaning of the area beneath the slabs, a lid of a stone vessel, probably Neopalatial, was found, as well as murex shells.⁷¹²

Floor slabs were distributed nearly all over this room. Unfortunately, those in the centre were removed by illicit excavations before the start of the modern campaigns but were fortunately described and sketched by Kanta – Karetsou.⁷¹³ Several floor-slabs carried tool markings and grooves. Between the slabs, red plaster was found, which shows parallels in other Neopalatial buildings.⁷¹⁴

711 Kanta – Karetsou 1992, 88. This observation would be yet another indication that the ‘sanctuary’ room Xanthoudides mentioned would not be this room, as he described it as a dressed room. This would correspond to the area with the column base (Room 3).

712 Exc. Notebook, Unit 30; Unit 25.

713 Kanta – Karetsou 1992, 88; Panagiotopoulos 2012, 214–215; 2015a, 938, Fig. 5.

714 Panagiotopoulos 2012a, 214–15, Pl. 146a; 2013, Table 183b; 2015a, 937–938.

While lowering the levels adjacent to the looters' hole, the soil beneath the removed slabs was notably harder, suggesting that the area had remained undisturbed. An older floor was revealed at a depth of 20 cm below the slabs, consisting of two plaster layers: a lower white layer and an upper blue layer, extending up to 40 cm. from the NW wall, indicating a curtain construction there.⁷¹⁵ These finds have helped determine at least three phases for this area.⁷¹⁶

The first building phase contains the SW-wall including the bedrock around it, the NW and the NE-wall. The floor and the walls seemed to have been covered with blue plaster.

The second building phase contains all the walls of the first building phase with the addition of the SE wall, separating it from the Corridor. This wall was built at a right angle to the NE wall, showing another building joint in its SW edge. In its first phase, an approximately 90 cm. wide entrance with a red plastered doorframe is seen in the SE wall. The installation of the southeastern wall preserved beneath it, as well as at the joints with the rock, a blue plaster surface that was otherwise removed during the later installation of the slabs.⁷¹⁷

Within the third building phase, the entrance in the SE wall was closed so that the room could be accessed only from the Terrace (in the Figures of this Chapter, Wall γ is indicated in this phase). This entrance along Wall α was expanded into its northwestern direction.⁷¹⁸ A possible new level, evident only from the northern corner of the room, shows a plastered floor above the slabs that shows bands of red plaster on white plaster. It is not clear if this would indicate a fourth phase.⁷¹⁹

7.2.3 Room 2

The NE wall separates Room 2 from Room 1 (Wall δ). It extends for 4.6 m. and is partially chiselled on the bedrock and completed with very large stones that can cover the wall's entire width, reaching up to 1.05 m. The SE wall of Room 2, in its northern part, is a continuation of the SE wall of Room 1 (Wall γ), and in its southern part, it constitutes chiselled bedrock. It extends for a total of 8 m. along Axis 1, of which 4 m. are conserved at some height. The SW and NW corners of the room could not be defined, as the area is poorly preserved.⁷²⁰

715 Panagiotopoulos 2013, 320; Fig. 5.

716 Panagiotopoulos 2013, 320–322; 2015a.

717 Exc. Notebook 24.09.2013; 26.09.2013; Profile 2013,3.

718 Exc. Notebook 25.09.2013.

719 Panagiotopoulos 2013, 321.

720 Kanta 1992, 81–84; Exc. Notebook 2013; 2014.

The floor has also been carved in stone, and its SE side is seen to be a continuation of the wall formed by natural rock at a convex angle. The extension of this floor is 25 m² and is quite smooth and level,⁷²¹ with evidence of chiselling that was done to accomplish this level area. The smoothness of the floor would not have required plastering for its surface, a conclusion supported by the lack of plaster in this area.

At the northeastern corner, which corresponds to the SE edge of Wall δ , a small bench was found with several bones within it.⁷²² Other finds include pebbles, obsidian, and pottery fragments.

7.2.4 Open area – Terrace

A plateau is formed to the west of Rooms 1 and 2, which is also flanked by the rising rock to the northeast and the sudden sinking slope to the west (Figures 64, 70). This 75 m² area is badly preserved and has very few architectural remains. To its north, elements of a badly preserved structure (Wall TE) are unclear if it encloses a room or demarks the open space. A structure alongside the rock to the direct NE of this wall alongside the rock could indicate a bench.⁷²³ In this area, a concentration of plastered floor was observed, a treatment that extends to the entrance of Room 1, which indicates at least partial plastering of the terrace.⁷²⁴ The plaster sherds, including coloured plaster, extend in the NE part of the terrace up to the point where the slope begins.⁷²⁵

The space in front of Rooms 1 and 2 serves as a physical terrace, offering a panoramic view of the Messara and the surrounding mountains due to the descending slope. The wide-angle view also encompasses the tholoi-area and the western slope of Korakies (see discussion in Chapter 6.1).

Access to this terrace from Room 1 is facilitated by a roughly 90 cm. opening marked by slabs, and Room 2 seamlessly continues to this terrace. While it is connected to these two rooms, the terrace appears to be isolated from the rest of the building complex. To the southeast, the view is obstructed by Rooms 1 and 2, and potentially the second floor of Rooms 3 and 4 to the southeast, which would have been visible. The rock around the peak of the hill limits the perspective to the northeast. In this latter area, the terrace

721 423.3 m. with 5 cm. deviation.

722 Exc. Notebook 25.09.13.

723 Panagiotopoulos 2014, 428. This could also form the lower surviving part of the dressed rock, similar to the NE wall of Room 1.

724 The modern excavation campaign expanded the documentation of plastered floor outside of Room 1, the eastern part of which Kanta – Karetsou already sketched in '92. It was seen to extend mainly to the direction of the NW-wall outside of Room 1 (see Exc. Notebook 25.09.2013).

725 Exc. Notebook 18.09.2014.

meets the physical rock, which rises from the terrace's level (at approximately 424 m. of height) for 4 m., reaching a height of 427.9 m., constituting Peak 1 of the Korakies hill.⁷²⁶

The archaeological investigation suggests a terracing effort to create a level floor amidst the uneven rock surface, distinct from the work done on the floor of Room 2.⁷²⁷ This terracing aligns with the plastered floor found to the east of the stone-built structure (Wall TE). Remnants of arranged stones near the bedrock, forming a wall in continuation of the plastered wall north of Wall α , were also identified. While the possibility that this was a plastered wall remains open, exposure to the elements would have removed this evidence. White stucco in the area would allow for this assumption. The architectural style, resembling Room 1, involves building a wall in front of the rock rather than integrating it into the structure (as in Rooms 2, 4). This arrangement would form a continuous front northeast of the entrance of Room 1, as an effort to showcase splendour.

Regarding the nature of this area as either a closed room or an open space, conclusive evidence was hindered by the situation on the west side of the terrace. However, the likelihood of it being an open space is higher. To the west, the steepness of the hill hinders easy access. After a sudden drop in elevation, built structures are observable on the slope, indicating minimal alterations caused by earthquakes. This suggests that the plateau likely ended naturally at this point, creating an open terrace during Minoan times.

To the SW of Room 2, the gradually descending slope would allow direct access to the terrace from outside the complex. Though built elements might block free movement in this southern slope, a narrow passage of approximately 20 m., the total distance of the path alongside the current edge of the slope, could provide access. The existence of such a corridor (dubbed henceforth as the western corridor), which would have been dominated or restricted by the western walls of the 'sanctuary' complex on the one side, and the cliff on the other, cannot be conclusively verified. The poor preservation of walled structures in this area could be attributed to the proximity of the slope. However, a relatively consistent width of approximately 2 m. along the assumed corridor can be observed, which would accommodate such an arrangement, further suggested by the presence of Walls a and b. Especially, Wall a uses the bedrock as a support, which seems also partially chiselled and follows an orientation with a light angle to the grid, but which respects the slope and seems to denote the aforementioned corridor. The existence of such a corridor would offer access to the Terrace with a wide visibility of the western slope and to the valley beyond, as seen in the viewshed from this area above.⁷²⁸

The Terrace area has yielded only a few finds, primarily surface-level, as the fill in this location was not particularly thick. This scarcity may correlate with the Terrace

726 In the schisms of the rock four concentrations of pottery were identified, containing coarse pottery and pithoi fragments (Exc. Notebook 26. 09. 2012).

727 Exc. Notebook 25. 09. 2013; 26. 09. 2013; 09. 09. 2014; 22. 09. 2014.

728 See iteration 3 of the viewshed, page 175, with the observation line there following this corridor.

being the obvious destination for visitors to Korakies hill, drawn by its panoramic view, making it particularly vulnerable to looting. Alternatively, the area may have been deliberately kept free, serving as a performative space. For the implications, see the discussion in Chapter 8.2.

After this examination, It seems that the terrace provided an open space, naturally secluded by the hill’s geological features and further emphasised by the surrounding building arrangement. Thus, offering an open space with a high degree of visibility amidst an otherwise closed arrangement.

7.2.5 Corridor (Room 6)

To the direct east of Rooms 1 and 2 and to the direct west of Rooms 3, 5, 7, and 8, a continuous room has been identified, referred to as a corridor. This area spans at least 13 m. in length, maintaining a consistent width of approximately 1.3–1.4 m, with a total area of 15 m². It is flanked by Axes 1 and 2, which form the backbone of the architectural layout of the ‘sanctuary’. Observed during the Kanta – Karetso cleaning and subsequently confirmed in the 2013 campaign, this area appears to have been excavated by Xanthoudides. It is very likely that Xanthoudides’ mentioned corridor corresponds to this space.⁷²⁹ The corridor is depicted in the figures of this chapter in its final architectural phase, following the separation of its northern section from Room 1 and the closure of its entrance there.⁷³⁰

Access from the Terrace to the area of the Corridor would be possible through Room 1 before its eastern opening was closed and from the eastern side of Room 2, where the natural rock descends, at the 4 m. mark of that wall (see dashed lines in Figure 73) or at the end of this wall (solid line in Figure 73). The existence of a threshold-like structure in the corridor at that position would strengthen this assumption (see below).

The corridor is, among other finds,⁷³¹ the possible location where the offering table discovered by Xanthoudides was found.⁷³² Most of the finds in this area were located along the sides of the corridor, which are disturbed contexts. These may represent remnants left by Xanthoudides or subsequent activities on the site, especially when the looting of the adjacent Room 3 is considered.

729 Panagiotopoulos 2013, 317.

730 The northeastern part of the corridor, now adjacent to Room 1, was initially part of Room 1 before the erection of the SE wall of Room 1. This is also evident in the stratigraphy and the floor, which shows dressing with blue plaster, which is a continuation of the same arrangement in Room 1. See Footnote 717; Panagiotopoulos 2014, 428; Exc. Notebook 23.09.2013, Unit 24.

731 Other finds include pottery, coal concentration near wall λ, stone tools, white, red, and blue plaster, as well as sea shells and obsidian located on the eastern side of the wall that separates Rooms 2 and the corridor (Exc. Notebook 2013; Kanta – Karetso 1992, 78, 86).

732 Panagiotopoulos 2013, 317; Georgoulaki 1990, 7, 13.

7.2.6 1909 Photographs and their Reconstruction

The analysis of two photographs submitted to the German Archaeological Institute of Athens in 1909⁷³³ provides valuable insights into the layout of the area, particularly rooms 3, 5, and 6. The general location of the photographer and the orientation of the two photographs are discernible. Features such as sections of the physical rock comprising Wall γ and the natural peak are identifiable, along with horizon elements like the peak of Kalamaki Hill near Fournofarango. Based on these visual cues, on a first analysis level, the photographs can be determined to have been taken from the general vicinity of the southwestern part of the Corridor and Room 7, facing northeast (Figure 71) and eastwards (Figure 72).

