The House of Kadmos at Mycenaean Thebes: A preliminary re-examination of the architecture

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Note to the reader

An expanded summary of conclusions arising from this thesis has now been published by the author:

Anastasia Dakouri-Hild, "The House of Kadmos in Mycenaean Thebes reconsidered: architecture, chronology and context", BSA 96 (2001), 81-122, pls. 15-19.

Cf.
Anastasia Dakouri-Hild, *The House of Kadmos: Keramopoullos' Excavations (1906-1929)*, in preparation.

A.D.-H.

23.5.02, Pasadena

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THE HOUSE OF KADMOS

AT MYCENAEAN THEBES

A preliminary re-examination of the architecture

Volume I:
Abstract, Text and Tables
Abbreviations, Bibliography and Appendices

Thesis submitted for the degree of Master of Arts by research
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Στους γονείς και τις αδελφές μου,

"διότι μου δώσατε πολλά, αγνοώντας εντελώς ότι δίνετε"

PART II

A summary of the 1906-1929 excavation campaigns and the recorded clean-up operations (1965, 1998)

PART III

A re-examination of the surviving plan of the "House of Kadmos"

PART IV
Building materials and techniques

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A.C.D.,
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Abstract

During 1906-1929 Antonios Keramopoullos unearthed the surviving portion of a massive Mycenaean building at Thebes, Greece, the so-called "House of Kadmos". In 1971, and possibly in 1964, more parts of this building came to light south of Keramopoullos' excavations. This research does not claim to be an integrated analysis of the building in terms of "form, function and chronology", but is a preliminary study of its architectural remains.

The thesis focuses on the schematic reconstruction of the landscape upon which the building stands, the description of the surviving remains, the analysis of building materials and construction techniques. The prominent location of the edifice and some of its construction characteristics (e.g. the pseudo-ashlar wall, a possible light-well, the multi-storeyed elevation) would seem to fit the standards of Mycenaean palatial architecture. However, whether the "House of Kadmos" is the central core of a palace or an (ancillary?) palatial structure is unclear, although the terrace type employed suggests that it was a free-standing building.

The surviving portion of the plan reveals that it was predetermined and that it belongs to a purely Helladic architectural tradition, already crystallised in Menelaion Mansion I. A summary of the excavation campaigns and recorded clean-up operations, as well as general discussions on the plan and the elevation of the building are included (*Volume I*). A new plan, sections and other original drawings accompany the dissertation (*Volume II*). The plan and sections are based on the results of two fieldwork campaigns at the "House of Kadmos" (April and July 1998).

PART I

The Mycenaean citadel and the "second hill": the "House of Kadmos"[1] in its spatial context

"To be sure, exploration by excavation is more eloquent than observations of the sort I have just made, which are often proved fruitless"

T. Spyropoulos (1975, 64), discussing the citadel's shape.

I.1. Introduction

The architecture of the "House of Kadmos" may be properly understood if the building is envisaged in its "spatial context", the surrounding natural and urban landscape. This perspective of study requires a reconstruction of the original landscape of the citadel, which would in turn demand extensive fieldwork and digital mapping to feed geographical information systems (G.I.S).

As no such data-base exists today, we can only present a schematic picture of the citadel's form in prehistory. The necessary data are extracted from the old 1906-1930 excavations and reports. Bedrock depth measurements taken during later campaigns in the neighbouring area are used as well. Unfortunately an original field research on the bedrock formations of the Kadmeia (i.e. with a geological drill) is not possible, because of the overlying modern city and the high cost of such an ambitious project.

I.2. The geology and form of the contemporary Kadmeia

The eminence upon and around which the city of modern Thebes is built is part of a sequence of low hills connecting the main mountain ranges that cross the central part of eastern Boeotia in a general east-to-west direction (*figs. I-III*). The eminence, whose longitudinal axis is north-south, has acquired the form of a relatively flat-topped citadel in the shape of an irregular oval, that is narrower to the north (approximate width: 0.5 km) and broader in its southern part (approximate width: 1.2 km). Its contemporary length is

[1] The terms "Palace of Kadmos" and "Old Kadmeion" are avoided, since both the function and the chronology of the building are debated. The designation "House of Kadmos" is deemed more appropriate, since it is less interpretative.

about 1.5 km, but adjacent to its south side is a second, sloping plateau (209.2 metres)[2], that extends it 150 metres more in that direction.

The hills of *Agios Andreas* (223.90 metres), *Pouros tou Kavallari* (209.0 metres) and the *Frankish Tower* (187.0 metres) frame it on the south, west and north respectively, while the eastern side is lower and slopes towards the *Strophia* river. Obviously the citadel slopes from south to north as well, but more gradually. The three hills have acquired flat surfaces that are now occupied by the church of *Agios Andreas*, a square, and the archaeological museum and Frankish tower respectively.

The city occupies a Tertiary (Pleistocene) gravel tableland, mainly composed of conglomerate, sandstone and natural fills, such as sand and red loams (κεραμίτις γη, Keramopoullos 1909, *passim*; Christodoulou 1969; Tatakis, Kounis & Marangoudakis 1970). The bedrock outcrops are locally called "*pouros*", however (cf. *Pouros tou Kavallari*).

Human interference with the natural formations has had a considerable effect on its original shape, resulting from the continuous occupation of the site from Neolithic times (Mylonas 1928, 74-5; Symeonoglou 1985, 256). Indeed the surviving picture of the acropolis is the result of successive building activity and continuous debris accumulation, as well as of intentional fillings and levellings. This transformation of the citadel occurred throughout prehistory and during all early and late historic eras and modern times. The continuing obliteration of earlier occupation strata has reached a peak in the post-1960 period, assisted by the introduction of modern building techniques and materials.

I.3. Keramopoullos' description of the "second hill"

Keramopoullos describes a system of four separate hilltops, whose height gradually increases from north to south; *Agios Andreas* at the south (the "fourth hill"), *Pouros tou Kavallari* at the west (the "third hill"), the museum-Frankish tower hill at the north (the "first hill") and finally a hill lying to the north-east of *Pouros tou Kavallari* and south of the museum hill (the "second

[2] The absolute altitudes are measured from modern sea level. The sources are: (a) map B in Symeonoglou 1985, (b) the official city plans by Chatzidouros & Panagakis 1966 (revised by Marangos & Spathis, 1977) and (c) the topographic maps of the Geographical Service of the Greek Army (1978).

hill"), whose remains seem to occupy a central position within the modern urban plan (*figs. VIIIa-c*; cf. Spyropoulos 1971b, 202).

The latter hill lay at the end of a ridge that enabled ascent from the north (Museum) hill. Keramopoullos was able to identify visible traces of this ridge along the west side of Pindaros street (*fig. IX*), that was constructed along it. Supposing that this ridge was the only access to it, its position may be indeed regarded as "isolated and safe", protected by the other three hills (Keramopoullos 1909, 108-9). The hill sloped rather precipitously to the east and south, but according to Keramopoullos at least, it fell more abruptly towards the west. Its northern side was cut off by a ravine located west of the previously mentioned ridge. It is indeed notable that the western foundations of the church and of all the houses along the west side of Pindaros street until Vourdoumba (Proitos) street are very deep, since they go down into the former filled-in ravine, while the eastern ones that are founded on the ridge are very superficial (Keramopoullos 1909, 107-8, fig. 20B). The northern contour of *Pouros tou Kavallari* seems to fit well the hypothetical description of the shape of this ravine. Besides, a deep depression on the northwestern side of the Kadmeia with the modern name *Gourna*[*-es*] (trough[s]) may be associated with it, as it could form its surviving north continuation.

But one may justly wonder whether there are more indications of this hill's existence. Presenting hard evidence is by no means easy, but several excavators at Thebes have fortunately included in their excavation reports a few comments on the bedrock morphology at and near the "House of Kadmos", which are useful in the attempt to cast some light on the geomorphological features of the area (*Table I*).

There is an indication that the bedrock to the north of the "House of Kadmos" was higher before the construction of Vourdoumba (Proitos) street, that runs perpendicular to Pindaros street, bordering the old market area from the north. In particular, the bedrock underneath a delapidated modern edifice to the west of Pavlogiannopoulos' house was higher than the street level in the beginning of the century (Keramopoullos 1909, 59, fig.4). Judging from the photograph available in the original report (*fig. X*), the difference can be estimated in the range of 1-1.50 m., although that estimation should include an accumulation of soil, that is visible in the photograph, between bedrock and the old house's foundations.

It has also been observed that the northern part of the "House of Kadmos" was built on rising ground (Keramopoullos 1909, 86), which could explain why its northwestern part was completely razed by later building activity (Keramopoullos 1922, 30-1). On the other hand, during the excavation of relevant remains at Liakopoulou-Kyrtsi plot (site 260), which is situated across Vourdoumba street opposite the "House of Kadmos", a strip of intact bedrock was revealed very close to the surface, sloping to the northwest (Faraklas 1968, 241-2). The notion that the elevation of this hill dropped to the north of Vourdoumba (Proitos) street into the postulated "ravine", whose continuation we may see in the area of *Gournes*, is plausible[3]; the modern relief in the area does not contradict it (*fig. XIV*). Finally, at the intersection of Pindaros and Vourdoumba-Proitos streets (site 204) bedrock was reached at a depth of at least 0.50 m. (Symeonoglou 1985, 293).

The slope towards the east is more apparent because the inclination is sharp even today (*figs. XI-XII*; Spyropoulos 1975, 64). Both Vourdoumba (Proitos) and Antigone street slope in this direction because of this (cf. Faraklas 1966, 177, footnote 11). Even before Keramopoullos' first excavation at the "House of Kadmos" had begun, the old market area sloped abruptly to the east (Keramopoullos 1909, 57). The slope may have been partly artificial, to obtain communication between the market place and Pindaros street that lay three metres lower, but it would seem that it was also an adaptation to the pre-existing relief. The eastward slope of the hill has caused the bad preservation of upper Mycenaean strata in *Room Λ*, which lay at the lowest point of the market place, because they were only partly covered by later debris (Keramopoullos 1909, 72, 69); this was also the reason for the destruction of the eastern part of *Room I* (Keramopoullos 1909, 74, 97). Also, while the slight inclination of the floor at *Room N* is attributed to subsidence (Keramopoullos 1911, 144), it is possible that it was caused by the east-sloping ground.

We should add that the hill's east slope becomes particularly obvious when one realises that Pindaros street lies 0.50 metres below the bedrock surface at "site 1" (Keramopoullos 1909, 111; Keramopoullos 1917, 384; Keramopoullos 1921, 34; Symeonoglou 1985, 268), because it passes through

[3] At Dagdelenis' plot, which is situated close to *Gournes* (it should not be confused with the one on Pindaros street where a fragment of a stone frieze was found), on Epameinondas street, the Bronze Age remains were buried under 20 m. of later strata (ΑΔ 24[1969], 180 ff; ΑΔ 25 [1970], 211). Also compare the geomorphology at C. Stamatis' plot (ΑΔ 26[1971], 202).

it, involving the extraction and levelling of the rock along its course. It seems that the eastern slope of the "second hill" conformed to a general inclination of the whole eminence towards that direction. Another indication comes from a relatively recent investigation (1967) of three pits that were opened in the middle of Pindaros street, directly opposite from "site 1", and only ten metres away ("site 103"). It is telling that, although the street was 0.50 m. lower than the original bedrock surface at "site 1", bedrock was not reached in these pits at a depth of one metre, but "walls and Mycenaean pottery" were found (Symeonoglou 1967, 226; Symeonoglou 1985, 268).

Furthermore, there are several indications implying that the hill sloped, more evenly, to the south (*fig. XIII*; cf. Spyropoulos 1975, 64). A raised bank of bedrock was revealed in *Room B*, *Corridors K-Z* and the western part of *Room N* (Keramopoullos 1929, 61).

Further to the south, underneath the northwest corner of the *Turkish bath* that came to light during the 1928 campaign, bedrock was reached at a depth of 0.70 m. below the underlying Mycenaean floor. Yet, 6 m. to the south, it was found 1.30-1.80 m. below the extended horizon of this floor (Keramopoullos 1928, 46). The largest figure gives a decrease of elevation of 0.18 m. every 1 m. of distance, which reflects a fairly abrupt slope towards the south (*graphs Ia,Ib*). The slope may have been partly responsible for the destruction of the southern part of *Room I*, just as the destruction of its eastern part was partly due to the eastern slope of the hill (Keramopoullos 1909, 74), although it is possible that the slope towards the south was steep only in the area of *Corridors Φ, Π1* and *Rooms Π*, "*Π3*" and "*Π4*".

The excavator based his assumptions about the western inclination of the hill on some bedrock measurements taken to the west of "House of Kadmos"; the foundations of *Walls TT6b*, for instance, ranged in depth from 3 to 5 m., as they advanced to the west (Keramopoullos 1922, 29). He also believed that the hill upon which the structure was built was steeper to the west (Keramopoullos 1909, 82; cf. Keramopoullos 1930a, 31). He reached this conclusion because of some bedrock measurements taken within trial trench *TT 1*, that lay to the west of the area termed "court", where he found fragments of wall-paintings fallen from the higher ground to the east (Keramopoullos 1909, 81). In particular, it was observed that at the east part of the trench natural bedrock was reached at a depth of 4 m., while 7 m. further to the west, it was found 1.50 m. deeper. Although this piece of

information should not be generally applied, since the trench was only 1 m. wide at its bottom, it is interesting to note that the degree of inclination would be 1.21 m. every 1 m. of distance. That means that, although Keramopoullos may have exaggerated the steepness of the west slope (Keramopoullos 1909, 82), he was probably right in claiming that it was more abrupt than the southern slope (*graph II*).

I.4. Conclusion

The "second hill" of the citadel, that was quite central and higher than the Museum-*Frankish Tower* hill, but lower than *Agios Andreas* and *Pouros tou Kavallari*, certainly seems to have existed, though it might not have been so prominent as Keramopoullos envisaged it. This hill is no longer visible, because of the modern streets that have cut through it (i.e. Pindaros and Vourdoumba-Proitos streets). Later landfills have covered its north, west and south slopes, in order to provide an even surface suitable for building activity upon and beyond them. The width of the deposits that lie over the Mycenaean strata, in and around the block defined by Vourdoumba (Proitos), Antigone, Epameinondas and Pindaros streets[4], hints at the degree to which the original relief of the area has been obliterated.

[4] Sites 2, 5, 103, 109, 131, 185, 189, 196, 204, 206, 207, 227, 260, 261 and 269 (according to Symeonoglou 1985).

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Direction	Quotation and reference
North	"*That the ground to the north of the market place* [...] *was higher before the construction of the street, is apparent from picture 4* [...] *below the abandoned modern house*" (Keramopoullos 1909, 59).
	"*The masons who built the building* [...] *extended the plan to the north, where the ground rises*" (Keramopoullos 1909, 86).
	"*At this area* (Liakopoulou-Kyrtsi plot) *the natural bedrock, the "pouros", is very high* (i.e. close to the surface)[5] [...]. *The cuttings* (in the bedrock) *show clearly a slope towards the north-northeast* [...] *the ground shows an obvious slope towards the northwest*" (Faraklas 1968, 241-2).
	"(The slope to the east) [...] *to the N it continues almost up to the limit of the Acropolis*" (Spyropoulos 1975, 64).[6]
East	"*This ground* (of the market place) *lies approximately three metres higher than the surface of Pindaros street, towards which it slopes abruptly* [...]" (Keramopoullos 1909, 57).
	"*Because of the slope of the ground, that drops abruptly towards Pindaros street,* (the Mycenaean strata in *Room Λ*) *were barely covered, in part, by some soil*" (Keramopoullos 1909, 69).
	"*Room ωΑΔΓ* (*Room Λ*) *lies at the lowest point of the market place*" (Keramopoullos 1909, 72).
	"*Because of the slope of the ground,* (*Room I*) *is partly destroyed* [...] *to the east and south*" (Keramopoullos 1909, 74).
	"[...] *Thebans who built houses to the S and E claim now that they not even at a depth of 5 metres were they able to find solid ground* [...]" (Keramopoullos 1909, 109).
	"*Part of another* (stirrup-jar) [...] *was found* [...] *towards the cliff at Pindaros street* [...]" (Keramopoullos 1909, 97)
	"(The floor of *Room N*) *featured a slight slope, due to subsidence, towards the eastern part*" (Keramopoullos 1911, 144).[7]
	"*Today from Pindaros street and to the E, on a level with Antigone Street, the ground falls away at a considerable, not to say abrupt, slope*" (Spyropoulos 1975, 64).
	"*We were curious to see what was preserved there, because at site 1 (only 10 metres away), bedrock was 0.50 metres above street level. At the bottom of these pits, bedrock had not been reached*" (Symeonoglou 1985, 268)
South	"*Because of the slope of the ground,* (*Room I*) *is partly destroyed* [...] *to the east and south*" (Keramopoullos 1909, 74).
	"[...] *Thebans who built houses to the S and E claim now that not even at a depth of 5 metres were they able to find solid ground* [...]" (Keramopoullos 1909, 109).
	"*At the northwest corner of the caldaria (Turkish bath), the natural bedrock was found 0.70 metres below the palace's floor, but at a distance of 6 metres to the south*[...] *it was found at a depth of 1.30-1.80 metres; thus the hill drops there* [...] *the difference is bigger* [...] *at the rooms by the megaron* [...].*This slope of the hill becomes more intense to the south and isolates and distinguishes it* [...]" (Keramopoullos 1928, 46).
	"*At a distance of 1.75 metres from the west wall of the room* (*Room N*) *the bedrock is 0.45 metres higher than the rest of the room's floor. This bank was also found to the north at the two E-W corridors* (*Corridors Z-K*), *gradually dropping in elevation, advancing from the west wall of the palace and at the antechamber of the megaron* (*Room B*), *straight towards the neighbouring room to the south* (room N) [...]. *This bank inclines to the south, because the whole hill upon which the Kadmeion is built, inclines to the south. The bank is crossed in the room of the wall-paintings* (*Room N*) *by* [...] *wall Ξ* (*Wall B3-B4*)" (Keramopoullos 1929, 61).
	"*This slope* (to the east) *flattens out as we advance to S, or more exactly it begins further east of the present site* [...]" (Spyropoulos 1975, 64).

[5] Cf. Spyropoulos 1971a, 35; Spyropoulos 1975, 63. But actually it is the *street* that goes deep, not the bedrock that rises high.

[6] This view contradicts the evidence for a northern ridge that was presented by Keramopoullos 1909.

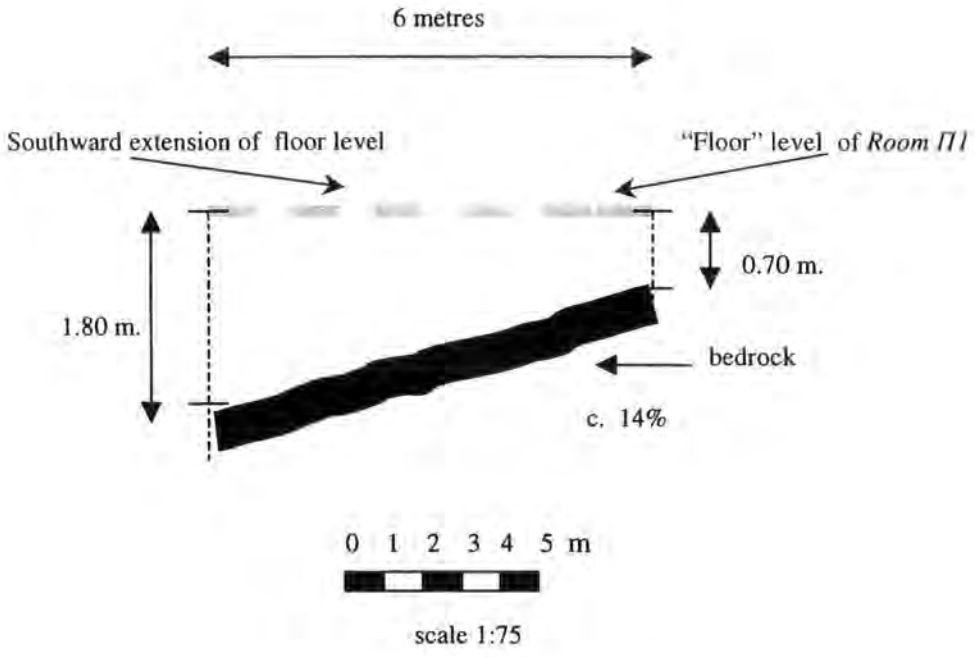
[7] This may be due to the ground's inclination towards that direction.

West	"[...] *fragments of wall-paintings* (were found in *TT 1*), *fallen from the higher grounds to the east*" (Keramopoullos 1909, 81).
	"*At the east part of the trial trench (TT 1) natural bedrock was reached at a depth of 4 metres, while at the west part at a depth of 5.40 metres. Thus, at a distance of 7 metres the difference of the height of the bottom* (that is, of the depth) *of the trial trench was 1.50 metres*" (Keramopoullos 1909, 80).
	"*Walls [TT6b] were founded at a depth of three metres, going down deeper than five metres (thus the natural bedrock inclines to the W)*" (Keramopoullos 1922, 29).
	"[...] *the burnt building was situated close to a hill that was isolated and inclined steeply towards the west*" (Keramopoullos 1909, 82; cf. Keramopoullos 1930a, 31).

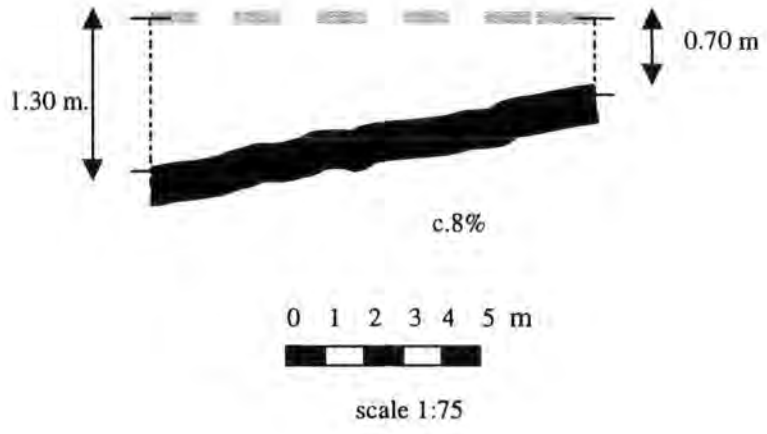
Table I.

Quotations relevant to bedrock formation at and near the "House of Kadmos"[8]

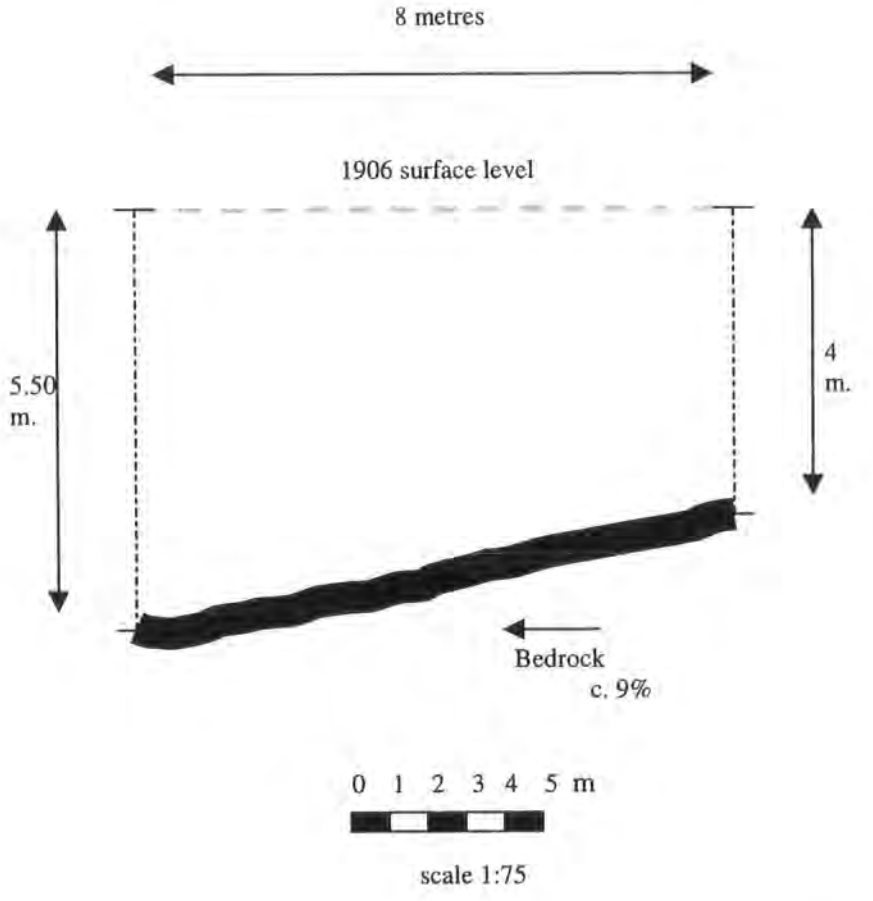
[8] The main, extensive discussion of the "original topography" of the Kadmeia (Keramopoullos 1909, 108-111) cannot be included in this table.



Graph I a
The inclination of natural bedrock south of *Room Π1*:
variation I (southernmost measurement= 1.80 m)



Graph I b
The inclination of natural bedrock south of *Room Π1*:
variation II (southernmost measurement= 1.30 m)



Graph II
The inclination of natural bedrock in *TT1*, according to Keramopoullos 1909

PART II

A summary of the 1906-1929 excavation campaigns and the recorded clean-up operations (1965, 1998)

II.1. Introduction

Following the thread from one of Keramopoullos' reports to the next sometimes proves to be a difficult task, because the breaks between campaigns were long. For instance, five years elapsed between the first and second campaign, nine years between the third and fourth, five years between the fifth and sixth. These intervals definitely harmed the coherence of the excavations.

For this reason, a brief account of the old excavations at the so-called "House of Kadmos" is deemed necessary. Moreover, references to the actual difficulties and obstacles that the excavator faced at various stages are considered useful, since many of the decisions taken were attempts to overcome practical problems, such as the outbreak of wars, financial difficulties generated by them, inadequate funding, slow bureaucratic procedures, even conflict with the land-owners (cf. Symeonoglou 1972, 81-91).

II.2. The excavations: 1906-1971

II.2.1. The 1906 campaign

The history of the excavations at the "second hill" starts at the beginning of this century. In September 1906 the ephor Antonios Keramopoullos observed, walking along Pindaros street, that the area to the north of Ioannis Daoutis' house was being dug out. The house was at the time situated by the corner of Pindaros street and an undesignated road leading from it to the market place. The old market itself occupied the northern half of the block defined by Pindaros, Vourdoumba (Proitos), Epameinondas and Antigone streets (*fig. XVIIb*). The works had already created a trench that was four metres wide and five metres long (the depth is unknown) by the time that Keramopoullos approached and examined the unearthed burnt stones and the plain sherds contained in the removed soil, which were identified as Mycenaean on the spot. A halt was immediately ordered and on October 2,

after the completion of necessary bureaucratic procedures, the excavation proper begun.

A quite extensive report on the finds from this first attempt to determine the nature of the prehistoric remains at the market place was published in the 1909 volume of *Αρχαιολογική Εφημερίς*. Keramopoullos' initial theory that the remains belonged to a pottery kiln was soon overturned by the progress of the excavation,[1] that revealed walls of four distinct building phases, eventually assigned to four different chronological periods.[2]

Keramopoullos' first building phase (*Period A*), probably of Early Helladic date, is represented by "*Wall A*" that ran northeast-southwest. It was poorly preserved and founded on stereo. *Wall B1* belongs to a second phase (*Period B*), presumably dating to Middle Helladic times; it is not well-preserved either and a small part of it is founded on *Wall A*. Its northern continuation, *Wall B2*, was considered initially to be part of the paving of a room belonging in the following period, but in fact it could be part of *Wall A*. *Wall B3-"B4"* was revealed in *Room N*. The third phase (*Period C*) features a well-arranged system of walls (*Walls C1-C33*) that constitute the "House of Kadmos". In particular, *Rooms I, Λ, M, N,* and *Corridors M* and *K* were revealed, but *M, N* and *I* only partly.

It should be mentioned that Keramopoullos also opened five trial trenches in the market area (*TT1-TT5*; see *Table VII*), in an attempt to define the contours of the Mycenaean building. He found assignable walls in trial trenches *TT2, TT4* and possibly in trial trench *TT3* as well (*Walls TT2α-α, β-β, γ-γ, Walls TT4, Wall TT3* respectively).[3]

The fourth and final phase (*Period D*) was represented by the early modern *Wall D1*, that was built upon the Mycenaean walls, re-using some of its burnt *membra* (Keramopoullos 1909, 57-122).

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[1] It should be stressed at this point that Keramopoullos was never embarrassed to admit that he was wrong in his original assumptions concerning his finds, even if they had already been published widely in contemporary newspapers and periodicals (Keramopoullos 1909, 62, footnote 1). To keep track of some changing views of his, see *Table VI*.

[2] We have to point out that, because the original names of phase C walls make their description very difficult to follow, a plain alphabetic-numerical system that corresponds to the walls' building phases has been adopted for reasons of simplification; some walls that were not originally assigned to a building phase do not have an alphabetic-numerical designation, but an abbreviated code that signifies their position, followed by a number. To avoid possible misunderstandings, a cross-reference index of their old and new designations is available in *Table II*. Other free-standing features such as ducts, wells, kilns, granaries, pits and bothroi have been codified in a similar manner (*Tables IV-V*).

[3] The direction of *TT 2* in Symeonoglou (1985, cat. fig.1) is wrong. Compare with Keramopoullos (1909, fig. 13), where the *longitudinal* sides of the trial trench are oriented N-S. Considering that in fig. 5 (Keramopoullos 1909) the northeastern-southwestern direction of the building was shown as an exact north-south one, one wonders if a NE-SW direction should also be applied in the trench's plan.

II.2.2. The 1911 campaign

After the butchers' shops in the market place had been demolished, a second campaign started, sponsored jointly by Goekoop and the Archaeological Society. During the summer of 1911, Keramopoullos unearthed an area that lay to the south and west of the 1906 excavations. *Room N* and *Corridor K* were explored better and two more rooms, *Ξ* and *O*, were revealed. The area to the west of the building was considered a *court*. A horseshoe-shaped structure dubbed *pottery kiln* and a system of clay aqueducts, possibly of Mycenaean date (*Ducts 3*), was found there. A possible shallow "pre-Mycenaean" shaft or pit (*Pit 1*) was revealed under the floor of *Room N*. The early modern *Walls D2* and *D3*, which ran at right angles to one another[4], also came to light crossing and partly destroying *Rooms Ξ* and *O* (Keramopoullos 1911, 143-152).

II.2.3. The 1912 campaign

Although Goekoop continued to fund the excavations in 1912, the area to the north and the south of the so-far revealed parts of the "House of Kadmos" was not bought and the buildings that stood there were not demolished. Keramopoullos decided to investigate in more detail what he had termed *court* in 1911, i.e. the area extending beyond the western wall of the main building, up to trial trench *TT2*[5]. But in addition to the walls that had been found in some of the 1906 trial trenches, another wall was revealed during the 1912 excavations (*West Wall 1*). It ran north-south, by the west wall of the butchers' shops, that were situated at the south side of the old market place.[6] It was not parallel to the main building's axis, but apparently it dated to Mycenaean times. A large conglomerate slab was regarded by Keramopoullos as a key-stone from a tholos tomb. The campaign reached an unexpected end on the 18th of September, because of the general military conscription ordered in Greece following the outbreak of war (Keramopoullos 1912, 85-7).

[4] Their position in the new plan is conjectural.
[5] For the definition cf. Keramopoullos 1911, 148.
[6] It should be stressed that *West Wall 1* is absent from every plan of the site that was published by Keramopoullos from 1912 onwards (1927, 1930). This is why Symeonoglou does not include it in his plan (1985, cat. fig. 1).

II.2.4. The 1921 campaign

Only nine years later was Keramopoullos able to continue his work at the "House of Kadmos". In the meanwhile he had obtained authorisation to demolish Thomas' property and he had removed heaps of earth produced by the excavations over the north slope of the museum hill (Keramopoullos 1917, 4, fig.1). Thomas' house was situated opposite Daoutis' house, separated from it by the road that led from Pindaros street to the market, and covered a large portion of the ruins. Its foundations were fortunately shallow enough to preserve the Mycenaean walls; the height of the later accumulations in this area of the Kadmeia was small.[7] Keramopoullos was able to proceed with the exploration of the area to the north of *Room I*, that had remained half-excavated until then.

During the 1921 campaign, the excavation of *Rooms I* and *N* was completed; also, the existence of *Rooms A, B, Θ, H* and *Corridor(s) Δ-E-Z*, the Π-shaped continuation of *Corridor K*, gradually became apparent as the excavation proceeded to the north and northwest. Keramopoullos speculated about the existence of a "*Room Γ*" to the west of *Room B*, whose walls had been totally destroyed in the course of time (Keramopoullos 1921, 32-4).

II.2.5. The 1922 campaign

Keramopoullos was unable to obtain authorisation for the demolition of a third building, belonging to P. Makris, which lay to the south of the excavated parts of the "House of Kadmos", west of Daoutis' house.[8] Consequently, although his original intention was to define the southern extent of the building, his 1922 campaign had to be limited to the west part of the market. First a trial trench (*TT 6*) was opened parallel to the south[9] wall of the

[7] The market place was 3 m. higher than Pindaros street, which was in turn 0.50 m. below the natural bedrock level. Thus the soil and debris deposits at the old market place must have been around 2.50 m. in height. But Keramopoullos excavated, in some areas of the building, approximately 2 m. (2.10) of prehistoric deposits before he reached bedrock (Keramopoullos 1909, 69-70). That leaves only about 40-50 cms. of distance between the Mycenaean strata and the 1906-11 surface level of the market place (although he reports that the maximum depth reached was 3.40 m. [Keramopoullos 1912, 86]). Besides, it is mentioned many times that the Mycenaean finds were almost at surface level (Keramopoullos 1909, 59, 69; Keramopoullos 1912, 86). Compare with Faraklas 1968, 241 (Liakopoulou-Kyrtsi plot).

[8] Unfortunately in fig. 1 (Keramopoullos 1909, 57) the particular building is not shown, and the official estate archives of the city, kept at the Town Hall, go back to the 1950's at earliest.

[9] Keramopoullos mentions that he opened the trial trench "to the west of the older excavation, from the edge of the eastern side of the primary school until Epameinondas street" and that burnt remains "come *also* from the area to the *north* of the primary school" (Keramopoullos 1922, 28, 29), but it is not made decisively clear along which side of the school, the north or the south one, this trial trench ran. But presumably the trial trench ran along the

dilapidated building that used to be the primary school of Thebes,[10] running from the east to Epameinondas street that bordered the market's west side. At a distance of about 24-27 m. from the west wall of the Mycenaean building, some walls built on a north-south axis (*Wall TT6a, Walls TT6b*) came to light.

After the trial trench was explored, it was filled up again and the excavation continued along the external face of the building's west wall, to define its length to the north and south. But according to the excavator every trace of the wall's northern continuation was completely razed during the Turkish occupation period (Keramopoullos 1922, 28-31).

II.2.6. The 1927 campaign

Following a break of five years, the excavations were resumed. During that period, the Greek state had managed to buy part of the Makris (previously Logothetis) property. But the eastern sector of this land was consequently incorporated, illegally, into the neighbouring property of Daoutis, while the southern sector was taken over by Makris himself.[11] Thus, Keramopoullos had no other choice but to excavate the remaining northern part of the bought area. In the autumn[12] of 1927 all rooms were excavated to natural bedrock with the exception of *Rooms N, Ξ, O* and *Φ*; although the excavator intended to proceed to the removal of the "old floor" in *Room N* as well, the task was not completed.

A new room, *Π*, was revealed and regarded as the possible southernmost part of the building. It contained five ducts (*Ducts 4-8*), some dating to the Early Christian period; three[13] of them ran deeper and disturbed the Mycenaean strata, destroying some parts of the room's north, south and west walls. Extensive observations regarding the wooden frames of the walls

south side, as Symeonoglou's plan shows (Symeonoglou 1985, cat.fig.1), because it is unlikely that the excavator would open a second trial trench so close to a previous one (TT1, 1906).

[10] The Primary School was already deserted in the 1920's (Keramopoullos 1909, 101). Another school, probably contemporaneous, used to exist at the area of Pavlogiannopoulos' plot, but it was demolished by Pavlogiannopoulos (T. Pavlogiannopoulou, pers. com, April 1998).

[11] Daoutis protested that the foundations of his house where in danger due to fact that the excavation proceeded south of *Wall C19*; his complaints stopped the excavations in that direction (Keramopoullos 1909, 71), but during 1906-9 he took over the area to the north of his house and built a *brick* boundary wall to keep it under his control (Keramopoullos 1909, 64, footnote 5). The 1928 report informs us that Daoutis not only took over the land again, but he also built "walls" that were partly founded on the east wall of *Corridor M*. He was prosecuted because of this (Keramopoullos 1928, 49). The final plan (Keramopoullos 1930a, fig. 1) shows a Z-shaped wall that covers this area; the same wall, with a slightly different course, is depicted in Chatzidouros & Panagakis 1966 (revised by Marangos & Spathis 1977). Therefore, it is very probable that these stone walls were the last that Daoutis built.

[12] This is implied by the fact that some workers, unfortunately the best, were out in the fields harvesting grapes (Keramopoullos 1927, 36).

[13] The "middle" duct later proved to be merely a natural groove of the bedrock, between *Duct* 6 and 7, but only in *Room Ξ*. *Duct 7* existed in *Room Π*.

of *Room Π, Θ, I* were recorded. *West Walls 2* were revealed close to the *kiln* and may be related to the Roman *portico*. The alphabetical designations of the previously unnamed rooms were given for the first time in the 1927 ΠΑΕ report (Keramopoullos 1927, 32-44).

II.2.7. The 1928 campaign

The 1928 campaign overturned Keramopoullos' assumption that *Room Π* was the southernmost edge of the building; the excavation proceeded to its south, where a *Turkish bath* with caldaria was unearthed. Beneath it an (Early?) Christian granary was found (*Granary 3*). 1.60 metres below the *Turkish bath's* level, to its north and east, the floor of the "palace" was revealed. The narrow space that came to light running parallel to *Room's Π* southern wall was considered a corridor (*Corridor Π1*). The continuation of *Corridor M* (*Corridor Φ*) was traced to the south, while the existence of another room (*Room Π2*) was supposed on the basis of a possible door opening opposite the threshold of *Room Π*. A third room, *Room Π3*, was thought to have existed south of *Corridor Π1*, while a fourth room, *Room Π4*, probably existed south of *Room Π2*. Some general observations on the building materials of the walls and floors were made (Keramopoullos 1928, 45-52; Keramopoullos 1930a, 41-58).

II.2.8. The 1929 campaign

Keramopoullos' final excavations at the "House of Kadmos" in 1929 focused on *Room N*, that was excavated to bedrock. The plaster floor was first destroyed, so that the rest of the deposited wall-paintings were collected. Some observations concerning bedrock formation beneath the northern part of the building and the construction of the north wall of *Room N* were recorded, while *Wall B3* within the same room was investigated in more detail (Keramopoullos 1929, 60-63).

II.2.9. The 1964 campaign

During the excavations that N. Platon and E. Touloupa conducted in the "Treasury Room" the massive foundations of a Medieval building were revealed. The structure separates the archaeological site in two parts, north ("House of Kadmos") and south ("Treasury Room", "old palace" house and EH apsidal house[s]). The structure features six rectangular shafts, whose

depth reaches Mycenaean strata. Within five of the shafts various fragments of walls came to light; two or three of these seem to have been of the same orientation and construction as the walls of the "House of Kadmos", though their preservation is too fragmentary to allow certain conclusions. Undoubtedly, at least some of them must belong to the "House of Kadmos"; the northernmost one, for instance, lies only 6.5 m. west of *Wall C29* and about 7 m. south of *Wall C26*. Unfortunately, the ΑΔ report describes the remains briefly, while no movable finds are mentioned.

It is uncertain whether the excavation in this sector was directed by N. Platon and E. Touloupa themselves, or the ephor of Byzantine Antiquities, P. Lazarides, who believed that the Medieval building was a Byzantine bath.[14] It is interesting to note that parts of *Walls C28-C29* were already visible in 1964, though the excavations did not proceed between the Medieval structure and Papastamelos' house, that still stood south of Daoutis' house at the time (Platon & Touloupa 1964, 195, pl. 230).

II.2.10. The 1971 campaign

As previously mentioned, the parallel *Walls C28-29*, that lie at the southernmost preserved end of the "House of Kadmos" and run northwest-southeast, were already partly visible in 1964, although *Wall C28* must have been discernible even in Keramopoullos' time (Keramopoullos 1928, 49-50). Following the demolition of Papastamelos' house, as well as Liokis' house that stood immediately south of the former, these walls could be investigated better.

The excavation was conducted by the then ephor T. Spyropoulos; although a larger portion of these walls came to light, their west edges remained hidden or destroyed beneath the *Turkish bath* and the *Frankish palace*, while their east edges were totally razed by the demolished modern houses. Apart from *Walls C28-29*, a third wall (*Wall C33*) that runs at right angles between them appears in Spyropoulos' plan; it was barely visible in April 1998 and was not drawn. Traces of a blackened floor, lumps of fused debris on the walls (επίπαγος) and roof tiles were reported (Spyropoulos 1971b, 206-7).

[14] However, Symeonoglou identified it as the palace of Nicholas II de St. Omer (Symeonoglou 1985, 161-2).

II.3. The recorded cleaning operations

Numerous clean-up operations have taken place at the "House of Kadmos" since 1965, in order to keep the site in as good a condition as possible (V. Aravantinos, pers.com); no written records have been kept, as their main scope was to remove vegetation and litter.

II.3.1. The 1965 operation

After the final excavations at the "House of Kadmos" had been completed, the site did not attract much attention. Earth and vegetation had covered totally some parts of the excavated ruins by 1965. The photographs taken by Jacques Raison in 1962 (Raison 1968, planches I-IV) show how the site looked prior to this operation. The works, that were probably supervised by Sarantis Symeonoglou (1985, 43), included the removal of vegetation and earth, and presumably the construction of the retaining walls that stand today to the west of the "House of Kadmos" (*pls. 8, 9, 21, 24, 26-8, 31, 35-40*).

These walls seem to have been built of stones found on the spot; their quality and shape, as well as their occasional fragility and some traces of fire on their surfaces, make it very probable that they once belonged to the Mycenaean structures. The boundary wall that encloses the site from the east is built of similar stones (*pls. 1, 3-5,12-14, 15, 17, 19-20, 25, 29, 34*); although it appears in the plans from 1966 onwards (Chatzidouros & Panagakis 1966; revised by Marangos & Spathis 1977; Symeonoglou 1985, cat.fig.1), it is unclear whether it was actually erected during the 1965 operation itself.

II.3.2. The 1998 operation

On the 2nd of April 1998, the archaeological site was surveyed. The vegetation had grown considerably since December 1997, when a series of colour photographs was taken. A close inspection of the walls showed that loose stones from the site had been placed on the preserved masonry and the upper surface of the walls was hidden beneath them. Moreover, small stones had been used to fill cavities in the walls, especially where timber frames once existed. On the same day the clean-up operation proper began; it was supervised by the present author until the 17th of April. A second operation took place in July 1998, in order to study the wall-frames and to draw the sections of the building.

The aim of both operations was to reveal details necessary for drawing a new plan and sections, and the study of building materials, construction techniques, wall joints and "door-openings". Special forms were compiled for the recording of data (*Appendix II*). Black-white photographs were taken, plans and sections were drawn. Samples from building stones, binding and packing clay and the mixed burnt layer that covers some parts of the walls ("*επίπαγος*") were collected for petrological analyses.[15]

[15] Unfortunately these were not completed by the end of September 1998.

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[16] The bibliography also includes references cited in *Tables III-VII*.

Original designations of walls	New designations	Reference(s)
I. MAIN BUILDING		
PHASE A	**PHASE A**	
Wall νξωB	*Wall A*	AE 1909, 64, 85, 86
PHASE B	**PHASE B**	
Wall κζζ′ or ζζ'or ζζ	*Wall B1*	AE 1909, 65, 72, 85, 86
Wall υφχψ : dubious whether it exists because in the 1927-1930 plans it is absent: is it merely a part of *Wall A* ?	*Wall B2*	AE 1909, 66
Wall Ξ (older south wall of *Room N*?)	*Wall B3*	AE 1909, 80, 85, fig. 5; ΠΑΕ 1929, 61
"Wall M" (supposed wall in *Room N*, parallel to the south side of *Wall B3*).[17]	*Wall B4*	AE 1909, 85; fig. 5?
Unnamed (wall in *Room Π*, underneath the "older floor")	*Wall B5 ?*	ΠΑΕ 1927, 34
PHASE C: LH III	**PHASE C**	
No specific designation	*Wall C1*	See *Room A*
No specific designation	*Wall C2*	See *Room A*
No specific designation	*Wall C3*	See *Room A, Room I*
No specific designation	*Wall C4*	See *Room B, RoomΘ, Corridor Δ*
No specific designation	*Wall C5*	See *Room B*
No specific designation	*"Wall C6"*	-
No specific designation	*Wall C7*	See *Room B, Room Γ*
No specific designation	*Wall C8*	See *Room Γ, Corridor E*
No specific designation	*"Wall C8a"*	See *Room Γ, Corridor E*
No specific designation	*Wall C9*	See *Room Θ, H, Corridor Δ*
Wall HΛ	*Wall C10*	AE 1909, 74
Wall HΘ or Δσ	*Wall C11*	AE 1909, 73, 85
No specific designation	*Wall C12*	See *Room H, Corridor Δ*
Wall ωAψχ or ψχAω or Aωψχ or ωA or ψχ	*Wall C13*	AE 1909, 72, 84, 85
Wall τρυφ or ρτφυ	*Wall C14*	AE 1909, 72, 84
Wall oΓ' or oΓ or ξΓ' or oξΓ' or ρπ or π'πρρ' or Γπ	*Wall C15*	AE 1909, 66, 67, 71, 73, 77, 85
No specific designation	*Wall C16*	See *Room H, Corridor E*
Wall κo	*Wall C17*	AE 1909, 67
Wall μK or μκ	*Wall C18*	AE 1909, 76; ΠΑΕ 1911, 143
Wall γκλμ or γκμ or γμ or μγ or γδλμ	*Wall C19*	AE 1909, 66, 67, 68, 69, 77, 79
No specific designation	*Wall C20*	See *Room N*
No specific designation	*Wall C21*	See *Room Ξ, Room O*
No specific designation	*Wall C22*	See *Room O*
No specific designation	*Wall C23*	See *Room Ξ, Room O, Room Π*
No specific designation	*Wall C24*	See *Room Π*
No specific designation	*Wall C25*	See *Room Π, Corridor Π1*
No specific designation	*Wall C26*	See *Corridor Π1*
No specific designation	*Wall C27*	See *Corridor Φ*
No specific designation	*Wall C28*	See *Room Π4*
No specific designation	*Wall C29*	See *Corridor Π4a*

[17] The so-called "*Wall B4*" was merely part of *Wall B3*, that was cut along its length by the later *Wall C20*, in such a way that the part under the later wall formed a lower "step" that confused Keramopoullos at first (Keramopoullos 1929, 61; cf. *Table VI*).

No specific designation	*Wall C30*	See *Room Γ, Corridor E, Room N, Room Ξ, Room Π, Corridor Π1*
No specific designation-east wall of *Corridor Φ*	*Wall C31*	ΠΑΕ 1928, 49-50
Wall δε or γγ′ or ΓΔ or δεΓΔ	*Wall C32*	AE 1909, 66, 72, 73
No specific designation	*Wall C33* (between *Walls C28-C29*): ?	ΑΔ 1971, 206-7, fig.7
PHASE D	**PHASE D**	
Wall EZ	*Wall D1*	AE 1909, 65-6; ΠΑΕ 1911, *passim*
Unnamed, traversing *Room Ξ*	*Wall D2*	ΠΑΕ 1911, 145, 147
Unnamed, traversing *Room O*, perpendicular to *Wall D2*	*Wall D3*	ΠΑΕ 1911, 147
Traces: unnamed, associated with *Pit 5*, *Room Π*	*Wall D4*	ΠΑΕ 1927, 37, fig. 3: 9)
II. OTHER WALLS		
Wall α-α in trial trench *TT 2*, 1906 (higher level)	*Wall TT 2 α-α*	AE 1909, 82
Wall β-β in trial trench *TT 2*, 1906 (intermediate level)	*Wall TT 2 β-β*	AE 1909, 82
Walls γ-γ in trial trench *TT 2*, 1906 (lower level, comparable to **PHASE C** walls)	*Walls TT 2 γ-γ*	AE 1909, 82
Wall of mudbrick (?) in trial trench *TT 3*, 1906	*"Wall TT 3"*	AE 1909, 83
"Walls" (one is mudbrick) in trial trench *TT 4*, 1906: they form part of the main building, **PHASE C**, Mycenaean date.	*Walls TT 4*	AE 1909, 83-4
Unnamed wall, found in trial trench *TT 6*, 1922, comparable to **PHASE C** walls, Mycenaean date.	*Wall TT 6a*	ΠΑΕ 1922, 29
Unnamed mudbrick walls[18] in trial trench *TT 6*, 1922, west of *Wall TT6a*. "Later" period.	*Walls TT 6b*	ΠΑΕ 1922, 29
Unnamed wall 8m to the west of *Well*. Mycenaean date.	*West Wall 1*	ΠΑΕ 1912, 85
Walls to the west of the *Kiln*, in relation to *Portico*? Roman date.	*West Walls 2*	ΠΑΕ 1927, 86

Table IIa.
Original designations of walls, their new designations (1998) and references

[18] Their number or alignment is not reported.

Wall designation	Length	Width
C1	3.01	1.35/1.40
C2	2.95(W)/2.40(E)	1.35
C3	2.30(N)/1.60(S)	1.40/1.45
C4	4.60	1.45
C5	3.45	1.15
C6	2.16	0.70
C7	9.45	1.10/1.20
C8	2.70	1.60
C9	3.26	0.75
C10	3.10	0.90
C11	10	1
C12	3.20	0.75
C13	1.10	0.63
C14	1.10	1.15
C15	12	1.05/1.10
C16	1.26	1.05
C17	2.0-3.80	1.10
C18	2.80	1.25
C20	5.95	1.90
C21	2.60	1.30
C22	2.60	0.70
C23	6.70	1.40
C24	3.85	1.45/0.90(N)
C25	8.05	1.10
C26	5.50/6.20	0.75
C27	2.10	0.90
C28	3.37	0.40-1.0
C29	4.70 [N], 2.30 [S]	2.45
C30	21.40	1.60-170

Table IIb
Measurements of Phase C walls

Preliminary designations of rooms (before 1927)	Final designations of rooms (1927, 1930 1985)	Reference(s)
Unnamed	*Room A*	ΠΑΕ 1921, 33; AE 1930, 33.
Unnamed	*Room B*	ΠΑΕ 1921, 33; AE 1930, 33.
Unnamed	*Room Γ*	ΠΑΕ 1921, 33.
Unnamed	*Corridor Δ-E-Z*	ΠΑΕ 1921, 32, 33; AE 1930, 33-4.
Unnamed	*Room H*	ΠΑΕ 1921, 32; ΠΑΕ 1928, 51; AE 1930, 33, 34; Keramopoullos 1930b, 252-3.
Unnamed	*Room Θ*	ΠΑΕ 1921, 32; ΠΑΕ 1927, 40.
Corner ΛΗΘ or ΘΗΛ	*Room I*	AE 1909, 74, 86, 87; ΠΑΕ 1921, 32; ΠΑΕ 1927, 37, 40.
Room ωΑΔΓ (=east part) or υφχψ (=west of *Wall C13*, also a name for *Wall B2* on the same spot) or space πρτσ (=*west of Wall C14*) or corridor ΓΔπσ	*Corridor K*	AE 1909, 72, 73; ΠΑΕ 1911, 143, 144.
Room εδκοΓ′ or εδκοΓ	*Room Λ*	AE 1909, 66, 75, 85.
Room λμΚρ/	*Corridor M* (or *MΦ or ΦM)*	AE 1909, 72; ΠΑΕ 1928, 47; AE 1930, 33, 35.
Room-corridor Φ	*Corridor Φ* (or *MΦ or ΦM)*	ΠΑΕ 1927, 32; AE 1930, 33, 35.
Unnamed	*Room N* Or *"Room of the wall-paintings"* (1929)	ΠΑΕ 1911, 143, 144; ΠΑΕ 1921, 33; ΠΑΕ 1922, 61-63; ΠΑΕ 1927, 32; ΠΑΕ 1929, 61; AE 1930, 33.
Unnamed ("west small room")	*Room Ξ*	ΠΑΕ 1911, 143, 145, 147-8; AE 1930, 35.
Unnamed ("east small room")	*Room O*	ΠΑΕ 1911, 143, 145, 147; AE 1930, 35.
	Room Π or *"Room of the golden deer"*	ΠΑΕ 1927, 33 and *passim*; ΠΑΕ 1928, 45 and *passim*; AE 1930, 33, 35.
	Corridor Π1	ΠΑΕ 1928, 47 and *passim*; Designation by Symeonoglou 1985, fig. 2.9.
	Room Π2	ΠΑΕ 1928, 49; designation by Symeonoglou 1985, fig. 2.9.
	Room Π3	ΠΑΕ 1928, 50, 52; Symeonoglou's designation is "*Π5*" (1985, fig. 2.9.)
	Room Π4 or *"Room of the tripod vessels"*	ΠΑΕ 1928, 50; ΑΔ 1971, 206-7, fig. 7 The former designation by Symeonoglou 1985, fig. 2.9.

Table IIIa.

Preliminary designations of rooms (before 1927), their final designations (Keramopoullos 1927, 1930; Symeonoglou 1985) and references[19]

[19] Keramopoullos (1928, 50) only hints at the *possible* existence of what Symeonoglou has termed *Room Π6*, so its reconstruction should be considered hypothetical and a designation will not be given to it. On the other hand, the designation *Room Π2* fits Symeonoglou's designation of the area to the east of *Room Π*. But the designation *Room Π3* should not be given to the area south of *Room Π2*, as the excavator does not describe or hypothesise the existence of *two* rooms east of *Room Π-Corridor Π1*, but only mentions one clearly (Keramopoullos 1928, 49). Instead, the designation *Room Π3* will be given to the area south of *Corridor Π1*, which Symeonoglou terms *Room Π5*. *Room Π4* fits Symeonoglou's designation of the area to the south of *Wall C28*. The designation *Room Π5* is abandoned.

Room-Corridor	Width	Length	Published measurements
A	>2.20	6.80	? X 7.49
B	2.80	7.55	2.64 X 7.49
Γ	1.90?	6.85	1.50 X 7.49
Δ	1.15	4.0	1.12 X ?
E	1.0	5.45	?
Z	1.15 (W)-1.17 (E)	7.65	?
H	1.25 (W)-1.30 (E)	2.25	0.90 X 1.80
Θ	1.80 (S)-1.75 (N)	3.15 (W)-3.12 (E)	1.80 X 3.08
I	3.80	4.20?	3.50 X ?
K	1.0	2.10?	?
Λ	3.60?	3.90?	3.60 X 3.70
M	1.15	>3.40	?
N	2.80	5.40 (N)-5.65 (S)	2.73-2.84 X 5.34-5.54
Ξ	2.10 (N)- 2.40 (S)	2.68 (E) -2.70 (W)	2.14 X 2.62-2.80
O	2.15 (S)-2.40 (N)	2.60 (E)-2.63 (W)	?
Π	3.75 (W)-3.85 (E)	6.10(N)-6.60 (S)	3.75-3.80 X 6.20 X 6.40
Π1	1.15	7.80-7.95	1.10 X ?

Table IIIb
Dimensions of rooms

Built and rock-cut features (dating to various periods)	Conventional designations (1998)	Reference(s)
Duct, rock-cut, at the basement of Daoutis's house, NE-SW axis. Uncertain date.	*Duct 1*	AE 1909, 71-2
Duct, of clay pipes, in trial trench *TT1*, axis unreported. Roman.	*Duct 2*	AE 1909, 81
Rock-cut well, partly destroying *Kiln*. Probably Roman (partly Mycenaean: Keramopoullos).	*Well*	ΠΑΕ 1911, 148, 149; ΠΑΕ 1912, 85
System of clay ducts at the *Court*. Related to *Ducts 6-7*. Of "later chronology", but one may of be Mycenaean.	*Ducts 3*	ΠΑΕ 1911, 143
Row of five column (?) bases. Related to *West Walls 2*? Roman?	*Portico*	ΠΑΕ 1912, 86
Well-constructed floor, partly underneath Stratis' house. Roman?	*Roman floor*	ΠΑΕ 1912, 86
Caldarium, south of *Room Π*. Turkish period.	*Turkish bath*	ΠΑΕ 1928, 45-6, 49
Duct of clay pipes, in *Room Π* (upper strata), on a N-S axis. Medieval.	*Duct 4*	ΠΑΕ 1927, 33-4
Duct of clay pipes with clay water-tank, in *Room Π* (upper strata), on a W-E axis. Medieval.	*Duct 5*	ΠΑΕ 1927, 33-34
Duct in *Room Π* (disturbing Mycenaean strata), on a N-S axis ("western one"). Related to *Ducts 3*. Early Christian.	*Duct 6*	ΠΑΕ 1927, 34
Duct in *Room Π* (disturbing Mycenaean strata), on a N-S axis ("middle one"). Related to *Ducts 3*. Early Christian. NOTE: its existence in *Room Ξ* only was later denied (see *Table VI*).	*Duct 7*	ΠΑΕ 1927, 34 (revised view: ΠΑΕ 1929, 61)
Duct in *Room Π* (disturbing Mycenaean strata), on a N-S axis ("eastern one"). Related to *Ducts 3*. Early Christian.	*Duct 8*	ΠΑΕ 1927, 34, 39
Pottery kiln, next to the main building's west wall. Mycenaean.	*Kiln*	ΠΑΕ 1911, 148-149; ΠΑΕ 1921, 33; ΠΑΕ 1922, 29, 30

Table IV.
Catalogue of built and rock-cut features dating to various periods, their conventional designation (1998) and references

Granaries, pits and bothroi (dating to various periods)	Conventional designations (1998)	Reference(s)
Burial (?) pit under the floor of *room N*. "Pre-Mycenaean date".	*Pit 1*	ΠΑΕ 1911, 144
Pit under *Wall D3* (contemporary with it). Medieval-Byzantine?	*Pit 2*	ΠΑΕ 1911, 147
Built storage pit, possibly a granary, upon the west part of *Corridor E-Z* ("large granary"). Dating to a "later period".	*Granary 1*	ΠΑΕ 1921, 33
Built storage pit, possibly a granary, close to *Granary 1* ("small granary"). Dating to a "later period".	*Granary 2*	ΠΑΕ 1922, 30
Bothros-pit ("*απόπατος*") built upon the northwest part of *Corridor E-Z* (the "shallow one"). Turkish period.	*Pit 3*	ΠΑΕ 1921, 33; ΠΑΕ 1922, 30
Bothros-pit to the west of *Pit 3* (the "deep one"). Turkish period.	*Pit 4*	ΠΑΕ 1922, 31
Foundation pit opened by Logothetis' fence in the strata of *Room Π*. Modern.	*Pit 5*	ΠΑΕ 1927, 35, fig. 3
Storage-pit, possibly a granary, under the *Turkish bath*. Early (?) Christian.	*Granary 3*	ΠΑΕ 1928, 46-7, 49
Intrusion near the main building's west wall (*Court*). Medieval.	*Pit 6*	ΠΑΕ 1911, 148
Small hole in the floor of *Room Π*, depth: 0.25 m, diam. 0.10 m. Possibly accidental or associated with timber frames.	*Pit 7*	ΠΑΕ 1927, 44
Pit with white clay inside, associated with the *kiln*.	*Pit 8*	ΠΑΕ 1911, 149

Table V.
Catalogue of granaries, pits and bothroi dating to various periods, their conventional designations (1998) and references

Original view	Revised view	Reference(s)
The excavated remains belong to an ancient pottery kiln.	The remains belong to a burnt palace.	R/ AE 1909, 61-3.
Carbonised stratum underneath the fresco layer in *Room N*.	No such stratum exists.	O/ AE 1909, 88; R/ ΠΑΕ 1911, 144-5.
The building was multi-storeyed.	The building had only one storey.	O/ AE 1909, 88; R/ ΠΑΕ 1911, 145; ΠΑΕ 1927, 42.
The *Room of the Golden Deer* (*Room Π*) is the southernmost edge of the building.	The building continues to the south.	O/ ΠΑΕ 1927, 33; R/ ΠΑΕ 1928, 45.
Wall B3 is drawn with a double line	It should be drawn with a single one.	O/ AE 1909, 68; R/ ΠΑΕ 1929, 61
In *Room Ξ*, between *Duct* 6 and 7 there is another duct, probably of Early Christian date.	This feature is not a duct but a natural curve of the bedrock in *Room Ξ*. *Duct 7* exists in *Room* Π.	O/ ΠΑΕ 1927, 33 fig.1; R/ ΠΑΕ 1929, 61; AE 1930, 31 fig.1.
The wooden frames of the walls featured vertical beams.	The beams were horizontal instead of vertical.	O/ ΠΑΕ 1927, 38, fig. 5; R/ AE 1930, 30.
The fallen plasters in *Room N* are lay on walls.	Some layers at least are from the floor	O/AE 1909, 88-9 R/ ΠΑΕ 1911, 144
The east boundaries of *Room Λ* and "*Corridor K*" have been found (*Walls C31, C32*)	The walls do not appear to exist	O/1909 plan, AE 1909, 66, 72, 73 R/1927, 1930 plans

Table VI.
Keramopoullos' errors, his revised views and references

Trial trench	Dimens.	Orient. (long.)	Position	Year	Reference(s)
TT 1	8 X 1-2 m 4-5.40m depth	E-W	N of Old Primary School, 42-50 m. from Pindaros street	1906	AE 1909, 80-82
TT 2	2.20 X 1.10 m approx. 3.05m depth	E-W	W of south butchers´ shops, 33 m from Pindaros street	1906	AE 1909, 82-83
TT 3	Narrow shaft Dim/depth unknown	-	Second north butchers´ shop, 19 metres from Pindaros street	1906	AE 1909, 83
TT 4	2 X 2 m 1 m at least depth	-	Second south butchers´ shop, 17 metres from Pindaros street: area of *Room Π*, probably *kiln*.	1906	AE 1909, 83-84
TT 5	Shaft: dim. Unknown 1 m depth	-	Easternmost south butchers´ shop. Area of *Room Π*, possibly *Wall C23*	1906	AE 1909, 84
TT 6	22.50 X 2.50 m 5+ m depth	E-W	Possibly along the south side of Old Primary School, from its east façade up to Epameinondas street.	1922	ΠΑΕ 1922, 28-30
TT 7	3 X 1 m. 5 m depth	E-W	Along the south façade of *Wall C28*, *Room Π4*	1928	ΠΑΕ 1928, 50
TT 8	1 X 1.65 m. 5 m depth	N-S	N-S, at right angles to *TT 7*, *Room Π4*	1928	ΠΑΕ 1928, 50

Table VII
Trial trenches by Keramopoullos, 1906-1928, and references

PART III

A re-examination of the surviving plan of the "House of Kadmos"

III.1. Introduction

The attempt to re-examine the architectural plan of the "House of Kadmos" is fraught with difficulties: the building has suffered various destructions and in many places it has been completely razed. Some parts still remain concealed under other historically important structures, such as the *Frankish palace*. Crucial information concerning the upper surfaces of the surviving walls, their precise contours, dimensions and articulation escapes us, because of a fused superstructure layer that covers some parts of the walls. Moreover, only two internal door-openings have been identified, and the entrance to the building was never revealed. We do not even know whether the building was a free-standing structure or part of a larger architectural complex. Important structures in the neighbourhood of the "House of Kadmos", that may have been related to it, are unpublished.

