

SANCTUARIES OF SARMIZEGETUSA REGIA (GRĂDIȘTEA MUNCELULUI), HUNEDOARA COUNTY

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Abstract. The sanctuaries, true temples of the geto-dacian antiquity, represent their ingenuity, the talent and skills of the builders of these large dimension cult edifices, with a special architecture. Almost every fortification' structure and architecture, regardless its character, includes sanctuaries, too. These sanctuaries have a rectangular shape, looking like a a line of limestone or andesite plinths, or simple or complex circular one. The specialized literature works have mentioned so far about 35 sanctuaries. There are 26 linear sanctuaries known and 9 circular ones.

The settlements and fortresses of Sureanu Mountains, known as „ Dacian fortresses of Orastie Mountains” are located within the central and West mountaineering sector of Southern Carpathian mountain chains . Most of fortresses are concentrated around Gradistea or Apa oreaului river which is a tributary of Mures river.

The ruins of Sarmisegetusa Regia the glorious capital of the Dacian state are situated on a rocky height called “Piciorul Muncelului” at 1000 m above sea level. Here, we found the sacred zone with sanctuaries – religious constructions achieved once Sarmisegetusa importance growth. They were erected since Burebista until Decebal king reign, on two hill terraces situated North –East from the fortress (Pl. I). There were 11 sanctuaries of which 9 were rectangular type – and two circular type and besides it, there is also the Andesite Sun¹.

The number and glory of the sanctuaries indicate that it is about the saint “Kogaionon”mountain mentioned by Stabon.

The big limestone sanctuary² (Pl. II) was identified on the XIth terrace during the archaeological campaign of 1951. It was sinvestigated during the following years, including 1979-1981, as a result of the preservation and restoration works from Sarmizegetusa Regia. The ramp with the sanctuary situated South –East from the spring is NE-SW oriented and keep four construction stages.

Looking upside down, this is a Roman construction made of wood placed on a stone layer overlying the levelled remains of the sanctuary after destruction when the fortress was fired and conquered by the Romans in 106 AD. This level was found at about 1m depth.

The second level belonging to the Dacian phase is only 0.35m beneath the Roman one where we found the traces of a sanctuary made of andesite pillars placed on a substruction made

¹ Antonescu, D., *Introducere în arhitectura dacilor*, București, 1984; Crișan, I. H., *Spiritualitatea geto-dacilor*, București, 1986; Glodariu I., Iaroslavschi E., Rusu A., *Cetăți și așezări dacice în Munții Orăștiei*, București, 1988; Glodariu I., Pescaru Rusu A., Iaroslavschi E., Stănescu Fl., *Sarmizegetusa Regia - capitala Daciei preromane*, Deva, 1996; A Rusu-Pescaru, *Sanctuarele Daciei*, Deva, 2005.

² C. Daicoviciu and alli., MCA V, 1959, p.395-399; MCA VI, 1959, p.357; MCA I, 1961, p.304-305; H. Daicoviciu, *op.cit.*, p.207; I.H. Crișan, *op.cit.*, p.176-185; H. Daicoviciu and colab., MCA 1980, p.161-163; MCA, București, 1983, p.233; MCA 1986, p.115.

of mud binding stone (**Pl. III**). In the middle of the surface outlined by the andesite pillars, there were 7 limestone pedestals with average diameter of 1.30 m and 0.20-0.25 m thick, supported by a „foundation” made of unfinished stone mixed with earth (**Pl. IV**). The ramp of the Northern side constituting the access to the sanctuary seems to have been on this level. The ramp was 2m wide and made of limestone blocks.

To the Northern side, close to the end of the access ramp, the archaeological investigations identified another “foundation” trace, which could have been the 8th trace on the seven pedestal alignment in the middle of the terrace.

The next level (**Pl. III**) is at 2.85 m depth where there were found four rows of limestone pedestals each having 13 *in situ* parts of sizes similar to the preceding ones, namely 1.30 m diameter and 0.20-0.25 m thick. On the surface of some pedestals there were noticed circular hollows of 0.50-0.80 m diameter, traces representing the diameter of the wooden columns erected on these pedestals. To the West, on a substruction similar to the one where the andesite pillars of level 2 were placed, there occurred the traces of seven wooden pillars of 0.50-0.80 m diameter, and to the East there are two pillars plus four traces with average diameter of 0.40 m. The distance between the wooden pillars was 2m,. These last four traces found in 1980, led to the conclusion that the wooden pillars were on all the four sides of the sanctuaries. It is always then that it was noticed that the limestone pedestals were placed on „foundations”³, dug as cones in the terrace filling material. (**Pl. IV**). They had a maximum diameter of 1.60-1.85 m and were 1.60-1.90 m deep (**Pl. IV**). These „foundations” were made of stone and mud and the space inbetween depended on the space between the pedestals, as they constituted the resistance system of the pedestals on which the wooden columns were erected. The investigations performed 1980 – 1981, to the East side of the sanctuary revealed the trace of foundation no.14 from the pedestal row. The 15th „foundation trace” was destroyed by the previous digging operations when the Northern side wall elevation was checked at the sanctuary finding. It is admitted that in case of this edifice construction level, it is about a sanctuary made of 4 rows of 15 columns each. So, we have a sanctuary with 60 columns spaced 3.20m between the rows and 2.50m between the columns (interaxis). To the South side, the terrace hanging wall is doubled by another 1.30m thick wall. In parallel with the wall at 2,55 m from it, there is a similar one but its thickness is 1,08 m. These two rows of walls bordered the access stairs to the sanctuary and this stairs is made of limestone slabs ending in front of a ramp situated at 0.40 m above the terrace wall corresponding to the smoothing level of this construction phase (**Pl. III**, 2). It is obvious now, that the pedestals from the 2 rows (the 14th and 15th) were dismantled and re-used for the construction phase together with the 8 pedestals in the middle of the sanctuary and andesite pillar enclosure. The last level noticed at 4.40 m depth consists of a row of 3-4 limestone block groups with either cross or triangular shape disposal (**Pl. III**, 1). They were found on the East side of the sanctuary terrace. At the same time, there occurred on this direction some lens⁴ achieved as semi-spheric holes filled with mud bound unfinished stones constituting the foundation of the column supporting base.

The 41 x 13 m terrace where the sanctuary is placed, in a similar manner with all the terraces from here was arranged by the Daces and is supported by massive limestone block walls built up using the *murus Dacicus* technique. The terrace hanging wall of the large limestone sanctuary extend on the three sides (Northern, Southern and Western), the wall is 2.50-2.90 m thick and made of 11-13 block layers. From the South-East corner of the sanctuary,

³ H. Daicoviciu and alli., MCA 1986, p.105-106.

⁴ Idem, *op.cit.*, p.106 fig.1/3.

on the South – East to the North –West side, on the 2.40 m level the side of a rectangular shape tower starts. The tower is part of this first Dacian level from the sanctuary ramp.

Since its finding it was considered that it was an open sanctuary with columns erected on the limestone pedestals up to 1.50m high. Then, another „reconstitution”: is proposed that is a two level edifice, namely basement and groundfloor with porch, *cella* and roof, a system inspired by the Greek dipteral temple system combined with the pseudo-dipteral one⁵ (PI. V). This opinion contradicts the Greek influence, but it maintains the idea regarding the existence of a roof and partly enclosed with wooden pillars and elimination of basement and other elements, such as porch, *cella*⁶ (PI. VI). According to other opinions, there would be a reconstitution with wooden columns, roof and walls⁷ (PI. VII).

Further to all the opinion review, it was concluded it was a sanctuary made of 4 rows of 15 column base each. Each of the pedestals is placed on a foundation which depth does not allow the presence of another construction at the basement. These foundations were necessary to take over the column pressure from the friable rock and particularly on the terrace filling. At only 0,80 m from the marginal row there is the trace row of wooden pillars which do not allow sufficient circulation space for the erection of walls along this distance. Thus, there still remains the possibility of an edifice made of wooden pillars supported by the mentioned limestone pedestals which, in their turn support a shingle roof, wood and the pillars constitute only the enclosure, a walking corridor around the sanctuary, and this is common for other sanctuaries, too. The access was provided by the steps of Southern sanctuary (PI. III, 2).

Based on the above mentioned, together with eng. Lavinia Brătescu and arch. Richard Siller from the Design Institute of Hunedoara – Deva, we tried to redo this big limestone sanctuary from the XIth terrace of phase II with four row of fifteen pedestals each and wooden pillar enclosure (PI. VIII), taking into account the structure and resistance elements.

The results indicate it is about a sanctuary which columns are 6m high.

The small limestone sanctuary was investigated between 1962-1963⁸ and is located to the South end of the terrace XI, between the big limestone sanctuary and the Ancient paved road (PI. IX, 1). There is a limestone block proeminence which was partly covered with earth from the older excavations. Proceeding with the block removal, there was noticed the existence of a smoothing level, on which surface ceramic fragments and Dacian and Roman metal objects were found. Throughout the entire surface there were found significant traces of a fire hazard which at places, determined the soil red coloring. The large amount of limestone blocks indicated they were brought there or had fallen from the Ancient road parament, but anyway, they were not *in situ* and were neither part of a wall nor of a building substruction. This first level was probably contemporary with the second phase of the sacred constructions characterized by the andesite use. Thus, the presence on this level of the Roman materials is explained.

After complete cleaning of this level the digging operations continued and at 0.40m depth there was found a second level made of yellow-reddish mud. On this level, there were found limestone pedestals of the same shape and size like the big sanctuary ones, but they were arranged on three rows of 6 pedestals each (PI. IX, 2). The sanctuary is NE-SW oriented.

⁵ I.H. Crișan, *Burebista*², p.391-395.

⁶ D. Antonescu, RMM 1, 1980, p.69-76; Idem. *Arhitectura*, p.51-66.

⁷ M. Strimbu, I. Glodariu, ActaMN XVIII. 1981. p.377-386.

⁸ St. Ferenczi, MCA X, 1973, p.65; H. Daicoviciu, *Dacia*, p.209; I.H. Crișan, *Spiritualitatea*, p.187.

Each limestone pedestal was placed on a foundation lens built in the same manner like the previous sanctuary and it demonstrates that there were also wooden columns for supporting the roof. All around this sanctuary there have not been found so far traces of some eventual enclosure pillars, but at the North-West corner there was found a threshold formed of limestone blocks (Pl. IX, 2). It is always on this sanctuary side that there was found a small size limestone slab channel.

The sanctuary found belongs to the first phase of constructions characterized by limestone use and so, it is probably contemporary with the big limestone sanctuary nearby. But it is 1,80m higher. It is noted that after abandoning the small limestone sanctuary, the land was no longer used for the construction of an andesite sanctuary like in the case of the big limestone sanctuary. Over the small limestone sanctuary after levelling operation, there were built only one or more fir wood buildings.

The andesite sanctuary of the terrace X-a (Pl. X, 1). The terrace X, situated to the West of terrace XI is 70m long and 40m wide and is bordered to the East and West by massive walls which separate it from the upper terrace IX and the lower terrace XI. The walls are carried out using the common *murus Dacicus* technique. The wall separating the terrace X from the terrace IX is 3.20 m thick, and two distinct elements are noticed: the presence at places of vertical slots on the wall face and a balustrade at its upper part.

The other wall separating the terrace X from the lower XI is a double wall. Both walls built in different stages are 4-5m high. The first wall built up in the first phase followed the land configuration, the angle broken line of the terrace X, after which, on a certain date there was built the second wall stuck to the first (Pl. X, 2). Both walls have two paraments measuring 2,50 m, and respectively 1.70 m. The second wall seems to be decorative, at its upper part there are blocks with Greek writing found all around. The investigations of the years 1951-1952⁹, indicated the existence there on the terrace X, of two sanctuaries one of limestone corresponding to the construction phase of the first terrace hanging wall and an andesite wall when the terrace was extended and the second wall was raised. On the sanctuary surface there were discovered 33 *in situ* andesite pedestals with variable 2,05-2,25 m diameter, and 0,35 m thick. They were arranged on four parallel rows, two from North-West side with ten pedestals and two from the South-East side with eight, respectively three pedestals and two on the sixth. The distance between the rows is approximately 4m, and the interval between each row pedestals is about 1.60 m.

At the construction of the andesite sanctuary there was used the same method like for the big limestone sanctuary of terrace XI. Thus, under the andesite disks supporting the limestones there existed a base, actually a hole filled with stones and mud which has the shape of a lower river bed; its upper diameter is 2.70m, and it is 1.28m high (respectively, hole depth).

The surfaces of the pedestals are well carved and smooth with small pockets except for about 0.30m of the diameter. The smooth part allowed the placement of a second element found at the column base. The base diameter is 1.20 m, getting narrower to 1.10 m and is 0.50 m high. They are characterized by 0.18 m high profiles at the lower part which assumes that up to this level, the 2 elements, namely the pedestal and the base, were in the ground.

On the first disk of the second row from the North-West side, there is a column base which upper part was destroyed (Pl. X, 1).

⁹ C. Daicoviciu and alli., SCIV II, 1, 1951, p.108-110; SCIV, III, 1952, p.292-296; SCIV IV, 1-2, 1953, p.156-164; H. Daicoviciu, *op.cit.*, p.210; I.H. Crişan, *op.cit.*, p.184-194.

Overlying these bases there were placed column drums which were made also of andesite and identified in different zones (edges of terrace XI, Roman bath, fortress wall). These drums are 0,92-1,18 m long and 0,81-0,82 m diameter. The difference between the diameter (uncertain) of the column base upper part (1,10 m) and the drum diameter are not an obstacle of the sanctuary constructive elements. Based on the pedestal size, the distance between them and the completion of a terrace hanging wall, there existed a large size sanctuary of 6 rows with 10 elements each, NE-SW oriented. In this case, the 6th row cross over the wall from the first construction phase, and the sanctuary was 37.50m long and 31.50m wide.

The lack of indicators referring to the height of the columns or other architecture elements, determined C. Daicoviciu¹⁰ to submit two hypothesis: either the sanctuary was not defined at the time when the war with the Romans started and we fully agree to it, or it is about an open edifice with high columns corresponding with the size of the drums found around, proposing even a reconstruction of the alignments (**Pl. XI, 2**). The idea was taken over by H. Daicoviciu¹¹ which complete it by placing on each column an andesite large vessel for sacrifices paid to the gods (**Pl. XI, 3**).

