FUNERARY ARCHITECTURE IN *ALBURNUS MAIOR* (ROŞIA MONTANĂ): THE CIRCULAR MONUMENT*

VIRGIL APOSTOL

To this date, a rich lithic material, attributed to funerary monuments,[1] has been uncovered in the area of Roşia Montană (*Alburnus Maior*). The most recent archaeological salvage research[2] from 2002, has unveiled necropoleis that are modest as to their constructive extent,[3] as well as necropoleis with funerary ensembles distinguished by size and layout[4] to which category the Tăul Găuri Necropolis[5] belongs.

Defined by a very particular location this funerary ensemble requires a few specifications. The toponym "Tăul Găuri" denotes an alveolar depression,[6] which is surrounded on three sides by a hill (north),[7] a ridge (east)[8] and two high promontories (west), with the fourth side opening towards Corna Valley (south) (figs. 1a, b).

a) At the Tăul Găuri site, to which the Circular Monument belongs, the tombs are disposed in a manner that covers in its entirety the hill's plateau[9] as well as the south slope in its steep section, which has been purposely terraced through specific rock-cutting operations. In what concerns the manner of marking the funerary area, be it individual or collective, unlike the Tăul Cornei Necropolis, the Tăul Găuri Necropolis, shows at least two different patterns of architectural solutions: small "precincts" (enclosures) made of earth-bound stone or perishable materials (wood),[10] and funerary micro-ensembles without precincts, signalled out but by funerary stelae.

The series of funerary monuments that take up the south slope, inevitably adapted to the particular shape of the terrain, has gained, on the whole, the spectacular image of an amphitheatric patterned Necropolis:[11] it unfolds between the plateau and the two south promontories, which act as a spatial limit to the funerary ensemble besides creating a natural protection. Between the two natural promontories and the south limit of the necropolis, the surface of the "amphitheatre" exceeds the limit of the necropolis – as it is known to date[12] (figs. 1a, b).

---

* This study was first published in DACIA, N.S., tomes XLVIII-XLIX, Bucharest, 2004-2005, p. 249-282.

[1] V. Wollman, *Mineritul metalifer, extragerea sării şi carierele de piatră în Dacia romană*, Cluj Napoca, 1996, p. 222.

[2] Developed within the "Alburnus Maior National Research Program", initiated in the year 2001.

[3] Among the 315 tombs discovered in Tăul Cornei point, only eleven show relatively complex forms: five ring tombs and six "covered with stones". However, it should be noted that between 1983 and 1984, two funerary sphinxes and the base of a funerary stele were discovered in the specified area, to which two more complex funerary lions were added during the 2002 campaign. It is quite possible that these monuments might belong to more complex funerary ensembles, undiscovered yet. (V. Wollman, *op. cit.*, p. 229/230; *Cronica Cercetărilor Arheologice - campania 2002* (CCA), Bucureşti, 2003, p. 92-93, no. 61).

[4] In Corna, Roşia Montană District, Tăul Găuri Point (P. Damian, M. Simion, G. Bălan, D. Vleja, E. Dumitraşcu, C. Neagu, CCA, p.104, no.62; the architecture research was carried out by the author of this study).

[5] Situated south of nowadays Roşia Montană.

[6] Where the artificial lake Tăul Găuri lies.

[7] Hop – Găuri Hill, where the roman necropolis is located.

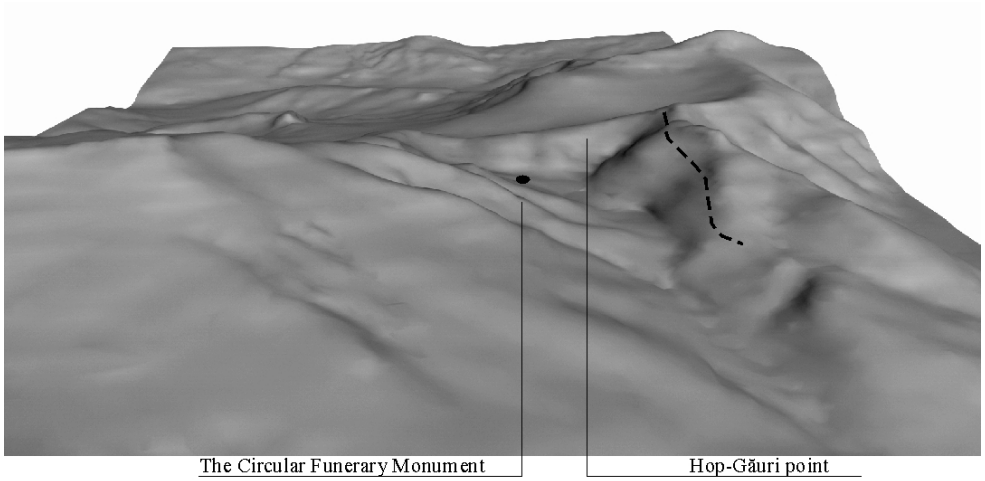
[8] This ridge rises ~ 80m above the lake's surface.

[9] This area (Hop Point) was investigated during the 2001 archaeological campaign (V. Moga, C. Inel, A. Gligor, A. Dragotă, *Necropola de incinerație din punctul Hop*, Alburnus Maior I, Bucureşti, 2003, p.193-251).

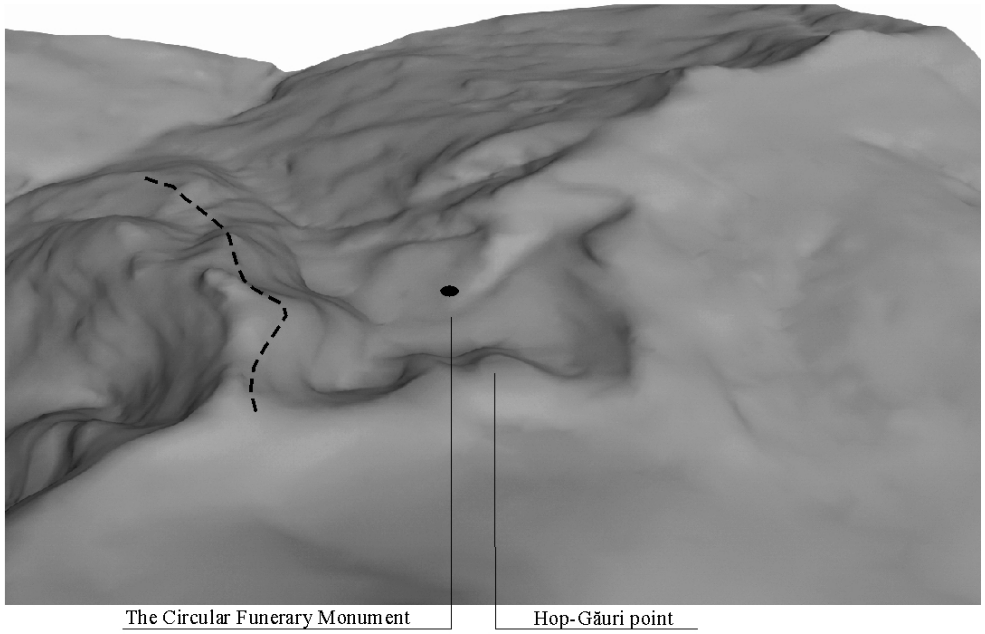
[10] Their traces read *in situ* due to the narrow ditches (max. 20 cm wide), where the wooden enclosures were embedded. These "precincts", as the conserved ditches show, followed rectangular perimeters: the corners were strengthened by wooden poles, as attested by the square holes (with approx. 30 cm egges) that are deeper than the ditches.

[11] The amphitheatre shape is generated by the natural relief: the slope surrounds as a horseshoe a deep depression, to which belongs the artificial lake that named the place (*Tăul Găuri*).

12 The archaeological research has not reached the area between the south promontories and the higher area of the "amphitheatre" yet (streching linearly around 150 m).



a.



b.

Fig. 1. Aerial view of the Găuri point to noth (a) and south (b)

b) The Circular Funerary Monument[13] is laid against the high promontories, which not only act as protection and background (fig. 2) for its particular architecture, but also as a boundary (symbolic?) of the funerary area[14] towards south – west. To the east, the steep slope edge may indicate not only a local limit, but possibly a border for the entire funerary area, as well[15] (fig. 3).

Of the Circular Funerary Monument (B) the foundation is largely preserved (Fb), with only a short section to the south, no more than 3.4 m long, missing (fig. 4a). The foundation, around 20 cm high, is made of sixteen large andesite blocks, shaped to suit the circular layout of the monument. The dimensions of these blocks range from 70 to 210 cm in length and from 45 to 85 cm in width (see Annex 2 - Catalogue). In the eastern area, adjacent to block B12, the traces of a small, rubble stone foundation (F) can be noticed, at least 80 cm inset from the andesite blocks. The elevation was made of three limestone layers, two of them built with large blocks and the third represented by the cornice blocks. The lower stone course still preserves eight blocks - slightly shifted from their original position - while of the second one fourteen blocks have been found collapsed around the monument. Other fourteen blocks, found scattered around the monument, were the remainder of the cornice elements. The investigation also revealed nearby two other limestone blocks (Mca), bearing complex mouldings, as well as a block (Mcb) with two decorated faces, with lions carved in relief. The structural details of these latter blocks set them apart from the rest. (see Catalogue).

Under the andesite blocks that make the foundation described above, a second foundation was found, 60 cm wide (Fa), made of irregular stone, bound with yellow, sandy earth. Its traces are preserved *in situ*, in the lower area of the slope, on a perimeter corresponding roughly to a half circle. The circular layout, although apparently matching that of the upper foundation, does not line up perfectly with it: despite the slight sliding of the andesite blocks towards east, the original shift of approx. 30 cm of the imprint of monument A can still be perceived (fig. 5a).

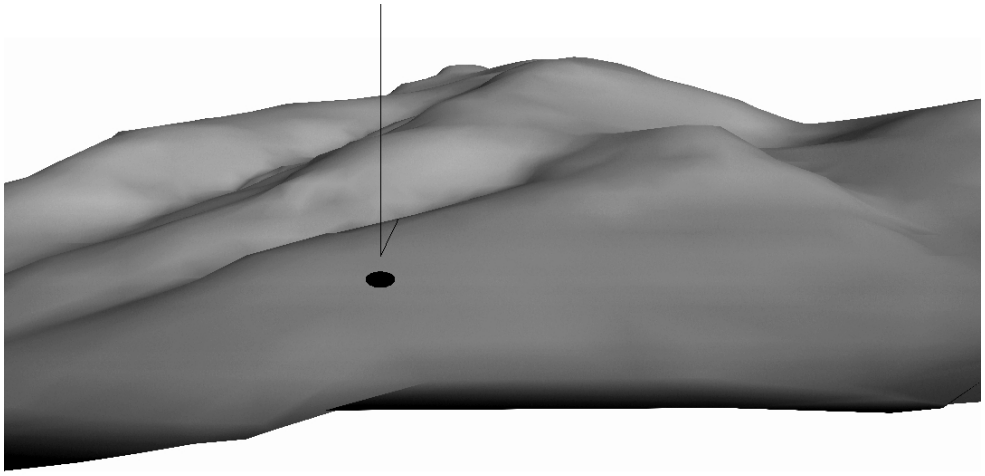


Fig. 2. Aerial view of the Circular Monument's location.

[13] M. Simion, D. Vleja, CCA, p.105, no.63.

[14] The question of the existence of a *unique necropolis*, of which the mentioned monument, together with the two simple tombs that lie beside it, would have formed a more or less isolated nucleus, or of two distinct necropolises is still open to inquiry for future archaeological research.

[15] It is not out of the question that this monument would be the witness of a nuclei-layout of a single funerary area: to date, the low density of tombs adjacent to the monument and the architectural accent set by the latter might be read as hints for a layout in such nuclei. It is the place to note that the general orientation of the tombs was dependent exclusively on the "amphitheatre"- shaped terrain, and not on a preferred direction. For instance the two tombs neighbouring the circular monument are oriented N-S, while the tombs on the slope of the hill have E-W, NE-SW, NW-SE orientations.

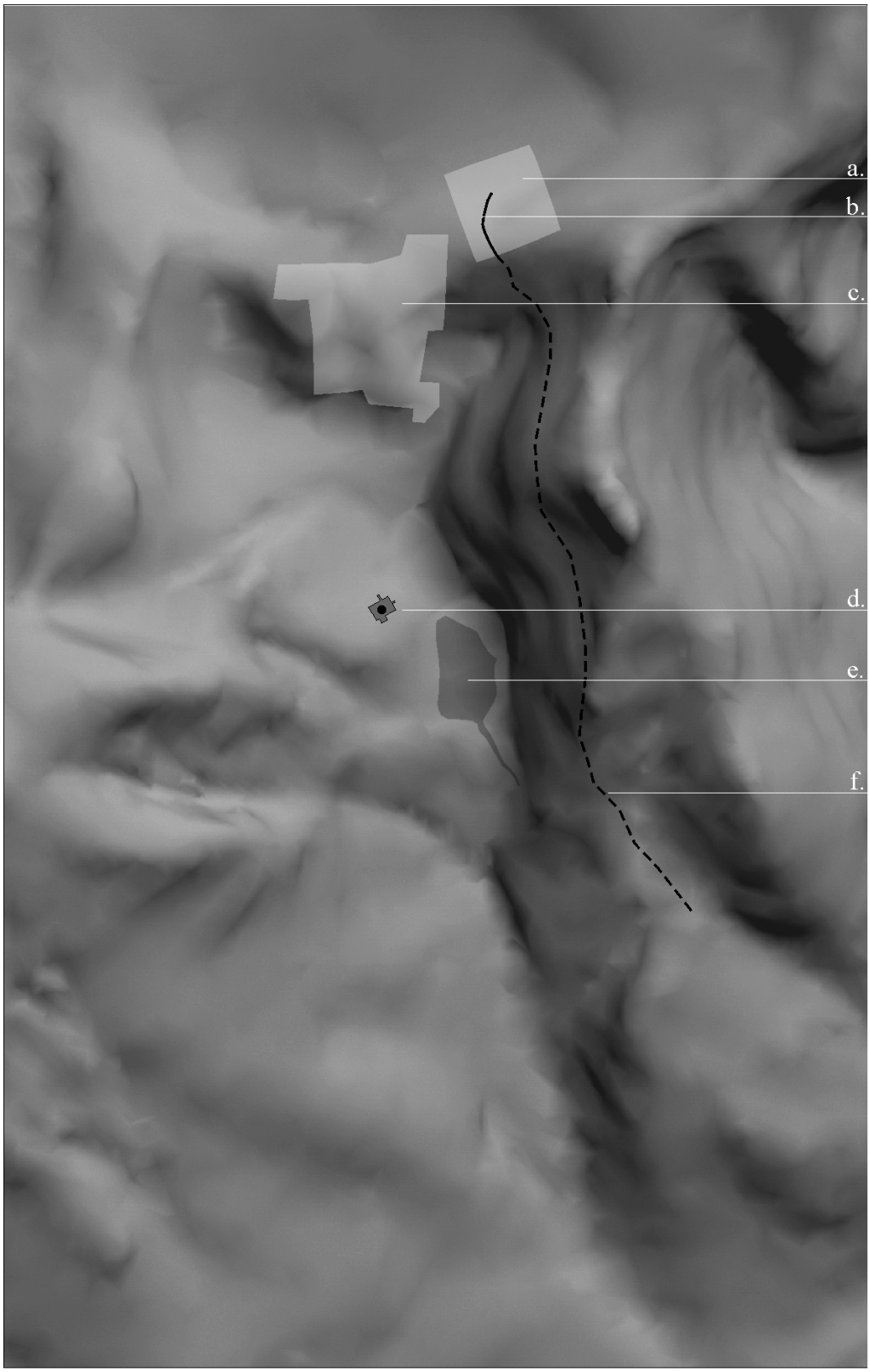


Fig. 3. Plan of the Găuri point: a) habitation area; b) Roman road; c) Tăul Găuri Necropolis; d) the Circular Funeray Monument; e) Tăul Găuri Lake; f) Roman road (?)