III.2. The preservation of the plan and factors affecting it

The excavations have revealed the remains of a sizeable building, oriented on a northeast-southwest axis. The final plan published in the 1930 volume of *Ἀρχαιολογική Ἐφημερίς* (*fig. XX*) demonstrates that the layout cannot possibly be complete. While the southwestern part of the building is in a fairly good condition, all other ends of the structure are badly preserved or have completely vanished. Understanding the variety of the factors that affected the plan in the course of time is essential, before proceeding to the analysis of the remaining parts of the building.

III.2.1. The fire

The building was destroyed by conflagration, that turned limestone into lime[1] (*pl. 13*). Mudbricks and clay mortar were transformed into terracotta (*pls. 39, 40, 47, 55*; Keramopoullos 1909, 69). The timber frames of the walls were burnt, and as a result the walls were further deformed (*pls. 10, 23, 48*) and collapsed easily (Keramopoullos 1909, 68, 76-8; Keramopoullos 1930a, 30). The fallen material must have buried some ground floor openings (Keramopoullos 1909, 76, fig. 8; Keramopoullos 1928, 48-9) and it narrowed some spaces of the building (*Plan, Corridor E*; Keramopoullos 1930a, 31). The intense fire, fed by the presumably great amount of timber used to construct the building's superstructure and upper floor, resulted in the collapse of various materials; these formed a compact, hardened layer that consists mainly of lime, burnt clay and burnt brick, glued to the upper surface of the stone socles and the interior of the rooms (*pls. 1-3, 10-11, 13*; Keramopoullos 1909, 66, 69). This layer often protected the covered parts from later inhabitants of the site (Keramopoullos 1909, 65; Keramopoullos 1911, 145; Keramopoullos 1928, 47), but not always.[2]

III.2.2. The natural slopes of the ground

The bedrock inclinations in the "second hill" area, that have been examined in *I.4* (see also *Sections a-a', b-b',c-c', d-d', Graphs Ia-b, II*), have caused the partial destruction of Mycenaean strata in some rooms (Keramopoullos 1909, 72, 74). They speeded up the collapse of walls (Keramopoullos 1909, 72) and possibly resulted in the subsidence of the plastered floor of *Room N* (Keramopoullos 1911, 144). In some instances these inclinations caused superimposing strata to slip downslope, which left the Mycenaean levels unprotected against later building activity (Keramopoullos 1909, 69, 72, 74). On the other hand, the Mycenaean remains were more exposed to later inhabitants of the site where the natural bedrock

[1] Keramopoullos was misled because of this, before his excavations had begun, and thought that the extracted stones belonged to a lime kiln (ασβεστοκάμινος) (Keramopoullos 1909, 60).
[2] *Wall D1*, for instance, penetrated this protective "crust" and used, along with new material, the burnt *Phase C* stones.

was higher, because they were closer to the surface[3] (Keramopoullos 1922, 31; cf. Shear 1987, 2).

III.2.3. Later building activity

Later building activity (*Plan, Walls D1-D4*) was responsible for the extraction of stones from the Mycenaean walls, for secondary use (Keramopoullos 1909, 65, 72; Keramopoullos 1911, 147; Keramopoullos 1928, 49). This activity either disturbed the rooms' stratification (Keramopoullos 1909, 73) or reached bedrock (Keramopoullos 1928, 45, 52). Only rarely did later structures preserve the Mycenaean walls and floors intact beneath them (Keramopoullos 1911, 145, 147). Finally, various penetrations such as granaries, pits, bothroi or ducts, have ruined parts of the walls (Keramopoullos 1911, 147; Keramopoullos 1921, 33; Keramopoullos 1922, 30; Keramopoullos 1928, 46-7, 49). These damages date mostly from Roman to Turkish occupation periods. Classical and "Macedonian" sherds were found scattered in the excavated area (Keramopoullos 1909, 81, 120; Keramopoullos 1911, 147, 148, 150; Keramopoullos 1912, 86; Keramopoullos 1921, 29-31; Keramopoullos 1928, 51).

III.2.4. Modern building activity, pre-excavation diggings and vegetation

Modern building activity, various diggings and vegetation also harmed the site. Apart from the streets that cut through the building (Keramopoullos 1921, 34), we should consider the works that ruined parts of walls and Mycenaean strata, and triggered the excavator's interest in the first place (Keramopoullos 1909, 59-60, 66, 72). While the substructure of the unnamed, earthen road in the old market (*figs. XV, XVII*) was probably thin enough to have preserved the building beneath it, the construction of houses in the area destroyed everything wherever their basements were dug deep into bedrock (*Sections c-c', d-d'*; Keramopoullos 1909, 71, 111). In Pavlogiannopoulos' plot (*fig. XVIIb*), the natural bedrock was dynamited at

[3] That is to say, that the lower parts of the hill accumulated soil and debris more easily, because of the inclination of the ground and gravity, whereas the higher parts of the hill were covered by thinner soil accumulations.

least two decades before any archaeological exploration took place at the site (T. Pavlogiannopoulou, pers.com., April 1998).[4]

Some other areas were disturbed or partly damaged (Keramopoullos 1909, 71, 121; Keramopoullos 1928, 50). In rare cases parts of the building remained intact, sealed underneath modern edifices with shallow foundations (Keramopoullos 1909, 74; Keramopoullos 1928, 50). In addition, walls were intentionally built over and damaged the excavated remains, such as Daoutis' boundary walls (*pls. 16-18; II.2.6*, footnote 13; Keramopoullos 1909, 64; footnote 5, 84; Keramopoullos 1928, 49). The effect of vegetation should not be omitted; although Keramopoullos mentions only once in his reports (Keramopoullos 1909, 68) that tree roots had penetrated the building, more trees existed in the old market area (*fig. XV*), which may have harmed some parts of the structures beneath.

III.2.5. The excavations

During the excavations other destructions or obliterations of the plan occurred accidentally or intentionally. Some mudbrick walls were harmed by accident (Keramopoullos 1909, 83), or in order to extract brick samples (Keramopoullos 1909, 83). An attempt to collect fragments of wall-paintings under the plaster floor of *Room N* destroyed part of it (Keramopoullos 1911, 145), while the remaining part was completely removed later (Keramopoullos 1929, 60). *Wall C24* was damaged through the inexperience of certain workmen (*pl. 18*; Keramopoullos 1927, 36).

Furthermore, the humidity during the nights following the excavations softened the burnt stones and made them more fragile (Keramopoullos 1909, 69). Finally, certain excavated areas were buried to give access to the market area or for safety reasons (Keramopoullos 1909, 72, 74, 75, 84), though some were uncovered again at a later point (Keramopoullos 1911, 143).

[4] Whether pithoi were found there, as Keramopoullos' informants claimed (Keramopoullos 1909, 111), is therefore extremely doubtful.

III.2.6. Further problems regarding the integrity of the preserved plan

Attention must be drawn to the fact that other structures have been revealed in and around the area of the old market (*figs. XVIIa-c*). Suffice it here to mention the excavated remains at Liakopoulou-Kyrtsi plot to the north (Faraklas 1968, 241-3; *fig. XXV*), those at the intersection of Pindaros and Vourdoumba-Proitos streets to the northeast (Symeonoglou 1985, 293), at Basiakos plot to the east (Platon & Touloupa 1964, 859; Symeonoglou 1985, 307; *fig. XII*), at Pindaros street to the east and southeast (Keramopoullos 1909, 111; Symeonoglou 1967, 226; Symeonoglou 1985, 268), possibly at Daoutis' plot to the southeast (Keramopoullos 1909, 71-2), at Papastamelos' and Liokis' plots (Spyropoulos 1971b, 206-7; *fig. XXVI*), at sector A (Platon & Touloupa 1965, 230; Faraklas 1966, 179-180), sector B (Platon & Touloupa 1965, 230), sector Γ (Platon & Touloupa 1964, 195) of the archaeological area (*figs. XXII,XXIII, XXIV*), at Antoniou plot to the southeast (Platon & Touloupa 1964, fig. 3; *fig. XXVII*) and finally at Stauris' plot to the south (Spyropoulos 1970, 214-7). Unfortunately, the remains of the "House of Kadmos" cannot be viewed in the context of surrounding structures, because of the restricted size of this thesis.

III.3. Description of the surviving plan

The analysis of the plan will not focus on the formal characteristics of rooms and corridors, but on the structural grid that defines them. This is because our scope is not a detailed analysis of the spatial articulation of the building, a task which is meaningless without a discussion of the rooms' contents, stratification and function, but a preliminary re-examination of data used for recent restorations of the plan (*fig. XXI*). The distinction between "main" and "secondary" walls does not imply the precise order in which the various walls were laid out, but their structural significance. The plans used for the description of the layout are: (a) the 1998 plan, which is based on the results of the 1998 clean-up operation (*Plan*), and (b) the 1930 plan, which was published by the excavator (*fig.XX*). The 1909 (*fig. XIX*), 1927 and 1985 (*fig. XVIII*) plans are used for supplementary readings.

III.3.1. The main north-south axis: *Wall C30*

Wall C30 was first revealed in 1911, when *Rooms Ξ-O* came to light and *Room N* was investigated in more detail. It was considered from the start as the west boundary of the building, at least in that particular area (Keramopoullos 1911, 143). The wall runs northeast-southwest. Its width is massive even today, reaching 1.70 m. Because the clean-up operation did not proceed west of the wall, its west façade was not properly revealed. Thus, we presume that its original width may have been somewhat greater, perhaps around 1.80 m.

Its preserved length is 21.40 m. While *Wall C30* separates the various rooms and corridors from the supposed *court*, from *Corridor E* down to *Room Π*, it does not survive west of the alleged "*Room Γ*" and *Corridor Π1*. (*pl. 34*). To the north it vanishes about 0.40 north of *Wall C8*, while to the south it disappears near the corner of an early modern structure (*Plan, fig. 31*). Various later penetrations have destroyed *Wall C30* in places, such as *Granary 1*, *Pit 4* and *Ducts 6-8*.

The northward extension of the wall was implied by Keramopoullos, who proposed the existence of "*Room Γ*" immediately to its east (Keramopoullos 1921, 33; Keramopoullos 1922, 30; *fig. XX*). No trace of this extension survives, with the exception of one stone on the axis of *Wall C30* shown in the 1930 plan. The view that the wall was completely razed because of later disturbance and the rising bedrock, on which it was founded, is acceptable (Keramopoullos 1921, 33; Keramopoullos 1922, 30-1). In April 1998 it was observed that only bedrock survives there. The northwest part of the area is occupied partly by a modern retaining wall.

Symeonoglou's reconstruction of a columned porch[5] at "*Room Γ*" presupposes the northward extension of *Wall C30*: the shape of the "column base" (*IV.2.1.3.*; *figs.XXI, XXX*) attributed to the "porch" makes it more likely that it was embedded in stone foundations and that only the flattened rise projected above floor level.

The southward extension of *Wall C30* at *Corridor Π1* is plausible. Yet Symeonoglou suggests that the corridor was open to the *court*

[5] Symeonoglou's claim that Keramopoullos "referred to a doorway from the west courtyard" (Symeonoglou 1985, 216), seems to be incorrect. In the reference given (Keramopoullos 1922, 30) Keramopoullos is not referring to a door connecting "*Room Γ*" with the "courtyard", but to the "doorway" that supposedly lay between *Rooms A-B*.

(Symeonoglou 1985, 222; *fig. XXI*); Keramopoullos also implied an opening there, by proposing that the corridor received day-light through *Wall C30* (Keramopoullos 1928, 47). But we noticed that a layer of pulverised red clay mortar marked the western end of the corridor. The clay matrix lies on top of a bedrock rise that was incorporated in *Wall's C30* foundation at *Rooms Ξ* and *Π*. No masonry survives there, since it was destroyed by the early modern wall to its west.[6]

At this point it should be noted that the 1930 plan depicts *Wall C30* continuing to the south, which is incorrect, since the southernmost end of the wall hardly reaches the point where the south façade of *Wall C25* is situated. In all, if *Wall C30* extended in both directions it would have been about 9 m. longer, i.e. 30.40 m. Extending it further to the south would be highly speculative, since the wall's axis runs beneath the *Frankish palace* to the southwest.

Towards the north part of the building the wall is founded on an artificial shelf cut into the rising bedrock. To the south, the foundations rest on hardpan, following its natural slope. Occasionally, roughly dressed bedrock projections are embedded in the foundations (*pl. 19*). The west side of the wall's socle is backed by a higher level of bedrock.

We feel that *Wall C30* was built before all other walls of the existing plan and functioned as the "back-bone" of the building. Built on and against stereo on sturdy foundations, it retained the so-called *court* area to the west, regardless of the latter's function. Its width and massive socle construction, that features sizeable, hammered blocks, few wends and a relatively small amount of clay mortar, indicate its retaining character. The wall must also have provided the masons with a basic ("reference") axis, against which all cross- walls or main west-east axes (see *III.3.2.*) were built. Apparently, it supported the building's elevation as well along its west side. The eastward and southward inclination of the ground, in conjunction with *Wall's C30* position and function, hint at the general direction of the builders' work, i.e. from north to south (*Wall C30*), and from west to east.

[6] The latter is only shown in the 1966 city plan (Chatzidouros & Panagakis 1966, revised by Marangos & Spathis 1977) and includes stones that bear tool traces similar to those found on Mycenaean foundation stones.

III.3.2. Main west-east axes

The following categorisation between walls, whose axes run more or less at right angles to *Wall C30*, is conventional and imposed by the degree of certainty that characterises their relationship with the "back-bone" of the building. The first category is comprised of walls that clearly abut and presuppose *Wall C30*, while the second consists of walls that share the same orientation with these, but whose preservation or position in the architectural grid does not clearly reveal the aforementioned relationship.

III.3.2.1. *Walls C15, C23, C25, C26*

The east part of *Wall C15* was revealed in 1906, while the remaining portion up to *Wall C30* came to light in 1911. It is directed northwest-southeast. Its width is 1.05-1.10 m., though certain parts of the wall are deformed. The wall runs unbroken for 12 m. down the east slope of the hill, defining the north side of *Room N*, "*Corridor M*" *and Room Λ*. It vanishes some 2.80 m. east of the northwest corner of *Room Λ*.

At "*Corridor M*" only the lowest foundation course survives, which conveys the impression that a threshold built of clay mortar, medium and small sized stones existed there (*pl. 29*). Yet, it should be remembered that the later *Wall D1* crossed *Wall C15* at this area and extracted its building material (Keramopoullos 1909, 65). It is not immediately noticeable that the north wall of *Room N* continues to the east and forms, together with the north wall of *Room Λ*, a single wall. The latter conclusion is based on the fact that the north and south façades of the wall are uniform throughout its surviving length. The direction of the large stones along its facades in *Rooms N-Λ* also indicates that *Wall C15* was built on a single axis (see *Plan*).

Room Λ was harmed by the diggings that attracted Keramopoullos' attention in 1906. This must have damaged the east part of *Wall C15* (Keramopoullos 1909, 66). In April 1998 it was realised that its easternmost end survives as in 1906 (*fig. XIX*). If *Wall C15* extended to the point where, according to the 1909 plan (*fig. XIX*) it met "*Wall C32*", it would have measured about 12.80-13 m. in length.

Wall C15 abuts *Wall C30*, running at right angles to it, and suggests that the latter was built first (*fig. 30*). Its foundations follow the east slope of the hill. The west part of the wall's foundation incorporates the bedrock shelf,

which is visible at *Corridor E* and *Room N* (*pl. 28*). To the east, the foundations go deeper and always rest on bedrock; the stones of the earlier *Wall A* were removed for this purpose.

Wall C15 is the longest preserved west-east axis and the second longest wall in the building, after *Wall C30*. Its length, that spans the surviving width of the plan, and thickness indicate that this is one of the main west-east axes of the "House of Kadmos", built shortly after *Wall C30*. It functioned as the south border of cluster *Δ-E-Z-H-Θ-I-K* and the north boundary of *Rooms N, Λ* and *Corridor M*. At the same time, it was probably intended to cope with west-east directed forces, generated by weight pressures on the west façade of *Wall C30* and the eastward slope. Its great length, together with its thickness, provided a solid, continuous support across the preserved part of the building for a possible upper storey wall, the roof or both. *Wall C15* may not have centrally located in the original plan, but its position is central between cluster *Δ-E-Z-H-Θ-I-K* and the "south sector" of the plan (i.e. area extending south of *Wall C15*).

Wall C23 was probably unearthed during the 1927 campaign, when its wall-frames were examined (Keramopoullos 1927, 36 ff). It runs on a northwest-southeast axis, 7.50 m. south of *Wall C15*. Today its width reaches 1.40 m., but prior to its deformation it must have been about 0.10 m. thinner. 6.70 m. of its length survive. To the east, it is covered by a fused and deformed lump of building materials.

At *Room Ξ*, the wall has been destroyed down to the lowest foundation course by the later *Ducts 7-8*, like *Wall C15* at "*Corridor M*". The east part of the wall, together with the επίπαγος that tops it, has been embedded in Daoutis' boundary wall. We were unable to investigate the area east of this wall, to see whether *Wall C23* proceeds beyond what Keramopoullos described as *Corridor Φ*, as trees have grown in the space between the boundary wall and Daoutis' house. The roots and trunks of these trees have penetrated the wall and sadly, have destroyed it considerably. It seems that in Keramopoullos' time, and prior to the erection of this illegal boundary wall, *Corridor Φ* and the east end of *Wall C23* was visible (*fig. XX*). According to the 1930 plan, *Wall C23* terminated there.

Wall C23 abuts *Wall C30* at right angles and runs parallel to *Wall C15*. Like *Wall C15*, it follows the natural eastward slope of the hardpan, its west part using the "bedrock shelf" as a foundation footing. The foundations

go deeper as they proceed to the east, but they are deeper than those of *Wall C15* also, due to the southward slope of the hill.

It is obvious that the function of this wall, in relation to *Wall C30*, is similar to that of *Wall C15*. That is to say, it supports the "back-bone" of the building at a more southern point and contributes to the general stability of the structure. Also, it breaks the "south sector" of the plan into two clusters, *N, Ξ, O* and *Π*. But if it terminated at *Corridor Φ*, its role as a superstructure support would have been limited to the area west of the corridor and its continuation to the east, if any, would have been a separate wall. The possible absence of a massive wall across *Corridor Φ* implies that the corridor was functional at ground floor level, even though no certain thresholds connecting it with the west rooms have been revealed.[7] However, *Wall C15* in *Corridor M* and the destroyed "*Wall C19*" in the 1909 plan (*fig. XIX*) between *Φ* and *M* would seem to obstruct circulation at ground floor level, unless they represent thresholds.

The absence of dividing walls in *Corridor Φ* could also be explained by the high concentration of north-south and east-west walls in *Rooms N, Ξ, O, Π*. If the area east of *Corridor Φ* mirrored the wall arrangement to the west, the ground floor plan on either side of the corridor could have supported a heavy superstructure with or without dividing walls at the corridor; besides, the latter's width according to the 1930 plan (c. 1 m.) could have been easily spanned without internal supports.

Wall C25 came to light partly in 1927. The rest was excavated in 1928 (*pl. 23*). Before *Wall C26* was revealed (1928), *Wall C25* was supposed to be the southern boundary of the building, an exterior wall (Keramopoullos 1927, 33, 37-8). It lies parallel to *Walls C15* and *C23*, at a distance of 3.75 m. from the latter. It has the same width as *Wall C15*, 1.10 m., and is probably preserved at full length (8.05 m.), as it does not proceed east of *Corridor Φ*. However its end is deformed and, in places, dilapidated. It does not present a "façade", which would prove that the wall terminated at *Corridor Φ*. A deposit of broken modern bricks, used to rebuild the north and west facades of Daoutis' house,[8] fills the area between *Walls C24-C25* and the house.

Near *Wall C30, Wall C25* is not preserved very well, because of the later *Duct 6*, that ran from *Corridor Π1* to *Room Π* across it. Only a few small

[7] Only one possible threshold came to light, on *Wall C24* (see *IV.3.1.4.B*).
[8] Possibly, this refurbishment took place much later, when Daoutis's house became a museum storeroom.

stones are still in place, embedded in red clay mortar on top of a bedrock rise. Moreover, the corner of an early modern wall near it (see *Plan, pl. 31*) may be relevant to this damage. A pile of collapsed stones fills the southwest corner of *Room Π* and apparently belongs to the west end of *Wall C25*. Further to the east the wall was penetrated by *Ducts 4, 7, 8* and possibly by the south extension of *Wall D4* as well.[9] The wall survives at almost full height at ground floor level where it is not destroyed.

Wall C25 abuts *Wall C30*. Both walls mount the same bedrock rise, that has been roughly dressed, possibly by hammering. The west part of *Wall C25* embeds these projections both in the foundation and the socle. Towards the east, the lowest foundation course lies deeper than the contemporary surface of the room.

Wall C25 is very similar to *Wall C23* as far as shape, position and function is concerned. It is one of the main west-east axes-supports, that are situated at regular intervals along the east façade of *Wall C30*. Together with *Wall C23* it frames *Room Π* and provides the north wall of *Corridor Π1*. It is less wide than *Wall C23*, but is still broad enough to be regarded as one of the main supports in this area, equivalent to the ones already discussed. Its smaller width does not imply that the superstructure was lighter in this area. That it is closely accompanied by *Wall C26* may in fact point to the opposite.

Wall C26 was unearthed in 1928 and overturned Keramopoullos' earlier identification of *Wall C25* as the southernmost wall of the building. It is mentioned in the excavation report (Keramopoullos 1928, 47), but does not appear in any of the old plans (*fig. XX*). It is not included it the 1985 plan either (*fig. XVIII*). However, the wall was visible before the 1998 cleaning operation. It runs northwest-southeast, parallel to *Wall C25*, at a distance of 1-1.10 m. from it approximately. It survives in three aligned parts, whose continuity is interrupted by the two projecting corners of the indented north wall of the *Turkish bath*[10] (*pl. 24*).

The latter's exact north-south orientation and the offsets of its north wall, that retreat gradually to the south as one proceeds from west to east,

[9] The position of the wall in the 1998 plan is approximate.

[10] In the 1930 plan the *Turkish bath* is drawn too close to *Wall C25*, while the orientation of the former is presented as slightly northeast-southwest, instead of north-south. The 1985 plan shows both orientations. If these elements of the drawing were correct, most of *Corridor Π1* would be covered by the later structure; the latter's northeast corner would lie at a distance of only 0.10 m. (instead of 0.65 m.) from the southeast end of *Wall C25*. *Wall C26* would be totally covered by the *Turkish bath* and completely invisible. These errors probably explain why *Wall C26* is absent from the old plans.

have resulted in the "stepped" preservation of *Wall C26* (Keramopoullos 1928, 46). Some of *Wall's C26* building material was extracted for second use in the *Turkish bath* and most of the area that lies to its south has been destroyed by it, as its foundations reach natural bedrock (Keramopoullos 1928, 45-6). Further damage was caused by *Ducts 6-7*, that crossed "*Corridor ΠΙ*" (Keramopoullos 1928, 47).

The socle of *Wall C26* and the fused material of its superstructure have been incorporated in the foundation of the north wall of the *Turkish bath*; the burnt debris projects in irregular lumps to the north, especially at the central and east preserved parts of *Wall C26*. The impression that it survives in adequate width at these parts is conveyed because of this, but only a narrow strip of the actual stone socle exists at best (Keramopoullos 1928, 47). *Wall C26* reaches 0.75 m. in maximum preserved width. Judging from *Walls C15, C23* and *C25*, it was probably about 1.10-1.35 m. wide.

Its surviving length is 5.50 m., but neither the west or the east end of the wall exists today. The west end vanishes before it meets the early modern wall to the west of the *Turkish bath*. Therefore, *Wall's C26* exact extent in that direction and its relationship with *Wall C30* must remain a matter of speculation, though it seems plausible that it abutted it like the other walls of its kind. The east end of *Wall C26* has been completely destroyed by the *Turkish bath* and *Granary 3*. Supposing that the wall terminated at *Corridor Φ*, it would have been around 8 m. long.

III.3.2.2. *Walls C5, C4, C8-C8a, C20, C19, C28, C29*

Wall C5 came to light only partly in the original excavations, possibly in 1922. The 1927 and 1930 plans indicate that it was not revealed beyond the hatched curved line, which most probably represents an unexcavated area (*fig.XX*). The wall runs northwest-southeast and seems to be parallel to *Wall C15*. Its preserved width reaches a maximum of 1.15 m. Since bedrock rises to its north and only few traces of the building survive beyond the remains of this wall, it is impossible to speculate on its original width. It may have been wider than today, as its north side consists of small-sized stones embedded in clay, that would be more easily attributed to the wall's rubble fill than to its façade (*pls. 7, 9*).

Its preserved length, on the other hand, is 3.45 m. Its east end has been destroyed, but is preserved fairly well until the point where it is abutted by *Wall C1* (*pl. 7*). It is possible that it continued further to the east, forming the northern boundary of *Room A*; this notion is supported by the fact that the wall slightly extends beyond the east façade of *Wall C1* (see *Plan*). But when Pindaros street was constructed the building was razed here. The west part of *Wall C5* is completely destroyed in the direction of *Wall C7*. This is obvious both in the 1998 and 1930 plans, while the 1985 plans (*fig. XXI*) show that *Wall C5* actually survives to meet *Wall C7* (*pl. 7*). No trace of burnt debris exists on the wall; apparently this is because the socle, founded on the rising northern area of the slope, was damaged by later inhabitants of the area and survived at too low a height.

That *Wall C5* functions as the north boundary of *Room B* is obvious. But it is unclear whether it was the north boundary of the building in general. Although Keramopoullos was discouraged by the extensive damage to the northern part of the building (Keramopoullos 1922, 31), he did not claim that the wall marked the original north end of the "House of Kadmos". On the contrary, he believed that the plan continued both to the east and to the north, in the area of Pavlogiannopoulos' house, although he expressed his doubts as to its actual extent to the north (Keramopoullos 1909, 111).

Although restoring *Wall C5* to meet *C7* is plausible, the reconstruction of 4 additional m. to the west, to provide the north wall of a megaron's porch, is clearly hypothetical. On the other hand, the orientation and width of the wall, which is comparable to *Wall's C15* even at its present state, would seem to suggest that its role was similar to the one that the "main west-east axes" held. Only if we accept the northward restoration of *Wall C30*, does the westward reconstruction of *Wall C5* make sense.

Wall C4 was revealed in 1921, when the excavation proceeded from *Rooms Θ-H* to *Rooms A-Γ*. It is directed northwest-southeast and lies parallel the main west-east axes. It is immediately noticeable in the plan that the wall is much wider than *Walls C15, C23, C25* however. Indeed, its width reaches 1.45 m., which is probably close to the original figure, as the socle is in good condition.

Its length is debatable, because its relationship to the south part of *Wall C7* is rather obscure. It seems that clay mortar lies between the walls at foundation level, but some medium-sized stones in the second and third

course project from the east façade of *Wall C7* in *Wall C4*, so that it would be logical to suggest that the walls do not abut each other but are bonded (*pl. 37*). Yet, the direction and placement of the larger stones of both walls indicates that they were built on two distinct axes (see *Plan*). It may therefore be proposed that the walls abut each other only at the lowest foundation course, but as they were erected at a higher level they joined.

Another obstacle for defining the precise length of *Wall C4* is the uncertain relationship between *Walls C8-C8a* and *C4-C7*. Did *Wall C4* proceed west to meet *Wall C30*, or did it terminate at the southeast part of *Wall C7*? We cannot be conclusive on this, since *Pit 3* has destroyed the space between them that would reveal how the walls were related to each other. At any rate, *Wall C4* terminates at the northwest corner of *Room I*, where some of its stones have slipped to the east (*pl. 14*). The length of the wall between the latter point and *Wall C7* is 4.60 m.

Wall C4 survives at socle level towards the east and at foundation level at *Room B*. It has preserved a flat krepidoma for the fitting of timber frames (see *IV.3.1.1.*); the western part of this euthynteria has been seen as a built threshold of an opening connecting *Corridors Δ-E-Z* and *Room B* (*pls. 35, 36*). The largest stone there has a relatively flat upper surface, but is irregularly-shaped otherwise; if the area was a passage at ground floor level, it would have supported a wooden threshold that was connected with the wall framework (see *IV.3.1.4.B*). Much of the central and eastern part of the *Wall C4* is covered by fused building materials, belonging the the wall's elevation. The debris is compact but rather deformed. Luckily, no significant later disturbances have occurred in the area.

The foundations of the wall are built of rather small stones packed in much clay, that support larger stones at foundation level and the large slabs of the socle's krepidoma. Because of the eastward slope of the ground (*Section a-a'*), the lower courses towards *Wall C7* are at a higher level than the ones at the east part of the wall. The interior of *Room B* has not been cleaned down to bedrock however, and the lowest foundation courses may be in fact deeper than 201.57 m.

The construction and width of *Wall C4* suggest that it functioned as a major superstructure support. It defined cluster *A-B-"Γ"* from the south, separating it structurally from cluster *Δ-E-Z-H-Θ-I-K*, while at the same time it probably offered the means to connect areas *B* and *Δ*, either at ground or

upper floor level.[11] Its orientation and position in the plan indicate that its role did not differ from that of the main west-east axes, but some points that make this proposition problematic are the following: a) *Wall C4* does not reach *Wall C30*, b) if *Wall C8* is the surviving west end of *Wall C4* (see *Wall C8-8a*), it is not obvious that it abuts *Wall C30* because of the bad preservation of both walls in that area, c) similarly, the relationship between *Walls C8-C7* is uncertain because of *Pit 3*.

Wall(s) C8-8a lies between *Walls C7-C30* and was revealed in 1921.It is discernible in the 1930 plan (*fig. XX*), where at a first glance it joins the southwest part of *Wall C7*. Due to the bad preservation of the area, it is difficult to decide whether this is a single wall running northeast-southwest or two walls running side by side on a northwest-southeast axis. Some of the stones in *C8* and *C8a* overlap. Keramopoullos himself was confused about this "complex wall" (Keramopoullos 1921, 33). For the same reasons, the width of the wall is also uncertain. If *Wall C8* was separate from *C8a* and the west continuation of *Wall C4*, it would have measured 1.80 m. in length (from *Wall C30* to *Wall C7*) and about 1.45 m. in width. Instead, if *C8-C8a* was a single or a "complex" wall running northeast-southwest, it would have been about 1.80 m. wide and at least 2.70 m. long.

As already mentioned, the wall is badly preserved. Between *C8-C8a* and *Wall C7* there is a gap about 0.20 m. wide, which is less obvious in the 1930 plan because of its small scale (*pls. 36, 38*). We may speculate that later disturbance caused this, but the nearby west façade of *Wall C7* is well-preserved. Moreover, the interrelationship of *Wall C30* and *C8-C8a* is not clear because certain stones, that must have belonged to the former, have fallen on *Wall(s) C8-8a*. Also, the large blocks employed at *Wall(s) C8-C8a* resemble the masonry of *Wall C30* and not that of *Walls C4* and *C7*, though the lowest foundation course seems to abut *Wall C30*. A later penetration (*Pit 3*) destroyed the east part of *Wall C8* and created an almost rectangular gap that measures 0.90 by 1.50 m. A duct-like feature, at the north end of *C8a* exists in the 1930 plan (*fig. XX*), but the reports do not mention any ducts in *Room Γ*.[12] If this was indeed a later duct, it could have been associated with *Pit 3*. Finally, the same factors that eliminated the north end of *Wall C30*, i.e.

[11] If a staircase existed here (see *III.3.3.3.*), *E-Z* would be connected with the upper floor and there could be no communication between *Δ* and *B*.
[12] A similar feature is visible in *Room O*.

the rise of the hill and later building activity, have destroyed the north end of *C8a* (*pl. 34*).

The wall(s) is founded on the north continuation of the bedrock rise attested in *Corridor E* and *Rooms N* and *Ξ*. As usual, a layer of red clay mortar intervenes between the stones and stereo. Yet the northwest part of the foundation is built on almost bare hardpan.

C8 functioned as the north boundary of *Corridor E*. Its south façade is flush with the south façade of *Walls C4* and *C7*. Therefore, the system of these walls offers the north boundary of cluster *Δ-E-Z-H-Θ-I-K*. *C8a* is seemingly the south boundary of the supposed "*Room Γ*". But it reduces the expected width of the room (7.80 m.) to 6.25 m. at least and alters the impression that the room is a megaron's *aithousa*, as the "room" is much narrower than the supposed *prodomos* (*Room B*). If *C8a* is a separate adjoining structure, it might be interpreted as a structural support that was added to *C8*, to enhance its stability, or for some other reason that escapes us. But *C8* and *C8a*, in their present state at least, cannot be seen as two distinct units[13] (see also *III.5.*).

Wall C20 came to light in 1911. It is runs northwest-southeast at right angles to *Wall C30*, between *Walls C15* and *C23*. It is surprisingly thick (1.90 m.) for an interior wall. Its length, from *Wall C30* down to the west façade of *Wall C18*, is 5.65 m. It would seem probable that the wall extends further to the east, until it meets Daoutis' stone boundary wall. It is unclear whether the masonry in this area belongs to *Wall C18* or to *C20* because only the lowest foundation course survives west of the modern wall. In April 1998 *in situ* stones, flush with the east façade of *Wall C18*, were seen and drawn east of the boundary wall. It is unknown whether they belong to *Wall C18* or *Wall C20*. If *Wall C20* terminated at *Corridor Φ* and not at the west facade of *Wall C18*, it would have been about 7 m. long.[14]

The wall is in relatively good condition, with the exception of its east end, that has been destroyed partly by Daoutis' boundary wall. The wall stands at socle level, though north of *Room O* only the foundation clay mortar and a few stones embedded in it survive (*pl. 17*).

The foundations follow the hardpan's eastward slope and adapt pre-existing structures; the west part is built on top of the bedrock shelf, the

[13] It is less possible that the area west of *Wall C30* and north of *Corridor E* was a passage-corridor, blocked at a later point by *C8-C8a* (see also *III.5.* and Keramopoullos 1921, 33).

central part rests on the lower bedrock bank that was discernible in *Room N* during the excavations, while the east part is founded even lower and rests partly on the remains of *Wall B3-"B4"* and partly on bedrock.

Wall C20 offered an additional support along the east façade of *Wall C30*, breaking the distance between *Walls C23* and *C15* (7.40 m.) almost exactly in half.[15] Its position and great width strongly suggest that it played an important structural role at ground and upper floor level. The subdivision of cluster *N-Ξ-O* into two large rectangular areas (*N* and *Ξ-O*) at ground floor-basement level may be associated with a heavy superstructure,[16] or may indicate an upper floor space that is unified over *Rooms N-Ξ-O*. The existence of *Wall C20* certainly presupposes *Wall C30* and was built after it, but whether *Wall C20* was built after cluster *N-Ξ-O* was defined to the east by *Walls C18-C22* is not clear; this is due to the bad preservation of the east end of *Wall C20*.

Southeast of *Corridors Φ-M*, two more west-east axes exist. *Wall C28* was unearthed in 1928, when Keramopoullos excavated the south part of *Corridor Φ* and *Corridor Π1*. Only 2.90 m. of its preserved length were revealed then (Keramopoullos 1928, 49-50). Apparently, the 1971 excavation between Papastamelos-Liokis plots and the *Turkish bath* (Spyropoulos 1971b, 206) brought to light the rest of the wall, as it is visible today (*pl. 25*).

It is runs northwest-southeast, parallel to the other west-east axes discussed so far. Its surviving width ranges from 1.0 (east) to 0.40 m. (west). Its original length is unknown, since both its west and east ends are totally destroyed. However, Keramopoullos pointed out that the 2.90 m. initially revealed should be extended for another 1.70 m. to the west (total 4.60 m., Keramopoullos 1928, 50), in order to reach the southward extension of the east wall of *Corridor Φ*. The distance between *Wall C30* and the surviving west end of *Wall C28* is approximately 9 m.

The wall is poorly preserved because of later and modern activity on the site. Its north part is embedded in the masonry of the south wall of Daoutis' house, while the room(s) north of *Wall C28* has been completely destroyed. The west end vanishes beneath the foundations of the *Turkish bath*; the east end was at some point razed by modern building activity in the

[14] The distance between Daoutis' boundary wall and *Wall C30* is 5.95 m.
[15] It is reminded that *Room Ξ* is 2.70 m. wide and *Room N* is 2.80 m. wide along *Wall C30*.
[16] I owe this suggestion to the architect M. Hässler, who proposed that the system of *Walls C20-C21* might hint at the existence of a heavy superstructure or installations at the upper floor.

area of the later Papastamelos' and Liokis' plots. The surviving part is of considerable height, though (*Section d-d'*), and has even preserved a mass of fused debris -επίπαγος- on its upper surface, which is also embedded in the modern wall to the north.

The lowest foundation courses of *Wall C28* remain invisible today, as the thin layer of modern soil that covers hardpan in the interior of rooms and corridors was not removed during the 1998 clean-up operation. However, it is obvious that the upper foundation courses are sturdy, built of large roughly dressed blocks. In this area the southward slope of the hill must have been more precipitous (see *Part I, graphs Ia-b*) and was probably filled up to the level of the north parts of the building. It is important to note that at least 0.80 m. deeper than the Mycenaean "floor", revealed in trial trenches *TT 7* and *TT 8* (area of "*Room Π4*"), an intact "pre-Mycenaean" fill with vessels was unearthed (Keramopoullos 1928, 50). This find indicates that the terrace fill of the "House of Kadmos" rested on undisturbed earlier habitation levels, at least towards the south slope of the hill,[17] but does not prove that the foundations of *Wall C28* rested on earlier levels instead of stereo.[18] Further investigation at the lowest foundation courses would illuminate this issue.

Since only a small portion of *Wall C28* exists today, it is difficult to understand its precise function. It was the south boundary of the room(s) destroyed by Daoutis' basement and, at the same time, the north boundary of an oblong space, directed west-east ("*Corridor Π4α*"). Based on the 1930 plan about the length of *Walls C25, C23* and *C20*, it would make sense to claim that *Wall C28* terminated at *Corridor Φ* and did not meet *Wall C30*. Besides, we are unaware of *Wall's C30* original extent to the south: restoring *Wall C28* for another 9 m. to the west so that it meets the former's axis would be futile. What seems to be more important in *Wall's C28* role is related to the southward inclination of the hill (see also *Wall C29*).

Wall C29 was revealed in 1971. Until then it remained hidden underneath the modern houses that occupied the area of the market. It runs parallel and to the south of *Wall C28*. Strangely enough, Keramopoullos never mentioned a wall south of *Wall C28*, although he opened a north-south

[17] Compare with *Wall B5* in *Room Π*.
[18] The foundations of structural walls are normally built on hardpan and not on the terrace fill, in the so-called "foundation terraces" (for more details, see *IV.5*).

trench to its south, that was 2.65 m. long[19]: the width of the oblong space between *Walls C28* and *C29* is only 1.70 m.

At any rate *Wall C29* is the widest wall in the building (*pls. 25, 26*), at 2.45 m., far wider than *Wall C30* (1.70-1.80 m.). The measurement was taken at the west part of the wall, which is less deformed, and should therefore approach the original width. Its surviving length is 4.70 m. along the north façade and 2.30 m. along the south one.

The west part of the wall must be totally destroyed under the *Turkish bath-Frankish palace* complex, since the later buildings reach bedrock. The easternmost surviving end is oblique, because it is remodelled into a north-south oriented cemented façade, that must have belonged to the modern structure at Papastamelos' plot (see *Plan*). Nothing survives east of this point. A deep modern rubble fill hides the original upper surface of the wall in the northwest corner of a neighbouring, rectangular bastion-like structure. We suspect that, at best, the Mycenaean wall survives at foundation level there.

Like *Wall C28*, the lowest foundation course is not visible. The upper foundation courses at the north façade look irregular, because they are randomly built of small and medium-sized stones (*pl. 26*). In contrast, the south façade is built of very large stones wedged with small ones, very much like Cyclopean masonry, though kept in proportion to the structure's character and size (*pl. 27*).

In general, while the northern west-east axes deal mostly with the eastward slope, the southern ones (*Walls C25, C26, C28, C29*) anchor the building against the south slope as well. We would expect that the foundations of the latter group gradually stepped down the south slope, their socles' height increasing analogously, so that their krepidomata remained at approximately the same level with those of walls founded uphill. This way, not only was a uniform euthynteria achieved throughout the building, but also the fills in its interior spaces were individually secured against downhill slippage (see *IV.5.*).

The obvious differences between the masonry of the north and south facades of *Wall C29*, in particular, do not necessarily indicate that the south façade was external. Yet the wall's exceptional width and its position at the lowest part of the surviving building enhance the impression that at least a

[19] Trial trench *TT8* was actually 1.65 m. long, but because it was opened at right angles to *TT7*, that was 1 metre wide, the area explored was 2.65 m. long in total (see *Part II, Table VII*).

sector of the original plan terminated here. Even if this assumption proves to be incorrect in the future, *Wall's C29* structural importance is undoubtful and may be compared to that of a proper retaining wall.

A third west-east wall seems to have existed south of *Wall C15*. *Wall C19* was excavated in 1906 and is shown in the 1909 and 1930 plans (*figs. XIX-XX*), running on the east extension of *Wall C20*. Judging from these plans, it was about 1 metre wide; 8 m. of its length survived. Therefore, it was much thinner than *Wall C20* (1.90 m.) and could not have been part of the latter. Seemingly, it crossed *Corridor Φ-M*, separating it in two unequal parts. To the west it terminated at the east end of *Wall C20*, where according to the 1909 plan it was abutted by *Wall C18*. About one metre east of that point, it was abutted on either side by *Walls C17* and *C31* and 3.50 m. further to the east *Wall C32* abutted its north façade. No trace of *Wall C19* is now visible. This area was re-occupied illegally by Daoutis after Keramopoullos had excavated it. Relying on the old plans and the excavator's own account, we may comment briefly on the wall's possible function. Certainly, it separated the area east of *Rooms N-Ξ-O* at least into two similar spaces. It is not entirely clear why it crossed the corridor; perhaps the foundations of the wall formed a built threshold there, which was for some reason necessary for separating the corridor in two parts, either at ground or upper floor level. The fact that it was aligned with *Wall C20*, even though the latter is wider, suggests that the spatial arrangement of the area east of the corridor may have roughly reflected the west part of the plan, but does not allow any speculations as to the shape and number of rooms east of *Ξ-O-Π-Π1*.

III.3.3. Secondary supports

III.3.3.1. Cluster *A-B-Γ*: *Walls C1, C2, C3, C7*

Walls C1, C2, C3, C7 were all revealed in 1921. *Wall C1* runs northeast-southwest, abutting *Wall C5* (*pl. 7*). Its width ranges from 1.35 to 1.40 m., depending on the spot where the measurement is taken. The northeast part of the wall is somewhat deformed, which increases the width there. Its surviving length is 3.01 m. To the south, the masonry terminates at what seems to have been the original south end of the wall (*pl. 1*). The wall survives in a fairly good state, though there is a gap at its northwest part, about 0.90-0.95 m. long and 0.60-0.70 m. wide. A large stone projects 0.25 m.

beyond the line of the façade further to the east. The upper surface of the southern part of the wall is not visible because of a overlying mass of fused building materials.

Wall C2 also runs northeast-southwest and may be regarded as the south extension of *Wall C1*, although its axis is not precisely aligned with *Wall C1*. *Wall C2* is 1.35 m. wide.[20] Its surviving length is 2.95 m. along the west side; only 2.40 m. are visible along the east side, however, because the remaining part of the wall is hidden by the adjoining *Wall C3* (*pl. 5*). It is obvious that the north end of *Wall C2* is not intact (*pl. 2*).

The gap between *Walls C1-C2*, which is 1.39 m. wide, has been considered a central door connecting *Rooms A-B* (Keramopoullos 1921, 33, 34; Keramopoullos 1922, 30; Keramopoullos 1930a, 33; Symeonoglou 1985, 216). If the opening was indeed central to *Room A*, *Wall C2* should be restored for another 0.61 m. to the north, to reach 3.01 m. of length (like *Wall C1*). In that case, the opening would have to be 0.78 m. wide. On the other hand, adding 0.61 m. to *Wall C2* would increase its length along the west side from 2.95 m. to 3.56 m., so that the opening could not have been central to *Room B*.

It is unknown what caused the destruction of the north end of the *Wall C2*, which is otherwise in a good condition. The socle is overlaid by the collapsed and deformed superstructure, that reaches 1.72 m. in height. A stone at the first course of the wall's northwest corner may have collapsed from the second course of the corner (*pl. 2*).

The investigation of the south transverse timber hole in the west façade of *Wall C2* (*pl. 3*) showed that the latter abuts *Wall C4* and that clay mortar exists between the two walls. On the other hand, the southeast part of *Wall C2* is hidden by the west part of *Wall C3* and the collapsed debris that fills the southeast corner of *Room A* (see also *IV.3.1.1.C*). Although the interrelationship of *Walls C2-C3* is not absolutely clear, it seems that the east façade of *Wall C2* continues beyond the line of the north façade of *Wall C3*, and is therefore abutted by *Wall C3*.

Wall C3 runs almost at right angles to the east façade of *Wall C2* (*pl. 5*). But *Wall C3* stands out of other west-east walls, because it is more north-directed. This slightly different orientation is peculiar, given the fact that all other axes of west-east direction are consistently parallel to each other (see

also *III.5.*). The width of the wall is 1.40-1.45 m. Not much of its length escaped the destruction caused by the construction of Pindaros street; its north façade is 2.30 m. long, while the south survives for 1.60 m. The difference is due to the better preservation of the north façade, but is also explained by the fact that it started at a more western point, in comparison to the south façade, and that the wall ran somewhat obliquely towards *Wall C2*.

Apart from the destruction of its eastward continuation, *Wall C3* survives fairly well. Its central and west parts remain covered by the collapsed superstructure, and the wall reaches a total height of 1.70 m. approximately. A thick layer of επίπαγος fills a shaft-like gap between *Walls C2-C3*, visible only at the north façade *Wall C2*. It is interesting that an ashlar block at the lowest course of the north façade features a slight deviation from the line of the wall, towards the north. The conflagration of the timber beam that rested on the first course has caused a block in the second course to collapse on the lower course (*pl. 5*).

Wall C7 runs roughly parallel to and west of *Walls C1-C2*. It is 1.10-1.20 m. wide. To the north, it appears to be narrower; this is because much of the building material belonging to its northwest part has disappeared due to later damage. The total length of the wall is unknown, as it does not survive to meet *Wall C5* (*pl. 7*). Although *Walls C4-C7* look as if they abut each other at foundation level, at socle level they seem to be bonded (*pl. 37*). This causes some difficulty in deciding where *C7* terminates and where *C4* begins. The direction of the stones at their junction, however, suggests that the upper part of *Wall C7* was built on top of the lower part of *Wall C4*. If this is so, it is plausible to measure its preserved length from *Corridor Δ* (9 m.). Its northward extension should be reconstructed for another 0.45 m., to meet the westward extension of *Wall C5*.

Wall C7 has suffered some damage at its south part (*pl. 34*). Various stones were piled there in post-excavation times to conceal the damage, among which a part of a later poros column (*pl. 15*). A lump of fused debris overlies the socle, towards the centre of the wall, but it is not *in situ*.

It should be mentioned that *Wall C7* survives in two unequal parts, separated by a break, which has been considered a central door between the *aithousa* and *prodomos* of a megaron (Keramopoullos 1921, 33; Keramopoullos 1922, 30; Symeonoglou 1985, 216). The gap lies 2.60 m. from

[20] The wall is too wide in the 1930 plan (*fig. XX*).

the southwest corner of *Room B* and about 4.20 m. from its supposed northwest corner, while it is 0.80-0.82 m. wide. Its sides are not regularly shaped (*pl. 34*). If this was a door indeed, it would have been off-centre and would not have been aligned with the opening between *Rooms A-B* either. But the perfectly aligned east façades of the two parts of *Wall C7* strongly suggest that that they belong to a single wall, unlike *Walls C1-C2*.

Walls C1, C2, C3 and *C7* subdivided cluster *A-B-Γ* in at least two separate rooms, *A* and *B*. *Wall C3* looks like an additional border-line between clusters *A-B-Γ* and *Δ-E-Z-H-Θ-I-K*, where the distinction ceases to exist, east of *Wall C4*. The irregular way in which *Walls C2, C3* and *C4* join (see illustration in *III.5.*), i.e. *Wall C2* abutting *Wall C4* and subsequently, *Wall C3* abutting both *Walls C2* and *C4*, suggests that *Wall C4* was built first, *Wall C2* followed and *Wall C3* was built last. Moreover, the conjunction of *Walls C2, C3, C4* and *C10* creates a cross-shaped "pillar" in the middle of *Rooms A, B, I* and *Θ*, which may have been additionally strengthened by built-in wooden uprights at the southwest corner of *Room B* (see *IV.3.1.1.C, fig. LI*).

III.3.3.2. Area north of *Wall C5: "Wall C6"*

Because Keramopoullos had a lively interest in revealing the building's boundaries (see *III.3.2.2.*), the existence of an unreported fragmentary wall north of *Wall C5* is striking. "*Wall C6*" was merely hidden by vegetation and overlaid by a thin, modern deposit of soil in April 1998. The 1927 and 1930 plans do not show it, something which could be explained if the excavation did not actually proceed beyond *Wall C5*, due to time-pressure or perhaps some disappointment because of the bad preservation of this area. Indeed, the old plans show *Wall C5* only partly revealed (*fig. XX*). The hatched curved line running east to west on the wall most probably represents an unexcavated area, which includes whatever lay north of *Wall C5*.

It is possible that "*Wall C6*" was revealed in post-excavation times during an old clean-up operation. The protective modern boundary wall to the east probably destroyed its east façade (*pl. 8*), though the damage may have happened long before that, during the construction of Pindaros street. Although the preservation of the structure is very poor and prevents us from understanding its orientation and exact dimensions, it may be noted that the

preserved remains measure 2.16 by 0.70 m. Viewed from above, the surviving portion of "*Wall C6*" seems to be directed north to south (*pl. 8*). Only the lowest foundation course survives *in situ*; the northernmost part may not be *in situ*, though it is aligned with other stones of the "wall" and is partly embedded into the masonry of the modern boundary wall of the site.

Its association with *Wall C5* and function are problematic issues; although "*Wall C6*" seems to abut *Wall C5* at a first glance, the corner between the two walls is far from being right and some stones of both structures overlap (*pls. 8, 9*). Also, what might be seen as the west façade of "*Wall C6*" is built of small stones embedded in clay, in a manner that would suit more the construction of a wall's fill rather than its façade. Whether "*Wall C6*" is an addition to *Wall C5* or part of the latter,[21] is not easy to tell because the available evidence is more misleading than helpful (see also *III.5.*). A fragmented brick was spotted between two stones of "*Wall C6*", but it does not differ from mudbricks found in other walls of the building (see also *IV.2.4.3.*).

III.3.3.3. Cluster *Δ-E-Z-H-Θ-I-K:*

Walls C11, C10, C9, C12, C16, C13, C14, C32b and *C32c*

We have already discussed how *Walls C15* and *Walls C8-C4-C3* frame a distinct "cluster" of spaces from the south and north respectively, which lies between cluster *A-B-Γ* and the south sector of the surviving plan. Cluster *Δ-E-Z-H-Θ-I-K* is filled with a system of walls that abut and presuppose *Walls C4* and *C15* at least.

The easternmost surviving portion of *Wall C11* was revealed in 1906, together with areas *Λ, M, K, I*. The west part probably came to light during the 1921 campaign. The wall runs northwest-southeast, parallel to *Walls C4, C15*, but does not abut *Wall C30*, since *Corridor E* runs between its west end and the east façade of *Wall C30*. *Wall C11* reaches 1.0 metre in width, while its preserved length is 10 m. Most probably it reached the east enclosures of *Corridor K* and *Room I* (*Walls C32b* and *C32c*), which were revealed in a very fragmentary state in 1906 (Keramopoullos 1909, 66, 72, 73), and therefore its length can be restored to 11.50 m.

[21] For instance, it could be the north part of a very thick *Wall C5* (width: 2.70 m. at least).

In general, it survives fairly well, though only up to socle level (*pls. 10, 11, 13*). The original east end of the wall has been destroyed by Pindaros street and the pre-excavation diggings in the area (1906). It has suffered little later damage towards the west, such as the extraction of the fused superstructure in places. The melted lumps of building materials survive mainly towards the west part of the wall, resting on the socle and sealing the numerous transverse beam slots, which we were able to photograph in 1998 (*pls. 49, 52*).

The foundations of the wall show that the bedrock's eastward inclination was adapted for stability (*pl. 11*). The westernmost part of the foundation abuts the stereo bank discerned at the west parts of *Rooms N*, *Ξ* and *Corridor E*. It looks as if the hardpan was cut back for the foundation to be fitted (*pl. 10*). The foundations themselves are built in "coursed rubble" technique (see *IV.2.1.1.*) and consist of medium-sized and regularly shaped stones that rest on small levelling slabs embedded in clay. It is evident that the foundations start at a higher level towards the west and consequently the number of foundation courses increases towards the east because of the slope in this direction (*Section b-b', pl. 10*).

The position of *Wall C11* hints at its role: it divided the cluster into two areas, one meant to be occupied by *Rooms H-Θ-I*, the other assigned to *Corridors Z-K*. Its structural importance is stressed by its width; it is less wide than other walls in the building, but is by no means a weak structure when compared to other Mycenaean walls, whose width normally ranges between 0.50 and 0.80 m.[22] It is also telling that it runs unbroken for at least 10 m., parallel to one of the main west-east axes of the building, *Wall C15*. *Walls C15* and *C11* seem to have offered a combined support for upper floor weights while allowing circulation to flow between them, and resemble *Walls C25-C26* in that respect.[23] That all other walls in the cluster abut *Wall C11* at foundation level demonstrates its priority in the building process.

On the other hand, *Wall C11* does not abut *Wall C30*. This implies that it was not by itself a "main west-east axis" but came second to *Walls C4-C15* in terms of structural significance, if not in actual chronological sequence. It seems probable that the cluster was empty of dividing walls when the foundations of *Walls C4* and *C15* were laid, and that the foundations of

[22] The walls of the Mycenaean house at the south part of the archaeological area ("1963-1966 house of old palace date", see *Plan*) provide a handy example for comparison.

Wall C11 were the first to be built there. As a dividing wall, it provided the north boundary of *Corridors Z-K* and the south wall for *Rooms H-Θ-I* at the same time. Structurally, it is inseparable from the interior grid in which it belongs (*Walls C9, C10, C11, C12, C16*).

The foundations of *Walls C9* and *C10* must have followed the construction of the foundations of *Wall C11*. *Wall C9* was unearthed in 1921, as the excavation proceeded west of the "stirrup-jars' room" (*Room I*). It runs parallel to *Wall C30* and abuts both *Walls C4* and *C11*. Its length is intact, 3.26 m., and its width is 0.75 m. The south part survives at socle level (*pl. 12*), but the central and north part has preserved more than one metre of superstructure, though in fused state (*pl. 13*). Its foundations are built of small and medium sized stones with much clay.

Wall C10 was partly unearthed in 1906; its excavation was completed in 1921. It runs parallel to *Wall C30* and *Wall C9* and measures 0.90 m. in width and 3.10 m. in length, which is preserved intact. At foundation level it abuts *Wall C11* and the southeast part of *Wall C4*, but at socle level (krepidoma) the walls bond. This is made apparent by the fact that the krepidomata of *Walls C11* and *C10* share a large, irregular slab (see *Plan*), while the distinction between *Walls C10-C4* is somewhat vague at the same level (*pl. 14*). The socle of *Wall C10* is in excellent condition, though part of the superstructure that Keramopoullos commented on (Keramopoullos 1927, 40, 41, footnote 1) no longer exists (*pls. 13, 14*). The foundation courses of *Wall C10* are built in "coursed rubble" technique, of well-shaped medium and large limestones.

The placement of two north-south dividing walls between *Walls C11* and *C4* breaks the east part of the cluster in three parts and provides one complete room (*Room Θ*), as well as the east and west walls of two more (*Rooms H, I*) with a minimum of effort. Although the width and construction of *Walls C9-C10* is not impressive, their structural contribution is more evident in the context of the closely-knit grid that occupies the space between *Walls C4-C15*.

Walls C12-C16 were also unearthed in 1921. *Wall C12* runs northwest-southeast, parallel to *Wall C11*, and abuts the centre of the west façade of *Wall C9*. It measures 0.75 m. in width; its surviving length is 2.90

[23] Also compare with *Walls C28-C29, C17-C18, C22-C31*.

m. The west end was destroyed in the Turkish occupation period (*pl. 13*), but the traces of clay mortar on bedrock hint at the original length of the wall, which should be estimated around 3.20 m. Apart from the aforementioned disturbance, the southeast part of the wall was destroyed at foundation level, possibly during the excavations. Other than that, *Wall C12* survives well and preserves its fused superstructure to a considerable height (*pl. 10*), though not like *Walls C2, C3, C25*. The wall's foundations are built of small stones embedded in a matrix of clay mortar. Their surviving west part rests on the rising bank of bedrock in *Corridor E*. The socles are so low that they are practically merged with the foundation courses (*pl. 13*).

Wall C16 runs northeast-southwest, at right angles to both *Walls C12* and *C11*. It is clear that it abuts the latter, but the fused superstructure covering the northwest corner of *Room H*, as well as the destruction of the west part of *Wall C12*, make it difficult to decide whether *Walls C12-C16* abut or bond with each other. *Wall C16* is 1.05 m. wide though, which may indicate that *Walls C12-C16* should not be considered a single wall. Supposing that it terminated at the south façade of *Wall C12*, not at *Corridor Δ*, its length reaches 1.26 m. Its foundations and preservation are similar to *Wall's C12*. Its west façade is not clearly defined because the socle is topped by fused superstructure, that has collapsed in *Corridor E* as well (*pl. 10*).

Whether *Walls C12-C16* were built as a single wall or not, they presuppose *Walls C11* and *C9*, in that order. Their importance lies in that they closed off *Room H* from the west and north, shaping *Corridors E-Δ* simultaneously. Although their foundations and width suggest that they were weaker structures than other walls in the building, they are important in the context of the surrounding *Walls C30, C4, C15* and *Walls C9, C11*. They would seem to enable the construction of a unified space on top of *Rooms H* and *Corridors Δ-E*, or they might imply the existence of a wooden staircase at or above *Corridors Δ-E*, directed south to north and then west to east.

Traces of *Wall C32c* were seen in 1906, beneath the foundations of Thomas' house. It seems that this northeast-southwest wall was the east boundary of *Room I*, possibly the north continuation of *Walls C32a, C32b*, which closed the east sides of *Room Λ* and *Corridor K* respectively. Both its width and exact length is unknown. The north part of the wall was totally destroyed, but its length between *Walls C11-C3* would have been about 3.80 m. No trace of *Wall C32c* survives today. If *Walls C32a-c* were in fact a

single wall, our understanding of the east part of the plan would be significantly altered; we would be tempted to think that it was the east boundary of the building, as presented in Symeonoglou's reconstructions (*fig. XXI*). However, that *Wall C29* seems to proceed further to the east (see *Plan*) makes the reconstruction of a uniform east façade at this point doubtful.

Walls C13-C14-C32b were both revealed in 1906. They were later described as burnt debris (Symeonoglou 1985, 216). Yet the 1998 clean-up operation confirmed Keramopoullos' identification of the remains as proper walls (*pl. 32*).

Wall C14 runs almost at right angles to *Walls C11* and *C15*, in a northeast-southwest direction and abuts them. It is aligned with *Wall C17*, though not with *Wall C10*. It measures 1.10 by 1.10 m. Its preservation is rather mediocre, because of the later *Wall D1* that re-used its building material. *Wall C13* runs also at right angles to *Walls C15* and *C11*, abutting them, but is preserved better than *Wall C14*. Its condition must have been better in 1906, since Keramopoullos reported that it stood 1 metre high[24] (from bedrock?). It measures 1.10 by 0.63 m.

The function of *Walls C13-C14* is rather obscure. They were both built after the surrounding walls; *Wall C13* in particular, was regarded as a later addition to the plan (Keramopoullos 1909, 72; see *III.5.*). *Wall C14* may have blocked or restricted the communication between *Corridors Z-K*, but a second "blocking" wall so close to the first one (0.70 m.) is not easily explained. Perhaps both walls supported wooden thresholds, for two consecutive doors to be fitted on them. The upper surfaces of the walls are lower than the socles of *Wall C11-C15*, but we are unsure of the original height[25] of the walls. An alternative proposition would be that they supported a heavy structure at upper floor level, above *Corridor K*.

Wall C32b complicates the situation further. Its traces were unearthed in 1906, running northeast-southwest, at right angles to *Walls C11-C15*. Seemingly, the wall blocked the easternmost preserved part of *Corridor K*. Judging from the 1909 plan, it was aligned with *Wall C32a* and measured 1.10 m. in length.