As for this sanctuary of 60 columns it is to be noted that on its West side, but not parallel to it, there was found a wall of limestone blocks which is considered as ‘a fence’ because it would have been at least 3 m high and were not filled with stone and earth material. Parallel to it, at 6m, there is the terrace wall. To the South –West corner of the terrace X there were found large stone carved troughs starting in this zone and continuing on the terrace XI below the East end of the paved square.

Limestone sanctuary from the terrace X. In 1951¹² there was noticed the existence of a sanctuary older than the one with the andesite columns.. This sanctuary enclosed by limestone pillars (Pl. XII) occupied a 37,50m x 26m terrace surface area, extending to the first terrace wall of the first construction stage (inside). On this sanctuary level, besides ceramic remainings, no other particular vestiges were found.

The pillar and corner blocks were placed on limestone slabs of 0.60m wide and 2.30m long and 0.10m thick. The pillar shape must have been rectangular. The corner block kept to the N-E side has a strange shape, with a “L” cut where a wooden pillar for roof supporting could have been placed. We think that inside this limestone pillar enclosure, there were the limestone pedestals similar in shape and size with those of Costesti. The analogy is based on such pieces identified in the Roman wall of the fortress. It is always there that a square limestone ramp was found but its role is not known, probably it was an altar. The sanctuary was NE-SW oriented. At the West side of the sanctuary, the row of the limestone pillars is interrupted over 5m long x 1.30m wide surface area and it could have been an entry to the sanctuary.

The rectangular constructions from the Northern part of the terrace may be related to this sanctuary. Given that from the limestone sanctuary of the terrace X few elements were kept, it is only assumed that it was contemporary with the small and big limestone sanctuary from the terrace XI.

The big quadrilateral andesite sanctuary¹³ is situated at the North end of the terrace XI (**Pl. XIII, 1**). It has a rectangular shape with a N-S oriented 13.5m long side. Only a few andesite rectangular pillars (0,22 x 0,18 m) of about 0,60-0,70 m high were kept. At the corners,

¹⁰ C. Daicoviciu and alli., SCIV III, 1952, p.295.

¹¹ H. Daicoviciu and alli., *op.cit.*, p.210-211.

¹² C. Daicoviciu and alli., SCIV 1-2, 1953, p.158; H. Daicoviciu, *op.cit.*, p. 210; I.H. Crișan, *op.cit.*, p.188.

¹³ C. Daicoviciu and alli., SCIV II, 1, 1951, p.118; III, 1952, p.287-288; MCA VII, 1961, p.303; H. Daicoviciu, *op.cit.*, p.210; I. H. Crișan, *op.cit.*, p.195.

the sanctuary was provided with larger stronger pillars with plugs at the upper part. The size of the three rectangular pillars is 0,42 x 0,43 m, 0,45 x 0,45 m and 0,47 x 0,50 m. The plugs are 0.26m high and 0,26 m thick (Pl. XIX, 2). At the South side the pillar row is interrupted by a ramp made of limestone blocks and covered with slabs of the same material which penetrate over approximately 1m inside the sanctuary. The ramp is 1.55m wide and it is at approximately 0.10m from the pillar of the South – West corner of the edifice. Inside there are only five constructive elements, two rectangular 0.58mx0.58m elements and three circular 0.52m diameter element. They are arranged on 3 rows and it would have meant that the sanctuary was constituted of three rows but we cannot specify number of the columns or inside pillars. At the West and North sides the sanctuary is bordered by the hanging wall of the terrace X at a certain distance.

*The small quadrilateral andesite sanctuary*¹⁴ is situated to the North side of the terrace XI between the big quadrilateral andesite sanctuary and the small circular sanctuary. The sanctuary is 12 x 9,20 m and it is N-S oriented (Pl. XIV, 1). It is bordered on the four sides by andesite pillars with the 0,22 x 0,18 m sizes, approximately 0,60-0,62 m high introduced at approximately 0.20m in the ground and 0.22m spacing. Their upper part is destroyed but it is likely that they were plug ended. At the corners there are four large size pillars, three rectangular pillars which side dimension ranges between 0.45 m and 0.60 m, and the one from the NW corner pillar is circular with a 0.46 m diameter and 0.55m high. Each pillar kept part of the end plugs which were about 0.25m wide and thick and cover the entire pillar width.

Inside, there are three rows of columns with six elements each. At present fragments of 16 columns with 0.68-0.70m diameter are kept. There are five fragments of column on the first two North –West rows and six fragments on the East third row. Each of these columns is placed on a stone and earth layer constituting the foundation and this structure is similar for the other sanctuaries, too. The space between the columns is 1.50 m along the North –South alignment and 2 m wide on the East –West direction. But the distance from the columns to the row of enclosure pillars is different (Pl. XIV, 2).

To the South, at the outer side of the sanctuary towards the West corner of the andesite pillar row there is a 1.50 m wide wall made of limestone blocks with supports for the sanctuary entry ramp (Pl. XIV, 4). On the opposite side, at 0,72 m inside the sanctuary and at only 0.18m from the pillar row, there is 0.48 x 1.70 m slab constituting the inner threshold of the entry. The ramp and the threshold are connected by a wood step bridge above the andesite pillars between the ramp and threshold. At the East side of the ramp, close to it, but centered on it, there two limestone blocks with a rectangular opening each at their middle part. The block spacing is 1.13 m and thus it is possible to access the sanctuary from the East side too. Certainly, the andesite plug ended pillars represented an enclosure balustrade of the sanctuary. The entire pillars must have been 1.20-1.35 m size. Wooden elements fixed with the plugs raised from the corner pillars and inside columns and they supported a two ridged shingle roof (Pl. XIV, 3).

The reconstitution and resistance calculation of the sanctuary structure were carried out together with eng. Lavinia Brătescu and arch. Richard Siller. This sanctuary columns may have been 5m high as resulted from the structure and resistance calculations.

¹⁴ C. Daicovicu and alli., SCIV II, 1, 1951, p.117-118; SCIV III, 1952, p.287-288; MCA VII, 1961, p.303; H. Daicovicu, *op.cit.*, p.209-210; I.H. Crișan, *op.cit.*, p.194-195.

During the archaeological investigations of the sanctuary there were found several limestone blocks which determine us to assume there existed a *quadrilateral limestone pedestal sanctuary*¹⁵, elements identified in the fortress wall zone.

The big circular sanctuary is located on the XI terrace from Gradistea Muncelului - Sarmizegetusa Regia. Its complete investigation and cleaning was conducted by C. Daicoviciu between 1950 and 1958 (PI. XV, 1). Since then it was established that it was a construction¹⁶ consisting of three concentric circles and in the middle there was an absyde construction. The maximum diameter is 29,40 m. The first circle, namely the outer one, consists of 104 large andesite blocks, arranged one by the other and forming a close ring. Each block is 0.80-0.90 m long, 0.47-0.50 m thick and 0.43-0.45 m high and at its lower part there is a rim representing for sure the smooth level. Near it at the inside part there is a second circle of 180 narrow and 30 wide pillars also made of andesite. The pillars of the second circle are arranged in groups of six pillars each followed by a wider one (PI. XV, 4).

There were probably end square plugs at the upper part of the narrow pillars (PI. XVI). They were approximately 1.20-1.35 m high at 0.50-0.60 m at least above the Ancient level. Their width and thickness range between 0.18-0.24 m. The 0,50 x 0,21 x 0,52 m pillars outer face is slightly convex and the space between two successive pillars is 0.12-0.13 m. At approximately 3.65 m from the inner stone row there is another circle, but this time it includes 84 wooden pillars¹⁷, which diameter at the ground level is 0.40 m and they are 0.35-0.40 m spaced. These pillars were 1.40-1.60m deep in the ground. At each pillar base there is a limestone block like the ones of the wall construction and they supported the pillar to prevent its subsidence. The pillar part in the ground was mostly circular shape, and the part above the ground was four edges carved allowing the construction of a wall made of mud. Ring ended, triangle shaped, round big head or rectangular end bolts were fixed on each pillar. Inside every pillar hole, at its strongly burnt part, there were found between 11 and 23 such bolts; some of them were up to 0.40-0.50 m long and they were surely used for hanging the offerings.

Unlike the stone circles, the circle of the wooden pillars is interrupted by four threshold marked by limestone blocks threshold constituting the entries to this space. The threshold size of the entries one and four is 1.30 m, and 2.20m for entries five and six. The number of wooden pillar between the four thresholds are as follows: between P₁ and P₆ - 20 pillars; between P₁ and P₅ - 19 pillars; between P₆ and P₄ - 22 pillars and P₄ and P₅ - 23 pillars. This circle diameter is 20 m (PI. XV, 2).

At the central part of the sanctuary there were 34 wooden pillars forming an North - West oriented absyde. The pillars, similarly to the preceding circle, were fixed in the ground at approximately the same depth and also they were supported by a limestone block each. The absyde plan was interrupted by two entries, namely two and three (on the direction of threshold 1 and 4 from the pillar circle), which were 1.30m wide. During the 1957 and 1958 investigation campaigns there was found a rectangular fire place¹⁸, made of river round stones bound with yellow mud and crust surface. It is 1.50 x 1.35 m and it is located inside the wooden pillar circle,

¹⁵ C. Daicoviciu and alli., SCIV II, I, 1951, p.118.

¹⁶ C. Daicoviciu and alli., MCA IV, 1959, p.336-337; MCA VII, 1961, p.303; H. Daicoviciu, *op.cit.*, p.235-260; I.H.Crișan, *op.cit.*, p.200; H. Daicoviciu and alli., MCA 1983, p.232-234; C. Daicoviciu and alli., SCIV, I, II, 1951, p.115-117; SCIV III 1952, p.283-287.

¹⁷ Numărul de 84 de stâlpi a fost stabilit în urma degajării în suprafață a sanctuarului, în anul 1980, cu prilejul lucrărilor de conservare-restaurare. Până la acea dată era cunoscut un cerc de 68 de stâlpi, ce a permis diverse interpretări asupra obiectivului, în special acela de calendar.

¹⁸ C. Daicoviciu and alli., MCA VII, 1961, p.303; H. Daicoviciu, *Dacia*, p.240.

near the entry 6. At the outer part of the sanctuary while cleaning the surroundings, at the entrance no.1 at 0.60m from the andesite block row, there was found a limestone 2.30m side slab which for a long time, was considered the edifice entrance. Later on, in 1984, the archaeological investigations conducted around the sanctuary revealed the existence of another 1.50m wide East –West oriented ramp made of limestone blocks, in a similar manner to the one used for the Dacian wall, situated at 1.20m from outer andesite circle, between the threshold one and six. The access was provided by this ramp and then a wooden stair crossing the andesite pillar balustrade (PI. XV, 3).

The investigations conducted on this terrace including the sanctuary, namely of the terrace XI at the Northern part, revealed traces of human living at 2m beneath the level of the big circular sanctuary which was built after the artificial raise of the older terrace. The low level was probably at the same level like the big limestone sanctuary from the terrace XI.

Since its finding in 1951, several attempts have been made to reconstruct the objective. It was considered as an open edifice, then according to interpretation, it was a Dace calendar based on the andesite pillar grouping 6+1 or a real sanctuary. It is sure that it is a religious building from the sacred precincts of Sarmizegetusa Regia. In 1951, architect Horia Teodoru tried to redo the monuments from the sacred precincts of Grădiște (PI.XI, 1). By that time, the idea of some open temples was prevailing and the reconstruction consisted only of simple wooden pillar emplacement¹⁹. H. Daicoviciu maintains his opinion of reconstruction, but actually it was about only an elevation transposition of the field data²⁰ (PI. XVI).

The architect Dinu Antonescu, convinced that at Grădiștea Muncelului there are no „*sub caelo*” sanctuaries and that there were indoor monument edifices, proposed the reconstruction of the sanctuary²¹ (PI. VII). He collected the data from the excavation reports and indicated that the two circles were above the sanctuary level by 0.20-0.25m and thus there could be created a continuous water bearing sealed rim. To eliminate this it would be required a canalization system and either the building complete roofing or the raise of the sanctuary level. Architect D. Antonescu imagine the sanctuary as an monument edifice consisting of a platform gallery raised by about 0.40-0.50 m compared to the Ancient level, paved with stone slabs bordered, at their outer part by a strong andesite base and a balustrade formed of 6 regularly arranged balusters with 30 access ways. The edifice itself would have had wooden roof and walls. At the outer part, the sanctuary walls would have been marked by a row of squared pillars covered with ceramic plates up to the roof. No doubt, it is a closed and covered building, but the proposed reconstruction does not consider several elements, such as the construction material found during the investigation and that is why we think that the temple should have looked differently.

The currently available elements allow us to plead for the existence of an edifice with three rooms. The finding of the wooden pillars fixed in the ground and supported by limestone blocks and moreover, the occurrence of an amount of binding mud are the most significant evidences of a cone shaped roof raised up to 5-5.50 m high supported by the walls made of the wooden pillars .

Like for the other sanctuaries investigated on the “sacred zone” terraces, there was no element found to allow us to speak about the presence of a different floor type, but mud floor. It is true that all these edifices were destroyed by the Romans, but traces of it should have been

¹⁹ C. Daicoviciu and alli.. SCIV II, 1951, p.112; H. Daicoviciu, *op.cit.*, p.235-237.

²⁰ H. Daicoviciu, *op.cit.*, p.237.

²¹ D. Antonescu, SCIVA 4, 1980, p.499-517; *Arhitectura*, p.71-88.

found anyway during the investigations. So we still sustain the idea of mud leveling of the entire sanctuary surface, that is at its smooth level.

In this case, it is necessary that the roof covers the entire construction preventing at the same time, the formation of mud during the rainy or snow weather in the circular gallery. Consequently, the roof was supported by pillars or wooden columns which were raised on the wide pillars of the second stone circle. The high andesite pillars, the six ones, were in their turn, connected inbetween by a wood girdle comprising the roof pillars, too (PI. XVIII). Thus, the circular gallery allowing the entrance to the gallery was formed through the 4 entrances and then through the absyde, to the other one. The walls of these two rooms were made of wood pillars and mud binding material mixed with chaff.

The small circular sanctuary²² was identified in 1950 and the investigations started in 1952 on the terrace XI near the big circular sanctuary, but North from it at about 18m. A circle consisting of only one row of andesite 12.50m dia. pillar was formed (PI. XIX, 1). The pillar lower part was destroyed and thus their height is varyable.