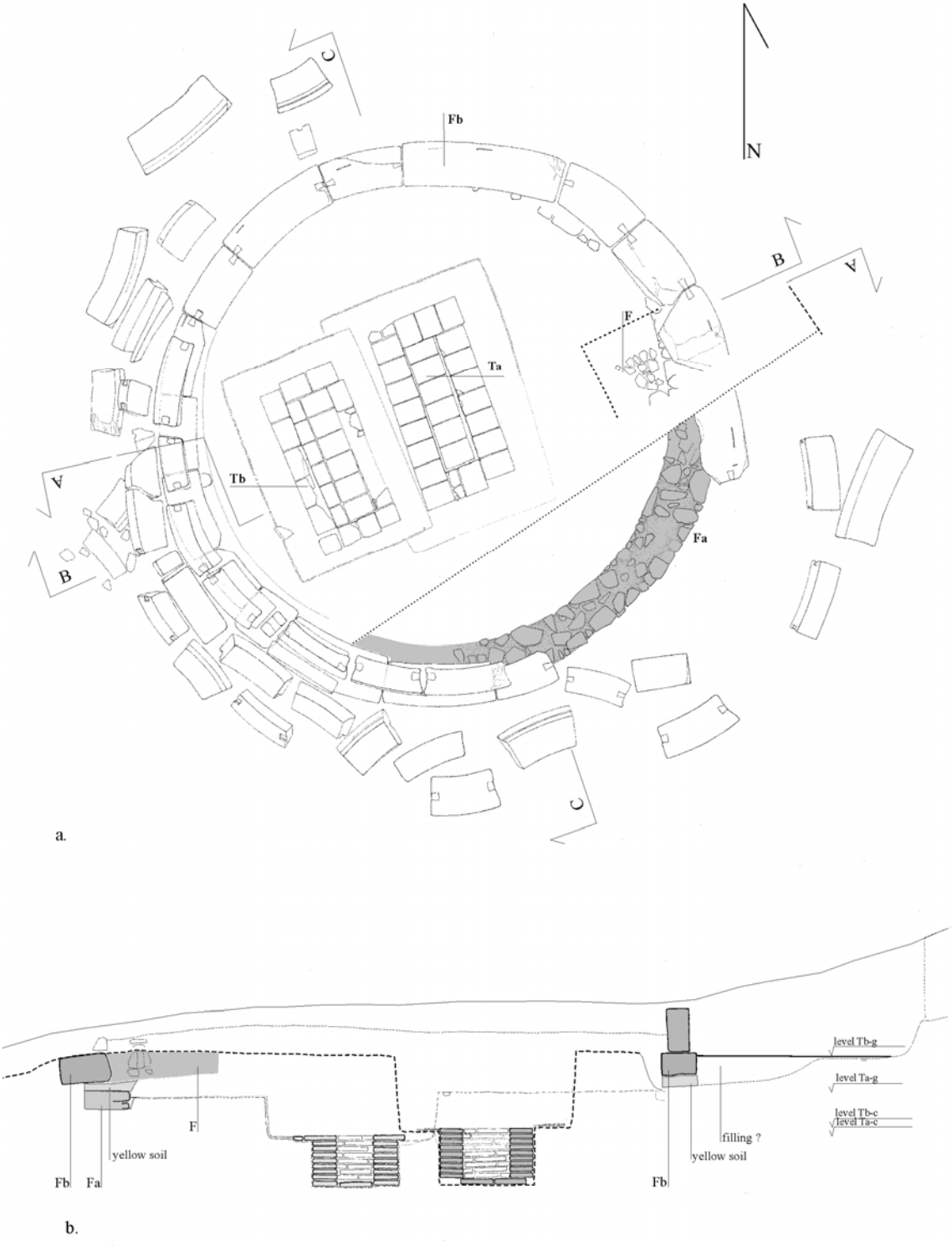


Fig. 4. The Circular Funeray Monument: a) plan; b) cross-section A-A.

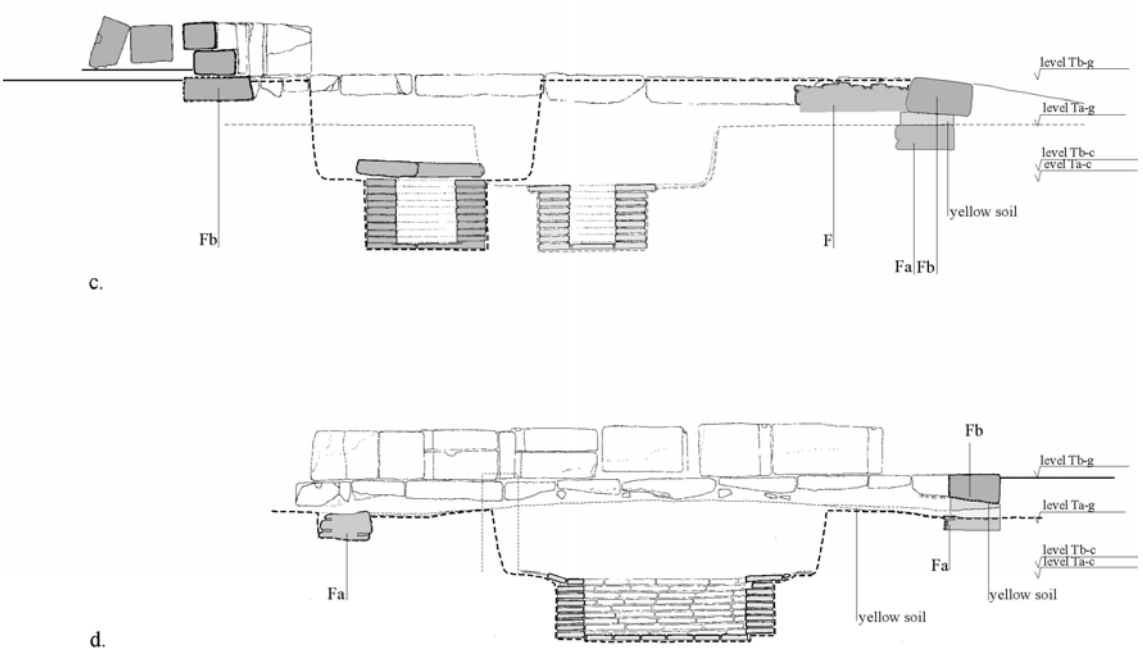


Fig. 4. The Circular Funeray Monument: c) cross-section B-B; d) cross-section C-C

The foundation depth reaches 30 cm in the eastern area. As previously described, part of the irregular stone foundation (Fa) can no more be identified. It is possible that in this area the first foundation was taken apart (fig. 6d) at the time when the second monument was erected – as suggested by the traces of a possible imprint of the dismantled wall[16](fig. 4b) – while some of the stones from the old foundation, from the lower area towards the slope, was reused.

Within the circular perimeters, there are two funerary chambers, with brick walls, overlapped by larger cavities dug into the soil, corresponding to two distinct burial times.[17]

The architectural expression of the first burial (Ta) is the Monument A, the traces of which can be read *in situ* by the irregular stone foundation (Fa); the andesite blocks foundation (Fb) belongs to the Circular Monument B, corresponding to the second burial (Tb). As shown, this new foundation does not fully match the traces of the first one. This shift of the foundation was identified with relative accuracy due to the restitution of its precise contour. The restitution was possible due to the tracing marks preserved *in situ*: blocks B5, B1 and B15 that were preserved in the original position, bear on their upper surfaces tracing incisions, which allowed the restitution of the initial location of the walls of the second circular monument.[18] The existence of two distinct "edification" phases is also reflected by the presence of a course of yellow soil (around 20cm thick) used to level the older, abandoned foundation[19](Fa) (fig.7) in order to erect the ring of andesite blocks (figs. 4b, d).

[16] A continuous course of yellow, sandy soil, identical to the one used as bond for the rest of the foundation, was noticed, however, in the area where the foundation blocks are not preserved.

[17] The two graves were referred to as M2 and M3 by the authors of the archaeological research. The second grave (M3) was considered the oldest. M. Simion, D. Vleja, *op. cit.* p.106.

[18] It is the place to mention that this shift is distinct from the one generated by the general slide to the east of the ensemble. For instance, the sliding traces of the old foundation (Fa) can be quite easily noticed given the conserved disconnected imprints of its original position, read in traces of the yellow sandy soil that bound the stones of the foundation (fig. 4b).

[19] We note that *under the yellow soil levelling course* there is the same yellow, *sandy* soil course used as bond for the foundation of the older monument (see *supra*, n.16)

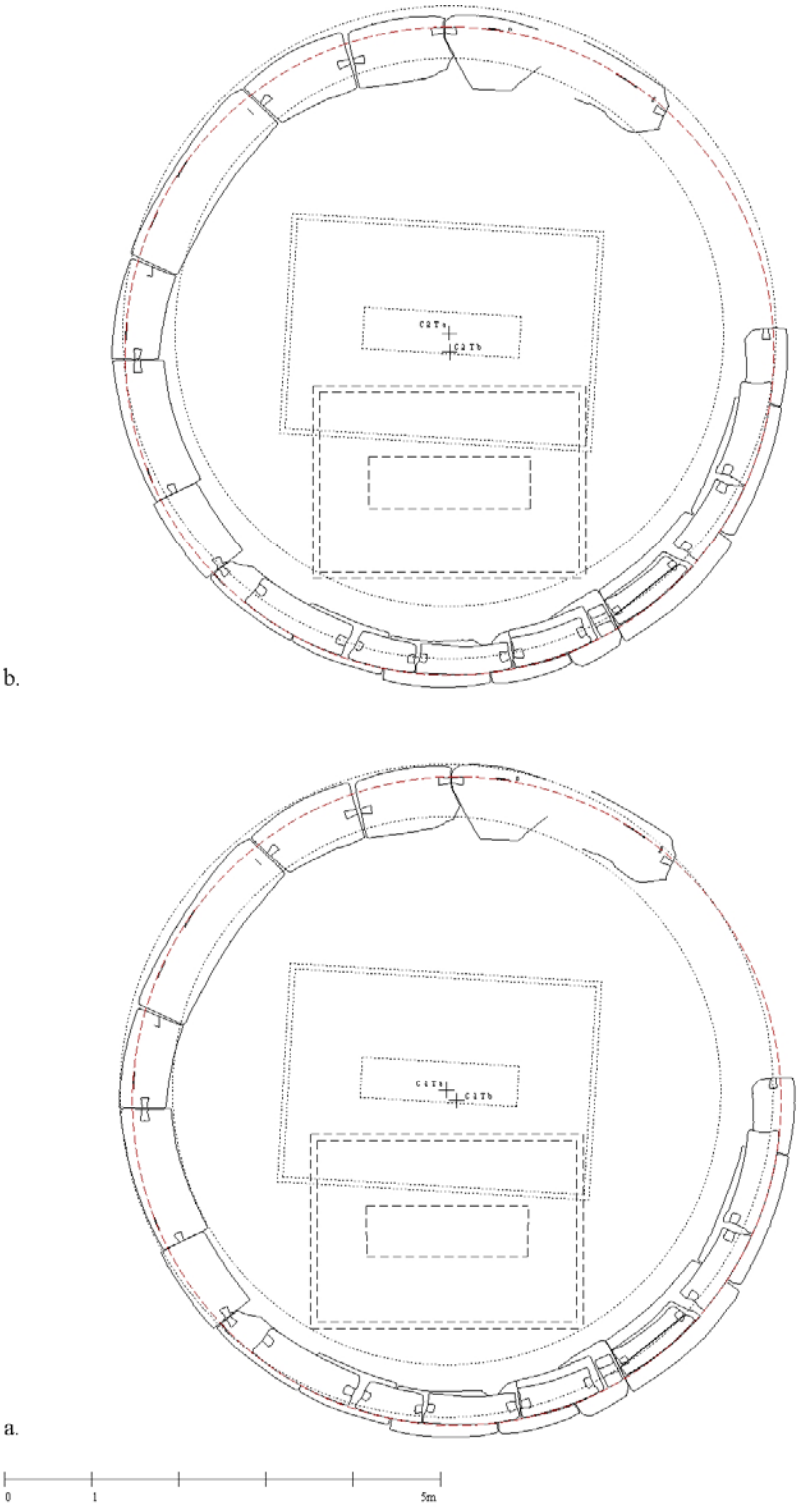


Fig. 5. The restitution of monument's contour:
a) first alternative - following the tracing marks preserved *in situ*; b) second alternative - ideal restitution.

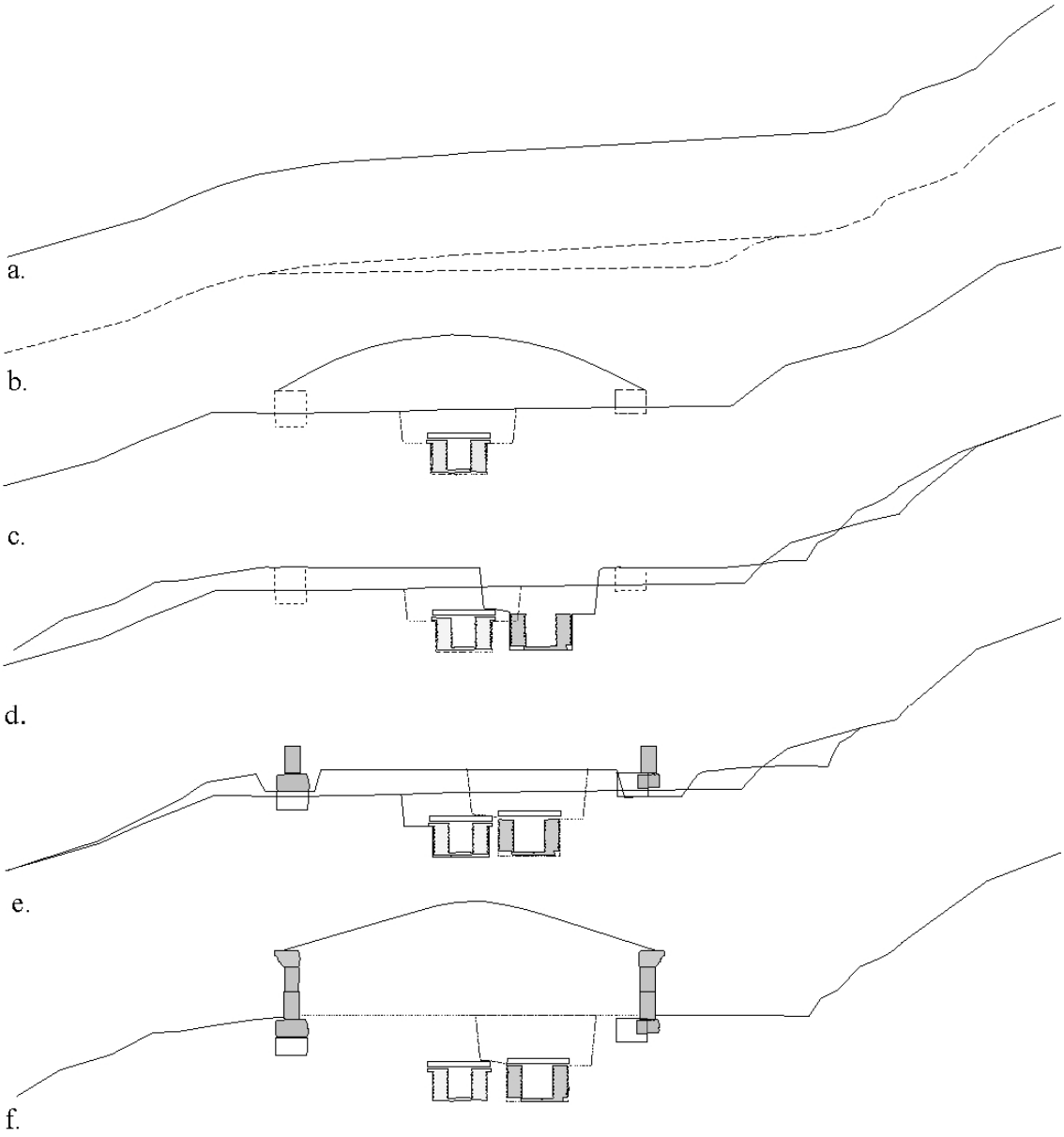


Fig. 6. Hypothesis about the evolution of the monuments:
a) natural plateau;
b) leveling of natural slope;
c) first monument;
d) leveling the old tumulus;
e) second monument.

These two phases are discernible by reading the construction levels correspondent to the two burial spaces (figs. 4 b, c, d). It is the place to note that the two brick funerary chambers lie at different, but very close levels (the older chamber is only approx. 5cm lower than the other one), while between the upper cavities the difference grows (reaching 35cm) (figs.4b, c).

c) *Monument A*. In order to build the monument, the surrounding terrain supported specific site improvement works that implied levelling the natural slope as well as its delimitation and consolidation by building the circular wall, ~7.5m in diameter (figs. 6a, b, c).