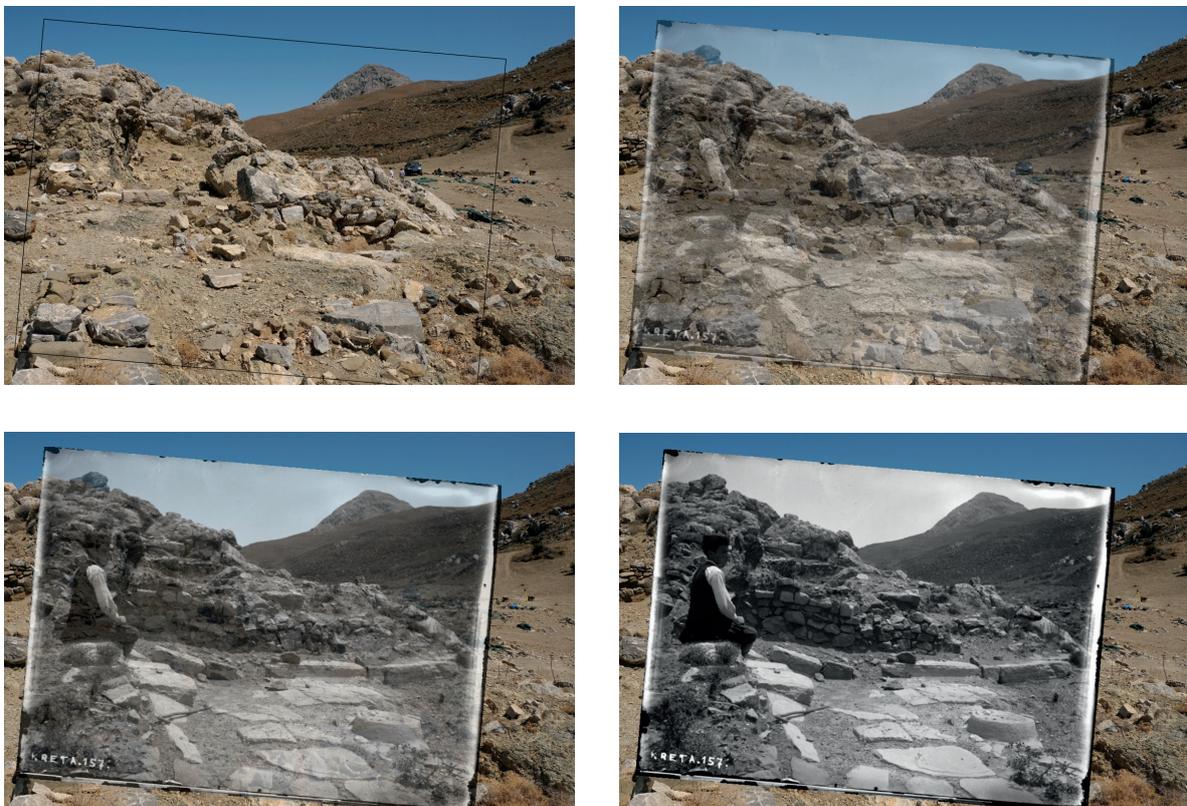


Figure 71: Interpolation of the modern landscape and photograph D-DAI-ATH-Kreta-0157, with 0%, 50%, 75% and 100% transparency of the original image.

733 Archive numbers: D-DAI-ATH-Kreta-0157, D-DAI-ATH-Kreta-0158. See Footnote 55.

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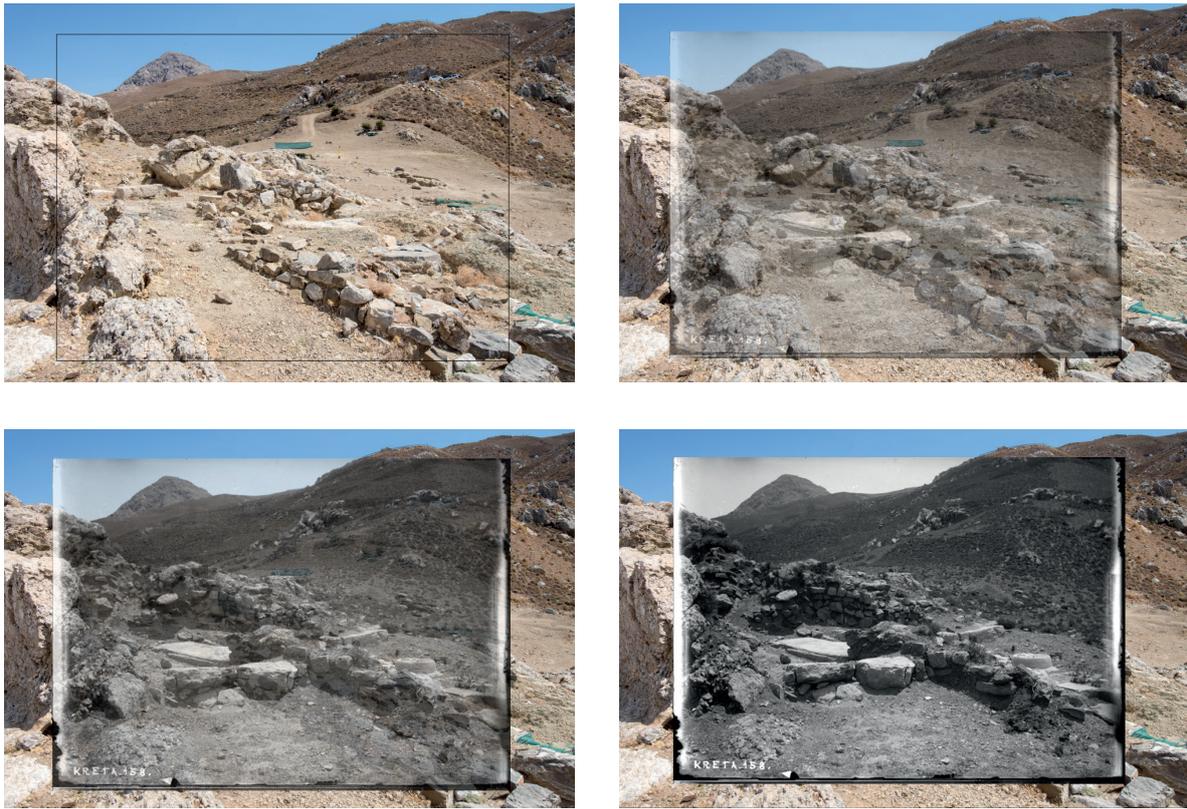


Figure 72: Interpolation of the modern landscape and photograph D-DAI-ATH-Kreta-0158, with 0%, 50%, 75% and 100% transparency of the original image

Unfortunately, as mentioned above, the site has suffered from looting, with built materials being repurposed by locals, resulting in the disappearance of *all* stone structures visible in the photographs taken a century ago. To reconstruct the lost walls and stones, a photographic approach was employed.⁷³⁴ The goal was to identify the exact location where the old photographs were taken, using elements of the horizon, background mountains, and foreground rocks.⁷³⁵ The focal length of the lens was adjusted to match the one used in the original photographs. The results are presented in Figures 71 and 72. By overlapping the old photographs with the current landscape, the positions of the vanished walls and stones were pinpointed as precisely as possible. The results of this reconstruction are discussed below and are illustrated in Figure 73.

In the analysis of the images, a slab is visible along the continuation of Wall λ . Furthermore, the northeastern wall of Room 5 can be generally identified, with its termination securely aligned with the axis defined by Wall λ and the slab. In D-DAI-ATH-Kreta-0158 (Figure 72), a vertical separation is observed in the Corridor between Walls γ

⁷³⁴ This project was possible with the help of the archaeologist and photographer Anton Ritzhaupt and architect Mario Carvalho, under the direction of Prof. Diamantis Panagiotopoulos.

⁷³⁵ This methodology has been used for historical photographs on Crete by Valasiadis 2008–2021.

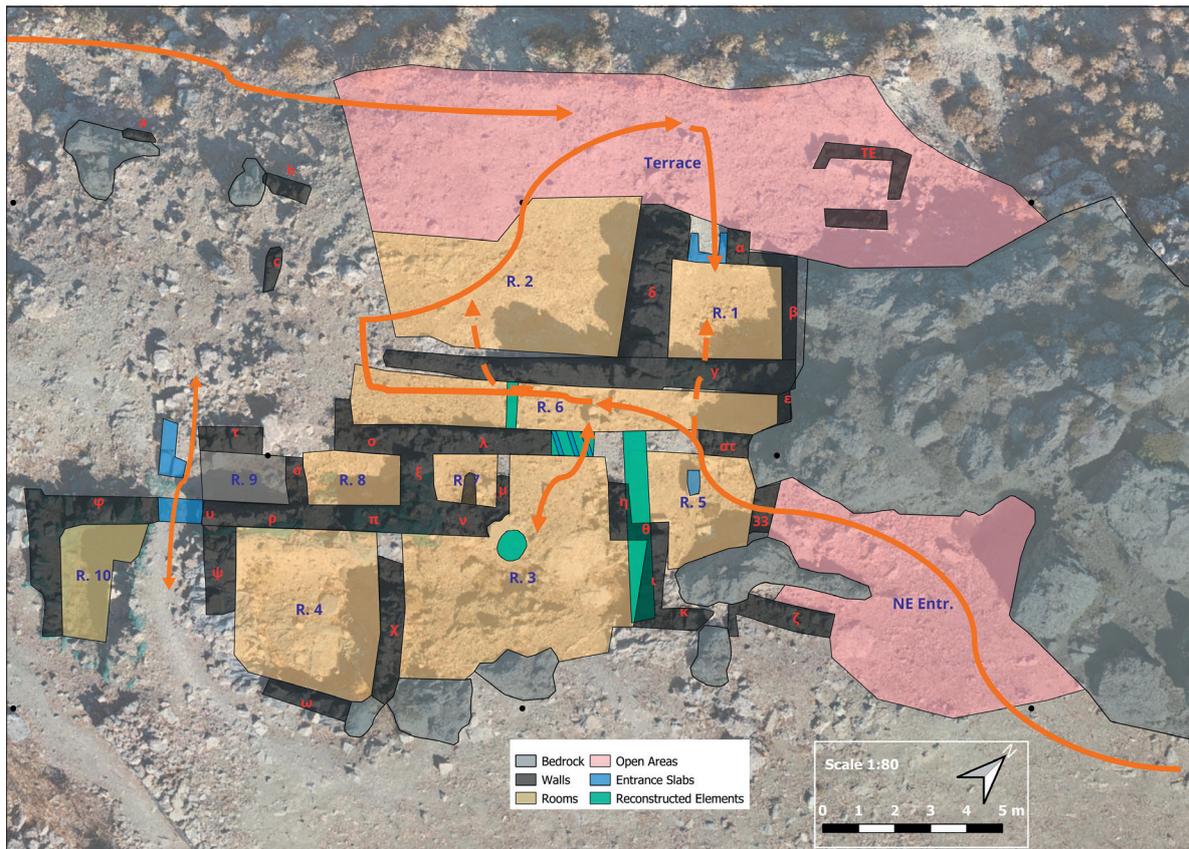


Figure 73: The main area of the ‘sanctuary’ and access possibilities to Room 1.

and λ . Interestingly, the two long stones appear to function not as the lower part of a wall but as an entrance threshold, signifying the entrance to a more significant part of the ‘sanctuary’. This threshold aligns with the SW extent of Wall γ (Axis₁) at the end of the section consisting of chiselled rock. The reconstructed elements, including the position of the column base of Room 3, are depicted in Figure 73.

Therefore, the suggested path leading to Room 1 (the most secluded room of the ‘sanctuary’) from the settlement passes through the NE Entrance area, and from there through a narrowing by the physical rock, enforced by the built structures, leading to the northern part of the corridor through Room 5. The walker would then have to their left the now lost threshold slab, marking the entrance to Room 3, where the column base was located. After walking in the corridor for 4 m., the walker would first pass by the assumed threshold, and immediately to their right, Room 2 would be accessible after turning around the end of the part of Wall γ consisting of physical rock (dashed line), or if this entrance was actually built, the walker could turn to Room 2 at the end of Wall γ (solid line of Figure 73). From there, the walker can walk to the main area of the Terrace, where they would have access to Room 1.

The architectural layout includes a small maze-like layout and indirect walking paths. These increase the effective distance from the beginning of the corridor to the

centre of Room 1. Although this space is only 3 m. apart – originally accessible before the sealing of the southeast wall entrance of Room 1 – the total distance traversed becomes 20 m. due to this design.

7.2.7 Rooms 3, 5

Room 3 was dressed with slabs with a column base in the middle and flanked by walls, as seen in the photographs submitted in 1909. The methodology mentioned above can be applied to better understand the area of Room 3, which was the main focus of the images of 1909. The NW wall, separating the room from the Corridor, has two rows of stone and is identified as the northeastern extent of Wall λ. Along its course, which is along Axis 2, it accommodated the entrance slab, forming a threshold. Its exact dimensions could not be determined from the reconstruction; for reference, the other known slab from Koumasa lies in the extension of Wall υ and is 1.3 m. in length.⁷³⁶ The northeastern side of Room 3 is seen to have been defined by a wall, which extends from roughly on the course of Walls η, θ, ι, which would constitute the basis or part of previous phases of this now lost wall. The proposed reconstruction of the elements based on the two photographs can be seen in Figure 73. It remains uncertain whether the SE side of Room 3 was enclosed by a wall. If it were partially open, the column within the room would have been visible from the settlement plateau.⁷³⁷ The lower level at the basis of the still-standing walls at the NE yielded finds of LM dating, so there is no indication that the now-lost wall in the old photograph is a later instalment. The excavation produced finds, including pottery sherds (fine and coarse ware, including a handle broken in two), pieces of plaster (blue and white colour) and many fragments of bones.⁷³⁸

Within the area of the room, the layer between the surface level and the bedrock was quite thick, and the bedrock was quite coarse without levelling noted in Room 2. Some of the scattered stones resemble sherds of stone slabs, possibly part of the original floor of the room, which was covered with slabs. From other examples of paved floors, the slabs were levelled with soil beneath the slabs.⁷³⁹ This would explain the absence of any finds, indicating this layer to be a fill layer for the slabs, which remained exposed after the modern removal of the slabs.