The andesite pillar circle of the sanctuary was formed of 114 pillars, of which 13 were wider and 101 narrower. Among them, the wider ones disappeared except for a single one, the location of the others being obvious by the holes left behind in the sequence of the narrow pillars. The 114 pillars were arranged in 13 groups, 11 groups of 8 narrow pillar each and 1 wider pillar, a group of 7 narrower pillars and 1 wider pillar and a last group of 6 narrow pillars and 1 wide pillar (PI. XIX, 2).

The pillars were arranged on a well compacted mud floor with no base or pedestal. Their sizes are given below: the narrow pillars are 0.60-0.70 m high; their width ranges between 20.5 cm, 20.8 cm and 21 cm; the thickness being constantly 15 cm. Most of the original elevation of the narrow pillars which should have been about 0.90-0.95 m, was stuck in the ground, the remaining part rising above the Dacian level of the sanctuary. The sizes of the wider pillars are: 0.39 m high, 0.44 cm wide, 0.18 m thick. These, as it can be seen from the only piece kept, had no plug end like the narrow ones, but they were smooth surface ended. They were stuck into the ground up to 0.10m depth, and the distance between them was always about 0.10 m.

Inside the sanctuary there was formed a smooth compacted mud floor where, a thin 7-8 thick layer of fir wood burnt coal was noticed. The burnt material traces are more obvious at the circle periphery and become less obvious to the central part, but they do not disappear. Along the diameter, on the East – West direction there were 3 (maybe 4) 0.35m diameter wooden pillars which traces are still preserved and they were at 0.30- 0.40m beneath the Dacian level. The holes are filled with burnt coal and earth. Overlying the original sanctuary floor, at about 0.10-0.20m above, there is a new burnt material and compacted floor with limestone slabs which cross over the andesite pillars, too, and with Roman tiles and some vessels. The oval hole of the Southern part of the circle seems to belong to this construction, too.

In 1978, the investigations inside the sanctuary were resumed and the traces of several wooden pillars were found, but together with those found in the preceding excavations, are not enough to reconstruct the sanctuary.

The andesite sun. Near the big circular sanctuary, at its North –West side there was found a “circular paving” which was called “the andesite sun” or the “solar disk”²³ (PI. XX, 1).

²² C. Daicoviciu and alli., SCIV, 1-2, 1953, p.153-156; MCA VI, 1959, p.336; MCA VII, 1961, p.303-304; H. Daicoviciu, *op.cit.*, p.260-263; I. H. Crişan, *op.cit.*, p.208.

²³ C. Daicoviciu and alli., MCA VII, 1961; MCA VIII, 1962, p.466-467; I. H. Crişan, MCA X, 1973, p.62-63.

The paving made of andesite consists of a 1.46 m dia. central disk and ten 2.76m long rays. The entire circular paving is 6.98m diameter, and the ray width is not equal, but the differences are several centimeters. The paving thickness is 0,30 m.

The monument was not entirely preserved, five of the rays being more or less destroyed. At 0.45 m from the outer edge of the rays, there are made 10.5-11.5cm long, 5.6-8cm wide and 3-4cm deep rectangular slots which are arranged parallel to the outer edge of the pavement. There are about 6-7 slots in a ray; sometimes a slot is overlying two rays. The poor preservation condition of the pavement did not allow the determination of the total number of slots. The lower part of the dolomite stone carved as "T" shape penetrate the slots (**Pl. XX, 3**).

At the South part of the pavement overlying two rays, there was a circular fire place of 1.05 m diameter placed directly on the pavement (**Pl. XX, 2**). Its central part is at about 2.30 m from the central part of the pavement. The floor crust is mostly damaged by the earth and stones caved on the pavement later; it could be fixed at places. Pig bones and fine ceramic fragments were found at the fire place. It is possible that it was placed on the pavement after its destruction and for other purpose than the religious ceremonies of the Dacian priests or maybe this pavement was exactly the solar altar and the fire place served for sacrifices; this hypothesis is related to the existence of a big limestone 1.03m long block dug as a wash basin – with an opening directed to the channel – found on the edge from the channel construction approximately in the middle of the trough portion forming one and single body with the disk sub-structure.

Unfortunately, almost half of the „andesite disk” is destroyed and it is exactly the part from the channel and only a small portion of each ray was preserved. The poor preservation of the monument at this part is explained by the fact that rays 5,6 and 7 covered the channel, and there was nothing leaning against their outer edge.

A limestone block "arrow" starts from the "andesite disk" and this arrow is N oriented of the I d.Ch century. On some blocks of the arrow there are marks of which one coincides with the equinoxes²⁴.

The sanctuaries, real Geta – Dacian Antiquity temples represent the talent and skills of builders to erect such cult large size edifices and for completing a particular architecture. Almost each fortress regardless its nature, comprise sanctuaries. These sanctuaries are rectangular of the limestone or andesite circular simple or complexe pedestal type.

The specialized literature specifies a number of 35 sanctuaries found so far on the old Dacia territory (**Pl. XXI**). 26 sanctuary of the alignment type are known and namely: Costești four, two at Blidaru, one at Piatra Roșie, nine at Sarmizegetusa Regia, one at Bănița, three at Piatra Craivii, two at Căpâlna, one at Racoș, one at Barboși, two at Bâtea Doamnei; and the second category – the circular ones – includes 9 sanctuaries and namely: three at Sarmizegetusa Regia considering the andesite sun, too, one at Fețele Albe, one at Pecica, one at Racoș, one at Brad, one Dolinean (?), one at Butuceni (?).

The components of the cult edifice, mainly the pedestals were directly placed on the terrace rock or on foundation carried out by digging some cone shaped lens filled with river stones and clays in the terrace filling material, in order to reinforce the land. The wooden columns were raised on the limestone pedestals and they supported the ridged wooden and shingle roof; for the andesite bases, the column drums were made of the same material.

For almost each sanctuary two or even three construction phases are known.

²⁴ Fl. Stănescu, ActaMN XXII-XXIII, 1985-1986, p.105-129; Fl. Stănescu, în I. Glodariu, E. Iaroslavschi, A. Rusu-Pescaru, Fl. Stănescu, *Sarmizegetusa*, p.237-268.

Only at Sarmizegetusa Regia, the older limestone pedestal sanctuaries are replaced by the andesite base ones. At Sarmizegetusa Regia there exist also two andesite sanctuaries which joint together the columns and pillars of the same material. It seems that the construction stage of the limestone sanctuaries corresponds to the period of Burebista and his successors, and the second phase, namely the andesite construction seems to be contemporary to the kings of the I AD century or even to the second half of I AD century and Decebal reign.

The pedestals and part of the column were stuck in a mud filling layer which constituted the smooth level, respectively the pavement of the edifice. The archaeological investigations did not find any other element that could be used for this purpose, like for instance stone slabs.

Besides the data related to the resistance constructive system, the presence of roof is indicated by the ramps from the sanctuary entrance carried out using the same well known Dacian wall technique. These ramps were provided with a stone slab paving for walking like for instance at the big andesite sanctuary from the XIth terrace or a wooden floor which followed the sanctuary direction and an entrance step was present.

The recent finding of some new construction elements allowed us to rebuild from architectural point of view some sanctuaries. With the time, they were considered open places with circular stone pedestals where 1.20m-1.50m high columns could be erected. Their sizes were determined based on the columns which belonged to the big andesite sanctuary from the X terrace and which had not been finished by the time of Sarmisegetusa Regia conquest.

These cult edifices were usually located outside the fortress itself except for the *intra vallum* sanctuary of Costești and provided it was a sanctuary, the one from Racos which was investigated and which are inside the fortress. They were raised on terraces especially arranged by the man, in the rock which constituted the height where the fortress was built.

I. H. Crișan in his work entitled „Burebista and his epoch” expresses, as an hypothesis, the idea that the aligments constituted of pillars supporting the roof of a “wood Greek type, slightly modified”²⁵ temple (Pl. V). It is difficult enough to believe it, as there was found neither floor and nor stone foundation (stereobat) and ramp (stilobat), which are typical elements of of a Greek temple construction. The burnt coal layer resulted probably at the temple burning, once the fortress was fired, did not indicate the existence of wood amount which could have constituted the structure of the great monument. Generalizing it for the other sanctuaries of the same type, too, the erection of such an edifice by the Daces would have supposed the existence of a cult of the Greek gods and there has not been found any evidence of it so far. In case of the big sanctuary from the XI terrace of Sarmisegetusa Regia which reconstruction was attempted, the existence of a basement as well as the diminution of the column number for the upper level seemed impossible to us. Even if the stairs of this zone constitutes a turn²⁶ from the South side ramp, it cannot be considered as the entrance level to the temple because the vertical distance between the limestone pedestals and the ramp is only 0,60 m²⁷, and it is too low to exist there an underground room. The analogy with the „sanctuary – palace”, found at Ocnița²⁸, an edifice formed of three underground rooms, dug in the rock, overlain by three rows of columns is not likely, particularly because the edifice is only mentioned during review of the materials found in the said settlement. So, we cannot say what its destination was and it does not fit in the already known constructions.

²⁵ I. H. Crișan, *Burebista*², București, 1977, p.415-421.

²⁶ *Ibidem*, p.391.

²⁷ C. Daicoviciu, MCA VI, 1959, p.339.

²⁸ D. Berciu, SCIV 3, 1974, p.386; Apulum XIII, 1975, p.616; *Buridava*, p.66-67.

An analysis of the alignments was made by M. Babeş²⁹, too, and he considered it a Greek peristyle temple. It is to be reminded that the peristyle is a group of columns near the laic buildings. Provided that the name was accepted, the column appearance indicate their construction technique and namely according to *Vitruvius* the height of the columns must be equal to the porch width, and the space between the columns should not be smaller than three times the column diameter and neither four times bigger³⁰. The column sizes and the space between the column rows do not match with our columns and moreover outside the column rows there is no other edifice related to them.

Taking into account the archaeological findings from the big limestone sanctuary from the terrace XI from Sarmizegetusa Regia, the architect Dinu Antonescu³¹, made an attempt, for this construction phase with 60 columns, the reconstruction of a wood colonnade with ridged roof (Pl. VI). D. Antonescu shows the three sides of the hanging wall of the terrace while the West side represents only the row of wood pillars of the sanctuary enclosure and delimitation. In the author's representation, the East side pillars have not been shown so that the terrace sanctuary surface remains "a gallery open up to the front side of the edifice columns".

Another reconstruction which included also some walls enclosing the sanctuary sides at a certain distance from the colonnade has been made by M. Strîmbu and I. Glodariu³² (Pl. VII).

The enclosure with the lateral walls along the wood pillar alignment the gallery is eliminated. As the distance from the wood pillars to the columns is 0.80m we think that the respective pillar row is only an enclosure which is found also at the limestone sanctuary of terrace X and the two rectangular andesite sanctuaries from the terrace XI.

Besides the quadrilateral alignment type sanctuaries, there investigated circular sanctuaries from the Dacian fortresses and settlements. The construction issue is raised for them too.

They look like being built as a single circle of wooden or stone pillars and the complex sanctuaries constituted of several "precincts" or "rooms".

In case of the circular sanctuaries, namely the big circular sanctuary of Sarmizegetusa Regia, the resistance elements are relevant. Each wooden pillar is of an edifice is supported by a limestone block stuck at about 1.40-1.60 m depth so that the pillar stability above the ground is ensured so that to support, in their turn, a roof leaning on the wood skeleton walls.

As for the circular sanctuaries, there were promoted several opinions regarding their astronomy and calendar significance. Again, for the circular sanctuary of Sarmizegetusa Regia it is to be noted that from the very beginning the 6+1 grouping of the andesite pillars, together with its 30times repeat, was interpreted as an illustration of a semester of the 360 day year.

Taking into account that the other Ancient peoples used a 365 day calendar, the Dace one was corrected by the pillars of the inner circle formed of 68 wooden pillars, actually 84 84³³, but they were counted by deduction as it had not been found the entire surface of the sanctuary by the time of the hypothesis promotion and neither have the 34 pillars of the absyde.

If, in an initial stage, the hypothesis was justified, later on there were submitted many opinions but they were groundless exaggerations. The cycle interpretations, the measurements based on modern calculation methods regarding the archaeological pieces of the sanctuaries,

²⁹ M. Babeş, SCIV, 2, 1974, p.236.

³⁰ Vitruvius, *Despre arhitectură*, Bucureşti, 1964, p.101-113.

³¹ D. Antonescu, *RMM* 1, 1980, p.69-76; Idem, *Arhitectura*, p.65.

³² M. Strîmbu, I. Glodariu, *ActaMN* XVIII, 1981, p.377-386.

³³ H. Daicoviciu and alli., *MCA* 1983, p.232-234.

their relations, assume the existence of more centres of the calendar system, make useless the speculations if the new archaeological findings are not considered.

The archaeological investigations undertaken so far for the quadrilateral or circular sanctuaries did not succeed to identify any relation of the sanctuary type and a god worshipped by the Get-Dace population.