The first burial, corresponding to this wall (Fa), took place in a rectangular cavity (Ta; 180 cm / 46 cm / 59 cm), with the walls clad in clay-bound brick masonry (the bricks, 5.4 – 5.5 cm thick, are derived from *tegula bipedales*[20] – tables 2, 3). The horizontal joints vary in thickness between 1.5 and 3 cm, while the vertical ones are approx. 1 cm wide. The bricks are laid with the long side showing, excepting the bricks of the upper course, laid with the short side exposed. The same material was used for the paving of the funerary chamber as well: a strip of six bricks, analogous in type to the ones in the wall facing, is laid adjacent to the walls.[21] Above the brick-faced chamber the cavity grows much larger and is deprived of brick facings. Unlike the lower chamber, this cavity seems to widen towards its upper limit. The space generated by the two cavities – the chamber with brick-clad walls, much narrower, and the wider cavity with bare-earth walls – is the expression of a unique ensemble. This *vertical sequence*[22] layout of the funerary space, which implied the initial excavation of the upper cavity in order to reach the moment of building the walls of a smaller scale *loculus* – dug at a depth larger than its own height, reveals, among other possible explanations,[23] a specific modality of defining the place of the sepulchral chamber, providing at the same time a "container" for the ashes resulted from the burial of the funerary pyre[24].

Fig. 7. Stratigraphic view of north zone: a) B8; b) yellow soil; c) sandy soil; d) first foundation - Fa.

[20] The manner of cutting the brick corresponds to the type of division of the *tegula bipedales* into *eight triangles* (type E - G. Lugli, *La tecnica edilizia romana*, Roma, 1936, p. 585). The dimensions of the sides show a cutting manner expressed as 1: ¾ (where the unit (1) represents the diagonal of the ideal *pedales* brick) (fig. 14b).

[21] None of the floor paving bricks was laid under the wall brick cladding.

[22] This sequence of cavities was interpreted as a layout meant to ensure the air flow for the cremation process (M. Babeş, *Zu den Bestattungsarten im Flachgräberfeld von Romula. Ein Beitrag zur Grabtypologie des römischen Dazien*, Dacia N.S., 14, 1970, p. 177, Abb. 5, P. Alexandrescu, *Histria II*, 1966, p.263).

[23] Other explanation can be the intent to protect the funerary remains and offerings.

[24] We note that the upper cavities of both tombs are „lined" with a continuous redish course of compact burnt yellow clay, probably resulting from the ritual (purifying) burning of the wall. These cavities also contain a considerable amount of carbonized debris (black ashes) resulted from the burning of the pyre.

The chamber, designed to incorporate the ashes and the ritual inventory, was covered with three andesite slabs,[25], with dimensions ranging between 150-160 cm / 80-90 cm / 17-20 cm. The covering was laid in a manner similar to the „half" joint[26] mounting. The only slab with a regular shape is the middle one,[27] while the shape of the other two (except the adjoining lines) is roughly finished, by breaking the stone, with no care for details (fig. 8a).

The ensemble of the two sequenced cavities was integrated, by covering, to an earth mound (fig. 6c), generating the tumular shape of the funerary monument. The volume of the earthen tumulus was surrounded and retained by the circular wall with rubble stone foundations (Fa).

d) ***Monument B*** is represented by the wall Fb (fig. 4a), of which the foundation and part of the elevation, erected above the wall Fa, are preserved.

The wall, now ruined, of this monument was made of blocks that were tied exclusively with wood clamps, the mounting grooves of which can still be seen on most of the blocks. No grooves for the blocks' vertical fastening[28] were found. The blocks are adapted to the circular outline of the plan by their cutting into a form analogous to voussoirs;[29] the contact of the lateral surfaces of adjoining blocks was provided but towards their exterior edges.[30] In these contact areas the lateral surfaces bear *anathyrosis* with irregular frame and recessed core. The two stone courses of the façade, composed of the blocks laid *en carreau*,[31] have different heights (57 cm lower course; 44.8 cm upper course). Above them the crowning, approx. 30 cm high, is represented by a cornice of which the strong *saillie* reaches 15 cm.

The low foundation (20 cm deep) is made of blocks 15 cm outset from the face of the wall. The tracing incisions, meant for positioning the blocks of the first course, are still visible on most of the blocks of the foundation (see Catalogue). The tracings noticed on the blocks still lying in the original position (B5, B1, B15) define a circle with a diameter comprised in the interval 7.44m - 7.52m.[32]

Tomb Tb, corresponding to this monument, resembles the first tomb (Ta): the chamber (179cm / 58.5cm / 63.5cm) is clad with nine courses of clay-bound bricks, laid with the long side exposed. Unlike the other tomb, the pavement is made of two strips of six bricks each; these extend beneath the wall facings of the chamber. Similar to the case of the older tomb, the *vertical sequence* layout of the tomb, as well as the slight widening of the upper cavity towards its limits were followed. The upper cavity, however, is not as wide, but grows deeper (95cm) than in the case of the older tomb (52cm). The covering is made of only two andesite slabs (approx. 170cm / 110cm / 20cm), which have the adjoining sides worked at half joint (fig. 8b). Except for these two sides, the slabs are irregularly shaped, as a result, in this case as well, of coarse work.

---

[25] Similar coverings, with roughly finished slabs, are well known on the territory of Roman Dacia; for instance at *Ampelum*, Cinciş - the necropolis, tomb XV - and Sarmizegetusa (V. Moga, R. Pop, *Descoperiri arheologice la Ampelum*, ActaMN 15, 1978, p.213-218, O. Floca, M. Valea, *Villa rustica şi necropola daco-romană de la Cinciş,* ActaMN 2, 1965, p.163-192, O. Floca, *Sisteme de înmormântare din Dacia Superioară romană*, Sargetia, II, 1941, p.32).

[26] J.P. Adam, *La construction romaine* [2], Paris, 1989; p. 104, fig. 230-6.

[27] This rectangular slab is 165 cm long and max. 83 cm wide.

[28] While the horizontal bonds are required in order to answer the radial forces, the absence of vertical strengtheners – specific bonds – may be the consequence of a low height elevation.

[29] Blocks B11and B13 have been cut in a particular fashion: the side surface is not plane but is cut to match the shape in plan of the adjacent block (B11-B12).

[30] On the inside the vertical joints can grow as much as 8 cm wide.

[31] J. P. Adam, *op. cit.*, p. 117, fig. 246 (D). Only one block of the first course is analogous to a header (L8 I).

[32] In order to evaluate the circumstances of approximating the diametre of the circle we note: the field data recordings were carried out using a Sokkia Set 600 total station, that performs measurements with errors below 0.5 cm; the tracing incisions are coarse, V-shaped slits, ~0.5 cm wide, cut with a pick, irregularly handled; the surfaces that bear the tracings are roughly finished (beforehand) by hammering.

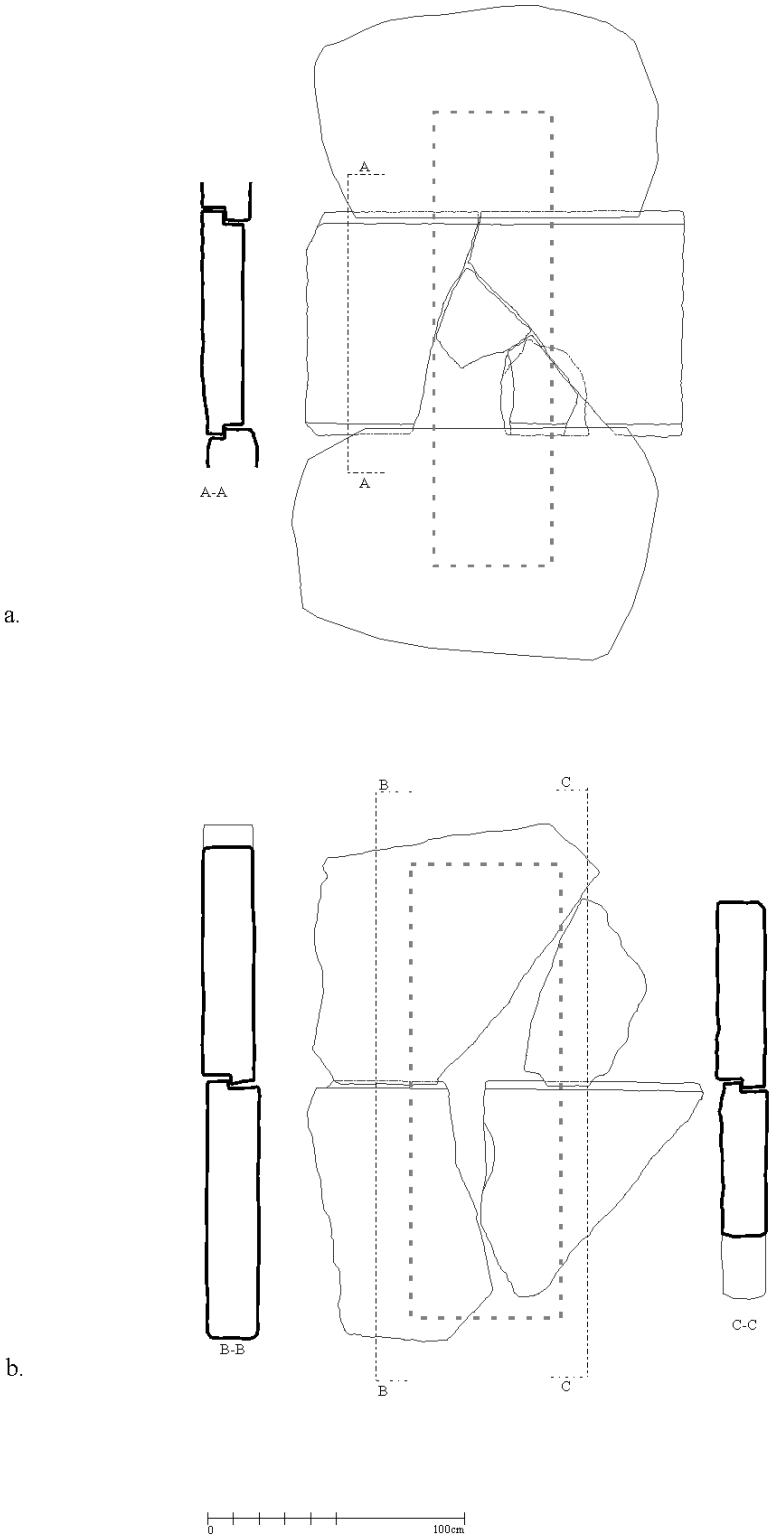


Fig. 8. The andesite covering slabs of tomb Ta (a) and tomb Tb (b).

Fig. 9. Overturned block of elevation.

e) ***The restitution of monument B (hypothesis)***

1) The restitution of the original appearance of the elevation is facilitated by the preservation, on the original location, of the eight blocks of the first course and by the position *in situ* of the overturned blocks, which accounts for the way they were disposed within the courses (fig. 9). Therefore, the circular wall was composed of two courses of blocks, above which unfolded the crowning, represented by the cornice blocks (fig. 10). The cohesion of the wall, built with no bond (mortar or earth), was ensured exclusively in the horizontal plane, by wood clamps laid similar to the dovetail system, the grooves of which could be noticed on the upper surfaces of the blocks. These clamps held together the cornice blocks as well, staying thus apparent if these blocks would have indeed formed the uppermost course (figs.11 a, 11 h1). Though no other fragments were recovered apart from those previously described, the presence above the cornice of an attic[33] (figs.11 b, 11 h2) – meant to protect the wall – or of a different type of detail, adapted to carry off rain water (figs. 11 h3), may be however supposed.[34]

[33] Variants with attic in P.Gros, *L'Architecture romaine 2*, Paris, 2000, p. 424-434.

[34] Suggestions on such ending and protecting elements can be drawn from the very walls – precincts of the tombs located in the neighbouring necropolis (Hop Găuri). Above those walls „coping" stones were laid; an analogous type can be found at the wall of the monument from Bill (J. M. C. Toynbee, *Death and Burial in the Roman World*, 1982, Thames and Hudson, p.185, fig.17). We note, though, that a scheme with no attic is possible as well; see for instance the restitution model of the monument from Nickenich, where no element rises above the crowning cornice, surmounted directly on its upper surface by the earthen cone (M. Amand, *Nos tumulus splendeur imperiales*, Bruxelles, 1969, p.30, fig.23). Hypotheses of ending for a much older monument, but similar as architectural structure, in W. Königs, *Ein archaischer Rundbau*, Kerameikos, XII, 1980, p.17, fig.6.

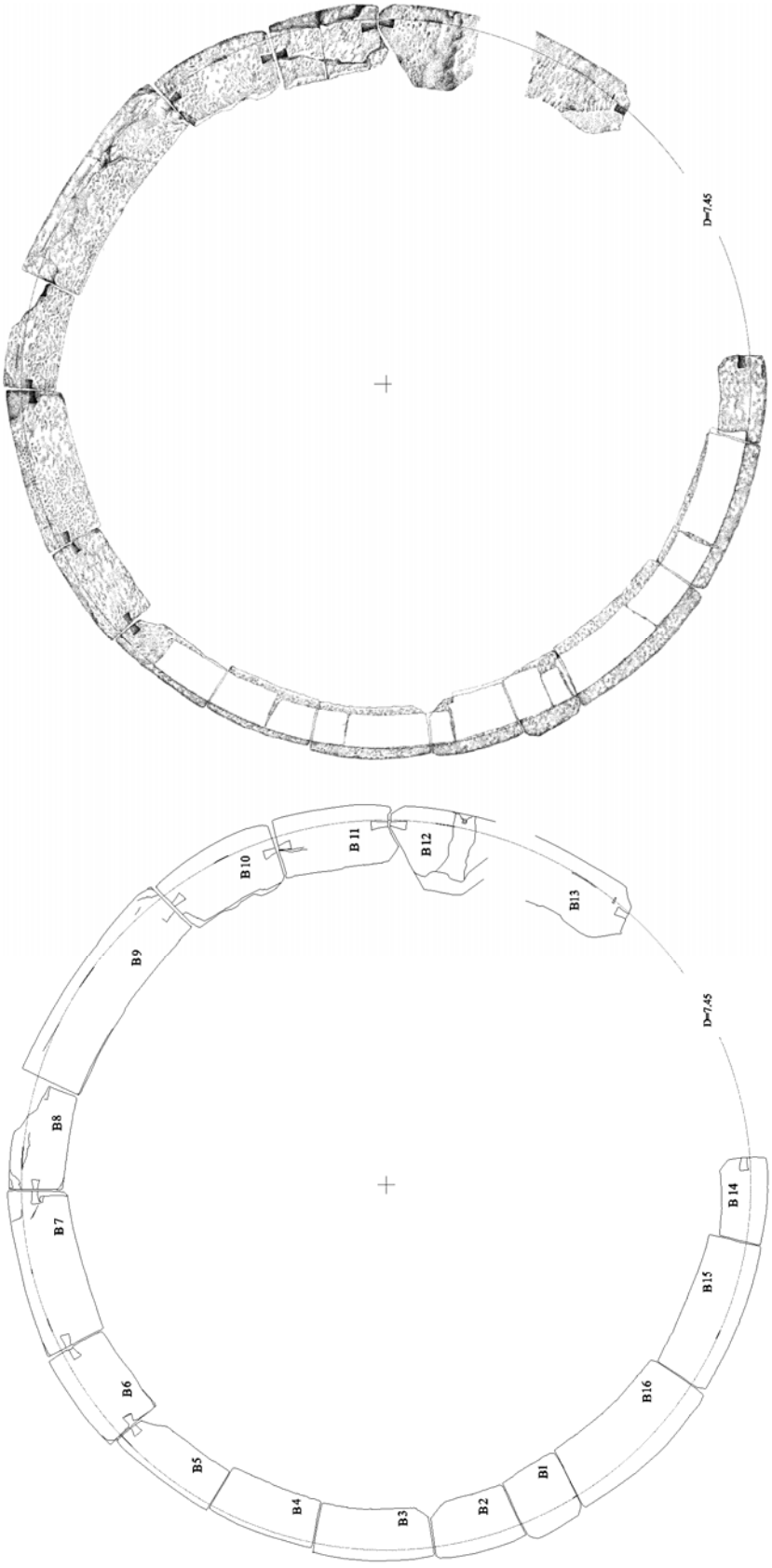


Fig. 10. The restitution of layers - a) foundation.