At a first glance, the maze of walls concentrated in cluster *Δ-E-Z-H-Θ-I-K* reveals excessive energy and building materials' expenditure. A careful

[24] The same remark is made for *Walls C11* and *C15*.
[25] The contemporary heights of the walls are as follows: *Wall C14*: 201.58 m., *Wall C13*: 201.77 m.

look reveals though that this sophisticated layout is circulation-imposed. It could be argued that the basic concern of the masons was to link *Corridor ΦM* and the south sector of the surviving plan (south of *Wall C15*) with cluster *Δ-E-Z-H-Θ-I-K*, as well as cluster *A-B-Γ* with cluster *Δ-E-Z-H-Θ-I-K*. However, the fact that a direct corridor linking these two areas was not preferred is problematic. *Room H* is the focal point of the peculiar Π-shaped corridor, which emphasises its central role in the structure. Its position would be particularly meaningful if it was a light-well, as Keramopoullos thought (Keramopoullos 1928, 51; Keramopoullos 1930b). It is tempting to think that a light-well might indicate that part of *Corridors Δ-E* was used as a staircase leading to an upper floor. Indeed, the shape of the corridor, as well as the rising bedrock towards the west, is suitable for the construction of a staircase running south to north in *Corridor E*, and then west to east in *Corridor Δ*.[26] The remaining space was exploited to the maximum. The design of *Walls C11, C10, C9* show how this was achieved with a minimum expenditure of energy and materials. Finally, the layout of the wall grid in the cluster would have enabled the "compartmentition" of the fill levelling the eastward slope of the hill, stabilising it (cf. Wright 1980; see *IV.4.*).

III.3.3.4. Cluster *N-Ξ-O-Π*: *Walls C18, C22, C24, C21*

Most of *Wall C18* was excavated in 1906, while its north part must have been revealed in 1911, when the excavations proceeded to *Room N*. It runs northeast-southwest, but is not exactly parallel to *Wall C30*, being more north-directed than the latter. Its original width was probably around 1.15-1.20 m., though the deformation of the wall's sides has increased its width to 1.25 m. in places. It abuts *Wall C15*, but its relationship with *Wall C20* and *Wall C22* is unclear (see also *III.3.2.2.*). In any case, its length between *Walls C15* and the north façade of *Wall C20* is 2.80 m. Its preservation is rather poor, as it survives at foundation level. Its southeast part was covered by Daoutis' boundary wall following Keramopoullos' excavations in the area, but at least the lowest foundation course is still visible beneath it (*pl. 17*).

Wall C22 was most probably excavated in 1921. Its northeast-southwest axis is aligned with *Wall C18* and is not exactly parallel to *Wall C30*. It measures 0.70 m. in preserved width and 2.60 m. in length, between

[26] The architect M. Schmid agrees both with the direction and position of the staircase, but a more detailed reconstruction would require further examination of the building's elevation.

Wall C23 and the south façade of *Wall C20*. It abuts *Wall C23*, but again the interrelationship of *Walls C20-C22* is problematic due to the poor preservation of the area (*pls. 16-17*).

Wall C24 was revealed in 1927. It is also aligned with *Walls C18-C22*, featuring a mild northward deviation from *Wall's C30* axis. The fused debris that covers the southeast corner of *Room Π* and, consequently, the area where *Walls C24-C25* meet, obscures their joining. However, in April 1998 the corner was investigated at some depth; it was observed that *Wall C24* abuts the northeast part of *Wall C25* at least at foundation level. It also abuts *Wall C23* to the north. Its length is 3.85 m., while its preserved width ranges from 0.70 (north part) to 1.10 m. (south part). Apparently, it was destroyed partly by the construction of Daoutis' house; in addition, it was damaged by inexperienced workers during the excavations (Keramopoullos 1927, 37). The wall survives at foundation level (*pls. 18, 21, 22*), which gives the impression *Room Π* was accessible through it, but the extensive damage caused by the aforementioned factors should prevent us from considering the surviving upper surface of the wall to be the original understructure of a wooden threshold. The plaster fragment spotted on *Wall C24* in April 1998 (*pls. 21-22*) is a doubtful piece of information and may have fallen there during the old excavations.

In general, *Walls C18, C22, C24* seem to have had similar roles. They closed off *Rooms N, O* and *Π* from the east and concurrently they formed most of the west boundary of *Corridors Φ-M*.[27] Not only did their construction finalise the cluster's space articulation, but they also helped to lock the terrace fill in individual compartments: this practice guaranteed that the various portions of the fill would move independently of one another (Wright 1980; see *IV.4.*). It is uncertain whether *Walls C18-C22* formed a single wall, that was abutted to the west by *Wall C20* and to the east by *Wall C19*. What may be argued is that all three walls, together with the east ends of *Walls C23, C25*, provide a major north-south axis at ground floor level. Being about 14 m. long, this axis transverses 2/3 of the south sector (i.e. south of *Wall C15*) of the preserved plan. The west and east boundaries of *Corridor Φ* would be able to support considerable weight in the area, most probably walls running along the same axis at upper storey level; they would also allow

[27] As we have already seen, part of this boundary was formed by the east ends of *Walls C23, C25*, that terminated at the corridor.

circulation to flow unobstructed in the corridor, possibly at both ground and upper floor level.

Wall C21 was excavated in 1921. It runs parallel to *Wall C30* and measures 1.30 m. in width wide and 2.60 m. in length. Originally though, it would have been about 1.20-1.25 m. wide. It survives at socle height; its upper surface is rather deformed, probably because of the later *Walls D2-D3* that were built nearby (*pl. 20*). *Wall C21* abuts *Walls C20-C23* and thus, it must have been built after them. While *Wall C20* divided cluster *N-Ξ-O* in half, *Wall C21* seems to have subdivided the south part of the cluster in two smaller compartments. At basement-ground floor level this subdivision created two rooms, *Ξ* and *O*. The H-shaped structure consisting of *Walls C20, C23* and *C21* in the centre of area *N-Ξ-O-Π*, indicates that the plan was repeated in the upper floor, possibly with the exception of *Wall C21*, that may have supported a unified space above *Rooms Ξ-O*.

III.3.3.5. East part of the "south sector"

A. *Room Λ*

It has already been stressed that east of *Room N* the ruins of the "House of Kadmos" suffered extensive damage in early modern times (see *III..2.*). The excavator described two northeast-southwest directed walls in this area, *Walls C17* and *C32a*. Wall C17 was revealed in 1906, abutting the south façade of *Wall C15*. Its width reaches 1.10 m. Its surviving length is about 2 m. Based on the 1909 plan (*fig. XIX*) its full length may be estimated at approximately 3.80 m., between *Walls C17* and *C19*. The north part of the wall is preserved at socle level, in good condition. Daoutis' boundary wall however, has caused great damage towards its centre. Beneath it, scanty remains of *Wall C17* still exist,[28] but to its south nothing survives. Apparently, *Wall C17* held a role similar to *Wall's C18*. It provided the east wall of *Corridor M* and bordered *Room Λ* from the west. Its possible function as a superstructure support should be considered in the context of the other walls defining *Corridors Φ-M* (see *III.3.3.4.* and below, *Walls C31, C27*).

Wall C32a, on the other hand, is illustrated in the 1909 plan (*fig. XIX*) and described in the AE report (Keramopoullos 1909, 66, 67). Mysteriously, it is absent from the 1927 and 1930 plans. Its original width is unknown, since

[28] The boundary wall has been recently destroyed towards its centre, so that the remains of *Wall C17* are

Pindaros street had already destroyed most of it by the time it was excavated. Its north part was razed prior to Keramopoullos' investigations and the area was used as a passage for the excavated earth to be removed. According to Keramopoullos though, the south end abutted *Wall C19*. Therefore, if *Wall C32a* terminated at *Wall C15*, its original length must have been about 3.80 m. That it abutted *Wall C19* would seem to indicate that it was only a secondary wall, closing *Room Λ* from the east, and did not mark the original east façade of the "House of Kadmos".

B. *Corridor Φ*

Wall C27 was excavated in 1928. It is badly preserved; only a small portion has escaped the destruction caused by Daoutis' basement. In addition, its west part has been almost totally destroyed by the *Turkish bath*, while a sizeable lump of burnt debris covers the north part of the remains. Judging from the narrow strip of masonry that survives today, the wall seems to have had the same direction with *Wall C17*. However, because of the distance between *Walls C27-C31* (13.40 m.[29]) and the bad preservation of the former, it cannot be claimed that *Wall C27* is the southward continuation of *Wall C17*.

The preserved portion of the wall measures 2.10 m. in length. The distance between its south end and the north surviving end of *Wall C28* is about 2 m. Its northern extent is unknown because the remains, if any, are destroyed by Daoutis' house. Its preserved width does not exceed 0.90 m. It must be pointed out that remains of the wall lie under the narrow passage between the *Turkish bath* and Daoutis' house. It seems that the κεραμίτις γη layer has not been excavated completely in this particular area.

"Wall C31" is shown in the 1930 plan as the south continuation of *Wall C17*, drawn with a broken line contour and hatched filling. It lay parallel to *Walls C22* and *C24*. Keramopoullos described fragments of a wall east of *Wall C24* (Keramopoullos 1928, 51). Unfortunately, no trace of these remains survives today. Supposing that *"Wall C31"* was a single wall defining *Corridor Φ* from the east, its total length between the south façade of *Wall C19* and the north end of *Wall C27* would have been 10 m. approximately. Yet, given the fact that the west side of the corridor is comprised of at least two different walls (*Walls C24, C22-C18*) it is more probable that what we

visible.

have termed *"Wall C31"* consisted of two or three aligned walls. Like *Wall C17*, these walls would have separated the corridor from the various rooms to the east and probably upheld similar walls at upper floor level.

C. *Area Π4α*

Spyropoulos' excavation between the *Turkish bath* and Papastamelos' plot revealed fragments of a northeast-southwest directed wall between *Walls C28-C29*, that probably abutted them (*fig. XXVI*). Spyropoulos' plan shows that *"Wall C33"* measured about 2.50 m. in length and 0.50 m. in width. However, the length of the wall could not have been more than 1.70-1.80 m., which is the actual distance between *Walls C28-C29*.[30] The 1998 plan does not include *"Wall C33"*, since a confirmation of its dimensions is pending.[31]

III.4. Overview of new data

Certain discrepancies between the 1909, 1930, 1985[32] plans (*figs. XIX, XX, XVIII* respectively) and the actual remains of the "House of Kadmos" have been noted during the 1998 clean-up operation.

Starting from the north part of the surviving plan, it should be commented that the space attributed to a *prodomos* and *aithousa* of a tripartite megaron, are not of the same width, as *Wall C8* (especially *C8α*) reduces it in *"Room Γ"*. The north part of *Wall C7* does not survive to meet the westward extension of *Wall C5* (*fig. XXI*, right). Moreover, *Wall C5* does not survive to meet *Wall C7*, let alone to proceed further to the west, and does not extend east of the point where the east façade of *Wall C1* lies. A fragmentary wall may exist north of *Wall C5* (*"Wall C6"*). The north end of *Wall C2* is not intact, unlike the south end of *Wall C1*. The opening between *Rooms A-B* would have been too narrow if it was central to *Room A*, and could not have been central to *Room B*. *Wall C2* is not as wide as shown in the 1930 plan.. The "passage" between *Room B* and *Corridor Δ* (δ, *fig. XX*) is not an empty

[29] 11.80 m. if the burnt debris is measured as an *in situ* portion of *Wall C27*.
[30] Unless we have identified the area excavated by Spyropoulos wrongly as the area between *Walls C28-C29*, the 1971 measurement of the distance between them would seem to be inaccurate.
[31] This is because during the 1998 clean-up operation the soil from the interior of rooms and corridors was not removed, due to time-pressure.
[32] The restorations of the building attempted by Symeonoglou (*fig. XXI*) are not considered plans in the normal sense of the term, since the author himself presents them as theoretical reconstructions. However, it should be pointed out that the restoration appearing to the left of the page depicts fragments of walls restored with blank lines. The blackened areas convey the impression that they represent the existing features. Because of this, it is necessary to pin-point the differences between the actual remains and this plan.

opening, but is occupied by the foundations of *Wall C4*. Also, it is not as wide as shown in *fig. XXI*).

In cluster *Δ-E-Z-H-Θ-I-K* , it may be noted that the socle of *Wall C16* is not as broad as depicted in the 1930 plan. Perhaps Keramopoullos was unable to see the socle itself, which was covered by fused debris. *Wall C30* survives well enough to be drawn north of *Granary 1*. *Wall C9* is not wider than *Wall C10* (*fig. XX*). *Wall C10* is not flush with *Wall C14* (*fig. XIX*), but lies further to the west; this detail was corrected in the 1930 plan, however. There is no gap in the socle of *Wall* C10, that could be interpreted as a door-opening (*fig. XXI*). Walls *C13-C14* do exist and should not be omitted from the plan as "burnt debris" (*fig. XXI*). *Wall C15* does not terminate at *Corridor M* (*fig. XXI*, right), but crosses it, continuing east of *Room Λ* (as depicted in the 1930 plan and in *fig. XVIII*).

In the "south sector" of the building, it is evident that there is no central break in the socles of *Walls C18, C17, C21, C22* (*fig. XXI*, right). The wall between *Corridors M-Φ* is in fact the westward continuation of *Wall C19*, according to the excavator, not a separate wall (*fig. XVIII*). In addition, *Walls C32a*-b, which are shown in the 1909 plan but are absent from the 1930 and 1985 plans, should be remembered. According to the 1909 plan and the excavator's descriptions, they ran along the east side of *Room Λ* and *Corridor K*. The existence of *Wall C32c* at the east side of *Room I* should also be considered. The fragments shown in *fig. XXI* (right) have only been hinted at by the excavator and their full width was not revealed. The break in "*Wall C31*" at "*01*" (*fig. XXI*, right) is not mentioned in the reports and the wall itself was completely invisible after 1930, as most of the east side of *Corridor Φ*. The 1985 plan (*fig. XVIII*) though follows the 1930 plan in that respect.

The southernmost preserved end of *Wall C30* probably did not extend south to the *Turkish bath* (*fig. XX*), as it was destroyed before it reached the point where the south façade of *Wall C25* is situated. The latter is correctly shown in *fig. XXI* (right). The door-opening that Keramopoullos identified on *Wall C24* is not very clear today; the foundations run all along the wall and the gap shown in the 1930 plan does not exist. The "door-jamb" opposite to this "threshold" hypothesised by the excavator was not seen in 1998, as the area is destroyed by Daoutis' house. In *fig. XXI* (right) the same "door" (of "*Room Π2*") is not exactly opposite to the "threshold" of *Wall C24*. Yet, in *fig. XVIII* Keramopoullos' account is followed. *Wall C26* is omitted from both

the 1930 and 1985 plans, despite the fact that its foundations are partly visible. Moreover, the orientation of the *Turkish bath* is exactly north-south, as shown in the 1985 plan,[33] and its distance from the south façade of *Wall C25* is greater than is shown in the 1930 and 1985 plans.

Finally, the southernmost fragment of wall described by the excavator is not shown in the 1930 plan, but is included in the 1985 plan (*fig. XVIII*). Symeonoglou, following roughly Keramopoullos' description in the 1928 report, located it between the *Turkish bath* and Daoutis' house. It is odd that the distance between the two structures is depicted as being at least 4 m., while today it measures only 1 metre. Unless the west façade of the modern house was rebuilt further to the west after the 1985 plan was compiled, it seems that the incorrect drawing of the *Turkish bath* in the original plan (1930) and the excavator's confusing descriptions of the fragmentary structures southeast of *Room Π*, perplexed Symeonoglou. It is most probable that the "east-west directed wall" revealed in 1928 is what we have termed *Wall C28*, which is located south of the contemporary south façade of Daoutis' house. In 1928, only 2.90 m. of its length were revealed; the remaining 1.70 m. reconstructed to the west (so that the wall reached the southward extension of *Wall C27*) must have been unearthed later, perhaps in 1971.

III.5. Possible evidence for modifications in the plan prior to the conflagration

Walls "C6", C8-C8a, C14-C13 and *C3* feature various irregularities, in their orientation, construction or relationship to other walls. Some of them seem to have blocked or restricted access to parts of the ground floor. In view of the fragmentary *Phase A* wall-paintings, which were either deposited under the refurbished plaster floor of *Room N* or overlaid by *Phase B* wall-paintings in *Room Π*[34] (see *IV.2.2.1.A*), and Keramopoullos' own observations concerning "additional" walls (Keramopoullos 1909, 72), we are tempted to think that perhaps some of these walls represent alterations of the plan, dating before the destruction of the building. This discussion will test this possibility

[33] The orientation shown in the 1930 plan is also drawn, with a broken line.
[34] Of course, these cannot be directly related to any of the walls discussed here; still, the fact that two phases of wall-paintings exist suggest that some refurbishment took place before the destruction of the "House of Kadmos".

for each of these walls, but does not aim to establish and date the possible sub-phases of the "House of Kadmos", since the ceramic material remains largely unpublished.

The preserved remains of "*Wall C6*" run obliquely to *Wall C5* (*pls. 8-9*). If we accept the restoration of a tripartite megaron situated off-centre in the plan (Symeonoglou 1985, figs. 2.9., 2.10; *fig. XXI*), "*Wall C6*" would be conveniently explained as a "later addition" (see also *III.3.3.2.*). Yet, the "uncanonical" segregation of the megaron[35] from the rest of the plan (Barber 1992, 19) may indicate that the layout is incomplete in that direction. It is more likely that *Wall C5* was not the original north façade of the "House of Kadmos" and that the fragmentary "*Wall C6*" formed part of the structures extending north of *Wall C5*.

The reconstruction of "*Room Γ*" west of *Room B* is mainly based on the hypothetical extension of *Wall C5* to the west. It has been estimated that its width was similar to that of *Room B* (Symeonoglou 1985, ; see *Table IIIb*), around 7.49 m.[36] However, *Wall(s)C8-C8a* reduces the expected width of "*Room Γ*" to 6.85 m. (see *III.3.2.2.*). *C8-C8a* is destroyed towards the south part of *Wall C7*, but the latter's well-preserved west façade indicates that it was not bonded with *C8-C8a* (*pls. 36, 38*). On the other hand, it is more possible that it did not bond with *Wall C30* either, as some stones that seem to belong to both walls have probably fallen from the latter. Therefore, it seems that *C8-C8a* intervened between *Walls C7* and *C30*.

However, that *C8-C8a* may have abutted *C30* and *C7* does not necessarily suggest that it belonged to a subsequent building phase. Keramopoullos felt that it blocked the "northward continuation" of *Corridor E* (Keramopoullos 1921, 33). His phraseology implies that *C8-C8a* was added to the original plan and that another corridor ran along the west side of *Wall C7*. Since Keramopoullos favoured the idea that it was a "complex" wall (Keramopoullos 1921, 33), it could be claimed that only *C8a*, which disturbs the regularity of the plan, was a later addition. But as we mentioned in *III.3.2.2.*, *C8-C8a* cannot be regarded as two distinct units. Also, it is rather improbable that another corridor extended north of *Corridor E.*[37] Because of

[35] Supposing that *Rooms A-B (-"Γ")* were indeed part of a megaron.
[36] Because of its slight trapezoidal shape however *Room B* its width must have been 7.55 m. along the east façade of *Wall C7*.
[37] It is interesting to note that the width of this space is very near to 2 m., while the corridors of the building are at most 1.10 m. wide.

this, it is doubtful whether *C8-C8a* actually *blocked* the circulation there, regardless of it being a single or a "complex" wall.

Walls *C13-C14* abut *Walls C11* and *C15* and presuppose them, but as already mentioned this need not imply that they are later additions (see *III.3.3.3.*). *Wall C14* is aligned with *Wall C17* and, judging from its foundations, it had the same width with the latter (1.10 m.). Its construction and position, which contributes to the general regularity of the plan, suggest that it is roughly contemporaneous with *Walls C15* and *C11*. Similarly, *Wall C32b* was aligned with *Walls C32a* and *C32c* in *Rooms A* and *I* respectively and abutted at least one of them.

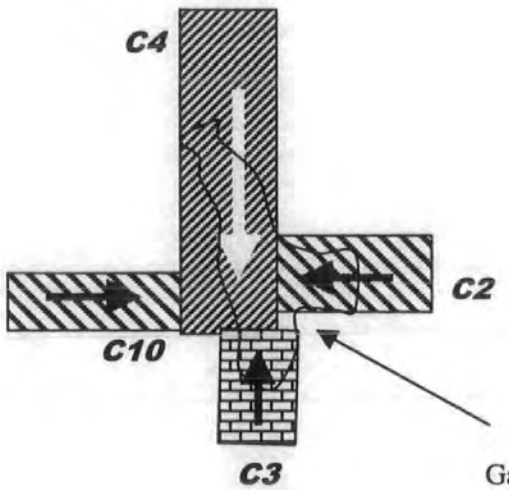
Wall C13, however, breaks the small, oblong space between *Walls C14* and *C32b* (*Corridor K*) in two even smaller, unequal parts and does not comply with the regularity of the layout, unlike the latter walls. It is much thinner than *C14* (0.63 m.) and, in 1906, the upper half (0.50 m.) of its preserved height was built rather carelessly in comparison to the lower part of the wall (Keramopoullos 1909, 72).

These details strongly suggest that *Wall C13* was added to the initial plan, as the excavator himself proposed (Keramopoullos 1909, 72-3). The fact that at least its east side was associated with the usual, black destruction debris (Keramopoullos 1909, 72), that lay immediately beneath the fused building material in most parts of the building, indicates that *Wall C13* may represent a modification dating before the conflagration that destroyed the "House of Kadmos". Its precise function is unknown, but we may speculate that its role was either structural, i.e. the support of additional superstructure weight and/or the better stabilisation of existing features, or related to circulation limitations at *Corridors Z* and *K*. Although blocking alterations in corridors are attested at the palaces of Pylos (e.g. in the Main Building: areas 16, 18, 25) and Mycenae (Megaron Complex, east end of South Corridor), the latter proposition is less feasible, due to existence of two more "blocking walls" in the area, *C14* and *C32b*.

Wall *C3* abuts only part of the east end of *Wall C4* (see *graph III*), with the result that *Room A* acquired a smaller width than *Room B* and that the extra space gained was given to *Room I*. In addition, the orientation of *Wall C3* differs slightly from that of *Wall C4* (and of all other west-east axes), being more north-directed. This is discernible in the 1930 plan, though it is not mentioned in relevant reports. Consequently, the southwest corner of

Room A and the northwest corner of *Room I* are not right. Moreover, between *C3* and *Wall C2* intervenes a gap filled with fused and collapsed superstructure materials, visible only in the southwest corner of *Room A*. We have already stressed (*III.3.3.1.*) that it is unlikely that more ashlar blocks existed there. Instead, vertical uprights could be restored in the gap, as shown in the isometric reconstruction of the area (*figs.LI, XLIII*; for details, see *IV.3.1.1.C*).

If *Wall C3* represented an alteration of the "original" plan, the implications would be very significant, given that its north façade is built in half-timbered ashlar masonry, a technique which is normally attested in the context of megara in Mycenaean palatial architecture. Could this be an indication of a change in the function of the building after its construction? However, its idiosyncratic construction features do not constitute safe criteria that could establish its relative dating. Future research would cast more light on this issue and should enable a clearer understanding of the function and dating of the wall.



Graph III. Walls C2, C3, C4, C10
(not to scale)

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Disturbed/damaged/ Destroyed area	Cause	Reference(s)
Room Λ-M area: stones from the walls extracted. In particular: *Walls C1, C2* have been harmed	Pre-excavational digging works	AE 1909, 59-60, 66, 72
Room Λ-M area: building material extracted??	Daoutis's brick wall	AE 1909, 64, footnote 5
Room N-Z area: stones extracted along the wall's course (and re-used)	*Wall D1*	AE 1909, 65
North end of *Wall C31* missing	Pre-excavational digs	AE 1909, 66
Hole in *Wall C4*	Tree roots	AE 1909, 67
Wall C4: deformed (upper part)	Collapse following the fire	AE 1909, 68
Binding clay transformed into brick	Fire	AE 1909, 69
Limestone transformed into lime	Fire	AE 1909, 69
Softening of the burnt stones, enhancing fragility	Humidity during the nights after the excavations	AE 1909, 69
South of *Wall C3*: disturbance	Construction of Daoutis house	AE 1909, 71
Underneath Daoutis's house: total destruction of remains, except *Duct 1*	Basement of Daoutis house dug deep into bedrock	AE 1909, 71
Room K, Walls C1, C5, stratigraphy: partial destruction.	Slope to the east	AE 1909, 72
Burying of *Room K*	To give access to the market place, after the excavation: but uncovered again later	AE 1909, 72 ΠΑΕ 1911, 143
Wall C6 (+ρπ)	*Wall D1* re-used its material	AE 1909, 72
Area between *Walls C13-C14* and west of *Wall C14* disturbed	*Wall D1*	AE 1909, 73
Area to the west of *Wall C14* buried	To give access to the market place after the excavation	AE 1909, 74
Room Λ: north part invisible	Covered by Thomas's house	AE 1909, 74
Room Λ: east, south parts partly destroyed	Slope to the east-south, road leading to Thomas's house	AE 1909, 74
Room I was buried	To give access to the market place after the excavation	AE 1909, 75
Superstructure of *Walls C3, C7* of *Room N* fallen	Fire	AE 1909, 76-8, pict. 8
Burying of door (?) at *Room N*	Collapse due to the fire	AE 1909, 76
Walls in *TT4* harmed	Excavation	AE 1909, 83
Floor in *Room N* subsided	Slope to the east?	ΠΑΕ 1911, 144
Destruction of floor of *Room N* (partial)	Post-excavational attempt to remove the wall-paintings beneath it and replace them with soil, but rainfall ruined the work.	ΠΑΕ 1911, 145
Walls of *Room Ξ* covered but not harmed	*Wall D2*	ΠΑΕ 1911, 145, 147
Walls of *Room O* harmed	*Wall D3, Pit 2*	ΠΑΕ 1911, 147
West wall of *Room N* harmed	*Granary 2*	ΠΑΕ 1921, 33
West wall of *Corridor Δ* harmed	*Pit 3*	ΠΑΕ 1921, 33
Room Γ	Slope? (obscure information)	ΠΑΕ 1921, 33
Rooms A-Γ destroyed greatly	Pindaros st	ΠΑΕ 1921, 34
Partial destruction of *Wall TT6a*	Unknown	ΠΑΕ 1922, 29
Area to to the west of *Wall TT6a* disturbed	Turkish period inhabitants? and/or *walls TT6b*?	ΠΑΕ 1922, 29
West part of *Corridor Δ-Z*	*Pit 3, Granary 1, Granary 2*	ΠΑΕ 1922, 30
East wall of *Room Π*	Inexperienced workmen	ΠΑΕ 1927, 37

Wall C30	*Granary 1*	ΠΑΕ 1922, 30
South area of building partly destroyed: especially *Room Π1* and to the south	Turkish bath with caldarium reaching bedrock	ΠΑΕ 1928, 45, 52
South area of the building partly destroyed, especially *Room Π1*, *Corridor ΦM*	*Granary 3*	ΠΑΕ 1928, 46-7, 49
South area of the building partly destroyed: especially south wall of *Room Π*, *Corridor Π1*	*Duct 6, Duct 7, Turkish bath*	ΠΑΕ 1928, 47
Door of *Room Π* buried	Fire	ΠΑΕ 1928, 48-9
East wall of *Corridor ΦM* covered	Daoutis's illegal boundary wall	ΠΑΕ 1928, 49
Door anta of *Room Π2* covered?	Daoutis's illegal boundary wall	ΠΑΕ 1928, 49
West wall of *Corridor ΦM* destroyed	*Turkish bath*?	ΠΑΕ 1928, 49
East wall of *Corridor ΦM* crossed	*Turkish bath*	ΠΑΕ 1928, 49
South walls covered/damaged	Neighbouring buildings	ΠΑΕ 1928, 50
Floor of *Room N* removed	Excavation	ΠΑΕ 1929, 60
Wall destruction in general, burning of timber frames	Fire	AE 1930, 30
Narrowing of *Corridor E*	Fire	AE 1930, 31
South part of building harmed	Later inhabitants (modern)	AE 1909, 121

Table VIII.
Damage, intrusions and destructions at the main building[38]

[38] Including damage that may not have to do with the plan itself, but with the architecture and the stratigraphy in general.

Disturbed/damaged/ Destroyed area	Cause	Reference(s)
Mycenaean strata partly disturbed in *TT1*	*Duct 2*	AE 1909, 81-2
Walls TT2γ-γ covered	*Walls TT2α-α, β-β*. Outside the trench, covered to the east by wall of westernnost south butcher's shop, to the south by "walls"	AE 1909, 82-3
Brick wall under second from the east from the north butchers' shops *(TT3)* harmed?	Excavation	AE 1909, 83
"*Court*" disturbed	*Ducts 3*	ΠΑΕ 1911, 143
"*Court*" disturbed	*Pit 6*	ΠΑΕ 1911, 148
"*Kiln*" disturbed	*Well 1*	ΠΑΕ 1911, 149
West Wall 1 destroyed at the north part	Unknown: construction of Logothetis' boundary wall?	ΠΑΕ 1912, 85
West Wall 1 destroyed at the upper parts	Late Roman intrusion for extraction of building material	ΠΑΕ 1912, 85
Mycenaean strata disturbed west of the *kiln*	"*Portico*", *West Walls 2*	ΠΑΕ 1912, 86
Mycenaean strata disturbed at the west area of the westernmost north butchery shop	*Roman floor*	ΠΑΕ 1912, 86
Brick wall in *TT 4* harmed to take samples of bricks.	Excavation	AE 1909, 83
Area around *TT4* covered	Butcher's shop	AE 1909, 84
TT4 covered	Post-excavation, danger of collapse of the butcher's shop	AE 1909, 84

Table IX.
Destructions, intrusions and damage near the main building

Room/ Area	Msr1	Msr2	Msr3	Msr4	Msr5	msr6	Msr7	Msr8	msr9	msr10	msr11	msr12	Average
A	S 201.41	SW 201.55	W 201.52	W 201.55	NW 201.50								201.50
Between A-B	201.57												201.57
B	S 201.57	SW 201.57	SW 201.49	W 201.57	NW 201.50	NW 201.53	N 201.56	NE 201.57	E 201.55	E 201.59	SE 201.57	SE 201.49	201.546
Γ	SE 201.93	E 201.79	NE 201.77										201.83
Area north of *Wall C5*	S 201.67	SW 201.61	N 201.57										201.61
Δ	S 201.87	SW 201.90	NW 201.84	NE 201.77	E 201.77								201.83
E	S 202.11	W 202.19	N 202.07	E 202.11	SE 202.07								202.11
Z	S 201.70	NW 201.88	N 201.73	NE 201.52	SE 201.47								201.66
H	SW 201.76	NW 201.77	N 201.79	NE 201.84	SE 201.80								201.792
Θ	SW 201.54	NW 201.52	NE 201.54	SE 201.48									201.52
I	SW 201.57	W 201.49	NW 201.50	SE 201.66									201.555
Between *Walls C13-14*	201.37												201.37
K	W 201.30	N 201.42	SE 201.4										201.373
Λ													
Between *Walls C17, C18, C19* (area M)	Centre 201.59	NW 201.45											201.52

N	S 201.86	SW 202.09	W 202.17	NW 201.99	N 201.84	NE 201.74	E 201.72	SE 201.70					201.888
Ξ	SW 201.85	W 201.92	NW 202.44	N 201.84	NE 201.70	SE 201.65							201.9
O	SW 201.46	NW 201.55	N 201.56	NE 201.39	SE 201.37								201.466
Π	S 201.44	SW 201.72	W 202.40	NW 202.02	NW 201.89	N 201.54	NE 201.47	E 201.55	SE 201.40				201.714
Ш	S 201.40	SW 201.90	N 201.57	NE 201.37									201.56
Π4	Centre 200.97	SW 200.98	N 201.36	NE 201.26	SE 200.77								201.06
South of *Wall C29*	Centre 200.83	W 200.89	E 200.68										200.80

Table X
Absolute altitude (= from sea level) measurements in the "House of Kadmos", 1998

PART IV

Building materials and construction techniques

IV.1. Introduction

The discussion of building materials focuses on the nature and provenance of raw materials exploited, with a brief note on their manufacture and craftmanship. The various ways in which each material was used and the techniques employed are also considered, with the aid of parallels from other Mycenaean buildings of palatial or domestic character, Keramopoullos' views and the present author's observations, that were recorded during the two fieldwork campaigns of April and July 1998. A discussion of the preparatory works at the site (bedrock treatment and terracing) presupposes a clear understanding of the role of earth fills and wall construction and is therefore presented at the end of this chapter.

IV.2. Inorganic materials

IV.2.1. Stone

IV.2.1.1. Limestone

As in most Mycenaean buildings, the majority of building stone used both for the foundations and the socles was hard, microcrystalline grey limestone (Keramopoullos 1909, 84, 85; cf. Shear 1968, vol. II, 429, 431; Darcque 1980, vol. I, 91), more commonly called titanolithos or sidheropetra[1]. This stone is of great durability (Shaw 1973, 14), but like any type of limestone it is vulnerable to direct and intense fire.

Most of the limestones used in the "House of Kadmos" are of medium or large size. They are roughly dressed and laid in "coursed rubble" (*pls. 3, 10, 11*), "random rubble" (*pls. 6, 20, 23, 26, 30, 34*) or even quasi-Cyclopean style (*pl. 27*). The "coursed rubble" masonry is comprised of selected slabs that may occasionally be unusually large (*pl. 2*). Few wedges are employed in this case. The most regular surfaces form the walls' façades (Keramopoullos

[1] One should be aware of the fact that Keramopoullos speaks of poros limestone and plain limestone without discrimination, under the name *poros* or *tsitseri* (Keramopoullos 1909, 69). Orlandos terms poros "any soft, slightly yellow-red stone, apart from hard limestone and marble" (Orlandos 1958, vol II, 68). He also categorises the stone into three types: a.soft, yellowish stone-"αιγινήτης λίθος", b. harder yellowish stones that contains shells-"κογχυλιάτης λίθος", and c. compact white-yellow or brown-red oolithic limestone (Orlandos 1958, vol. II., 69-70). Thus, it is clearly different from the plain limestone which is harder and may

1928, 49; cf. Iakovides 1989, 151; Wright 1978, 127). "Random rubble" appears more frequently above socle level and is comprised of small and medium sized stones, packed with much clay. The half-timbering of the walls (see *IV.3.1.1.*) probably necessitated this type of masonry.[2] Sometimes "random rubble" is attested at socle or foundation level, but then the stones are larger and are interrupted at regular intervals by sizeable blocks that occupy most of the wall's width (cf. Darcque 1980, vol. I, 93; Iakovides 1989, 151); these seem to be setting the height of the foundation (*pl. 34*; cf. Wright 1978, 127). The medium and large sized stones are usually placed towards the outer parts of the walls, both along and across the walls' axes (cf. Iakovides 1989, 151), while the central parts of the walls are filled with smaller stones packed with clay (Keramopoullos 1909, 73). The stones at the corners of the walls are not larger than the rest, probably because most walls do not bond but abutt each other.

In general, the upper surface of most socles resembles a krepidoma, built of medium and large sized slabs (Iakovides 1989, 152). Some slabs may have been hammered, but the majority was probably extracted naturally flat, from thinly bedded outcrops (Shaw 1973, 14; Wright 1978, 127; Iakovides 1989, 151, 155). In some krepidomata wedge-shaped slabs are placed opposing each other (*Plan, Wall C30*; cf. Wright 1978, 129, 132, fig. 56).

Small stones, a by-product of the rough shaping of larger ones, functioned as wedges among larger interlocking stones (Iakovides 1989, 150). They were also used in the fills of some rooms, like at the east part of *Room Π* (cf. Tournavitou 1995, 34).

We noted previously that limestone sometimes breaks naturally in regural blocks or slabs, but copious tool traces do exist on the stones. Striations, that range from 0.01-0.05 m. in width 0.005-0.05 m. in depth were made by pointed chisels and punches (*pls. 10-11, 43, 45, 47*, possibly driven by mallets (cf. Evely 1993, vol. I, fig. 84; Küpper 1996, 8-9, Taf. 20.3: bottom right, 22.1). These tools cut out unwanted projections and shaped the stone roughly. Sledge-hammers or hand-held stone pounders may have also been used (cf. Evely 1993, vol.I, 213, figs. 84, 85; Iakovides 1989, 155) for flattening the upper surfaces of krepidomata (*pls. 3-4, 11, 13-14, 36-37*) and for shaping large blocks (*pls. 20, 28*). Although Keramopoullos claimed at

be of white-grey, pink-grey, bluish-grey or dark colour (Orlandos 1958, vol. II, 71-74; Shaw 1973, 13; Rosenfeld 1965).

some point that hammers were not used (Keramopoullos 1928, 49), in a previous report he identified clear traces of hammering on limestone (Keramopoullos 1927, 40). One the other hand, there is doubtful or no evidence for the use of saws, abrasives and drills. The two regularly shaped holes on the upper surface of a stone in *Wall C6* (diametres c.0.04 metres, depth c. 0.05 metres) are regular enough to have been made by a drill, though their function is unclear (*pl. 8*).

Limestone was locally quarried (Shear 1968, vol. II, 429; Wright 1978, 126), but the regular shape and great size of some stones implies that limestone was quarried for building purposes and that only a small amount of fieldstones, possibly the undressed smaller ones, were picked up from the surface of the site itself. The nearest outcrops of white-grey limestone are located at Soros, three kilometres east of Thebes (Tataris, Kounis & Marangoudakis 1970; *Appendix I*).

IV.2.1.2. Poros

Another type of limestone used in the masonry is a more even-grained and white light-grey type of limestone, usually dubbed poros (Shaw 1973, 13), which is easier to work with because of its relative softness (Shear 1968, vol. II, 430). However it is seldom employed in the "House of Kadmos".

The north façade of *Wall C3*, or the south wall of *Room A*, is built of four ashlar blocks in two surviving courses. However, in J. Wright's photograph (Wright 1978, fig. 83) the broken block that we found fallen in front of the wall in April 1998 (*pl.5*) is shown up on the wall. This stone was the remaining block of a third course. In Wright's picture, the fused debris filling the shaft between the ashlar blocks and the east façade of *Wall C2* shows a flat raised edge to the left (east), at the level of the third course, which indicates that another missing block should be restored west of the upper block, in the same course.

The courses were of uneven height[3] (cf. Wright 1978, 143), but the two blocks of the lowest course are slightly different in height as well.[4] Like at the north wall of the court and the east wall of the porch in the megaron of the palace at Mycenae, the blocks are roughly dressed at the back, and backed

[2] The beams would interrupt the coursing of the stones (Wright 1978, 129, fig. 55)
[3] The first course is 0.60-0.65 m. high, the second 0.40 metres and the third 0.36 m.
[4] The difference is about 0.05 m.

by rubblework (*pl. 6;* Keramopoullos 1921, 34; Iakovides 1973, 89; Wright 1978, 134). The foundation bedding of the lower course consists of small stones and follows the natural eastward slope (cf. Pylos, Wright 1978, 141-2). It seems that the character of this façade is decorative and not structural. Its decorative quality is generated by the alternation of stone and wood (Wright 1978, 134, 140-1) and the natural appearance of the beams themselves, which must have been unplastered. Although the façade was timbered, as is the case in all known examples of such Mycenaean facades, no mortises for the timber frames were seen on the blocks.

The employment of poros in ashlar masonry is associated with the softness of the stone (Shaw 1973, 12). Striations from scrapers or thin-pointed chisels exist on the façades (*pl. 44*; cf. Küpper 1996, 8-9, Taf. 36.1, 37.1, 56) and traces of flat-edged chisels or rasps are visible on the sides (*pl. 40, 46*). The front of the blocks may have been finished.

Five blocks-"κυβόλιθοι", possibly of poros, were re-used as Roman column bases were excavated west of the main building (Keramopoullos 1912, 86). Other membra of weathered poros, namely part of a fluted column (*pl. 15*) and an architrave block, were spotted at the site during the 1998 cleaning operation, but they are of much later date.[5]

IV.2.1.3. Conglomerate

Conglomerate is less frequently found in the masonry of the "House of Kadmos", in small pieces, jammed among the larger limestones, or in the rubble fill of wide walls. Potato-sized pieces of conglomerate are easily spotted in *Walls C2, C7, C15, C25, C30.* Some pieces are soft enough to have been extracted on the spot (cf. Shear 1987, 7), but others are more compact.

A sizeable conglomerate block found during the 1912 campaign was initially regarded as a key-stone from a tholos tomb (*fig. XXX*; Keramopoullos 1912, 87, fig.1) and subsequently, a column base (Kavvadias 1912, 76; Symeonoglou 1985, 41). According to the excavator, it was revealed east of the *Roman floor*, next to the foundations of Stratis' house in undisturbed Mycenaean strata, on stereo. It measured 2.10 m. in length, around 1.90 m. in

[5] The provenance of poros is uncertain, as Tataris, Kounis and Marangoudakis do not differentiate poros-limestone from common limestone.

width[6] and was 0.75 m. thick. The lower surface was supposedly unworked, but actually it looks as if it was roughly dressed. The upper surface[7] was a flattened, ovoid rise (cf. Iakovides 1973, 28, 108), protruding 0.105 m. from the "unworked" surface. Its diameter was 1.36-1.54 m. (Keramopoullos 1912, 86-7).

Conglomerate was often used for column[8] or anta bases in Mycenaean and Minoan architecture[9] (Shear 1968, vol. II, 430, 442; cf. Shaw 1973, 27, 112, 113, 227; Evely 1993, vol. I, 207). In Crete, the projection height of bases ranged from 0.10 to 0.30 m.[10], while the diameter of the worked surface from 0.35 to 0.60 m.[11] But oval-shaped bases, found mainly at Phaistos and Knossos, were greater in diameter (0.91-1.42 m.). Possibly, this is because the columns that they supported were made of more than one tree-trunk (Shaw 1973, 119).

The features of the stone (quality, workmanship etc.) fit the typical characteristics of a column base. I. Shear observes that stone column bases are mostly round in Mycenaean palaces (cf. Shear 1968, vol. II, 448), but the "atypical" ovoid section does find parallels in the architecture of the Aegean Late Bronze Age. But it is striking that the diameter is larger than any Mycenaean base known, in fact larger than the one at Phaestos. The column bases in the vestibule of the Tiryns megaron are 0.75 metres in diameter, while those in the main hall reach 0.66 m. (Iakovides 1973, 21). In conclusion, the possibility that this conglomerate slab was a column base is strong, but it should be remembered that it cannot be attributed with certainty to any particular area of the surviving plan.

A variety of tools would have been used to shape the block: chisels, hammers (Shaw 1973, 27) and possibly a combination of special saws (Shaw 1973, 68, footnote 2; Küpper 1996, 14-6) and abrasive media for smoothing the top may have been necessary.

A number of weathered conglomerate blocks are embedded in the masonry of the northwest corner of Daoutis' boundary wall (*pl. 17*), but it is

[6] The width is not given by Keramopoullos and is estimated on the base of the drawing (Keramopoullos 1912, 87, fig. 1), which cannot be very accurate though, as the length of the slab seems to be around 1.99 m.
[7] Keramopoullos thought that the worked side was the lower surface, possibly because he found the slab turned upside down.
[8] At Tiryns the bases were mostly of limestone (Iakovides 1973, 28).
[9] On the special ("symbolic") function of conglomerate in Mycenaean architecture, Küpper 1996, 115-8.
[10] At Tiryns the projection height is only about 0.03 m. (Iakovides 1973, 28)

impossible to determine whether they are of Mycenaean manufacture or not; such blocks are frequently used and cut in standard forms throughout antiquity.

The nearest source for conglomerate seems to have been Thebes itself (Tataris, Kounis & Marangoudakis 1970; Higgins & Higgins 1992, 74-6, fig. 6; *Appendix I*), although Keramopoullos believed that the stone was not local (Keramopoullos 1912, 87). Alternative sources would have been widely available around Thebes (see *Appendix I*).

IV.2.1.4. Schist

Micaceous blue-green as well as greyish schist slabs are occasionally found in the masonry (*pls. 34, 42, 48*), mostly at foundation level where they were invisible (cf. Shear 1968, vol. II, 431). Small, friable and irregular slabs have been spotted in *Walls C15, C11, C30,* and *C26.* The slabs were used because of their convenient shape as levelling wedges among limestones.[12]

Schist seems to be unavailable locally, as the nearest source is situated north of Paralimni, southeast of Pigadi Katsika (Tataris, Kounis & Marangoudakis 1970; *Appendix I*). But because of the small amount of schist used, it is plausible that the material was not transported, but was readily available on the spot.

IV.2.1.5. Cipolin

Two joining fragments of green cipolin (cipollino, καρύστιος-ευβοϊκός λίθος: Orlandos 1958, vol. II, 81), decorated with relief spirals and a foliate pattern, were found during the 1906 campaign; more fragments were found in *Room I* later (Keramopoullos 1909, 73, 102-104, 105, figs. 7, 19; Keramopoullos 1921, 32). In 1979, a fragment of "blue-grey stone" (cipolin?) with identical decoration was unearthed at Dagdelenis' plot, some fifty metres to the southeast of the "House of Kadmos" (*figs. XXVIII, XXIX;* Demakopoulou 1979, 166, pl. 53b; Demakopoulou 1990, 310, 312, fig. 3).

[11] The simplest way of setting a column base was to place it directly into a floor, allowing the upper surface to project in order to protect the wooden column from humidity. The stone was worked down to floor level (Shaw 1973, 115).

[12] Certain stone slabs were seen among fragmented terracotta slabs, which were regarded as floor or roof tiles, but it is unknown whether they were of schist (Keramopoullos 1927, 39).

Cipolin was used for column bases at Mallia (Shaw 1973, 29), but the fragment found in the "House of Kadmos" could be reasonably assigned to a frieze decorating the lower part of an upper storey wall, or the frame of a door (Keramopoullos 1909, 102). A blue sculpted stone is also known from Wace's house at the Cult Centre of Mycenae: it had probably fallen from an upper storey (Shear 1968, vol. II, 430, vol. III, footnote 736).

Traces of sawing have been preserved on the left side of the artefact (Keramopoullos 1909, 102), while a precision drill or point (cf. Evely 1993, vol. I, figs. 78, 84) must certainly have been used for the execution of the elaborate concave and relief patterns on its surface. Abrasive media may have also been used for the finishing of the decoration. It should be stressed that this material was apparently imported, since it does not appear to exist in eastern Boeotia at all (Tataris, Kounis & Marangoudakis 1970; *Appendix I*). Its provenance might be Karystos at south Euboea, which is quite close to eastern Boeotia and easily accessible through the natural ports of Aulis (Megalo Vathy) and Graia-Dramesi (Fossey 1990, 27-52).

IV.2.2. Lime plaster

Limestone is the raw material for lime plaster.[13] *In situ* surfaces and loose fragments of lime plaster, decorated or plain, came to light during the excavations in *Rooms Λ* (Keramopoullos 1909, 69), *N* (Keramopoullos 1909, 76-9, 88-95; Keramopoullos 1911, 144-5; Keramopoullos 1929, 60-1; Keramopoullos 1930a, 32-3), *O* (Keramopoullos 1911, 146) and *Π* (Keramopoullos 1927, 41-2; Keramopoullos 1930a, 32-3), as well as in *Corridor Π1* (Keramopoullos 1928, 47), *Room Π3* (Keramopoullos 1928, 52), *Room Π4*-TT7-8 (Keramopoullos 1928, 50; Spyropoulos 1971b, 206) and in trenches TT1 (Keramopoullos 1909, 81), TT3 (Keramopoullos 1909, 83) and TT6 (Keramopoullos 1922, 29).[14]

[13] Lime is produced when calcium carbonate is burnt at a temperature of about 900.° The broken lime chunks are beaten until pulverised, and the powder is mixed with water and stirred with sticks until the mixture becomes "slaked" or "quick" lime (Shaw 1973, 213; cf. Orlandos 1958, vol. II, 49-50).

[14] It is interesting to note that during the 1906 campaign, a small vessel filled with "compact and porous matter like decayed bone" was found in the neighbourhood of *Room Λ* (Keramopoullos 1909, 63, footnote δ, and 69-70, footnote 1). The excavator thought that this matter was accidentally fired clay; although the example certainly brings to mind some Minoan parallels of plaster lumps found in bowls (Shaw 1973, 211, figs. 240-242); he had the substance chemically analysed, and it was concluded that it was merely soil. The analysis, performed by Mr. Zeggelis (Keramopoullos 1909, 70, footnote 1), had the following results: Silicon Dioxide: 52.20%, Ferric and Aluminium Oxide: 21.40%, Calcium Oxide: 6.48%, Magnesium Oxide: 3.57%, Burnt remainder: 16.35%, Phosphoric acid: traces. An average percentage of these substances in seven analysed Minoan plasters (Shaw 1973, 226, table c, 1a,b-6) would be: Silicon Dioxide: 25.49%, Ferric and

Spotting lime plaster fragments proved to be a difficult and confusing task (Keramopoullos 1927, 41), since they were buried in debris containing melted limestones, that looked like fragments of destroyed plaster. It is unknown whether the lime plaster contained clay[15] for extra durability (Shaw 1973, 208; Darcque 1980, vol. I, 98; Iakovides 1973, 106; Shear 1968, vol. II, 443, 444[16]).

IV.2.2.1. Wall plaster

A. Decorated

Fragments of various wall-paintings were found:

a. **Under the plaster floor of the ground floor of *Room N* (*phase I*)**: originally the excavator believed that these wall-paintings decorated the walls of the ground floor, as he found them underneath "the collapsed floor of an upper storey" (Keramopoullos 1909, 91). Later on, he claimed that his original assumption was wrong and that the plaster floor was actually found *in situ*; therefore the wall-paintings were part of the fill beneath it[17] (Keramopoullos 1911, 144; Keramopoullos 1921, 33; Keramopoullos 1929, 60-1; cf. Tournavitou 1995, 280) and antedate the destruction of the building, as they do not bear traces of burning.

At any rate, the fragments reveal that the wall-paintings were the work of an exceptional artist.[18] They should belong to a single mural decoration programme; their thickness ranges from 0.02 to 0.05 metres at most, and occasionally they are even thinner (Keramopoullos 1909, 91).[19] They are less hard than the following category (Keramopoullos 1909, 91; Keramopoullos 1911, 144-5).

Their back side was attached to the walls by means of an intervening clay plaster layer[20] (Keramopoullos 1909, 91; cf. Shear 1968, vol. II, 444, vol. III,

Aluminium Oxide (added): 3.57%+3.92%= 7.49%, Calcium Oxide: 38.21%, Magnesium Oxide: 1.62% , Burnt remainder: 33.62%. No traces of phosphoric acid were detected.

[15] *Zeolite*, the mixture of clay and lime (Shaw 1973, 208).

[16] Also vol. III, footnotes 767 and 859 for parallels in Mycenaean architecture.

[17] For a more detailed discussion of the stratigraphy see *VI.3*.

[18] The iconography of these wall-paintings, the well-known *Procession of the Ladies*, will not be discussed in this thesis, as it has been published by Reusch (1948, 1953, 1955, 1957) and commented on by Immerwahr (1990).

[19] The difference can be explained if the lime plaster smoothed out the irregularities that the clay plaster of the wall failed to cover (cf. Iakovides 1989, 153).

[20] No backing of coarse plaster was reported beneath this plaster layer, as would be expected perhaps (Immerwahr 1990, 11). At another point, Immerwahr (1992, 14) quotes Evans' thoughts on the Blue Monkeys and Bluebird panels at the House of the Frescoes at Knossos: "these fragments were thin and

footnote 853; Iakovides 1973, 26; Immerwahr 1990, 11; cf. *IV 2.1.4.2.*). The front surface of the fragments was evenly smoothed (Keramopoullos 1909, 91); this was thought to be of pulverised marble (Keramopoullos 1909, 88), but it is doubtful whether this later technique was practised here (cf. Orlandos 1958, vol. II, 58).

Some fragments seem to have been attached to door or window frames, as they have a few straight sides bordered with bands that would run parallel to a window or door lintel (Keramopoullos 1909, 88, 92), or even ceiling timbers. Keramopoullos proposed that wall-paintings with "polychrome homocentric circles" decorated a ceiling (Keramopoullos 1909, 89), but this is debatable. He argued, at another point, that they may have decorated walls (Keramopoullos 1909, 93).

The technique employed for the execution of these wall-paintings was a combination of so-called *buon fresco*, i.e. painting on damp plaster, and of *al secco*, i.e. painting on dry plaster (Keramopoullos 1909, 90, 91; cf. Doumas 1992, 18; *contra* Tournavitou 1995, 280). Apparently the plaster had dried in some areas before the artist had time to complete his work. This has resulted in two different states of colour preservation; the *buon fresco* areas have kept their colours, while the colours at the *al secco* areas have faded or perished completely.

In some cases, colour was added on top of dried *buon fresco* (Keramopoullos 1909, 91), to correct or improve the appearance of the wall-painting (Immerwahr 1990, 117; cf. Shear 1968, vol. II, 444; Tournavitou 1995, 280). These final touches may have been mixed with thinned lime or lime water, to achieve the necessary chemical bonding of the colour to the undercoat (cf. *fresco secco*, Immerwahr 1990, 14-5; Doumas 1992, 18; Asimenos 1978, 577; Hood 1978, 83).

A note on the actual pigments used should be included here: white, yellow, yellow-red/orange, light-red/pink, red, orange-brown ("the colour of tiles"), maroon, light-blue, blue and black are the colours identified (Keramopoullos 1909, 92-4; cf. Shear 1968, vol. III, footnote 854). Although only light-blue and blue are mentioned in the excavation report, dark blue was also used (Immerwahr 1990, 115). Seemingly no green was used, as in the

fragile without any rougher backing... as if they had been laid directly on a clay surface", which is interesting.

Ivory Houses' wall-paintings[21] (Tournavitou 1995, 280), despite the fact that it was used at Tiryns[22] (Immerwahr 1990, 15; Doumas 1992, 18; Hood 1978, 84). It is odd that blue and yellow, both colours attested separately at the "House of Kadmos", were not mixed to produce green (cf. Doumas 1992, 18-9).[23]

b. **Within the plaster floor layer of *Room N* itself (*phase I*?):** many of these fragments were hard and monochrome, painted red or blue (Keramopoullos 1909, 77; Keramopoullos 1911, 144; Keramopoullos 1929, 60; cf. Tournavitou 1995, 280, 282). However, other pieces with fugitive colour were also found; these were softer and thinner and were found together with sherds and beads (Keramopoullos 1909, 78, 88). This strengthens the possibility that a combination of *al secco* and *buon fresco* techniques was employed in these wall-paintings as well, and indicates that the fragments found *in* and *beneath* the plaster floor all belong to the same, *Phase I* wall-paintings.

The re-use of broken, older wall-paintings or decorated plaster in this way could constitute "important evidence for extensive earthquake damage and re-decoration sometime prior to the final catastrophe"[24] (Immerwahr 1990, 13).

c. **In the destruction debris that lay above the floor of *Room N* (*phase II*)**: those were of poor artistic quality, in comparison to the first category. We have to rely on Keramopoullos' opinion, as no description of their iconography, photographs or restoration drawings have been published. It is interesting to note, moreover, that Keramopoullos does not differentiate the simple band decorations from the actual pictorial wall paintings. In any case, *Phase II* "wall-paintings", as the excavator termed them, decorated the walls of the ground floor (Keramopoullos 1909, 69, 76; Keramopoullos 1911, 144).

d. **In *TT1*, *Rooms Λ, O, Π, Π3, Π4* and *Corridor Π1*:** the fragments found in *Room O* were too burnt (Keramopoullos 1911, 146), while no details have been published on those reported to have been found in *TT1* (Keramopoullos

[21] Though dark green-blue was used instead, on a figured scene from the House of the Oil Merchant, room 2 (Tournavitou 1995, 280).
[22] Though the Tiryns green was malachite-based, not a mixture of yellow ochre and blue (Immerwahr 1990, 15; *contra* Doumas 1992, 18).
[23] A possible reason why green is missing from the wall-paintings though, could be that no substantial fragments depicting vegetation were revealed until 1909. Indeed, Keramopoullos vaguely reports "flowers" and only the upper parts of lilies (Keramopoullos 1909, 91-2, 95; Keramopoullos 1917, 196).
[24] As in the case of the *Monkey fresco* (*Room B6*) at Akrotiri, where the broken fragments of older wall-paintings were incorporated in the plaster of a new *wall* decoration (Immerwahr 1990, 13).

1909, 81), *Corridor Π1* (Keramopoullos 1928, 47), "*Room Π4*" (Keramopoullos 1928, 50) and *Room Λ* (Keramopoullos 1909, 69). The fragments found in "*Room Π3*" (Keramopoullos 1928, 52) were found in a secondary fill at the foundations of the *Turkish bath* and cannot be safely assigned to this area of the Mycenaean building.

On the other hand, some of the pieces found in *Room Π* were greatly distorted by the fire (Keramopoullos 1927, 41-2). However, a few fragments were in a good condition and allowed Keramopoullos to draw certain conclusions on their craftmanship. The fragments of *Room Π* consisted of three layers of plaster (cf. Iakovides 1973, 159; Iakovides 1989, 153); *layer 1* (the lowest) was 0.01-0.02 m. thick, i.e. of a similar thickness as *phase I* fragments in *Room N*, and featured high quality pictorial wall-paintings.[25]

"Incised parallel lines" were preserved on some surfaces (Keramopoullos 1927, 42); this proves the use of guiding or bordering strings, that were actually impressed, not "incised", on damp plaster (cf. Immerwahr 1990, 14; Doumas 1992, 18; Tournavitou 1995, 282, 283). According to the excavator, *layer 3* (the uppermost) featured painted decoration of inferior quality; sadly, no description or picture of *phase II* fragments has been published. *Layer 2* (the middle one) was probably plain plaster that bonded *layers 1* and *3* and was of the same width as *layer 3*; the actual figure though is not mentioned in the report.

The mode of refurbishment of the wall-paintings in *Room Π* certainly contradicts the one attested in *Room N*, where old fragments were merely re-used in the fill and in the new plaster floor (Keramopoullos 1927, 42).[26]

It should be added that a big fragment of decorated wall plaster, measuring about 0.15 by 0.20 m., was found lying on *Wall C24* during the 1998 clean-up operation. It is very thick (0.15 m.), and contains pebbles and thick-grained sand. The front features a rather coarse, white surface with traces of a float or trowel on it. Its upper part is occupied by a horizontal black or blackened band (cf. Shear 1987, 11), 0.09 m. wide, that is separated from the rest of the surface by means of an impressed line, definitely the result of a tightened string pressed on the damp plaster (*pls. 21-22*).

[25] Unfortunately we cannot afford to discuss their pictorial *repertoire* in this thesis.
[26] The fact that the old wall-paintings in *Room Π* were covered by the new ones, although they were still on the walls at the time of the refurbishment of *Room N*, might imply that *Rooms Π* and *N* were unified at least functionally, if not spatially.

B. Plain

Fragments of plain wall plaster have been found in *Room N*; some may have collapsed in a door opening (Keramopoullos 1909, 76), while others bear traces of the float or trowel that was used to flatten the wet plaster (Keramopoullos 1909, 89, 91; cf. Shaw 1973, 214, 210: figs. 238-239; Orlandos 1958, vol. II, 55, 57, figs. 19-20).

Keramopoullos acutely suggested that the plain plasters covered those parts of the walls that were not visible, such as the areas behind cupboards (Keramopoullos 1909, 89, 91); of course, the possibility that some walls were simply covered with undecorated plaster cannot be excluded. The thickness of these plasters measured 0.01-0.02 m.; the back side of the layers was coarse and rested on a clay layer that bonded it to the wall (Keramopoullos 1909, 91).

IV.2.2.2. Floor plaster (and loose fragments)

A plastered ground floor surface came to light in *Room N* (Keramopoullos 1911, 144-5). Originally, it was considered a collapsed floor of an upper storey (Keramopoullos 1909, 89). Attached to a layer of sand and clay (Keramopoullos 1909, 90; Keramopoullos 1911, 144), it was flat but not very smooth and consisted of one plaster layer that reached 0.10 m. in thickness (cf. Iakovides 1989, 153, 154); it contained sand, pebbles (cf. Iakovides 1973, 26, 159; Iakovides 1989, 153) and thin (0.02 m.) fragments of wall-paintings (Keramopoullos 1909, 77, 89, 90; cf. Tournavitou 1995, 32: chaff), that may also belong to *phase I*. But the fragments that it contained were, according to Keramopoullos, harder than *phase I* pieces and harder than the actual floor plaster itself (Keramopoullos 1909, 90). Keramopoullos does not distinguish various layers of plaster in the floor, but the pebbles should normally belong to the lower part of the plaster (cf. Iakovides 1989, 154).

The floor of *Room Π* is described as white "κεραμίτις γη" (cf. *IV 2.4.1*).[27] White earth has not come up in any other part of the building, though, with the exception of the whitish clay plaster used to coat the *kiln's* interior and the clay lump found in *Pit 8* next to it (Keramopoullos 1911, 148-

[27] This brings to mind the so-called *asprochoma*, a sandy/pebbly soil mixed with lime and water, used for hard-packed exterior floors in Minoan architecture (Shaw 1973, 225-6), and the waterproof, white *plesia* clay used at Mycenae (Iakovides 1973, 106; Tournavitou 1995, 18 and *passim*) and the Acropolis at Athens (Iakovides 1973, 137) for a similar purpose.

9). The excavator's report may point to the existence of a disintegrated plaster floor (cf. Shear 1987, 12; Tournavitou 1995, 35), that contained sherds for extra hardness (cf. Shaw 1973, 216), or that was simply mixed with the room's fill, when the later ducts cut across *Room Π*, extending below the Mycenaean floor level (*Ducts 6-8*). Keramopoullos' belief that it was white because it had been burnt is rather dubious; but the possibility cannot be altogether ruled out.

Plain lime plasters were also found in trial trench *TT6*, in debris containing bricks and limestone pieces (Keramopoullos 1921, 29) and in trench *TT 3* (Keramopoullos 1909, 83), but it should not be taken for granted that they are of Mycenaean date, as lime plaster was extensively used in the area in much later times (cf. Keramopoullos 1922, 30).

IV.2.3. Sand

Sand was always found in the context of lime plasters (Keramopoullos 1909, 79), both of walls (Keramopoullos 1909, 76, 88; Keramopoullos 1911, 144) and floors (Keramopoullos 1909, 77, 88, 89). It seems that it also existed in the decomposed mudbrick debris (κεραμίτις γη) fallen in the rooms (Keramopoullos 1909, 70), but this need not mean that it was contained in the bricks themselves.[28]

The sand used for floors, as well as for coarse layers of wall plaster, was thick-grained and contained small pebbles (cf. Orlandos 1958, vol. II, 51). In *Room N* it was mixed with fragments of the "monochrome wall-paintings" and lime (Keramopoullos 1909, 90), to form a compact habitation surface. Thin-grained sand was probably used for the upper layers of wall plaster (cf. Orlandos 1958, vol. II, 51), because a smooth finish was required. During the April clean-up operation we discerned smooth sand in the fused superstructure debris (επίπαγος) of *Walls C1, C2, C3, C9, C11, C12, C16*, resting on top of burnt brick and/or clay, in horizontally collapsed layers.