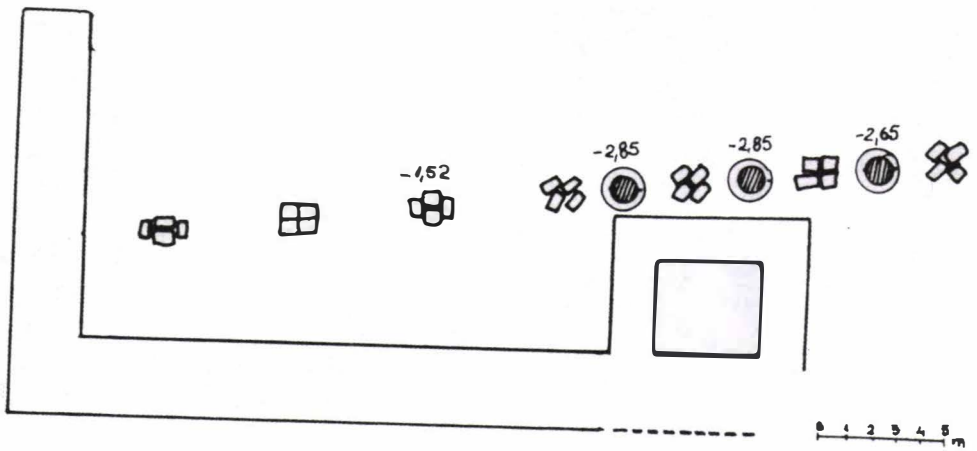
DRAWING I. Grădiștea Muncelului - Sarmizegetusa Regia. Sanctuary terraces



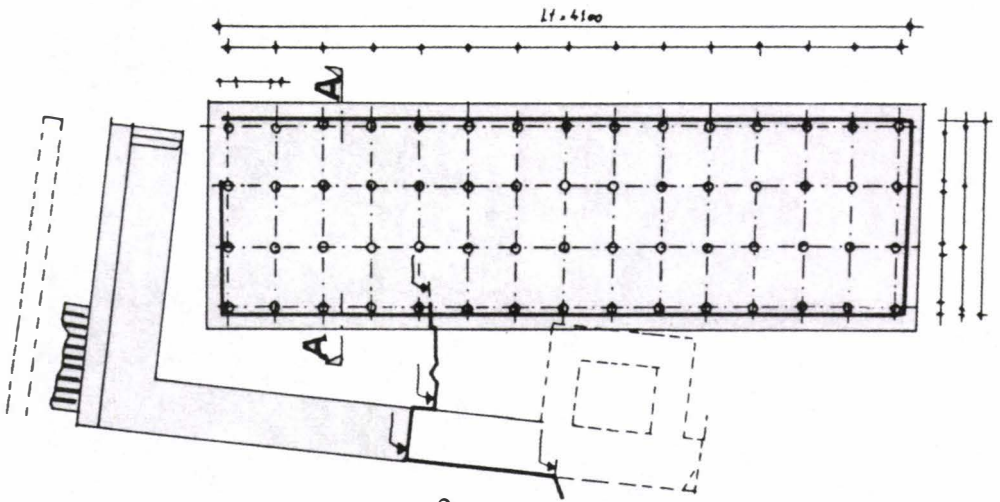
DRAWING II. Grădiştea Muncelului - Sarmizegetusa Regia.

1. Photo Big lime sanctuary from the XIth terrace;

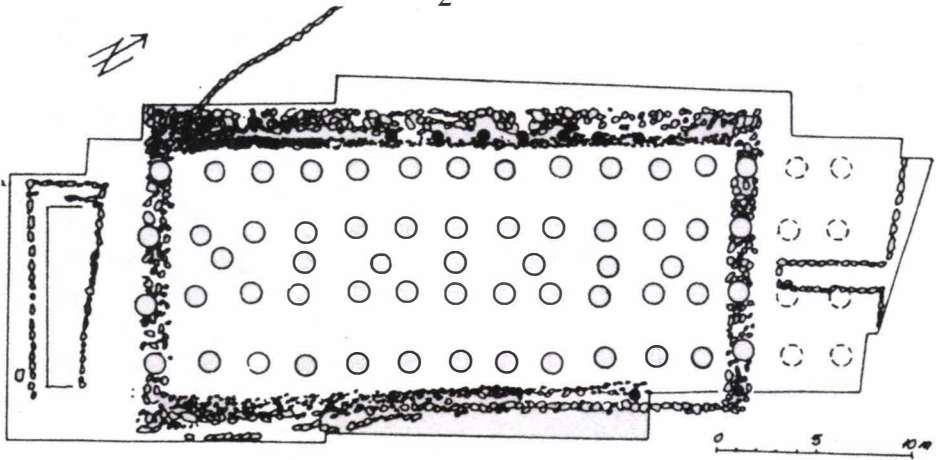
2. Photo The sanctuary after the reinforcement preservation work completion



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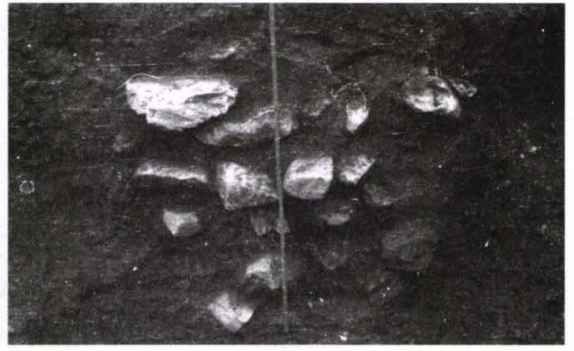


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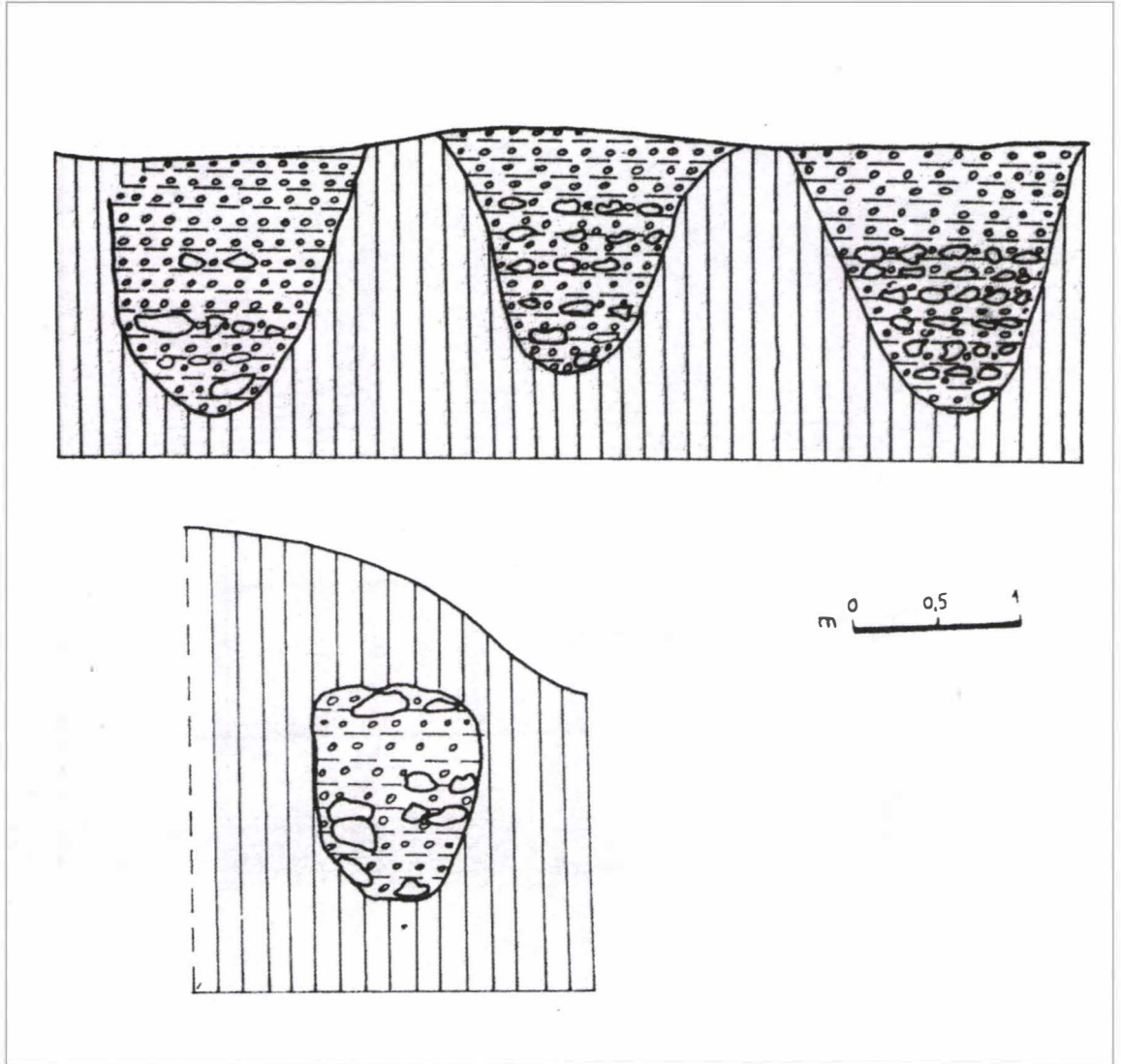
DRAWING III. Grădiștea Muncelului - Sarmizegetusa Regia. Big lime sanctuary from the XIth terrace. 1-2-3. Plan Reinforcement stages



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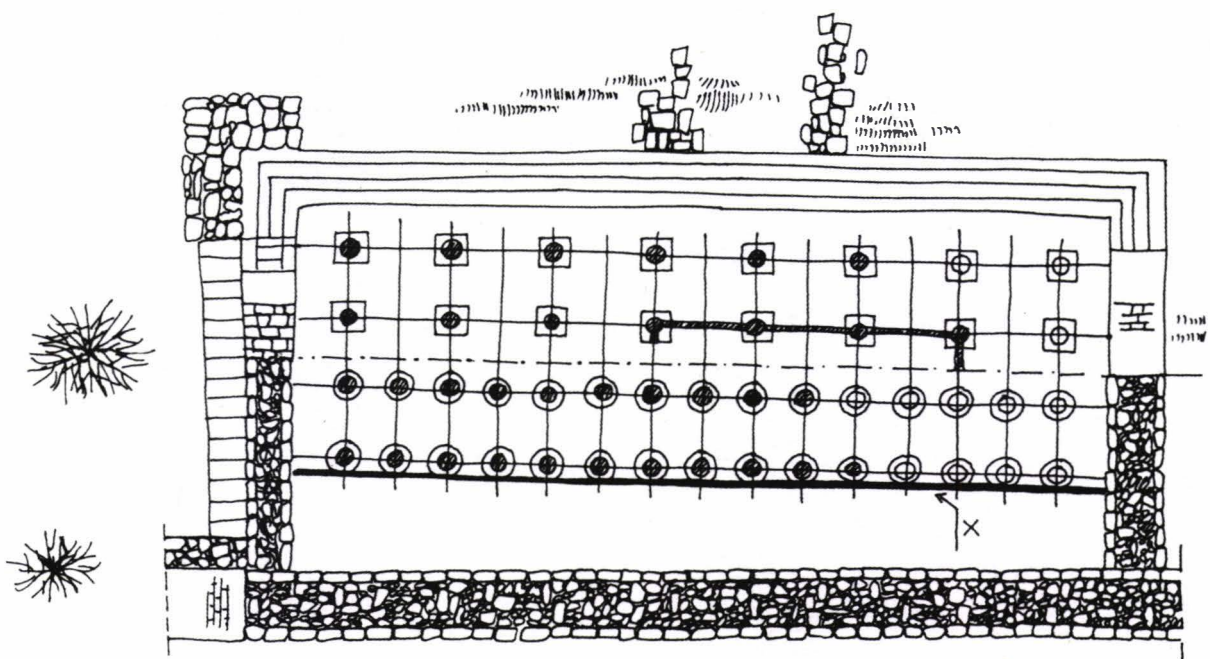


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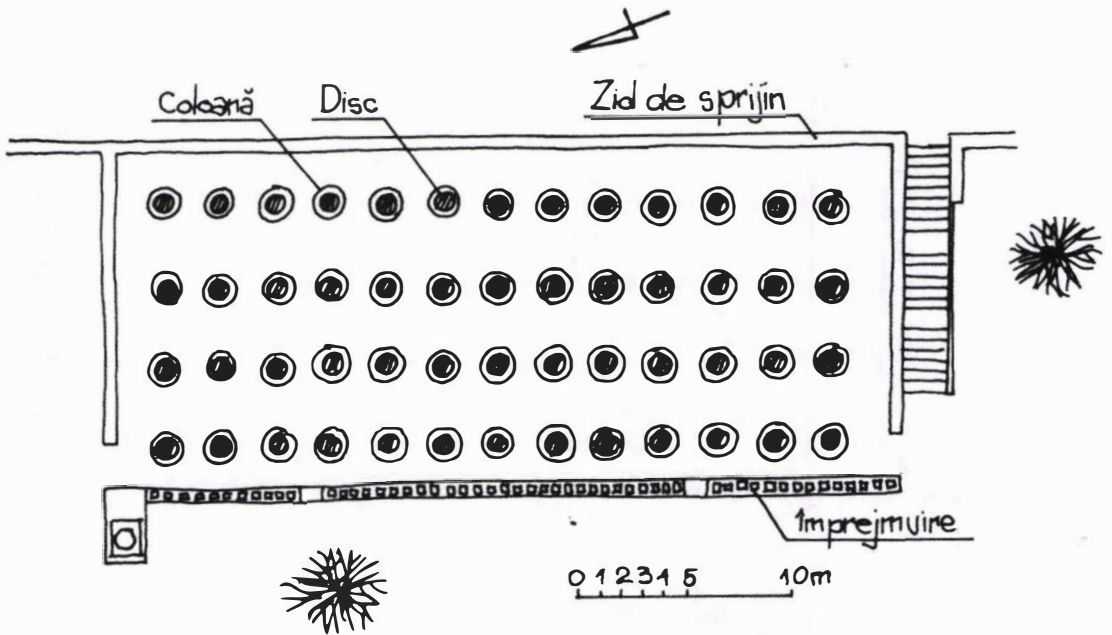
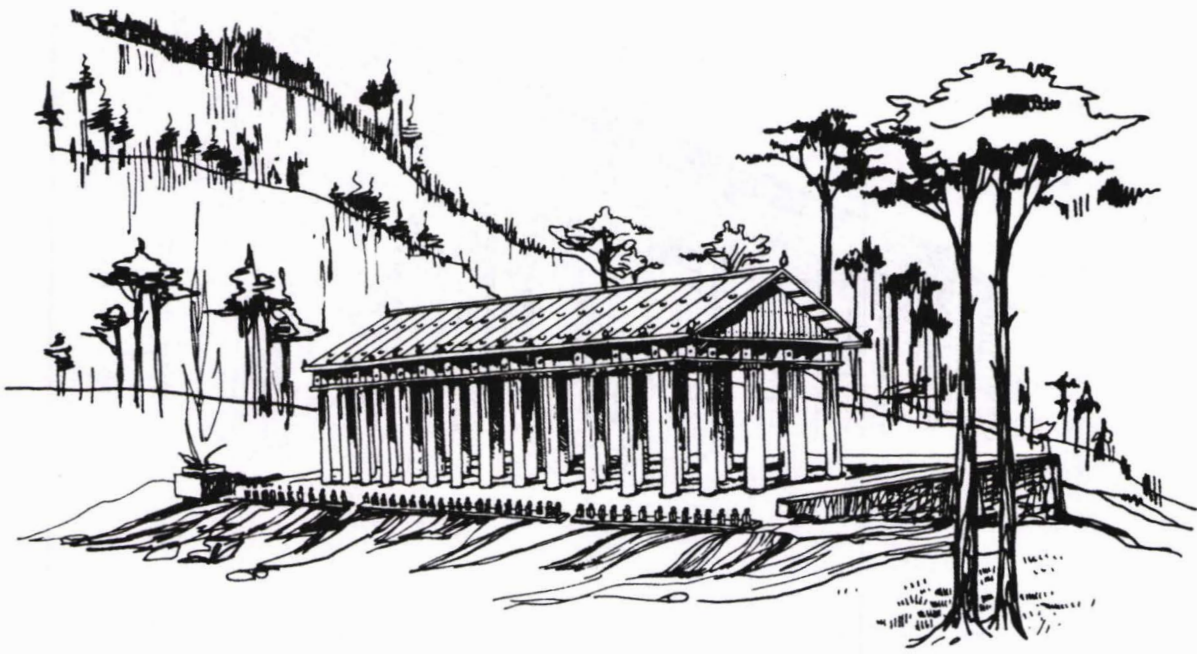