It is to be seen that the area of Room 5 would be partially blocked due to the wall separating it from Room 3, allowing only a small entrance to the northern side of the corridor. In this respect, Room 5 functions as a continuation of the NE Entrance area and, at the same time, as a second anteroom to the main part of the ‘sanctuary’.

736 1.3 m. × 0.7 m. × 0.23 m. (Panagiotopoulos 2014, 429).

737 On the visual impact of the assumed eastern wall of Room 3, for which only weak indication remains, as well as the walls towards the plateau, as seen from it, see Figure 73 in Chapter 8.3.

738 The area was excavated under Units 7, 9. See Exc. Notebook 2013; 2014.

739 Compare with the situation in the portico of Skinias, in Mandalaki 2011, 384.

At the eastern side of this area, at the point that separates the NE plateau from the slope, a 2.5 m.-long wall was erected (Wall ζ), unifying two elevations of the bedrock, forming a front of 5.5 m. as seen from the rest of the settlement looking west. Wall ζ is depicted as longer in Rutkowski's plan, which may indicate additional stone removals from that area in the intervening period. This front is extended with elements of the natural rock combined with walls, forming Rooms 3 and 5, which most likely included the column base observed in the 1909 image (Walls η, θ, ι, κ).⁷⁴⁰ Considering a second floor, based on the now lost column base, the front towards the east extends continually for ca. 11 m., and if Room 4, as well as the area between them, is included, then the front is at 18 m. of length. The slope eastward towards the Plateau increases along the access area and is more than 30 degrees to the immediate east of Wall ζ, as can be seen in Figures 64 and 70 above, which would increase the perceived monumentality of the discussed eastern front. Wall ζ, along with built elements of Rooms 3 and 4 would add on the ca. 4 m. elevation difference between the plateau and the eastern 'sanctuary' front, forming a continuous front of ca. 20 m. (see Figure 76).⁷⁴¹

7.2.8 Rooms 7–10

Rooms 7, 8, and 9 are consequent rooms to the SW of Room 3, between the second and third Axes of the 'sanctuary'.⁷⁴² The rooms follow the inclination of the slope that begins from southwest of Room 3 so that the median floor level of Room 7 is 1 m. higher than that of Room 8, and Room 8 is 0.5 m. higher than that of Room 9.⁷⁴³

To its SW side, Room 9 opens to a corridor running vertically to the axes of the 'sanctuary', which is partially decorated with slabs and where the limestone threshold is located perpendicular to it along the course of Axis 3.⁷⁴⁴ At this area, 1.3 m. SW of Wall τ a pithos rim was found. From this part of the 'sanctuary', flanked by Rooms 7 and 8 to the SE, the Corridor, Room 2 and the Terrace to the northeast and the slope to the west and south, the sporadic architectural elements directly built on the bedrock are in bad condition. Wall c, however, could constitute part of this vertical corridor.

740 Exc. Notebook, Units 39; 41; 44; 46; 48.

741 For the role of this front in manufacturing monumentality, and usage of the natural rock in the architectural layout, see Chapter 8.3.

742 Panagiotopoulos 2014, 443, Fig. 8. Room 7 is encircled by Walls λ, μ, ν, ξ and is 2.4 m². Right in the middle of the room-like structure, burn traces were visible. (Exc. Notebook 11.09.2013; Unit 8). Room 8 is encircled by Walls ο, π, ξ, σ (Units 10, 11, 47) and is 3.9 m². Room 9 is encircled by Walls τ, σ, ρ, υ and is 3.3 m². For a summary, see Panagiotopoulos 2014, 429.

743 The median heights of the room levels are 422.8 m. for Room 7, 421.7 m. for Room 8 and 421.4 m. for Room 9.

744 Panagiotopoulos 2014, 429; 2015b, Fig. 9. For the threshold, see above, Footnote 736.

Other finds from these three Rooms include pottery and a large concentration of plaster, especially in the vicinity of the third Axis, which is to be seen in correlation with second floor of Room 4.

Room 10 is to the southwest of Room 4, east of Wall φ ; its uncovered surface is 5.2 m². Its northern part, until Room 4, is subject to a significant geological collapse that has not yet been cleared. Amongst other finds, a plaster piece shows light red stripes, 5 mm wide, on an ochre background.⁷⁴⁵

7.2.9 Room 4

Room 4 is encircled by Walls ρ , π , χ , ψ , ω and comprises an area of 17.4 m².⁷⁴⁶ In the centre of the room, the surface finds produced LM finds, including a small rhyton consisting of a conical cup pierced before firing. This could be seen associated with the type IV-Bowl-Conical in the rhyton-catalogue of Koel, which is to be dated in LM IB, although it is without decoration and much plainer than these two examples.⁷⁴⁷ Similar pierced conical cups were also found in Zakros, in a possible LM IB context.⁷⁴⁸ In addition, a piece of gold foil was discovered amongst stone heaps indicating wall collapse.⁷⁴⁹ However, many of the finds, especially to the north of the room, in its upper levels, must be assumed to have originated from excavations in upper parts of the area of the ‘sanctuary’ or from an ancient filling.⁷⁵⁰ Some pottery examples seem to originate from LM III, and the Hellenistic-Roman periods are more densely represented. This is not surprising for a surface level, but it should be mentioned that the depth that produces Post-Minoan artefacts exceeds 20 cm. This could indicate the use of this area as a fill, either modern or ancient. The nature of the excavated area, with soft soil amongst medium-small stones, made it hard to securely determining the date of the fill.

A column base was revealed near the northwestern corner of the room at an excavation depth of 130 cm. Measurements from its centre to the perceived edges of the walls based on their lower stone row gave a distance of 2.4 m. to the south-western wall, to the southeastern 2.4 m., to the northeastern wall 0.13 m., and to Walls φ and ρ to the northwest 1.87 m. Those measurements place the column slightly non-central within

745 Exc. Notebook 2015, Unit 53; 2015-08-53-OB05.

746 For Room 4, see Exc. Notebook 17.–18.09.2015; 2018; 2019.

747 Koel 2006, 235–236. This type consisting only of two examples, from Psychro cave and Kastelli Vryses near Chania, is dated in LM IB, further helping the chronology of the settlement’s LM activity in this period.

748 A maximum number of 10 cups, where the hole was made post-firing after oral communication with Stelios Perrakis. Further, ca. 30 pierced cups are recorded, most of which concentrate in the LM I period Gillis (1990, 29). Gillis interprets them as funnels (Gillis 1990, 39). An argument for the cultic or symbolic usage rather than the practical is that the latter would show more continuity.

749 Panagiotopoulos 2015b, 531–532. An origin from the second storey of Room 4 is possible.

750 Exc. Notebook 2015, Units 55; 58; 59.

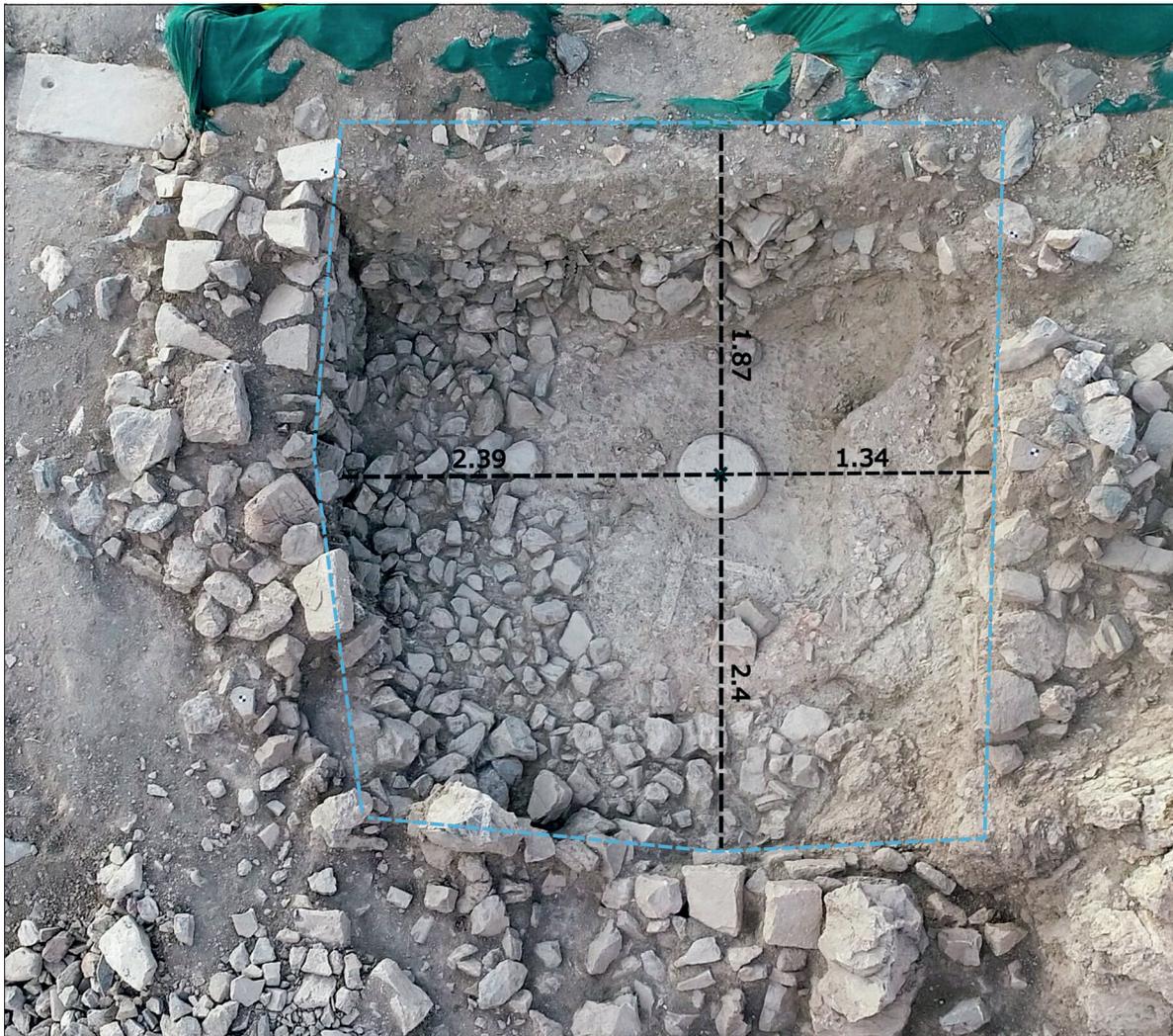


Figure 74: Room 4 with the distances of the column base to the walls.

the perceived room, by a distance of 55 cm. from the hypothetical centre of the room enclosed by four walls in the manner described.⁷⁵¹

Layers corresponding to the second storey

A profile was established beginning 60 cm. east of the eastern side of Wall ϕ , with distinctive layers for a depth of 135 cm.⁷⁵² They form an “S” shape as the northern part of the layers is at a higher elevation. This is understood to be due to the way the upper floor collapsed, as the column fell to the northern direction, as indicated by the large amount of charcoal in this direction.

⁷⁵¹ Panagiotopoulos 2019b, Fig. 14. The room would have an area of ca. 16 m².

⁷⁵² See Panagiotopoulos 2019b, 465, Fig. 12.

The layers could be described as follows⁷⁵³: The first layer includes soil mixed with stone heaps and pottery fragments. It can be divided into two sublayers, one with surface characteristics and softer soil, that is interpreted as the fill of the Xanthoudides excavation, and one denser beneath it, part of an older fill. The second layer is defined by small to medium-sized stones with no soil between them. There are noticeable cavities, especially between the upper stones of this layer, which average a width of 50 cm and are interpreted as the result of the fallen walls of the building. The large plaster concentration, especially near the edges of the room, indicates a plastered decoration of the upper floor. The third layer, with a mean width of 10 cm, shows dense soil hardened with plaster pieces. The soil of this layer was analysed by the team of Yuval Goran.⁷⁵⁴ Its analysis shows that it has alluvial properties and is, therefore, to be understood atop the fallen floor level before the collapse of the side walls and the subsequent fill, forming levels 1 and 2.

Beneath these layers, the mud clay brick, usually found in combination with white plaster, first observed as a line in the western profile, extends to the rest of the room and is often found in big blocks in various corners of the room. These are normally below a layer of big stones that correspond with the fallen stones layer of the profile. In most cases below the red brick concentration, a level filled with pottery sherds was encountered. Beneath the pottery concentration, at least three parallel logs were found beneath this layer, measuring up to 2 m. Between each of them, there is a distance observable now which spans between 30 and 50 cm. Adding to this, the presence of the red clay or brick layer measuring between 2 and 10 cm. and mostly found directly above it can be assumed to have been part of a structure. The two possibilities for the logs would be either as part of the ceiling of the lower storey or possibly the floor level of the upper storey.