It is interesting to note that pottery and beads were frequently found in sand layers (Keramopoullos 1909, 88). The sand may have been brought either from a sea-shore or from a river (Keramopoullos 1909, 77), but given the fact that rivers run at the feet of the Theban hills, the second possibility is more likely. The sea-shells that were found during the excavations (*arca Noae*

or *linnė*, and other species: Keramopoullos 1909, 76, 104) are clearly not to be assigned to sand layers but to the habitation debris of the building, that also included burnt animal bones and pottery.

IV.2.4. Soil-based materials

IV.2.4.1. Soil/debris

During the excavations, a mixed stratum of soil and habitation debris was found in *Corridors Z* (Keramopoullos 1909, 74), *K* (Keramopoullos 1909, 72), *M* (Keramopoullos 1909, 72), *ΠΙ* (Keramopoullos 1928, 46) and *Φ* (Keramopoullos 1928, 49), as well as in *Rooms H* (Keramopoullos 1921, 32; Keramopoullos 1928, 51), *I* (Keramopoullos 1909, 74), *Λ* (Keramopoullos 1909, 70), *N* (Keramopoullos 1909, 80, 88; Keramopoullos 1911, 144; Keramopoullos 1927, 32), *Π* (Keramopoullos 1927, 34-5) and *"Π4"* (Keramopoullos 1928, 50). Usually, it rested on natural bedrock and was overlaid by a black layer that consisted mostly of burnt wood and blackened sherds[29] (Keramopoullos 1909, 86).

The soil was dubbed "κεραμίτις γη" because it consisted of dry clay (ἄργιλλος), suitable for pottery (Keramopoullos 1909, 70; cf. Orlandos 1958, vol. I, 86). The excavator thought that it was brought over from Pyri, a western suburb of modern Thebes (Keramopoullos 1909, 70), but red loam is to be found on the "citadel" of Thebes nowadays (Tataris, Kounis & Marangoudakis 1970; *Appendix I*). It cannot be excluded that the sources at Pyri were the ones used, but the suggestion that the resources in the immediate vicinity of the building were exploited, is more plausible.

The soil's colour was red (Keramopoullos 1909, 70), though in *Room ΠΙ* it was described as white, possibly because it was burnt (Keramopoullos 1927, 35). Seemingly, the colour of the soil could change if exposed to fire, but otherwise it would remain unaffected by it and would not harden up (Keramopoullos 1909, 70). At least, this is what Keramopoullos' reports point to, even though they seem to contradict each other.

[28] The inclusion of sand was frequently avoided in antiquity because it made heavier and less stable bricks, though exceptions to this rule did exist (Orlandos 1958, vol. I, 69, footnote 6).
[29] On the contrary, the "red burnt debris layers" of deteriorated mudbrick found in the House of the Shields at Mycenae, overlay a black layer (Tournavitou 1995, 19).

"Pre-Mycenaean" pottery and "baked" bricks (Keramopoullos 1909, 72, 74, 80) were the other two main components of this stratum.[30] In a sole instance, a pan tile was found (Keramopoullos 1909, 71). The majority of the bricks were in pieces; they were mingled with earth and lay horizontally, though not in courses (Keramopoullos 1909, 72). This layer of soil and debris might also have contained sand (Keramopoullos 1909, 70).

Apparently, the height of the stratum was not uniform but depended on the formation of the stereo. In *Room Λ* it was 1-1.10 metres high (-1.0/-1.10 to –2.0/-2.10 metres from the 1906 surface: Keramopoullos 1909, 70, 86). In *Room N* (east part) it was less than 0.45 metres high, although the stratigraphy of this room is not particularly representative because it was refurbished prior to the final destruction; and also because of the peculiar bedrock formation in that area.

In particular, a uniform bank of rising stereo ("όχθος": Keramopoullos 1929, 61) was revealed along the east façade of *Wall C30* in *Rooms B, Ξ, N* and in *Corridors Δ-E-Z*. This was either thinly covered or not covered at all by "κεραμίτις γη" (Keramopoullos 1929, 61). A similar situation may be recognised in *Room H*, where another "όχθος" was later understood as such (Keramopoullos 1929, 61; cf. Keramopoullos 1927, 33, fig. 1).

However, the central and east preserved parts of *Corridors Δ* and *Z*, and the east part of *Room Ξ* (possibly the southeast part of *Room H* also), were filled with this stratum. The lower, east part of *Room N* was filled with "κεραμίτις γη" up to the level of the rising bank at the west part of the room. This involved the covering of an older wall (*Wall B3-"B4"*: Keramopoullos 1909, 80, 85; Keramopoullos 1929, 61) at the east part of the room, and possibly of a "burial-like" pit (*Pit 1*: Keramopoullos 1911, 144).[31]

Similarly, an older wall (*Wall B5*) was also concealed by means of "κεραμίτις γη" in *Room Π* (Keramopoullos 1927, 34), while the older *Walls A* and *B1* were covered by a thick stratum of debris/soil in *Room Λ* (Keramopoullos 1909, 86). In the area of "*Room Π4*" several "pre-

[30] In the House of the Shields, a similar stratum under the floor of the west room contained small stones, red earth and sherds -mostly dating in LH II-LH IIIA2 (French 1965, 185-192; Tournavitou 1995, 20).

[31] There is a strong possibility that when Keramopoullos discussed the latter (1911) he was merely unaware of the idiosyncratic bedrock formation of the room and thought that the lower bedrock level at the east part of the room was a rock-cut pit. The area where *Wall B3-"B4"* is situated is an oval-shaped depression that could admittedly be mistaken for a "burial-like" pit. A clearer view of the picture was available to him and published in 1929, where no reference to this feature exists however.

Mycenaean"-Early Helladic[32] vessels and the possible remains of a stone-lined hearth[33] were found at least 0.80 m below "floor level" (Keramopoullos 1928, 50, 51).

It seems that from 1921 onwards Keramopoullos tended to use the word "floor"(δάπεδον) as a synonym for the upper surface of this debris/soil stratum. As a result, what was previously referred to as "κεραμίτις γη" was hardly mentioned in the following reports, while the references to rooms' floors increased.

For instance, "floors" or "δάπεδα" were reported in *Corridors ΠΙ* (Keramopoullos 1928, 46, 47) and *Φ* (Keramopoullos 1928, 49), and in *Rooms H* (Keramopoullos 1928, 51), *Π* (Keramopoullos 1927, 34, 44; Keramopoullos 1928, 48) and *"Π4"* (Keramopoullos 1928, 50; cf. Spyropoulos 1971b, 206-7), but whether they were made of lime plaster, clay plaster or trodden earth was not mentioned; the existence of similar "floors" in all the other rooms except for *Rooms N, Ξ, O* was implied.[34]

This is not to say that the term "floor" was a misnomer in those instances. It is very likely that "κεραμίτις γη" functioned as a simple floor in some areas of the building (cf. Iakovides 1973, 108; Darcque 1980, vol. I, 98; Tournavitou 1995, 37, 42), especially since five *in situ* intact stirrup-jars were found on top of it in *Room I (fig. LI;* Keramopoullos 1909, 75, 86). But in other parts of the "House of Kadmos" the situation is not very clear. As already mentioned, a floor of "κεραμίτις γη" was described in *Room Π* (Keramopoullos 1927, 35), but in the same report a wooden floor was reconstructed on top of it (Keramopoullos 1927, 39). Unfortunately, the same problem is encountered in the discussion of the floors of *Corridors ΠΙ* (Keramopoullos 1928, 46, 47) and *Φ* (Keramopoullos 1928, 49).

An additional problem complicates the interpretation of "κεραμίτις γη" further. Although the excavator felt, most probably correctly, that this stratum functioned as an artificial fill (cf. "red pebbly material": Tournavitou 1995, 39), that levelled the eastward/southward slopes of the hill and covered the pre-existing structures at the site (*IV.4.;* Keramopoullos 1909, 86; Shear

[32] Their dating was given by the excavator.

[33] This was described by Keramopoullos as four stones around a fractured vessel. The vessel was found leaning with the opening towards the south, and contained a stone (Keramopoullos 1928, 50). For the contents of the vessel compare: Shear 1987, 39.

[34] "The lower fill of the old floor of the palace was investigated to bedrock in all excavated rooms apart from *Rooms N, Ξ, O* and *Φ*" (Keramopoullos 1927, 32), but a later reference to the "floor" of *Corridor Φ* exists (Keramopoullos 1928, 49).

1968, vol. I, 436; Wright 1980, 60), he also reported that "κεραμίτις γη" was found *on top* of the socle of *Wall C18*; it contained "baked" *as well* as sundried mudbricks and was covered by a black layer, 0.30 metres thick (Keramopoullos 1909, 76).

Keramopoullos himself was perplexed about the origin of this stratum. He finally suggested that the clay and pre-Mycenaean sherds contained in "κεραμίτις γη" were the remains of disintegrated mudbrick from an earlier edifice and that the "baked" bricks were also part of the same building. He added that the clay used for the *sundried* bricks, which formed the superstructure of the stone socles of the "House of Kadmos" and contained "similar sherds", came from the same source (Keramopoullos 1909, 83, 86-7).

Yet, in a later report he claimed that the base of a goblet or kylix included in a mudbrick found in the destruction debris of *Room Ξ* looked like the ones found elsewhere in the *destruction debris* of the building (Keramopoullos 1911, 146). Also, he later realised that "baked" bricks were not contained in the rooms' fill only, but were built into the walls of the "House of Kadmos" along with mudbricks (Keramopoullos 1927, 40; Keramopoullos 1928, 49).

It seems that no definite answer concerning the origin and date of this "κεραμίτις γη" can be given without studying the pottery material. Because of this, general conclusions on its precise function must be postponed for the time being: was all of this stratum debris from an older structure that was utilised as a terrace fill in the "House of Kadmos", and/or collapsed and decomposed material from the walls' superstructure at ground floor level? Whether terracing was indeed necessary or not will be further investigated in *IV.4.*

What can be said with relative certainty about this stratum, is that it provided flat and stable platforms for the construction of at least some ground floors. It might have formed the substructure of wooden floors (*Room Π, Corridors Π1* and *Φ*), while in one instance it formed (the east) part of the underpinning of a lime plaster floor, together with an intervening deposit of destroyed wall-paintings (*Room N*; cf. House of the Oil Merchant, Corridor: Tournavitou 1995, 31); the rest of the plaster floor lay on the wall-painting debris and on stereo. Moreover, the upper surface of the stratum was used as a

plain floor at least in one room of the building (*Room I*). It is telling that the burnt debris stops on top of κεραμίτις γη (cf. Shear 1987, 38, 40).

A by-product of the above is that it also covered older walls and a possible pit (*Pit 1*), though it cannot be excluded that part of that fill accumulated naturally on the site in the course of time, prior to the construction of the "House of Kadmos". For instance, the fill covering the Early Helladic pottery in the area of *Room "Π4"* could not have been totally artificial, or the vessels would have been washed away by the time the "House of Kadmos" was erected. Also the soil found beneath *Wall B3-"B4"* is definitely older[35] than the "κεραμίτις γη", as it was covered by the latter and contained "Minyan and LH II pottery" (Keramopoullos 1929, 61).

IV.2.4.2. Fluid clay/mud

A. Clay mortar

Red fluid clay or mud was laid in the masonry of the foundations (Keramopoullos 1909, 84). During the 1998 cleaning operation we were able to ascertain that a clay bedding exists between the hardpan and the lower course of some, at least, stone foundations (*pls. 19, 28;* cf. Wright 1978, 20). This layer stabilised the foundations, as it anchored them on the bedrock and eliminated minor irregularities of the latter. It probably functioned as a waterproof agent as well, that protected the foundations and the rooms from humidity (cf. Iakovides 1973, 107; Shaw 1973, 78).

Yet clay was primarily used in the upper parts of the foundations and the socles, as binding mortar (*pls. 6, 9, 12;* cf. Shear 1968, vol. II, 433, 435; Iakovides 1973, 26, 158-9; Darcque 1980, vol. I, 92, footnote [3]; Shaw 1973, 77, 78, 187; Orlandos 1958, vol. I, 83). The builders used much clay to strengthen the masonry and, possibly, to make up for the fact that the stones were not properly dressed (Keramopoullos 1928, 49); in that case, clay would have been used as a levelling layer between stone courses as well, that stabilised them (cf. Iakovides 1989, 151). Also, "a great deal of clay" was found together with burnt stones in the fused debris of the superstructure ("επίπαγος", Keramopoullos 1909, 69, 73, 76-77, 83, 85; Keramopoullos 1927, 35, 39). It was certainly used as mortar in mudbrick structure

[35] This fill should normally antedate the construction of the *Wall B3-"B4"*. The ceramic material that it contained is associated with R. Barber's information regarding "the earliest palace" at the site (Barber 1992, 18).

(Keramopoullos 1909, 83; cf. Shear 1968, vol. II, 433) and on "baked" bricks (Keramopoullos 1927, 40), while traces were visible on the supposedly older "baked" bricks in the rooms' fill (Keramopoullos 1909, 70).

The material would turn naturally into a relatively compact mass by drying, but the fire that destroyed the building transformed it either into soft brick-like material (Keramopoullos 1909, 69) or hard clay masses (Keramopoullos 1927, 37)[36]. No imprints of straws or organic inclusions were discerned in it (Keramopoullos 1909, 65, 84), but small pebbles are found.

Clay also functioned as a gluing agent that bonded timber frames with stones and/or mudbrick (*pls. 4, 40, 39-40, 48-55;* cf. Shear 1968, vol. II, 433; Tournavitou 1995, 35, 51; Shaw 1973, 187), thus enabling the coherence of the diverse building materials employed for the construction of socles and walls. This clay layer also protected the wood from moisture. According to the excavator, the interior walls of the building had more clay than the exterior ones and therefore demanded more complicated timber frames (Keramopoullos 1927, 37). For example, the north part of *Wall C10* contained too much clay to have stood without a proper frame (Keramopoullos 1927, 40, 41: footnote 1).

Clay was pasted on the interior sides of holes or gaps that belonged to timber beams traversing the width or length of the walls. In *Room A*, clay was found on the upper interior side of such a slot (Keramopoullos 1909, 67). In *Room Π*, hardened clay was found on and beneath a carbonised beam of *Wall C24;* traces of wood were seen on it (Keramopoullos 1927, 37). In *Room A,* all three interior sides of the horizontal timber gap in the ashlar façade of *Wall C3* must have been originally covered with clay; unfortunately only the vertical side retains it today; its surface bears clear traces of horizontal wood imprints (cf. Tournavitou 1995, 9). The beam gap that traverses the width of *Wall C2* in *Rooms A* and *B* is covered with clay on all four interior sides. In *Room N*, the timber gaps of *Wall C15* were filled with collapsed debris, that included "burnt earth" (Keramopoullos 1929, 63).

In *Room Π*, finally, clay was found on "baked slab-like bricks", that were frequently unearthed during the excavations in other rooms as well (Keramopoullos 1927, 39). Whether these "slabs" were bricks or terracotta floor or roof tiles will be dealt with in *IV 2.4.4.D*; Keramopoullos favoured the idea that they were mostly built into the upper parts of the walls, with clay

(Keramopoullos 1927, 40). At any rate, the clay found on them functioned as binding mortar.

B. Clay plaster

It should be noted that I. Shear differentiates clay-based from earth/mud-based plaster (Shear 1968, vol. II, 443), but because the difference is very subtle and no plaster surfaces survive to be sampled for analyses, clay is considered here a "refined form of mud" (Shaw 1973, 187).

The evidence for clay wall plaster is quite clear in *Rooms Ξ* and *O*; it was reported that the walls were plastered with clay (cf. Shear 1968, vol. II, 433; Iakovides 1973, 26, 107; Darcque 1980, vol. I, 97; Tournavitou 1995, 5; Shaw 1973, 78), "upon which the concave and oblong impressions from fingers or a peculiar trowel" were discernible (Keramopoullos 1911, 148). The colour of the clay was not mentioned, but most probably it would have had the natural red colour of mortar clay. Also, the report does not make it obvious that the plaster was found *in situ* on the walls, although the possibility that this was so, at least until 1911, is strong.

Two collapsed masses of "compact earth" with a flat upper surface were found in *Room Π*; these were thought to have formed the north façade of *Wall C23* (Keramopoullos 1927, 41), that is the face of the south wall of *Rooms Ξ* and *O* (*fig. XXXIX*). Most probably, they were fragments of hardened clay plaster. It is possible that the south façade of *Wall C23* was also plastered in clay.[37] Seemingly, *Wall C30* at *Room Π* was plastered with clay even at its exterior façade (Keramopoullos 1911, 149).

At this point, it should be remembered that the fragments of the wall-paintings and of plain lime plasters, found deposited underneath the refurbished floor of *Room N*, had preserved on their back sides the remains of the clay plaster of the wall(s), on which the wall-paintings were attached prior to their collapse (Keramopoullos 1909, 91). This layer would have levelled the surface of the rubble or mudbrick wall before the lime plaster was applied (cf. Shear 1968, vol. II, 444; Iakovides 1973, 159; Shaw 1973, 207), and did not have any straw inclusions (*contra* Iakovides 1973, 107; Doumas 1992, 17).

[36] The difference might indicate, though, that disintegrated mudbrick was occasionally taken for clay.
[37] This is implied by the report: "[...] the façade of this wall, before it was plastered, would appear as in fig. 5" (Keramopoullos 1927, 37).

Phase II "wall-paintings" in *Room Π* were also attached on walls plastered with clay. Keramopoullos claimed that the "wall-paintings" rested on sizeable masses of earth (Keramopoullos 1927, 41; cf. *Wall C10*, Keramopoullos 1927, 40, 41: footnote 1). Because of this, wall constructions close to *pisé* were envisaged in some areas.[38] *Pisé* walls do exist in Mycenaean architecture (Shear 1968, vol. II, 433, 438, 441; Wright 1978, 11; Darcque 1980, vol. I, 95, 96), but given the rarity and weakness of this type of construction, it would seem that it had no place at the ground floor of such a massively built edifice. Perhaps the wall had too much clay plaster and/or mortar in the areas described by Keramopoullos.[39] There is some evidence that clay was used as wall plaster in *Room I*, where a fragment of "straw-*coloured*" plaster was found (Keramopoullos 1909, 75). However, whether the fragment comes from the ground floor walls or the ceiling of the room is unknown. In general, no colour was traced on clay plaster (*contra* Shear 1968, vol. II., 444).

The evidence in support of clay floor plaster at ground floor level is meagre (cf. Shear 1968, vol. II, 433; Iakovides 1973, 108, 163; Tournavitou 1995, 5, 9, 12, 18, 29, 30, 34; Orlandos 1958, vol. I, 83). In particular, the only occasion where clay was found in the context of a floor is in *Room N*. The room's refurbished lime plaster floor had both sides covered by "earth", but one side may have been covered by clay mixed with sand (Keramopoullos 1909, 90). No chaff inclusions were mentioned (*contra* Tournavitou 1995, 32, 42). Whether this layer was the underpinning of the lime plaster or just earth, is not clear (see below, *clay as ceiling plaster*).

In general, a finish of red, fluid clay may have been applied to trodden earth floors in other rooms of the building[40] (cf. Darcque 1980, vol. I, 98; Tournavitou 1995, 35); admittedly, this would be hard to distinguish from the plain, red soil during the excavations and would stand few chances of surviving the extensive later damage (Shear 1987, 38) that occurred in many areas of the "House of Kadmos". Although logical, the reconstruction of such floors is conjectural however.

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[38] Keramopoullos never really described *pisé* walls, but claimed "that great parts of the walls were of clay, is proven [...] by the fact that a lot of wall-paintings are attached to sizeable masses of earth". Shaw (1973, 79) points out though that the term *pisé* implies "the use of a wooden form into which the mud and rubble are set, the form being removed when the wall has dried".

[39] Cf. Seager's description of a wall at Vasiliki, quoted by Shaw (1973, 194): "...there are sometimes two meters of solid plaster...[brick clay: Shaw], amid which lie bricks from the upper walls". Also, Wright's observation about stones embedded "in a matrix of mud" (Wright 1978, 128).

[40] Just as some walls that are covered today with mud plaster once had a facing of clay (Shear 1968, vol. II, 444).

Similarly poor is the evidence for the use of clay as ceiling plaster and floor plaster in the possible upper storey(s). Keramopoullos reported a piece of hardened clay in *Room Π,* that bore imprints of three reeds and, possibly, of straws. He claimed that he found other fragments as well, scattered here and there in the room (Keramopoullos 1927, 39). He was unsure whether these belonged to burnt soil, burnt mudbricks or "baked" bricks; however the reeds' impressions reveal that the fragment belonged to a surface of thick, damp clay plaster pressed on reeds, to form the room's ceiling and/or a roof, or the floor of an upper storey ("δόρωσις").[41] The technique (cf. Danişman 1968, fig.6e; Danişman 1969, 509, fig. b), was common in the architecture of the Aegean Bronze Age (Orlandos 1958, vol. I, 83; Shaw 1973, 221-2; Hallager 1990, 285) and was practised in most Mycenaean buildings (*figs. XXXXVI, XXXV;* Shear 1968, vol. II, 433, 451; Iakovides 1973, 158, footnote 1; Iakovides 1990, 158, figs. 13, 14).

Similar evidence at Mycenae has been interpreted as indicating an upper floor in the North House, and a roof in the north part of the palace (Iakovides 1973, 109), while at Glas clay fragments with imprints of reeds or small branches were first seen as bricks (Threpsiades 1961, pl. 12δ) and consequently, as pieces of the roof tiles' underpinning (Iakovides 1989, 160). If the fragments found at the "House of Kadmos" belong to a roof, the clay would have functioned as a waterproof coating as well, though no other material (e.g. leaves) was included in the clay to improve this watertight quality (*contra* Shaw 1973, 222). Whether lime was included in the clay to achieve this (cf. Shear 1968, vol. II, 451) is unknown. Apparently, the clay plaster got hardened by the fire and collapsed together with the wooden structure that supported the upper floor or the roof.

Furthermore, Keramopoullos suggested that his "stratum γ'" of earth, sand and pottery may have been a collapsed and disintegrated "earthen roof" (Keramopoullos 1909, 78, 89-9; cf. Iakovides 1973, 28). However, the room's stratigraphy, that features a refurbished floor antedating the final destruction of the building and sealing *stratum γ'*, makes the latter's interpretation as a fallen ceiling, upper floor or roof impossible.[42] It is more likely that it was associated with the destroyed *phase I* wall-paintings that it covered, or with

[41] It is less possible that the find indicates the use of reed mats, on which wooden brick moulds were placed ("ταρσοί καλάμων", Orlandos 1958, vol. I, 72).

[42] Unless it was an earlier ceiling, upper floor or roof, contemporary with *phase I* wall-paintings. This is a remote possibility however; one would expect debris from such destruction in other rooms as well.

the new plaster floor (possibly an underpinning, see above, *clay used as floor plaster*).

The provenance of the clay must have been local (cf. Shear 1968, vol. II, 433). Naturally, clay/mud was the basic raw material for the manufacture of mudbricks (see *IV 2.4.3*).

IV.2.4.3. Unbaked mudbrick

A basic element of Mycenaean wall construction was the crude mudbrick. A great quantity of mudbricks was accidentally baked in the fire that destroyed the "House of Kadmos" and was thus preserved (cf. Shear 1968, vol. II, 432; Iakovides 1973, 159; Shaw 1973, 188). Other parts of mudbrick walls were not burnt so severely, or were not burnt at all, and decomposed partly or totally. Samples of broken mudbricks were taken to the archaeological museum (Keramopoullos 1930a, 30, footnote 3).

The colour of crude bricks employed at the "House of Kadmos" is red, that of the local earth used (Keramopoullos 1909, 105; cf. Shaw 1973, 188; Guest-Papamanoli 1978, 4). An additional reddish colouring discerned on fragments from *Room O* was considered paint, but the alternative suggestion that this was due to the fire is more reasonable (Keramopoullos 1911, 146). This red earth has plastic properties and tends to absorb water, but becomes impermeabable when the mud dries out (Guest-Papamanoli 1978, 5-6). The mud used was not pure but had inclusions, such as small pebbles, straw and "pre-Mycenaean"[43] sherds (Keramopoullos 1909, 83, 96; Shear 1968, vol. II, 432; Shear 1987, 12; Orlandos 1958, vol. I, 70, footnote; Delcroix 1972; Shaw 1973, 187; Iakovides 1973, 26). Fragments of animal bones and small shells were also seen in some of them in July 1998 (*Wall C12*).

The bones and shells could have been included incidentally, as they may have been contained in the soil (cf. Guest-Papamanoli 1978, 6). The sherds found in the bricks could also have existed in the deposit exploited (Keramopoullos 1909, 83), but they certainly strengthened the mixture (cf. Shaw 1973, 187). On the other hand, the inclusion of straw was definitely a human choice, since its fibres acted as a binding agent. Apparently, whereas bones, shells, sherds and stones were "naturally" contained in older debris,

[43] Possibly, LH III sherds were also included (Keramopoullos 1911, 146).

the exploitation of the source was conscious, inasmuch as the particular organic and inorganic inclusions enabled the cohesion of the brick and prevented the mud from cracking during drying (Guest-Papamanoli 1978, 6).

The manufacture of the bricks probably took place on the site (Guest-Papamanoli 1978, 7). No evidence for the use of moulds has come up so far, and the variety of sizes (see following discussion) implies that they were hand-made. After the rough shaping of the mud mixture, the bricks were either left to dry completely, or used slightly damp[44] (Guest-Papamanoli 1978, 8). Damp bricks could be remodelled when placed on the wall and would bond better with wet clay mortar (Guest-Papamanoli 1978, 8-9). But, if used completely dry, it is possible that they left to dry in the shade, since direct sunshine would dry them too quickly and crack them (Orlandos 1958, vol. I, 71-2; *contra* Shear 1968, vol. II, 432; Shaw 1973, 187, 195).

The sizes of the bricks vary significantly (*fig. XL;* cf. Shear 1968, vol. II, 432; *Table XI*). As already mentioned, this is explained by the fact that they are hand-made. The sizes might also depend on the production rhythm (Guest-Papamanoli 1978, 7) and probably do not imply the bricks' specific function or date (Shaw 1973, 198). Minor (≤ 0.02 metres) differences in size could be the result of a slightly different composition (Guest-Papamanoli 1978, 11) and therefore, of different drying. At any rate, bricks of different sizes could have been used within a single wall (cf. Shear 1968, vol. II, 432).

Because the conflagration blended bricks and clay in compact earthen masses, the dimensions of individual pieces are not always distinguishable (Keramopoullos 1927, 40; cf. Shaw 1973, 191; Iakovides 1989, 152). However, some brick sizes were recorded; those from *TT4* measured 0.50 metres X 0.30 metres X 0.12 m (Keramopoullos 1909, 83). Others in *Room Π* enrich the size range: 0.26 metres X 0.24 metres X 0.10 metres, or 0.29 metres X 0.20 metres X 0.11 metres, or 0.83 metres X 0.60 metres X 0.25 metres, or 0.43 metres X 0.13 metres X 0.14 metres, or 0.40 metres X, 0.37 metres X 0.20 metres (Keramopoullos 1927, 49). In general, the average length and width falls within Shear's range, but the thickness is somewhat larger (Shear 1968, vol. II, 432; cf. Iakovides 1989, 152; *Table XI*).

Type I is puzzling because it is extremely big; in fact, it is of greater dimensions than the largest Mycenaean wall-bricks known, i.e those from the

palace of Pylos (0.52 X 0.38 X 0.09 metres) and the bricks from the fortifications of Troy VI (0.70-0.72 X 0.46 X 0.13 metres) (Guest-Papamanoli 1978, 14, 17). But it cannot be considered a pan-tile, being unbaked, too thick and too long (*Table XIII;* Keramopoullos 1929, 49).

Supposing that the aforementioned dimensions of bricks corresponded to roughly rectangular shapes, it is evident that some were almost square (*Types IV, VI*), others were more oblong (*Types II, V*), while at least one was very elongated (*Type III*). *Type IV* is analogous to pieces from the House of the Oil Merchant (Shear 1968, vol. II, 484; Tournavitou 1995, 35), as well as to Mallia *type (1)*, Zakros *(1)*, Zakros *(C)*, Knossos *(2)*, Nirou Khani *(1)*, Gournia *(1)*, Vasiliki *(1)* and Palaikastro *(1)* (Shaw 1973). *Type VI* resembles *type (2)* from the House of the Sphinxes (Shear 1968, vol. II, 484) and Phaestos *type 7+* (Shaw 1973). *Type II* finds parallels at Pylos (Shear 1968, vol.II, 484), Mallia *type (2)*, Nirou Khani *(2)* and Gournia *(3)* (Shaw 1973). *Type V* looks like *type 2* pieces from the House of the Sphinxes (Shear 1968, vol. II, 484) and Phaestos *type 7+* (Shaw 1973). Finally, *Type III* is rather rare and comparable only to an example from the House of the Oil Merchant (Shear 1968, vol. II, 484). Keramopoullos does not report whether the bricks had rounded (cf.Guest-Papamanoli 1978, 8) or straight corners.

The basic use of mudbricks was to raise a superstructure above stone socles; they were laid in courses, reinforced by timber beams (Keramopoullos 1909, 88; cf. Shear 1968, vol. II, 441; Darcque 1980, vol. I, 95; Shaw 1973, 188, 195; Iakovides 1973, 26, 159; Guest-Papamanoli 1978, 19; Orlandos 1958, vol. I, 81). As already mentioned, clay mortar was put between the mudbrick courses (see *IV 2.4.2.A*) and clay plaster coated the vertical surfaces of the walls (see *IV 2.4.2.B*).

In *TT3* a deep stratum of red earth was excavated, which was attributed to a surviving mudbrick wall, destroyed by the excavation, or to decomposed mudbricks (Keramopoullos 1909, 83). The internal dividing wall of the *kiln* and the wall(s) to the north (and south?) of its opening, were built of mudbricks as well. The mudbrick wall in *TT4*, which Keramopoullos was convinced that he had harmed, belonged to the *kiln* as well and stood on a stone socle (Keramopoullos 1909, 83; Keramopoullos 1911, 148, 149). In trial trench *TT6* similar walls were unearthed, though they were thought to have

[44] A "brick" found in *Room I* had only one side flat, the one attached to the beam (Keramopoullos 1909, 75). This indicates either that the brick was still damp when built or that the earthen mass was actually

belonged to "later" houses, because the ground that buried them was disturbed and contained fragments of lime plasters, raw mudbricks etc. (Keramopoullos 1922, 29). In some of these walls clay mortar bonding the bricks was seen (Keramopoullos 1909, 83-4; Keramopoullos 1927, 40), but no traces of timber frames were reported. According to Guest-Papamanoli, timber frames were useful but not a prerequisite for mudbrick structures (Guest-Papamanoli 1978, 22). Clay coated the mudbrick wall in *TT6*, but no straw inclusions were discerned in the plaster, or the mortar (*contra* Shaw 1973, 188).

The mudbrick courses overlapped those below them, so that the gaps between the bricks in each course did not fall on the same vertical axis as the course immediately underneath (Keramopoullos 1909, 84; cf. Shaw 1973, 188). In this way, vertical cracks in the walls were avoided (cf. Orlandos 1958, vol. I, 78). Whether the longitudinal axis of the bricks was placed across the width or the length of the wall is unknown, but the latter possibility is more reasonable (cf. Shaw 1973, 188; Guest-Papamanoli 1978, 20).[45]

The available excavation data suggests that the relatively intact mudbrick walls were not all found in the main building (ground floor) but in adjacent (*TT4*) or neighbouring (*TT3*) areas. Possible exceptions to this could be *Wall C18*, where fragments of bricks were revealed on top of the stone socle (Keramopoullos 1909, 76, 85), as well as *Walls C23* and *C24*, that proved to be weaker than the west and south walls of *Room Π* (Keramopoullos 1927, 40).

The ground floor walls of the main building, whose superstructure survives to a considerable height (as in *Walls C2, C3, C4, C25* and partly *Wall C11*), although fused, demonstrate that the following technique was employed for their construction; bricks, both intact and fragmentary, and "terracotta slabs" levelled the rubble courses (Keramopoullos 1930a, 30; cf. Shear 1968, vol. II, 441; Tournavitou 1995, 35, 37) and were placed sometimes underneath timber beams, for the same purpose (Keramopoullos 1927, 37, 49).

In particular, fragments of mudbricks as well as whole pieces were embedded in the masonry of the walls of *Room Π* (Keramopoullos 1928, 49; cf. Keramopoullos 1930a, 30). In April 1998, a crude, brick-like earthen mass, about 0.05 metres thick, was spotted between the two poros blocks of the

clay plaster or mortar. Fired clay was mistaken for brick elsewhere (Keramopoullos 1927, 39, 41).

[45] A combination of transverse (headers) and longitudinal courses (stretchers) is common practice in later times (Orlandos 1958, vol. I, 78).

upper course of *Wall's C3* north façade (*pl. 40*).[46] A possible brick from the collapsed stone/clay/wood superstructure of either *Wall C11* or *C3* was found on one of the carbonised logs that covered the stirrup-jars of *Room I*. On close inspection, one may spot numerous instances where bricks are discernible in the fused supestructure (επίπαγος) of the walls, together with stones and clay.

Loose fragments were found in trial trench *TT1* (Keramopoullos 1909, 81). In *Room O*, fragments of burnt mudbricks were contained in the "black layer" (Keramopoullos 1911, 146). In *Room Π*, disintegrated bricks were found in the context of burnt and collapsed logs (Keramopoullos 1927, 35, fig. 3). Some of these fragments, as well as a portion of the red soil-κεραμίτις γη, may be attributed to disintegrated mudbrick from a possible upper floor (Keramopoullos 1909, 88; cf. Tournavitou 1995, 19, 25, 30-1, 37-9, 46-8, 58-9, 64; Shaw 1973, 191, 194, 198). Keramopoullos noted that "κεραμίτις γη" was found at Palaikastro (Keramopoullos 1909, 70, footnote 2), but this "peculiar crisp red soil", that lay 1.25 metres deep, was seen as disintegrated mudbrick from the upper storey (Bosanquet 1901-2, 315; Shaw 1973, 195)[47].

Keramopoullos differentiated unbaked mudbricks (πλίνθοι ωμαί) from "baked" ones (πλίνθοι οπταί) (Keramopoullos 1911, 146; Keramopoullos 1922, 29; Keramopoullos 1927, 49). The category of "baked bricks" will be discussed in *IV 2.4.4.B;* it seems that they were either accidentally fired mudbricks or pan-tiles, or both.

IV.2.4.4. Terracotta

The architectural elements of deliberately fired clay included pan-tiles and possibly drains. They would have been baked in kilns, presumably of larger dimensions that the ones used for pottery (Orlandos 1958, vol. I, 88). The clay used was rather coarse, with inclusions of small pebbles that increased their durability against rain/water, sunshine and weathering in general.

[46] But this could well be burnt clay mortar, given shape by the pressure of the blocks.
[47] But later, vessels were found on similar soil (Bosanquet 1902-3, 284; Keramopoullos 1909, 70, footnote 2).

A. Drains/ducts

A maze of later drains crossed and damaged *Rooms Π, Ξ, Ο*, possibly *Rooms Β-Γ* as well, and a number of associated bothroi penetrated and destroyed Mycenaean strata and walls. However, there is meagre evidence for the existence of Mycenaean drains/ducts. Keramopoullos thought that one terracotta duct, revealed west of *Wall C30* among later pipes (*Ducts 3*), could be of Mycenaean date (Keramopoullos 1911, 143). A reference in Θηβαικά informs us that it was made of "thick" (thick wallings or wide diameter?) cylindrical terracotta pipes (cf. Shaw 1973, 198) and not of inverted Π-shaped tiles (cf. Shaw 1973, 201), like the drains at Zygouries, Phylakopi (Shear 1968, vol. II, 446), Tiryns (Iakovides 1973, 26) and Mycenae (Iakovides 1973, 90). The duct probably ran west to east, as it submerged below *Wall C30*. Technical affinities with a Mycenaean duct unearthed by Pappadakis at Koile street[48] are emphasised, though we are not told what these affinities are (Keramopoullos 1917, 327-8 and footnote 2). The precise function and indeed the dating of the duct at the "House of Kadmos" is uncertain. Because the proposed dating is not justified and complete description of the duct is not given, we are unable to comment on this built feature further.

We should not omit reference to a handmade tile of coarse clay, found in the κεραμίτις γη of *Room Λ*. It was attributed to a drain (Keramopoullos 1909, 71; Shear 1987, 9, footnote 11), though it was probably a roof pan-tile (see *IV 2.4.4.B*; Keramopoullos 1917, 77). Finally, the numerous terracotta slabs found by Keramopoullos in *Room Π* and other areas of the building (see *IV 2.4.4. B-C*) cannot be easily assigned to water channels (Shear 1968, vol. II, 435), as they were found loose both in high and low strata of the rooms (Keramopoullos 1927, 39).

It is interesting that no drain was found in *Room H*, or in the rooms east of *Corridor Φ*, which were considered light-wells (Keramopoullos 1927, 51; Keramopoullos 1930b; *contra* Shaw 1973, 204). Also, before we proceed to the discussion of roof tiles, it should be noted that in April 1998 a terracotta tube was spotted north of *Wall C25*, in *Room Π* (*pl. 23*). It measures 0.57 metres in length and 0.13 metres in width; its height is unknown, as most of it

[48] In a rock-cut trench (cf. Shaw, 1973, 201), that ran south to north and measured 4 metres in length and 0.60-0.96 metres in width, were two adjoining semi-cylindrical terracotta pipes, one stuck in the other. The pipes measured 1.05 metres in length, 0.18 metres in height and 0.20-0.22 metres in width (base), and were glued on the rock with mortar clay mixed with lime (πηλοχόρι) (Keramopoullos 1917, 327-8, fig. 192). The duct was not close to the "House of Kadmos".

lies below the contemporary level of the room. Supposing that the duct is *in situ*, it ran north to south at the level of *Wall's C25* lower foundation course. But the clay looks suspiciously fine and compact and could be related to the later *Ducts 6-8* (cf. Keramopoullos 1927, 34, 39; Keramopoullos 1929, 61).

B. Roof tiles?

The debate on roof tiles has been associated with the problem of the form of Mycenaean roofs. Tiles were seen as prerequisites for the existence of double or single pitched roofs; since they were not identified as such in the excavations, the roofs were considered flat[49] (Müller 1930, 190; Blegen 1945, 35; Sinos 1971, 93; *et.al.*). Other authorities believed the opposite (Valmin 1938, 174; Broneer 1939, 409; Åkerström 1941, 164-173), while I. Shear feels that both pitched and flat roofs existed (Shear 1987, 8-11). S. Iakovides has recently brought up the subject again, summarising the various views and concluding that the roofs were probably all pitched and that both pan and cover tiles were used, giving examples from Glas, Mycenae, Tiryns, Chalandritsa, Midea, Athens, Berbati, Malthi, as well as Thebes (Iakovides 1989, 247-8; Iakovides 1990, 154-5; cf. Küpper 1996, 105-110, Abb. 114-127, 210-216, Taf. 51-52).

Initially, Keramopoullos denied that the roof of the "House of Kadmos" was covered by tiles, but felt that it was flat and earth-packed (Keramopoullos 1909, 90). At a later time he realised that the pan tiles found in Mycenaean tombs near the east tower of Elektrai gates (*fig. XXXI*), resembled the terracotta objects unearthed at the "House of Kadmos" and accepted both their function as roof tiles and the existence of pitched roofs in Mycenaean times (Keramopoullos 1917, 76-7, fig. 58). But an even later report comments on the absence of tiles, while at the same time a roof covered with "terracotta slabs", clay plaster and stone slabs is reconstructed (Keramopoullos 1927, 39).

It may be proposed that these "terracotta slabs", frequently mentioned in other reports as "baked slab-like bricks"[50], are in fact broken pan-tiles. They have both surfaces flat, though only one shows horizontal or vertical traces of smoothing with wet hands or rags (Keramopoullos 1909, 70;

[49] P. Darcque (1980, vol. I, 103) thought that both flat and pitched roofs, without tiles, may have existed.
[50] Big, rectangular "slab-like" mudbricks were found at Stauris' plot at Thebes (ΑΔ 25[1970], 214).

Iakovides 1989, 314; Iakovides 1990, 155);[51] the other side feels rough, as if it lay on a crude surface until the clay dried (cf. Iakovides 1989, 314; Iakovides 1990, 155). The clay is orange or orange-red, contains stone inclusions and is quite compact. The latter characteristic could be either the result of original good firing (*contra* Iakovides 1990, 155) or of the fire that destroyed the building.

Although most of them are in a fragmentary state, two intact pieces were found in *Room Λ*; they measured 0.32 X 0.32 X 0.03-5 and 0.27 X 0.27 X 0.02 metres (Keramopoullos 1909, 70). One fragment in *Wall C25* was only 0.018 metres thick. Therefore, judging from the intact pieces, they were square and much thinner than mudbricks. The minor difference in their sizes suggest that they were handmade (cf. Iakovides 1989, 314; Iakovides 1990, 155).

Many fragments were built into the upper parts of walls together with mud mortar, stones and mudbricks (*pl. 23;* Keramopoullos 1927, 39-40; Keramopoullos 1928, 49; cf. Iakovides 1990, 155). Possibly, the "baked bricks" found together with unbaked ones in the κεραμίτις γη (decomposed mudbrick) on top of *Wall C18* (Keramopoullos 1909, 75) represent such a construction technique. In July 1998 we noticed similar pieces wedged between stones, in *Walls C25, C23, C4, C3, C2* and elsewhere; these too were too thin to be wall bricks. According to the excavator they also formed the underpinning of wooden thresholds, with small stones (Keramopoullos 1929, 49), and were supposed to have been laid over the earthen roof, together with stone (schist?) slabs (Keramopoullos 1927, 39; Karo 1915, 7).

Loose fragments were found in *Room Π*, in the context of fallen logs (Keramopoullos 1927, 35: fig. 3:8, 39) and clay (Keramopoullos 1927, 40), and in the carbonised wood layer of *Room N* (Keramopoullos 1911, 145) and *Room Ξ* (Keramopoullos 1911, 147). Others were found in the κεραμίτις γη of *"Corridor M"* (Keramopoullos 1909, 72), *Corridor Z* (Keramopoullos 1909, 74) and *Room N* (Keramopoullos 1909, 80). A lot of them, mostly broken, were found in the κεραμίτις γη of *Room Λ*, collapsed irregularly one on top of or next to the other. They were not in courses but most of them lay horizontally, amongst uneven layers of earth, just as in *Corridor K* (Keramopoullos 1909, 72). The whole stratum of red soil, "pre-Mycenaean"

[51] The watery clay slip was taken for paint (Keramopoullos 1909, 70). Iakovides reports similar traces on tiles from Glas and Thebes (Iakovides 1990, 155, footnotes 57-8).

sherds and broken tiles reached down to hardpan (Keramopoullos 1909, 70; Keramopoullos 1917, 77, footnote 1).

The stratigraphic evidence and re-use of these clay objects in the walls, suggest that they belonged to a destruction stratum of an older structure on the site and were re-used at the "House of Kadmos", the better preserved ones on the roof perhaps (cf. Keramopoullos 1909, 86; cf. Iakovides 1990, 155); it is telling that they were found in broken state both in low and high strata of the rooms (Keramopoullos 1927, 39).

It should be mentioned that in *Room Λ*, in the same layer of red soil, "pre-Mycenaean" sherds and broken clay "slabs" a handmade pan-tile of coarse clay was discerned. It was thought of as part of a drain (Keramopoullos 1909, 71). Its dimensions and state of preservation are unknown. It is not reported whether the tile had raised edges at its longitudinal sides, though this might be implied by the tile's exceptional attribution to a drain. It should be remembered that such pan-tiles have been considered drains before (cf. Matz 1950, 289; Shear 1968, vol. II, 434-5), but their edges are not markedly raised (Keramopoullos 1917, 77; Åkerström 1941, 164-173; Iakovides 1990, 152).

Moreover, in August 1996 we found a terracotta object shaped exactly like the pieces found near the Elektrai gates (Keramopoullos 1917, 76, fig. 58: lowest part of figure), in one of the old wooden boxes that contained plain sherds from Keramopoullos' excavations at the site. It is a handmade, rounded corner of a poorly fired, coarse pan-tile with stone inclusions, covered with a greyish-brown, gritty slip (cf. Iakovides 1990, 155). Similar tiles were found at Papastamelos' plot (παραχειλεωταί κέραμοι), where parts of *Walls C28-C29* came to light (Spyropoulos 1971b, 207).

But there are some obstacles in the certain identification of these tiles as proper roof pan-tiles (στρωτῆρες):

a. The shape of the intact pieces described by Keramopoullos is not "slightly trapezoidal"(Iakovides 1989, 314; Iakovides 1990, 155), but square.

b. No upright edges, which would be easily discernible (0.04-0.06 metres, Iakovides 1990, 155) on intact tiles, were really described. But the rounded corner found at the museum in 1996 could be such an edge.

c. The intact pieces of *Room Λ* are much shorter than the roof pan-tiles found at other Mycenaean sites (*Table XIII*): 0.27-0.32 metres long, instead of 0.46-0.66 metres Their width (0.27-0.32 metres) is comparable to other examples (0.31-0.40/0.33-0.55 metres), though still smaller, and their

thickness (0.018-0.05 metres) is also within an acceptable range (0.014-0.028 metres in other sites: Iakovides 1990, 155).

d. No half-cylindrical cover tiles (καλυπτῆρες), which were used in conjunction with pan-tiles (cf. Iakovides 1973, 162; Iakovides 1989, 247; Iakovides 1990, 155-6, fig. 10), were mentioned. Fragments of cover tiles, as well as pan-tiles and stones from the "House of Kadmos", are included in the masonry of Daoutis' boundary wall[52]; others may have been re-used on the houses of the old market. We cannot tell whether the former examples are Mycenaean or not without a comparative clay analysis.

C. Floor tiles?

Terracotta floor tiles are attested in Minoan architecture, especially at Zakros, Palaikastro and Mallia. They are made of orange-red clay with inclusions of schist fragments and small pebbles, shaped into thin rectangular plaques (0.21-0.37 X 0.24-0.50 X 0.04-0.06 metres), set in pavements and interior floors on ground floors and upper storeys. Even in Crete, however, they are considered rare and their use is limited to MM IIIB-LM IB (Shaw 1973, 204-5).

No Mycenaean floor tiles have been brought to light, as far as we know. Yet Keramopoullos proposed that the pan-tiles revealed in great numbers in the "House of Kadmos" (supra *IV.2.4.4.B*) were laid on floors, as well as on the roof (Keramopoullos 1927, 39). The sizes of the two intact pieces recovered (0.27 X 0.27 X 0.02 and 0.32 X 0.32 X 0.03-0.05 metres) admittedly fall within the range of dimensions observed in Minoan floor tiles (Shaw 1973, 204), though the tiles found in the "House of Kadmos" are somewhat thinner than Minoan floor tiles.

The stratigraphic evidence demonstrates that those pieces that were not part of the masonry were contained either in κεραμίτις γη (*Corridor K*: Keramopoullos 1909, 72; *Room Λ*: Keramopoullos 1909, 70-1; Keramopoullos 1917, 77, footnote 1; *Corridor M*: Keramopoullos 1909, 72; *Corridor Z*: Keramopoullos 1909, 74; *Room N*: Keramopoullos 1909, 80), or in a stratum of carbonised logs/organic matter and burnt clay (*Room Π*: Keramopoullos 1927, 35, fig. 3:8, 39-40; *Room N*: Keramopoullos 1911, 145; *Room Ξ*: Keramopoullos 1911, 147).

[52] In July 1998 a fragment of a cover tile was found on *Wall C15*; it is unclear whether it was embedded in the masonry. The clay was orange-brown and coarse.

Since the upper surface of κεραμίτις γη functioned as a floor in some rooms, and tiles were found *in* it, they could not have covered ground floors. Besides, the evidence from *Room A* and *Corridor K* suggests that the tiles, which had collapsed horizontally one *on top of* and next to the other amongst uneven layers of earth reaching stereo, belonged to an earlier destruction level.

On the other hand, the pieces found in a layer of carbonised matter, that as a rule covered the κεραμίτις γη layer, do not constitute surfaces that could be assigned to collapsed upper floors. Instead they would be more easily assigned to dismantled superstructures of walls, or to parts of the collapsed roof of the "House of Kadmos".

D. "Baked bricks"

In the discussion of mudbricks (*IV.2.4.3.*) we stressed that Keramopoullos clearly differentiates unbaked bricks from "baked" ones. Deliberately fired wall bricks, however, were certainly not used in Minoan[53] (Shaw 1973, 188) or Mycenaean architecture. In fact, their production and use only started at the end of Hellenistic times and became widespread from the Roman era onwards (Orlandos 1958, vol. I, 85).

Thus, as we have tried to demonstrate in *IV 2.4.4.B* "slab-like baked bricks" were in fact baked pan-tiles. Other "baked bricks" may have been accidentally fired mudbricks (*pl. 41*). In April and July 1998, fragments of *terracotta* slabs were indeed seen in the walls. Based on stratigraphic evidence, we agree with Keramopoullos' views and have reached the preliminary conclusion that they belonged to an earlier structure on the site and were re-used in the masonry and the roof of the "House of Kadmos".

IV.2.5. Metals

IV.2.5.1. Lead

Lead probably had some applications in Minoan (Shaw 1973, 225) and Mycenaean architecture. At Glas, for instance, traces of a lead nail were discovered in a fragment of a conglomerate slab (cf. Iakovides 1989, 141, pl. 54β-γ). Also, the lead plaques found by De Ridder in various areas of the

[53] Orlandos mentions a misinterpretation of burnt mudbricks as baked bricks by Durm at Gournia, proven wrong by Dörpfeld and Boyd-Hawes (Orlandos 1958, vol. I, 85, footnote 6).

main building, some of which were still attached to *in situ* wall-plaster, were thought to have held wooden door jambs in place[54] (Iakovides 1973, 160, footnote 2; Iakovides 1989, 157).

Certain "shapeless plaques of melted lead" were unearthed in a layer of carbonised wood in *Room N*, together with thin sheets of gold and a steatite conulus (Keramopoullos 1909, 79, 101). In *Room O*, shapeless lumps of melted lead were found in a similar context; in a stratum of burnt timber, associated with gold items, as well as with beads, bronze spear and arrow heads (Keramopoullos 1911, 146). The melted lead pieces found in *Room Ξ* were also revealed in the same stratum, together with beads and fragments of gold artefacts (Keramopoullos 1911, 147; cf. Tournavitou 1995, 21-3, 49-50). In *Corridor K* lead was found in the context of glass beads and steatite conuli (Keramopoullos 1911, 144)

The stratigraphic information, the general rarity and the concentration of lead finds in the areas *N, Ξ, O* and *K* imply that the lead pieces should not be associated with the building itself. Most probably they once belonged to a wooden box (cf. Shaw 1973, 225) or shelves that contained small objects of the sort. The melted pieces of lead found in the building material that had collapsed in timber gaps in the north wall of *Room N*, i.e. *Wall C20* (Keramopoullos 1929, 63), are possibly of the same provenance.

IV.2.5.2. Bronze

Bronze was certainly used in Mycenaean architecture, for thresholds' pivot shoes (ὄλμοι, Tiryns: Iakovides 1973, 28; Glas: Iakovides 1973, 160; Iakovides 1989, 250-4; Mycenae and Pylos: Shear 1968, vol. II, 434). Hammered nails were also used (Glas: Iakovides 1989, 250; Pylos: Blegen & Rawson 1966, pls.270, 278, 296, 302; Malthi: Valmin 1938, 371). Bronze may have covered thresholds (Tiryns: Iakovides 1973, 26) and the lower parts of columns in the form of sheets (Mycenae megaron: Iakovides 1973, 92, 108).

In the "House of Kadmos", however, few bronze items were unearthed, and those should not be associated with the building itself. For instance, the circular bronze sheet found at the southeast corner of *Room Π* cannot be related to the timber beams of the room, as Keramopoullos

[54] Their function is doubtful, however. De Ridder's belief that a mixture of lead and lime was used in the

proposed (Keramopoullos 1927, 42); it bears elaborate repoussé and granulated decoration of sea-shells and was probably nailed to some sort of furniture of perishable material. A bronze nail's rounded head was found in *Corridor ΠΙ*, along with fragments of gold items and obsidian (Keramopoullos 1928, 47), but other than that bronze items that could be assigned to the building were not reported.

IV.3. Organic materials

IV.3.1. Wood

The intensity of the fire that destroyed the "House of Kadmos" led the excavator to believe that a great amount of wood was used as building material, especially in the upper parts of the elevation (Keramopoullos 1909, 85). Various wooden furnishings were inferred, such as shelves (Keramopoullos 1909, 87; cf. Shaw 1973, 139), ladders, trap-doors (Keramopoullos 1909, 88) and cupboards (Keramopoullos 1909, 89), but the reports only permit the safe reconstruction of reinforcing wall tie-beams and ceiling and/or roof rafters. Based on indirect excavation evidence and parallels, we may assume that wood was employed for staircases, upper floors, thresholds, lintels, door-jambs and window sills (Shaw 1973, 138). Finally, timber ground floors and a possible column cannot be excluded.

Most of the wood used, for wall-frames, was identified as pine on the basis of the imprinted patterns on hardened clay mortar and the charred resin drops that were found on carbonised beams (Keramopoullos 1927, 39; cf. Shear 1987, 8; Tournavitou 1995, 9). Similar traces exist today at the back of the beam "shelf" in the ashlar façade of *Wall C3* (*pl. 39*). In antiquity, the wood of pines (*Pinus halepensis*), firs (*Abies*) and cypresses (*Cupressus sempervirens*) was used extensively for roof beams, door frames etc. (Orlandos 1958, vol. I, 24-5; cf. Shaw 1973, 134-5). Beams and planks from coniferous trees are attested in other Late Bronze Age buildings: such trees have "long, straight, steady trunks without too many collateral branches and a good weight-bearing capacity" (Hallager 1990 after Friedrich, footnote 15).

Some transverse casings are square (*pls. 3, 4, 48, 50*). However, the lowest slots in *Walls C11, C12, C16* have rather rounded corners[55] (*pls. 49,*

bronze pivot shoes proved to be wrong (Iakovides 1989, 158).

[55] Originally they must have been rounded but the subsidence of the fused wall superstructure merged with the upper part of the slots.

52-54, cf. Shaw 1973, 137). On the other hand, the wood imprints on clay in a slot of *Wall C12* are shallower, more linear and interrupted at regular intervals[56] (see *fig. XLIX*). Perhaps these differences imply the use of a distinct kind of timber for beams located almost at foundation level and in relatively thin walls.

Although no direct evidence for tools used for shaping wood exists, such as marks on clay imprints (cf. Hallager 1990, footnote 15), the rectangular shape of many beam slots, with the one of *Wall C3* being the most prominent, points to the use of axes, adzes, saws and chisels (cf. Shaw 1973, 138). The existence of planks may suggest the use of planes (cf. Orlandos 1958, vol. I, 39-58, figs. 11-2, 20; Hallager 1990, footnote 15), though not with certainty.

IV.3.1.1. Wall-frames

Keramopoullos devoted a great deal of time and effort to identify the position and bonding of wall-frames. These consisted of two categories of beams, the axial horizontal (οριζόντιοι θράνοι) and the transverse horizontal (εμβατικοί-ένδεσμοι δοκοί). These were combined in a characteristically Mycenaean technique of wall framework; transverse logs stacked in columns, connected by runner beams along the walls' facades[57] (Wright 1996, 76).

Initially, the excavator suggested that vertical uprights also existed, as in Minoan buildings (cf. Shaw 1973, figs. 176-180), but he later revised his views according to K. Müller's suggestions (Keramopoullos 1930a, 30). Yet, vertical beams may have been used as supporting props at the west end of *Wall C3* (*fig. LI*). Diagonal beams were seen by the excavator at the meeting corners of certain walls, along with beams that ran parallel to one of the meeting walls (Keramopoullos 1929, 63). It is more likely, however, that the axial beams at walls' corners bonded like the timbers in the traditional house, shown in *plate 57*.

Transverse beams were held together by means of the axial ones (cf. Wright 1996, 76), but the fact that no nails were found raised the question of how this was achieved (Keramopoullos 1929, 63). It was claimed that a

[56] The imprints resemble olive-tree wood. Orlandos mentions that olive-trees provided beams of small length, suitable for tie-frames (Orlandos 1958, vol. I, 27).

[57] *Plate 56*, that illustrates the wall-frames of an abandoned traditional house in Skopelos, eloquently reveals how three rows of squared axial beams are combined with regularly spaced, thin transverse olive branches resting immediately on top of them.

bronze artefact retrieved from the southeast corner of *Room Π* (see *IV.2.5.2.*) may have connected two upright tie-beams (Keramopoullos 1927, 44), but the embellishments it bore make this unlikely. Since no metals associated with beams came to light, with the exception of a melted lead piece in a prop slot debris in *Wall C20* (Keramopoullos 1929, 63), the joining described as εντορμία (Orlandos 1958, vol. I, 60, fig. 33E; cf. Küpper 1996, Abb. 166, 17.8, 197) would be in fact most probable. Wooden mortises and dowels may have been used as well (*fig. XLVII*).

This elaborate system of wooden frames shaped the rubble walls and took the weight of the superstructure, that most probably included at least one upper storey, splitting it into sections and transferring it evenly down to stereo. General stability was thus provided, possibly without any specific concern for earthquakes (Shaw 1973, 143, 148, footnote 3, 149). Furthermore, the frames constituted the structural core of the building as they must have been interconnected with door and window frames (*fig. XLVIII*), ceilings, possible upper floors and the roof itself (cf. Shaw 1973, 149-150; Iakovides 1990, 158-9). In the ashlar façade of *Wall C3* it seems that the framework was exposed, since no traces of plaster were unearthed on or near the wall, which indicates that the wood was appreciated aesthetically as well (cf. Shaw 1973, 147, 151). This appreciation is more obvious in *Wall C3*, as the ashlar blocks did not particularly need the frames' extra support; however, these may have been necessary due to the fact that the wall was only half ashlar.

A. Axial horizontal beams

The surviving upper surfaces of many walls of the "House of Kadmos" are built of stones selected for their flatness, and sometimes this natural quality seems to have been enhanced by hammer-dressing, as for instance at *Walls C30, C10* and *C11*. The result is that the walls acquired a flat krepidoma at the same approximate level throughout the building (see *Table XIV*), although the height of the walls, or rather the depth of the foundations-socles, varied according to bedrock formation.

In general, these flat surfaces stand at an average altitude of either 201.95 (*Walls C1-C29*) or 202.92 metres (*Wall C30*) from sea level. At *Walls C11, C12, C16* these krepidomata supported the lowest zone of transverse beams, on top of which the lowest axial beams may have been placed. In other parts of the building, i.e. at *Walls C2, C15, C25*, the transverse beams are

placed lower in the socles (*pl. 3, 4*). Keramopoullos observed that this horizontal bed of flat stones lay immediately beneath beams[58]. Clear traces of the intense conflagration, that fed on the wood, exist on the upper surfaces of the slabs in *Walls C1-C29* (cf. Iakovides 1989, 152). *Wall C30* bears similar traces as well, but because it has not preserved its superstructure, not even in fused form, the existence of timber gaps is not evident. Charred wood and its imprints on the surrounding hardened clay were seen *in situ* in *Wall C24*, though it is unclear whether the carbonised remains belonged to an axial or a transverse beam[59] (Keramopoullos 1928, 49).

The lowest axial beam in the ashlar (north) façade of *Wall C3* lay in a "shelf" between two courses of poros ashlar blocks (*pl. 5;* Keramopoullos 1921, 34; Keramopoullos 1927, 37), backed with clay plaster that isolated the timber from the rubble fill behind it. The gap is of rectangular section and measures 0.17 metres in height, 0.22 metres in width and 1.50 metres in preserved length. It lies about 0.60 metres above modern surface level (202.04 metres) and is therefore at the same level with the south façade's euthynteria (cf. Keramopoullos 1927, 37), and a bit higher than the krepidomata of the nearby *Walls C2, C4, C10*. No cuttings for dowels were seen on the stones (cf. Shaw 1973, 138, figs. 187-191; Wright 1978, 137), so we may presume that the horizontal beam was basically held in place by means of transverse beams[60], possibly starting east of the easternmost surviving block, and the possible vertical beam(s) at the corner of *Walls C2-C3* (*fig. LI*).

A second zone was identified by Keramopoullos in *Wall C23*, about 0.68 metres higher than the first zone (202.59 metres) (*fig. XLI*). Both the first and second zone were spotted at the same levels in *Walls C24* and *C25*. Their existence was hinted at by the stepped, inward (i.e. southward) projection of the south façade of the wall, caused by the burning of beams (*fig. XXXIX;* Keramopoullos 1927, 36, 40, 41). This second zone is probably attested in *Wall C3* above the third course of ashlar blocks, about 1 m. higher than the first axial beam; it seems to have been topped by a row of small stones (*pls. 23, 51*).

[58] At Glas and Tiryns, these krepidomata serve as the underpinning of axial beams (Wright 1978, 132, 133).
[59] A beam was also reconstructed along the east façade of *Wall C24* in *Corridor Φ*, at "floor-threshold level", apparently lower than the first zone of axial beams. If the reconstruction was based on sound evidence, it may have been related to a wooden floor (Keramopoullos 1928, 49; see also *IV 3.1.3.*).
[60] As at the palace of Pylos (Wright 1978, 139).

A third zone may have existed in *Wall C25*, 1.30 metres above the krepidoma of the socle or 1.84 metres from modern surface level (203.28 metres). A horizontal zone of burnt red clay, 0.20 metres high, superimposes a flat surface of smaller stone slabs at that level (cf. Menelaion III, Wright 1978, fig. 7).

B. Transverse horizontal beams

Keramopoullos had already located a transverse beam's slot during the first campaign near the north-west corner of *Room Λ* in *Wall C17*, although he was perplexed about its function. It was situated 1.22 metres above bedrock and 0.20 metres above the κεραμίτις γη floor of *Room I*. It measured 0.25 metres in width and at least 0.50 metres in depth[61]. Its height was compressed by the collapsed superstructure to only 0.10 metres Clay mortar was seen on the upper walling of the slot, that was filled with a black, carbonised substance[62] (Keramopoullos 1909, 67-8, 86, 88, fig. 6).