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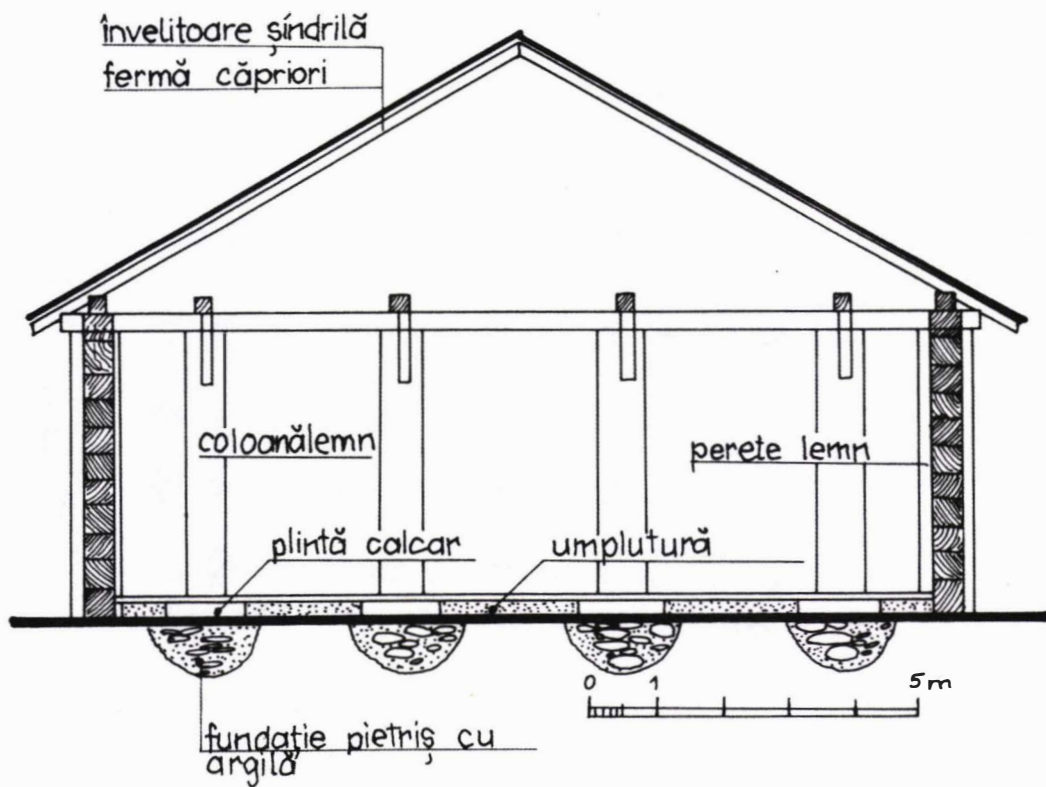
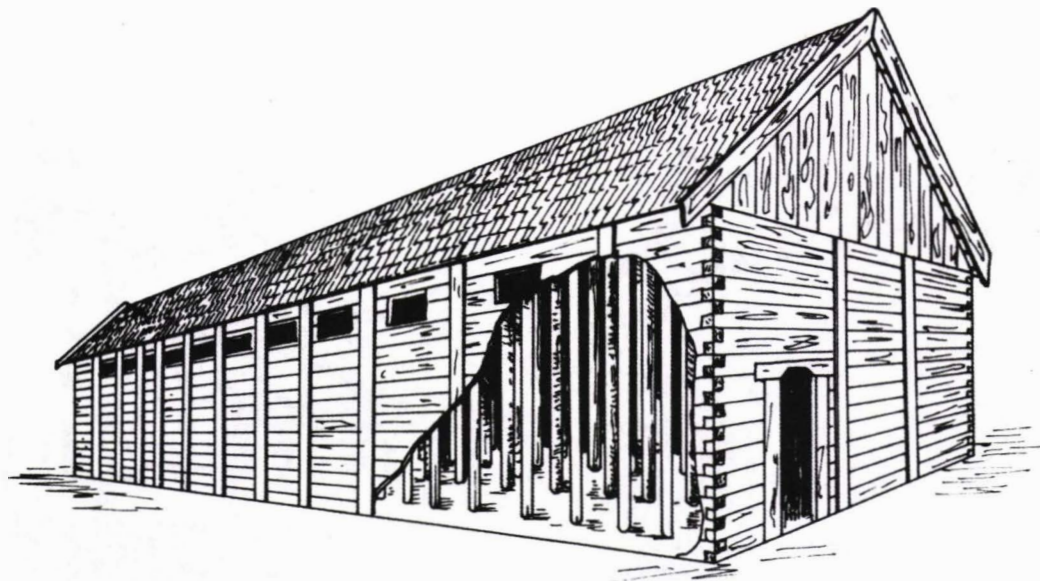
DRAWING IV. Grădiștea Muncelului - Sarmizegetusa Regia. Big lime sanctuary from the XIth terrace. 1. Foundation lens aerial view; 2-3. Plan cross sections



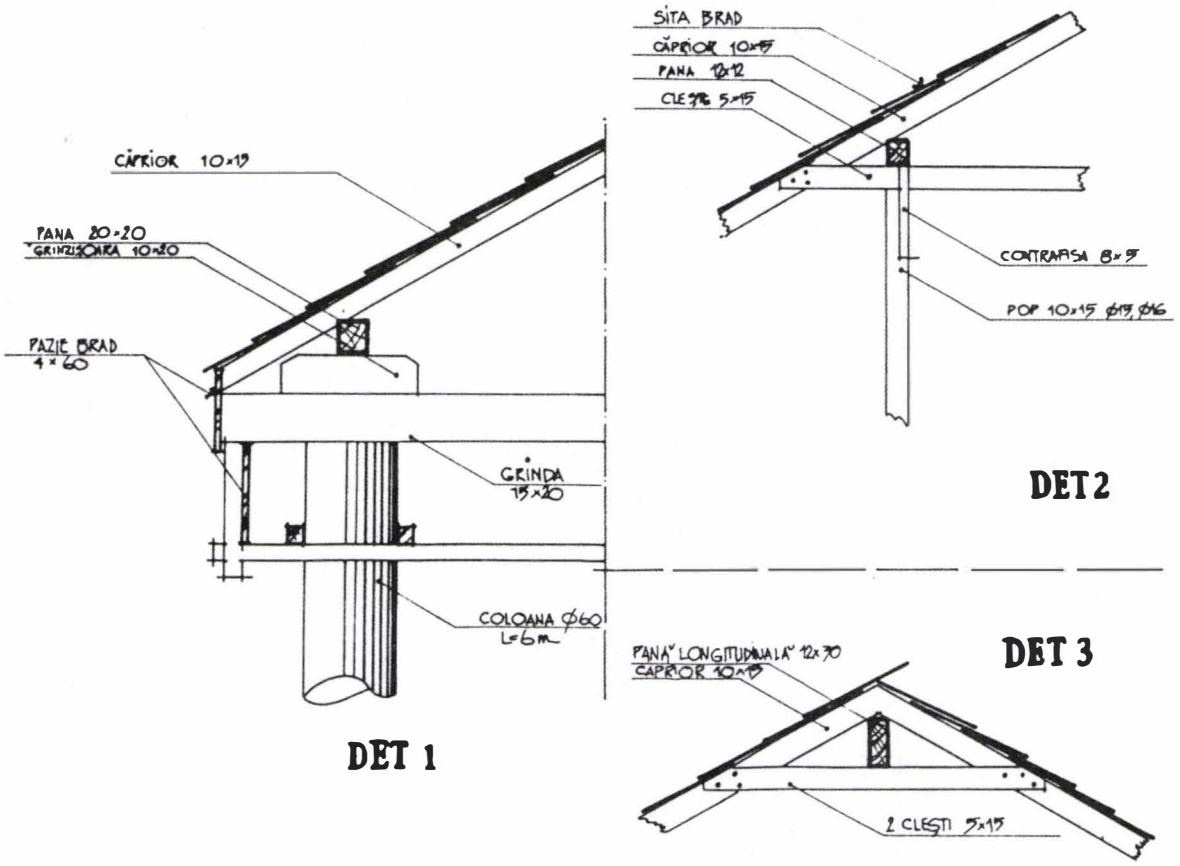
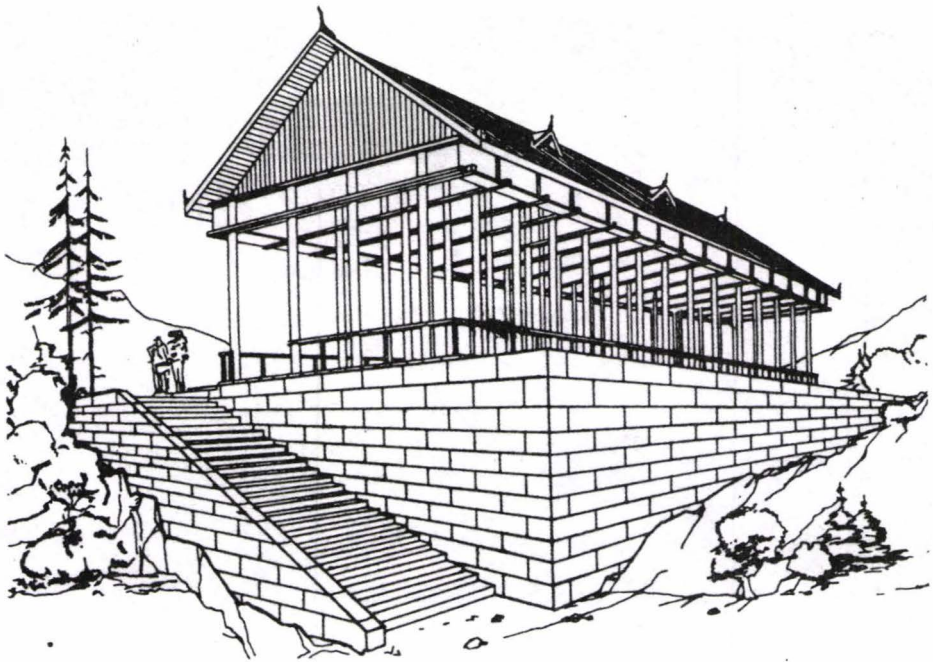
DRAWING V. Grădiștea Muncelului - Sarmizegetusa Regia. Big lime sanctuary from the XIth terrace. Proposal for reconstitution (acc. to I. H. Crișan).



DRAWING VI. Grădiștea Muncelului - Sarmizegetusa Regia. Big lime sanctuary from the XIth terrace. Proposal for reconstruction (acc. to D. Antonescu).



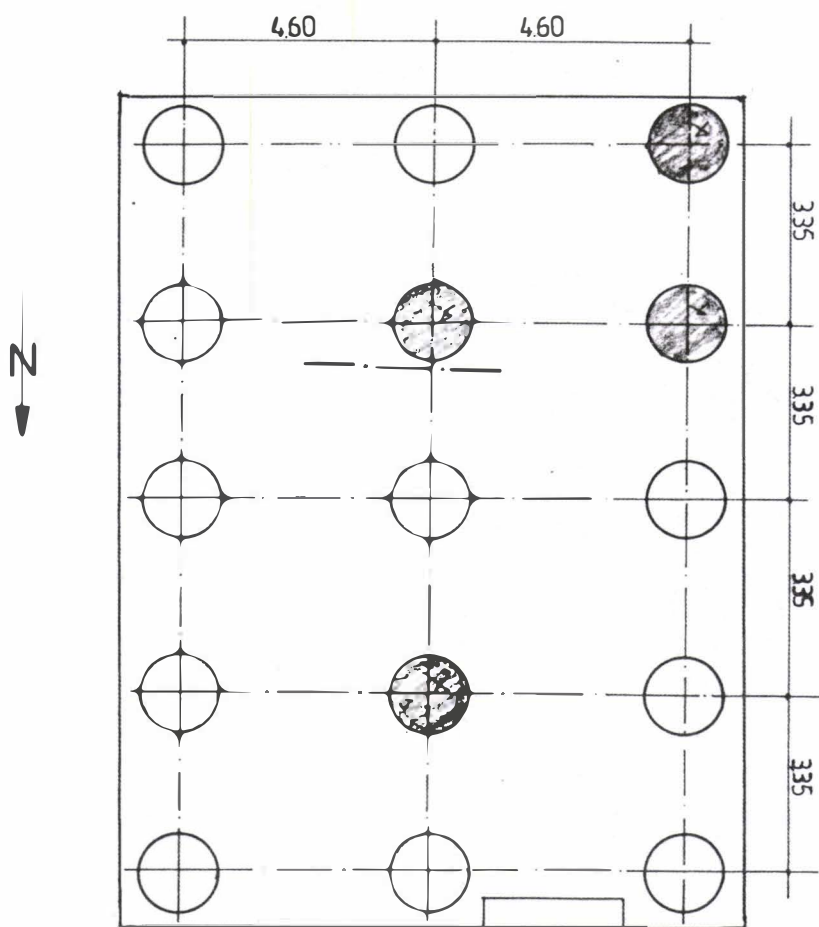
DRAWING VII. Grădiștea Muncelului - Sarmizegetusa Regia. Big lime sanctuary from the XIth terrace. Proposal for reconstruction (acc. to M. Strâmbu and I. Glodariu).



DRAWING VIII. Grădiștea Muncelului - Sarmizegetusa Regia. Big lime sanctuary from the XIth terrace. Proposal for reconstruction and construction details.