First storey

The ground floor of Room 4, is characterised by a column base of 51cm. in diameter situated asymmetrically in the room, as discussed above. The distances measured from the sides of the base towards the walls are 130 cm. from Wall χ cm. and ca. 150 cm. from Walls φ , ρ . Taking into consideration that the distance of the inner sides of Wall χ (the northern wall) and Wall ω (the southern wall) is 4 m., and the distance of Walls φ , ρ (the western wall) and wall ψ (the eastern wall) is 4.8 m., it becomes again clear that the column base is at the corner of Room 4 rather than the centre (further on the column base, see Chapter 8.3.1).

The floor of this storey had two phases. The first phase of the floor consisted of a plaster layer, which, if continuous, would reach the column base 27 cm. below its top, and ca. 10 cm. below the part of the column base where it begins to be less finely

753 Panagiotopoulos 2018, 483–485; 2019, 447–451.

754 The results of this analysis were provided in personal communication with Yuval Goren and Diamantis Panagiotopoulos, for whose input I am grateful.

chiselled and a bit wider, but still above the deepest parts of it where the stone loses its rounded quality due to non-chiselled spikes in the stone.

The column base itself is most probably of Protopalatial dating, as indicated by a few sherds, including barbotine sherd, and the plastered floor probably belongs to this first usage.⁷⁵⁵ Exposed rounded tops of column bases are typical in Protopalatial architecture⁷⁵⁶ (see discussion in chapter 8.3.1). The second phase of the floor is only a few cm. below the top of the column base, as is typical in Neopalatial architecture. This floor level was 1.73 m. lower than the current height of Wall χ , and was covered with pottery. This pottery layer extended to the bench south of Wall χ , indicating that this bedrock was considered part of the room. This bench consists of bedrock extending to 1.4 m² at the top of which Wall χ was situated, reaching up to 50 cm. from the upper level of the column base. The bench can be viewed as an integral part of the inner decoration of the room.⁷⁵⁷ It is rather smooth, with elements of plastering along its surface being observed for smoothening its surface, and it was covered with pottery, in continuation of the second floor.

A row of two long mudbricks reaching almost to the column base was discovered at the level of the second floor. Their functionality is difficult to ascertain; they show a similarity with those mudbricks used in Zakros, in the rooms of the ceremonies and the Banquet room for which Platon assumed a decorative function for the floor.⁷⁵⁸ In contrast to these, however, not a great surface area is covered, nor is a geometrical symmetry observed.

Finds include a large amount of pottery, mostly undecorated conical cups, cooking ware as well as finer pouring vessels, miniature vessels, stone tools, murex shells, and plastered surfaces of all typical colours. Seven plaster pieces of plaster were found showing a white and red-painted surface divided by the impression of a straight string line. These were unearthed near all walls encasing Room 4, therefore strongly indicating a continuous decorative motive.⁷⁵⁹

The presentation above should make it clear that the area of the ‘sanctuary’, is not a typical cultic local, as originally assumed. Although aspects of cult cannot be excluded, especially in Room 1, the main image is that of an elevated part of a generally continuous complex of rooms of the LM I phase of Koumasa, with a possible ceremonial quality. The functions of the rooms are less connected with magazine structure, with the exception of Rooms 7, 8, 9, and 10.

755 Exc. Notebook 31.07.2019.

756 See discussion in Chapter 8.3.2 on pages 227ff.

757 The workers’ instinct to use this extension of the bedrock as a bench should be noted.

758 Platon 1964, 148, Pl. 146b; 1974, 141–142, 157–158, Figs. 9, 10.

759 Regarding the red decorative plaster, possibly arranged in a zone as the continuous line suggests, is most probable to have been used in the upper parts of the first storey and the second storey, as the red plaster pieces are generally smaller than the white plaster pieces, indicating a fall from a higher altitude. This arrangement was also observed in Room 1. See Panagiotopoulos 2018, 484–485.

7.3 Representative Finds

7.3.1 Plaster

Plaster decoration was used in the whole settlement sporadically, with the exception of the ‘sanctuary’. There, as already mentioned, it was used predominantly in Room 1, at least partially in the Terrace and then mainly in Room 4, exhibiting a variety of colours. Some pieces of two-coloured decoration (white-red) and a line in the middle allude to the utilisation of dichromatic decoration in the room. This, as well as other techniques, show similarities of decoration with other areas of the Minoan world.⁷⁶⁰ Micromorphological analyses have shown the usage of specific rocks for the production of plaster, which required not only time and investment but also a degree of experience and expertise.⁷⁶¹

The matter of specialised workers raises the question of local workshops or travelling artisans. In the case of the latter, the matter of the absence of certain pigments for the production of blue plaster, otherwise widely used in the Messara at the time such as the Egyptian blue, could indicate a local preference or lack of these materials.⁷⁶²

7.3.2 Pottery

The preliminary analysis of the pottery shows some concentration of LM III pottery and a significant amount of Hellenistic pottery at the surface levels. The LM I contexts show both coarse ware, including cooking jars and pithoi fragments, as well as an amount of finer pottery. Of the vessels unearthed, a consistent find was conical cups, some of which were whole, but most were recognisable from parts of the bases. Their maximum number is 786. More than half of these are from the area of Room 4, amounting to 471. Similarly, of the total amount of 42 miniature vessels from the ‘sanctuary’, a quarter are from Room 4 (11). The proportionality of these finds in Room 4 could partially be due to the fact that this is the only deep level not disturbed by the previous excavations, especially if one considers the amount of material and earth lost between the old and the modern excavations, as indicated by the photographic comparison.⁷⁶³ Nevertheless, the evidence suggests the storage and usage of these cups on both floors of Room 4.

Of the LM I pottery of Koumasa, most is undecorated. A few examples include leaf decoration, possibly olive-leaf on two sherds from the southern part of the ‘sanctuary’ and from the middle of the settlement. The olive leaves belong to the typical motifs of

760 For the red and white plaster, compare Panagiotopoulos 2018, Fig. 13, with a piece from Monastiraki (Kanta 2006, Tab. 13.b). As per the red plaster between the slabs in Room 1, see Footnote 714 above.

761 Boness et al. 2017, 406.

762 Boness et al. 2017, 406.

763 See page 197.

the period, such as lilies and olive sprays, and can be compared with the olive-spray-group decoration of LM I, where spirals occur more frequently than before, and they are better executed.⁷⁶⁴ The search for similarities is not only related to matters of chronology but also to the question of the influence spheres.⁷⁶⁵

7.3.3 Obsidian

Obsidian finds are scarce in the settlement, in comparison with the tholoi. Furthermore, as with the cases above, many of them are in disturbed contexts, making the effort of extracting useful information from this very small number problematic. It was observed, however, that most of the pieces were near the edge of a wall or directly on bedrock. Simultaneously, the few clearly LM I contexts were fully void of obsidian. This would enhance the suggestion of the obsidian blades belonging to the Protopalatial phase of the ‘sanctuary’, with many pieces being swept to the corners in later usage. A noticeable surface example from the corridor area is a worked obsidian core, suggesting local production of obsidian blades.

On Crete, obsidian is present from the Neolithic to LM III, serving diverse purposes such as sharpening tools, incising decoration, and food preparation. Although its arrival on Crete after the end of the EM period appears to be as secondary cargo and its use generally declines,⁷⁶⁶ its status as an exotic material continues to hold significance. This role comes in relation to the waning practicality of the chipped stones, with the waxing use of metal cutting tools.⁷⁶⁷ One argument for the assumption of metal use as the reason behind the decline in chipped stone use (obsidian and local chert) is the absence of denticulated flakes for use in sickles and similar tools, while these finds are observed in the mainland.⁷⁶⁸ With the decline of its use as a universal tool, its role as a ceremonial object becomes more apparent sometime during the MM, rendering all those connected with its use and consumption socially segregated.⁷⁶⁹

In the topic of the symbolic aspect attributed to obsidian, during her discussion of the funerary use of obsidian, Moundrea-Agrafioti stresses the symbolic use as a prestige

764 As seen in two Rhyta from Galatas (Rethemiotakis – Christakis 2011b, Fig. 34) and a cup from Skinias (Mandalaki 2011, 388). See also Popham 1967, 341; Figs. 2.7–8, Pl. 76–81.

765 See discussion on pages 265ff.

766 As mentioned in (Carter – Kilikoglou 2006, 134–135), the obsidian trade seems to be subdued to a metal-driven interconnectivity, as the obsidian finds from Anatolia indicate. As per the Melian Obsidian, Malia’s access to it is likely to have occurred in the process of procuring metals from Lavrion in southern Attica (See also Carter 2004, 101–102).

767 D’Annibale 2006, 334.

768 Blitzer 1995, 488–489.

769 D’Annibale 2006, 340.

object over its functional character.⁷⁷⁰ Of course, at the centre of her essay are the nodules and cores, in contrast to the 3–5 cm. blades found in the settlement. It is noted, however, that this length is within the expected length on Crete.⁷⁷¹

If one concentrates on LM IB, in the contexts of which Koumasa is virtually bare of obsidian, in other places on Crete the presence of obsidian endures. The mention of D’Annibale that the level of consumption remains constant in rural areas (an observation stemming from a concentration of 87 pieces in LM IA house in Petras) is an interesting point.⁷⁷² Although for the bigger picture, it is indicative that there is a scarcity of Minoan production centres in LM IB, the brief list of which includes Zakros, Mochlos, and perhaps Pseira is a candidate, based on the number of cores as indicators for knappers’ work. In Mochlos, besides the possibility of an obsidian workshop in the artisan’s quarters and Chalinomouri, contexts with obsidian pieces include houses and buildings which produced hundreds of obsidian pieces. No dedicated consumption of obsidian in any craft could be secured other than perhaps food preparation.⁷⁷³ Regarding the bigger picture, however, worn obsidian still appears in LM I, II and III contexts, although the main period of obsidian use seems to be the MM period, due to the replacement of metal tools.⁷⁷⁴

As per Koumasa, the scarce examples allude to the assumption that the pieces are associated with the earlier Protopalatial phases of the settlement. While the presence of obsidian in the EM Messara is undisputedly common, the scarce presence of obsidian in MM levels and its almost complete absence in the LM contexts might indicate that this area of the Messara was not located along the obsidian networks of the MM and LM periods. At the same time, the scarcity of their finds does not allow the assumption of any consistent craft in the area, and is certainly not associated with the presence of grinding stones in the north of the ‘sanctuary’ assumed in the LM III phase, for mainly two reasons: first the amount of blades is very small, especially comparing with the number of the grinding stones found, and secondly, if the area of the ‘sanctuary’ is observed, while the grinding stones are concentrated to the area south of the central rock, the blades are distributed evenly in a larger area. This leaves the possibility of interpreting the few pieces as part of the exotica associated with the symbolic role of the ‘sanctuary’. Another argument for the early dating of the obsidian is the presence of denticulated flakes, which is more *en par* with earlier use.⁷⁷⁵

770 In Moundrea-Agrafioti 2008, 177–178.

771 Cretan MBA and LBA tend to be 3–5 cm. Carter 2004, 102.

772 D’Annibale 2006, 339.

773 Carter 2004, 102–103; Table 16.

774 D’Annibale 2006, 339. Also, Blitzer’s account of the results of a survey around Kommos serves as representative of the western Messara (Blitzer 1995).

775 Blitzer 2015, 489.

This is tied with the observation mentioned above of the relative lack of knapping centres on Crete, with most obsidian blades delivered on the island being ready for use or in need of only minimal working.⁷⁷⁶ To this, the obsidian core found is an exception.

7.3.4 Pebbles and Finds Brought from the Sea

Sea pebbles constitute a recurring find across all the Koumasa trenches, ranging from the Prepalatial tholoi to the LM contexts of the settlement plateau. While in most cases their distribution appears incidental, certain instances suggest deliberate placement.