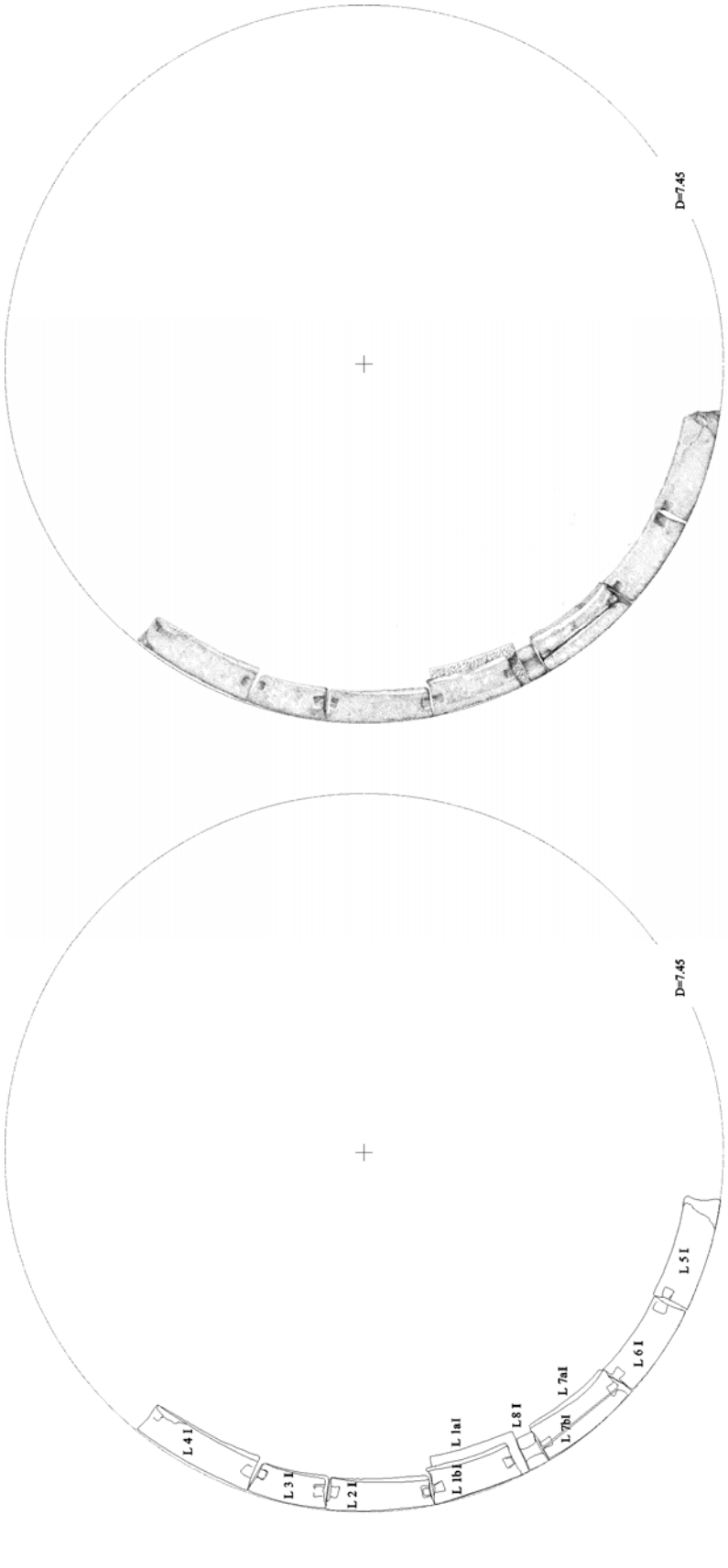


Fig. 10. The restitution of layers - b) first course.

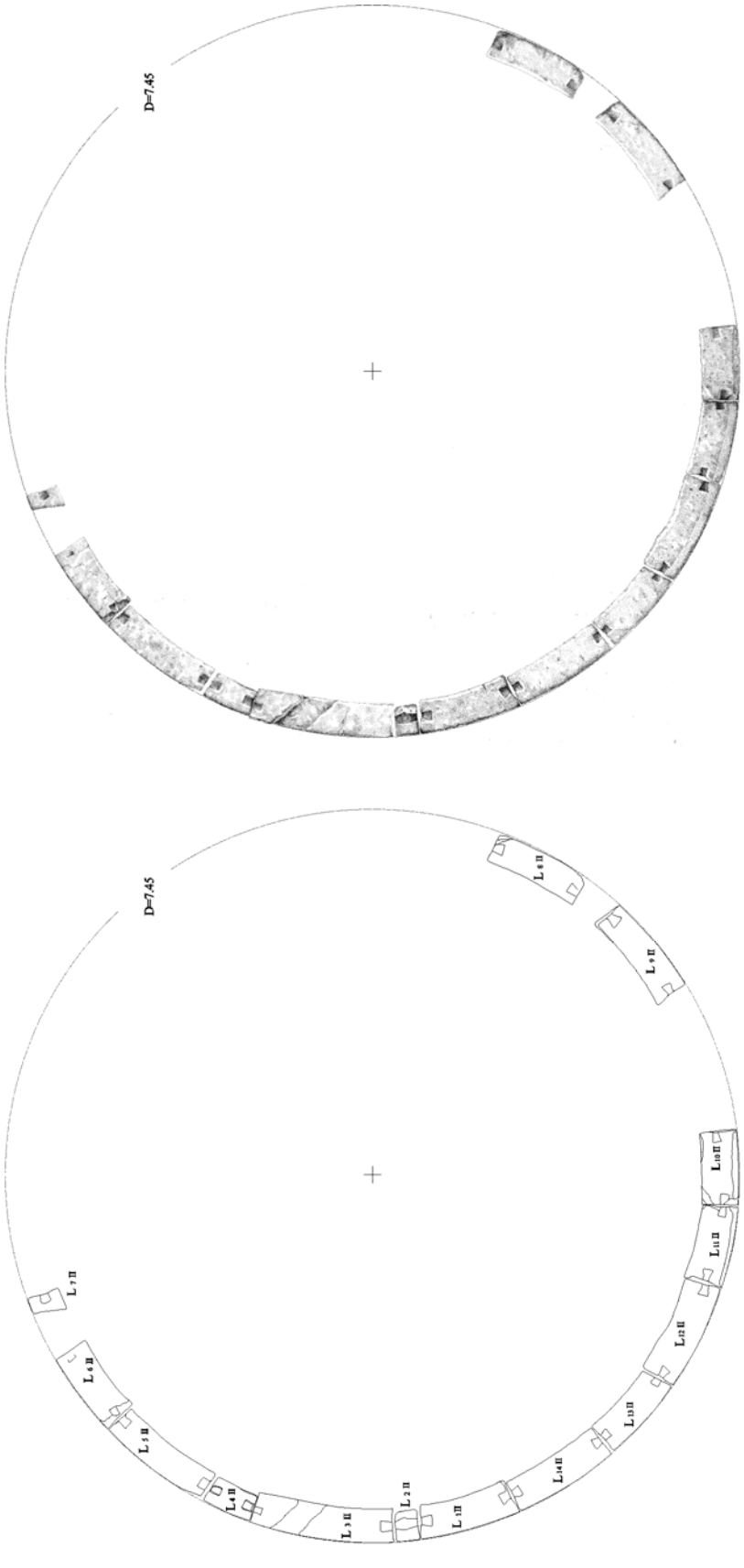


Fig. 10. The restitution of layers - c) second course.

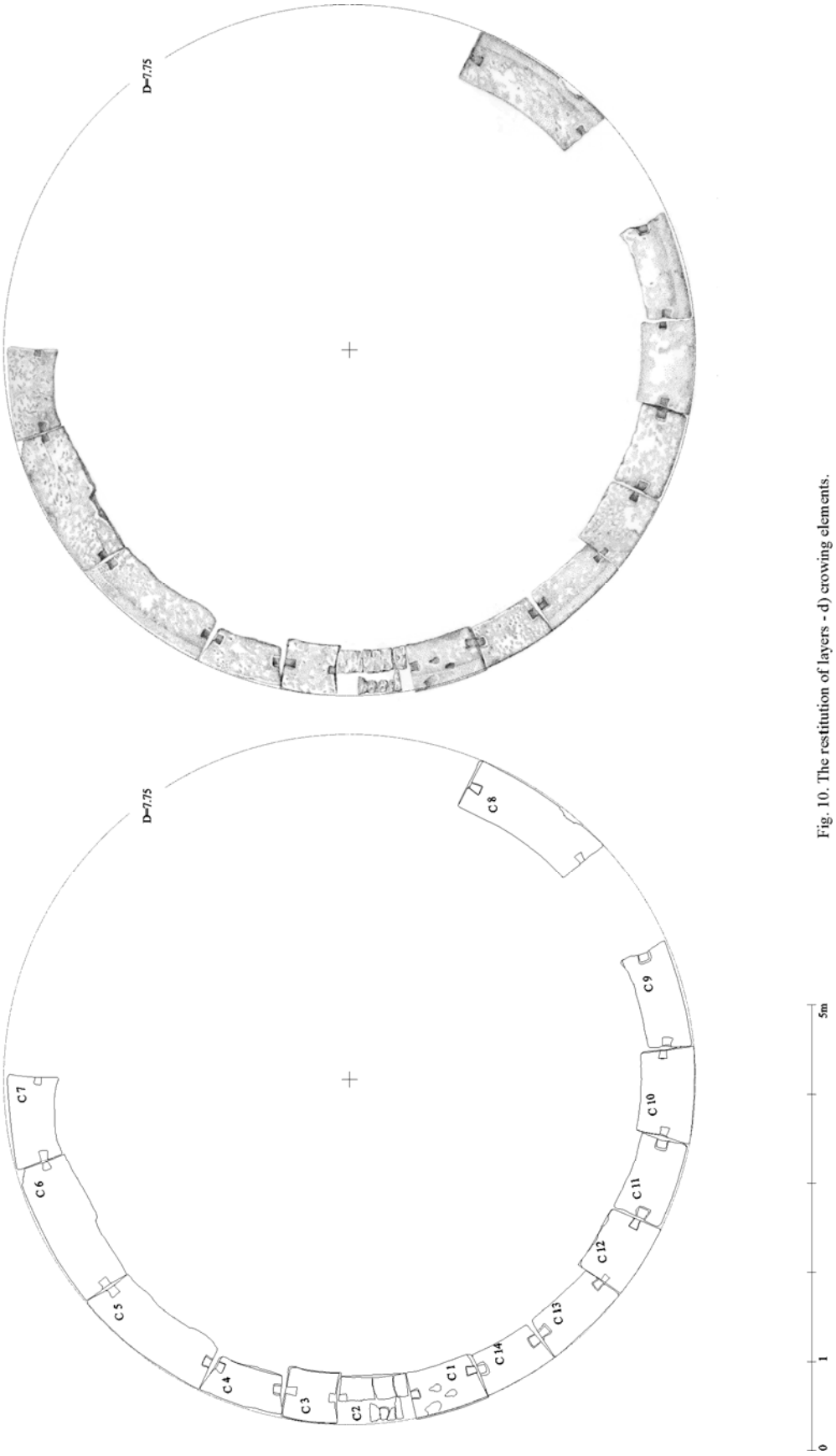


Fig. 10. The restitution of layers - d) crowing elements.

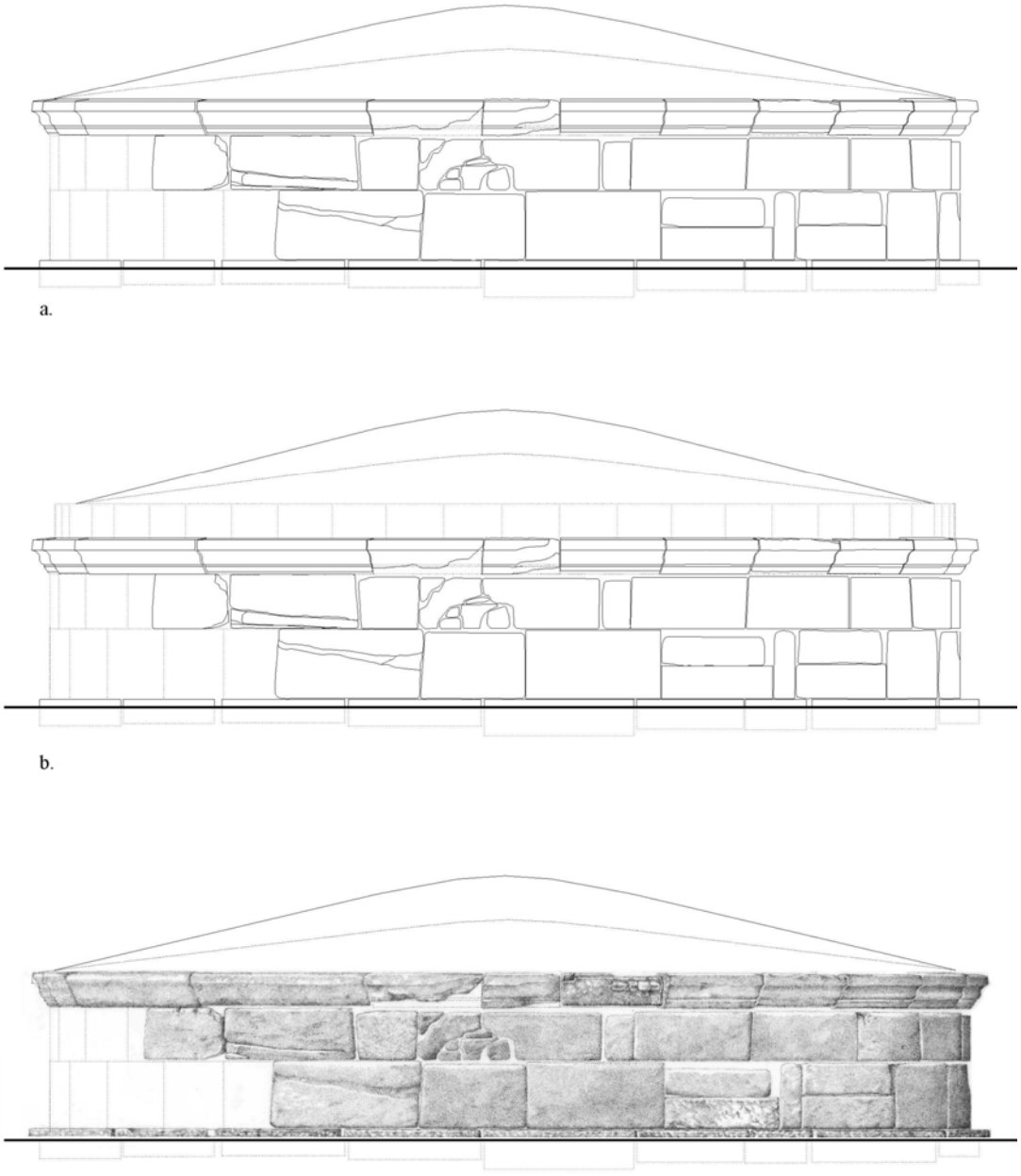


Fig. 11. Hypothesis of reconstruction: a), b) west facade.