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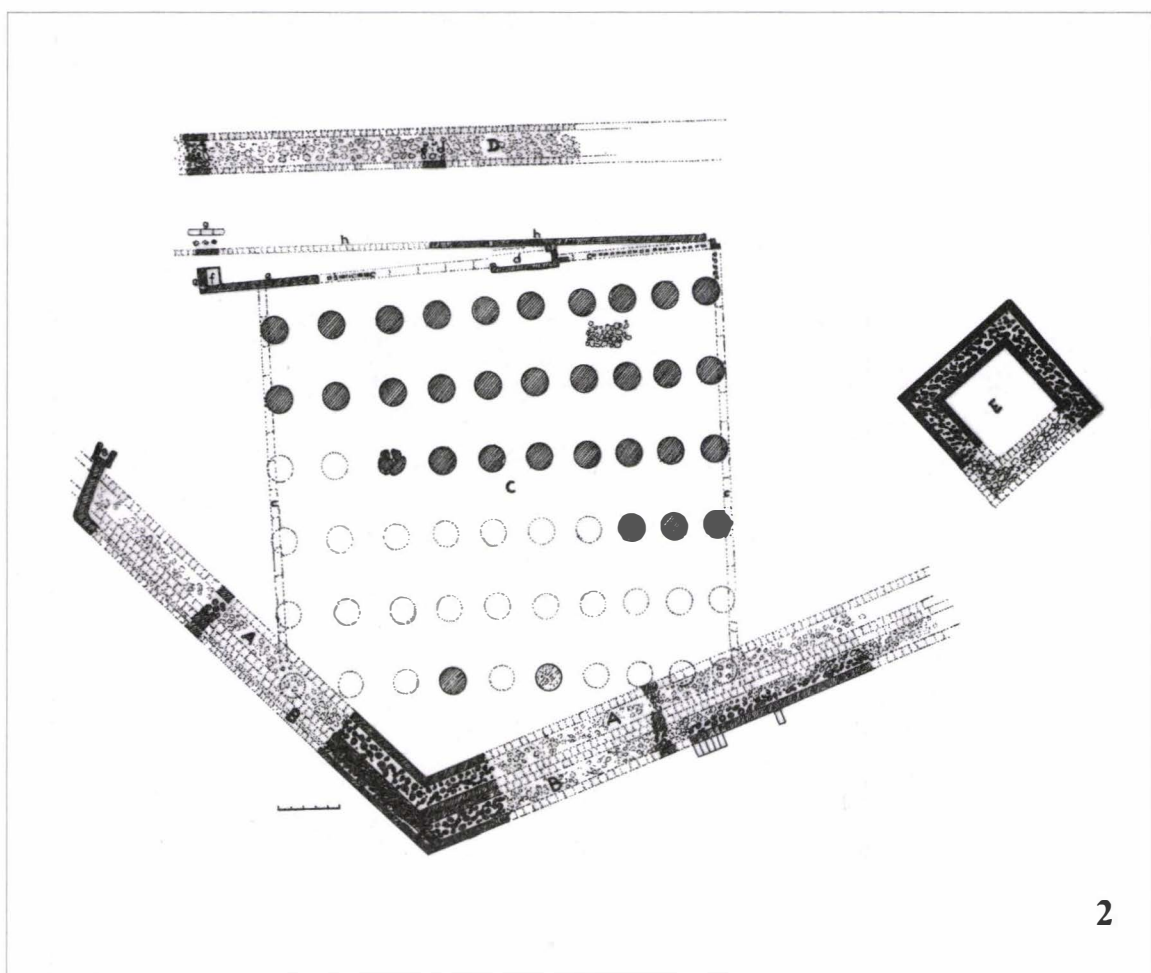


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DRAWING IX. Grădiștea Muncelului - Sarmizegetusa Regia. Small lime sanctuary from the XIth terrace. 1. Photo; 2. Plan.

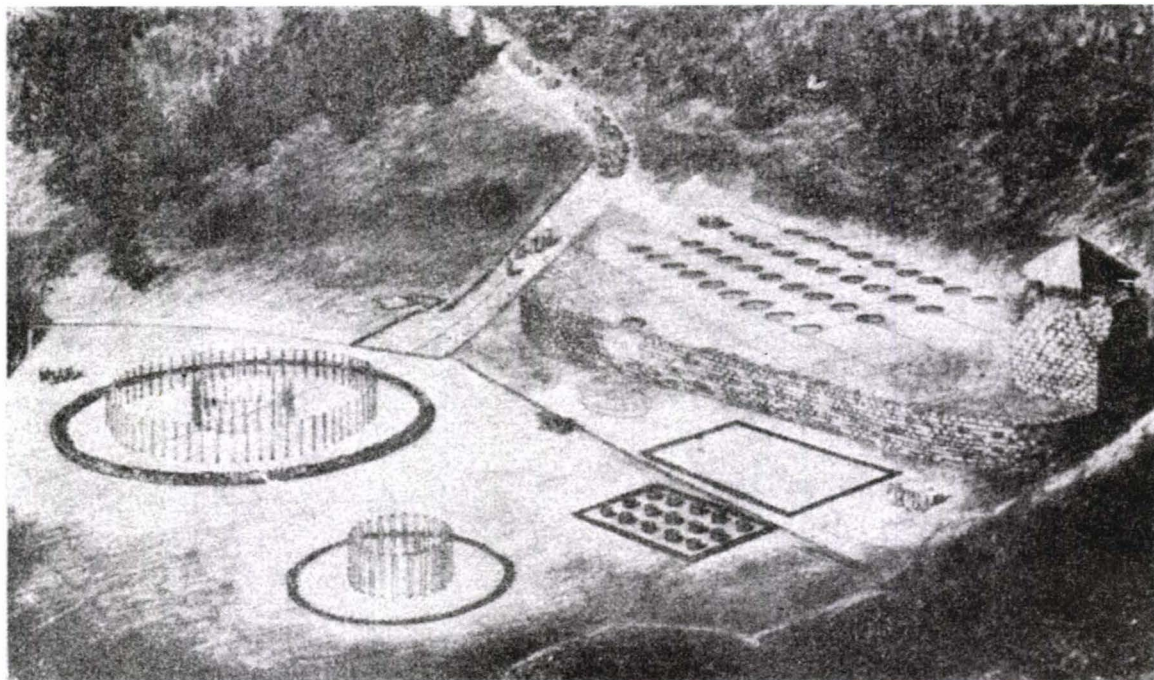


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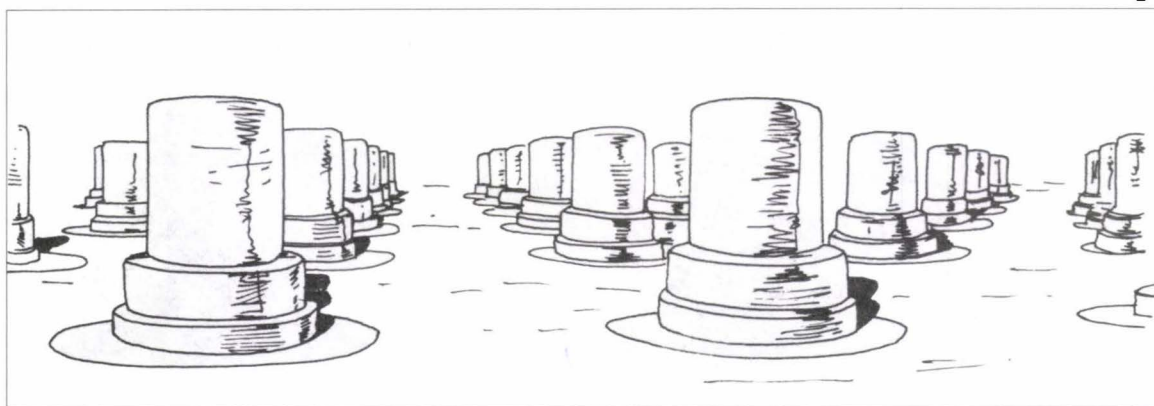


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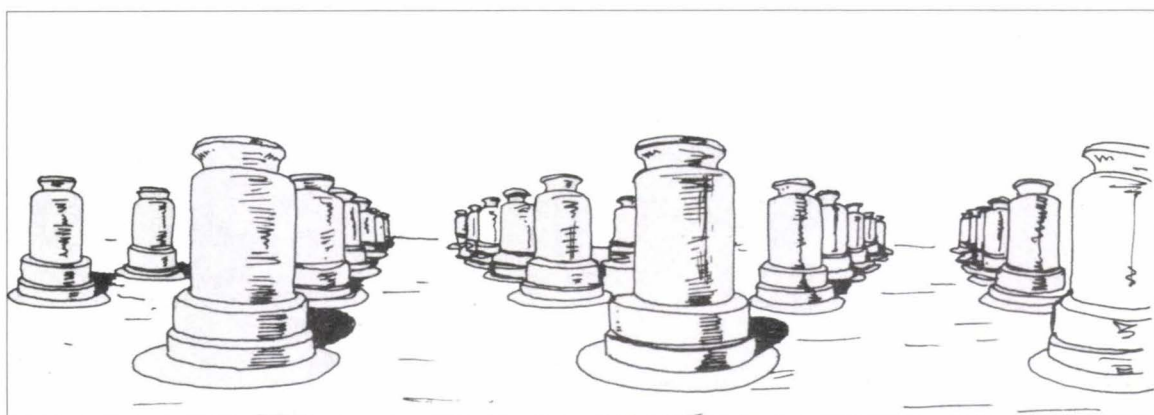
DRAWING X. Grădiștea Muncelului - Sarmizegetusa Regia. Andesite sanctuary from the Xth terrace. 1. Photo; 2. Plan.



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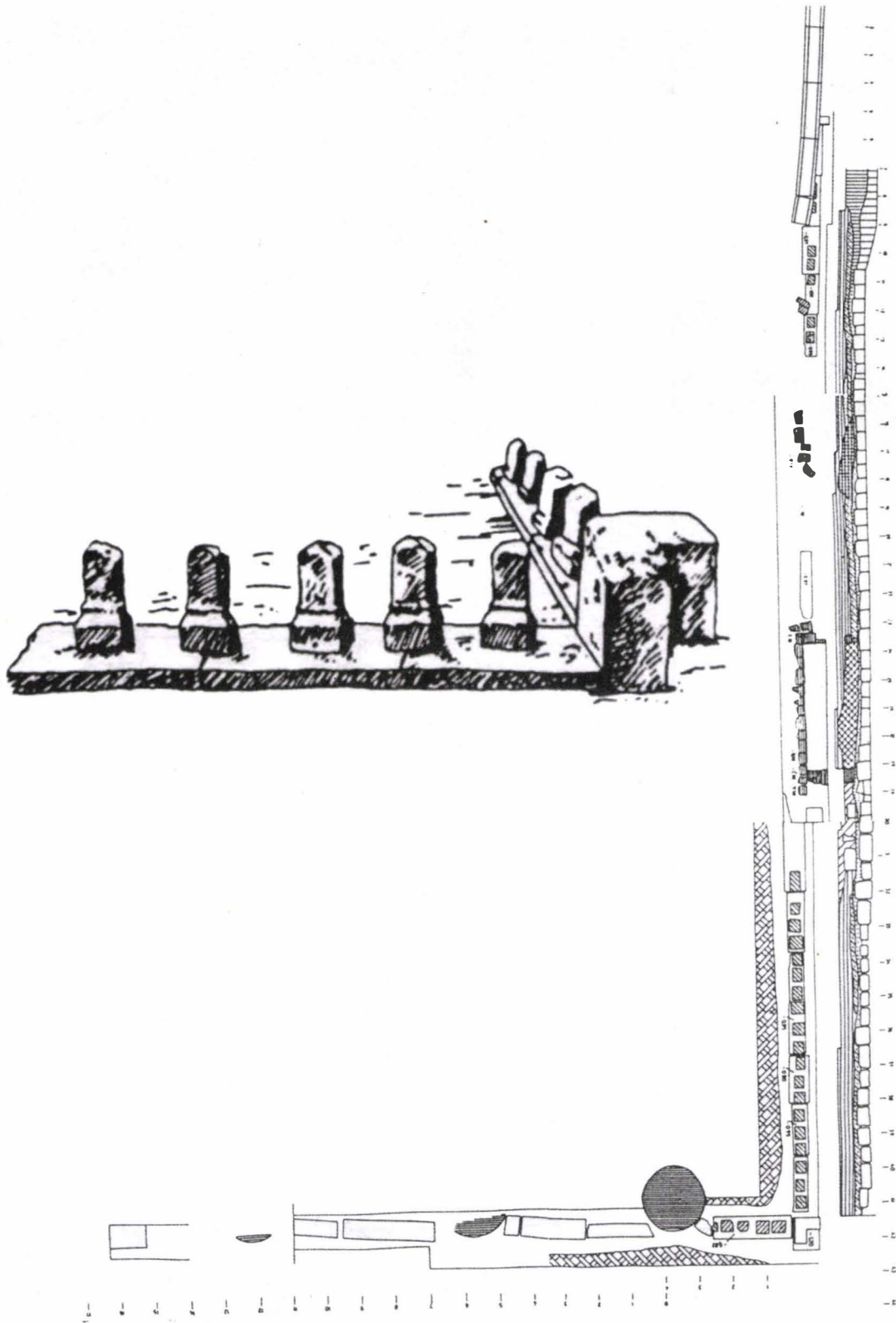