In addition, "vertical" beams were seen in *Wall C23*; three gaps existed at regular intervals, one at a distance of 0.88 metres from *Wall C24*, a second 0.80 metres west of the first and the third 0.88 west of the second. The widths of the gaps were 0.14, 0.19 and 0.14 metres respectively. A fourth gap was restored 0.85 east of *Wall C30*, where the stones of *Wall C23* formed a vertical west face. The distance between the fourth and the third gap was 2.09 metres, so that a fifth "vertical" beam could be reconstructed in the intervening space[63], that was destroyed by the later ducts crossing *Wall C23*.[64] The slots were full of "fragile earth", probably decomposed clay that coated the surfaces around the beams (*figs. XLI, XLV, XLVI, XXXVIIb;* cf. Shaw 1973, 137).

Similar beams were envisaged in the rest of the walls of *Room Π*. Keramopoullos claimed that "vertical" beams existed only in the weaker interior walls of the building, while the main exterior walls only featured axial

[61] The width of *Wall C17* is 1.05-1.10 m.

[62] He proposed that either a wall timber or a plank from a wooden floor was inserted in it, although at the same time he realised that the latter interpretation was incompatible with the small height of the supposed "basement" in which the stirrup-jars of *Room I* were placed.

[63] Supposing that this beam was 0.14 m. wide, as Keramopoullos suggested, the space between it and the fourth and third beams would be around 0.97 m. however, not in the range of 0.85-8 m. (see Keramopoullos 1927, fig. 5).

[64] The spacing between transverse beams at the east wall of the west room in the West House was 0.70-1.0-1.10 m. (Tournavitou 1995, 18).

beams[65] (Keramopoullos 1927, 37-9). As we have already mentioned, he later revised his views and admitted that the "vertical" beams were successive courses of horizontally running transverse struts (Keramopoullos 1930a, 30; Tournavitou 1995, 57).

In the 1929 report[66] four rows of successive, horizontal beams transversing the width of the wall were isolated in *Wall C15*. The beams were not placed as regularly as the ones in *Wall C23*. The first was located 0.60 m. from *Wall C30*; the second was 0.80 metres east of the first; the third lay at a distance of 1.05 m. further to the east; finally, the fourth was 0.80 m. east of the third. But the width of the gaps, which were filled with collapsed debris, was uniformly 0.20 m. East of the fourth beam row there was enough space (1.30 m.) to allow the reconstruction of a fifth one. Supposing that its width was similar to the others, it would have laid at a distance of about 0.55 m. from the fourth row and the northeast corner of the room. The lowest gaps were revealed at a height of 0.45 m. from the lowest bedrock level in the room, that is its east part (*fig. XLII, pl.* 50).

In the west part of *Room N*, just as at the opposite (north) façade of the wall in *Corridor E*, the lowest beams would have stood at bedrock level or just below floor level. In contrast, when the refurbished floor of *Room N* was built, the lowest beams would have no longer been visible, as they would have been buried 0.35 m. below the new floor level. The south counterparts of these beams were revealed in *Wall C20*, the lowest course starting at 0.75 m.[67] It is unknown whether their position corresponded with the beams of *Wall C15*; unfortunately neither wall has preserved the slots in good condition. Axial beams were also restored, but details or measurements were not given (Keramopoullos 1929, 61-3).

Moreover, a sizeable stone was found lying on a thick matrix of clay at the north part of *Wall C10* and a beam running beneath it was plausibly reconstructed (Keramopoullos 1927, 40, 41, footnote 1). Unfortunately, the stone no longer exists there.[68] Apart from the transverse gaps spotted by the

[65] This notion was based on the supposition that *Wall C25* met the south boundary of the building (Keramopoullos 1927, 40) and on the observation that *Wall C23* was less compact and comprised of more clay than *Walls C24* and *C25*.

[66] That was published at about the same time or a bit earlier than the 1930 AE volume, as implied by the parenthesis in the title of fig. 1 in Keramopoullos 1929, 62.

[67] The difference is probably explained by the southward slope of the bedrock.

[68] A carbonised layer, 0.30 m. thick, upon *Wall C18* could also represent a missing beam. Unfortunately, its height from bedrock level is not reported (Keramopoullos 1909, 76).

excavator in *Walls C17, C23, C15, C10*, numerous beddings of the sort exist in most walls of the building (see *Table XV*).

It should be stressed that, because of the inclination of the ground, the transverse beams of walls lying towards *Wall C30* rest on the foundations, rather than the socles. The westernmost transverse beam of *Wall C12*, that also functions as the lowest axial beam of *Wall C16*, lies at bedrock level, on a thin layer of clay, which has preserved wood imprints and the shape of the beam itself.

C. Vertical props?

The north façade of *Wall* C3 is not built of ashlar blocks up to the point that it meets *Wall* C2, but immediately west of the blocks there is a gap filled with collapsed soft debris, that has rolled into the corner between *Walls C2-C3* (*pl. 5*).

Created by the irregular joining of *Walls C2, C3* and *C4*, this gap is 0.63 m. wide, about 1.68 m. high, and more than 0.20 m. deep. It looks as if it was topped by the same row of small stones that lay on top of the third course of ashlar blocks, which must have supported the second axial beam of *Wall C3*. Across the width of the wall, at its south façade, no corresponding gap is visible and the masonry looks normally built. It cannot be claimed that this regularly shaped gap was built with ashlar blocks that have vanished after the destruction, since the fused state of the debris collapsed in it suggests that it was free of such non-perishable supports during the conflagration of the building.

In these circumstances, restoring a wide vertical prop, or more possibly two smaller ones, built into the southwest corner of *Room A* is reasonable (*figs. LI, XLIII*). These props would lock the axial beams of *Wall C3* in place, as no beddings' or dowels' traces were seen on the ashlar blocks, bond them with the frames of *Wall C2* by means of wooden mortises and augment the stability of the massive pillar-like support that these three walls provide between *Rooms A, B, Θ* and *I*.[69] Similar uprights at wall-ends and corners are described by Shaw, who associates the widespread use of vertical beams in Late Palatial Crete with a shift towards lighter and higher superstructures (Shaw 1973, 144, 147, 150).

[69] Perhaps this support implies a heavy superstructure. An alternative, though less probable, explanation of this gap is that it might have been a niche or cupboard framed by posts (cf. Tournavitou 1995, 64).

IV.3.1.2. Ceilings, upper storey floors (?) and the roof

Keramopoullos thought that the black layer found on top of κεραμίτις γη in most rooms of the building belonged partly to wall frames and partly to ceilings and/or the roof (Keramopoullos 1909, 88, 89; Keramopoullos 1927, 40; cf. Tournavitou 1995, 48, 52, 53). The stratigraphic sequence and finds of *Rooms H, I, Λ, N, Ξ, O, Π* uniformly verify that most of this stratum consisted of the burnt ceiling timbers.

In *Room N* a thick stratum of burnt wood lay on top of the lime-plaster floor, a certain habitation surface of the "House of Kadmos" at ground floor level[70]. In *Room Λ*, the same "thick black layer" reached 0.20-0.30 m. in width, superimposed κεραμίτις γη and contained burnt timbers with an east-west direction (Keramopoullos 1909, 69, 71). In *Room I*, a collapsed framework of charred beams had sealed[71] the *in situ* contents of the ground floor.[72] Three of them ran north to south, others east to west. Their spacing was 0.35 m., while their width was no less than 0.13 m.[73] (Keramopoullos 1909, 74). Unfortunately we are not told the exact position of the beams, which might have helped locate the position of transverse wall beams and reconstruct the ceiling accurately (*fig. LI*). The span that these beams covered would have been 3.80 m. (width of the room) and 4.20 m. (length).[74]

In *Room O* two carbonised logs were unearthed in the same stratum, one running north-south, the other east-west (Keramopoullos 1911, 146). Burnt beams were also found on top of κεραμίτις γη in *Room H*, directed north to south (Keramopoullos 1921, 32; Keramopoullos 1928, 51). Some burnt beams were found fallen in *Corridor Π1*, but it is uncertain if they were set in a collapsed ceiling or a ground floor (Keramopoullos 1928, 47).

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[70] Carbonised logs running north to south were reported to have been revealed under the plaster floor (Keramopoullos 1909, 79), but their existence was later denied (Keramopoullos 1911, 145). It seems that the revised view was indeed the right one, as burnt timber under the pre-destruction plaster floor would imply either that the "House of Kadmos" suffered an earlier destructive fire, which has not been attested elsewhere in the stratigraphy of the rooms or on fragments from phase A wall-paintings, or that the plaster floor was later than the destruction of the building, which is impossible due to the fact that it was sealed by the fused debris of the walls' superstructure.

[71] In room 4 of the West House, vessels were unearthed *on top* of a similar frame of charred logs (Tournavitou 1995, 13).

[72] It was believed that this simple frame of inter-crossing beams belonged to a nearby walll, but this reconstruction contradicts Keramopoullos' later views on the nature and shape of wall frames (see Keramopoullos 1929, 62).

[73] Ceiling beams at Gournia and Nirou Khani were about 0.11 m. wide, while at Zakros they ranged from 0.34-0.38 m. At Knossos they measured 0.30 by 0.30 m. (Shaw 1973, 156).

[74] Supposing that the wall bordering the east part of the room is correctly depicted in the 1909 plan (see *fig. XIX*).

The nature of the beams in *Room Π* is subject to debate (see *IV 3.1.3.*). A round beam directed east-west, 0.35 m. in diameter, was revealed 0.70 m. above floor level. A fragment of ceiling plaster with reed impressions was found with it. Two more "inter-crossing" beams were found 0.75 m. above the floor, covered with stone and terracotta slabs (Keramopoullos 1927, 39). *Figure XXXVIII* depicts three beams at an even higher level, towards the centre of *Room Π*, east of *duct 8*. One runs east to west (1) and the others are probably directed north to south (2, 3). Although the longest seems to have fallen from *Wall C23* to the left, it probably fell from above (Keramopoullos 1927, 40; cf. Shaw 1973, 137; Tournavitou 1995, 58), as indicated by its position and its length, which was apparently adequate to span the north-south axis of the room, judging from Keramopoullos' drawing.[75]

It should also be mentioned that in July 1998 we located the impression of the corner of a (roof?) timber on a piece of burnt clay in the fused superstructure of *Wall C2* (cf. Shaw 1973, 151, fig. 184). The impression shows that the beam was square in section and rather thin, measuring 0.025 by 0.025 m.

The sequence of black layer on top of κεραμίτις γη floors[76] is repeated in *Rooms Ξ* (Keramopoullos 1911, 146- 147), *Θ* (Keramopoullos 1921, 32), *Π4* (Keramopoullos 1928, 50), *Corridors Z* (Keramopoullos 1909, 73; Keramopoullos 1921, 32-3), *K* (Keramopoullos 1909, 72), but no logs were distinguished there. A black layer covered the walls in *TT2*, which are of the same orientation as the northwest-southeast walls of the "House of Kadmos" (Keramopoullos 1909, 82).

We were unable to locate sockets in the highest preserved wall, *C25*, where the butt-ends of ceiling beams would have been fitted (cf. Shaw 1973, fig. 74). Therefore, we can only speculate about the original height of the ground floor rooms. In the House of the Oil Merchant (room 2) a ledge 2.10 m. higher than the floor level probably bore the ceiling/roof timbers and marked the base of the mudbrick superstructure. In the "House of Kadmos" the possible third axial slot in *Wall C25*, which is situated 1.84 m. higher than the surface of *Room Π*, may be associated with ceiling beams at that level.

[75] Besides, the subsidence of the walls' fused superstructure in the place of "missing beams" and the imprints of wood on burnt clay mortar imply that most wall beams were *in* the masonry at the time of their burning.
[76] In the House of the Sphinxes (rooms 3 and 5) a similar black layer overlay natural bedrock (Tournavitou 1995, 60).

On the other hand, it cannot be deduced that the building was multi-storeyed solely on the basis of published stratigraphic data. But it is very probable that it featured at least an additional storey above the ground floor. If this was the case, the ceilings would have supported the upper storey floors. In the rather unlikely event that the building only featured a ground floor, the upper structure of the ceilings would have simply formed a flat roof protected by various layers of waterproof materials; alternatively, it may have provided rafters upon which a pitched roof lay.

We cannot be sure what type of roof covered the "House of Kadmos". But the regularity of the plan, that features plenty of longitudinal and lateral internal supports (cf. Iakovides 1990, 158) and the strong possibility that roof tiles were used, argue for a low-pitched roof sloping to the east and west. Such a roof would have consisted of a central ridge pole running north to south, "plates" resting on the north-south directed walls, and pitched rafters resting on the central pole (*fig.XXXV;* cf. Iakovides 1990, 158). Naturally, a simple flat roof cannot be ruled out, but the combination of the two (cf. Tournavitou 1995, 16) seems highly improbable. Reconstructing a single-pitched roof sloping to the east would also be awkward, because of the width of the building, which is great even though only part of it survives.[77]

IV.3.1.3. Wooden (ground) floors?

Floors of timber were reconstructed at ground floor level in some areas of the building. The remains of a framework of charred planks and logs immediately on top of κεραμίτις γη gave rise to this proposition, although in *Room I* a similar but more closely knit framework was attributed to a nearby wall.[78] Collapsed ceiling timbers were probably mistaken for a ground floor framework in *Room H* (Keramopoullos 1928, 51). Yet the description of other beams in *Room Π* and *Corridors Π1* and *Φ* allows their interpretation as possible ground floor timbers.

In *Room Π,* a beam was revealed on top of the "floor", running parallel to *Wall C23,* at a distance of 0.79 m. from it. Its width was 0.20 m., though we do not know what its preserved length was or whether its section was rounded or rectangular. According to the excavator, its west edge rested

[77] The width of each wing of the "melathron" at Glas was approximately 12 m. and could have been covered by a single-pitched roof sloping towards the court. The "House of Kadmos" was certainly wider than this, as its *preserved* width is 12-14 m.

on a projecting stone of *Wall C30*, that was hammer-dressed to provide a flatter surface for the beam. About 0.75 m. to its south a second beam, parallel to the first, came to light. Also, a third beam vertical to these two was found at a distance of 0.85 m. from *Wall C30*, i.e. exactly where the westernmost series of transverse wall beams was located. The beam's north edge was embedded in *Wall C23* and presumably it was somehow connected with the particular wall beams. Finally, some wooden planks, whose number or exact shape was not determined[79], covered the framework. They were approximately 0.03 m. thick (Keramopoullos 1927, 39; *fig. L*).

Certain beams were found in the "black layer" of *Corridor ΠΙ*. One of them ran at right angles to the south façade of *Wall C25* and its north edge penetrated it a bit. Keramopoullos thought that it supported the wooden floor of the corridor, although the depth at which it lay is unknown (Keramopoullos 1928, 47).

Finally, along the east side of *Wall C24*, that is the west side of *Corridor Φ*, a missing axial beam's slot was seen at the level of the "floor" and the underpinning of the "threshold" of *Room Π*. It was regarded as part of a wooden floor at the corridor, that would have been connected with the surrounding wall frames (Keramopoullos 1928, 49).

However, it seems that the use of wood for floors in Mycenaean architecture has only been securely attested in *upper storey* floors[80] (cf. Shear 1968, vol. II, 434, 444). In Minoan palatial architecture there are only doubtful traces of wooden ground floors (Shaw 1973, 139, footnotes 1,2). Besides, although it is not unusual for different forms of flooring, such as trodden earth and lime plaster floors[81], to be used in various areas of the same building (cf. Shear 1968, vol. II, 445), it is odd that a wooden floor should be reconstructed on top of a trodden earth floor in a single room.

The stratigraphic data from *Room Π* suggest that the beams under consideration were 0.70-0.75 m. deeper than other logs in the room, which might indicate that their position in the building and their function was different from that of the "ceiling rafters" in higher strata. On the other hand, the combination of split planks, beams and clay is not unusual in upper storey

[78] Its interpretation as a collapsed ceiling is more plausible (see *IV 3.1.2.*)
[79] Ceiling planks at Zakros were at least 0.07 m. thick and 0.26 m. wide (Shaw 1973, 156).
[80] On the basis of a thin black layer overlying the hardpan, a wooden floor was reconstructed at the basement of room 6 of the House of Sphinxes, but it was also seen as a possible ceiling or upper floor (Tournavitou 1995, 55).
[81] Which could be explained by the refurbishment of *Room N*.

floors (cf. Hallager 1990, 285). Also, that the north-south beam started from a point where a transverse wall prop existed in *Wall C23* agrees with ceiling construction in Mycenaean architecture; normally the rafters were mortised to wall beams and most probably they shared the same spacing with them (cf. Shaw 1973, 156; Tournavitou 1995, 18).

We tend to believe that the whole structure described by the excavator was in fact a ceiling framework.[82] It might be objected that two beams partially penetrated *Walls C25* and *C23*. But this partial penetration into the deformed walls may have occurred when the building collapsed. Similarly, the log that rested on top of a projecting stone of *Wall C30* could have fallen accidentally there. Also, the ceiling logs of *Room I* were at least 0.13 m. wide, spaced every 0.35 m., while the beams of *Room Π* were 0.20 m. wide with a spacing of 0.75-0.79 m. Yet, while beams may differ in diameters even in a single room, the variation in diameters from room to room is common and may indicate "something about the superstructure" (Hallager 1990, 285).[83] It is interesting that *Rooms N* and *Π* would require ceiling beams that measured more than 5.65-6.60 m. in length.[84]

No trace of these logs survives today and the possibility that a wooden floor existed in these areas should not be dismissed altogether. Concurrently, it cannot be decisively concluded that the aforementioned remains of timber structures in *Room Π* and *Corridors Π1* and *Φ* constituted such floors.

IV.3.1.4. Doors

A. Door-jambs

Wooden jambs are restored in most Mycenaean buildings (Shear 1968, vol. II, 434, 442; Tournavitou 1995, 3, 9, 29, 38; cf. Shaw 1973, 141). At Glas, each one of them seems to have consisted of several vertical beams (Iakovides 1989, 157). They rested on the thresholds and were probably connected with the lintel and adjacent wall tie-beams (*fig. XLVIII*; *pl. 60*) by means of wooden dowels that left no trace. They may have also been connected with jambs on a possible upper storey, since the doors in upper

[82] If this were so, the flat planks would point to the fact that an upper floor existed and the beams in higher strata would be either unevenly collapsed parts of the ceiling or roof rafters.
[83] The width of roof beams of LM I houses at Khania ranged from 0.13-0.25 m. (Hallager 1990, 285).
[84] Compare with similar spans at Zakros (Shaw 1973, 156-7).

floors tended to be positioned immediately above their ground floor counterparts.

Spotting traces of burnt wood jambs proved to be difficult, because it was hard to locate the actual passages between rooms and corridors. In July 1998 we checked all the surviving areas where a doorway might have been located. The visible "door-posts", i.e. the poros block that borders the "door" on *Wall C24* from the south (about 0.30 m. wide) and the south façade of *Wall C1*, were examined closely (*pls. 1-2, 21*). The colouring of their surfaces did not differ from that of the other scorched walls. The stones did not bear traces of any special treatment for fitting jambs, apart from one worked vertical side in each case. On the other hand, the door-jamb that Keramopoullos hypothesised east of the "threshold" at *Wall C24*, across *Corridor Φ* (Keramopoullos 1928, 49), was not seen.

The only indication of the existence of door-jambs is indirect and doubtful; some plaster fragments with bands from *Room N* were reported to show traces of their attachment to door or window jambs at their sides (Keramopoullos 1909, 88). Wright seems to be proposing that east of the surviving ashlar façade of *Wall C3* a door-jamb was fitted (Wright 1978, fig. 210).

B. Thresholds and lintels

Wooden squared beams, covering thresholds of small stones and clay mortar that were meant to be invisible ("δρύινος ουδός", cf. Shear 1968, vol. II, 434, 442; Darcque 1980, vol. I, 98; Shear 1987, 32; Iakovides 1989, 155; Tournavitou 1995, 3, 9, 29), are more often deduced on the basis of carbonised remains mostly, than actually unearthed in Mycenaean buildings.

Those parts of walls that could be regarded as built thresholds because of their construction, position and low level do not bear any excessive traces of burning. Most of them are relatively flat, but today at least their surfaces are not flat enough to fit wooden planks/beams onto them (*pls. 12, 18, 21, 29, 32, 35*). Besides, it is not entirely clear if the level of the upper surfaces that some walls have acquired is post-excavation or not; for instance, *Walls C14-C14* and *C24* were certainly higher when they first came to light. Only *Wall C4* has preserved part of its flat upper surface, which was

considered a threshold.[85] This surface is represented by a large, flat but irregularly shaped stone at 201.96 m. above sea level, i.e. at the average level of the krepidoma discussed in *IV.3.1.1.*; the flatness is primarily due to this function (*pl. 35*).

From this perspective, it seems possible that the horizontal beam(s) along *Wall C4* formed part of the wooden threshold, or fixed it in its place.[86] This was exceptional, and could be explained by the difference in level between the west and east part of the building, that brought the level of the axial beam close to the floor in *Room B*. Such an arrangement would have been impractical in downslope (eastern) rooms, where the distance between the krepidoma and the floor was greater.[87] A separate timber may have been utilised as a threshold between *Rooms A* and *B*, where no "built threshold" exists (*pls. 1-2*).[88]

Apparently, oblong stone slabs that would be suitable for lintels were not found during the excavations. Stone lintels were rather rare in general (Shear 1968, vol. II, 442). If they were not employed in the "House of Kadmos", which in all probability is true, we may assume that lintels were wooden, incorporated in walls' upper axial beams (cf. Wright 1978, 140). Provided that they were thick enough, they could have functioned as thresholds for upper storey passages as well (cf. Hallager 1990, 287 and footnote 19).

IV.3.1.5. Staircases?

Apart from a brief reference to movable ladders (Keramopoullos 1909, 88), no mention of wooden staircases was ever made, though it was originally proposed that the "House of Kadmos" featured at least two storeys (Keramopoullos 1909, 88; *contra* Keramopoullos 1911, 145; 1927, 42). The existence of an upper storey should be considered possible because of the great width of the building's walls and some stratigraphic indications. Since no flagstones were retrieved, any staircase leading to the supposed upper storey would have been entirely wooden, as in most Mycenaean multi-storeyed structures (Shear 1968, vol. II, 448-9). The available evidence does

[85] This was also due to the "necessity" of a threshold between *Corridor Δ* and *Room B*. The plan hints at the possible communication between the two spaces, either at ground or upper floor level, or both.
[86] Compare with the charred beam found on the threshold of room 2 of the House of the Oil Merchant, which was "still embedded in the wall" (Tournavitou 1995, 47).
[87] Unless the axial beams started lower at the destroyed east part of the building.

not allow the certain allocation of staircases to particular areas of the building, although according to Shaw, wooden stairways can be restored on the basis of the shape of certain corridors (Shaw 1973, 138). As already mentioned (*III.3.3.3.* and footnote 26), the rising bedrock along the west part of cluster *Δ-E-Z-H-Θ-I-K*, the width and design of *Corridors Δ-E*, their position between *Walls C15/C11, C30/C16, C4/C12* and the fact that *Room H* is the focal point of the surrounding system of walls, would seem to have enabled the construction of a wooden staircase around *Room H*, possibly directed south to north and then west to east.

We should point out that the walls around *Corridors Δ-E-Z* have literally melted down to socle level (*pl. 10*). The fierce conflagration in these areas was generated either by the abundance of wood or the concentration of other flammable materials and substances on the ground (or upper) floor, or both. Also, several beam slots were noted in the fused superstructure of *Walls C25* (south façade), *C11* (south facade, west edge) and *C12* (north façade), at various levels above the socle (0.30-1.0 m.). They look roughly circular and are about 0.07-0.010 m. in diameter. Sadly, the deformed condition of the walls does not allow their interpretation. Also, we were unable to locate any corresponding slots at the opposite walls (*Walls C4, C15, C26*), as in all three cases they are preserved at socle level.

IV.3.1.6. Wooden columns?

We have already discussed the conglomerate block found west of *Wall C30* in undisturbed Mycenaean strata, and its resemblance to a column base (*fig. XXX*). This would have supported either a tree-trunk around 1.30 m. in diameter[89] or smaller trunks, whose sides were adzed and joined (cf. Shaw 1973, 119). The latter is more plausible because of the oval shape of the smoothed upper surface of the "base". But it should be remembered that both its dimensions and shape hardly find any parallels in Minoan, let alone Mycenaean, architecture. We should treat this find with some scepticism.

With the possible exception of the aforementioned find, no stone column bases were found in the "House of Kadmos". This is interpreted as the absence of wooden columns at ground floor level. Presuming that *Room A* is a *domos*, where column bases would normally be expected, it might be claimed

[88] But its presence is not absolutely necessary.

that the destruction caused by Pindaros street and the mediocre preservation of the plan in general are responsible for the lack of columns. However, it is more likely that their absence is due to the dense wall grid of the ground floor plan, that provided many internal supports.

IV.3.2. Reeds and straw

Imprints of reeds were discerned on a burnt clay plaster fragment in the context of fallen ceiling timbers in *Room Π*, which indicates that a layer of reeds was (transversely) laid on top of ceiling/roof rafters (cf. Iakovides 1990, 157, figs. 11-12; *figs. XXXV, XXXVI*). The possibility that the reeds were plastered over with clay to provide floors (δόρωσις) is greater, though (Keramopoullos 1927, 39; see *IV.2.4.2.B*). Strangely enough, imprints of "bushes" were also seen on these clay fragments (Keramopoullos 1927, 39).

Straw on the other hand was not put in clay mortar and plaster (Keramopoullos 1909, 65-6, 84), but in mudbricks (Keramopoullos 1909, 75, 83). This was certainly deliberate, since the fibres of the straw were the necessary binding agents that prevented the mud from cracking during drying and therefore strengthened the bricks (Guest-Papamanoli 1978, 6).

IV.4. Bedrock treatment and earth-fills

As previously mentioned, the "House of Kadmos" was built along the east slope of the second hill of the Kadmeian citadel (cf. *I.4.2, I.5*). The terrain upon which it was erected sloped towards the east and south, which must have created some technical difficulties in the arrangement of the layout and the stabilisation of the whole structure. The problems that the masons faced would have included the elimination of protruding rises, the concealment of earlier structures that occupied part of the site and the construction of relatively flat occupation surfaces in the building. These aspects were dealt with by means of levelling, partial demolition and earth-fills.

Scanty remains of older structures founded on bedrock, that were attributed to Phases A and B, namely *Wall A* (Keramopoullos 1909, 64, 85, 86), *Wall B1* (Keramopoullos 1909, 65, 72, 85, 86), *Wall B2* (Keramopoullos 1909, 66), *Walls B3-"B4"* (Keramopoullos 1909, 80, 85; Keramopoullos

[89] Its diameter was 1.36-1.54 m.

1929, 61; Symeonoglou 1985, 220) and *Wall B5* (Keramopoullos 1927, 34) were revealed during the excavations (cf. *Table III*). These older walls were either buried by a covering fill (i.e. *Walls B3-B4*, Keramopoullos 1909, 80; cf. Shear 1987, 1-3) or were utilised by re-using at least some of the stones of their masonry. The latter practice was not necessarily due to lack of building material on the spot; for instance, the stones of *Walls A* and *B1* were removed so that *Walls C11* and *C15* could be founded directly on bedrock (Keramopoullos 1909, 68, 69).

Apart from the treatment of these older features, the natural bedrock itself was prepared in order to accommodate the foundations of the building (Keramopoullos 1909, 84; cf. Symeonoglou 1985, 44; Demakopoulou 1990, 310). Indeed, some sort of levelling seems to have regularised the shape of the bedrock to the east of *Wall C30*, where Keramopoullos spotted a step-like rise of the rock, running continuously along the wall and occupying the west parts of *Corridor E* and *Rooms N* and *Ξ* ("*όχθος*", Keramopoullos 1929, 61; cf. *Table I*). The tools used for this task may have been sledge hammers, picks or hoes (cf. Shaw 1973, fig. 41a, fig. 37, fig. 40), although no traces of tools whatsoever are discernible on the bedrock. Their absence can be easily explained by the fact that the rock is very soft and mixed; even its distinction from hard soil is difficult. The relatively flat surfaces of *Rooms B, H, Θ,* and *O* provide yet another piece of evidence for levelling in at least some areas of the building.[90]

Bedrock levelling was not practised throughout the area covered by the building, but was only partially employed to improve the natural formation of the bedrock where the foundations were to be built, instead of fitting the foundations into rock-cut trenches. Indeed, Keramopoullos' phraseology regarding bedrock levelling implies that his observation should be mainly considered in the context of foundations,[91] but even so it should be borne in mind that no perfectly horizontal bedrock surface exists in the building.

As a result, the socles are lower towards the building's west parts and the foundations follow the curve of the slope to the east (*pls. 11, 28*). In some areas the natural projections of bedrock have been shaped to form the

[90] But it should be kept in mind that stereo was not revealed *in* the rooms during our fieldwork campaigns.
[91] The quotation should be translated here: "[...]the walls, (with the exception of the modern wall EZ), are not founded in narrow trenches cut in the rock, but upon levelled, natural poros[...]" (Keramopoullos 1909, 84).

foundation of the wall, as for example in *Walls C30* and *C25* (*pl. 19;* cf. Shear 1987, 7). But immediately west of *Wall C30* the bedrock rises considerably in relation to its level east of the wall, so that we must assume the existence of a rock-cut shelf, upon which the foundations rest (*pls. 34, 36*).

Other areas, such as the eastern and southeasternmost preserved ones, seem to have featured a more abrupt slope. In *Corridors E-Z* the difference of absolute altitude between the east and west parts reaches 0.71 m. (*Section b-b'*), while the bedrock at *Room N* is shaped in two different levels whose height difference measures around 0.45 m. (Keramopoullos 1929, 61). In addition, the west part of *Room Π* is at least 0.49 m. higher than the east and southeast one, and the area extending beneath and to the south of the *Turkish bath* would have featured important differences in bedrock level as one proceeded from north to south (Keramopoullos 1928, 46; *Table 1; Graphs Ia-b*). Given the fact that the building extended further downslope and assuming that the degree of inclination remained at least the same, it is evident that the destroyed easternmost areas of the "House of Kadmos" would have been founded at a considerably lower level. For instance, if the building extended only 10 more metres to the east, the difference between the bedrock shelf ("όχθος") at *Corridor E,* that marks a certain floor level at the area, and the expected bedrock level down the hill would have reached 2 m.

Therefore, "κεραμίτις γη" must have functioned as a <u>fill</u>, where the bedrock sloped too much or had irregular depressions, as in *Room N.* It must be stressed that individual fills were laid in each room, since the foundations rested on bedrock or older structures and not on a uniform terrace fill. Moreover, the fills of the rooms situated towards *Wall C30* were probably only partial, covering only the rooms' lower, east parts. On the other hand, the eastern rooms would have been filled up to reach the level of the western areas at ground floor level. It is only reasonable to suggest that the height of the fill was analogous to the degree of ground inclination, unless the east rooms were basements at a lower level. The red fill beneath the destruction debris of *Room Λ* was 1 m. deep (Keramopoullos 1909, 70). The function of these fills is clearly stated by the excavator himself:

> *In order to acquire a flat surface for the floor of the building, they covered the old ruins with κεραμίτις γη, whose height is about one metre and corresponds with the height of the natural poros bedrock to the north under Thomas' house* [...] (Keramopoullos 1909, 86).

The sloping ground would have caused additional problems in supporting the fills, especially along the east and south sides of the building. The south and east walls would have to be stable enough to cope with the inclination of the ground proper, water seepage and the weight of the building's superstructure, that probably included an upper floor. Their size must have depended on the original extent of the structure downhill and subsequently, on the amount of the fill they retained. Judging from *Wall C29*, which is exceptionally wide (2.45 m.) and looks like a proper retaining wall marking the south boundary of the building, the southeast corner of the edifice must have been impressively built. It is noteworthy that this wall is wider than the Cyclopean retaining walls of the upper and lower terrace of the House of the Oil Merchant (2 m.).

Let us summarise the technical characteristics of the terrace supporting the "House of Kadmos".[92] The west part of the slope was cut back to form a level surface and *Wall C30* served as the back-bone of the building. A layer of earth, which was deeper towards the downslope areas, filled rooms and corridors. Subdividing walls locked the individual fills in their place. The walls rested on stereo rather than on fills. In a nutshell, both the "cut-and-terrace" technique and fill "compartmentition" were practised. The latter allowed the fills to settle and shift independently and offered stability to the building by distributing its weight evenly down to the substructure (Wright 1980, 61).

We cannot argue that the terrace encountered at the "House of Kadmos" is of the "palatial terrace" type, as it does not resemble the single, massive platform upon which the Mycenaean palaces were built. Instead there are clear technical affinities with earlier examples of "foundation terraces", such as Mansion II at the Menelaion or House B at Zygouries:

> *With a maximum height of 1.5 metres it barely reached a man's chest, and the simple fill of earth did not have to support much because the walls within it were founded on earlier levels or bedrock* (Wright 1980, 60).

[92] The only reference to Theban terraces that we know of is made by S. Iakovides and does not concern particular buildings (Iakovides 1977, 171).

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Find-spot	Length	Width	Thickness
TT4	0.50 metres	0.30 metres	0.12 metres
Room II	0.26 metres	0.24 metres	0.10 metres
"	0.29 metres	0.20 metres	0.11 metres
"	0.43 metres	0.13 metres	0.14 metres
"	0.40 metres	0.37 metres	0.20 metres
"	0.83 metres	0.60 metres	0.25 metres
Average			
	0.37 metres	0.24 metres	0.13 metres
Shear's figures			
Shear 1968, appendix B, vol. II, 484	0.39 metres	0.25 metres	0.095 metres
Graham's figures			
Graham 1962, 148	0.46-0.61 metres	0.35-0.40 metres	0.10-0.13 metres
Shaw's additions			
Shaw 1973, 195-198 231-4	0.42-0.64 metres	0.26-0.42 metres	0.09-0.12 metres

Table XI
Dimensions of mudbricks, according to Keramopoullos 1909, 1927 and comparison with other Mycenaean/Aegean bricks

Find-spot	Length	Width	Thickness	Type
Room Π	0.83 metres	0.60 metres	0.25 metres	Type I: Probably roof pan-tile
TT4	0.50 metres	0.30 metres	0.12 metres	Type II: Cf. Pylos: **but thicker** (Shear 1968, vol.II, 484) / Cf. Mallia 2, Nirou Khani 2, Gournia 3 (Shaw 1973)
Room Π	0.43 metres	0.13 metres	0.14 metres	Type III: Cf. House of Oil Merchant: **but less wide** (Shear 1968, vol. II, 484)
Room Π	0.40 metres	0.37 metres	0.20 metres	Type IV: Cf. House of Oil Merchant: **but less wide and thicker** (Shear 1968, vol. II, 484; Tournavitou 1995, 35) / Cf. Mallia 1, Zakros 1, Zakros C, Knossos 2, Nirou Khani 1, Gournia 1, Vasiliki 1, Palaikastro 1: **but 0.10-0.11 metres thicker** (Shaw 1973)
Room Π	0.29 metres	0.20 metres	0.11 metres	Type V: Cf. House of the Sphinxes 2 **but less wide** (Shear 1968, vol. II, 484) / Cf. Phaestos 7+, **but less wide** (Shaw 1973)
Room Π	0.26 metres	0.24 metres	0.10 metres	Type VI: Cf. House of the Sphinxes 2 (Shear 1968, vol. II, 484) / Cf. Phaestos 7+, **but less wide** (Shaw 1973)

Table XII
Categories of mudbricks and comparison with other Mycenaean/Aegean bricks

Tiles	Length	Width	Thickness	Edges (height)
Room A: sample I	0.27 metres	0.27 metres	0.02 metres	?
Room A: sample II	0.32 metres	0.32 metres	0.03-0.05 metres	?
Wall C25	?	?	0.018 metres	?
"House of Kadmos": archaeological museum	Incomplete	Incomplete	0.04 metres	0.05 metres
Glas (Iakovides 1989)	?	?	0.01-0.025 metres	0.04-0.06 metres
Iakovides' (1990) range	0.46-0.66	0.31-0.40/ 0.33-0.55	0.014-0.028 metres	0.04-0.06 metres

Table XIII
Dimensions of terracotta pan-tiles according to Keramopoullos 1909, and comparison to Iakovides' (1990) range

Wall	Heights of krepidomata
C1	0.48 /201.84 metres
C2 (east façade)	0.36/201.90 metres
C3 (south façade)	0.60/202.04 metres
C3 (north façade)	0.60/202.04 metres
C4 ("threshold")	0.37/201.96 metres
C4 (centre, at *Room Θ*)	0.45/201.87 metres
C5	0.38/202.01 metres
C6	0.34/202.0 metres
C7 (south façade)	0.49/201.97 metres
C8	0.37/202.35 metres
C8a	0.35/202.30 metres
C9	0.42/201.99 metres
C10 (north part)	0.48/201.96 metres
C11 (east edge)	0.50/201.0 metres
C11 (east edge, at *Corridor Z*)	0.52/201.97 metres
C11 (centre, at *Room Θ*)	0.50/201.98 metres
C11(SW corner of *Room H*)	0.29/201.98 metres
C12	0.20/201.99 metres
C15 (east edge, at *C14*)	0.55/201.86 metres
C15 (west edge)	0.02/202.11 metres
C16	0.28/202.0metres
C20 (north façade)	0.35/202.02 metres
C20 (south façade)	0.30/202.02 metres
C21	0.46/202.02 metres
C23 (east part-north façade)	0.50/201.87 metres
C23 (west part-north façade)	0.28/201.86 metres
C23 (east part-south façade)	0.44/201.91 metres
C23 (west part-south façade)	0.30/201.90 metres
C25 (north façade)	0.54/201.98 metres
C28	0.90/201.87 metres
C29	1.03/202.0 metres
AVERAGE	**201.95**
C30 (at *Room Ξ*)	1.03/202.88 metres
C30 (at *Room Π*)	1.03/203.04 metres
C30 (at *Corridor E*)	0.75/202.89 metres
C30 (at *Room N*)	0.64/202.87 metres
AVERAGE	**202.92**

Table XIV
Relative[93] and absolute heights of the socles' krepidomata

[93] From the modern surface of the building.

Wall	Position		Width	Height
	Vertical axis	Horizontal axis		
C2	a. 0.40	0.70 (from S)	0.30	0.28
	b. 0.40	Flush with C4	0.30	0.30
C4	a. 0.30	0.50 (from C9)	0.25	0.17
	b. 0.40	0.60 (from C10)	0.26	0.15
C7	0.30	Flush with C4	0.20	0.17
C11	a. 0.28	1.60 from SW corner of C11	0.20	0.05
	b. 0.30	0.10 E of a.	0.14	0.10
	c. 0.42	1.40 E of b.	0.20	0.10
	d. 0.60	0.40 E of c.	0.20	?
	e. 0.60	0.70 E of d.	0.20	0.07
	f. 0.64	0.30 E of e.	0.20	0.10
	g. 0.64	0.80 E of f.	0.25	0.20
	h. 0.60	0.55 E of g.	?	?
C12	a. 0.24	0.10 (from C9)	0.20	0.08
	b. 0.17	0.10 W of a.	0.20	0.13
	c. 0.19	0.10 W of b.	0.20	0.10
	d. 0.13	0.10 W of c.	0.20	0.20
	e. 0.17	0.10 W of d.	0.20	0.10
	f. 0.17	0.10 W of e.	0.20	0.15
	g. 0.10	0.10 W of f.	0.20	0.07
	h. 0.10	0.10 W of g.	0.20	-
	i. 0.07	0.10 W of h.	0.20	-
	j. 0.05	0.10 W of i.	0.20	-
	k. Flush with stereo	0.10 W of j.	0.20	-
C15	a. 0.20	1.20 (from NA corner)	0.20	0.20
	b. 0.25	1.0 W of a.	0.20	0.20
C16	a.			
	b.			
	c.			
	d.			
C20	a. 0.68	1.90 (from SW corner)	0.20	0.20
C23	a. 0.57	0.20 E from C21	0.20	0.20
C25	a. 0.30	Flush with C24	0.25	0.27
	b. 0.35	0.90 from SE corner of *Room Π*	0.24	0.15

Table XV
Transverse timber beams' slots

PART V

Conclusions

The preserved part of the "House of Kadmos" is situated on the east and southeast slopes of the "second hill" of the Mycenaean citadel, which should be located approximately in the centre of the contemporary tableland occupied by the modern city of Thebes (*I.1.-I.4., figs. VIIIa-c*). The original extent of the building is unknown, as it has suffered great damage during later historical and early modern times (*III.1-III.2.5.*). It should be emphasised, however, that various fragmentary walls have been unearthed in its neighbourhood (*III.2.6.*).

The sloping terrain was successfully adapted by means of bedrock levelling and compartmentalised earth-fills ("cut-and-terrace" technique). The terrace supporting the "House of Kadmos", paralleled by LH IIIA "foundation terraces" is not comparable to the uniform "palatial terraces", which upheld the palaces of Tiryns and Mycenae (*IV.4.*). Although the design of the foundations hints at the predetermined and sophisticated nature of the layout, the terracing technique employed would seem to suggest that the building was architecturally independent of other structures unearthed on the citadel.

An extensive discussion, commenting on architectural details as well as stratigraphic evidence, would be needed to prove that the "House of Kadmos" was a multi-storeyed structure. However, it must be pointed out that the well-built foundations and massive width of most of the building's walls, indicate that they were designed to support great superstructure weights. It is significant that most of them are at least 1.10 m. wide. Greater intact widths are attested (1.45, 1.80, 2.45 m.), while thinner walls (0.70 m.) are by no means weak, if compared to walls of other Mycenaean buildings that are considered to have been two-storeyed (e.g. the Panagia Houses).

Moreover, the dense, regular grid of the ground floor plan hints at the existence of at least one upper storey. The extra support furnished by the tie-beams of the ground floor walls, which are mostly of stone, further implies that the ground floor walls were meant to cope with a heavier superstructure than just the roof of the building. The lack of thresholds connecting adjacent rooms, as in *Rooms Ξ-O, Ξ-N, H-Θ, Θ-I*, suggest that these rooms were

accessible through trap-doors. The sturdy, cross-like conjunction of *Walls C2, C3, C4, C10* (*III.3.3.1.; III.5; graph III*) possibly represents yet another piece of evidence in support of an upper storey, regardless of the proposed vertical props in the southwest corner of *Room A* (*IV.3.1.1.C.*). The conjectural reconstruction of a wooden staircase leading to the upper floor in *Corridors Δ-E* is plausible (*IV.3.1.5.*).

The foundations, socles and superstructure of ground floor walls were built mostly of limestone, in "random rubble" and, more rarely, in "coursed rubble" masonry (*IV.2.1.1.*). Stray schist slabs and conglomerate fieldstones were occasionally employed (*IV.2.1.3., IV.2.1.4.*). In a sole instance, ashlar poros blocks constitute the façade of a ground floor wall, which is also timbered (*IV.2.1.2.*). All ground floor walls featured wooden tie-frames, both axial and transverse, that were probably connected to each other by means of timber dowels (*IV.3.1.1.A-B*). The presumed use of vertical props would have been limited to the southwest corner of *Room A* (*IV.3.1.1.C*).. Clay mortar was extensively used to enhance the coherence of stone and timber in the walls and as a watertight agent at the foundations (*IV.2.4.2.A.*). Fragmented terracotta slabs, that probably originated from the destruction debris of a older structure (*IV.2.4.4.B-C*), and accidentally fired mudbricks (*IV.2.4.4.D*) were embedded in the masonry. Clay plaster covered at least some ground floor walls and ceilings (*IV.2.4.2.B*). Lime plaster (plain, simply decorated and in the form of elaborate wall-paintings) lay on some walls, probably at upper floor level (*IV.2.2.1.*), but not on the ashlar façade of *Wall C3*. The use of mudbricks at ground floor level, if any, seems to have been restricted in the superstructure of secondary walls, while upper floor walls were probably built of mudbricks, in order to be lighter, on top of ground floor axes. But levelling mudbricks have been spotted even in massive ground floor walls. Straw, small pebbles, animal bones, chaff, sherds and small shells were included in the mudbricks (*IV.2.4.3.*).

The ground floors were mostly of trodden earth (*IV.2.4.1.*), but at least one room's floor was refurbished with lime plaster (*IV.2.2.2.*). It is possible that some areas had flimsy clay plaster floors, which have disintegrated in the course of time (*IV.2.4.2.B*). It is rather unlikely, however, that timber floors existed at ground floor level (*IV.3.1.3.*). On the contrary, upper storey floors

would have consisted of wooden rafters underneath a light superstructure of clay matrix, impressed on a layer of reeds (*IV.2.4.2.*, *IV.3.1.2.*, *IV.3.2.*). The existence of tiled floors is rather improbable (*IV.2.4.4.C*).

If the few areas, which Keramopoullos was able to identify as thresholds, are regarded as such, it would seem that they consisted of an underpinning of small stones embedded in much clay mortar, presumably covered by a simple wooden plank or clay plaster (*IV.3.1.4.B*). Likewise, the door-jambs would have been of timber, resting on the masonry that defined the sides of the supposed door-openings (*IV.3.1.4.A*). It must be stressed, though, that these assumptions are based on "negative evidence".

The conglomerate, ovoid "column-base", which was found in undisturbed Mycenaean strata, may indicate that a column existed somewhere in the building. However, the find cannot be attributed with certainty to any specific area of the preserved ground floor plan, while the size of the "column-base" is hardly paralleled in Bronze Age palatial architecture in the Aegean. No other possible column-bases were unearthed during the excavations (*IV.3.1.6.*).

Fragmented pan-tiles have been recovered from within κεραμίτις γη layers, as well as from higher strata and the walls of the building itself ("slab-like bricks"). A certain example of a roof pan-tile was recently found in a box containing sherds from the excavations, but is unstratified. No cover tiles have been reported. On the other hand, it is most probable that the main bulk of roof debris, that would have consisted mainly of tiles and charred wood, was razed by later and modern building activity in the area; it should be remembered that in some cases, such penetrations reached bedrock.

It is also noteworthy that the uppermost surviving destruction stratum consists of fused building materials from the walls, that seal subsequent strata. From this perspective, it would be more reasonable to suggest that the tiles found do not actually belong to the roof of the building, but were included in the destruction debris of an earlier edifice, as Keramopoullos proposed. Some simply formed part of the earth-fill, others were employed as wedges in the masonry of walls; intact pieces could have been re-used at the roof, if the latter was tiled indeed. Because of the uncertainty concerning roof-tiles, any conclusions on the actual shape of the roof should be postponed until the

stratification of the building is cleared out on the basis of the excavator' diaries. What could be mentioned, however, is that the regularity of the plan would seem to enable the construction of both a flat and a (double) pitched roof. A single-pitched roof is rather unlikely, due to the great width of the surviving building (*IV.3.1.2.*). In either case, the area above *Room H* may have featured a clerestory, that allowed light but not water to get in the building (*ὑπολαμπάς*,, Keramopoullos 1928, 51).

The plan was well-organised and predetermined, as the type of terracing and the clustering of the layout suggest. While the fragments of *Phase A-B* walls unearthed on the site (see *II.2.1.*) cannot be attributed to earlier building phases of the "House of Kadmos" itself, some irregularities in *Phase C* walls might suggest that it underwent small-scale refurbishment or modification prior to its conflagration (see *III.5.*). The basic spatial components, of which the surviving plan consists, are:

a) The somewhat irregularly formed suite consisting of *Rooms A-B-"Γ"* at its northernmost preserved part. In the case of *Rooms A-B* at least, it is obvious that they were arranged along a single west-east axis, but it not entirely clear whether they should be regarded as a main room (*domos*) and an anteroom (*prodomos*) of a *megaron*, since not much of the area survives well. In fact, the relationship between *Room B* and "*Room Γ*" is obscure. It is also doubtful whether the latter was actually entered from the west side ("*Room Γ*", see *III.3.3.1.*). Furthermore, the ashlar façade of *Wall C3* bordering the south side of *Room A* complicates the interpretation of the latter's function; it should be pointed out that pseudo-ashlar facades are basically *external* walls, intended for display. On the other hand, the passage connecting *Room B* and *Corridor Δ* resembles the side-openings at the *prodomoi* of the main and secondary megaron in Tiryns (especially that of the main one), the *prodomos* of the main megaron and the anteroom of the secondary megaron in Pylos, the porch at the Mycenae main megaron, as well as at the two megara in Glas. It is notable that in all cases, with the exception of Glas, a staircase leading to an upper floor was found nearby.

b) The west-east directed spaces extending south of *Wall C15* and immediately to the east of *Wall C30* (*Rooms N, Ξ, O, Π*). The uniform alignment of this suite of rooms and their standardised shape suggest that they

constitute a group of spaces that opened onto a corridor running along their east sides (*Corridors Φ-M*), either at ground or upper floor level, or both. Although only a small portion of the corridor survived (*M*), such an arrangement would certainly find many parallels in mainland Greece; the "magazine"-and-corridor format is perhaps the most typical feature of the *Mycenaean* "Corridor House" (*Das Korridorhaus*, Hiesel 1990, 111, 205-9, Abb. 85), attested at Katarraktis-Drakotrypa (Hiesel 1990, 70-1, Abb. 54), Mouratiada Megaron A (Hiesel 1990, 112, Abb. 86), Houses A-B at the southeast part of the Mycenae citadel (Hiesel 1990, 113-5, Abb. 87-8), the House of the Columns (Hiesel 1990, 115-119, Abb. 89), the House of the Oil Merchant (Hiesel 1990, 119-121, Abb. 92), the House of the Sphinxes (Hiesel 1990, 123-4, Abb. 94), Tsountas' House (Hiesel 1990, 125-6, Abb. 95), the West House (Hiesel 1990, 128-9, Abb. 97), the magazines west of House M at Mycenae (Hiesel 1990, 147-9, Abb. 106), the Northeastern building at Pylos (Hiesel 1990, 131, Abb. 98), Menelaion Mansions I-III (Hiesel 1990, 131-6, Abb. 99-101), Buildings V and VI at the lower citadel of Tiryns (Hiesel 1990, 136-8, Abb. 102-3), even in the "melathron" of Pantalica-Sicily (Tomasello 1996, 1595-1602).

But this format is also encountered in the palatial megastructures as well (cf. Schaar 1979, 23-4), as for instance, in the west wing of the main building at Pylos, the northeast magazines east of the small court of the palace of Tiryns, the northern half of the "agora" at Glas (Hiesel 1990, 168-172, 253: 29) and the "melathron" at Glas (Hiesel 1990, 213-6, 252: 28). Moreover, it is noteworthy that the same spatial syntax is observable outside the mainland - though within the Mycenaean orbit- such as in the East House at Miletus (Hiesel 1990, 255: 50), Gournia House He (Hiesel 1990, 255: 48) and the east wing of the megaron complex in Phylakopi (Hiesel 1990, 255: 49).

c) A transitional space (*Δ-E-Z-H-Θ-I*), which lies between the two aforementioned areas, connecting and separating them at the same time. It looks as if the emphasis is placed on the corridors here, rather than on the rooms themselves. The shape of this system of "winding" corridors has been regarded as an indication of the "minoanised" character of the plan (see below). However, we have stressed that the arrangement of the walls in cluster *Δ-E-Z-H-Θ-I* seems to have been circulation-imposed and related to the

function of *Room H*, as well as to the possible existence of a staircase in *Corridor E* (see *III.3.3.3.*). Besides, the arrangement of the walls is not exceptional and brings to mind the area extending immediately west of the main megaron of the palace in Tiryns, where a light-well, a staircase and a "winding" corridor are combined in what seems to be a similar pattern of spatial correlation.

In general, the available evidence suggests that at least the southernmost preserved sector of the "House of Kadmos", i.e. the area extending south of *Wall C15*, features affinities with the LH I-IIB Mansion I at Menelaion (cf. Kilian 1987, 121), which seems to belong to "House Type *D1*" together with the later Panagia House I and the Potter's Shop (House B) at Zygouries (LH IIIB-LH IIIB1).

> *This two or three room suite is arranged along a single axis [...]. Parallel to the axis of the main suite there is a corridor which leads to a series of secondary rooms arranged along an axis roughly parallel to the major axis of the building. It serves to give access to the rooms which have been added but it also tends to isolate the main suite of rooms which lies along one side of the building. This type frequently consists of more than one storey and is usually the most elaborate type of private house to be found on L.H. sites, except at Mycenae [...]. All these buildings are rectangular free-standing structures* (Shear 1968, vol. II, 459-460).

However, the "central corridor" element dividing the building in two parts is also attested in "House Type *E*", to which the House of the Oil Merchant and the House of the Sphinxes at Mycenae belong (LH IIIB, LH IIIB2).

> *To one side of the corridor there appears to have been the main room and vestibule of the house but the area usually occupied by the numerous smaller, secondary rooms was occupied by a few rooms, one of which was very large [...]* (Shear 1968, vol. II, 465-6).

It is indeed remarkable how the relationship between *Corridors Φ-Π1* and area *Π4* resembles the spatial arrangement in the south part of the House of the Oil Merchant and the House of the Sphinxes. Strictly speaking, it not necessary that the destroyed east part of the "House of Kadmos" mirrored exactly its west part (*Rooms N, Ξ, O, Π*); therefore, we cannot exclude the

possibility that opposite these rooms lay a larger space instead of several small ones, as in the aforementioned buildings. It is also interesting to note that the ground floor *Rooms N-Π* may have provided an axial, tripartite structure at upper floor level. The notion of an upper floor megaroid is not unusual; the west terrace in the House of the Oil Merchant is thought to have supported such a megaroid, while a later example from Koukounaries at Paros (Schilardi 1984, 201) also comes to mind. Moreover, such a megaroid over *Rooms N-Ξ-O-Π* would fit the format attested in other Mycenaean "*Corridor houses*" surprisingly well, as the megara/megara-like structures included in them tend to share the axiality of the overall layout of the buildings. The conjectural reconstruction of a tripartite or bipartite megaron-like structure above *Rooms N-Π* would not necessarily contradict the possible existence of a megaron suite at the ground floor, in the northernmost preserved part of the plan.

Keramopoullos was inclined to believe that the layout of the "House of Kadmos" was minoanised (cf. Faraklas 1968, 242-3; Spyropoulos 1975, 70; Demakopoulou 1990, 310[1]), comparing it to Glas. But, although similar design principles characterise the plans of these buildings, Keramopoullos seems to have based his views only on the existence of the light-well in *Room H* (Keramopoullos 1928, 51) and the fact that the various rooms seem to have opened onto narrow corridors (Keramopoullos 1909, 86, 89).[2]

While the ties between Crete and Thebes have been stressed by many authorities, especially in relation to the provenance of inscribed stirrup-jars (Catling & Millet 1965, 1969; Symeonoglou 1973, 74-5; McArthur & MacArthur 1974; Wilson 1976; Catling & Jones 1977; Raison 1977, 79-86; McArthur 1978), we believe that at least the plan of the "House of Kadmos" belongs to a purely Helladic architectural tradition. It may be regarded as an elaborate version of "House Types *D1-E*", based on the Menelaion I format but given new features, such as the light-well and the Π-shaped corridor around it; possibly a Γ-shaped staircase leading to an upper floor and a west-east oriented megaron as well. The spatial components of the preserved plan

[1] These authorities speak of the palace layout in general, however.
[2] Initially (and probably correctly) he also thought that the "House of Kadmos" was a multi-storeyed structure; because of this, he felt that it should be distinguished from the supposedly one-storeyed Mycenaean palaces (Keramopoullos 1909, 90).

(see supra, a-c) are easily distinguishable from each other,[3] which adds support to the idea that the surviving portion of the "House of Kadmos" adapted the idea of a *Korridorhaus* and developed it, possibly to "palatial" standards, by adding other functionally necessary spaces. Admittedly, the fact that various architectonic elements are combined causes some difficulty in pin-pointing close parallels (cf. Kilian 1987, 121; Kilian 1989, 37), but it is significant to stress that these elements stem from the mainland tradition. It should be remembered that the construction techniques employed at the "House of Kadmos" are typical of Mycenaean architecture, though it is interesting that ashlar facades backed by rubblework ("pseudo-ashlar" masonry, Küpper 1996, 118-9) and the wall-frames (Wright 1996, 76-7) find parallels in Hittite rather than Minoan architecture.

[3] Concurrently, space unification is achieved by means of the corridors, which cross the building's length and width and bring to mind those in the west wing of the Tiryns palace.

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Appendix I

An index to geological resources at Eastern Boeotia

Note to the index: The formations in the vicinity of Thebes, include limestone, dolomitic limestone and dolomitic stones, ophiolite, limonite, conglomerate, sandstone, marl, sands, red loams and various argillic soils. A summarised account of the geological formations around Thebes, based on Christodoulou (1969) and the relevant I.Γ.M.E. map, compiled by Tataris, Kounis and Marangoudakis (1970), provides an index of resources available in the area.

Material	Location(s)	Closest to Thebes
Conglomerate		Thebes
Pleistocene	Thebes itself. East and northeast of Thebes: Chatzi, Lakka Bovali. South of Thebes: Pitos. Southwest of Thebes: Platani, Souleza, Loutofion, Rachi Kaltsa, Ampelochori, Pyrgos. West of Thebes: Pyri	
Lower Pliocene	Northeast of Thebes: Elaion, Koumerki, Arma, Kokkinia. East: Vlachika Alonia, Psilorachi. Southeast: Rachi Kostaki, Tsouka, Magoula, Golemi, Rachi Ampelia. South: Karpouzi, Pigadi Gouma	
Paleocene-Eocene	Pebbly conglomerate: North of Ylike: Klimatario, Kokkini Spilia, Moni Pelagias.	
Sandstone		Thebes
Pleistocene	Thebes itself. East and northeast of Thebes: Chatzi, Lakka Bovali. South of Thebes: Pitos. Southwest of Thebes: Platani, Souleza, Loutofion, Rachi Kaltsa, Ampelochori, Pyrgos. West of Thebes: Pyri.	
Lower Pliocene	Northeast of Thebes: Elaion, Koumerki, Arma, Kokkinia. East: Vlachika Alonia, Psilorachi. Southeast: Rachi Kostaki, Tsouka, Magoula, Golemi, Rachi Ampelia. South: Karpouzi, Pigadi Gouma.	
Tithonian-Lower Cretaceous	North of Paralimni: southeast of Pigadi Katsika.	
Paleocene-Eocene	North of Ylike: Klimatario, Kokkini Spilia, Moni Pelagias.	

Limestone		Soros, Souvala (white-white gray): 3 and 5 km. Katsika, Kokkinovrachos, Soros (dark): 3 km
Touronian-Senonian	White, white-gray, gray, microcrystalline: north of Ylike: Patima, Stauros, Chelones, Teskoureli	
Cenomanian-Touronian	Marly, yellow: northeast of Paralimni: Mali, Darda, Teskoureli.	
Upper Jurassic	Dark: north of Paralimni: Lakka Basou. Also: Skroponeria, and east of Chelonokastro.	
Lias-Dogger	Black-grey: northwest of Thebes: Katsika. North: Kokkinovrachos, Strylogo. North, northwest, west of Paralimni: Kakousi, Kandyli, Platykas.	
Triassic-Lias	Dark, white-gray: northeast of Thebes: Souvala. East: Soros, Moustafades, Tsartali, Petra Stauraetou, Rizokokkinia.	
Triassic	White, dark, microcrystalline: Southeast of Thebes: Maurovouni, Kyramara, Dafnoula, Gravaza, Katsiki.	
Dolomitic limestone-dolomite		Ypaton: 8 km (white-gray). Kokkinovrachos, Katsika: 3 and 5.5 km (dark).
Lias-Dogger	Black-grey: northwest of Thebes: Katsika. North: Kokkinovrachos, Strylogo. North, northwest, west of Paralimni: Kakousi, Kandyli, Platykas.	
Upper Triassic-Lower Malm	White-gray, microcrystalline: south slopes of Messapion-Ypaton	
Triassic	White, dark, microcrystalline: Southeast of Thebes: Mavrovouni, Kyramara, Dafnoula, Gravaza, Katsiki.	
Clay, sand		Thebes
Pleistocene	Red loam: Thebes itself. East and southeast of Thebes: Chatzi, Lakka Bovali. South of Thebes: Pitos. Southwest of Thebes: Platani, Souleza, Loutofion, Rachi Kaltsa, Ampelochori, Pyrgos. West of Thebes: Pyri.	
Lower Pliocene	Northeast of Thebes: Elaion, Koumerki, Arma, Kokkinia. East: Vlachika Alonia, Psilorachi. Southeast: Rachi Kostaki, Tsouka, Magoula, Golemi, Rachi Ampelia. South: Karpouzi, Pigadi Gouma	
Paleocene-Eocene	North of Ylike: Klimatario, Kokkini Spilia, Moni Pelagias.	

Marl		Psilorachi: 1.5 km
Lower Pliocene	Northeast of Thebes: Elaion, Koumerki, Arma, Kokkinia. East: Vlachika Alonia, Psilorachi. Southeast: Rachi Kostaki, Tsouka, Magoula, Golemi, Rachi Ampelia. South: Karpouzi, Pigadi Gouma	
Paleocene-Eocene	North of Ylike: Klimatario, Kokkini Spilia, Moni Pelagias.	
Oph(e)iolite: (serpentinised)	Upper Lias-Lower Malm: South of Ylike. East of Ylike: Reventa. Southeast, northeast of Paralimni: north slopes of Messapion and Hypaton mountains. Also: Anthedon, the east slope of Segkouna mountain, at the hill of Stromata Zervou, in Chouni ravine, on the southeast side of Platykas mountain, and elsewhere (Christodoulou 1969, 16).	South of Ylike, Reventa: 4.5 km
Chert	Tithonian-Lower Cretaceous: North of Paralimni: southeast of Pigadi Katsika. Slate-chert formations also exist at Kyraneza and Petra Stayraetou hills (Christodoulou 1969, 18).	Petra Stauraetou: 11km
Limonite	Cenomanian-Turonian: North of Ylike	North of Ylike
Shale-schist	Tithonian-Lower Cretaceous: North of Paralimni: southeast of Pigadi Katsika.	North of Paralimni

Appendix II

Sample of the fieldwork sheet used to record data during the 1998 clean-up operation

HOUSE OF KADMOS: FIELDWORK SHEET OF

Room/area **Degree of preservation:**

Dimensions Width Length Good Medcr Bad

Average room depth: **Floor:** Plaster Earth

Comment Preservation

Azimuth of walls: 1. 2. 3. 4.