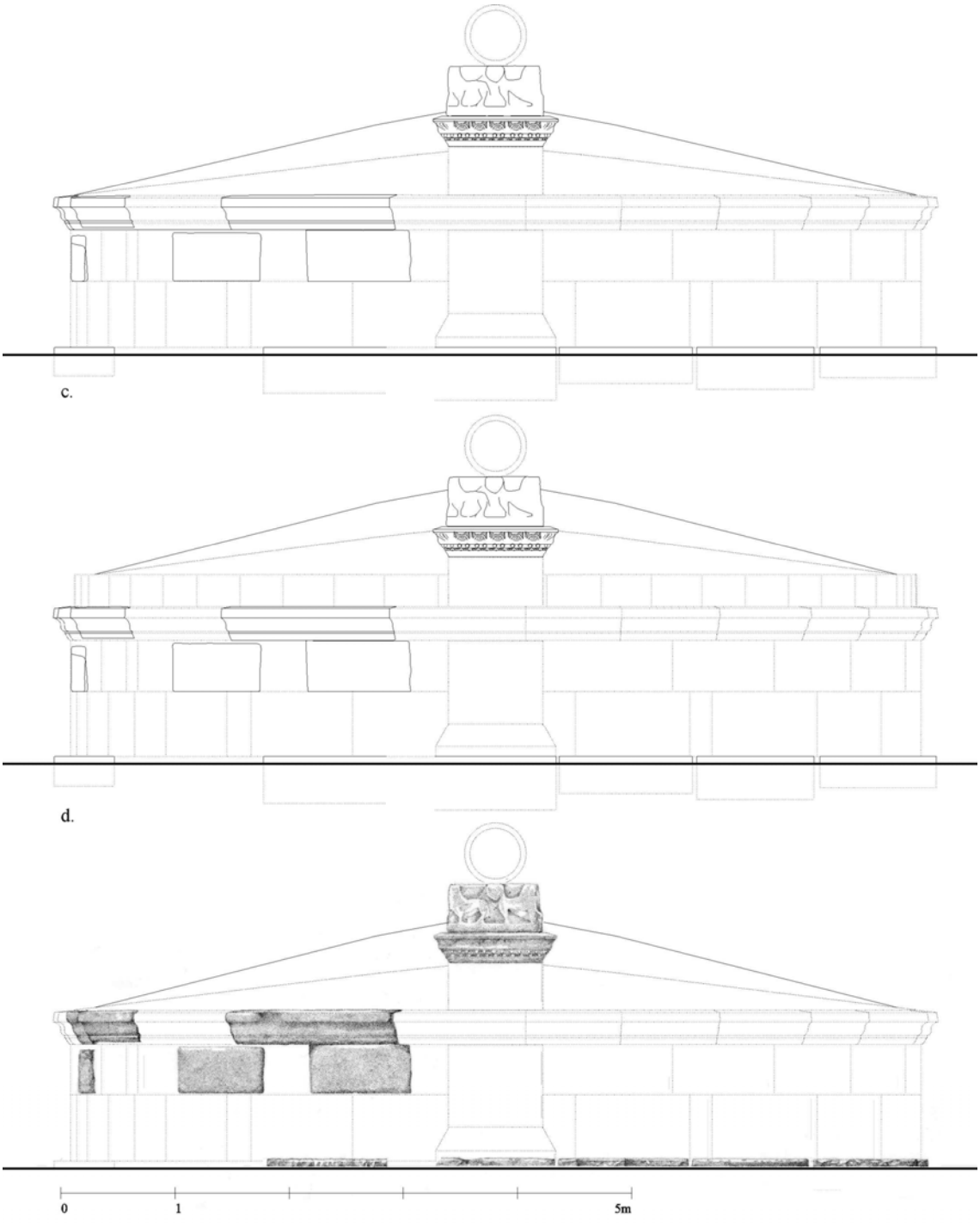
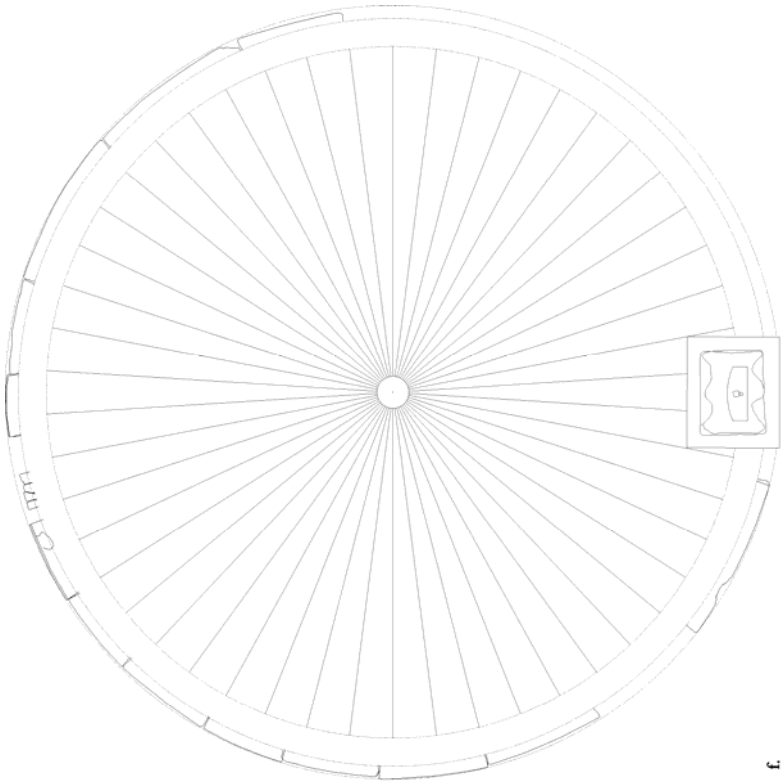
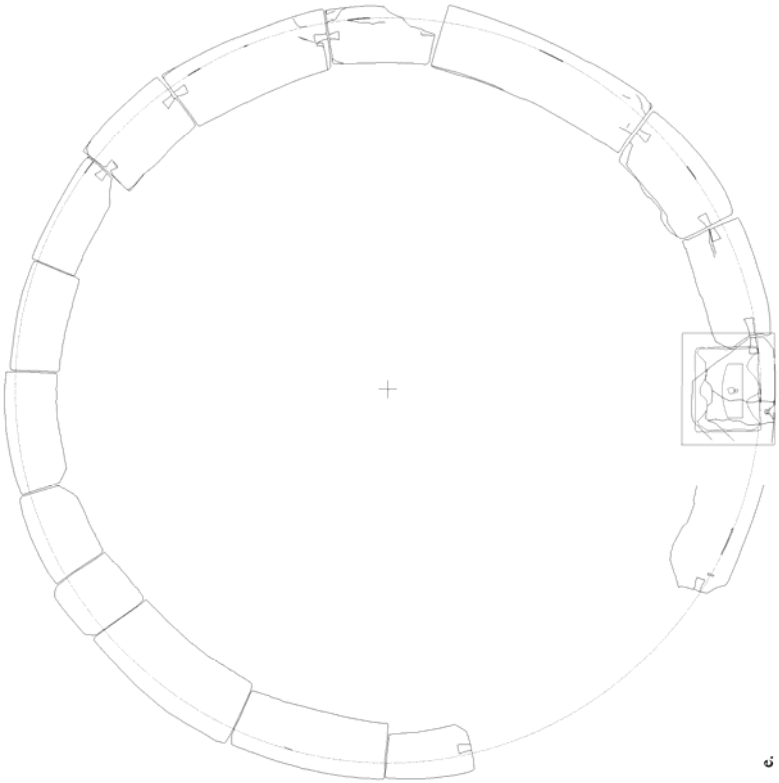


Fig. 11. Hypothesis of reconstruction: c), d) est facade.



f.



e.

Fig. 11. Hypothetis of reconstruction: e) position of commemorative monument; f) plan.

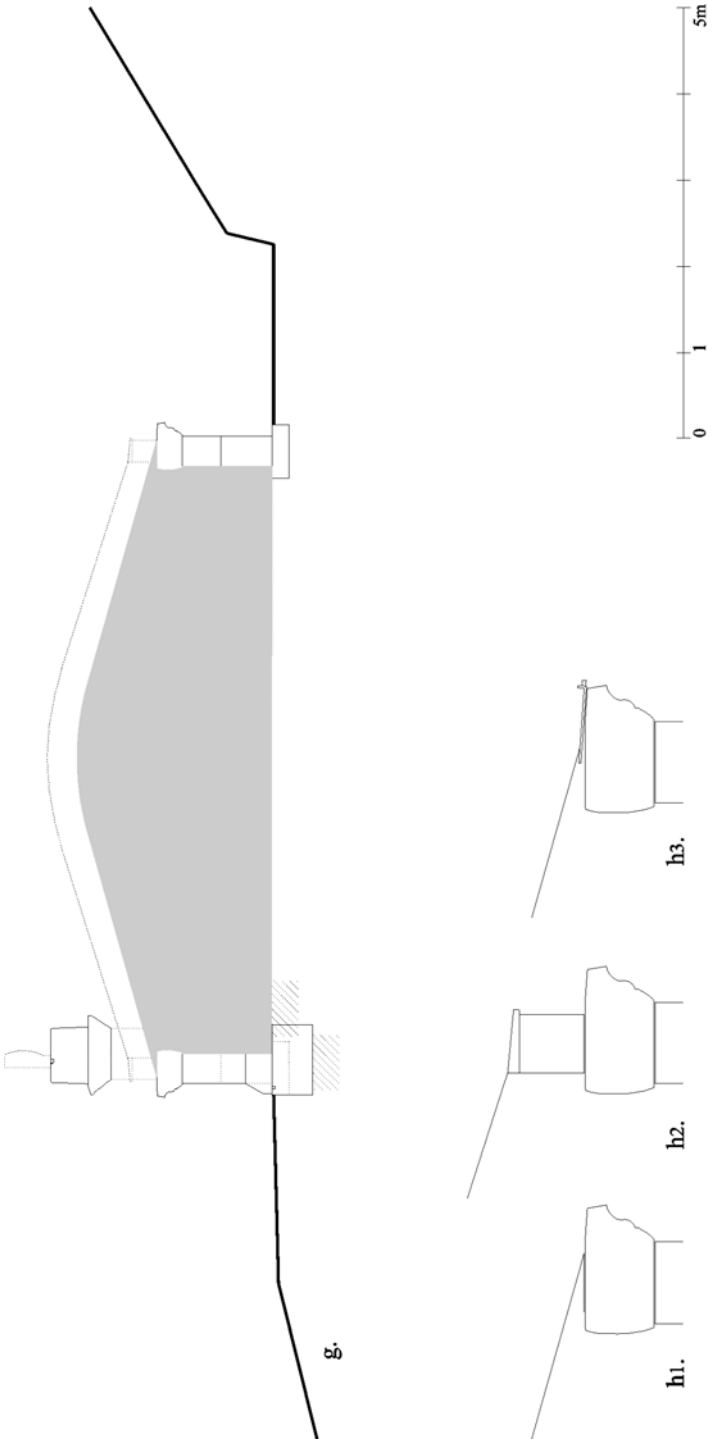


Fig. 11. Hypothetis of reconstruction: e) position of commemorative monument; f) plan.

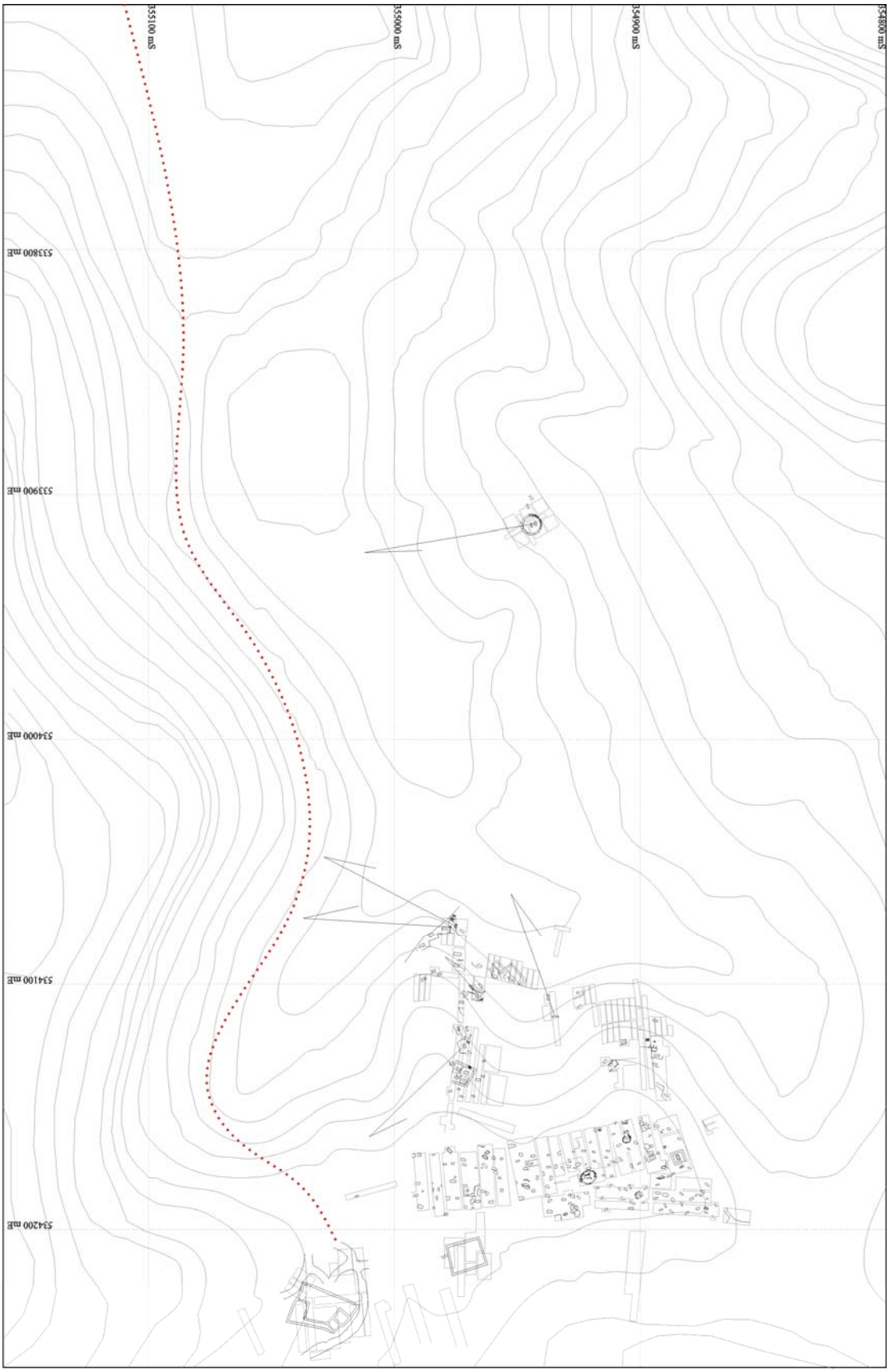


Fig. 12. Tăul Găuri Necropolis and the Circular Funerary Monument. Site plan.

2) The location of the commemorative monument is indicated by the traces of the foundation (F) and by the preserved bottom support block (slab B12). The purpose of slab B12, as support for this monument, is attested both by its much increased dimensions compared to the other foundation slabs, and by the presence of the foundation F, which incorporates the support block on the inside, increasing the founding surface to the limits required by the monument. The bottom support (B12) is the only block that allows the identification of a possible iron pin groove,[35] its eccentric position as to the tracing incision[36] (see Catalogue) leads us to believe that it was meant to hold a particularized base of the commemorative monument, projecting *en saillie* approx. 15 cm from the face of the wall (figs. 11 e, f, g); this groove was used to vertically fasten the base of the commemorative monument.

Of the monument, are conserved only the cornice (Mca) – smaller and differently moulded as to the perimeter cornice of the ensemble of the tumular monument – and the block bearing the two back–to–back lions (Mcb). The cornice (Mca) formed the crowning of a block – laid above the level of the circular cornice – and sustained the sculptural representation of the two funerary lions[37] (figs. 11 c, d). The two grooves situated on the upper surface of the lions' block suggest the existence of another decorative element, probably a medallion,[38] which unfortunately was not found *in situ*.

3) The correlation between the position of the commemorative monument in the general ensemble, with the orientation of the two tombs incorporated by the tumulus, may indicate not only a trait specific to an isolated architectural ensemble, but an important feature of the neighbouring necropolis altogether. It becomes clear that the position of the commemorative monument was thus chosen as to conclude *towards the valley* the axis *perpendicular to the long sides* of the tombs within the funerary tumular monument. Therefore, the issue of the „orientation" of the two tombs occurs as fundamentally correlated to the precinct tombs of the necropolis, beyond the simple ascertainment of their lining up, along the curve of the „amphitheatre" of the valley. One may notice that the axes of some funerary nuclei, defined by the location of the stelae bases, „aim", in a large extent, towards the east side of the depression, *just like the diameter that shows the orientation of the tumular monument*. It may be said that the tumular funerary monument integrates in its double substance, funeral and architectural, the „presence" of the other funerary ensembles of the necropolis. On the other hand, the fact that the orientation of the funerary ensembles, manifold by the „move" of the tombs' axes along the valley, subsumes to preferential directions toward the eastern edge of the depression, may bear a concrete significance. Following this track, the beholder had the *monuments – signals of memory* unfolding in front of him, in that „swing between extroversion and introversion"[39] which accompanied the image of *monumenta* designed for the living rather than for the departed.[40] The road, whose traces have been tracked on the north-eastern side of the depression,[41] turned hence into a possible course of contemplation (fig. 12).

f) Unit of measurement[42]

Table 1 shows that the dimensions of the two tombs (Ta, Tb), the diametre of ring (B) and the distance between the two tombs have a particular character.[43] Their reading in digits may be understood as an expression of a numerology, with probably symbolic valences, decoded with some frequency in roman architecture:[44] the diagonal of the funerary chamber measures 100d,[45] the diagonal

[35] The reading of this groove is rendered difficult by the state of erosion of the upper surface of the support block.
[36] The groove is placed 10 cm away from the incision and ~5 cm from the external edge of the base.
[37] Such representations are known in the area of *Alburnus Major*: a monumental funerary stele discovered in Roşia Montană is concluded with back-to-back funerary lions (V. Moga, R. Manta, SCIVA 29, 1978, p.438-440).
[38] Theoretically, this decorative element could belong to the funerary pine cone type. (V. Wollman, *op. cit*., p.223). In this case we believe it was a medallion, given the appearance of the mounting groove.
[39] P. Gros, *op.cit*., p.382.
[40] On the funerary monument as *monument of commemoration*, rather than *place of the dead*, see P. Gros. *loc.cit*.
[41] V. Moga, M. Drâmbăreanu, R. Ciobanu, *Forme de habitat în punctul Găuri*, in *Alburnus Maior I*, p. 45-79.
[42] Notations: * = reconstructed dimension; D_1 = exterior diameter; for the burial chambers: L = length; w = width; d_1 = diagonal of the funerary chamber rectangle; for the upper cavities: Lc, Lc_1 = length; wc, wc_1 = width; Dc = distance from west side of Ta to the center of Tb funerary chamber; HLI = height of first course; HLII = height of second course; HC=height of cornice course.
[43] On *"critical dimensions"* in M.W. Jones, *Principles of Roman Architecture*, Yale University Press, New Haven and London, 2000, p.71-84.
[44] *Ibidem*, p.82-83.
[45] „*...some of the buildings that the Greeks called Hekatompeda (literally 'one hundred footed') incorporated this dimension in a tangible way.*" (*Ibidem.* p.80).