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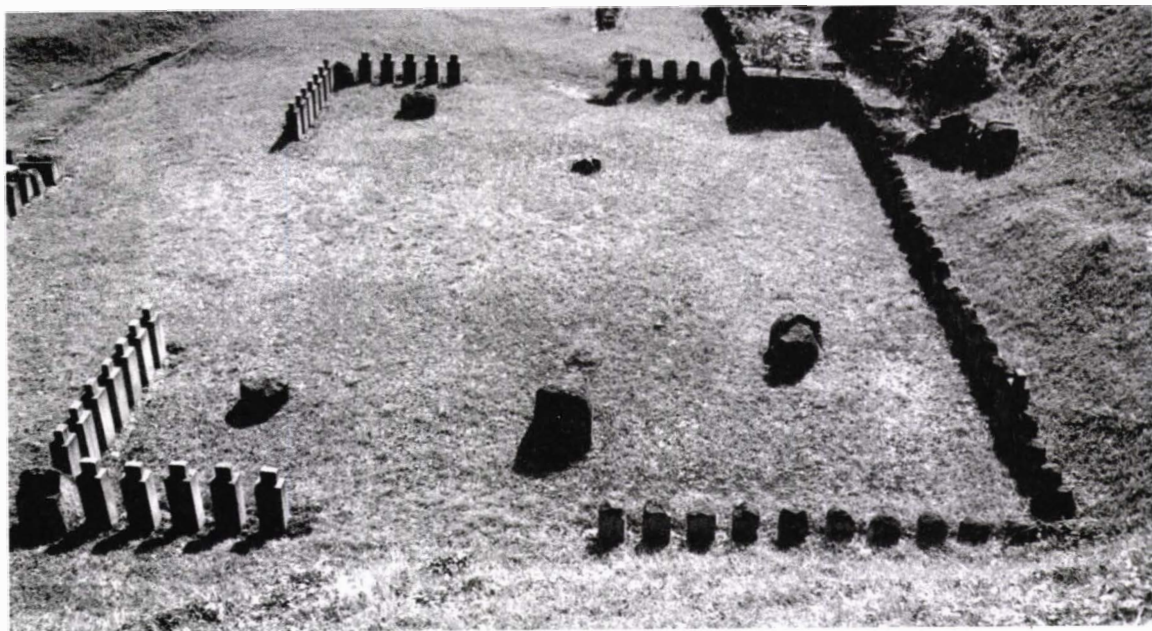


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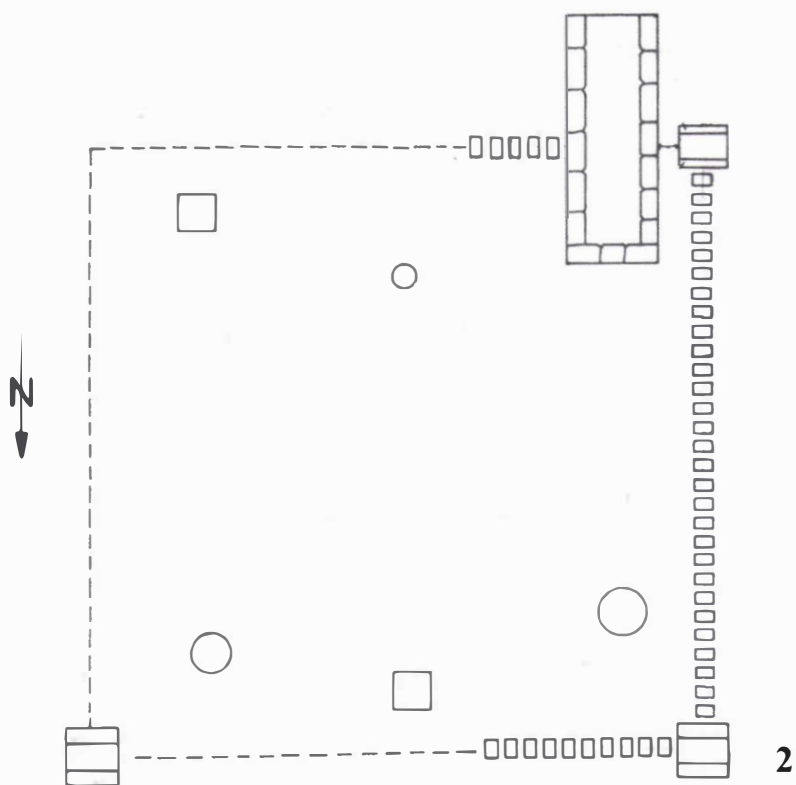
DRAWING XI. Grădiștea Muncelului - Sarmizegetusa Regia. 1. Terraces with sanctuaries; Reconstruction attempt. Plan (acc. to H. Teodoru). Andesite sanctuary from the Xth terrace, Reconstruction proposal (2 - acc. To C. Daicoviciu; 3 - acc. to H. Daicoviciu).



DRAWING XII. Grădiștea Muncelului - Sarmizegetusa Regia. Lime sanctuary from the Xth terrace.

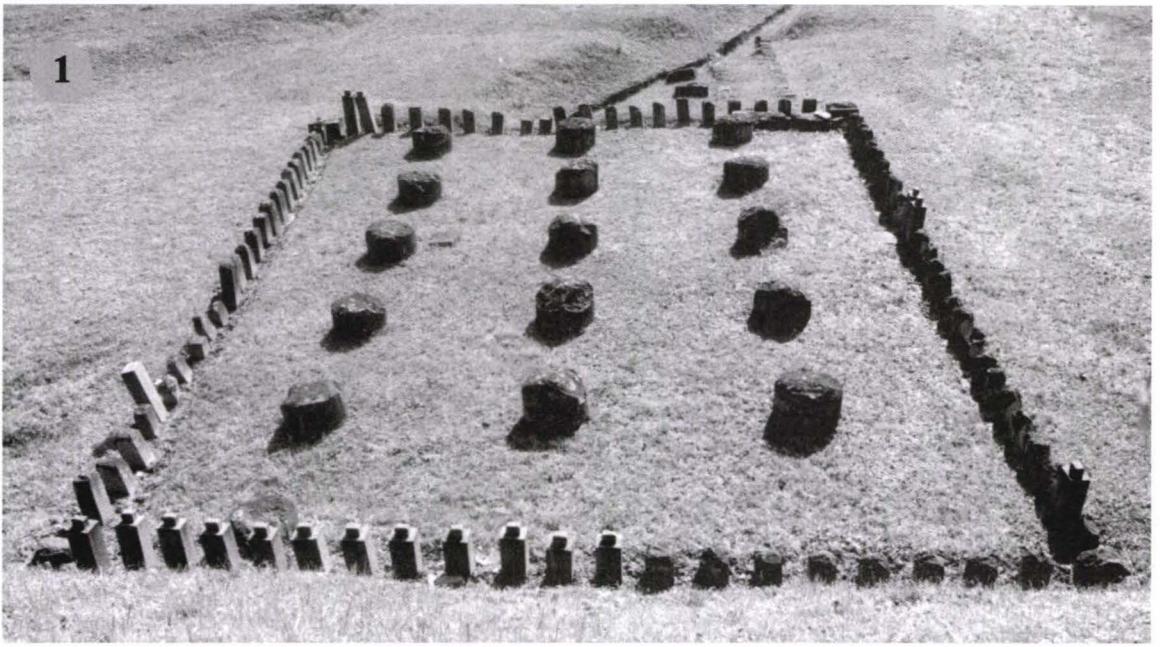


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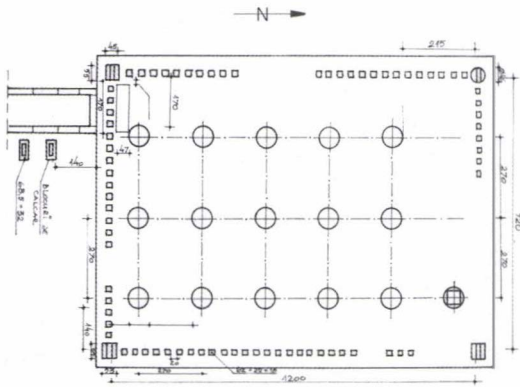


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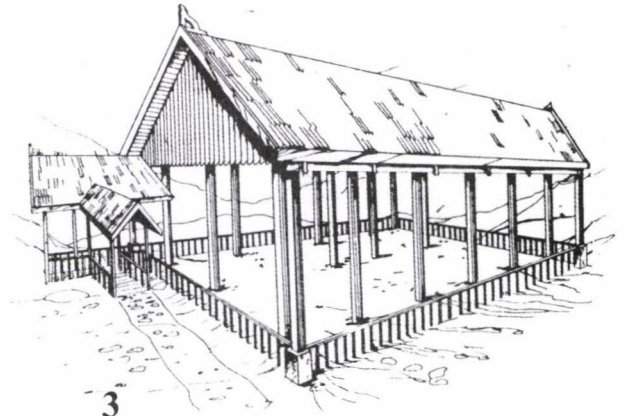
DRAWING XIII. Grădiștea Muncelului - Sarmizegetusa Regia. Big quadrilateral andesite sanctuary from the XIth terrace. 1. Photo; 2. Plan.



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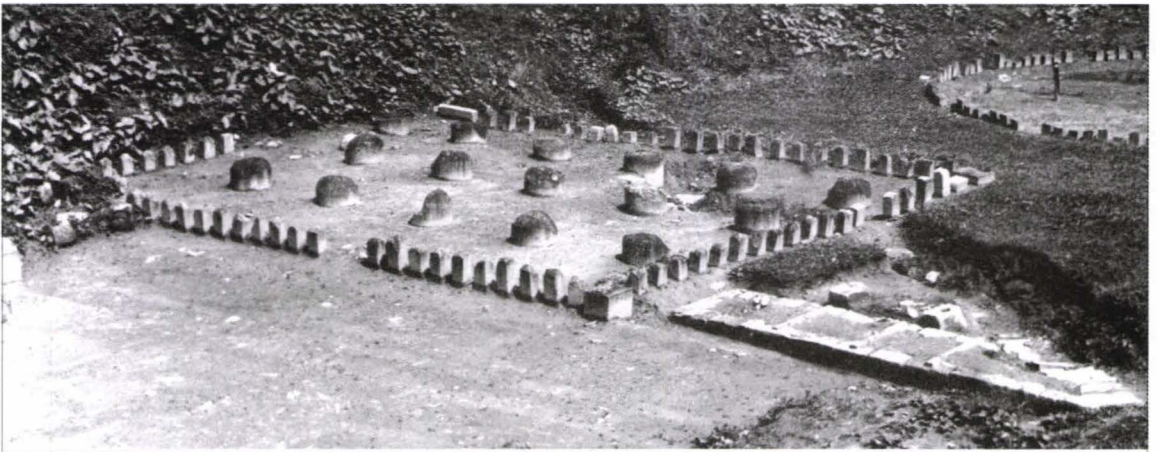


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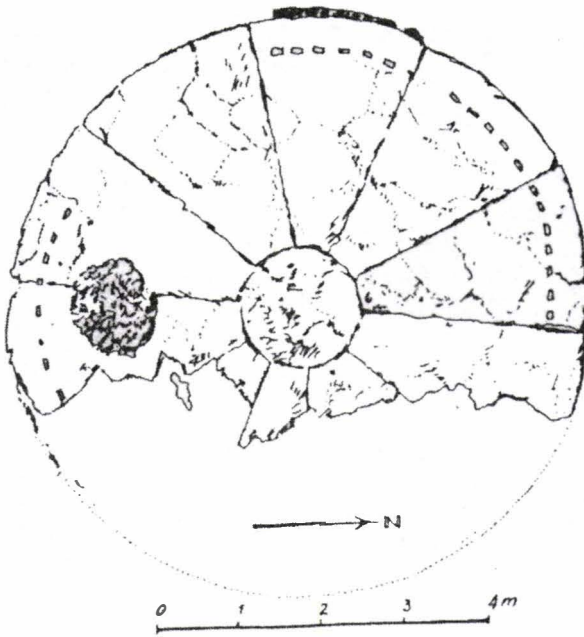
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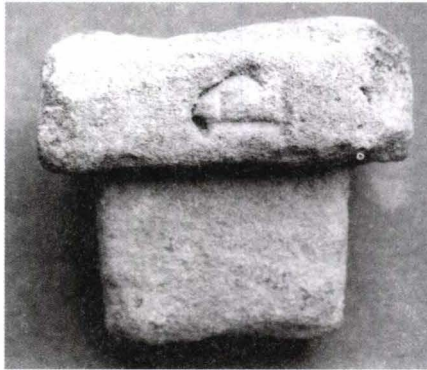
DRAWING XIV. Grădiștea Muncelului - Sarmizegetusa Regia. Small quadrilateral andesite sanctuary from the XIth terrace. 1 and 4. Photos; 2. Plan; 3. Reconstruction proposal.



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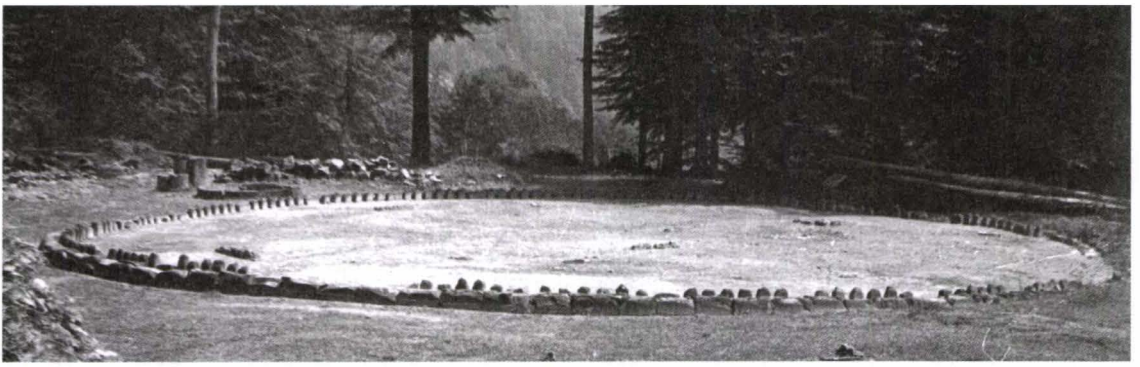


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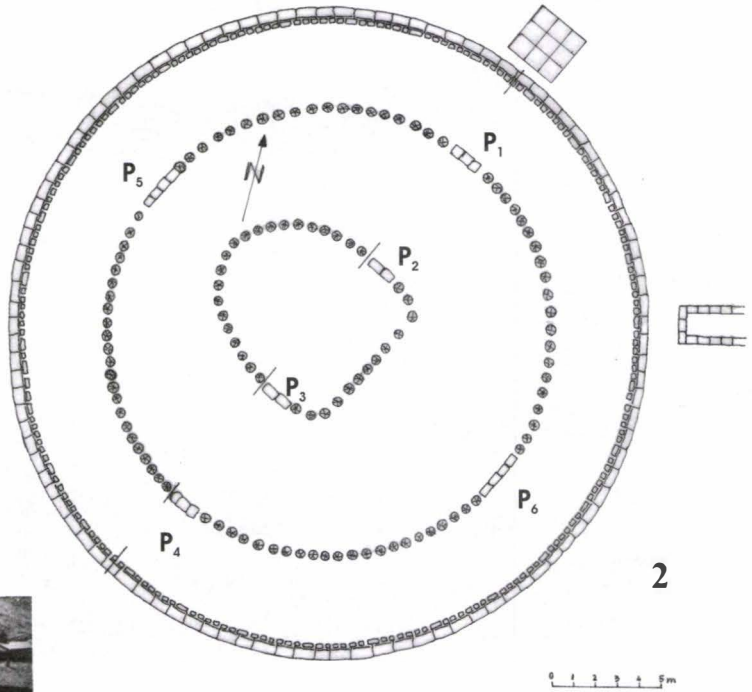


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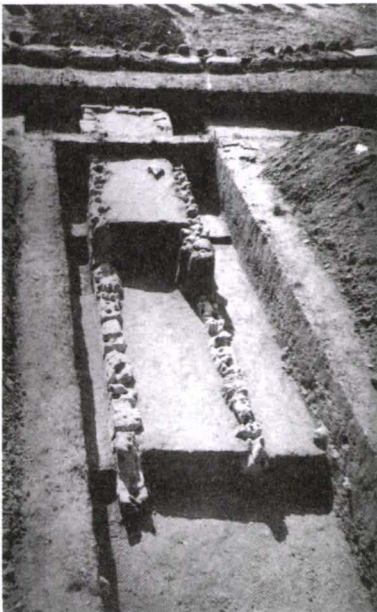
DRAWING XV. Grădiștea Muncelului - Sarmizegetusa Regia. 1. Andesite sun; 2. Plan; 3. Photo "T" shape decorative part.