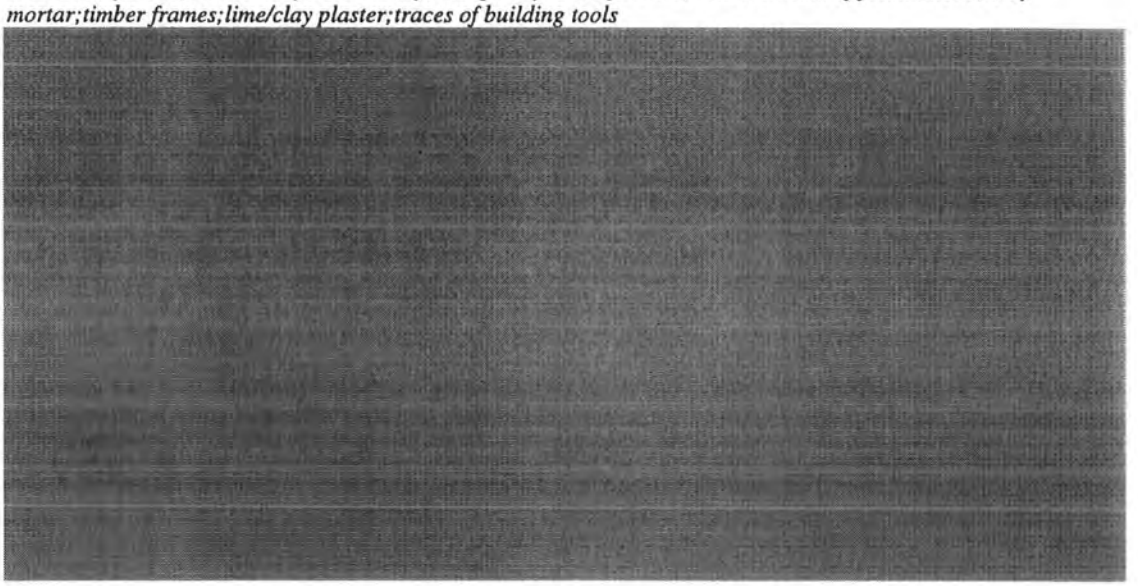
Dimensions of walls:

1. Length Height av. Width
2. Length Height av. Width
3. Length Height av. Width
4. Length Height av. Width

Openings: **Key-words:** *size; position/alignment; quality/preservation; thresholds/posts*

Foundations and socles

Key-words: *levelling; terracing;krepidoma;clay fill;natural bedrock;inclination of rock/foundations; joints-bonds;sub-phases;courses' layout/masonry;size/quality/kind of stones; relative width of foundations; clay mortar;timber frames;lime/clay plaster;traces of building tools*



Further remarks: **Key-words:** *drains;ducts;pits;epipagos;traces of fire;situation under later structures;destructions;2nd use membra*

Plans-sections drawn:

Sheet

Photographs taken:

Plate

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Abbreviations

AA	*Archäologischer Anzeiger*
AAA	*Αρχαιολογικά Ανάλεκτα εξ Αθηνών*
ΑΔ	*Αρχαιολογικόν Δελτίον*
ADAWB	*Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin, Klasse für Sprachen, Literatur und Kunst*, Berlin
AE	*Αρχαιολογική Εφημερίς*
AJA	*American Journal of Archaeology*
AM	*Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung*
ArchHom	*Archeologia Homerica, im Auftrage des Deutschen Instituts Herausgegeben von Friedrich Matz und Hans-Günter Buchholz*, Göttingen
ASatene	*Annuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente*, Rome
Atti e Memorie 2	*E. De Miro, L. Godart & A. Sacconi (eds.), Atti e Memorie del Secondo Congresso di Micenologia, Roma-Napoli 1991, Incunabula Graeca XCVIII*, Rome 1996
BAAE	*Βιβλιοθήκη της εν Αθήναις Αρχαιολογικής Εταιρείας*
BCH	*Bulletin Correspondance Hellenique*
Bericht	*Deutsches Archäologisches Institut, Bericht über die Hundertjahrfeier*, Berlin 1930
BSA	*Annual of the British School of Archaeology at Athens*
Boeotian Topography	*J. Fossey, Papers in Boeotian Topography and History*, Amsterdam 1990
Cyclades	*J. McGillivray & R. Barber (eds.), The Prehistoric Cyclades*, Edinburgh 1984
FF	*Forschungen und Fortschritte*, Berlin
GGR	*Geological and Geophysical Research, Institute for Geology and Subsurface Research*, Athens
L'Habitat	*P. Darcque & R. Treuil (eds.), L'Habitat Egéen Préhistorique, (Actes de la Table Ronde Internationale*

	Organisée par le Centre National de la Recherche Scientifique, l'Université de Paris I et l'Ecole française d'Athènes, Athènes, 23-25 Juin 1987), BCH supplement XIX, Paris 1990
Minos	*Minos. Revista de Filologia Egea*, Salamanca
OpArch	*Opuscula Archaeologica*, Lund
ΠΑΕ	*Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας*
PraktB'Arg	*Πρακτικά του Β' Τοπικού Συνεδρίου Αργολικών Σπουδών, Αργος 30.5-1.6.1986, Πελοποννησιακά 14*, Athens 1989
RA	*Revue Archéologique*
SDA	*Schriften des Deutschen Archäologen (Verbandes IX: Kolloquium zur Ägäischen Vorgeschichte, Mannheim 20-22.2.86*, Mannheim 1987)
SIMA	*Studies in Mediterranean Archaeology*, Göteborg-Jonsered
Τέχνη	*R. Laffineur & P. Betancourt (eds.), Τέχνη. Craftsmen, Craftswomen and Craftmanship in the Aegean Bronze Age, Aegaeum 16, Temple University, 6th International Conference, Philadelpia, April 1996*, Liege 1997
Thera I	*C. Doumas (ed.), Thera and the Aegean World I, (Proceedings of the 2nd International Scientific Congress, Santorini-Greece, August 1978)*, London 1978
TT I	*J. Chadwick & T. Spyropoulos, The Thebes Tablets II, Minos supplement 4*, Salamanca 1975
UMM	*University Museum Monographs*, Philadelphia
Urbanism	*P. Ucko, R. Tringham & G. Dimbleby (eds.), Man, Settlement and Urbanism (Proceedings of a meeting of the Research Seminar in Archaeology and Related Subjects, held at the Institute of the Archaeology, London University)*, London 1969
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Anastasia C. Dakouri

THE HOUSE OF KADMOS

AT MYCENAEAN THEBES

A preliminary re-examination of the architecture

Volume II:
Plan, Sections, Figures and Plates

Thesis submitted for the degree of Master of Arts by research
Department of Classics, University of Durham
Durham 1998

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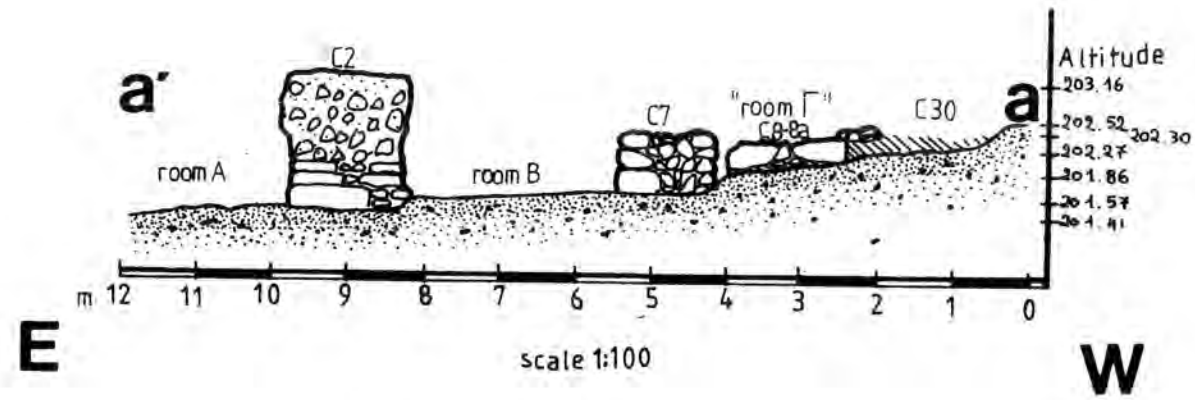
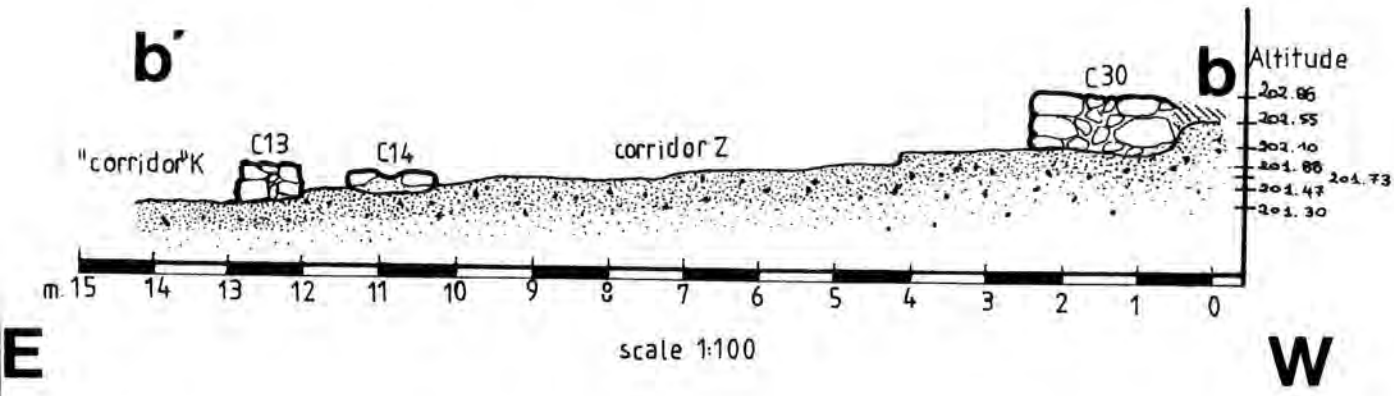
I.

Plan and sections

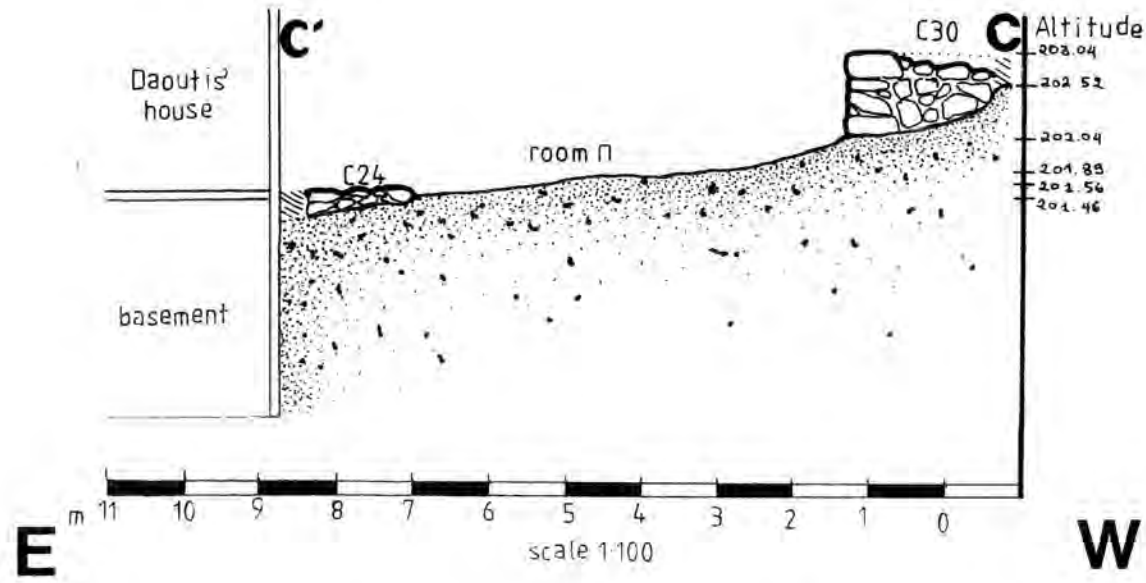
THE HOUSE OF KADMOS
ANASTASIA C. DAKOURI
1998
scale 1:25
0 1 2 3 4 5 metres
Frankish palace
turkish bath
caldarium shaft area of
early modern wall
kiln
granary 1
granary 2
modern fill
treasury room area
hearth(s)
a
b
c
d
a'
b'
c'
d'
C31
C32
C19



II. W/E section a-a', across *Rooms Γ, B* and *A* (by author)

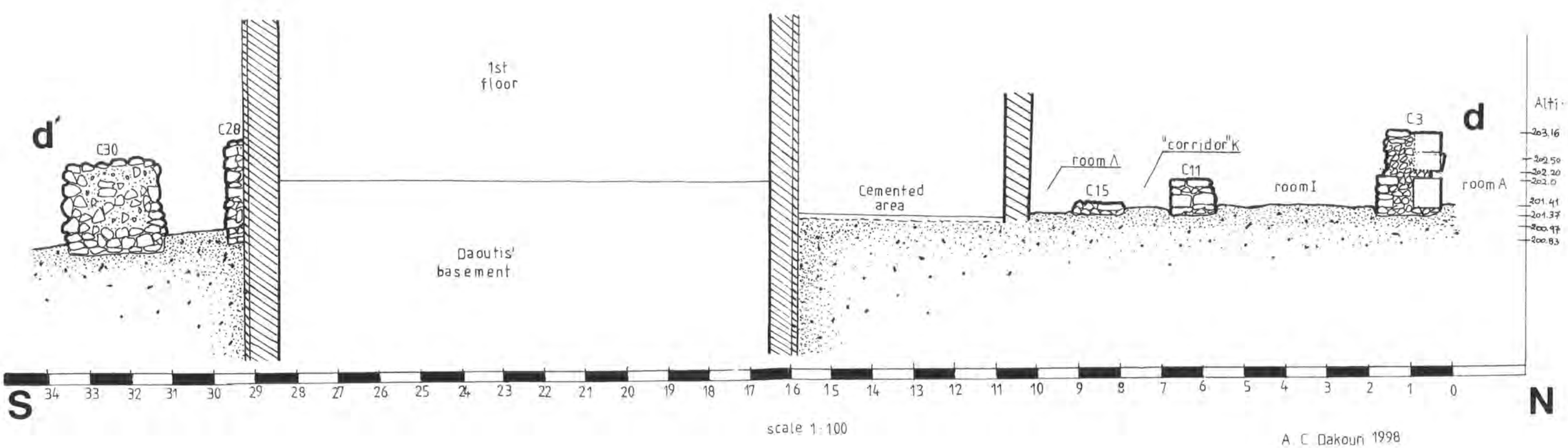


III. W/E section b-b', along *Corridors Z* and *K* (by author)



A. C. Dakouri 1998

IV. W/E section c-c', along *Room Π* (by author)



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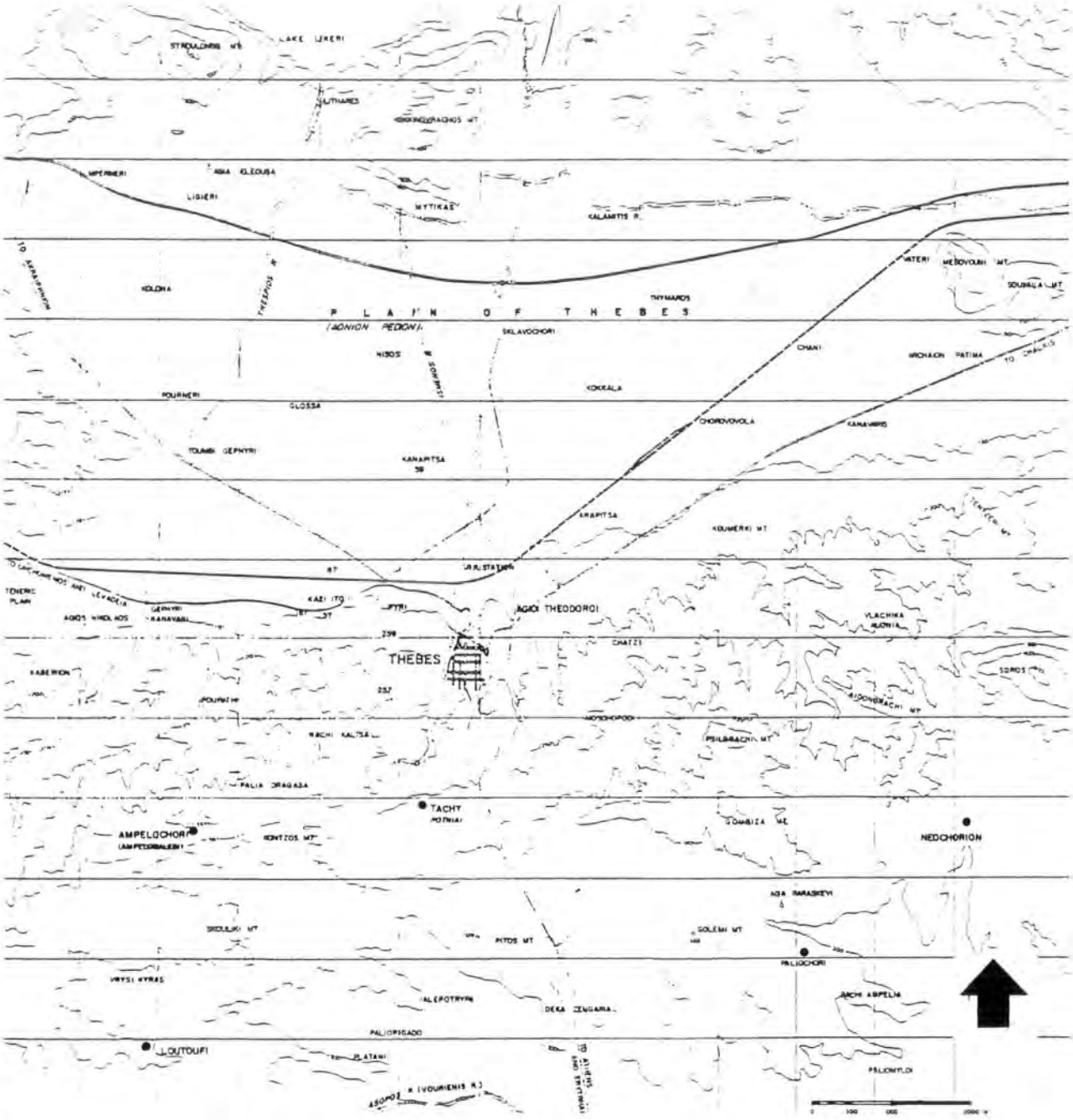

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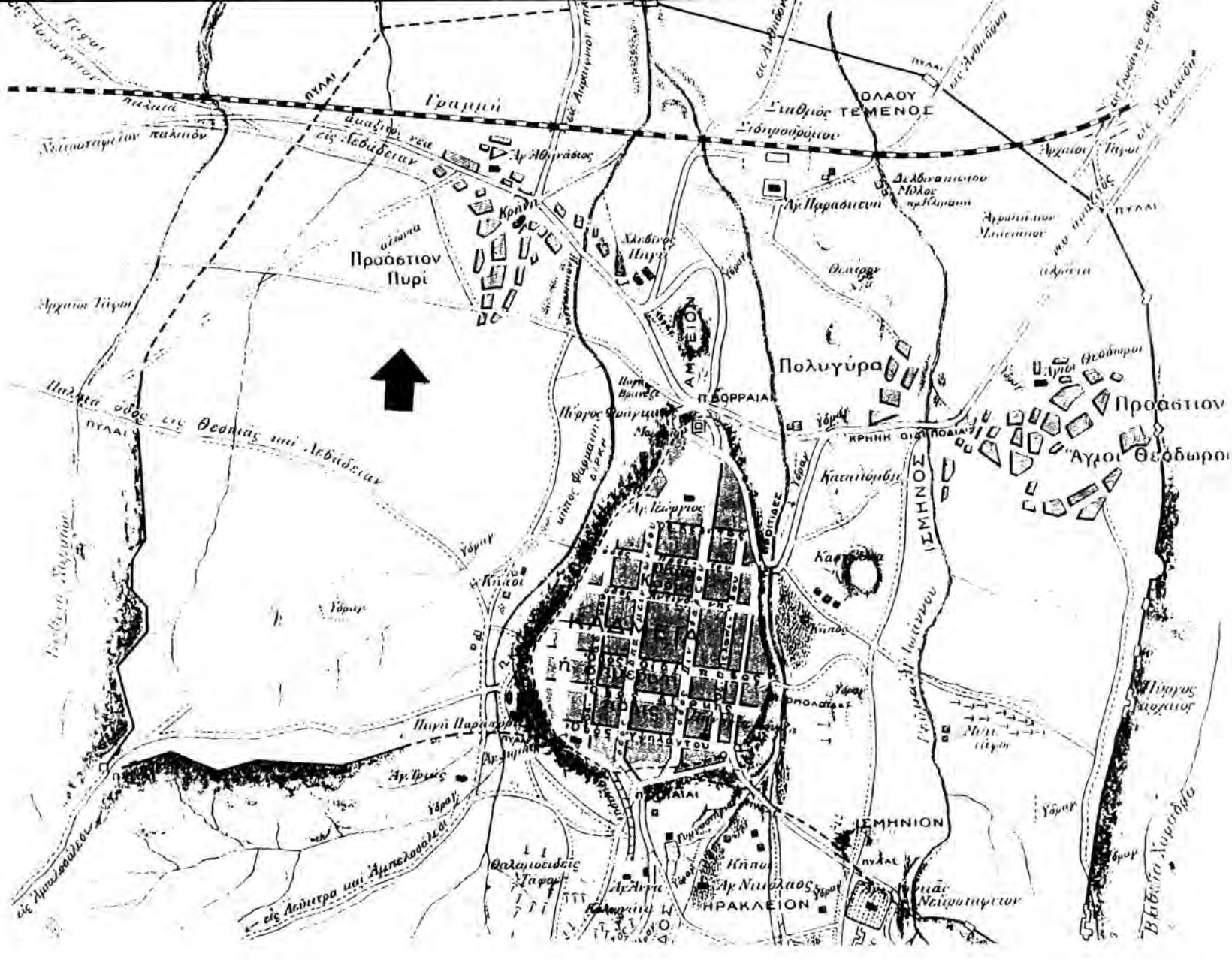
II. Greater Thebes (after Symeonoglou 1985, map A)



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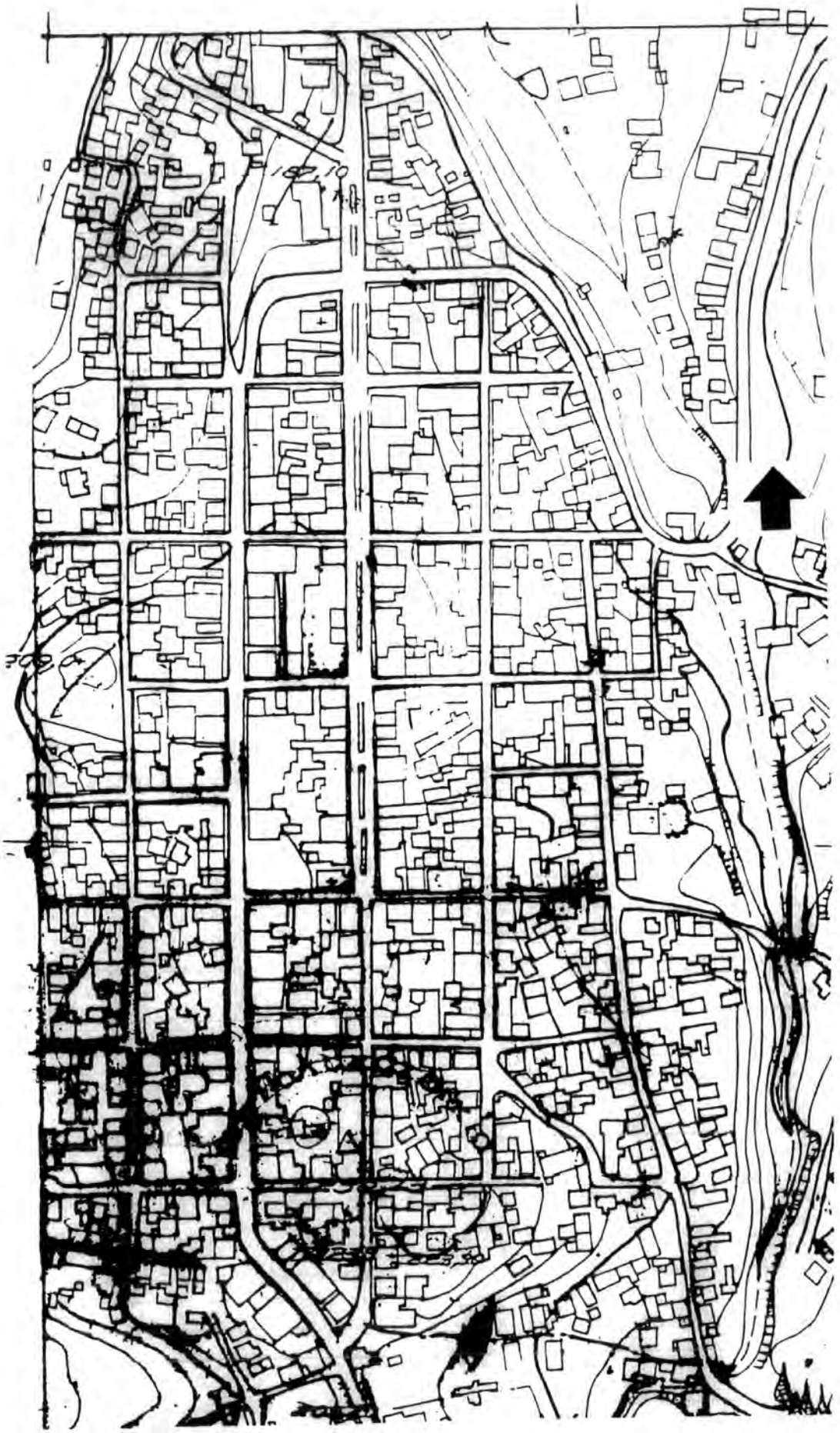

IV. Topographical map of Thebes: close-up
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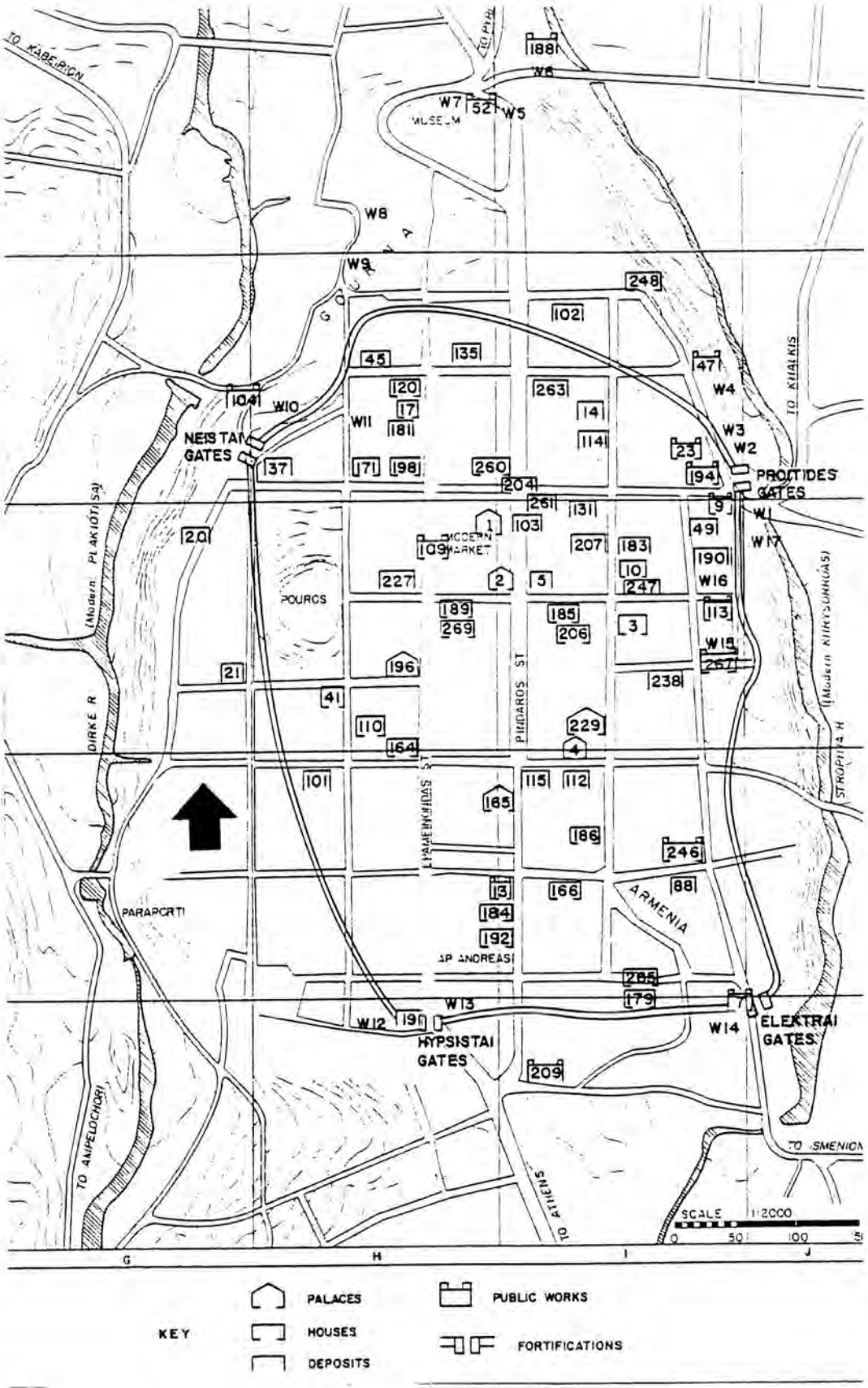
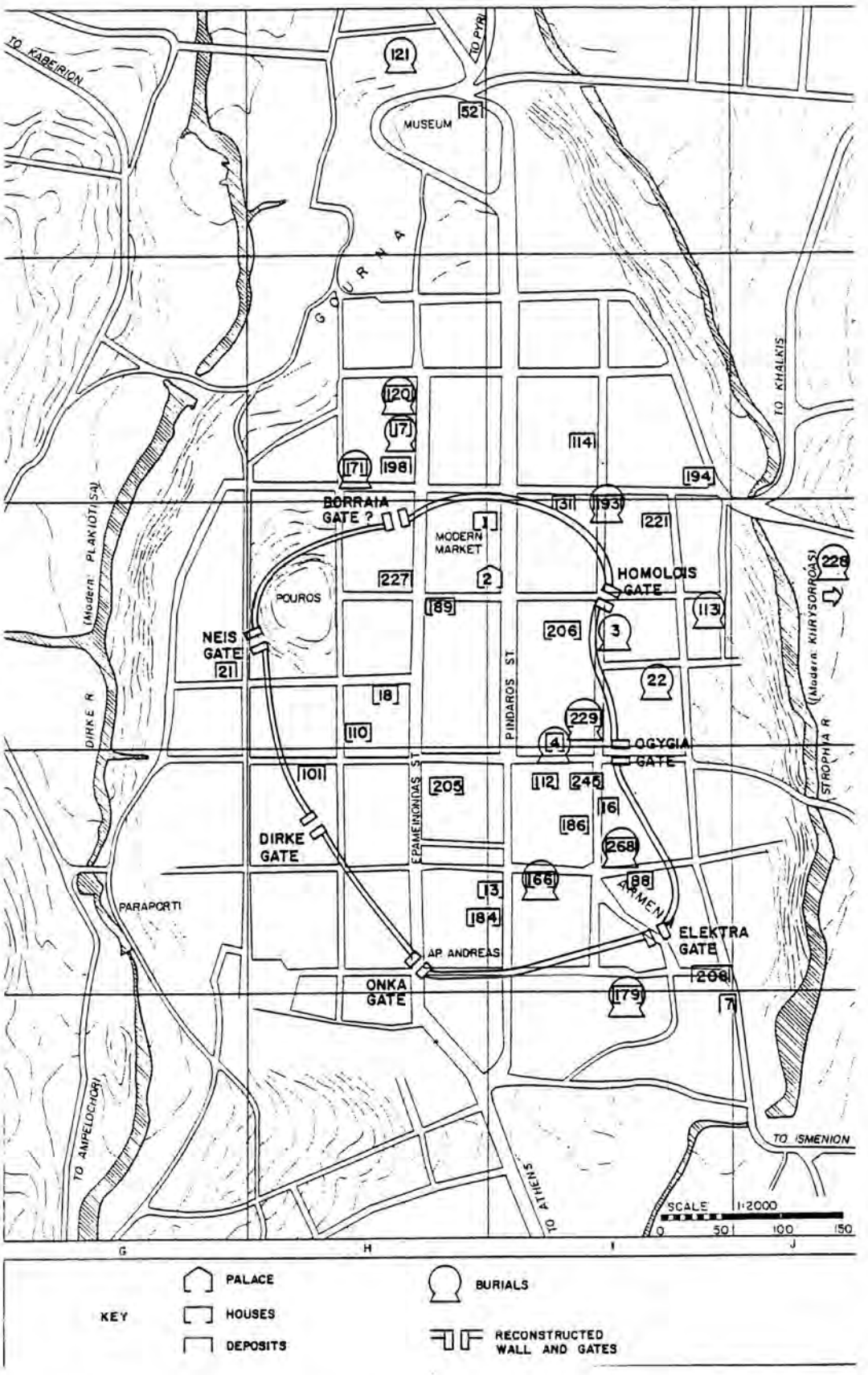
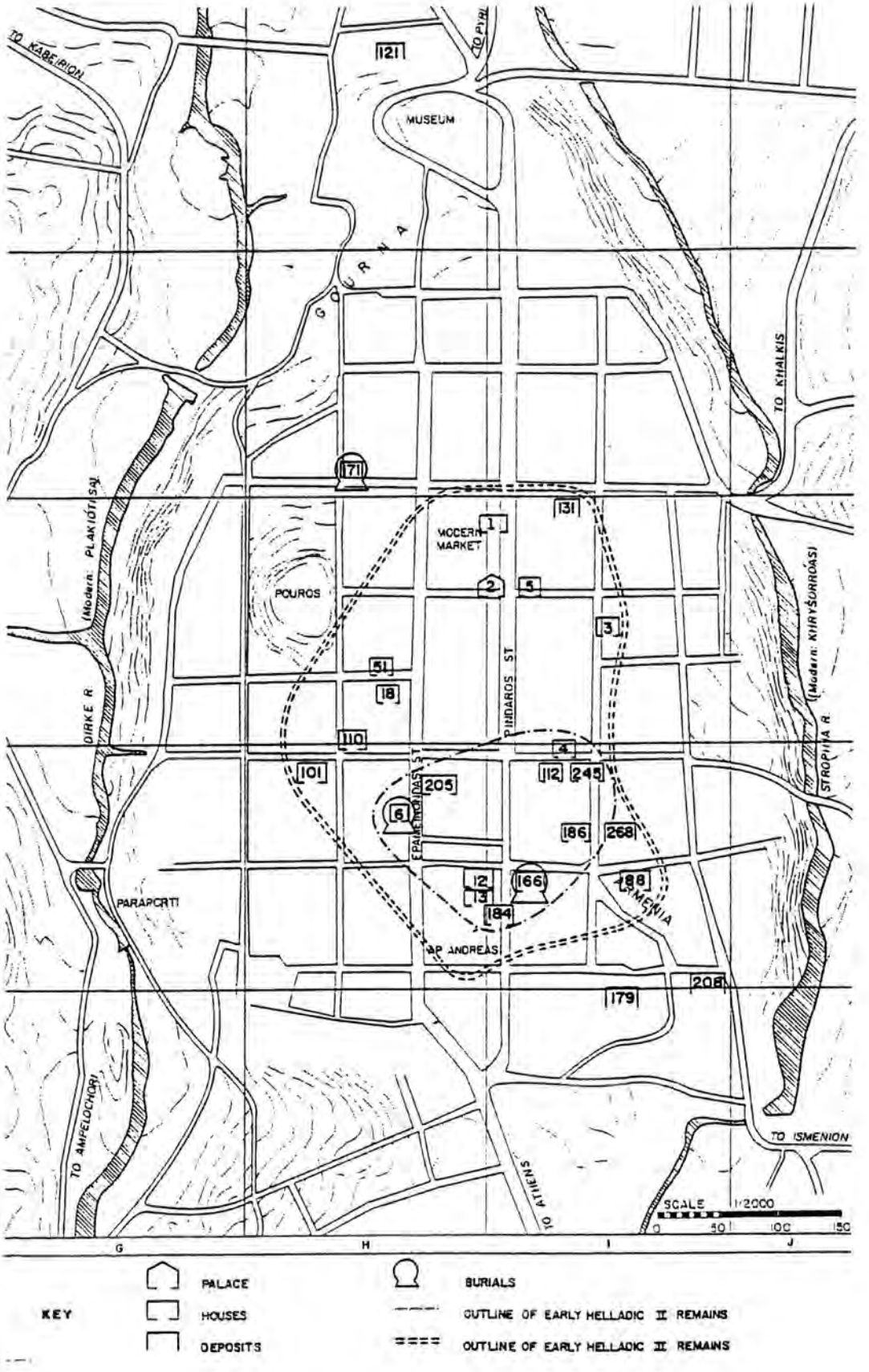


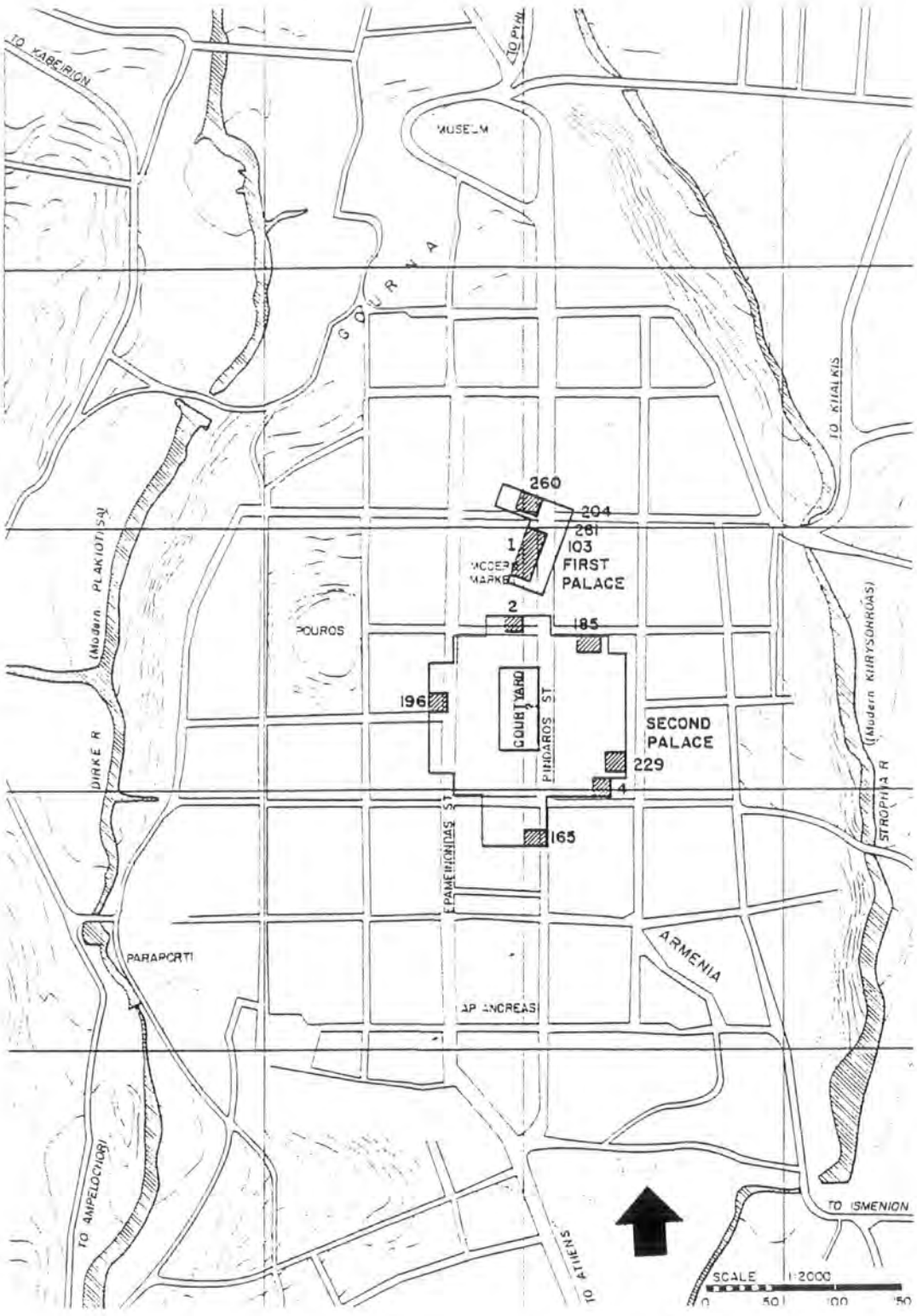
V Thebes in the Late Helladic period (after Symeonoglou 1985, fig.2.5)



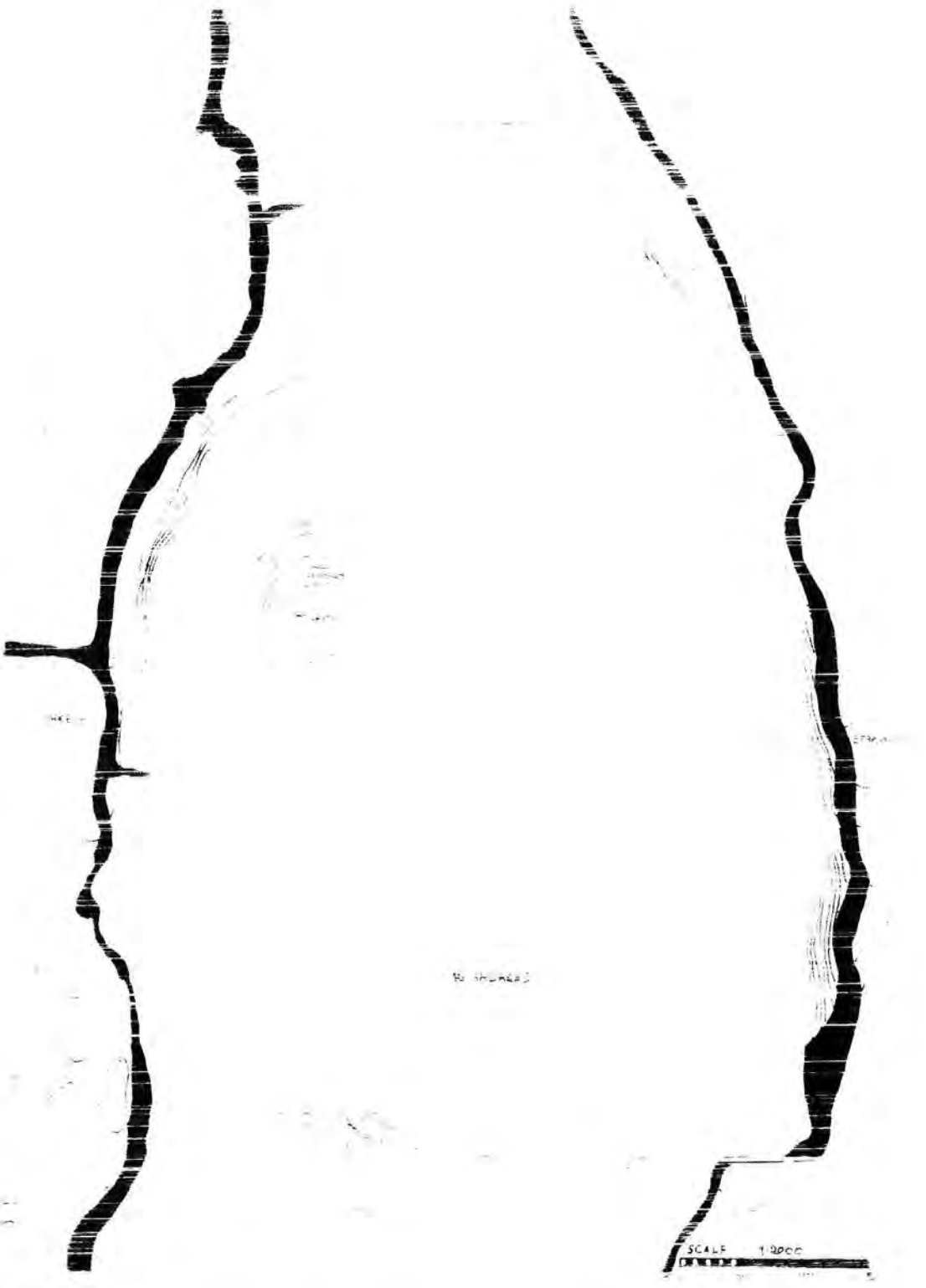
VIa Thebes in the Middle Helladic period (after Symeonoglou 1985, fig. 2.3)



VIb Thebes in the Early Helladic period (after Symeonoglou 1985, fig. 2.1)



VII. The two Late Helladic palaces on the Kadmeia (after Symeonoglou 1985, fig. 2.11)


SCALE 1:2000

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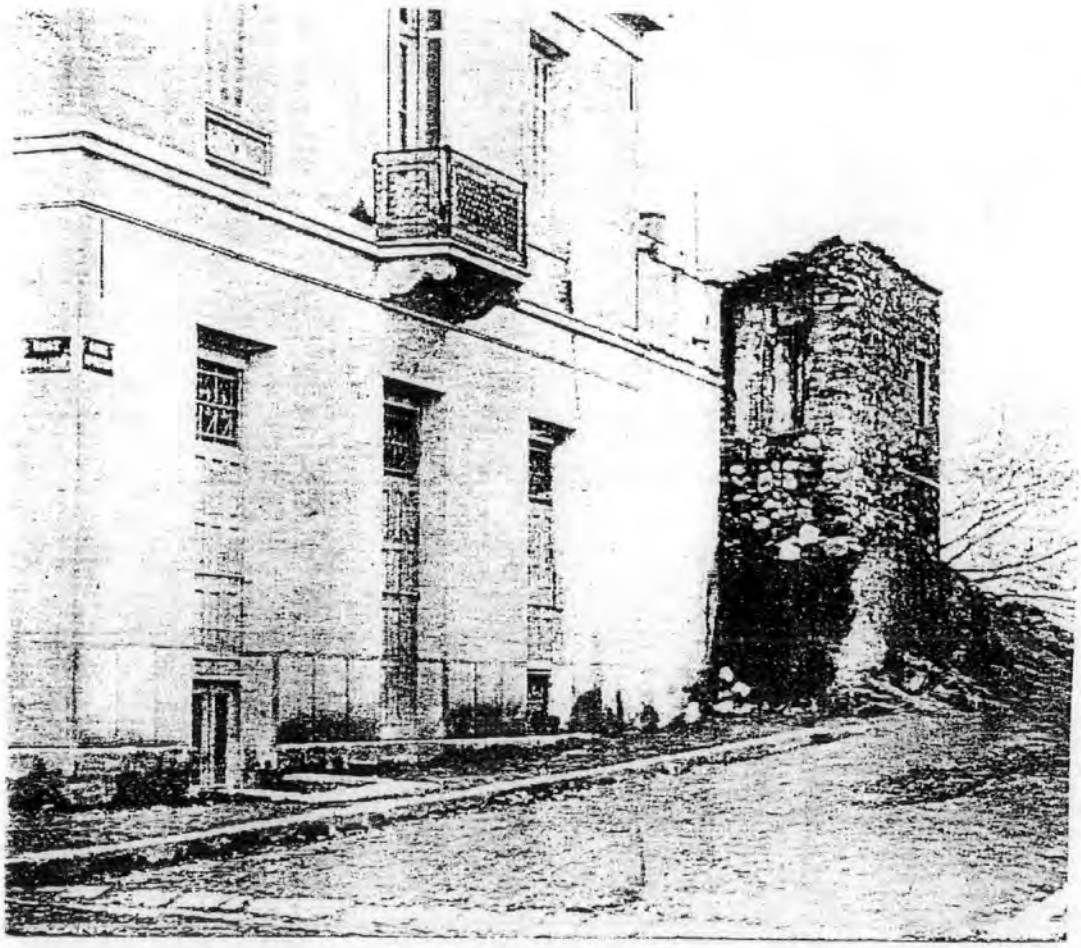
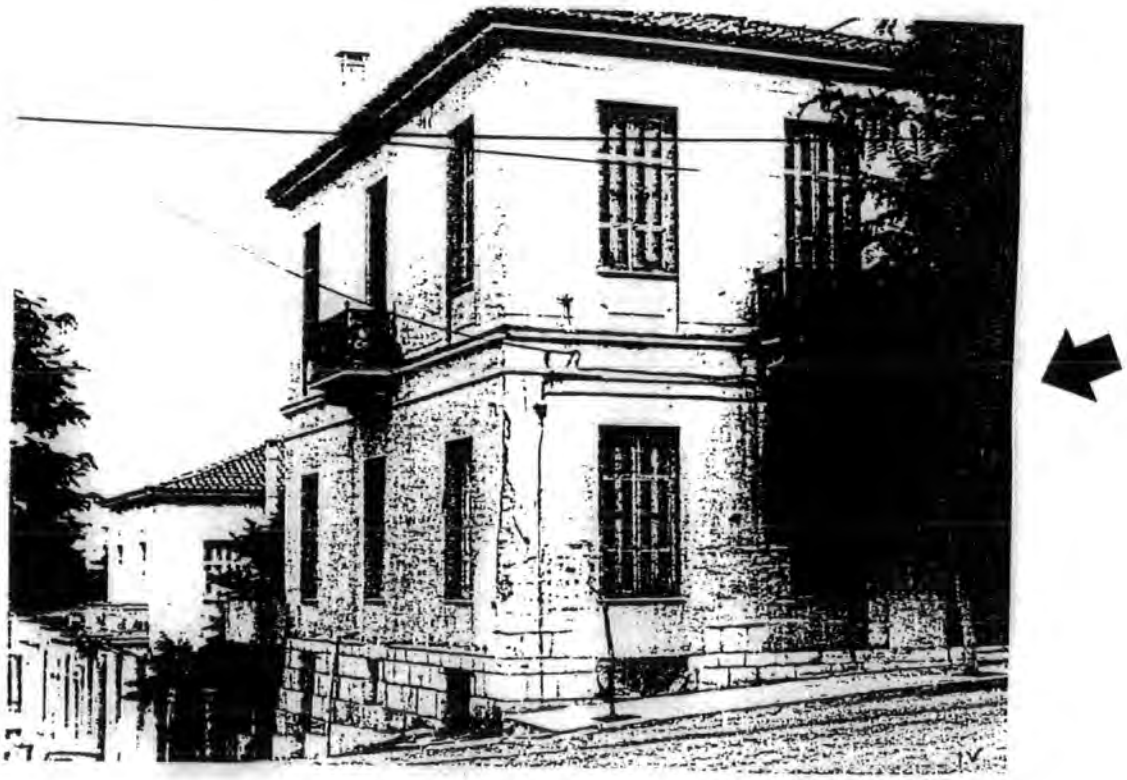


X. Vourdoumba-Proitos street, from NE: note the rising bedrock to the W

(after Keramopoullos 1909, fig. 4)

XI. Antigone street, from SW: note the slope to the E (after Symeonoglou 1985, picture 33)



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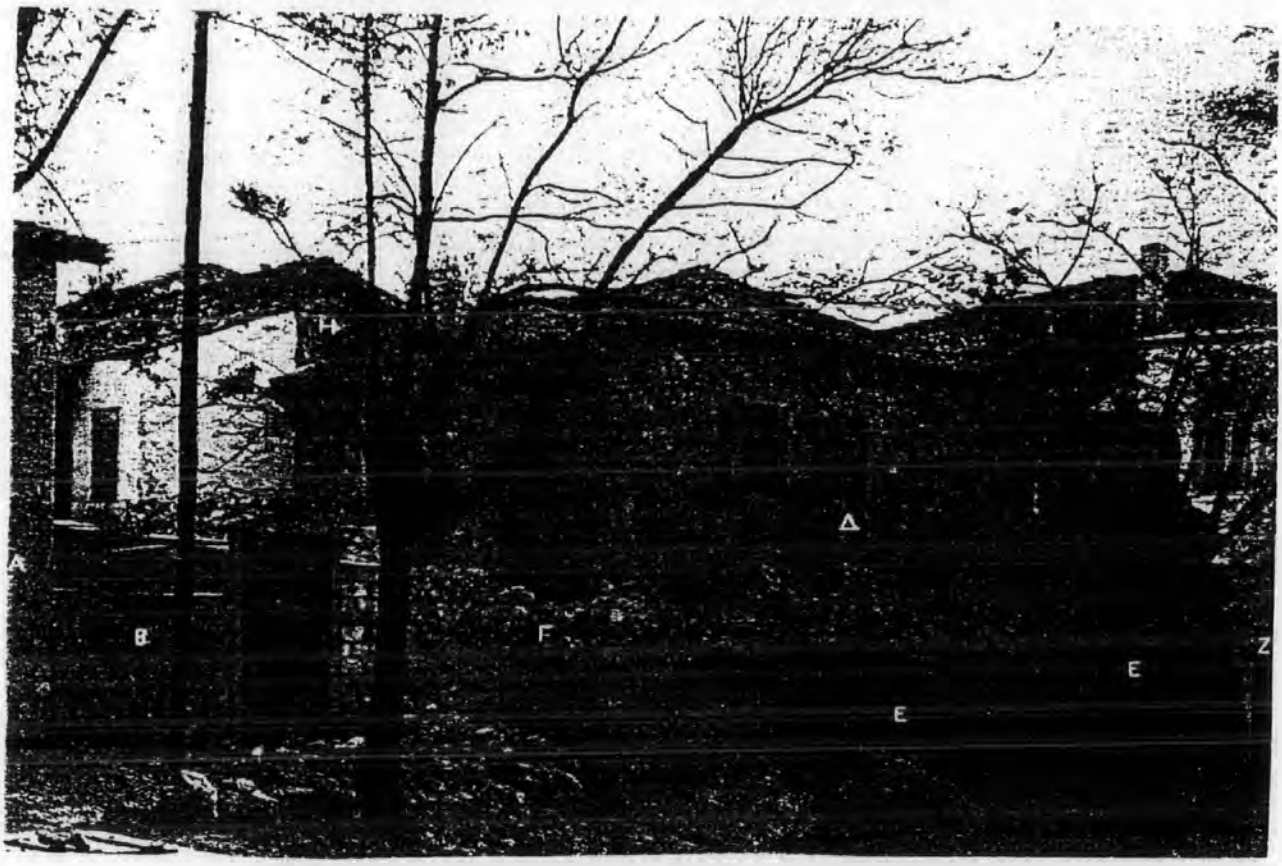
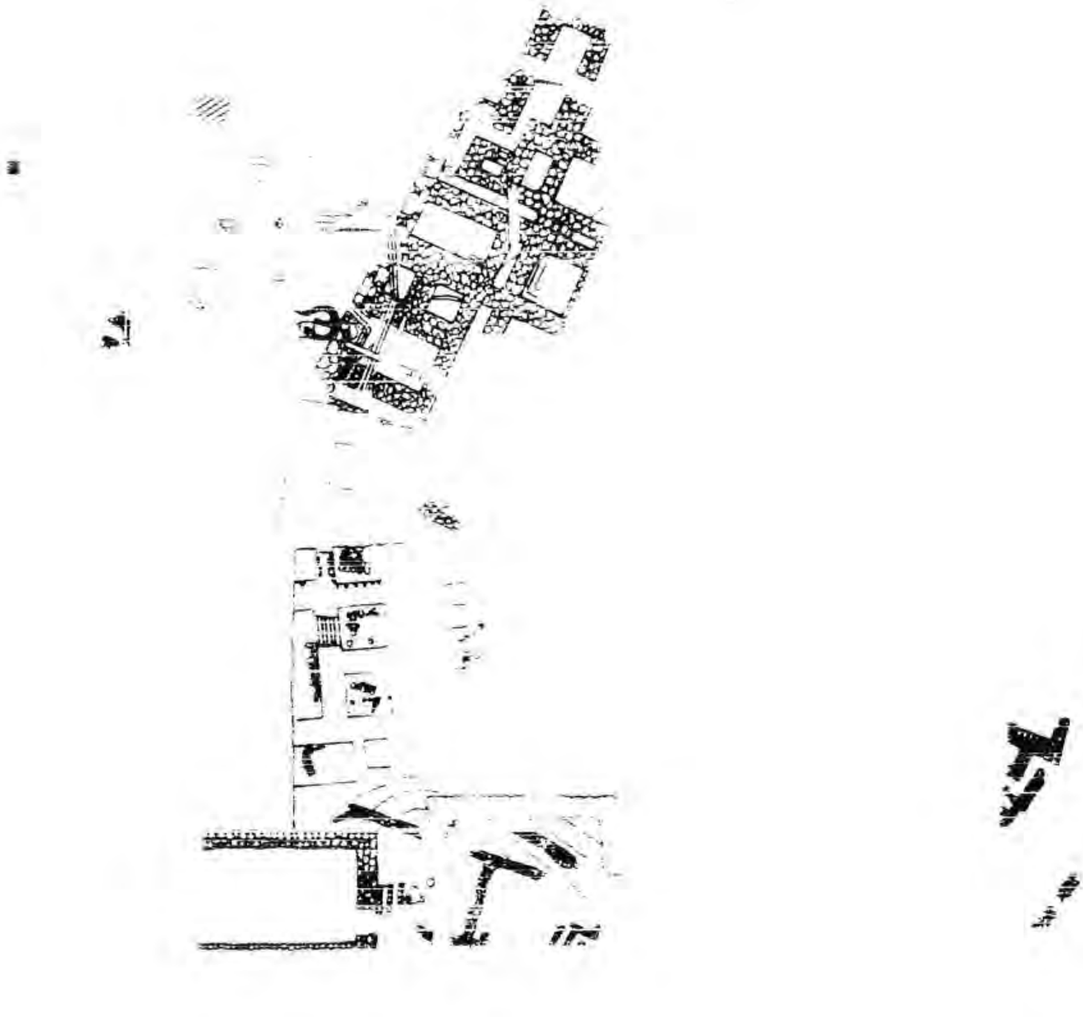


XVI. The area excavated in 1906, from SE (after Keramopoullos 1909, fig. 2)



XVIIa
XVIIb
XVIIc

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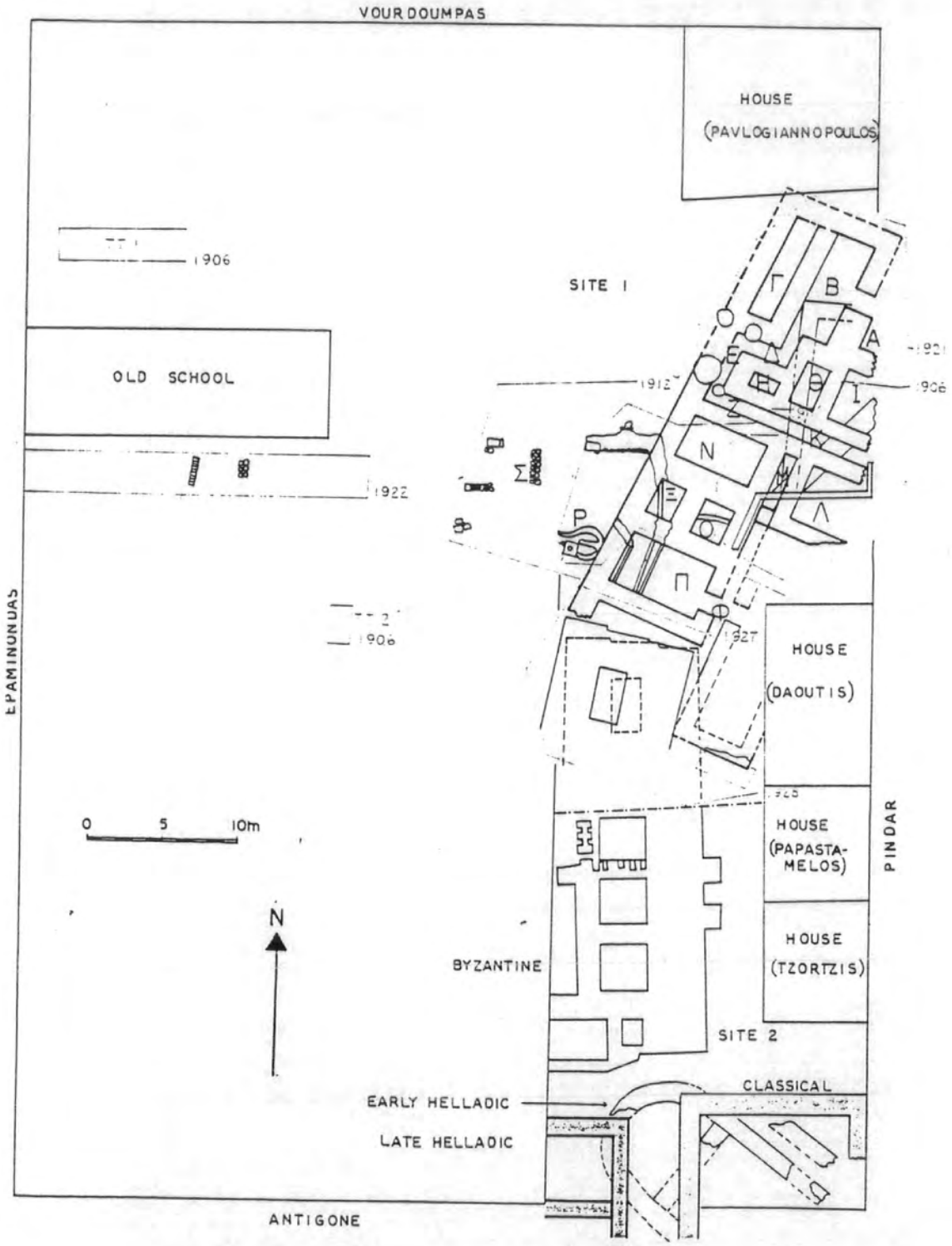
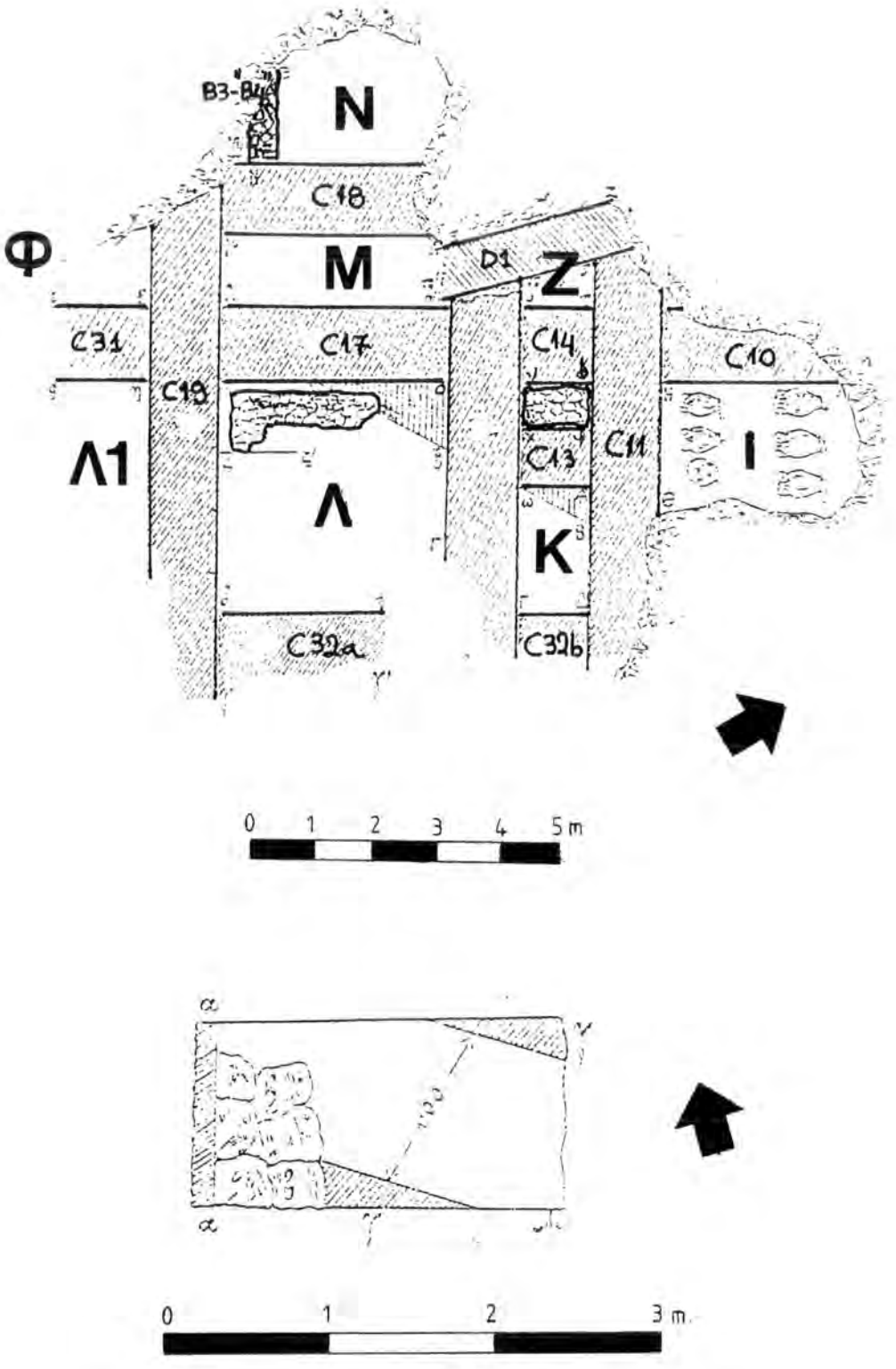