of the upper cavity is 200d, the distance between the tombs is 10 F/2[46] and the diametre 25F (5x5) = 4x100d (figs.13 a, b). To the same family belong some dimensions of the funerary circular monument from *Ulpia Traiana Sarmizegetusa*, where a multiple of 10 governs the fundamental dimension.[47]

Table 1
1d=1F/16=29.6cm/16=1.85cm

	Dim. Cm	dim 1d	Control Cm	Difference Cm/%
TA				
L	180	97	179.45	0.5
		96	177.6	2.4/1.3%
		6F		
w*	46	25	46.25	0.2
		24	44.4	1.6
		1C		
Lc*	min 345.9	187	345.9	0.0
		186	344.1	1.8
	max 357.9	194	358.9	1.0
		192	355.2	2.7
		12F		
wc*	min 239.9	130	240.5	0.6
	max 251.9	136	251.6	0.3
TB				
D_1*	min 744.1	402	743.7	0.5
		400	740	4.1/ 0.55%
		25F		1/0.13%
	max 752.1	406	751.1	
L_1*	179	96	177,6	1.4
		6F		
d_1	187	**100**	185	2.0
w_1	58.5	32	59,2	0.7
		2F		
Lc_1*	max 312.7	169	312.65	0.05
		10.5		
	min 297.7	160	296.0	1.7
		10F		
wc_1*	min 207.6	112	207.2	0.4
		7F		
	max 222.6	120	222.0	0.6
		7.5F		
H_{LI}	57	31	57,35	0.35
		32	59.2	2.2
		2F		
H_{LII}	44,8	24	44,4	0,4
		1C		
H_C	29,5	16	29.6	0.1
		1F		
Dc	149.7	80	148	1.7
		5F		

The characteristics expressed by the invocated numerology have a geometric support[48] into the virtual interiority of the architecture project. At tomb Mb both the *loculus* and the upper cavity are geometrically contained by the decagon and pentagon inscribed in the circles of 100, respectively 200d[49] diametre, which comprise their fundamental rectangles[50]. The shape of the first grave is geometrically mediated by the pentagon (the upper cavity) and the dodecagon (the walled chamber). (fig. 13c)

[46] The circle with 10F diametre has a fundamental meaning in the geometric support of the project: besides the correlation of the tombs, by menas of the inscribed pentagon it sets the length of the *loculus* corresponding to the tomb Mb. Similar expressions of number 10 can be found in the case of the Tomb of the Servili, where the side of the square of the funerary chamber equals 10F (*Ibidem*., p.75, fig. 4.7b).

[47] In the expression according to Cubit (44.5cm) the diametre of the elevation (as it can be deduced from the dimensions offered by the authors) measures 22.3m, which means 50C, or (5x10)C. The same dimension expressed in Feet is (3 x 5^2)F. (Dimensions from C. Daicoviciu, O. Floca, *Mausoleul Aureliilor de Sarmizegetuza*, Sargetia, I, 1937, p. 2-4).

[48] For the geometric support we used the ideal restitution (fig. 5b) which does not imply the transformation of dimensions comprised in Table 1. This restitution relies on the following observations: 1) the centre of the circle of the first monument lies close to the centre of the funerary chamber Mb, while the centre of the circle of the second monument lies in the vicinity of the western side of the chamber; 2) the two funerary chambers show a minute difference in orientation; 3) the tracing of the second monument was conducted while the funerary space (the chamber and the wider cavity above it) remained unseen; it is possible that the starting point of the tracing – the centre of the circle – was approximated following the contour of wall Fa.

[49] A geometric coordination similar in type might have governed the location of the commemorative monument (the decagon inscribed in the 400 d circle which comprises the monument) (fig.14b).

[50] The width of the clad chamber is given by the decagon side, while the width of the upper cavity represents the side of the pentagon.

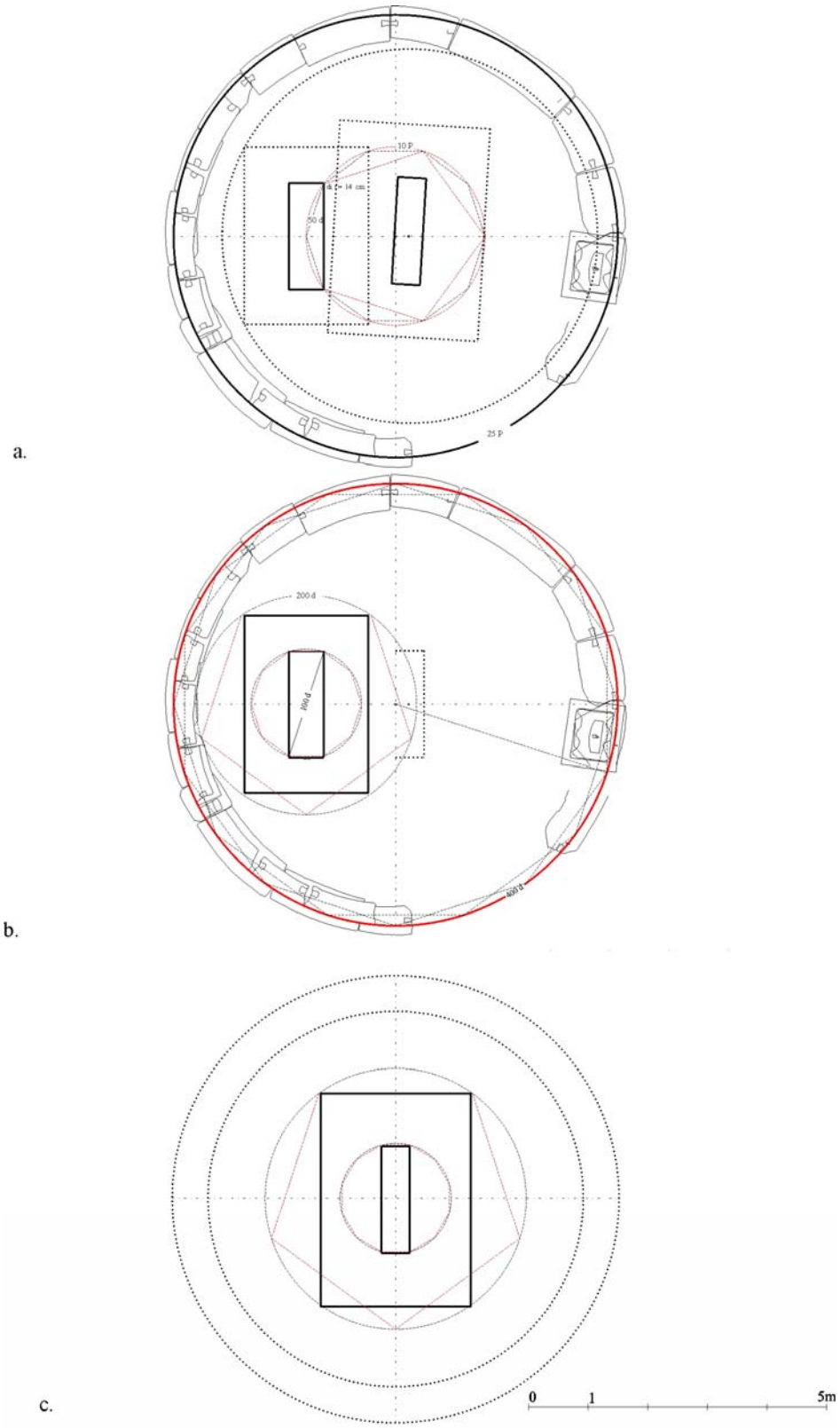


Fig. 13. Geometric suport:
a) geometric connection between tombs; b) second tomb; c) first tomb.

g) The earth mound surrounded by a stone ring, which must have been the „temporary" solution for the ensemble A, represented a funerary practice often found in the necropoleis from the mining areas of Roman Dacia.[51] It is nevertheless possible that the two burials, even though conducted at different times, have been involved in a unique architectural – funeral scenario, whose final expression was to be the second edifice: this latter developed the previous scheme, transforming it in a genuine architectural monument.

Monument B from *Alburnus Maior* may be regarded as a commemorative *heroon* which – by means of its earthen cone, clothed or not by blocks *en grand appareil* – conveyed, according to ancient traditions,[52] the presence of an important individual or familial tomb.

Unlike the case of the first monument (A), where the stone ring must have had more of a delimitation role, within the second monument the circular wall gains a conspicuous authority not only by means of the constructive traits, but mostly due to its architectural expressivity. The rubble stone enclosure, „primitive" in appearance, of the first ensemble was given up to a wall of carefully squared blocks, which defines a true *basis – façade*, sustainment for the earthen „cone" that covers it.[53] The façade concludes with a moulded crowning, the cornice, whose remarkable sculptural presence within the architecture of the stone "drum" is chiefly determined by dimensional ratios to this latter: the strong *saillie* exceeds 1/10 and the height takes more than 1/5 of the total height of the drum. As opposed to the jutted cornice, the base of the wall restrains inside the perimeter of the wall, bearing no moulding and resting straight on the foundation slabs. Even if a small part of these slabs stayed visible, giving thus a vague suggestion of a footing, the absence of a true base of the wall must be pointed out. Generally, not excepting the small scale circular monuments, the wall rises over a base, more or less moulded, as one can see at the mausoleum of *Saepinum*,[54] at the funerary monument from Nickenich[55] or at the one from Bülbüldağ.[56] The absence, from the repertoire of shapes, of the moulded base seems to be a local stylistic preference: the wall, built of regulated limestone blocks, belonging to the circular funerary monument (the mausoleum of the Aurelii) from *Ulpia Traiana Sarmizegetusa*[57] shows no moulded footing[58] whatsoever.

Due to its circular structure and to the *grand appareil* suggestion of its façade, the monument from *Alburnus Major* may be considered as part of the Roman tradition of tumulus-shaped monuments, derived from the paradigm of the Mausoleum of Augustus. Nevertheless, some constructive peculiarities suggest a building conception still indebted to the habitude of the "ring":[59] in other words, regarded from outside the façade expresses the features of a wall, while in plan it gives the appearance of a mere stone enclosure, though a more elaborate one. In *Alburnus Major*, just like in the case of the funerary monuments from Bill (Luxembourg) or *Ulpia Traiana Sarmizegetusa,*[60] the ambivalent character of a stone enclosure, developed into a wall with attributes of façade,[61] might express a particular provincial answer to the imperial model. Thus, the stone "ring", as survival of much older funerary habitudes, merges with the Roman conception of edification, turning into a noteworthy accent of a phenomenon regarded by some researchers as a renaissance of the tumular monument type at the contact with Romanization[62].

---

[51] Tumuli, restrained by stone rings or not, have been discovered at Boteş-Corabia (150 tumulus - shaped tombs), Cinciş (14 tombs surrounded by a rubble stone circle). (O. Floca, Sargetia, II, 1941, p.93-95; O. Floca, M. Valea, *op.cit*, p. 163-192).

[52] See for instance the *heroon* of Aeneas, from Latium (P. Gros, *op. cit*., p.423) or circular monument of Kerameikos (W.Kőenigs, *op.cit.*, p.36-43)

[53] At the same time such façades offer the background for funerary inscriptions and often incorporate commemorative monuments (P. Gros, *op.cit.*, *passim*).

[54] P. Gros, *op.cit.*, fig. 521, p. 431.

[55] M. Amand, *op. cit*., fig. 23, p. 30.

[56] W. Alzinger, *Augusteische Architekture in Efesos*, J.Ö.A.I., XVI, 1974, fig. 50, p. 30.

[57] C. Daicoviciu, O. Floca, *op. cit.*, p. 5, fig. 3.

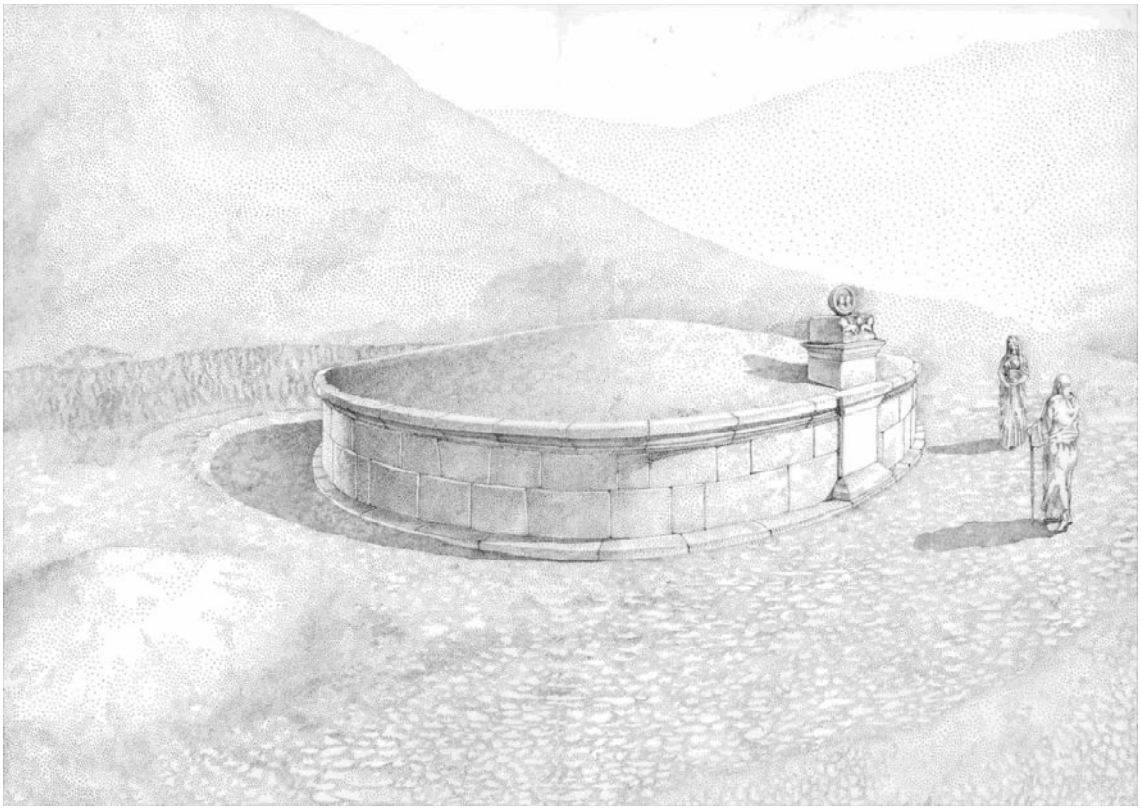
[58] It is though the place to note that the socle course, from the basis of the wall of this monument, has the same structural role as a moulded footing.

[59] The remote origin of the type of tumulus-shaped funerary monument can be traced back in the old habbit of marking the important tombs with an artificial earthen mound, delimited by ditches or wooden posts, or by stone „rings". (We are using the notion „ring" as designating a more or less primitive stone enclosure of the funerary area.)

[60] The monuments, while large in size (24m, 22.3m), seem to make use of a similar configuration of the retaining wall. (Antiquity, XLIII, 1969, p. 259; C. Daicoviciu, O. Floca, *op. cit*.)

[61] Devised according to architectural criteria.

[62] W. Alzinger, note (5), p. 626 in M. Amand, *Les tumulus d'époque romain dans le Noricum et en Pannonie,* Latomus*,* 1965, p. 614 - 628. The history of this renaissance does not extend much in time. Resuscitated, out of political reasons, by



Emperor Hadrian (P. Gros, *op.cit.*, p.434), the tumulus-type of funerary monument does not, however, reach an extent to match the predecessors. But the tumulus, more or less enclosed by retaining walls or defined by ampler structures continues to reflect older habits. The monument from Bill was dated to the beginning of the 3rd century (J.M.C. Toynbee, *op.cit.* note 569*)*, the one at Capua (Le Carceri Vecchie) during the 2nd - 3rd centuries (J.M.C. Toynbee, *op. cit.*, p. 150), while the common tumuli spread over nearly all provinces to the end of the 2nd century. (A. Audin, *Inhumation et incineration*, Latomus, 19, 1960, p. 518 - 532).