In his discussion of pebbles, Peatfield identifies their use as reflecting an aspect of an offering process, emphasising the significance of their transportation from distant locations.⁷⁷⁷ In some cases, pebbles helped identify a special liturgical zone in peak sanctuaries, such as at the focus of ritual activity in the area between the two terraces of Atsipades Korakias,⁷⁷⁸ and less pronounced in Youktas, Spili, Vorizi and Keria.⁷⁷⁹ Looking earlier, pebbles were found in Ayia Triada amidst other items in an EM I deposit that denote it as a sacred area, that was further marked with a retaining wall.⁷⁸⁰

The surface of the pebbles is water-worn, but upon surveying the waterbeds near Koumasa, including the Geropotamos, no such pebbles were found. This would allude to the sea as their main source which would emphasise the link of this area with the marine world. As typical in other Minoan sites, triton shells were found, one in a Proto-palatial context⁷⁸¹ and two others in the trenches on the central plateau, one of which was located on the LM I floor level of a room of the central Plateau, amongst a number of 103 vessels.⁷⁸² In the same room, a worked fossil of 6–7 million years old starfish was found. The worked marine fossil and the triton stresses a certain will to project a connection with the sea.⁷⁸³

Contexts with triton shells have been found to span the whole Minoan chronology, with no clear concentration in one of them.⁷⁸⁴ Their presence is first documented in the Neolithic, with parallels being observed in other areas of the Mediterranean, such as the funerary context in Italy.⁷⁸⁵ In many instances, these artefacts held a distinct

776 Carter 2004, 103.

777 Peatfield 1992, 80; Peatfield – Morris 2012, 235.

778 Peatfield 1992, 68; 1994, 22–23.

779 Peatfield 1992, 76.

780 Todaro 2011, 62.

781 Panagiotopoulos 2023b, 305, Fig. 11.

782 Panagiotopoulos 2019b, 452, Fig. 22.

783 Panagiotopoulos 2022a, 50; Panagiotopoulos 2022b, 332–333, Fig. 23.

784 Binnberg 2013, Table 1.

785 Binnberg 2013, 7.

ritual significance and were consequently considered components of shrine inventories. However, this is not a universal trend as the triton shells likely served diverse purposes, contingent upon the specific context, material, or shape. Their analysis, as Binnberg summarises, indicates that these shells were employed as amulets, offerings made in a sacred context, rhytons, or functional household containers. However, their presence indicates an effort to denote a certain status, especially in the Protopalatial and Neopalatial periods, where triton shells replicas made of various materials were found in rooms that constituted central in the palatial complexes they were found in.⁷⁸⁶

In summation, the sea elements found in Koumasa include pebbles, sea-stones as well as seashells and fishbones.⁷⁸⁷ Although not surprising for a Minoan context, an accumulation of evidence of the marine type alludes to a certain connection to the sea. Besides these elements in the MM and LM, a further indication derives from the newly ascertained dietary behaviour of those buried in the tholoi in the EM period, indicating a diet based on fish.⁷⁸⁸ These elements emphasise the connection of Koumasa with the sea, with the southern seacoast of the Asterousia and the harbours located there regarded as the primary contact points.

As per the influences from the rest of the island, the material gathered offers a possibility for a first step of evaluation, the possibilities of which are further discussed in Chapter 10.

The central theme of this study is the local topography, which in this Chapter was primarily explored through the lens of architectural layout. The next chapter will delve into the analysis of the topographical centre of Koumasa around Peak 1 and the ‘sanctuary’ and the adaptation of the architecture around it. In this regard, an examination of architectural theory will prove instrumental in shedding light on this subject matter.

786 Binnberg 2013, 11. Such an example in Arkhanes Halls 10 and 11 of the eastern sector.

787 Exc. Notebooks 2022, 204.

788 See the discussion of the Strontium analysis, see Footnote 407 in Chapter 2.3.

8 Analysis of the Architecture and Microscale

In this chapter, various theoretical approaches to architecture and landscape will first be presented (Chapter 8.1). These theoretical frameworks will then be applied in Chapters 8.2 and 8.3 to analyse the area surrounding the ‘sanctuary’, the only area for which such an analytical discussion can be made. This analytical discussion will be based on the layout and fundamental discoveries outlined in Chapter 7.

8.1 Theoretical Approaches to the Interaction of the *Locus* with Architecture

The emphasis on ritual as an integral aspect of interpreting architectural elements in historical contexts represents a growing trend,⁷⁸⁹ incorporating sociological perspectives into the analysis.⁷⁹⁰ This methodological approach brings architecture closer to anthropological ritual studies and art history, relying less on stylistic formalism.⁷⁹¹ This can only benefit Minoan archaeology, which is known for its lack of formalism in the architecture.⁷⁹²

One aspect that has come to the foreground is the interaction with and integration in the landscape.⁷⁹³ The experience of a place is increasingly regarded across various related fields as more than merely a physical location, encompassing a broader set of useful information.⁷⁹⁴ This set can include, beyond its coordinates and its physical characteristics such as contour lines, various diverse elements like light, colour, dimensions, and visibility, which together denote a distinct life cycle and an experience unique to that place.⁷⁹⁵ In this approach, the *genius loci* of a place is in constant dialogue with the

789 Renfrew 1985; 1994; Jones 2016.

790 Miller – Tilley, 1984; Tilley 1993.

791 Elsner 2012, 3–4.

792 McEnroe 1982, 3; McEnroe 2010.

793 Tilley 1994; Papantoniou et al. 2019.

794 Norberg-Schulz 1980, 6. His work of incorporating phenomenological work into architecture has helped bring archaeology closer to architecture and anthropology.

795 Leatherbarrow 2015, 30–31.

building activity of humans, influencing the architects and the builders at a fundamental level.⁷⁹⁶ On the one hand, the practical aspects of housing and dwelling adapt to the resources and characteristics of the environment. On the other hand, the *locus*, a term comprising the general characteristics of a place, is the one hosting the building activity but also influencing it.

In the case of the Classical Greek temples, it has been argued that they emerge from the place, brought forth seemingly by the landscape rather than by a conscious designer.⁷⁹⁷ Adapting this notion to the phenomenological perspective stated here, it may have seemed fitting to proceed with the building based on the perception of – and interaction with – the *locus*. In contrast to Greek architecture, however, which appreciated symmetry, the Minoan architecture favoured asymmetry on the large scale, especially observed in Minoan complexes. Scholars have linked this apparent “rejection” to a conscious effort to imitate the natural landscape, which is asymmetrical. The intricate architecture of Minoan structures is seen as a symbol of integration with – and embodiment of – nature, privileging alterity as a defining aesthetic element over balance and order.⁷⁹⁸ For instance, Driessen proposed an interpretation of the large palatial court, with its surrounding maze of corridors, as an evocation of the Cretan plain surrounded by mountains.⁷⁹⁹ However, in making such observations, there is a growing recognition of the need to value the lived experience of the architects and consider the involuntary, subconscious elements in the development of these designs rather than attributing their choices to a conscious imitation of the surrounding environment, a perspective that aligns with modern sensitivities. Evident for this view in the research is the assertion that Minoans deliberately *reject* bilateral symmetry, as if this supposed bilaterality is a given.⁸⁰⁰

Going beyond these *a posteriori* assumptions, the experiential consciousness of the *locus* can be found in many cultures, signifying a pananthropic view of how humans perceive the power of a location, which acts as if dictating the terms of habitation on them. The mythical origins of mountains and trees in various cultures can be seen as related to this phenomenon. These were seen created from the body of a primordial being, Pangu (P’an-Ku) in Chinese mythology, Ymir in the Nordic and Tiamat in some versions of the early Mesopotamian cultures.⁸⁰¹ In this sense, the landscape is not merely

796 Norberg-Schulz 1980, 23; Leatherbarrow 2015, 30.

797 Scully 1962, 4.

798 Hitchcock 1996–1997; 2007.

799 Driessen 2004.

800 In turn, this asymmetry is a main factor that led early scholars to characterise the Minoan planners as disorderly in comparison with the logic of the Greeks. Lawrence evaluates Minoan architecture as having no sense of form and emphasises their “love of picturesque at all costs”. Furthermore, he adds that even the contact with Egypt did not have a “sobering” effect on their architectural preferences (Lawrence 1973, 34).

801 Kleeman 1994; McLean 2017. The pananthropic analysis of this phenomenon would also comprise other deities, such as the rock-birth of Mithras, Vulcan and Enceladus from the Graeco-Roman religion.

constructed but is imbued with a life force, functioning not as a passive element but as an entity possessing its own agency.

The impact of the landscape was decoded in art, as many features of Minoan art in the layout of palaces and villas use symbolic or associative references from the landscape.⁸⁰² This is seen in decorative arts, such as wall painting and seals-engraving.⁸⁰³ In architecture, this tendency is fused with the interaction of the landscape itself. It has been suggested that these appropriations of the landscape served an ideological function in art, often restricted and with a degree of exclusivity, either through frescoes decorating the interiors of private rooms or on private seals.⁸⁰⁴ This ideology establishes, then maintains, negotiates and reinforces power.⁸⁰⁵ Hence, the elite endeavours to evoke a profound presence in the landscape – a presence rooted in its history yet dynamically projected as an enduring connection with, and sovereignty over it.

As for the more direct references to mountains and caves in art, one framework for explaining the emergence of the tradition of cave worship and peak sanctuaries is the climatic changes at the beginning of the Protopalatial period.⁸⁰⁶ This is seen within the assumptions of architectural theorists of the 20th century that architecture can serve as a testimony to the latent mythology of society.⁸⁰⁷ This phenomenon draws a parallel with Greek elites who, amidst the wave of urbanisation, strive to forge a direct link with the land, often idealising a bucolic essence with which they may no longer intimately engage.⁸⁰⁸

For Koumasa, situated as a peripheral centre, severing ties with the pastoral cannot be assumed. Its emulation of palatial ideology can be construed as an endeavour to replicate the refined characteristics of more central and sophisticated domains. Understanding of these principles can be assumed, however, especially considering the fact that the fairly palatial architectural layout must have required the presence of palatial technicians, if not officials, for designing and carrying out the extensive and homogeneous building programme.⁸⁰⁹

The extension of this new understanding of architecture, which can be dubbed natural architecture, has led architects to lay more weight on the idea of ancient architecture

802 Hitchcock 2007, 91; Palyvou 2023, 149–150.

803 Regarding the landscape representation in palatial sealings, see Krzyszkowska, 2010, 170–177.

804 Miller – Tilley 1984; Chapin 2004, 60–62.

805 Hitchcock 2007, 91.

806 See Footnote 494.

807 Tausch 2006, 149.

808 For Archaic Greece, this can be argued for the portrayal of the bucolic in the decorative aspects of Achilles' shield (Hubbard 1992, 27–32). For the urbanising centres of early Hellenistic poetry, this is one of the interpretive approaches to bucolic literature, as introduced by Theocritus (Fantuzzi 2004).

809 See discussion on page 45ff.

as an extension of nature or a continuation of it into the built environment.⁸¹⁰ Despite being strictly viewed as part of the exterior environment, it interacts with the interior and overlaps with open roads, semi-open areas, and enclosures through entrances.⁸¹¹ It can even find expression in using natural bedrock as an architectural element with no effort in covering it, but as an essential aspect of the design, already appearing in Prepalatial funerary architecture.⁸¹²

In Koumasa, the architecture builds upon the topographical features, enhancing their particularities in isolating and connecting areas so that it renders it an artistic product. This can be seen in the use of natural rock in the architectural layout of the rooms, especially in Room 2, the Corridor and Room 4, as well as the impact of the ‘sanctuary’ with its built elements on its surroundings, both on the settlement plateau as well as on the base of the Korakies hill. Perceived from the north, any buildings on Koumasa would have the mountain in the background, while from the west and the area of the tholoi, the peak with its buildings, especially their second storey, will form the skyline. Also, from the hill settlement plateau, looking towards the west, the ‘sanctuary’ forms part of the local skyline. This arrangement fits Palyvou’s description of skylines as borders of materiality and a threshold to heaven.⁸¹³

Doxiadis’ least effort principle emphasises the preference for flat terrain to minimise the difficulty of movement. The opposite vector, the pull towards rough terrain – often attributed solely to defensive reasons – could also encompass other considerations.⁸¹⁴ These include the visibility lines within and outward from a building complex, acoustic perception, and, ultimately, the unfolding of the web of meaning that the *locus* entails, as described above.⁸¹⁵

The plan of the plateau, at least, despite the conversation above about the asymmetry, is characterised by an order in the layout of the parallel walls. This also extends in the more ragged ‘sanctuary’ area and buildings under Peak 2, albeit with a small discrepancy, which can be attributed to the limitations on rough terrain (see Chapter 7.1). The general plan, however, adheres to the typical asymmetry observed in Minoan complexes that typically reject bilateral symmetry, as discussed above in this chapter. Whether the complex is to be perceived as a palatial centre or bearing traits of a villa, the topographical features of its central region at the ‘sanctuary’ area provide a natural setting to manifest these ideologies *in situ*, transcending the symbolic realm limited by the predominantly flat terrains of many palaces and villas. Here, the landscape

810 Amongst the earliest architecture theorists in this direction, Pikionis insisted on the interdependence of cultural phenomena and nature (Pikioni – Parousis 1985, 65).

811 Norberg-Schulz 1980, 6.

812 Vavouranakis 2002, 39–40.

813 Lecture series November 2023: A Timeless Guide to Architecture: 101 Tips for Archaeologists. A Three-day Online Seminar with Clair Palyvou. November 10, 15, and 17 (INSTAP SCEC).

814 Kyrtsis 2006, 149–153.

815 Studies by Doxiadis for Classical Greek Temples (Doxiadis 1972, 1–24).

functions not merely as a canvas but as a palette with reliefs, asserting its own influence in realising the palatial landscape-centric ideology. It's important to note that Koumasa is not an isolated case in this regard.⁸¹⁶

In Tilley's discussion of the landscape as a "spatial text", space can be seen as socially constructed; therefore, the monuments within it are the building blocks for creating a new landscape.⁸¹⁷ As Richard expressed it, the landscape and the monuments can "become fused and join in union to become a central point, an axis mundi".⁸¹⁸

8.1.1 Staging Exclusivity

The background for this approach correlates with modern archaeological methods aiming to evaluate the implications of an observable characteristic through the scope of human agency. In this case, the issue under examination is the concept of centrality, both in theory as well as in examples from within the same grid in which Koumasa lies. Here, the term centrality refers to the focal point of a settlement, which often combines aspects of prominence, controlling movement and with visual accessibility and that of elevation, such as a hill summit.