XVIII. Surrounding area of the House of Kadmos (after Symeonoglou 1985, cat.fig. 1)



XIX. Keramopoullos' first excavational results: areas *I, K, Λ, M, N* and trial trench *TT2*
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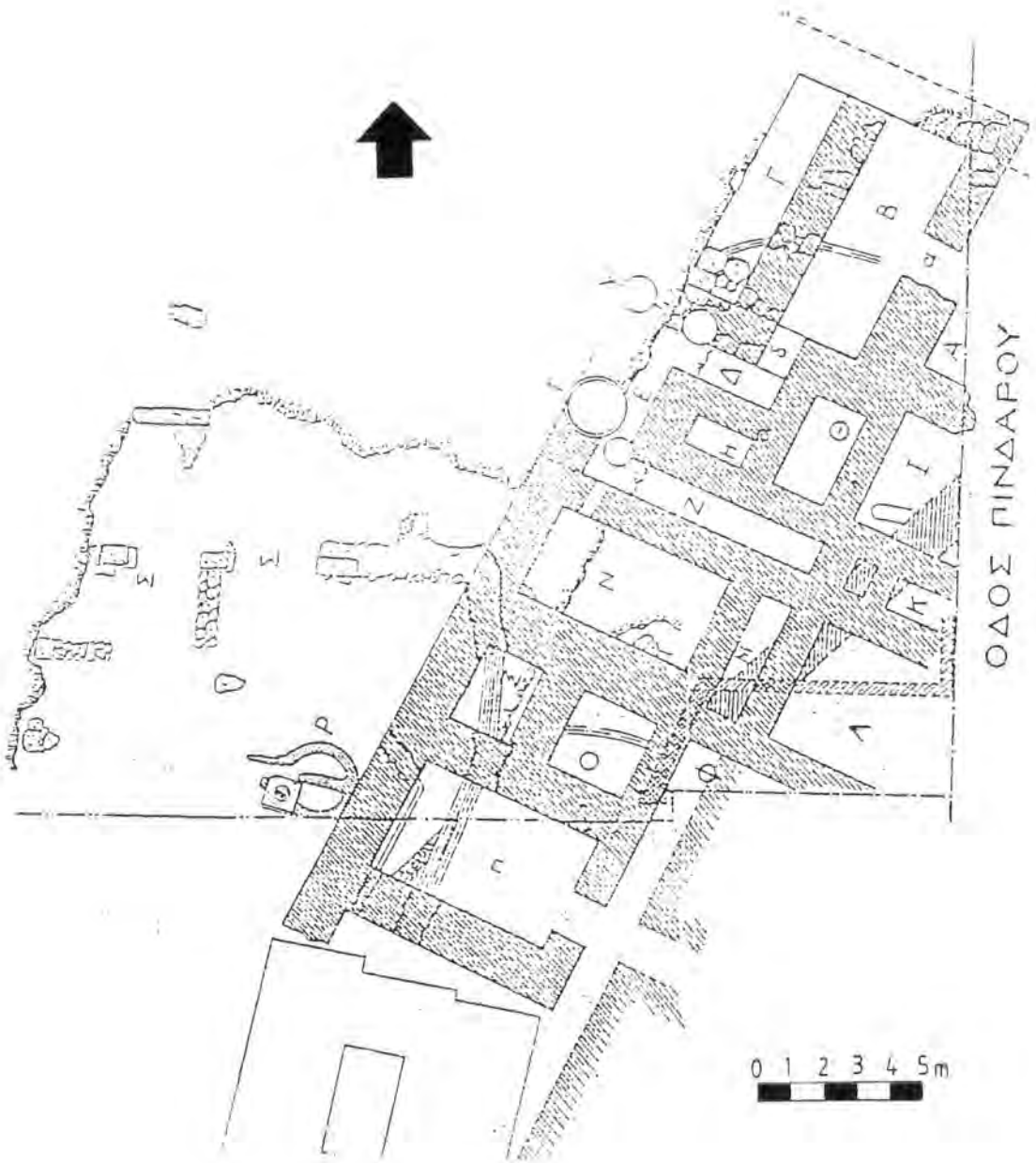

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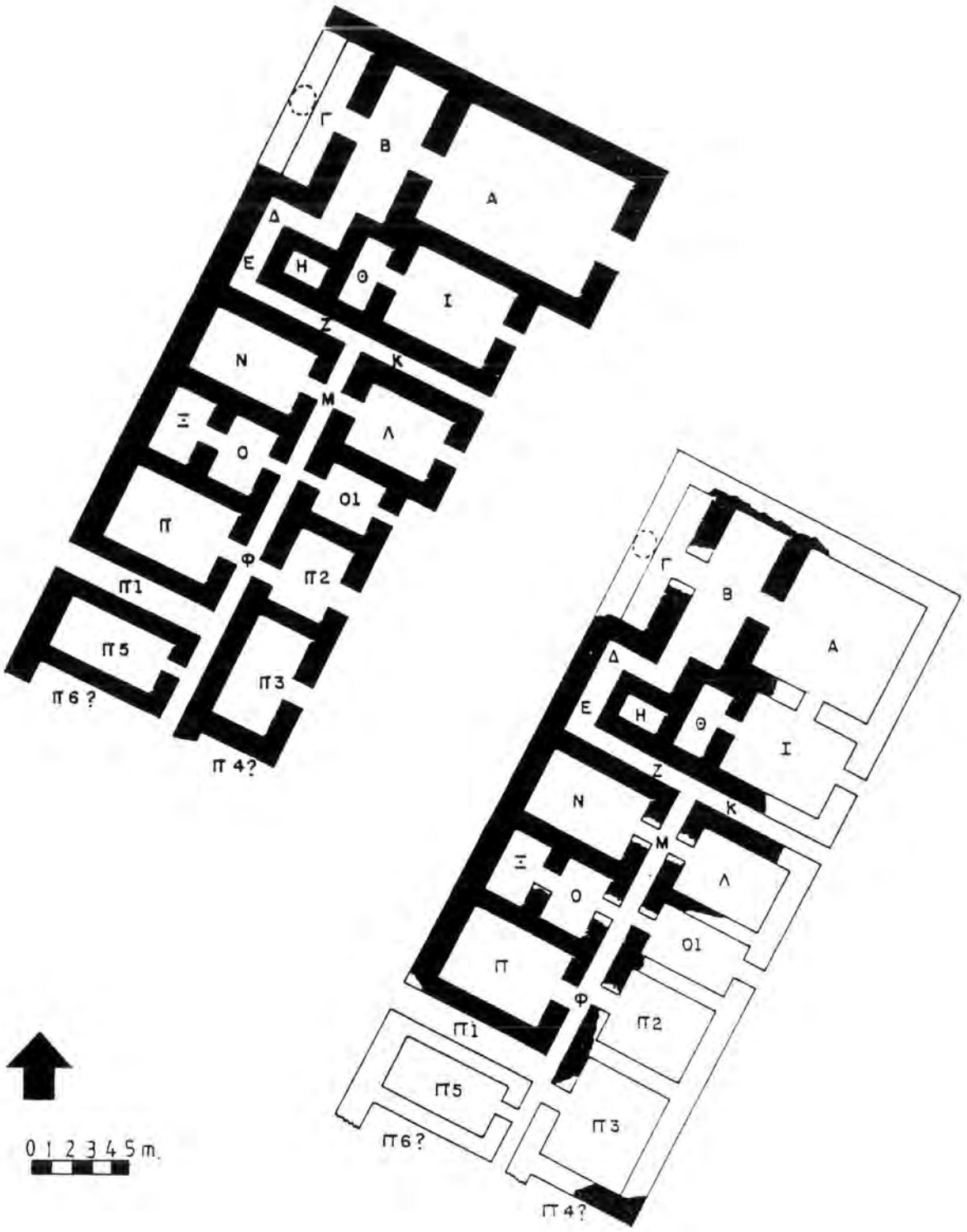
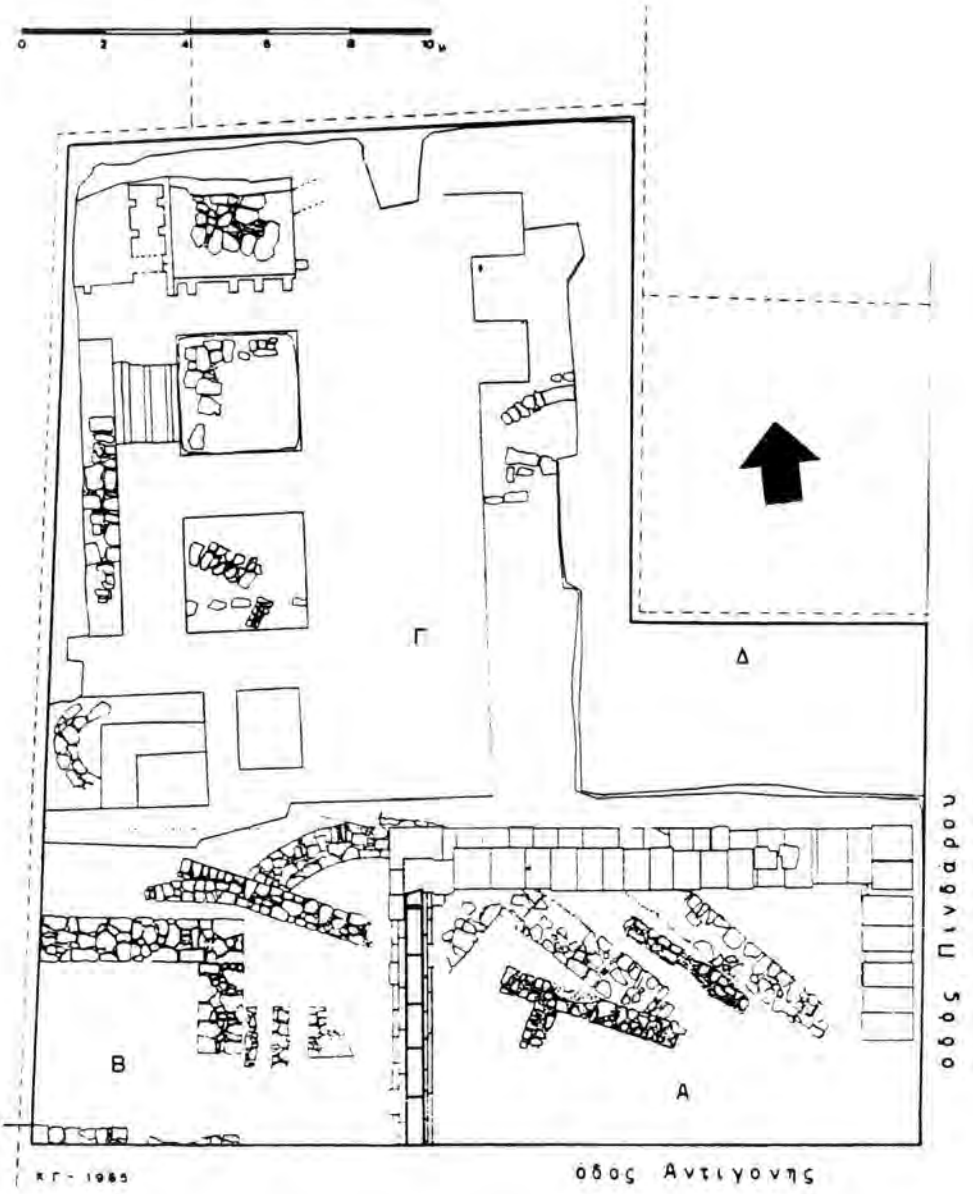


XXI. Reconstructions of the plan (after Symeonoglou 1985, figs. 2.9, 2.10)



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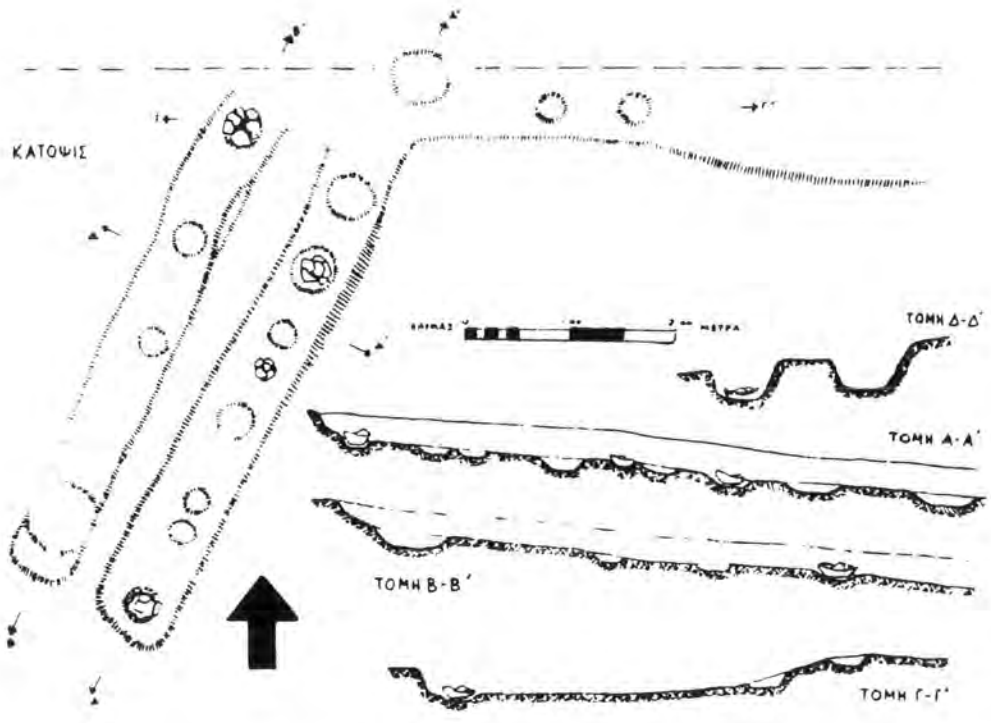
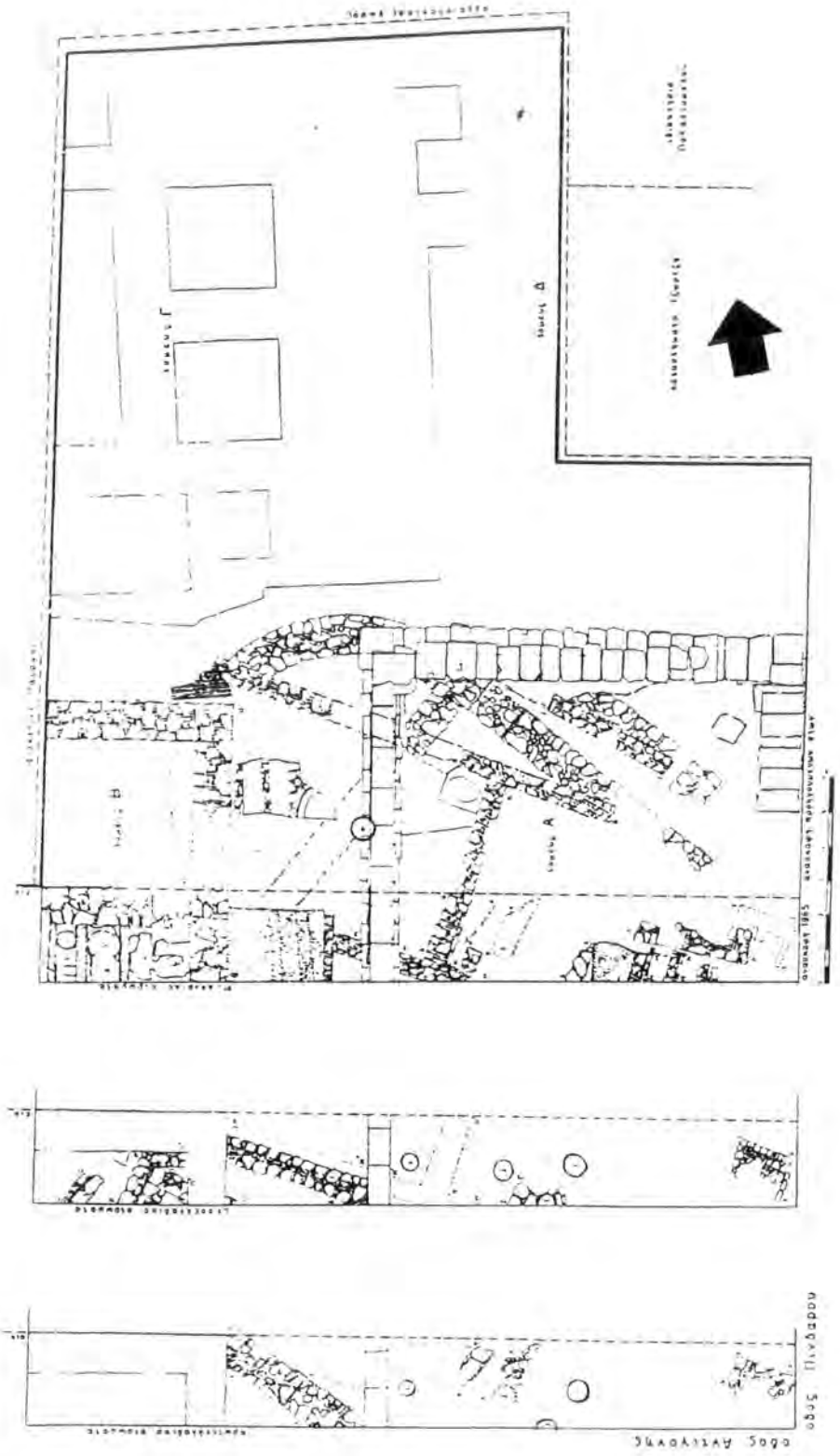
(after Platon & Touloupa 1964, fig. 1)

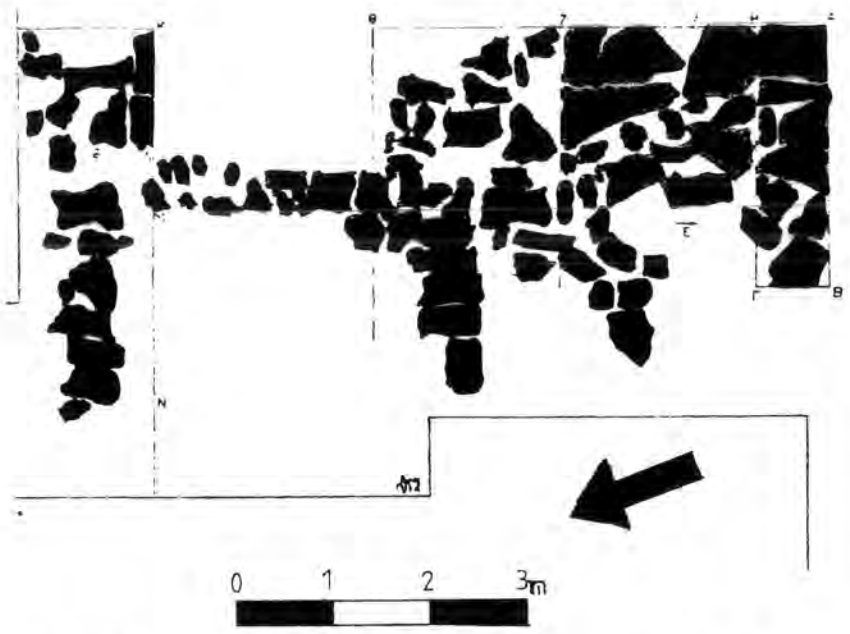
XXIII. Mycenaean wall in a foundation shaft of the Frankish palace (after Platon & Touloupa 1964, pl. α)



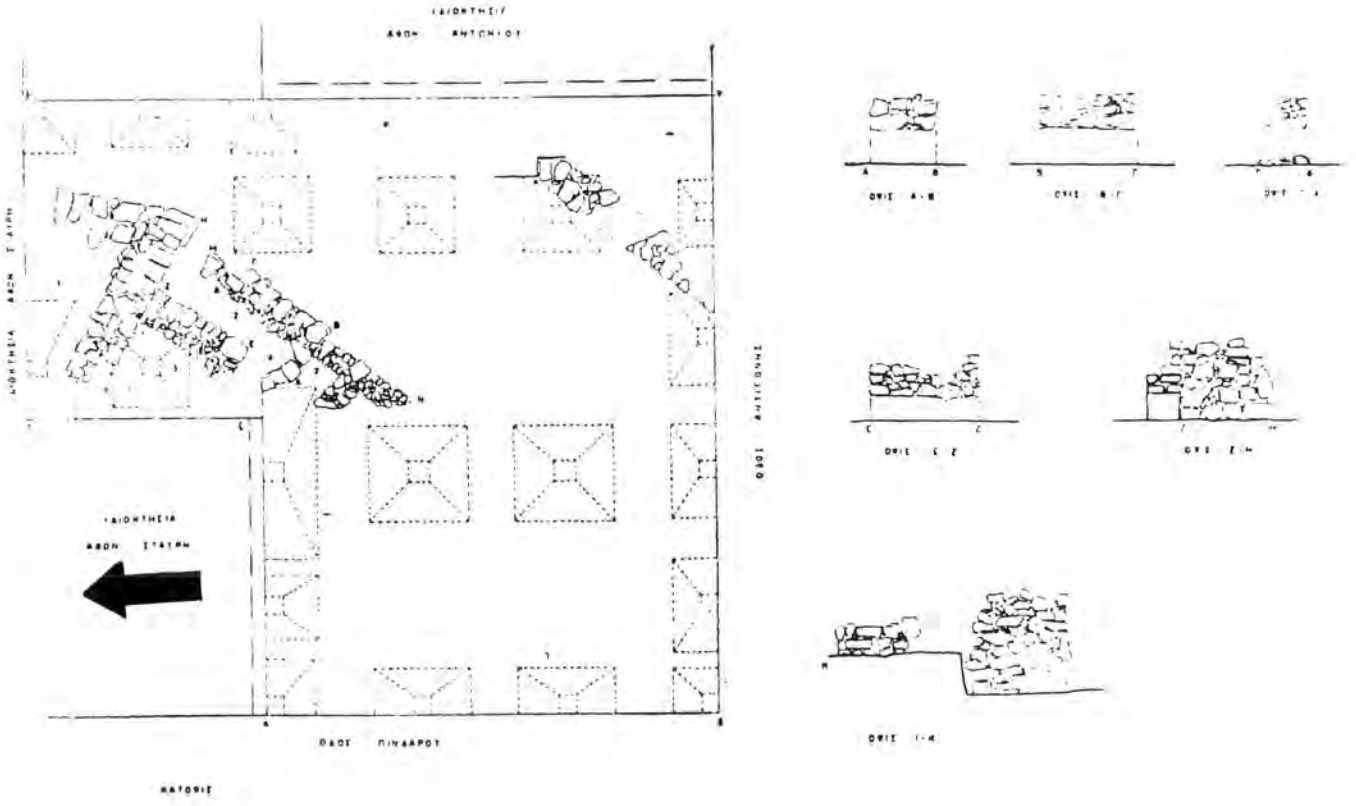
XXV. The finds at Liakopoulou-Kyrtsi plot (after Faraklas 1968, fig. 1)



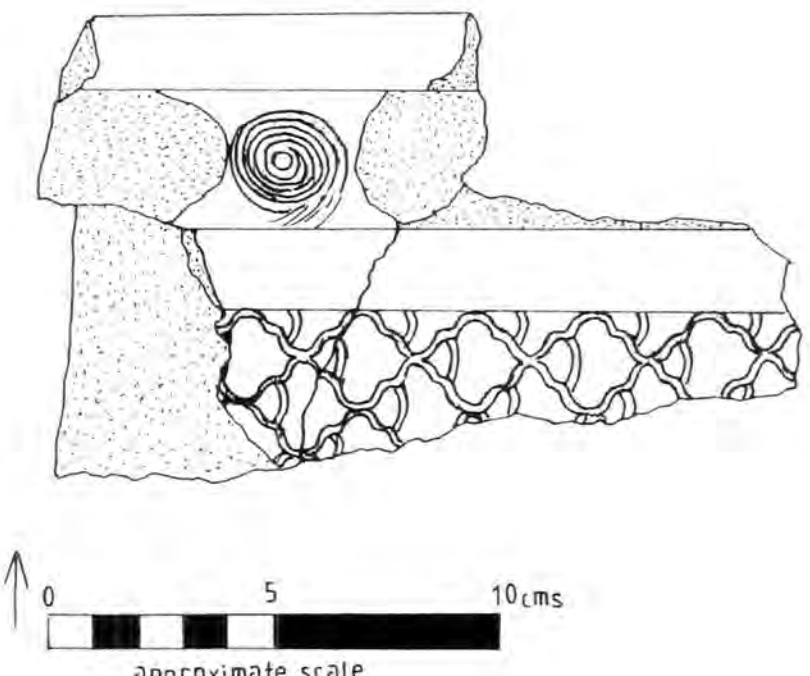
XXIV. The results of the 1966 campaign at A.-S. Tzortzis plot (after Faraklas 1966, fig. 1)



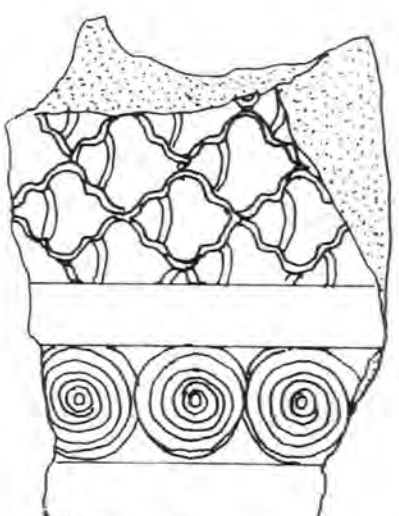
XXVI. Remains of walls at Papastamelos' plot (after Spyropoulos 1971, fig. 7)



XXVII. Remains at Antoniou plot (after Platon & Touloupa 1964, fig. 3)

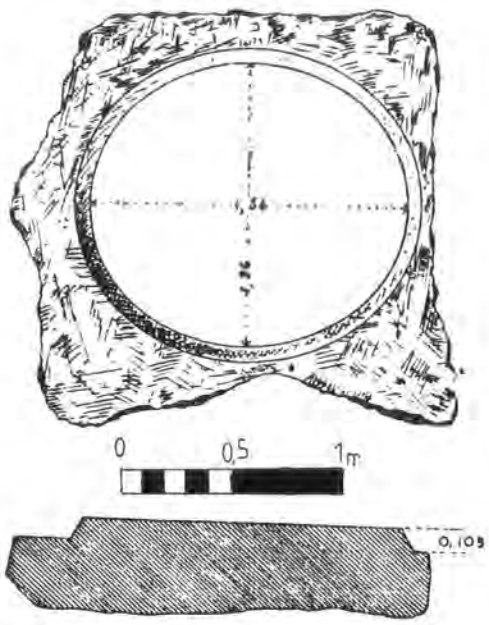


XXVIII. Fragment of opolin relief frieze from the House of Kadmos
(after Keramopoullos 1909, fig. 19)

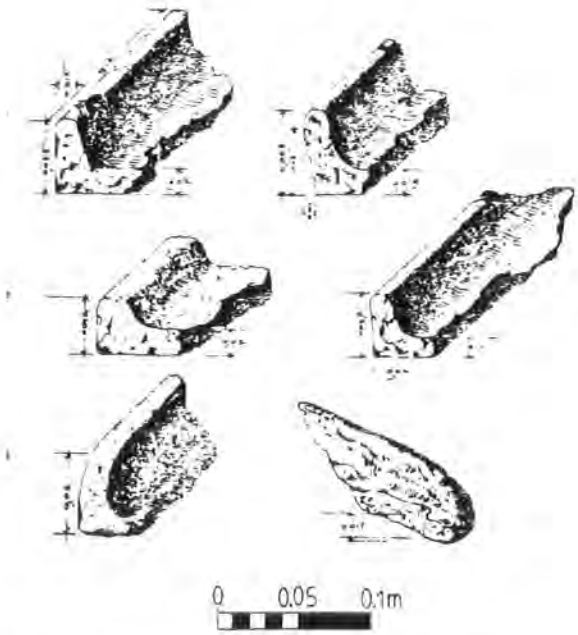


XXIX. Fragment of stone relief frieze from Dagdelenis' plot
(after Demakopoulou 1990, fig. 3)

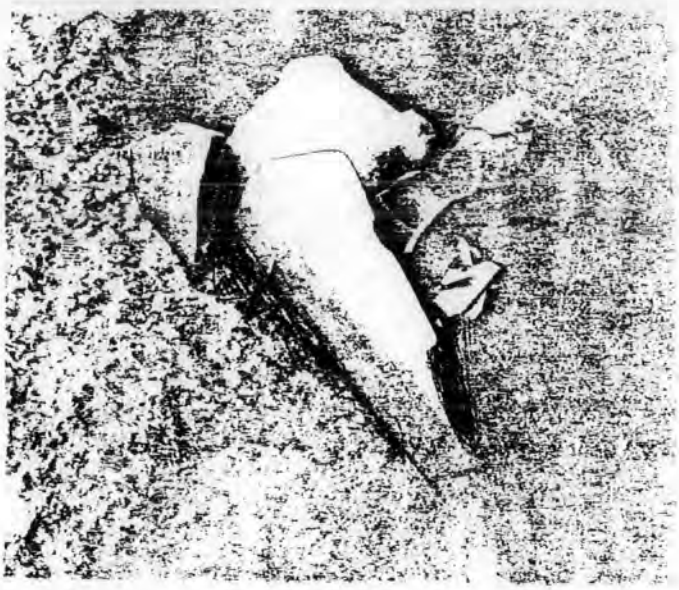
XXVIII
XXIX



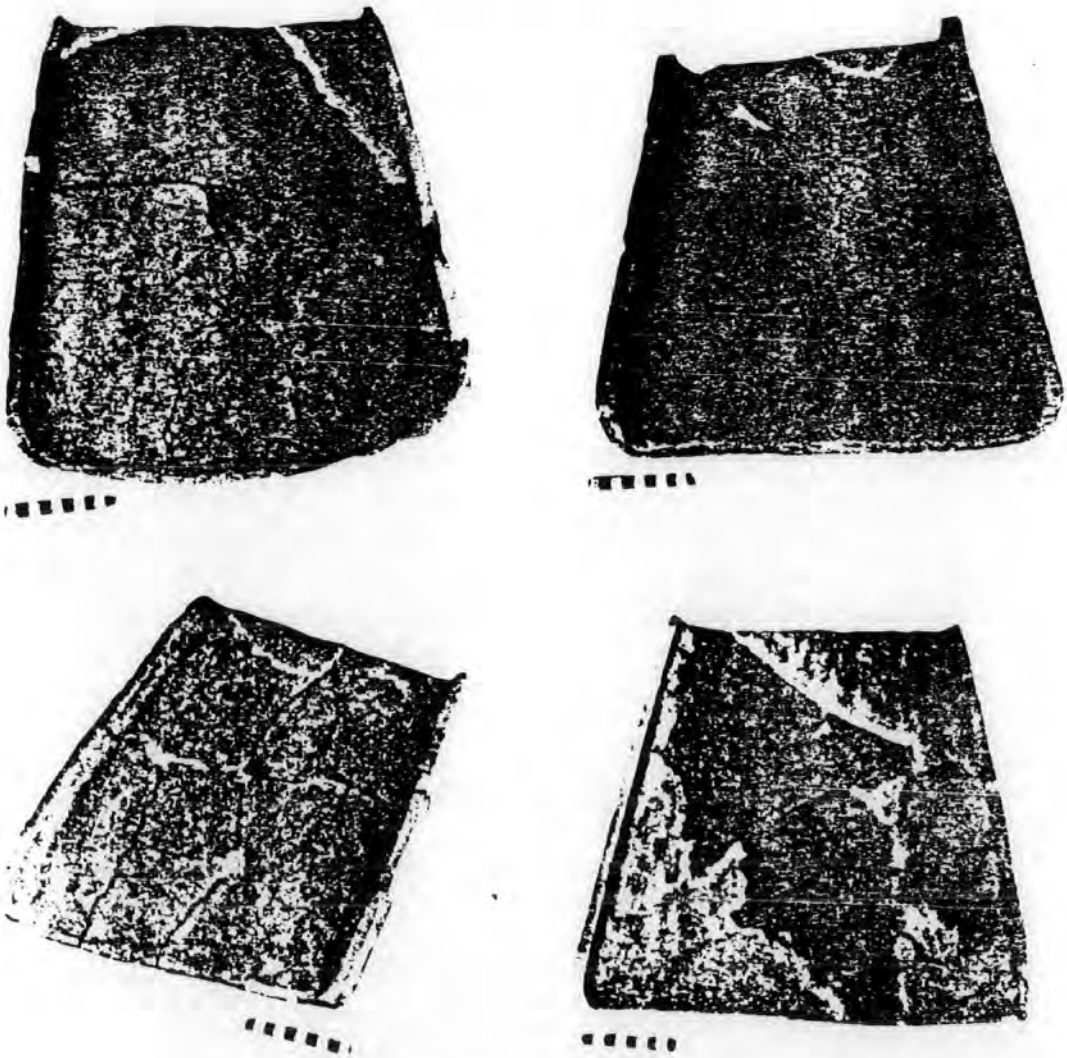
XXX. Conglomerate column base (after Keramopoullos 1912, fig. 1)



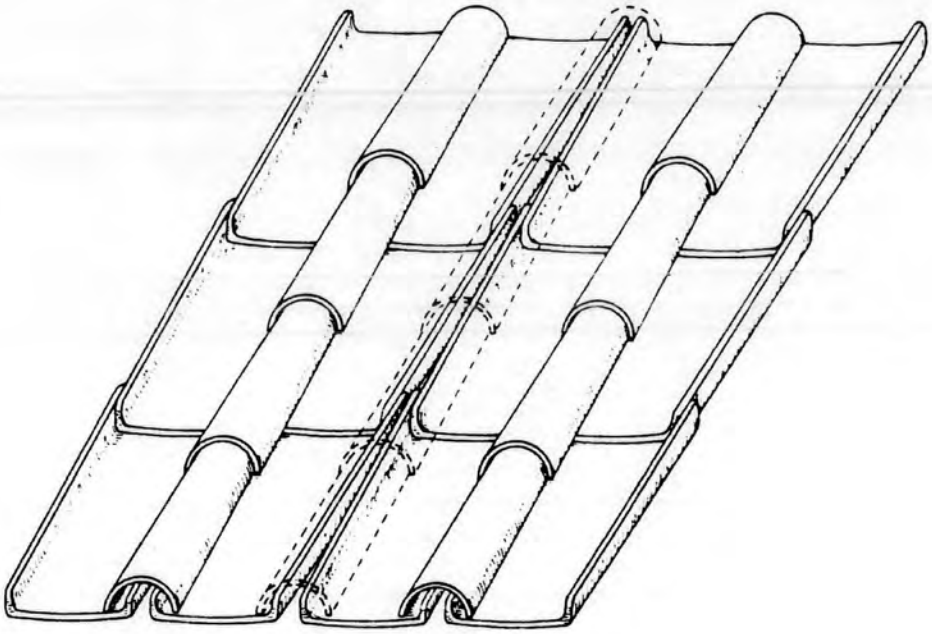
XXXI. Terracotta pan-tiles from the site at Elektrai gates
(after Keramopoullos 1912, fig. 58)



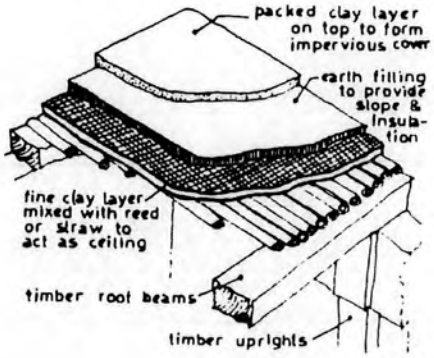
XXXII. Mycenaean terracotta tiles fallen *in situ*, from a site at the Kadmeia (after Demakopoulou 1990, fig. 6)



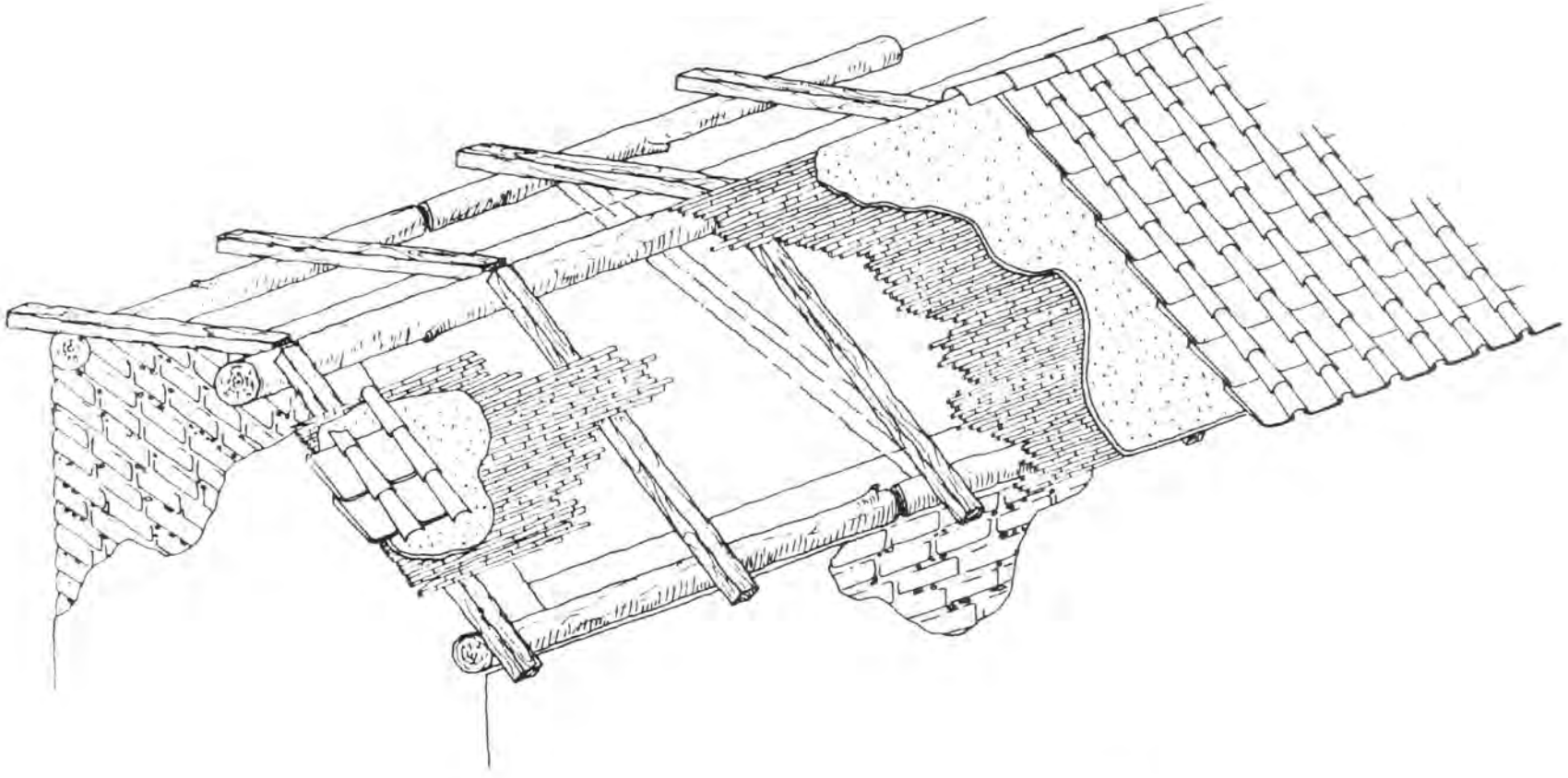
XXXIII. Terracotta pan-tiles from Berbati (after Akerstrom 1941, figs. 4-7)



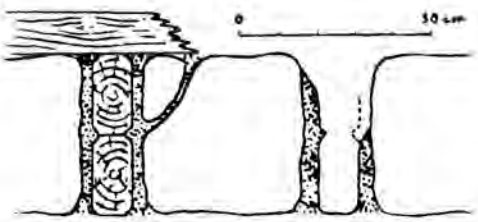
XXXIV. Reconstruction of Mycenaean roof tiles' arrangement (after Iakovides 1990, fig. 10)



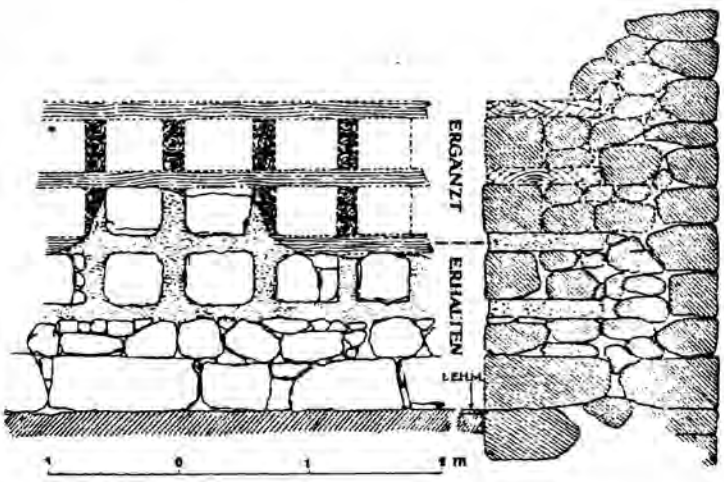
XXXVI. Ceiling construction detail (after Danisman 1968, fig. 6e)



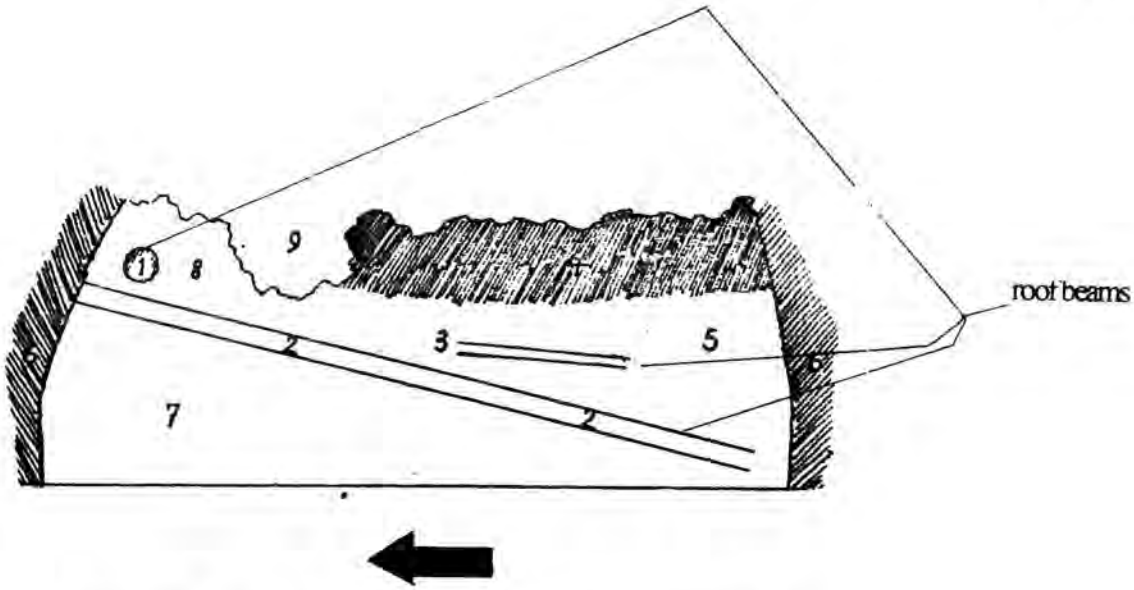
XXXV. Reconstruction of a pitched Mycenaean roof (after Iakovides 1990, fig. 11)



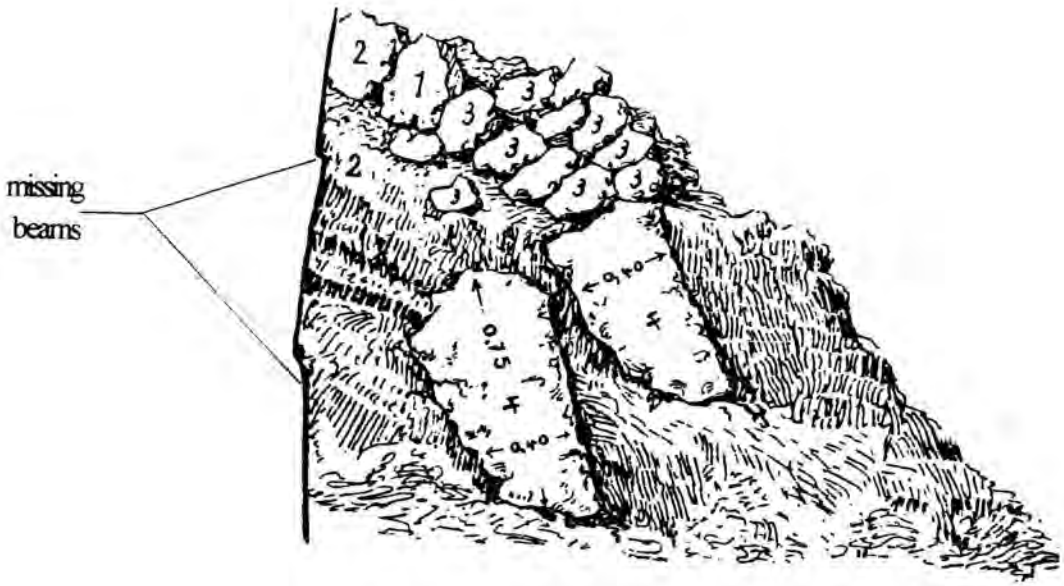
XXXVIIa Timber frame of west wall of the bathroom (after Muller & Sulze 1930, abb. 83)



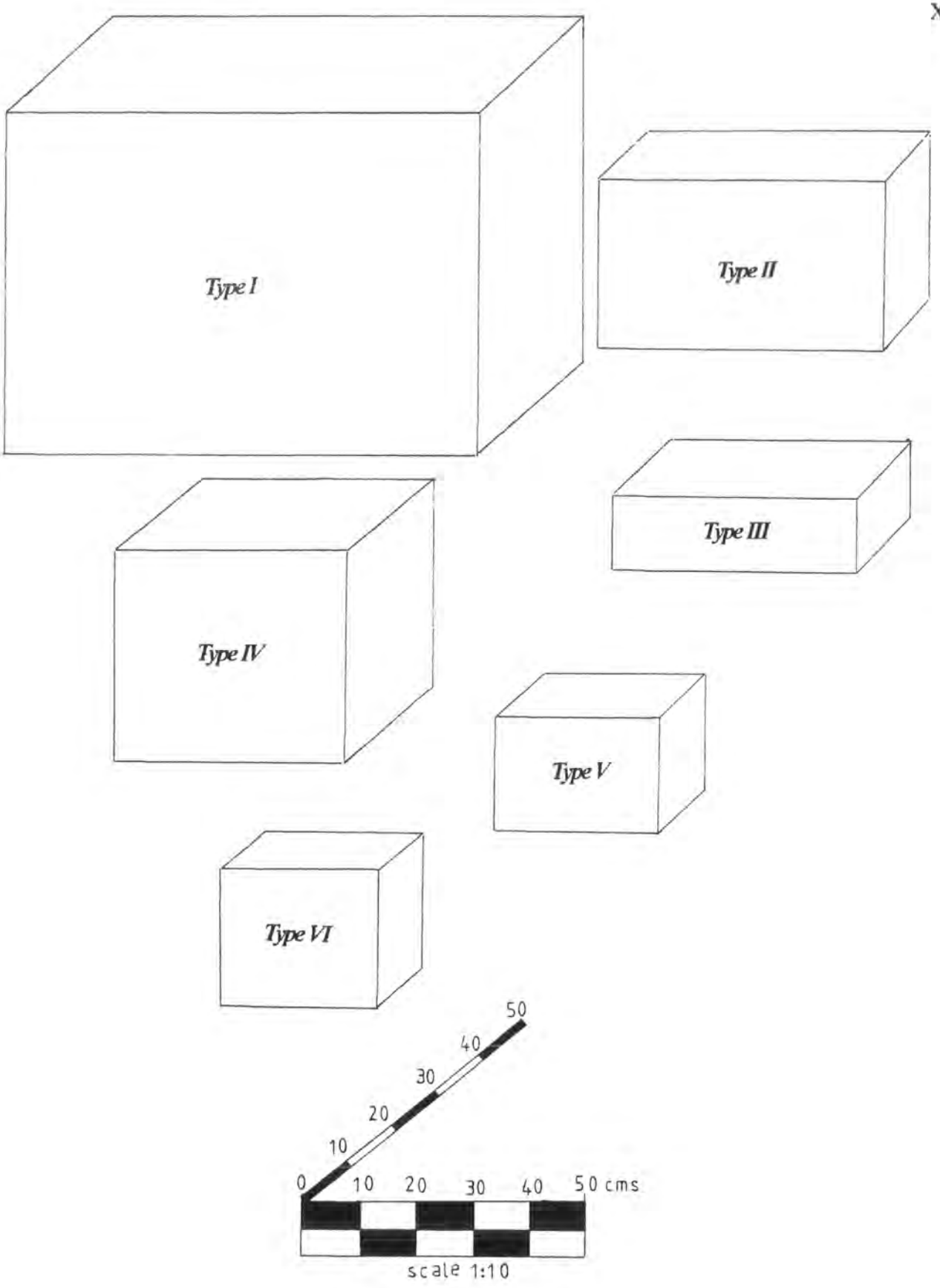
XXXVIIb Timber frame of east wall of magazine XLVI (after Muller & Sulze 1930, abb. 82)



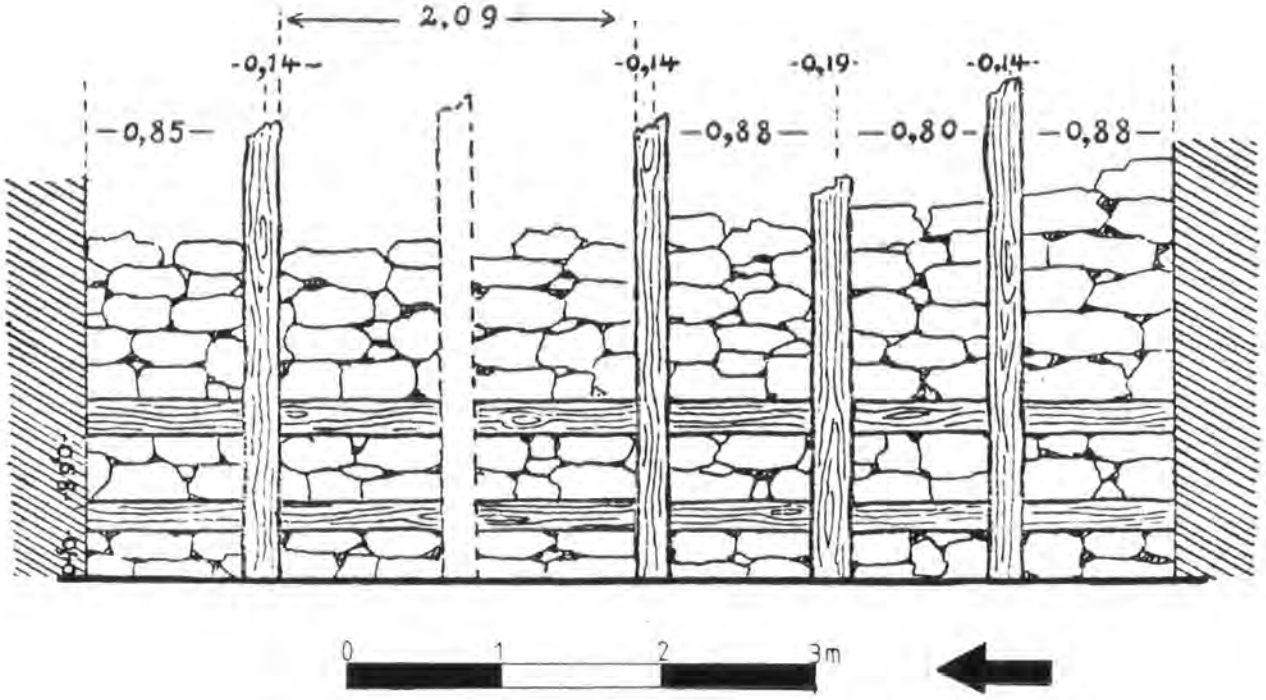
XXXVIII. Fallen roof beams in *Room Γ1* (after Keramopoullos 1927, fig. 3)



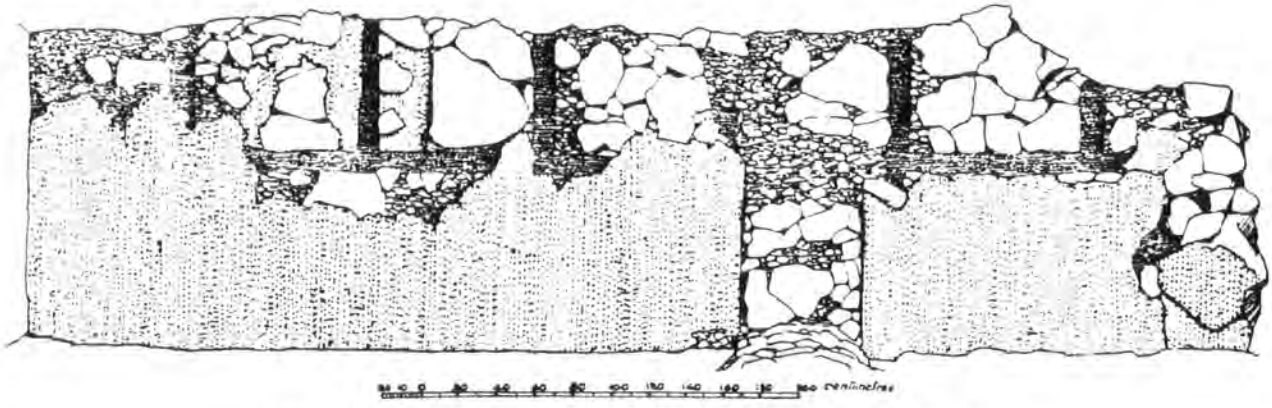
XXXIX. N-S section of *Wall C23*, with missing axial beams indicated by the stepped profile of the wall (after Keramopoullos 1927, fig. 4)



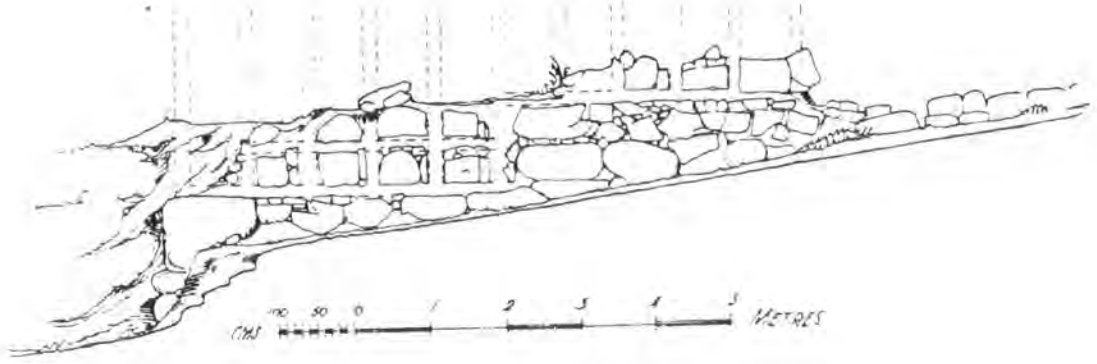
XL. Sizes and types of intact mudbricks



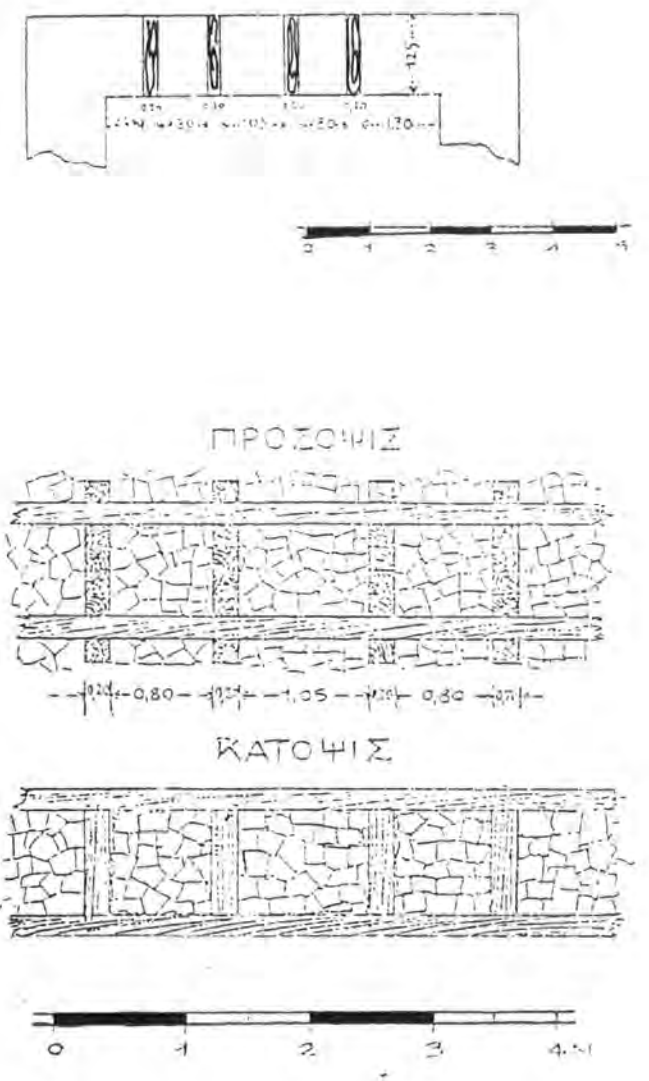
XLI. Timber frame of *Wall C23* (after Keramopoullos 1927, fig. 5)



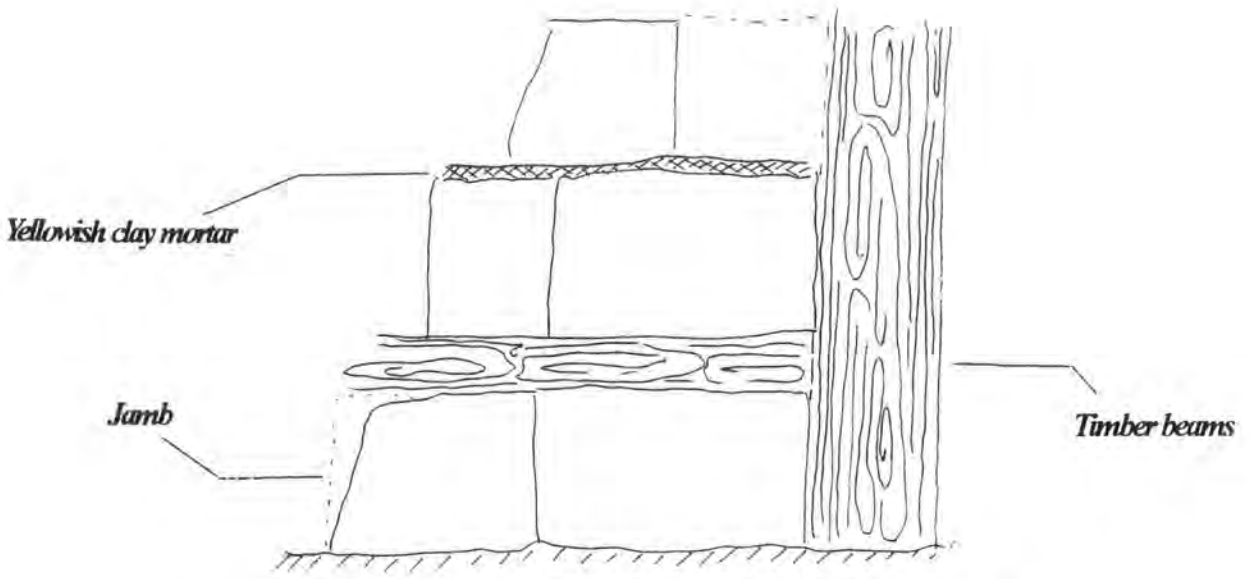
XLV. Timber frame at the South House, Mycenae (after Wace 1949, fig. 240)