The monument from *Alburnus Maior* and the one from Sarmisegetuza are dated after Hadrian (Mihai Dima, CCA, 2002, p.106 - *terminus ante quem* for its existence during Antoninus Pius' reign, C. Daicoviciu, O. Floca, *op. cit.*, p.18 – mid 2nd century).

ANNEX

1) Brick types. Hypothesis on the division.
Variant 1: The base (theoretical) brick is dimensioned according to *Cubit* unit (*tegula sesquipedales*) (table 2)
Variant 2: The base (theoretical) brick is dimensioned according to Foot unit (*tegula bipedales*) (fig. 14 and table 3)
Comparing the tables 3 and 4 follows that the unit – base brick was *tegula bipedales*, the variant with differences to the theoretical dimension comprised within acceptable limits[63].

Table 2
Dimensioning according to Cubit unit

1F = 29.6cm; 1C = 1.5 F = 44.4cm; L = length; w = width

	Dimensions cm	Dim. C	Control cm	Diff. cm
Ma				
c 1 L	41.0	1	44.4	-3.8
w	33	3/4	33,3	-0.1
c 2 L	41.0	1	44.4	-3.8
w	30.5	2/3	29,4	+0.9
c 3 L	41.4	1	44.4	-3.0
w	33,0	3/4	33,3	-0.3
c 4 L	40.5	1	44.4	-3.9
c 5 L	41.5	1	44.4	-2.9
c 6 L	41.3	1	44.4	-3.1
c 7 L	40.7	1	44.4	-3.7
c 8 L	42.2	1	44.4	-2.2
Mb				
c 9 L	41.6	1	44.4	-2.8
w	31.2	2/3	29,4	+0.8
c 10 L	41.4	1	44.4	-3.0
w	32.0	3/4	33,3	-1.3
c 11 L	41.0	1	44.4	-3.4
c 12 L	41.3	1	44.4	-3.1

Table 3
Dimensioning according to Foot unit

	Dimensions cm	Dim. F	Control cm	Diff. cm
c 1 L	41.0	√2	41.8	-0.8
w	33	¾√2	31.4	+1,6
c 2 L	41.0	√2	41.8	-0.8
w	30.5	¾√2	31.4	-0,9
c 3 L	41.4	√2	41.8	-0.4
w	33,0	¾√2	31.4	+1,6
c 4 L	40.5	√2	41.8	-1.3
c 5 L	41.5	√2	41.8	-0.3
c 6 L	41.3	√2	41.8	-0.5
c 7 L	40.7	√2	41.8	-0.1
c 8 L	42.2	√2	41.8	+0.6
c 9 L	41.6	√2	41.8	-0.2
w	31.2	¾√2	31.4	-0.2
c 10 L	41.4	√2	41.8	-0.4
w	32.0	¾√2	31.4	+0.4
c 11 L	41.0	√2	41.8	-0.8
c 12 L	41.3	√2	41.8	-0.5

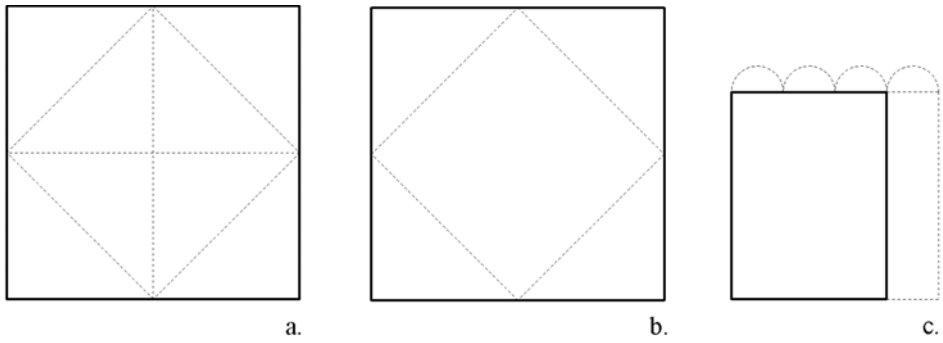


Fig. 14. Cutting manner of brick:
a) according to G. Lugli; b) hypothetical division of *bipedales*; c) division of resulting brick.

[63] The dimensional variations of bricks (as to the theoretical dimensions) may reach up to 3cm (cf. G. Lugli, *La tecnica edilizia romana*, Roma, 1936, p. 585).

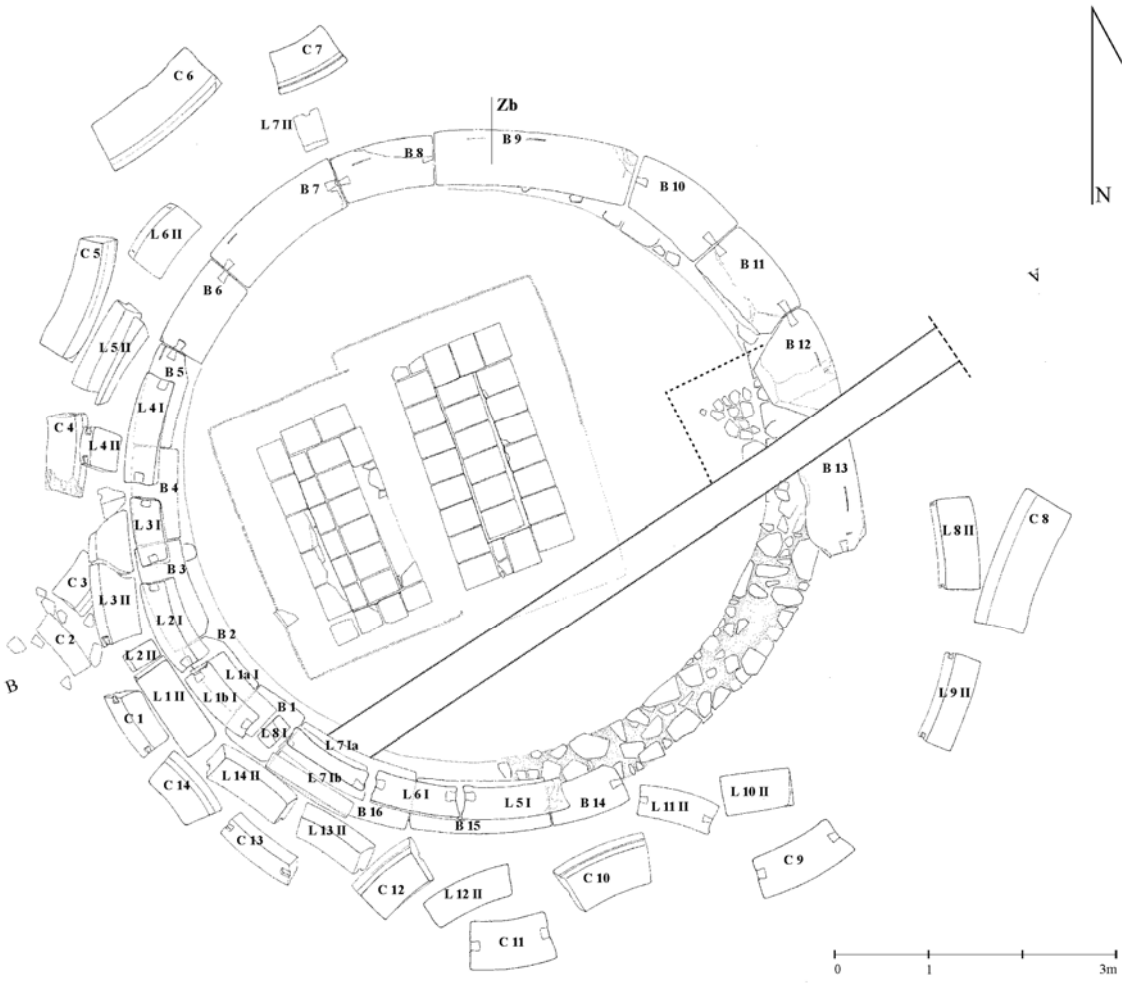


Fig. 15. Identification of blocks.

2) Catalogue[64]

Material: The blocks of the façade are carved in a shelly limestone with gravel, sand and large pieces of hard stone, easily exfoliative, tied in the calcareous mass during the sedimentation process. A single block of the façade is made of andesite (L1a I). The foundation blocks are made of andesite.
Preservation status: Except the andesite ones, the blocks are highly eroded or delaminated (L5 II, L7b I).preserving, however, with only a few exceptions (C2, C3, C4, A3 II), most of their original shape.
The upper faces: most of the blocks preserve mounting grooves of the wooden clamps with dimensions ranging between: L=7.5-17cm, h=4-5cm, $w_{max.}$=8-10cm, $w_{min.}$=5-6cm[65] (fig.16). The

[64] The blocks belonging to the foundation of the monument were given the denomination T, the blocks of the first course AI, the ones of the second course AII, the blocks of the cornice C and the two decorated blocks Mc and MI. The numbering of the blocks was carried on starting with the eastern area and continuing clockwise on the circumference (fig. 15).
[65] L = length; w = width; h = height of mounting grooves.

crowning elements (the cornice) show a frame, max. 20cm wide. The blocks of the foundation bear tracing incisions.
The lower faces: smooth, with no preserved traces of connecting systems or other special contact treatments.
The side surfaces: all the blocks bear traces similar to those of *anathyrosis* (frame width ~10cm, concavity 2 – 3cm); the frame follows but the exterior edge (fig.17).
The back surfaces: roughly treated, generally hammered.
The crowning blocks: Only one block (C3) is preserved well enough to allow the restitution of the moulding. The moulding of the other blocks is eroded, but explicit enough to be considered identical to that of block C3. *The moulding:* above a flattened half-round moulding, a narrow and flat listel leads to the doucine-cut cyma; the upper listel is inclined (fig. 18).
Traces of tools (fig. 19) are mainly visible on the harder material of the foundation blocks and occasionally on the limestone blocks (mostly close to the natural „accidents" defined by insertions of harder rock): hammer, pick (at the mounting grooves and partially at the tracings), chisel (on *anathyrosis* frames, at some mounting grooves, partially at tracings), and indented chisel (cover slabs of chamber Ma, A1a I) traces.

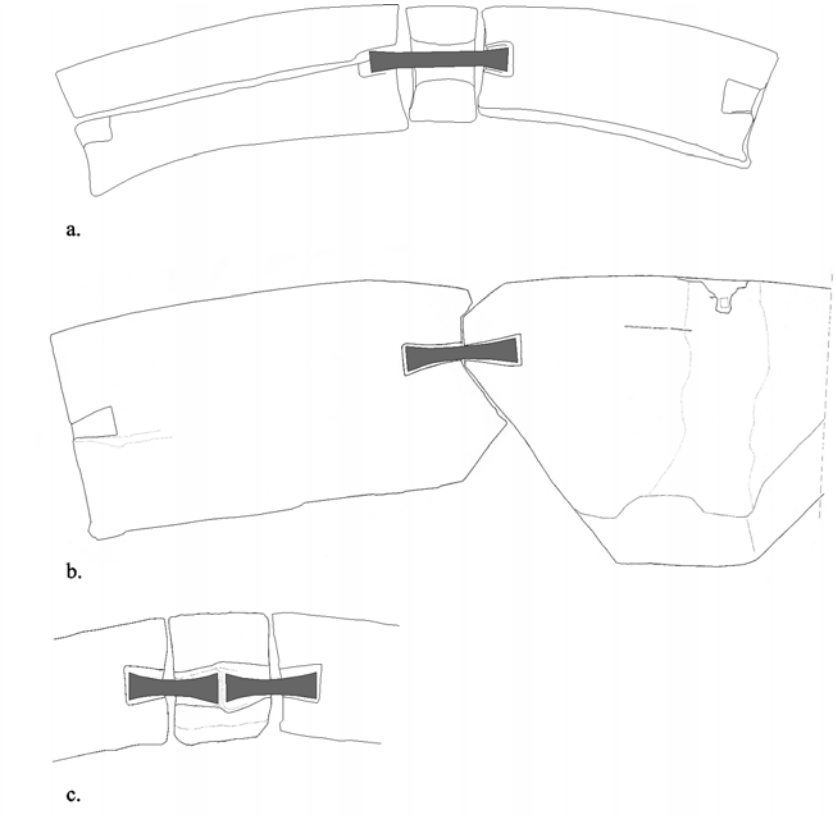


Fig. 16. Mounting grooves: a) L1 I-L8 I-L7 I; b) B11-B12; c) L1 II-L2 II-L3 II.

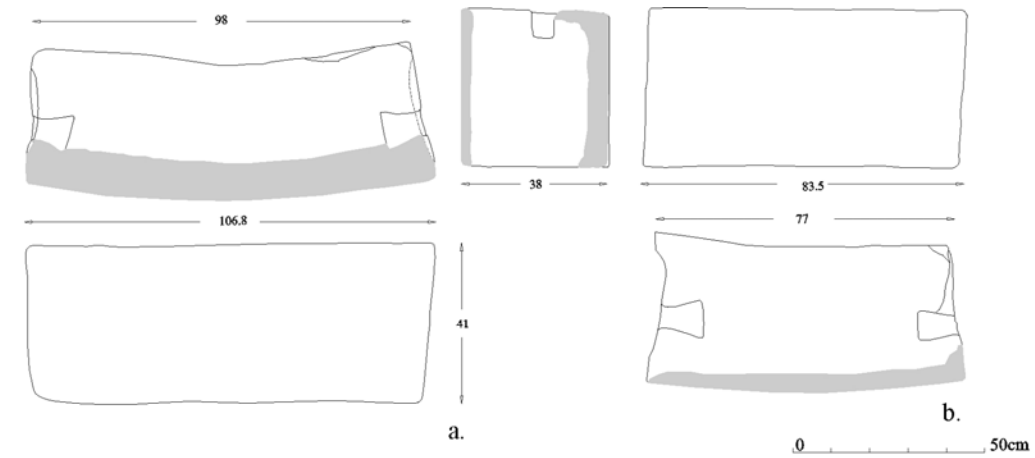


Fig. 17. Contact treatments with *anathyrosis*: L12 II; L11 II.

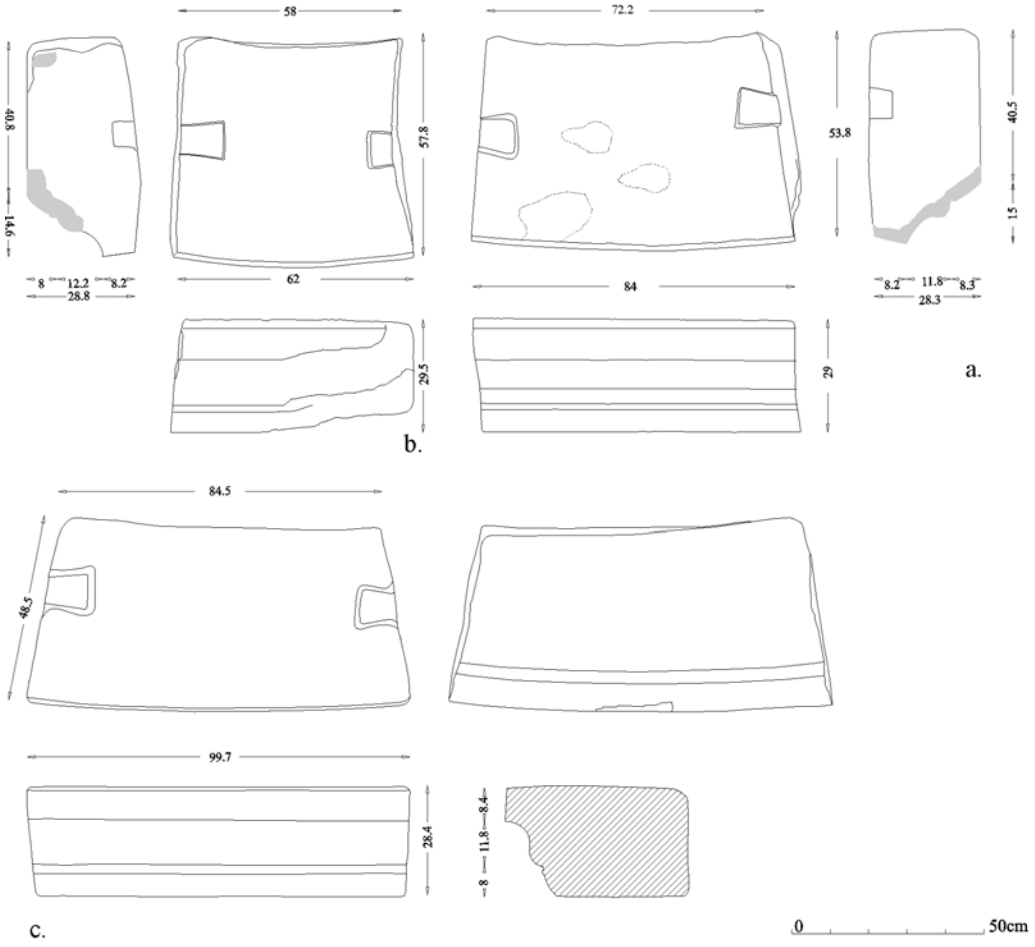


Fig. 18. Cornices: a) C1; b) C3; c) C13.