In conjunction with the analytical archaeological study outlined in Chapter 7, investigating the 'sanctuary' area can be enriched by considering agency and the interpretation of space. To this end, both phenomenological approaches and space syntax analysis tools prove useful. The 'sanctuary', alongside the broader Koumasa settlement, exhibits all the necessary components to serve as a compelling case study for understanding how the physical landscape influences and is influenced by architectural design, both as an active and passive element in spatial dynamics.

The Koumasa 'sanctuary' takes up an eminent position within its settlement in terms of (1) centrality and elevation, (2) the quality and density of the building activity there, and also (3) serving as a pivotal element in the spatial configuration, projecting outwards as an interface between the broader Messara valley with that of the settlement.⁸¹⁹ As for (4) the role within the settlement, from a topographical point of view – besides the wide outlook over the Messara plain – the 'sanctuary' forms the focal point of the settlement, as demonstrated in Chapter 6.

Situated along the main route traversing the settlement from east to west, it would have been a conspicuous point of reference for both travellers from afar and locals. Moreover, the strategic placement of the 'sanctuary' atop a hill amidst a backdrop of surrounding houses conveys a potent message of authority and significance. Beyond its

816 Especially for the Protopalatial period, the central area of Monastiraki acts as an adequate example of the use of the prominent geological feature within a settlement. See Chapter 10.

817 Tilley 1993.

818 See Footnote 336.

819 For this term, see Hillier – Hanson 1984, 82.

physical attributes, the ‘sanctuary’s’ role extends to the visual transmission of a unifying social message, exemplifying a form of material behaviour that underscores its importance within the societal framework.⁸²⁰

Therefore, the approach implemented in this chapter can be seen in relation to the research tendency of looking beyond the quantifiable aspects of the architectural design and regarding the buildings as things conveying meaning, seen here through the prism of Tilley’s argumentation: “Material forms are essential vehicles for the self-realisation of identities of individuals or groups because they provide a fundamental, non-discursive way of communication. We ‘talk’ and ‘think’ about ourselves through things”.⁸²¹ In this approach, the role of defensibility, for example, is not seen as essential as the role of visibility when dealing with an elevated feature. However, within this discussion, the interaction with the natural environment is also an issue to be considered. One reason this has eluded the focus of study in the past was the perceived dichotomy of man and nature environments in previous research.⁸²² Thus, the emphasis given to viewshed in Chapter 6 does not deflect from its study but rather enriches it.

By adding these aspects, many standing questions of the past, such as that of cult practice in the ‘sanctuary’, can be approached through the archaeological material and also enhanced with a more holistic view, which includes the relational space approach and the sociology of space.⁸²³ Another aspect stresses the transition from the focus on the modality of visual perception to that of acoustic range, thereby highlighting the interplay between visual and auditory modalities.⁸²⁴ This dynamic is particularly relevant to the activities conducted on the Terrace, which would have been experienced not only through visual observation but also acoustically. Residents situated on the slopes of Korakies would have perceived activities on the Terrace with a heightened intensity compared to those on the settlement plateau. Consequently, while the Terrace is topographically part of the settlement, its engagement extends more profoundly towards the slopes and the valley below, accentuating its significance within the broader spatial context.

8.1.2 Space Syntax

Much discussion has spawned regarding the Neopalatial style, its defining characteristics, uniformity, and even its general existence.⁸²⁵ Local materials and topography

820 Cunningham 2001, 76.

821 Tilley 2006, 7.

822 Thomas 2001, 167.

823 The sociology of space (Raumsoziologie) has been used to tackle the question of identification of cult rooms within Minoan settlements and complexes (Müller 2015, 112–113).

824 Feld 2005, 182–185.

825 Driessen 1989–90.

remained essential in determining the local tradition, but nevertheless, these localised instances have been viewed as linked within an underlying Neopalatial style since the early 90s.⁸²⁶ The variety of those manifestations does not deprive the “style” of its unifying character, but rather, it has to do with its nature. The diversity helps the defining factors of the Neopalatial style come to the surface. These, as expressed by Preziosi, are various patterns and relations rather than a homogeneous set of rules as seen in other cultures.⁸²⁷

In the Neopalatial period, the arrangement of built forms did not tend to follow a prearranged set of guidelines but rather to elaborate so each location may have a unique style. However, the composition of architectural elements shows similarities, based on the underlying set of rules that defines the style; the Neopalatial architectural language.⁸²⁸ There have been efforts to quantify this set of rules.⁸²⁹ Letesson called it the Neopalatial genotype, which, per definition, remains unseen,⁸³⁰ while what becomes observable is the phenotype.⁸³¹ Although initially hidden, the commonalities caused by their association can be revealed after studying many examples and sorting the underlying unifying themes and patterns through tools.

One of these tools is the space syntax analysis.⁸³² One could undertake a syntax analysis of the spatial distribution to better visualise the spatial distribution of rooms and paths as well as their architectural function.⁸³³ Such an effort was undertaken to study the internal organisation of Minoan palaces,⁸³⁴ but can be expanded to the smallest domestic units.⁸³⁵ The nodes reflect a location or unit that is defined, such as a room, and are represented by a circle. The more the so-called tree structure grows, the deeper the various rooms are located in the building. The straight lines represent the paths between the rooms or areas.

In the case of the ‘sanctuary’ and, more specifically, the access to Room 1 (presented in Figure 73 above), the gamma Syntax, following the concept of Hillier – Hanson, can be presented in the following manner in Figure 75.

826 Letesson 2014, 55; McEnroe 1990.

827 Preziosi 1983, 200.

828 Driessen 1989–90, 8, 11.

829 McEnroe 1982, 3; Preziosi 1983, 105–110.

830 Letesson 2009, 321–368.

831 Letesson 2014, 55–57.

832 For a summary of this concept, see Hillier 2014, 19–22.

833 Hillier – Hanson 1984, 147–155.

834 Vander Beken 2015, 260.

835 Hillier – Hanson 1984, 180–181.

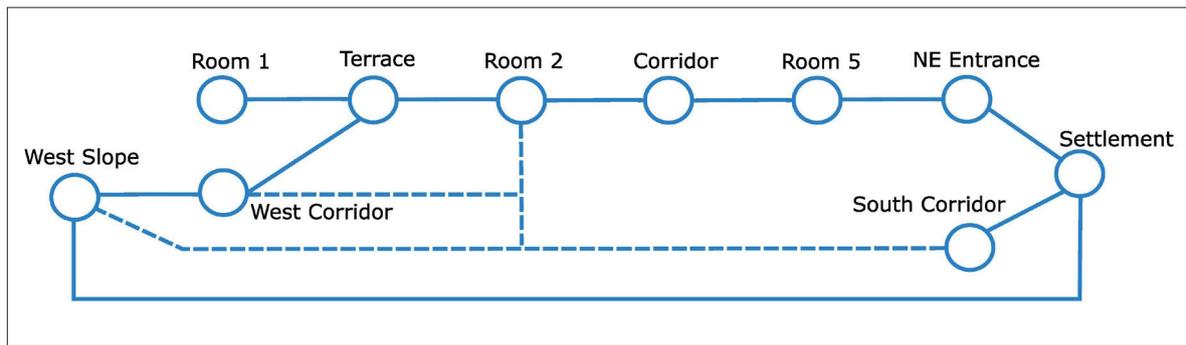


Figure 75: Space syntax for the area of the 'sanctuary'.

Walking from the west slope of the Korakies hill, one reaches relatively level ground around the saddle between Peaks 1 and 2. From there, one can continue traversing towards the central plateau of the settlement, bypassing the 'sanctuary' entirely by taking the path south of Room 10 (lower solid line in the space syntax map of Figure 75). If, however, one turns northwards, one can access the 'sanctuary', and the Terrace through the western corridor (solid line), or one can reach the area of the southern Corridor (the vertical corridor), where the slab between Walls φ and υ is indicated (dashed lines in Figure above). As noted before, the bad level of preservation in this area hinders a secure assumption, with a possibility of a direct connection to this corridor from the west slope directly or through the west Corridor. The west Corridor in itself, situated along the cliff of the hill, leads directly to the area of the Terrace, from which Room 1 is accessible. The other clear entrance to the 'sanctuary' is from the settlement through the NE Entrance, denoted by a maze-like walk (the top line, from right to left in Figure 75). This reaches Room 1 through a path that exceeds 20 m. (see discussion in Chapter 7.1 related to Figure 73). This path, which can be assumed to be addressed to a specific class of guests, has six nodes and can therefore be dubbed structurally as a deep-structure.⁸³⁶

These access points should be seen in relation with the movement patterns on the hill, as analysed with the aid of least-cost-path analysis in Chapter 6, and which reflect the experience on the terrain.

The layout is seen as a balance between spatial solidarity and social solidarity. As the interior is homogeneous in its perception and with clear boundaries that denotes structure, the element of the social solidarity is high. At the same time, the three main access points, and the assumed interconnectedness of ways in the unfortunately not well-preserved area, stresses contiguity and smoothens the spatial continuity from the outside, at least in the south of the 'sanctuary'.⁸³⁷

836 Hillier – Hanson 1984, 198.

837 Hillier – Hanson 1984, 144–146.

8.2 Terrace at Koumasa and Liminality: Interfacing with the Outside

The area in front of Rooms 1 and 2 acts like a physical terrace, beyond which, due to the descending slope, a wide-angle view of the Messara and the surrounding mountains is visible. Depending on the building's size, the western side of the settlement and the tholoi area would also be visible, as seen in Chapter 6.

In this area archaeological evidence indicated a terracing construction aimed at equalising the different levels and achieving a plain floor amidst the generally ragged rock surface (see Figures 69 and 70). The floor of this area was at least partially plastered, and that of the adjacent Room 2 was chiselled to form a smooth surface. To the west, the steepness of the hill would not allow access without significant physical effort.⁸³⁸

The few finds from this area may be seen in correlation with the terrace being the obvious destination for visitors of the Korakies hill due to the panoramic view, and hence the area most prone to being looted by said visitors. However, another explanation would be that the area was deliberately free as an example of performative space. The relative density of conical cups in Room 1, comparable only with that of Room 4, points to a certain consumption of liquids, which in the palace period was linked with the elite's ability to host such events and demonstrate it in the palatial environment. This trend to emulate the palatial elite in built form but also in social practice becomes more than a mere reflection of the copied ritual and indicates its adoption, acting as an element of a renewed identity.⁸³⁹

The examination so far describes the Terrace as providing an open space which has been artificially enclosed. It is secluded by the hill's geology – namely the bedrock to the northeast – and the building complex to the southeast. Nevertheless, as an unoccupied space with an unhindered westward view, it enjoys a high degree of visibility. The topographically assured predominance over the region is additionally emphasised by the isolation of the complex from any nearby buildings. In combination with the imposing entrances to the area, this manufactures exclusivity and denotes or rather enhances the area's natural centrality. At this point the concepts of centrality and liminality in forming exclusivity should be explored.

An assessment of the degree of accessibility and the relation of the area to its surrounding natural and man-made environment can be done by defining the type of open space to which the area belongs. Such categorisation of open spaces, ranging from the most private to the most public, is a subject of models of architecture theory.⁸⁴⁰ In the context of Aegean archaeology, Palyvou implemented this theory in her discussion of

838 See discussion on page 194ff.

839 Vavouranakis 2020, 271–278.

840 Such as the work of Chermayeff – Alexander 1966.

Minoan open spaces.⁸⁴¹ Her “group private” type, which describes an open-air space with restricted access, is the one most fitting for the Terrace area. This type would rank fourth out of six in the privacy-scala of Chermayeff – Alexander, and fifth out of nine in the one by Palyvou.

Apart from viewing the Terrace as an example of an “open-air space”, the wide view allows for an analogy with that of a balcony. As seen in architecture and art, the balcony is a projection of the roof level.⁸⁴² Similar to a balcony, serving as a point of visual contact and as a contact and boundary zone, this layout could serve as a semi-outdoor area. This term used by Palyvou in her discussion of the palatial courts can be adaptable for the terrace, as the rendering of the architectural units is similar.⁸⁴³ However, a second actor, the observer, is needed. In the case of the balconies in the palaces, the court assumes the receiver or the second actor necessary for the dialogue or ritual acts, such as the hypothesised use of balcony of appearance in the palaces.⁸⁴⁴ In the case of Koumasa the role of the spectator, or the second actor, is assumed by the lower parts of the settlement and its western extremities, including the tholoi area and the countryside. The Terrace acts then as a natural balcony of the ‘sanctuary’, overseeing the plateau to the foothill and the Messara beyond. In this discourse the architectural layout domesticates the particular part of the hill, allowing the analogy with palatial buildings.

The idea of defining a space with high visibility and with terrace characteristics within an otherwise secluded area, offering a sense of privacy to a certain group is not new in Aegean archaeology, as seen in the great court in front of the Megaron of Mycenae.⁸⁴⁵ There again, the local topography and relation of the court to the access road is stressed through architectural implementation. Such an area would have aspects of performative space, as the actors would be engaged in an active performance not only to their peers but to the rest of the populace, as the Terrace and actions within it would be visible not so much from the settlement itself but from outside of it.