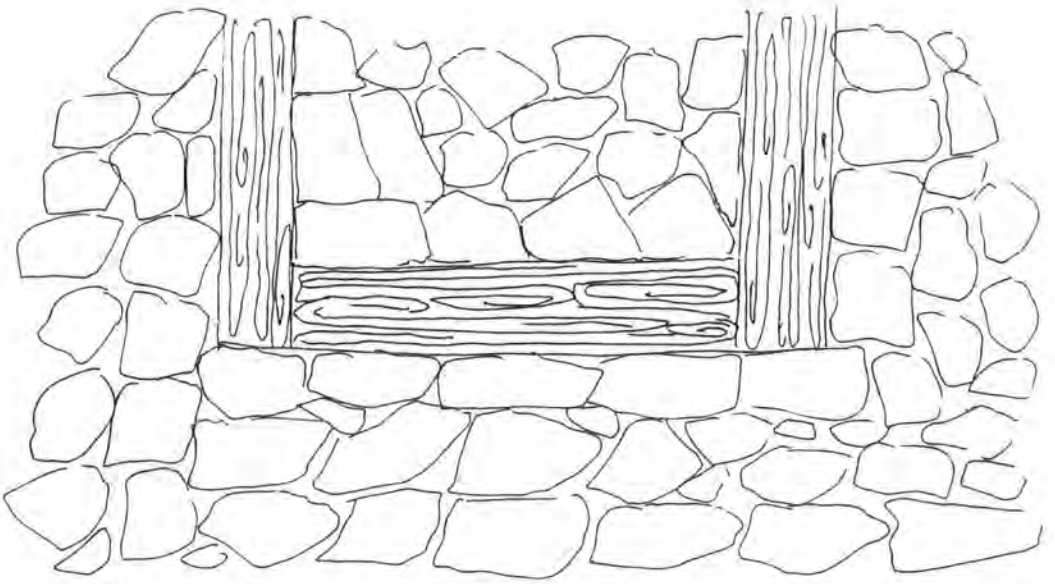
XLVI. Timber frame at the Great Ramp wall (after Wace 1949, fig. 24 b)



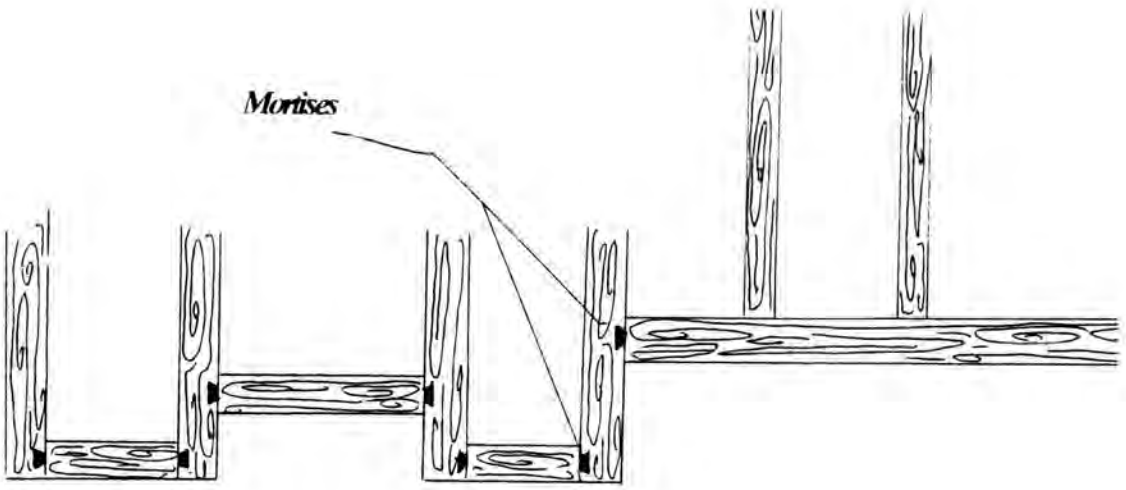
XLII. Timber frame of *Wall C15* (after Keramopoullos 1929, figs. 1, 2)



XLIII. Reconstruction of the timber frame of *Wall C3* (sketch after Wright 1978, fig. 210)
-not to scale-

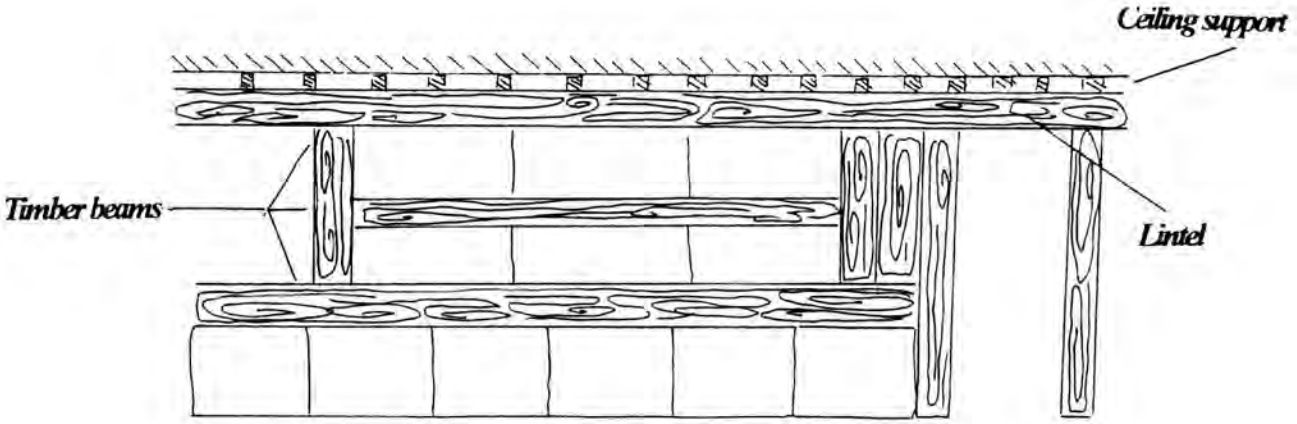


XLIV. Reconstruction of a timber frame at Menelaion (scetch after Wright 1978, fig. 165)
-not to scale-



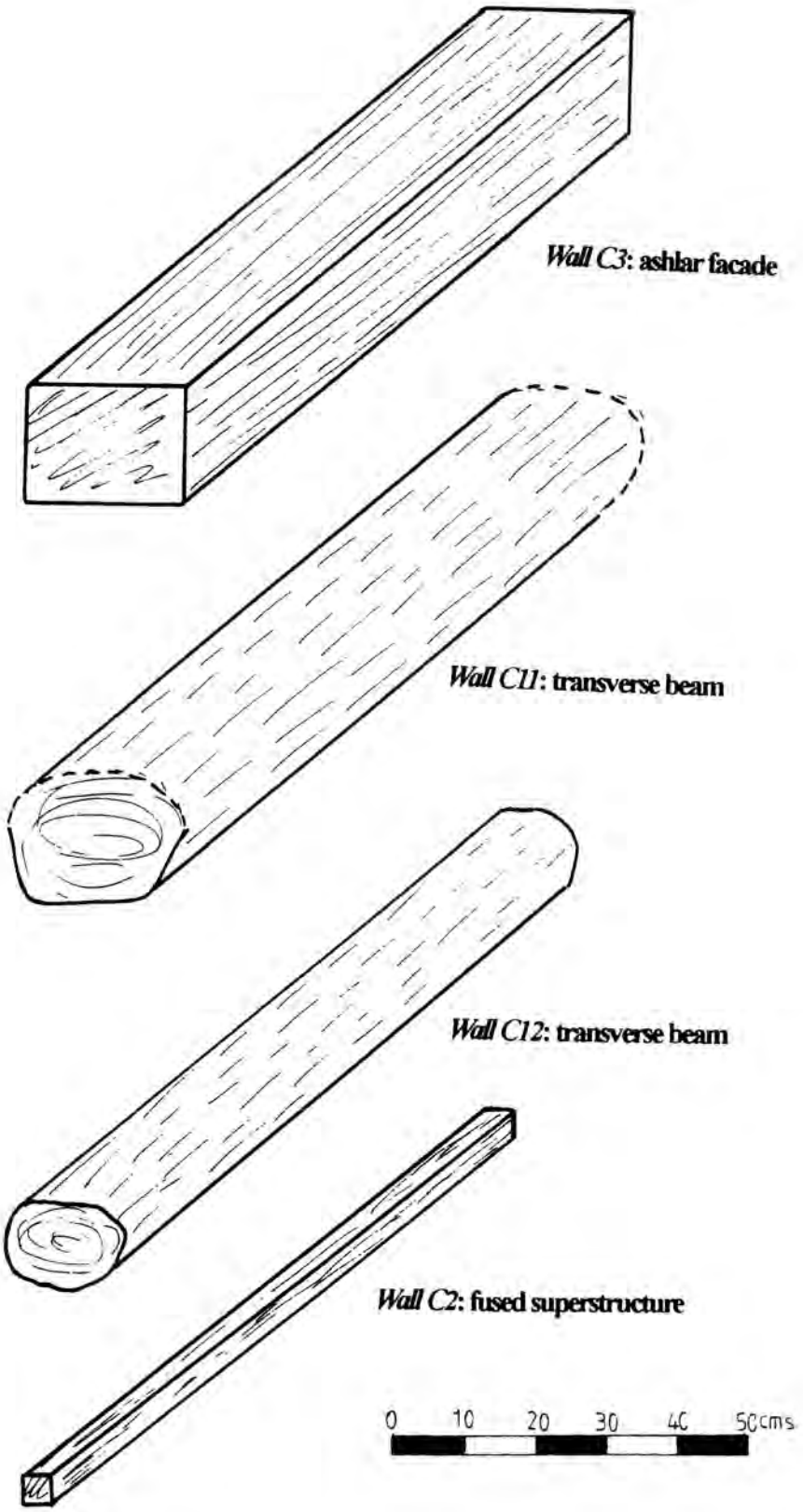
XLVII. Timber frame at NW palace wall, Pylos (scetch after Wright 1978, fig. 204)

-not to scale-

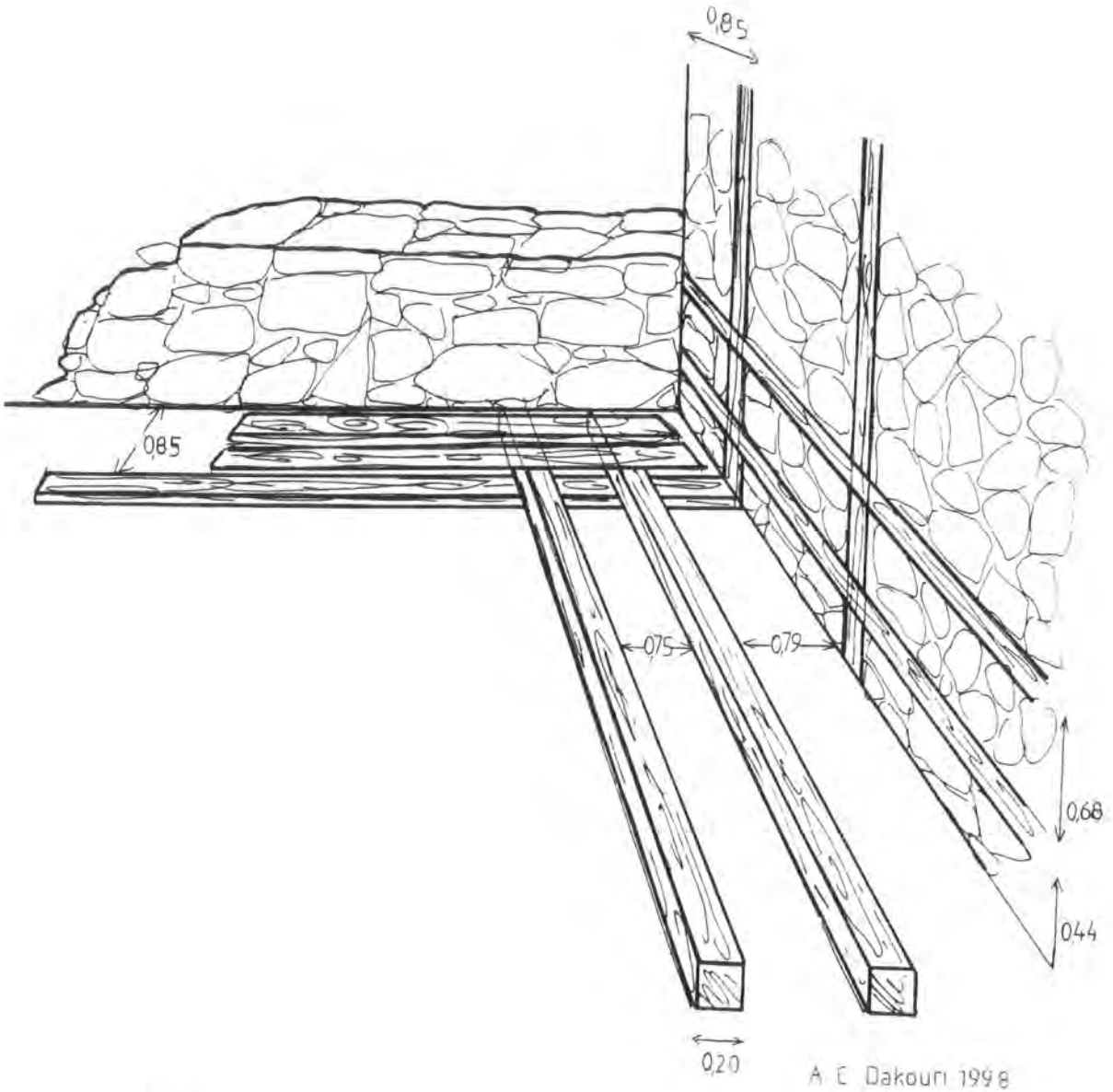


XLVIII. Timber frame at the porch of the megaron at Mycenae
(scetch after Wright 1978, fig. 207)

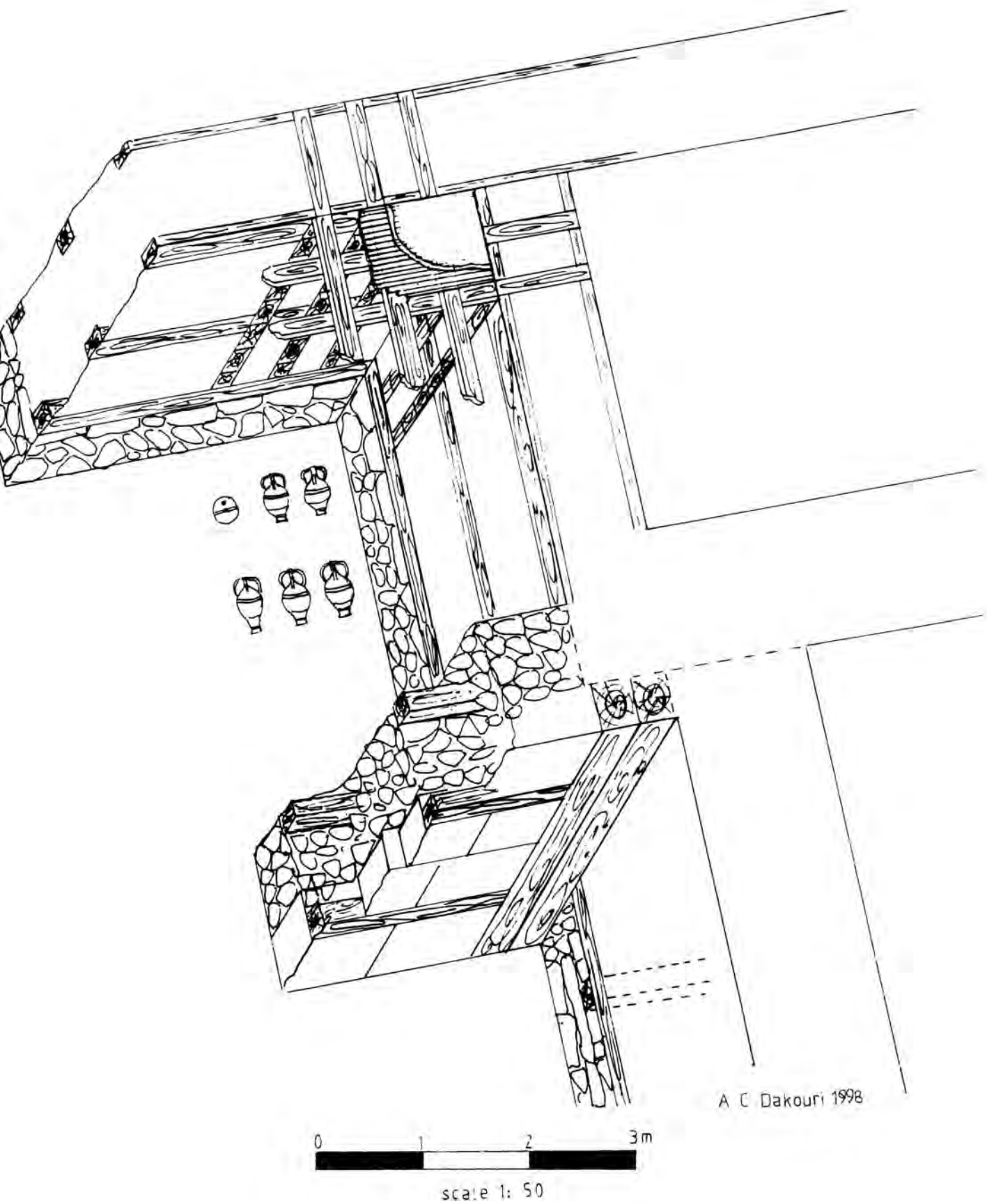
-not to scale-



XLIX Some timber beams used at the House of Kadmos



L. Reconstruction of the timber floor of *Room I7* and the frame of *Wall C23*, according to Keramopoullos 1927



LI. Isometric reconstruction of *Rooms B* and *I*

III.
Plates

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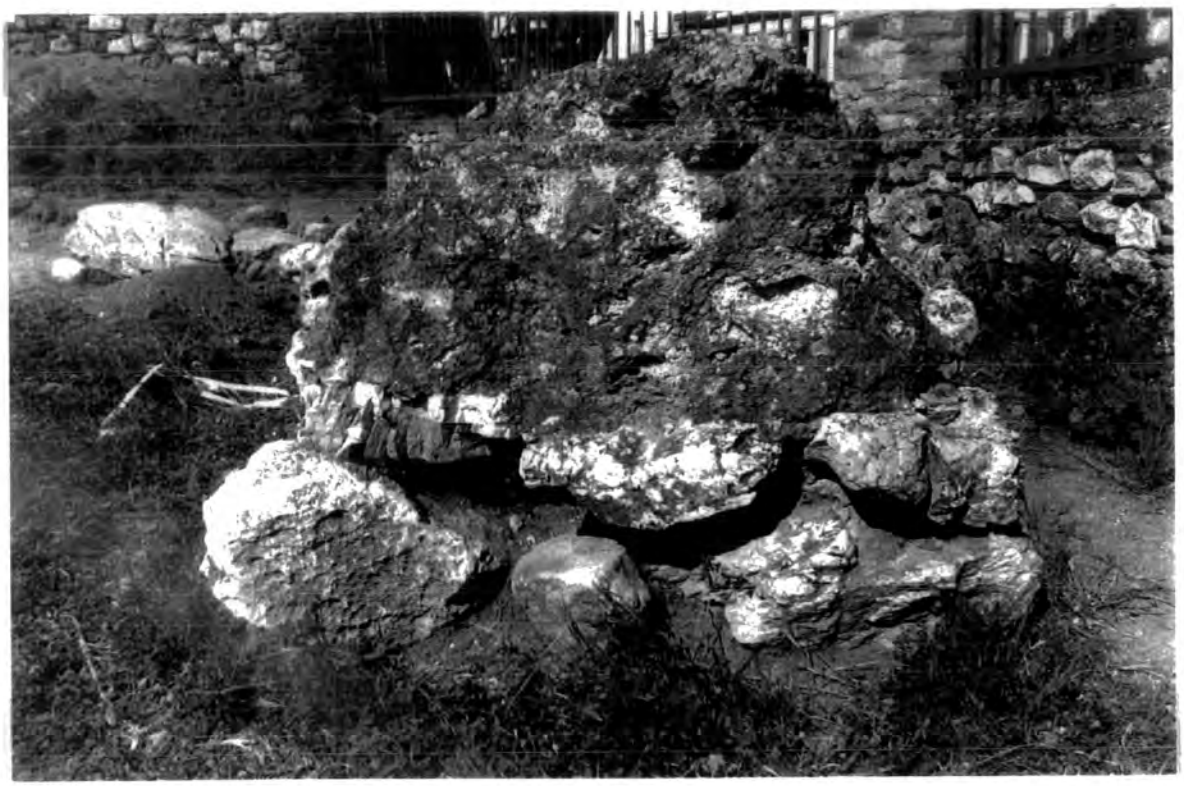

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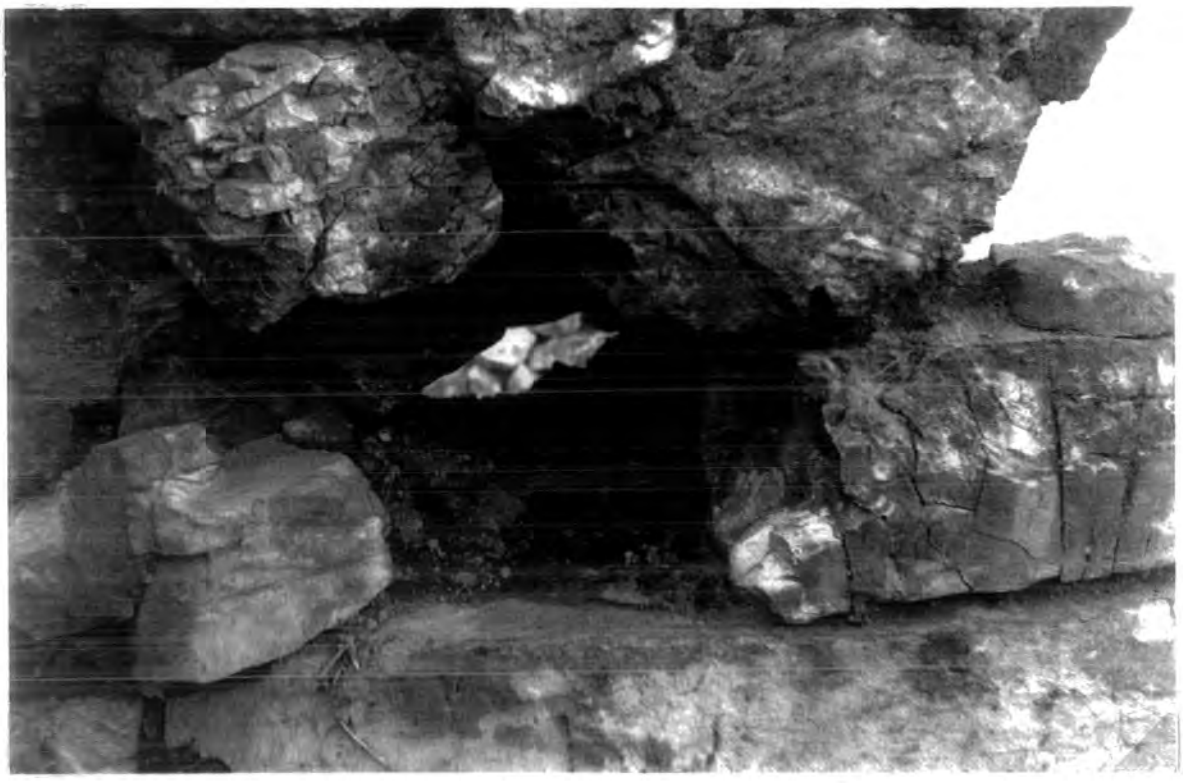

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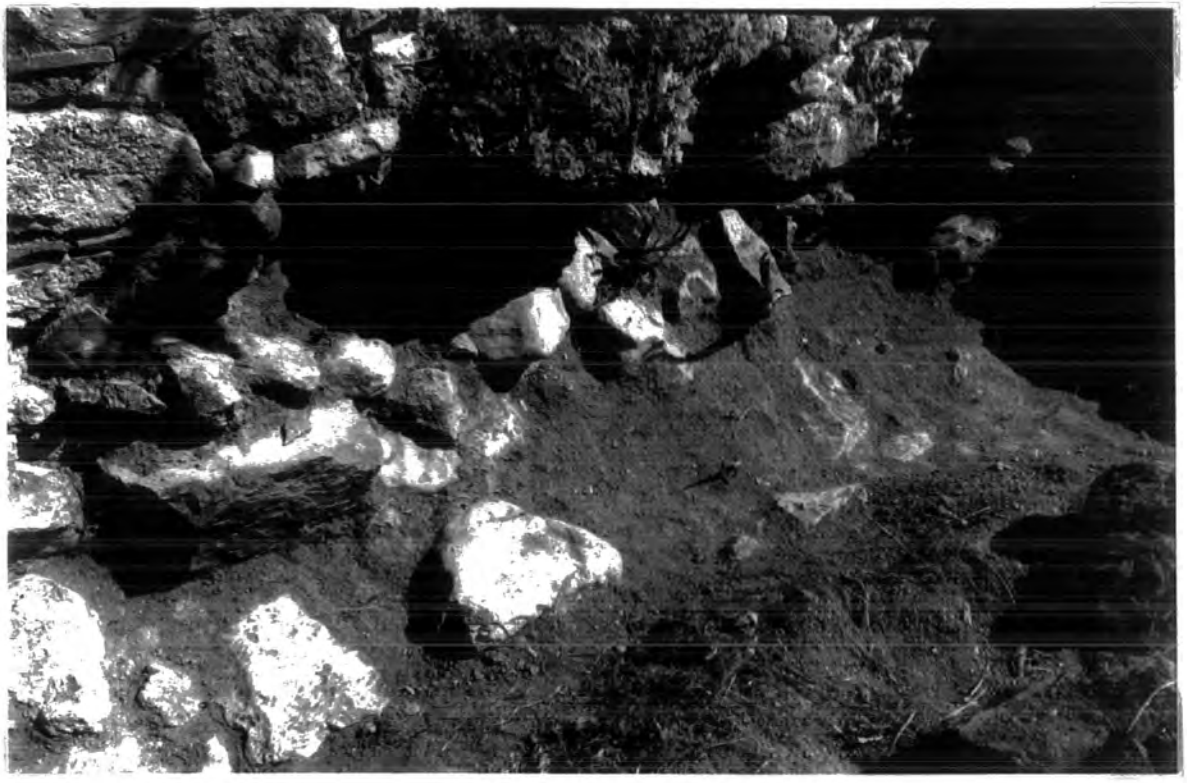

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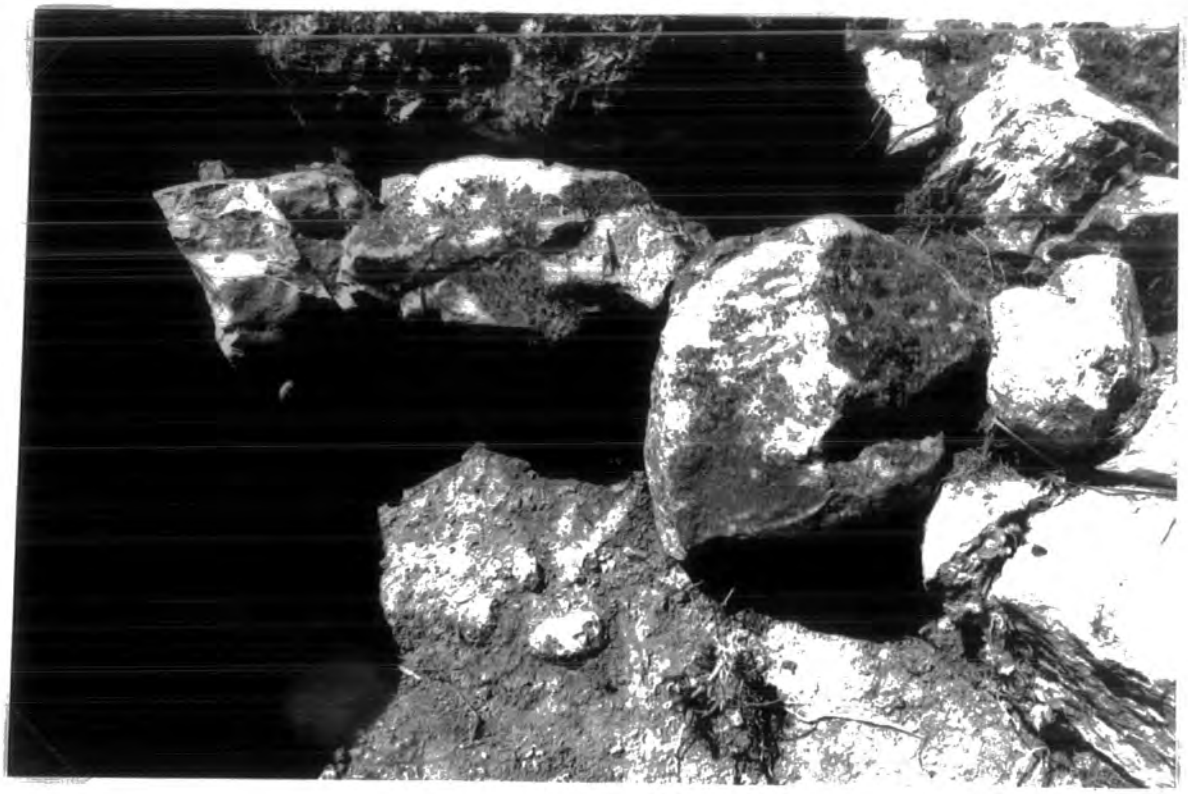

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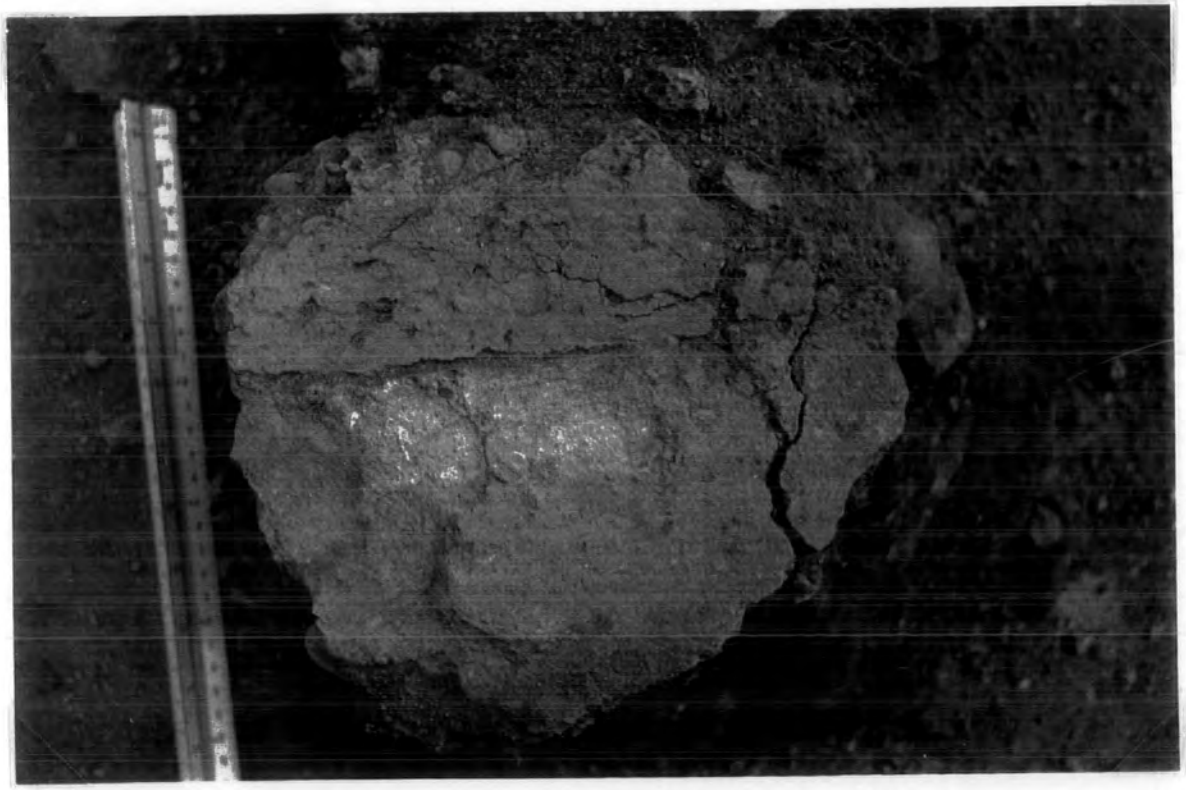

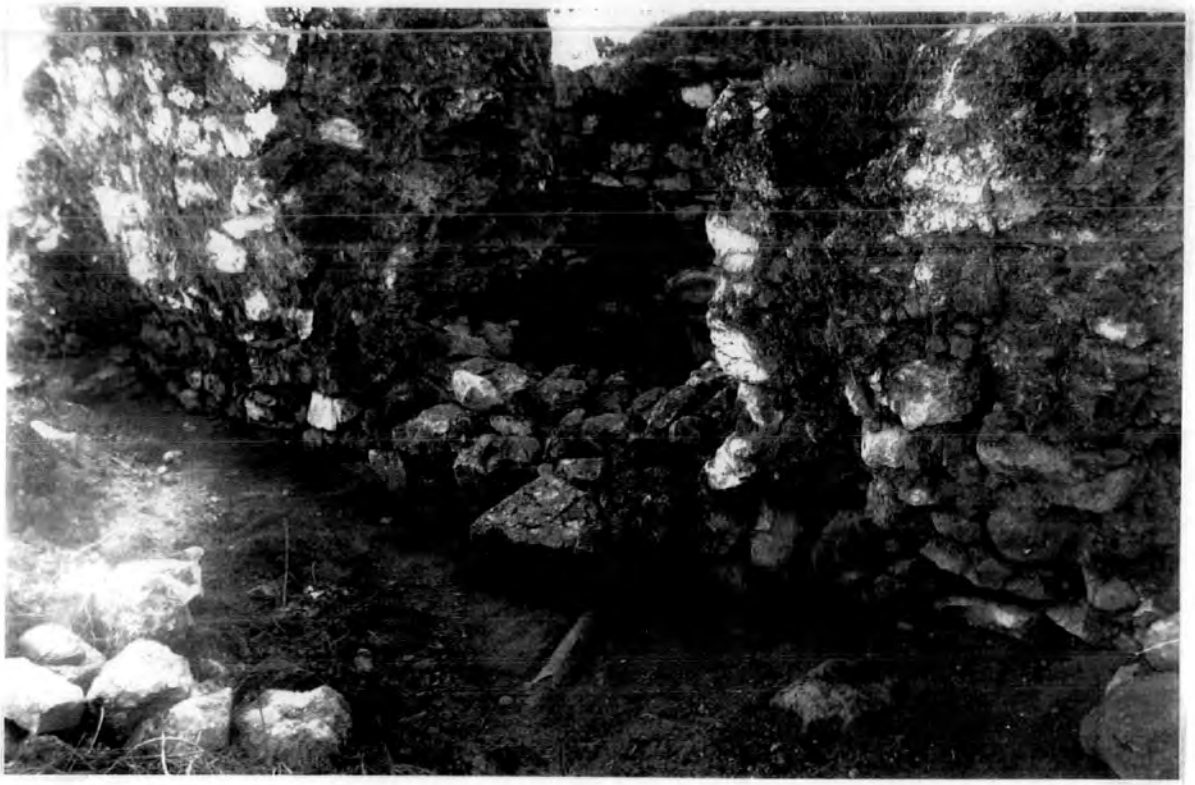

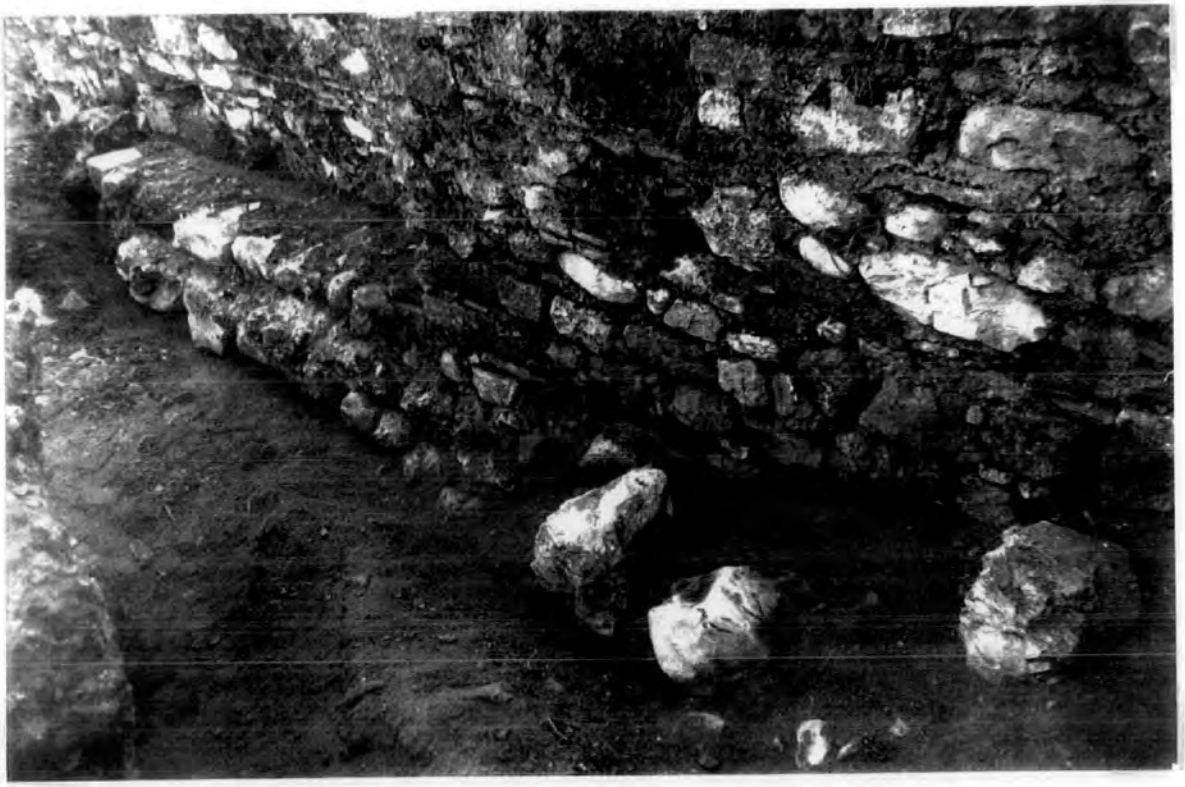

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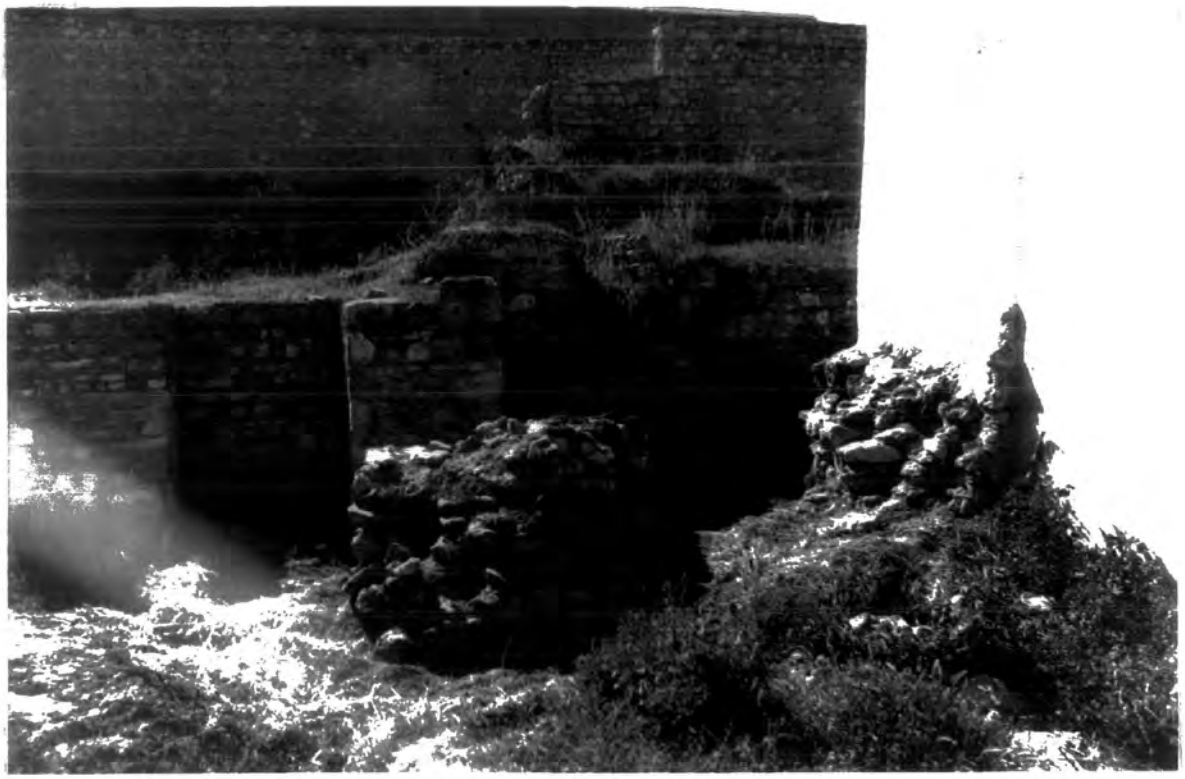

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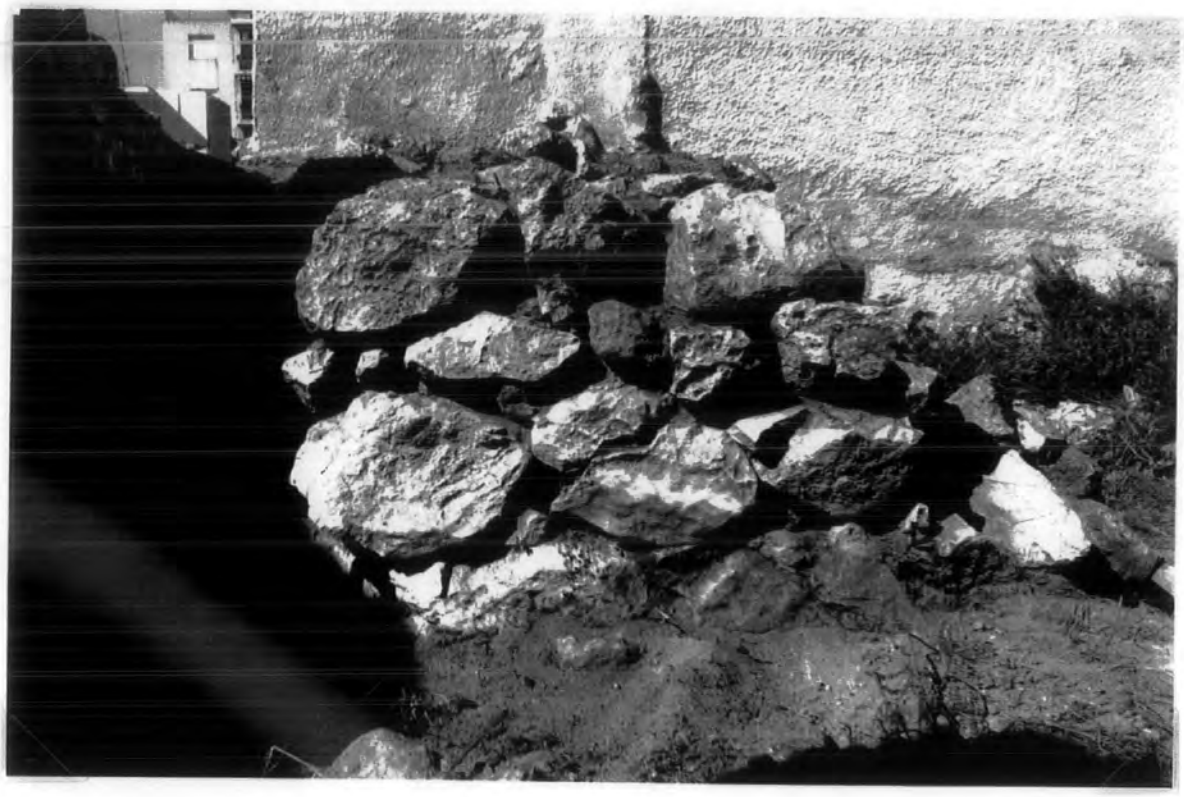

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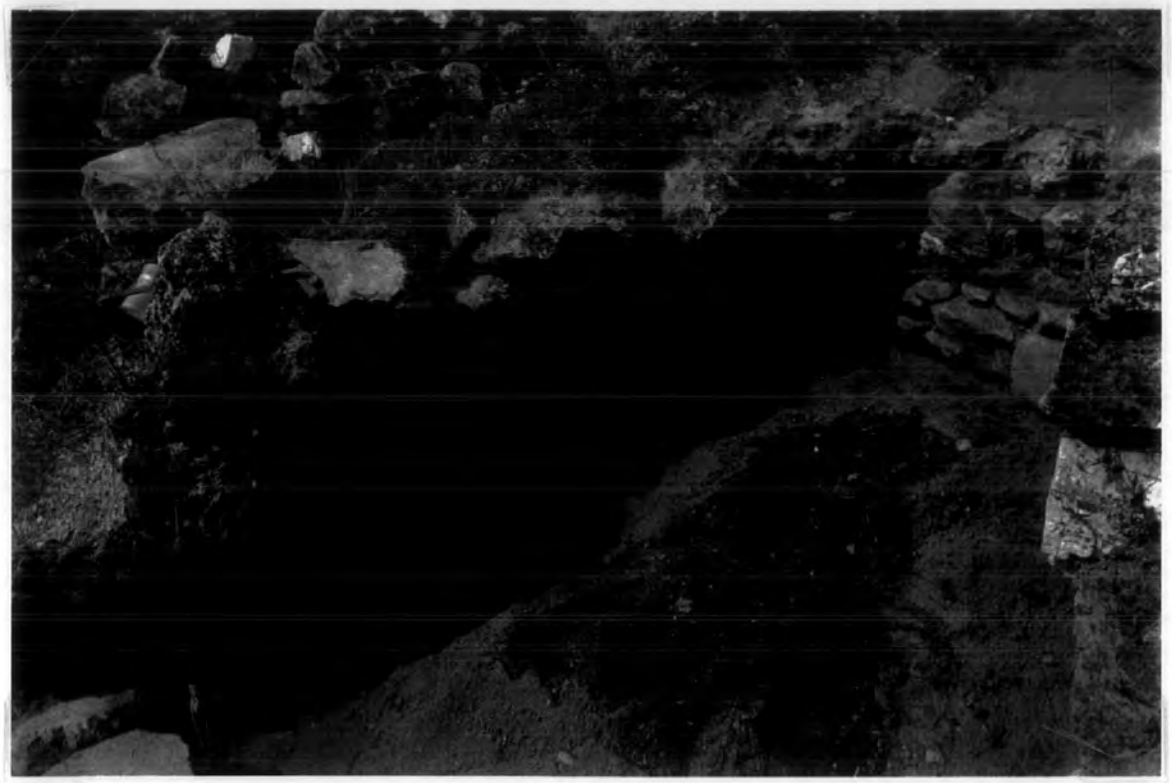

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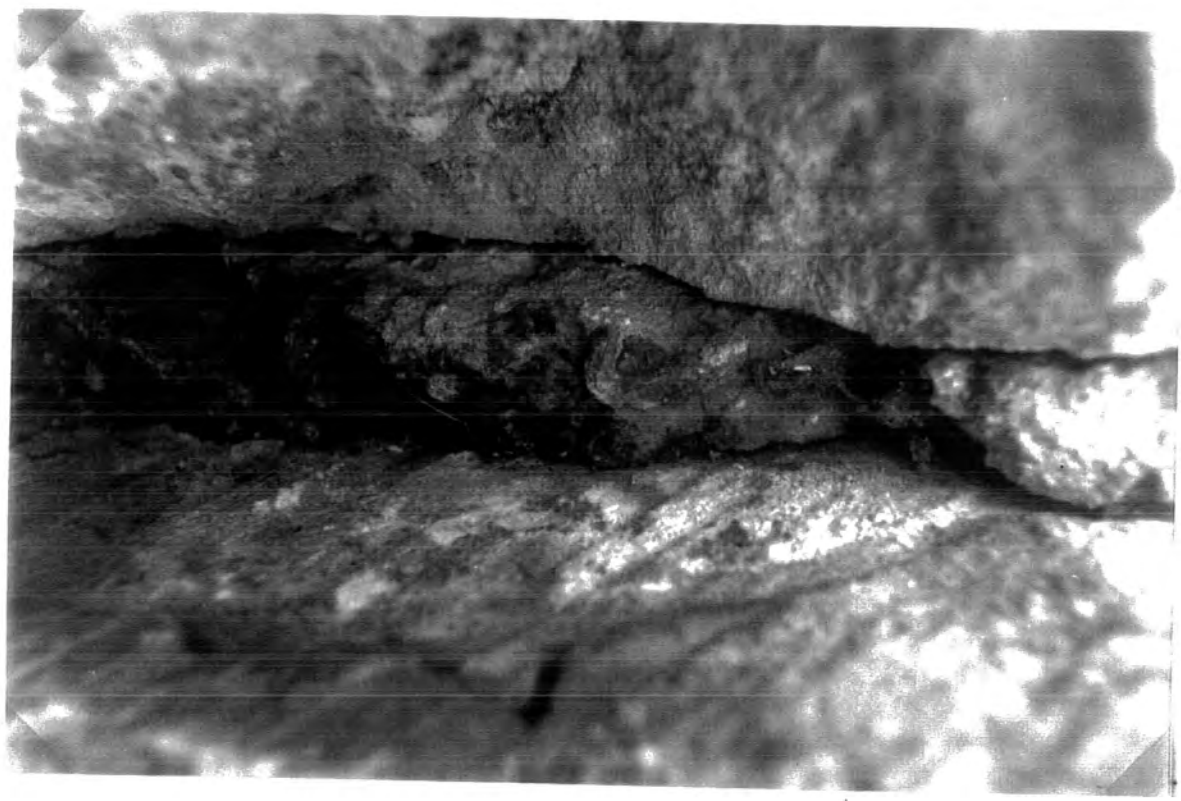

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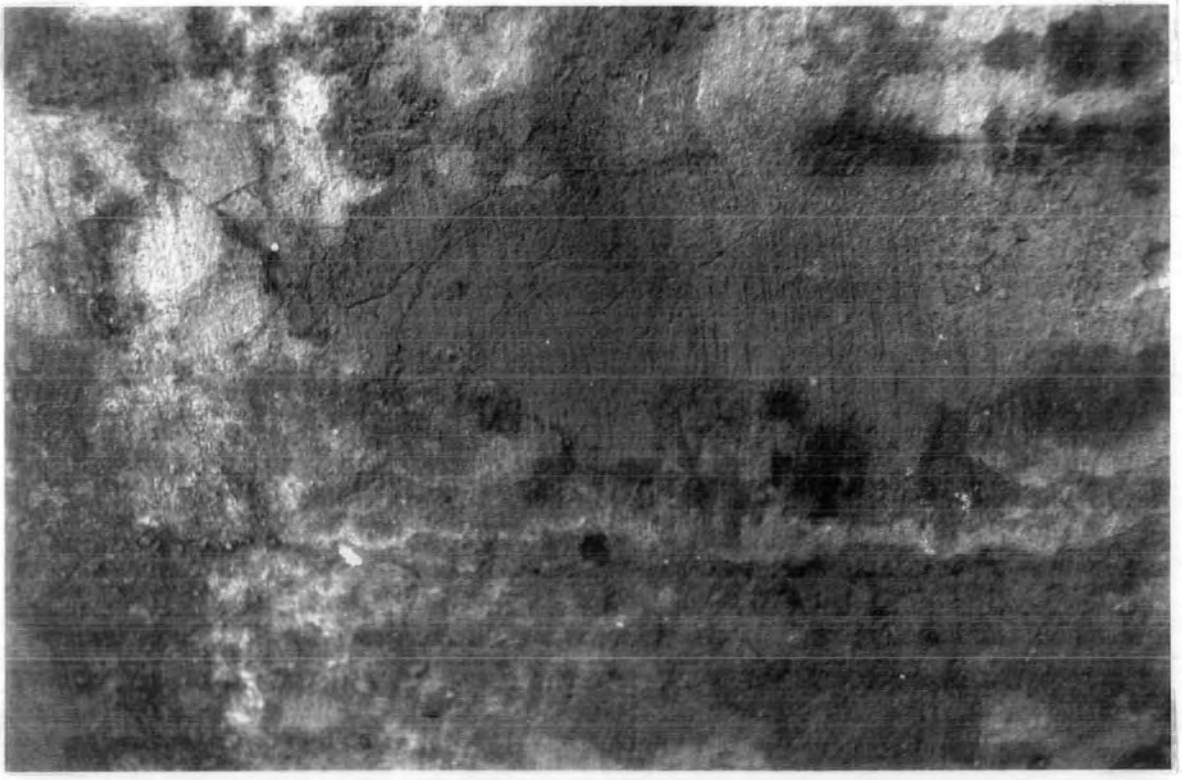

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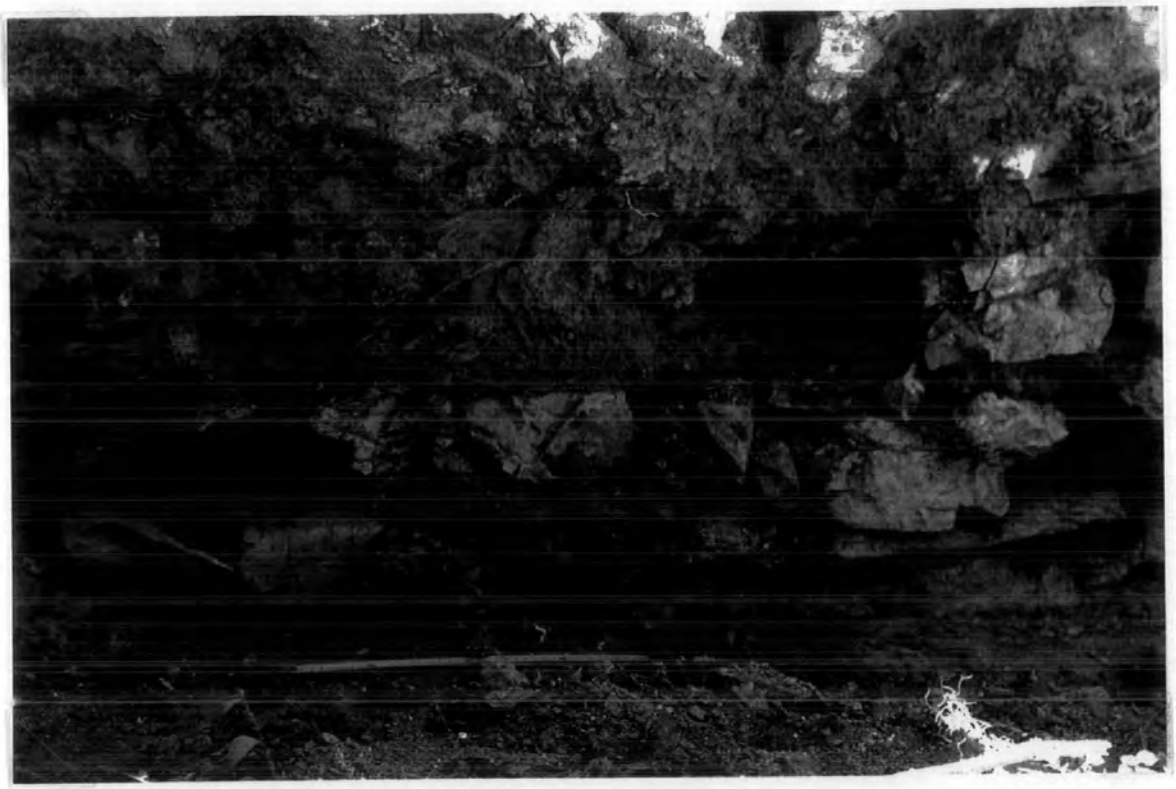

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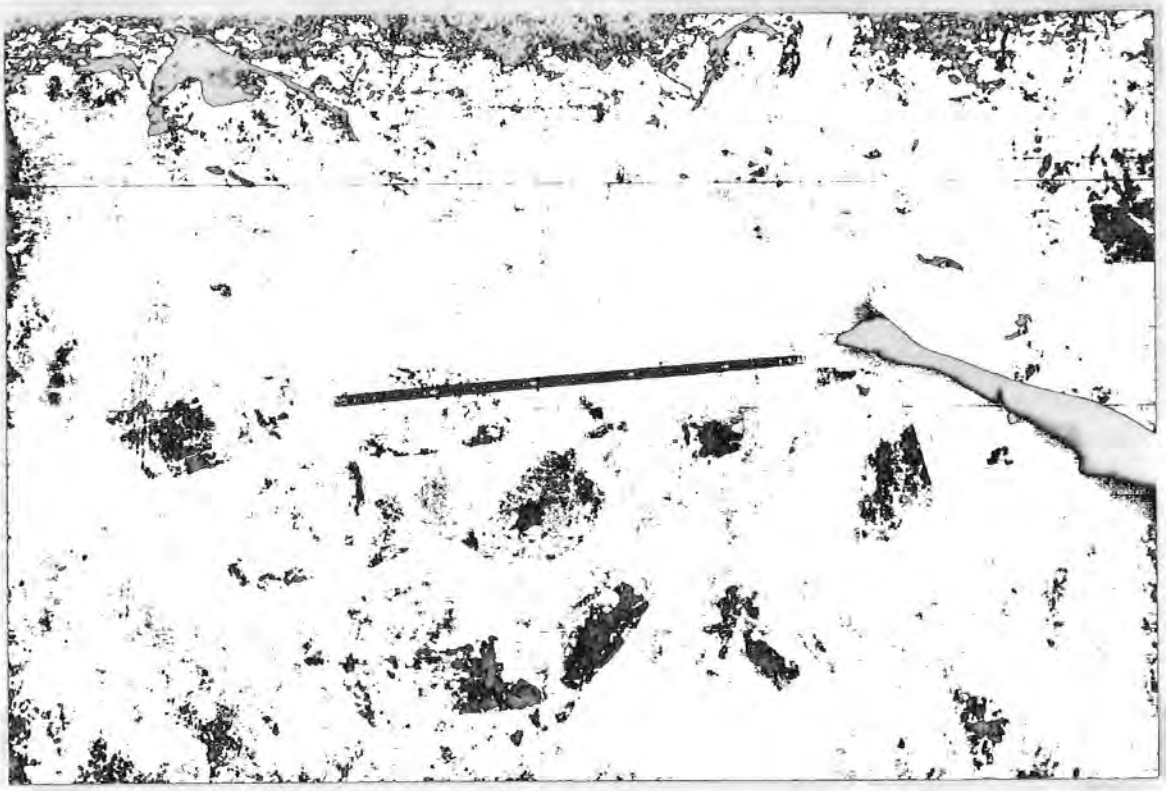

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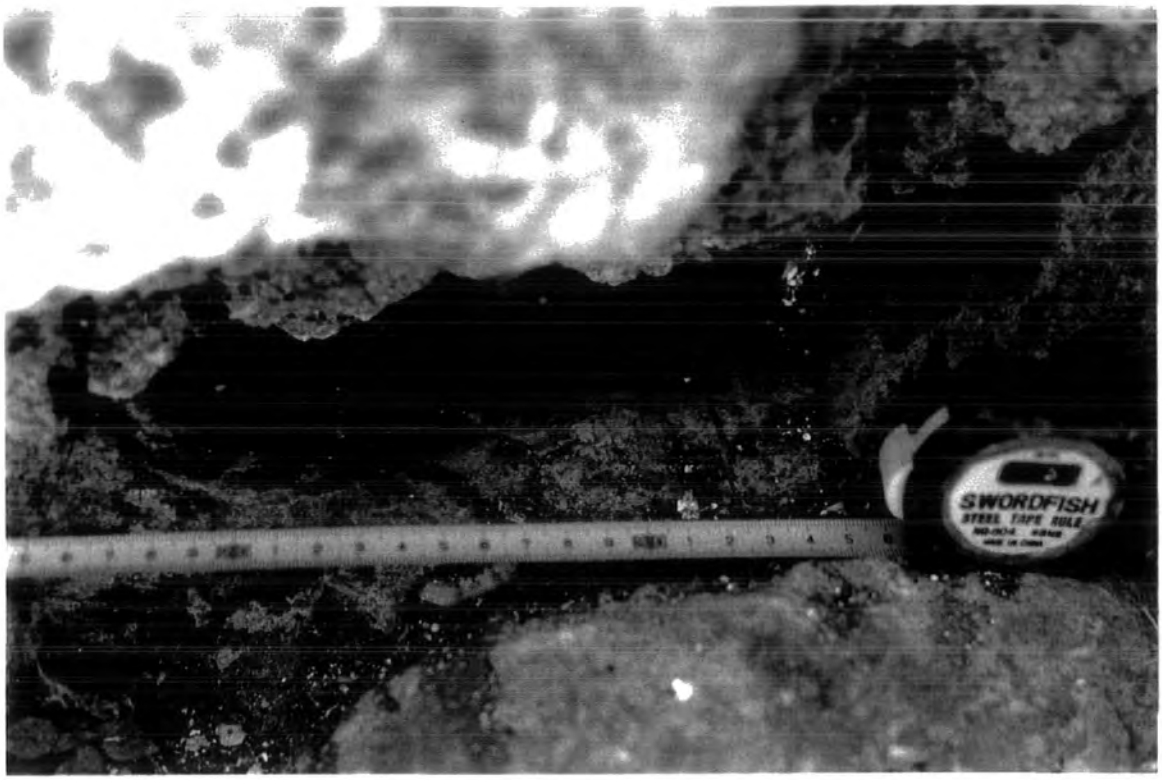

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