The foundation
B1 Dim.: Lci=69; H=25; S~71;
A segment of the tracing and the mounting groove are visible in the proximity of the vertical joint of blocks L7 I and L8 I;
B2 Dim.: Lci=84; H=24;
B3 Dim.: Lci=105*; S=52.5; H=30;
B4 Dim.: Lci=99; S~50; H=22;
B5 Dim.: Lci=104.5; H=19; S~47;
Tracing length 16 cm; a mounting groove is visible;
B6 Dim.: Lce=104.5; Lci=94; H~20; S=62.5;
B7 Dim.: Lce=174.5; Lci~143; H=21.5; S=60;
Tracing length 14 cm; approx. 47cm away from the tracing there is a resembling incision, 7cm long;
B8 Dim.: Lci=96.6; H=28; S=57;
Tracing length 22.5 cm;
B9 Dim.: Lce=227; Lci~206; H=27.3; S=64;
Two tracings, 35 and 25cm long;
B10 Dim.: Lce=129.5; Lci~103*; H=37.5; S=69.5;
Tracing length 15cm;
B11 Dim.: Lce=122; S=63; H=32.5;
B12 Dim.: Lce viz.106; S=83.5; H=47; (fig. 20b)
Tracing length 19.5cm; only a mounting groove visible; from the tracing outwards there is a rectangular outline (2.3 / 2.6cm), 4.5cm deep; a low ditch, approx. 3 cm deep, runs across the block; (fig. 16b)
B13 Dim.: Lce viz=116.5; S=66; H=41;
Tracing length 27cm;
B14 Dim.: Lce~91; H=26; S=48.5;
B15 Dim.: Lce=159; Lci=141; S~57; H=20;
B16 Dim.: Lce~166.5; Lci=144; S~67; H~24;

First course
L1a I Dim.: Lce~104.5; Lci=89; S~50; H~27;
It has no mounting grooves;
L1b I Dim.: Lce~96; Lci=87; S=35; H~23.2;
L2 I Dim.: Lce=112.6; Lci~101; S=33; H =56;
L3 I Dim.: Lce=83; Lci~70; S=36; H =54.4;
The left side surface is oblique;
L4 I Dim.: Lce~132; Lci~122; S~38.5; H=57;
The left side surface is oblique;
L5 I Dim.: Lce=119; Lci=110; S=38; H=54.4;
L6 I Dim.: Lce=97.5; Lci=92; S~35; H =56;
L7a I Dim.: Lce=104.5; Lci=99; S~38; H ~27;
The block has no mounting grooves;
L7b I Dim.: Lce=111; Lci=94; S*~41; H ~29;
L8 I Dim.: Lce=21.7; Lci=20.3; S~35; H =54.5;
The mounting groove of block A8 I is shaped like a ditch;
Remarks: Each of the two pairs of overlapped blocks L1a I - L1b I and L7a I - L7b I take up the height of the first course. Between them is inserted block L8 I, crossed by a wooden holdfast that fastened into the adjacent blocks (L1b I and L7b I). Consequently, the length of the wooden clamp reached approx. 40 cm (fig. 16a). We can assume that these blocks may be a repair of the face of the wall or another type of intervention[66].

Second course
L1 II Dim.: Lce=103.5; Lci=87; S~36; H~42;
The side surfaces are oblique; the *anathyrosis* frame is conserved on the right side surface, close to the back surface; concavity 3cm;
L2 II Dim.: Lce=23.8; Lci=22.9; S~30; H=39;
The mounting grooves are joined; (fig. 16c)
L3 II Dim.: Lce*~ 147; S=34; H=41;
The block is seriously damaged – broken into eight fragments; a segment of the *anathyrosis* frame is conserved on the right side surface, close to the rear surface; (fig. 20a)

[66] For instance, the proof of an opening, an entrance that was later obstructed.

L4 II Dim.: Lce=51; Lci=44.8; S=29.4; H=43;
The side surfaces are oblique;
L5 II Dim.: Lce=114.4; Lci=107.8; S=31.5; H~44;
L6 II Dim.: Lce=87; Lci=80; S=34.5; H~44.8;
L7 II Dim.: L~23; S=33; H=44;
L8 II Dim.: Lci~99; S~31; H~45.4;
The left side surface is oblique;
L9 II Dim.: Lce~105; Lci~103; S~34; H~42.8;
L10 II Dim.: Lce~76.5; Lci~73; S~36.5; H~40.6;
L11 II Dim.: Lce~83.5; Lci~77; S~38; H~41.3;
The side surfaces are oblique; *anathyrosis* frame, 5 cm wide, conserved on the upper surface, close to the front surface, which it borders; the *anathyrosis* frame of the left side surface, close to the rear surface, is conserved along the full height of the block (fig.17b);
L12 II Dim.: Lce=106.8; Lci~98; S~36; H~41;
Side surfaces are oblique; on the upper surface an *anathyrosis* frame, 9cm wide is conserved;
L13 II Dim.: Lce=86.2; Lci~78; S~33; H~42;
On the upper surface there is a 5cm wide *anathyrosis* frame;
L14 II Dim.: Lce=108.6; Lci~103; S~34; H~42.6;
Side surfaces are oblique.

Crowning elements (cornices)
C1 Dim.[67]**:** Lce~84; Lci=72.2; H=29.2**;** Sa=53.8; Sp=40.5; Hp~28.2; Hd=11.8; Hs=8.2; Hi=8.3; As=10.8; Ap=15 (fig. 18 a);
The erosions developed by expelling the hard rock off the upper surface reach 3 – 4 cm in depth; the side surfaces are oblique;
C2 Dim.: Lci*~71.5; H~27; A*~52.5;
The block is seriously damaged – broken into six main fragments that fit together (C2a, C2b, C2c, C2d, C2e, C2f) and other debris resulted from breaking; the side surfaces are conserved 30cm in length; only one fragment (C2c) partially conserves the doucine;
C3 Dim.: Lce~62; Lci~58; H=29.5; Sa=57.8; Sp=40.8; Hp=28.8; Hd=12.2; Hdl=14.4; Hs=8.2; Hi=8.0; As=9.7; Ap=14.6; (fig. 18 b)
The side surfaces are oblique; in the proximity of the rear and of the lower surfaces a segment of the *anathyrosis* frame is conserved;
C4 Dim.: Lce=96; Lci~74; H~24; Sa=46.8;
The upper register is not inclined as to the upper surface;
C5 Dim.: Lce=158.5; Lci~130; H~27; Sa=54;
C6 Dim.: Lce*=163; Lci~152; H~29; Sa=63;
C7 Dim.: Lce~108; Lci=85; H~26; Sa~49.5;
C8 Dim.: Lce~164.5; Lci=140.3; H=30.5; Sa=59; Sp~42;
C9 Dim.: Lce~121; Lci=102.5; H~27; Sa=52.5; Sp~39;
C10 Dim.: Lce=109.5; Lci=87.5; H~28; Sa=59,5; Sp=44.5cm;
The upper surface is level, with no side frame, while the upper register of the moulding is not inclined; the left side surface is oblique; close to the and lower surfaces a fragment of the *anathyrosis* frame is still conserved;
C11 Dim.: Lce~97; Lci=92.5; H=29.6; Sa=51;
Side surfaces are oblique;
C12 Dim.: Lce=84.5; Lci=73; H=30.2; Sa=57; Sp~45;
C13 Dim.: Lce=99,7; Lci~87,5; H=28,4; Sa=48,5; Sp=36.4cm; Hd=12,4; Hdl=14.7; Hi=8; Ap=13.7; As=10 (fig. 18 c);
C14 Dim.: Lce=85.5; Lci=71; H~27; Sa=49;

[67] For the cornices: exterior chord length = Lce; interior chord length = Lci; height = H; upper surface depth = Sa; lower surface depth = Sp; moulding height = Hp; doucine height = Hd; doucine height + listel height = Hdl; upper register height = Hrs; lower register height = Hri; cyma saillie = As; moulding saillie = Ap. For the other blocks: depth = S; conserved dimensions noted with ¯ while restituted dimensions with *.

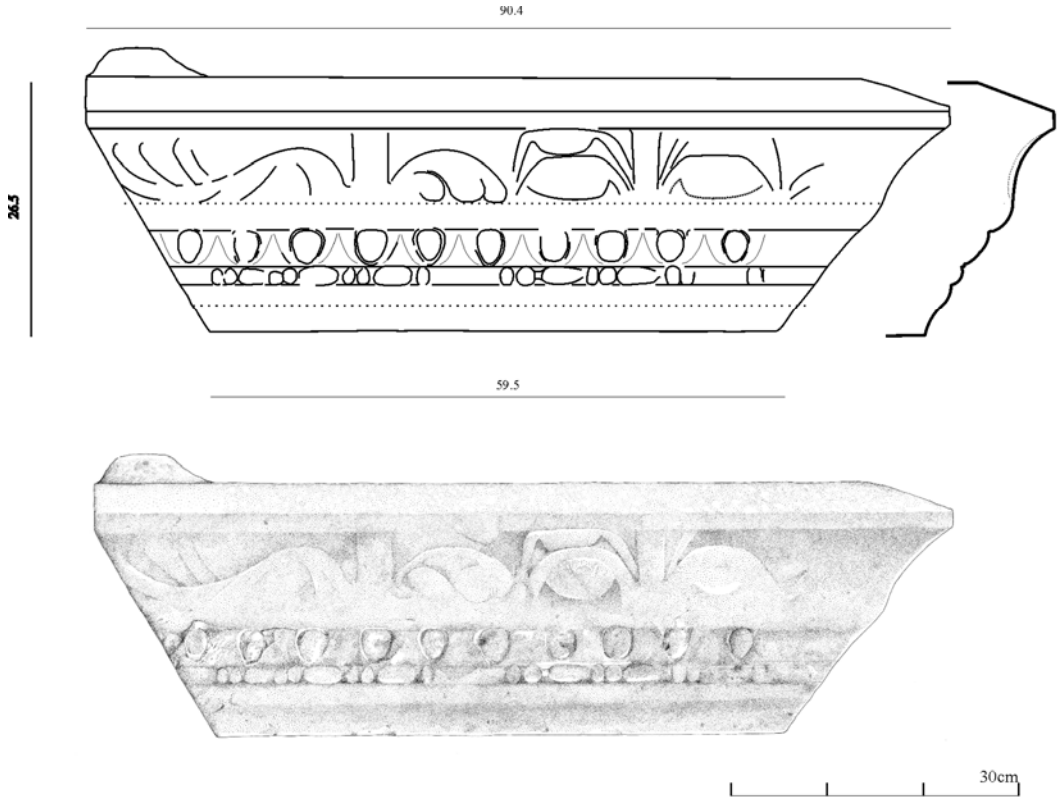


Fig. 21. Cornice block of the votive monument.

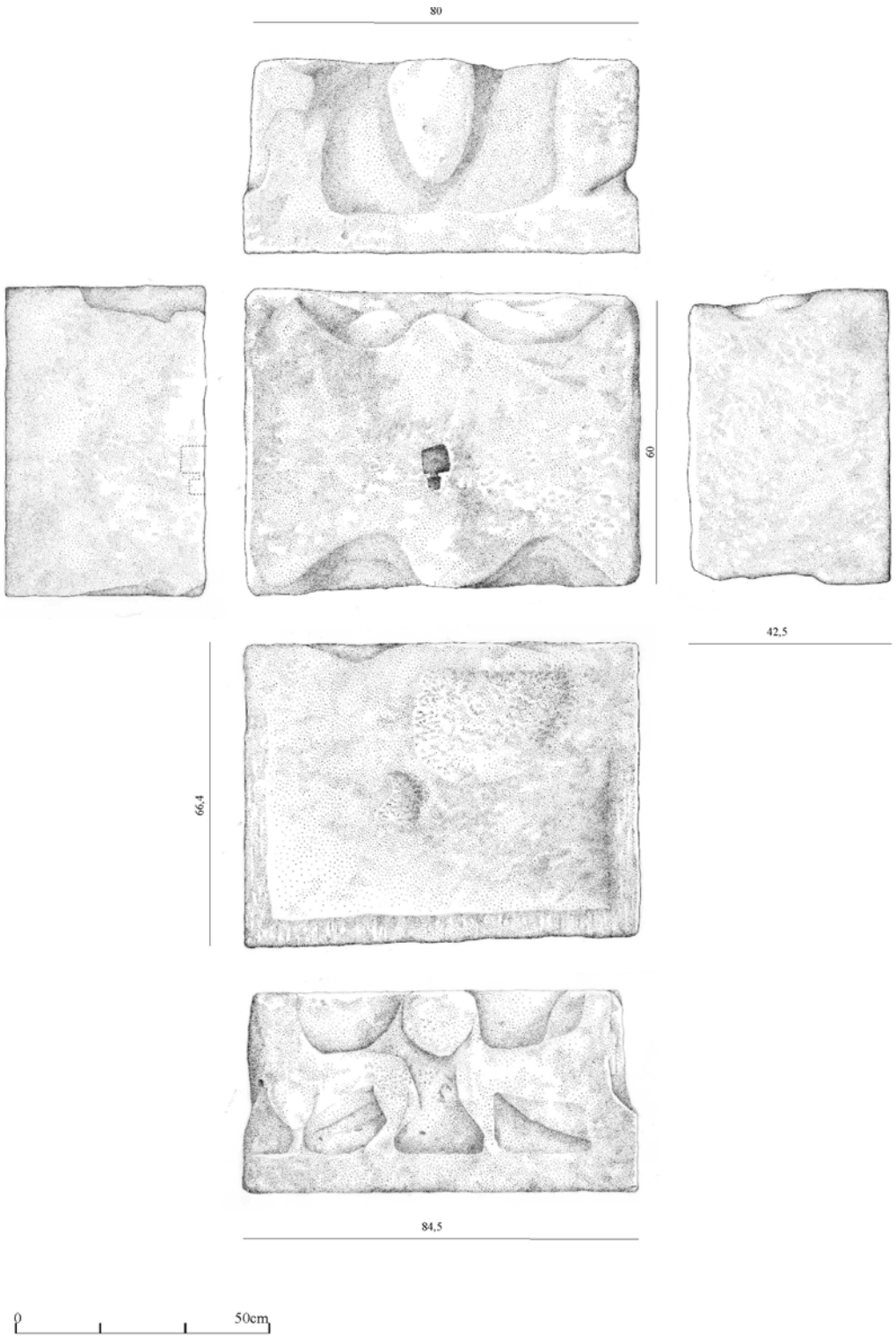


Fig. 22. Block with funerary lions.

Mca *Cornice block of the votive monument* (fig. 21)
Dim[68]: La=108.2; Sa=90.4; Lp=82.6; Sp=59.5; H = 26.5
Conjoinable out of two pieces; highly eroded. The moulding: elongated, upside down talon, surmounted by an astragal with pearls, an ionic *kymation* with very distanced egg and tongue moulding,[69] superimposed by a talon moulding bordered upwards by a narrow listel. The remains of the decoration that covered the cyma, on its concave surface only, are badly eroded. The ornament, composed of a rudimentary interpretation of waterleafs with bent tips or *anthemiai*, accompanied by other types of leafs (?), seems to be the work of (local ?) craftsmen less acquainted to the manifestation in lithic material of architectural language.
The moulding turns on the side faces as well; the rear surface is flat and inclined to a 45° angle from the vertical. The upper surface, with side frame following the three moulded sides, slant (8cm wide); in the proximity of the rear face there are two eroded protuberances (h = 5cm).[70]
Rough finishing traces, with the bush hammer, on the lower surface. On the surface of the cyma there are traces of decoration.

Mcb *Block with funerary lions* (fig. 22)
Dim.: La~80; Lp=84.5; Sa~60; Sp=66.4; H=42.5;
Fully preserved. The main face and the rear one are made of two funerary lions each, carved in relief, placed back to back, and a central, indecipherable motif; the two lions of the rear surface are shown schematically. The lower surface bears traces of *anathyrosis*, with quite regular frame, worked with the chisel (6cm wide) and core carved out (0.5 – 0.2cm) using the bush hammer and the pick. On the upper surface, in the central area, there are two irregular grooves (5/5/4.5; 3/3/3.3cm)

[68] Upper surface length=La; upper surface depth=Sa; lower surface length=Lp; lower surface depth=Sp.
[69] There is no correspondence between the axes of the egg and tongue moulding and those of the astragal.
[70] Probably meant to prevent the lions block from sliding.