Any kind of gathering may transform the Terrace into a type of social arena,⁸⁴⁶ the participation in which would have been controlled. This control, if not physical, of which we cannot be certain, is at least defined by the architectural arrangement, which is seen to impose a sense of liminality in this interior and the most secluded part of the ‘sanctuary’ complex. In this context, the liminal points act within the three steps of the

841 Palyvou 2004, 209–211. In her analysis, Palyvou expanded on the Chermayeff – Alexander model, proposing nine stages of exclusivity, with the notion that her model was conceptualised for Minoan palaces.

842 It is a separate entity, which corresponds to the eighth level out of nine in Palyvou’s categorisation (Palyvou 2004, 211–212).

843 Palyvou 2002, 173.

844 Hägg 1987, 132–133.

845 Maran 2006, 80–81; Fig. 1.

846 Here the term often used in the description of the social aspect of the palatial courts is used, such as for that at Knossos in Letesson – Vansteenhuyse 2006, 92.

rites of passage, as defined by Turner.⁸⁴⁷ Architectural remains can communicate these processes, as they are reflected in the arrangement of the architectural elements, which include the usage of the topographical elements that define the underlying meaning or ritual processes. Liminality is to be found in the second phase, that of the transitional state.⁸⁴⁸ The theory of the physical experience of transition, developed by Arnold van Gennep, can be seen in the act of approaching the area of exclusivity, which is stressed by the architecture. In this case, the architectural theory, such as that of Benjamin,⁸⁴⁹ concentrates on the relation between architecture and the gathering of experience.⁸⁵⁰

Such a dynamic relationship between society and architecture was researched by Maran in Mycenaean architecture by way of identifying points of liminality or nodes in the main road of Tiryns.⁸⁵¹ These are seen as borders, physically restricting access while simultaneously creating or strengthening the feeling of exclusivity for those traversing them. The role of borders has often been analysed as a sociological terminus by sociologists such as Mary Douglas. She stressed the role of borders as an organisational unit of the experiences made by the society's members or participants.⁸⁵² The borders here are not meant to be physical. Rather, they are meant to denote psychological aspects that, nevertheless, can be quantified or represented in the architectural design.

It is not seldom for an open space with no architectural elements to be found in areas of specific social and religious significance, such as in peak sanctuaries, where topography and the rocks demarcate ritual areas, serving an architectural purpose.⁸⁵³ Its wide visibility enhances the emotional experience of those walking towards it, as the anticipation of the goal transforms into a feeling of abstractness that integrates with the spiritual. Approaching is a dynamic interaction with the landscape: for those approaching from afar, seeing the goal as a small element on the horizon, to those nearer, climbing on the slopes and seeing the goal transform through their own movement to gradually occupy a great part of their vision.⁸⁵⁴ Hence, when walking towards peaks, a dynamic sense in the experience of the landscape can be assumed.⁸⁵⁵

When atop the hill, access to the Terrace seems to be through narrow passages, which allows to some extent for a controlled access, as it can be approached only by

847 According to Turner, rites of passage form a transition of the individual between two phases and have three levels: Separation, Transition and Reintegration. (Turner 1969, 94). This initially belonging to anthropological study of religion can fit with the architectural theory and movement between spaces (Deflem 1991; Coleman 2015). For a discussion of liminal points within Mycenaean architecture, see Maran 2006, 82.

848 Coleman 2015, 93.

849 For an analysis of this aspect of Benjamin's architectural theory, see Wagner 2016.

850 Schöttker 2009, 154.

851 Maran 2006, 82.

852 Douglas 2002, 50–51.

853 Such as the lower open terrace at Atsipades Korakias (Peatfield 1994, 22).

854 More on the Experience of Walking in Chapter 11.1.

855 Peatfield – Morris 2012, 233.

walking between the northeastern walls of the complex buildings and the descending slope on the southwest. These stops, seen in the nodes of the space syntax above, enhance the significance of the goal. The suggestion that this region was imbued with meaning stems from the topological arrangement.

The ellipse of vision that allows a comfortable perception of space, meaning without the need to move the neck or eyes, is 14° above the horizontal line.⁸⁵⁶ At the limit of 18° , the viewed object is perceived as impressive, according to Märtens rule.⁸⁵⁷

When applied to the landscape around Koumasa, observations from the tholoi area reveal that the built elements near the peak are situated at an angle of approximately 16° , with this angle exceeding 20° as one starts to ascend the slope.⁸⁵⁸ So, the terrace with the hill and its buildings is perceived to be monumental. The discussion of monumentality is usually applied to building structures, but here, the architectural perception can be viewed within this framework of emitting monumentality through the integration of the topography of the Korakies Hill within its building programme.

Approaching Korakies Hill from the west and north, at first it blends almost seamlessly into the background of the Asterousia Mountains. As one draws nearer, the hill begins to emerge more distinctly. The physical act of ascending is accompanied by a gradual transformation of the visible surroundings, shifting towards an increasingly monumental character. This inherent monumentality of the landscape is appropriated and amplified by the architectural design, which becomes even more central to the perception of the visitor as he draws nearer. When the visitor finally reaches the Terrace area, he is enveloped by the constructed environment that accentuates the natural grandeur.

8.3 Interfacing with the Inside

The role of the eastern front of the ‘sanctuary’ as a barrier to the rest of the Koumasa plateau, utilising the hills ca. 4 m. drop, was discussed above (see Figure 70 and discussion on page 201). Possible changes in the morphology due to erosion and other factors have been taken into account, particularly in relation to the southern part of the complex. However, in the central area of the plain, there appears to be no significant evidence of terrain alteration. However, the removal of many elements that would have formed the eastern front of the complex has occurred, as analysed above.

For the interaction of the area of the ‘sanctuary’ with the rest of the plain, it is noted that the two known column bases are located in the eastern part of the complex. Could this be an indication that the rooms were open to the rest of the hill plain? The

856 Letesson – Vansteenhuyse 2006, 95.

857 Letesson – Vansteenhuyse 2006, 94.

858 Ayash 2023, 144–146, Fig. 3.



Figure 76: Rendering the effect of 3m structures at Rooms 4, 3 and NE area, as seen from the middle of the plateau (red shade, from left to right).

eastern wall of Room 4 is of LM I dating, allowing for the possibility the earlier column base being viewed from the plateau. Unknown is the situation of the eastern part of Room 3.⁸⁵⁹ Given the scenario of a walled eastern side, as well as a building activity along Wall ζ, the 20 m. front as seen from the plateau (discussed on page 201) would be seen as Figure 76. In the illustration, a height of 2 m. was assumed for the ground floor and in the case of Room 4, the upper floor.⁸⁶⁰

859 See discussion on page 234.

860 The heights were taken as a conservative estimation considering the heights of the rooms from Akrotiri, where five ground floor rooms have a height in the range of 1.9–3 m., with a mean height of 2.34 m.; seven upper floor rooms have a height in the range of ca. 2–2.7 m., with a mean height of 2.32 m. (Palyvou 2015, 128, Table 1).

8.3.1 Thoughts on the Two Column Bases of Koumasa

When approaching columns, the shaft itself and its effect on the perception of rooms and courts is often discussed, as seen in colonnades and staircases. However, less attention is given to the use of a column base as a statement, a feature exemplified at Koumasa. This may be because column bases are often simple flat stones or, in cases where they are more elaborate, they are largely buried. Even when partially exposed, they are typically not situated at the epicentre of their surroundings nor designed to serve as the primary focus of attention. To a certain extent, the more elaborate luxurious bases used in a “palatial” context are dimmed by their surrounding court, colonnade, and palatial complex and ultimately shadowed and drowned within the greater grandeur of their surroundings.

The Room 4 column base seems to be made of creamy or white limestone, which is a material not naturally found in the surrounding region.⁸⁶¹ Its upper part is precisely chiselled round and flat with an upper diameter of 51 cm. The column base gets wider in its lower diameter as it is slightly conical. Its lowest part so far has been reached only partially due to its location between a (so far unexcavated) charcoal layer to its south (which clearly originates from burned beams, possibly making up the fallen floor of the upper storey) and a narrowing bedrock enclosure to its north. It reaches a height of at least 45 cm; this would mean that its depth is approximately equal to its upper diameter.⁸⁶² The dressed surface exhibits small cavities, an indication of the work method, as a result of the picking of the hammer.⁸⁶³ A less carefully chiselled part begins 20 cm. from the top, which itself measures another 22 cm. at least. Its deepest points are very roughly worked, allowing for spikes in the stone that alter its round shape to an irregular polygon. This last part can be presumed to have been below the area the plastered floor would cover, should it extend up to the column base.⁸⁶⁴

The plastered floor corresponding to the last phase of the room (in LM I) was at the level corresponding to that of 27 cm. below the surface of the column base and ca. 6 cm. below the part of the column base where it begins to be less finely chiselled. It is logical that the lower part would not have been visible (see Figure 77). Scarce elements of Protopalatial sherds beneath that level and the column base itself allude to an earlier phase where a larger part of the column base may have been visible.

The unusual placement of the column base, which seems to be in a corner of the room (see also Figure 74 in Chapter 7), lends itself to the assumption that the assumed upper storey might not have occupied the entire area of the now-perceived room. It is more likely the upper storey consisted of a structure covering an area not overlapping with that of the ground floor.

861 For the naming and typology, see Shaw 2009, Appendix B.

862 Panagiotopoulos 2019b, 451, Fig. 15.

863 Similar to the work on other bases (Palyvou 2005, 130).

864 Panagiotopoulos 2019b, Fig. 16.



Figure 77: Column base in Room 4.

The first documented column base in Koumasa is the one of Room 3, which was mentioned by Xanthoudides in his first study of the settlement;⁸⁶⁵ however, it has since been lost. Its location, as well as the location of the photographer, has been approximated using the method described above.⁸⁶⁶ From the documentation, it can be said that it is a wide stone with a circular surface and conical shape. In the area where its position is assumed, the ground is deeper, possibly alluding to the creation of space for the establishment of this lost column base.

The existence of the column base in itself is not unusual, as column bases appeared in Minoan architecture from the beginnings of the Middle Bronze Age and from then on become one of the most persisting architectural forms of Minoan culture, lasting for

865 See Footnote 40. For the third column base, see Footnote 899.

866 See Figures 71, 72 and 73; Footnote 55 and discussion in Chapter 7.2.6.

the whole remainder of the Minoan chronology.⁸⁶⁷ On the practical aspect, the shaft of a wooden column needs a base mainly to protect the lower part of the shaft from humidity, but it is also an aid for stability.⁸⁶⁸ The use of a base allows for adjusting the height of the shaft and also provides room for movement as an antiseismic measure. This is one reason that in all cases where measurement was possible, the shaft had a smaller diameter than the base on which it was standing.⁸⁶⁹

When examining the rooms that contain a column base, the discussions concerning the size of this type of room often tend to be self-referential.⁸⁷⁰ Indeed, in a building complex, when a room exceeds a certain size, it needs extra support; it is also obvious that a room widened by the addition of a column would be one of the biggest rooms within the layout of its corresponding complex. For a pure static function, the common size for this type of room is 5 m. × 5 m. with a typical surface of 25 m².⁸⁷¹

In fact, the appearance of the column base is seen in relation to the ability and the technology of building such rooms.⁸⁷² The search for patterns within a typological analysis facilitates an understanding of this type of room and its broader significance.

While acknowledging these challenges, a broad analysis of the column-room type can nonetheless yield certain insights. Initially, the shared motifs and defining features of this room type are identified, followed by an exploration of the specific characteristics of each individual case. The following conventions regarding the column room seem to apply: The first and obvious is that it concerns the biggest rooms of the building in which it is located. The second convention is that it has an importance within the plan. Within complexes, the room with a column often acts as a focal point from which ways to the other rooms begin. Additionally, it is usually located in relation to the entrance.⁸⁷³ In more elaborate constructions – such as framing courts in colonnades – columns mark more exclusive areas or the official passageway.

Originally, column bases were strongly associated with workshop activities,⁸⁷⁴ as some wooden columns appear to be less about supporting upper storeys and more

867 Palyvou 2015, 182.

868 This stability is provided by burying the base in the pavement, or by embedding it within slabs in the typically Minoan colonnade system.

869 This can be seen by coal traces of the shaft, or carvings on it (Shaw 2009). Three of the six bases at Akrotiri showed such markings (Palyvou 2005, 131). Seldom finds of the lower part of the shaft illustrate this point (Sakellaraki 2013, 279–280, Tables 162b, 163).

870 Michailidou 1987, 509.

871 In Akrotiri for example, six rooms produced stone bases made of hard lava, of which two were found in situ. Of the six rooms, four have areas ranging between 25 m² and 26,2 m², with only two deviations with 33,9 m². and 34,8 m². respectively (Palyvou 2005, 130).

872 Lebesi 1976, 25.

873 Michailidou 1987, 509. Furthermore, it is interesting that maybe all the six examples of such rooms in Akrotiri, were built as an annex to or a modification of an already existing complex, after the early LM IA earthquake destruction (Palyvou 2005, 182).

874 Begg 1975, 196–199.

about widening the area and, therefore, working space within the rooms they are central to. Newer excavations tend to verify this usage in some cases,⁸⁷⁵ but others indicate a different purpose. Studies, such as by Michailidou, tried to investigate various possibilities for the function of rooms that originally held columns (none of which fit the situation encountered in Koumasa exactly). The omnipresent example of the Archanes clay house model indicates a special meaning for the room with a column type, its characterisation circling around terms indicating it as a “predominant living space” and “common room for everyday activities”, as the association with a clear purpose is clearly a difficult task.⁸⁷⁶ Overall, the depictions of columns in seals and other media also show a symbolic aspect of the column.⁸⁷⁷

8.3.2 The Koumasa Column Base as an Example of the Elaborate

As can be seen in a study of the column bases in southern-central Crete, the base itself can constitute an element of affluence in Minoan architecture. What constitutes a harsh antithesis in Koumasa is the size and form of the base(s) in relation to the limited site of the area they are part of.

In Koumasa, the base found is of a hard stone material, from an unknown quarry, but clearly alien to the region, the transfer of which must have been a significant effort. It is much more elaborately worked than the typical column bases for workshops or other types of rooms. As for its colour, although not polychrome (see below), the effect of the foreign and, thus, opulent character of the base should not be overlooked. It is likely made of creamy or white limestone (following the naming pattern of Shaw), a quite popular material, albeit more prominent in the Neopalatial era. It is the material used in Kommos for 10 out of 13 (ca. 77%) column bases, for 8 out of 45 in Phaistos (ca. 18%) and generally 47 out of 263 (ca. 18%).⁸⁷⁸ Judging by the 1909 image, the lost column base of Koumasa seems to have been similarly made of white or creamy limestone.

There doesn't seem to be a consistency that would allow precision in the chronology, as limestone was also used later, together with gypsum, as they are much easier to work with than other stones used in Minoan architecture.⁸⁷⁹ The main use of the room is within LM I, but small shards of Kamares and Barbotine ware in the deepest levels

875 For example, the Artisan's Quarters in Mochlos (Soles et al. 2003, 56–65).

876 Lebesi 1976, 25; Palyvou 2015, 182.

877 Such illustrations include terracotta model (*Knossos I*, Fig.166) and seal impressions with a column and one animal (Achat seal from Knossos, CMS-II,3-040-1) or two animals symmetrically flanking it, albeit from later date, from Mycenaean mainland (Achat seals, CMS-XI-196-1; CMS-I-098-1, gold signet ring, CMS-VI-364-3; and the lion gate of Mycenae).

878 The percentages are based on a study by Shaw of 263 bases (from various chronologies) (Shaw 2009, Appendix B).

879 The chosen material in Knossos for the much smaller bases after MMIII seems to have been plainer, i.e. gypsum or limestone, but the lack of polychromy would not constitute a sufficient argument for a later

or those near the bedrock of Room 4 suggest a Protopalatial phase (which is securely proven for other areas of the ‘sanctuary’). As the column base also seems to touch upon bedrock and lowest layers, it is not clearly datable to LM I, but may also be a MM phenomenon.

An examination of the decorative character

The bigger and taller column bases are typical in a MM II palatial context and – perhaps as a second use – up to MM III in Phaistos and Knossos, and thus have been linked with the Protopalatial period since Evans.

Generally, most column supporters – including those attributed to workshops – are slabs or thin stone bases not much higher than a few cm., having only a functional role, to stabilise and protect the wooden shaft from dampness.⁸⁸⁰ This trend is also seen in various rustic villas, as in the case of Vrachnou o Lakkos in Kouses. In these cases, the base was only worked to the floor level.⁸⁸¹

Even in colonnades, the base sometimes does not rise more than 5 to 10 cm. above the stylobate or even lower, often corresponding to half its total height.⁸⁸² Even one of the widest known bases – the one on the Propylon of the entrance to the west court in Phaistos, which measures up to 1.2 m. in diameter – rises just 14–18 cm. above ground.⁸⁸³

In some cases, however, notably in the first palace period, the column bases themselves were more clearly part of the showcasing, which translates into much taller, well-chiselled stones, often coloured. The decorative principle is also visible in stylobates, where the bases were finely chiselled towards the side from which it would be seen, while the back side was ergonomically left rough and covered with plaster.⁸⁸⁴ Interestingly, those in Knossos were categorised by Evans not only based on their size but also the chosen material, namely veined marble, serpentine, and porphyry. However, a variety of stones can be used.⁸⁸⁵ The similarity of colours and material of Protopalatial column bases to the stone vases of that time enforces the decorative character.⁸⁸⁶

dating. This polychromy was although popular, not the rule for the Protopalatial period, and was most attractively used in Phaistos (Shaw 2009, 80).

880 Evans speaks of 5 cm. width above pavement for these bases that are the only variety after the MM III period.

881 Marinatos 1924–5; Shaw 2009, 82.

882 See the base in Kato Zakro, or in Knossos in the light well of the Grand Staircase (Shaw 2009, Fig. 136, 134, 130) or in Kommos (*Kommos V*, Pl. 1.117). Sometimes, the bases can even be completely embedded within the Stylobate, as is the case in Malia (along the eastern side of central court) or in Ayia Triada (Shaw 2009, Figs. 132, 133).

883 Shaw 2009, Appendix C.

884 Shaw 2009, 81.

885 *Knossos I*, 211; Shaw 2015, 129.

886 *Knossos I*, 211–213.

Of these rather tall bases, there are not many samples of, but some common characteristics can be deduced. To counterbalance the height of the stone being exposed, the depth in which the base is placed must be deeper so that the buried part of the base can act as an anchor, stabilising the base. The buried part can remain without precise chiselling. Besides the obvious benefit of being less work, this would add to the weight of the buried part, lowering the centre of gravity.⁸⁸⁷

It's important to note that a wider lower part does not mean the visible base corresponds to the total height of the upper part.⁸⁸⁸ In other cases, there is no clear differentiation of a lower and upper part, but rather a cylindrical shape is produced. This does not seem to be era specific, as such examples of this are found in Knossos, or the Kommos court.⁸⁸⁹

Akrotiri serves as an interesting analogy, despite not being in the cultural vicinity of the Koumasa region. The exquisite preservation of the remains provides a detailed insight into architectural techniques. Interestingly, four out of the total six bases were part of the upper storeys. Their shape is cylindrical in the upper part, and a gradual transition to a roughly round and thicker lower part. Five of them have an upper diameter between 40 and 51 cm. and height between 31 and 38 cm.⁸⁹⁰

As for the height, Evans notes a trend of higher column bases during the Protopalatial period, with some bases being reused until MM III. Two bases from Phaistos are mentioned, one 50 cm. high and 70 cm. wide base and another 83 cm. in diameter worked into the pavement of Corridor 7 east of the West Portico. Another example can be found in the Knossos Northwest Portico.⁸⁹¹ Two similar-sized bases were re-used in the next phase – earlier MM III – 34 cm. high and 58 cm. wide at the top, with a slightly conical shape.⁸⁹² Their dimensions are comparable to the base on the stylobate of the Knossos north-eastern Portico indicating a similar quarry and technique. Two others similar to those in the spiral fresco area were found at the border of the east portico with some irregular ledge below.⁸⁹³

887 Typical for the bases from Akrotiri. An extreme representation of this comes from Kato Zakro, where the lower part of the base is given a round shape. Shaw 2009, Fig.146.

888 A very good image illustrating this comes from Akrotiri (Palyvou 2005, Fig.189), regarding the Alpha-East, Room 1. It is clear that more than four fifths are beneath the pavement, including almost half of the upper half of the base.

889 *Kommos V*, Pl 1.136.

890 See Table 1. The Data is taken from Palyvou 2005, Fig.187. For one of the six columns no data for the height was presented. As it was the one with the smallest diameter it was not included in the table.

891 *Knossos I*, Fig.161.

892 In the area of the spiral fresco. One in *Knossos I*, Figs.156, 157, and an image of the two in *Knossos I*, Fig. 268.

893 *Knossos I*, 213, Fig.157.

The shape of the ‘showcase’ bases can be conical or cylindrical, especially in Neopalatial contexts.⁸⁹⁴ An examination of the north and south stoa of Building T in Kommos, within the early LM IA context, reveals a notable uniformity in the column bases, with a clear preference for standardised circular, cylindrical designs.⁸⁹⁵ Also in this case, work from the same quarry is assumed.⁸⁹⁶

The columns that fit in the general showcase or tall type have a height-to-diameter ratio of more than 0.5. In a comparison with bases in Phaistos, Kommos, Knossos and Akrotiri,⁸⁹⁷ It is seen how the Koumasa base is one of the tallest, but crucially one the biggest in terms of volume and overall size. This qualitative comparison allows for a Protopalatial dating and, thus, its initial integration in the first phase of the building programme.

8.3.3 The Eastern Front Towards the Plateau

Room 4, in its greatest possible expanse, would have an inner area of 16 m². Therefore, for purely static reasons, a column seems to be unnecessary. Room 3 however, would be 28 m², fitting the typical norm of rooms with column, as seen above.⁸⁹⁸

The presence of column bases in the ‘sanctuary’ is not in itself remarkable or unique for this area.⁸⁹⁹ However, the presence of two adjacent rooms featuring large column bases exceeds what one might typically anticipate within a settlement house complex.⁹⁰⁰

While the primary function of supporting a second floor is conceivable, the relatively short vertical distance of less than 6 m. between them, coupled with the proximity of approximately 6 m. from the lost base to the rising bedrock to the north, presents intriguing possibilities for the architectural arrangement during the LM I phase, particularly if Rooms 4 and 3 were at least partially open to the east. Situated in proximity to the eastern front of the ‘sanctuary’, these features could have been intentionally designed to be visually prominent when viewed from the rest of the plateau. The height difference between their surfaces is estimated at 3 m. – though this remains an approximate measurement – which roughly aligns the upper part of the second storey in

894 Palace of Phaistos Room 64; Shaw 2009, Fig. 56.

895 The analytical dimensions of the bases in *Kommos V*, 90–92, 1031, 1037.

896 Shaw 2009, 104.

897 Unfortunately, the underground part of many of the column bases is not visible, so a more detailed analysis cannot be completed at this point.

898 See Footnote 871.

899 In Trench 16, which is located centrally on the settlement plateau, a column base was discovered (Panagiotopoulos 2023b, 312–313, Figs. 24, 26). As in the case of Room 4, this base seems to belong to a bigger room of an earlier, Protopalatial period, which was filled in the Neopalatial phase (as seen by the raised floor level) and was rendered smaller by a vertical wall.

900 Palyvou 2015, 182.

Room 4 with the level of the ground floor of Room 3, as illustrated in Figure 76. This configuration would project the impression of a multi-storeyed structure. The axis on which the two column bases are located, the extension of which to the north meets the rising central bedrock at its southernmost extension, is at an angle of 16° with the grid of the 'sanctuary' but only 6° with the grid of the rest of the settlement. While the discrepancy between the two grids was ascribed to adjustments made in response to the natural terrain and the topographical division of the two regions, the proximity of the axis between the column bases to that of the plateau grid, which also aligns with the natural cliff separating the 'sanctuary' and the settlement, suggests a deliberate design on that area (see Figure 76 above).

If indeed observed from the plateau to the east, the arrangement of these features could be interpreted as an attempt to emulate a palatial architectural layout, with the two column shafts positioned along the same axis but at different levels. The potential presence of upper-floor storeys aligned along the eastern edge of the 'sanctuary' would further accentuate this effect. However, if the columns were not visible from the exterior (for instance, if obstructed by the eastern walls of Rooms 3 and 4), their impact would be confined to the interior, particularly along the access route to the Terrace, where they would delineate two significant rooms.

8.4 Conclusion

In this chapter, the impact of the 'sanctuary' on the slope to its west and the settlement plateau to its east was examined, with an emphasis on how the architectural elements enhance and reinforce the natural characteristics of the *locus*.

In both scenarios, the architectural programme of the 'sanctuary' appears to underscore two distinct narratives. First, it suggests the notion of an exclusive area with interactions directed towards the western slope and beyond. Second, it conveys a connection to the rest of the plateau, reinforcing the area's liminal role. This is achieved either through an imposing front or through the display of two columns, aiming to emulate palatial design.

The impression of this complex is seen as a manifestation of the notions of the sociologist Clifford Geertz, according to whom every human culture is a self-spun web of meaning in which humans have become entangled.⁹⁰¹ This concept can be seen reflected in the architecture, which while expanding gradually adapts to and utilises the uneven terrain, within a literal understanding of the proverbial *web* of Geertz's metaphor. The building activity may thus be understood as interacting with the *locus* forming channels for the creation and spread of meaning, enveloping visitors in a complex web of significance.

901 Geertz 1973, 5.