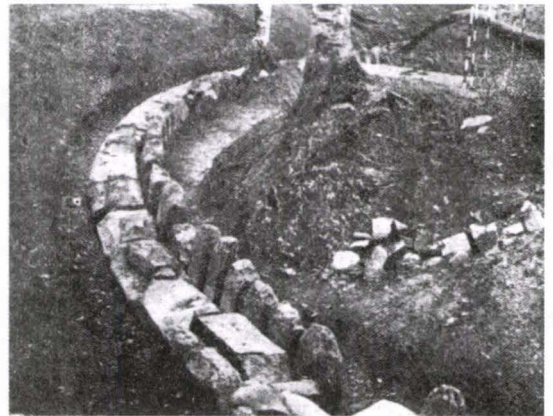
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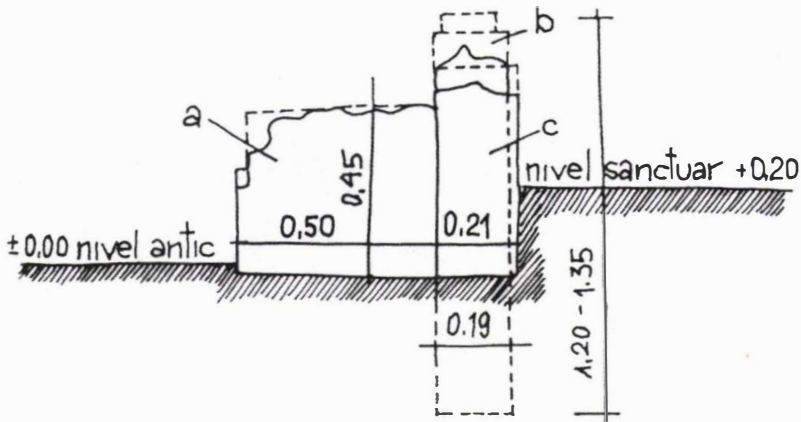
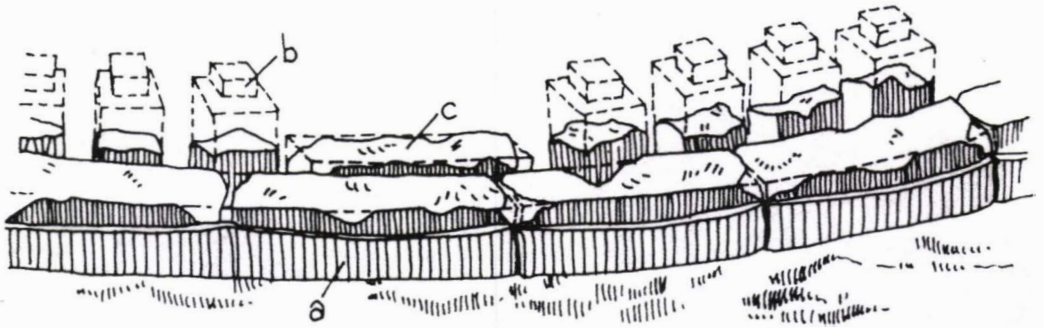
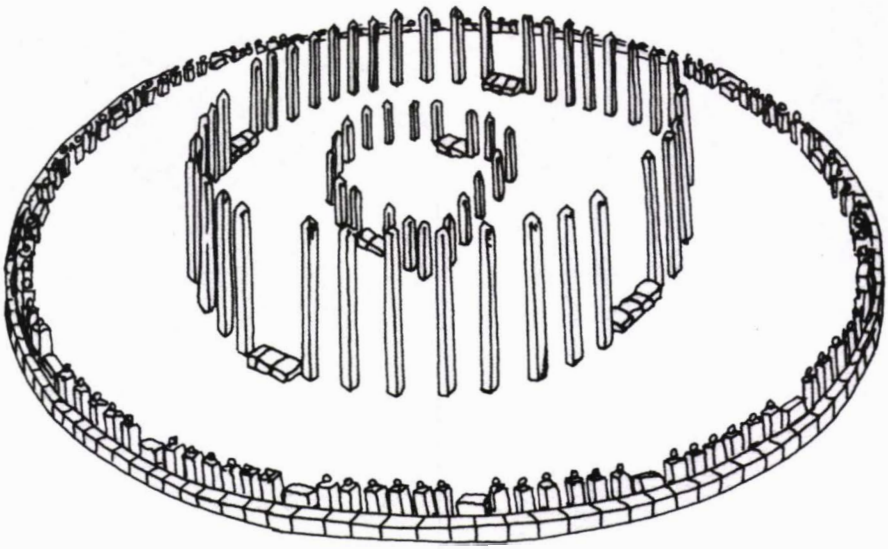


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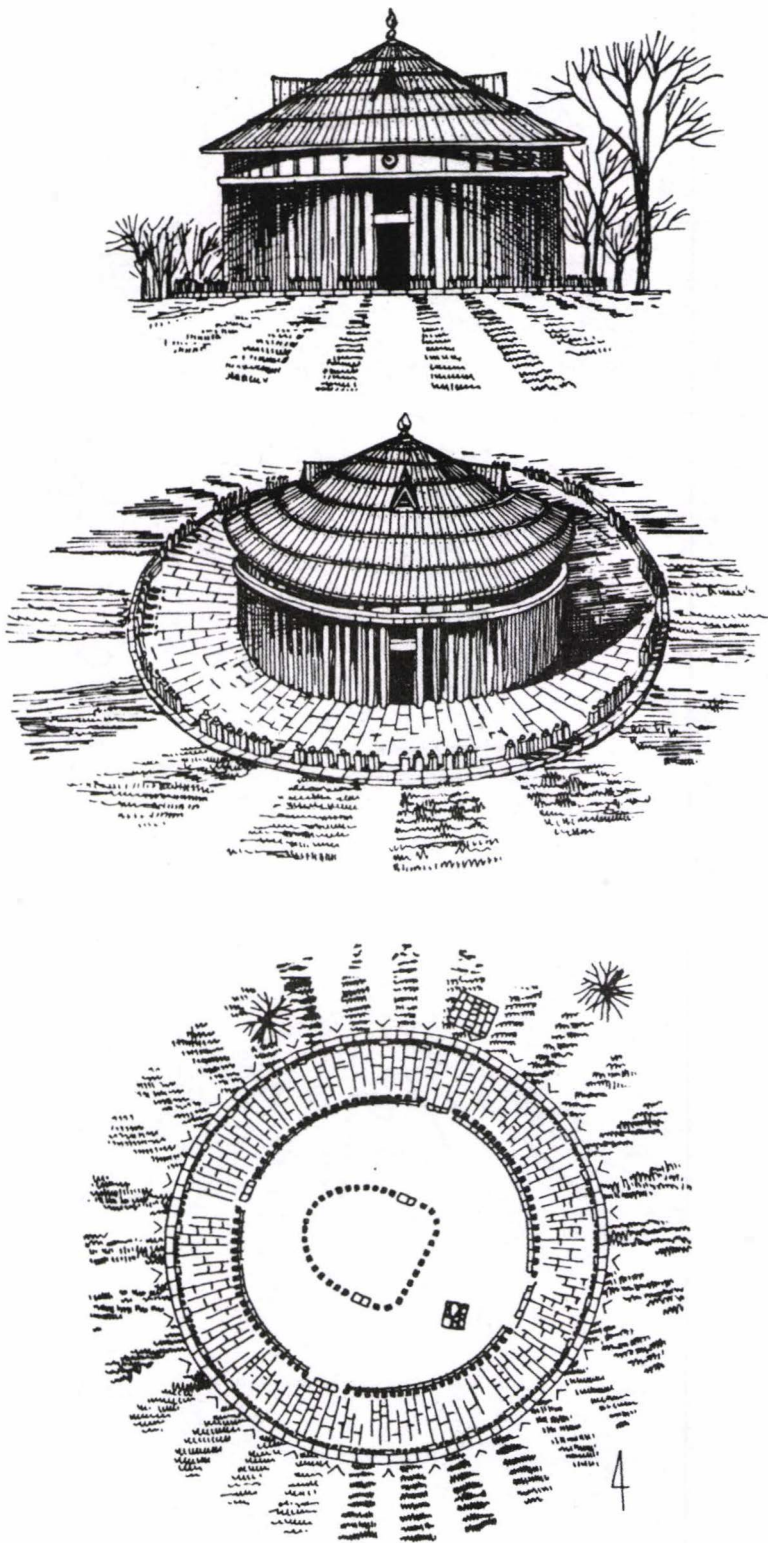


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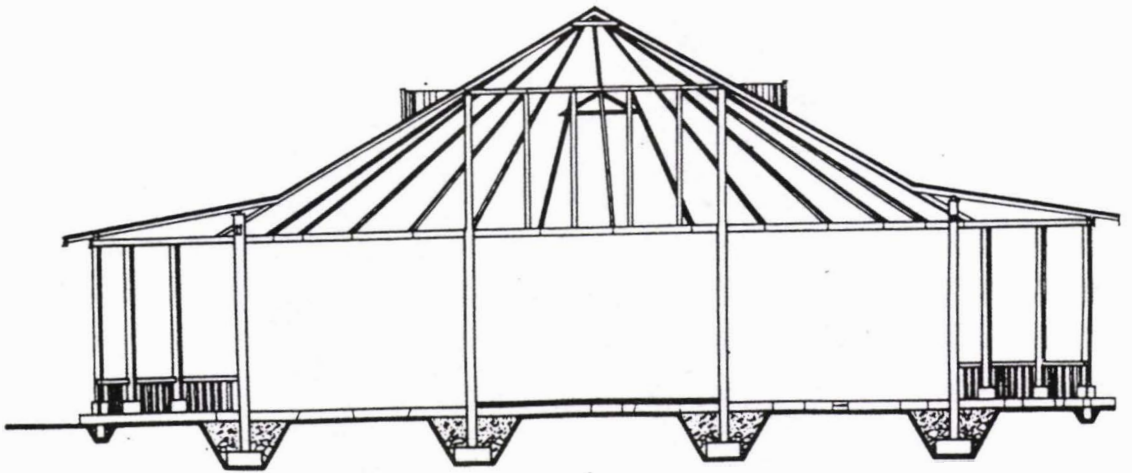
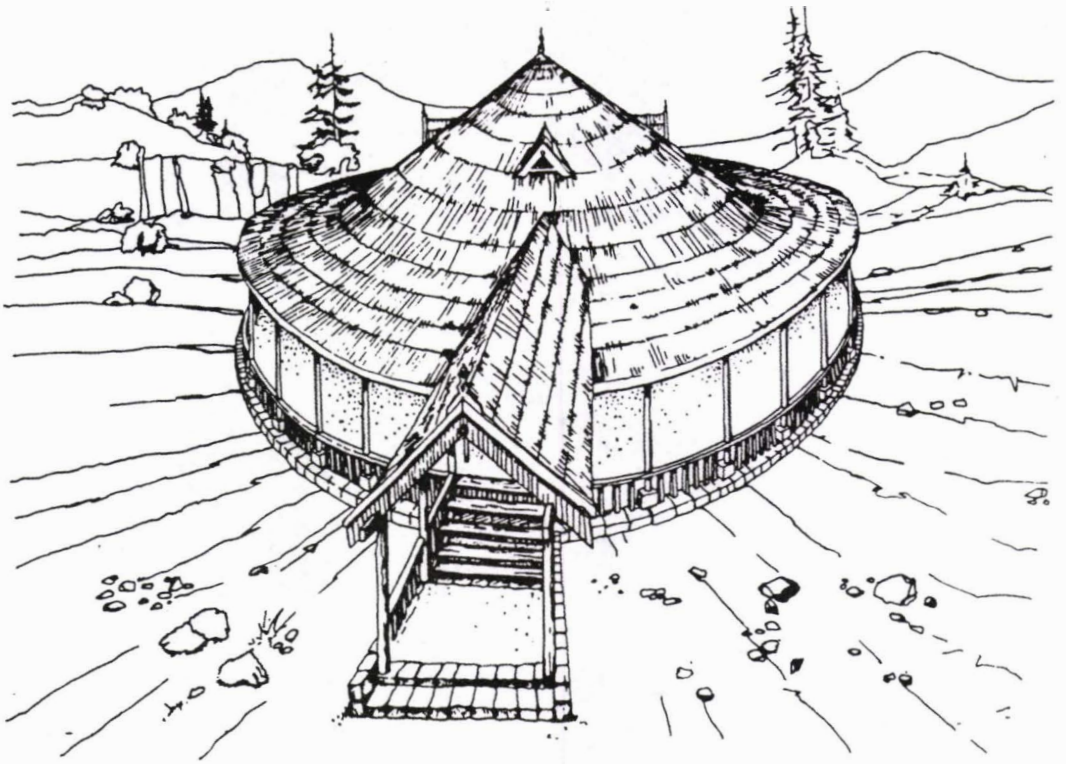
DRAWING XVI. Grădiștea Muncelului - Sarmizegetusa Regia. Big circular sanctuary from the XIth terrace. 1. Overview; 2. Plan 3. Photo - Entrance ramp; 4. Photo. Aspects during the investigations concentric andesite circles.



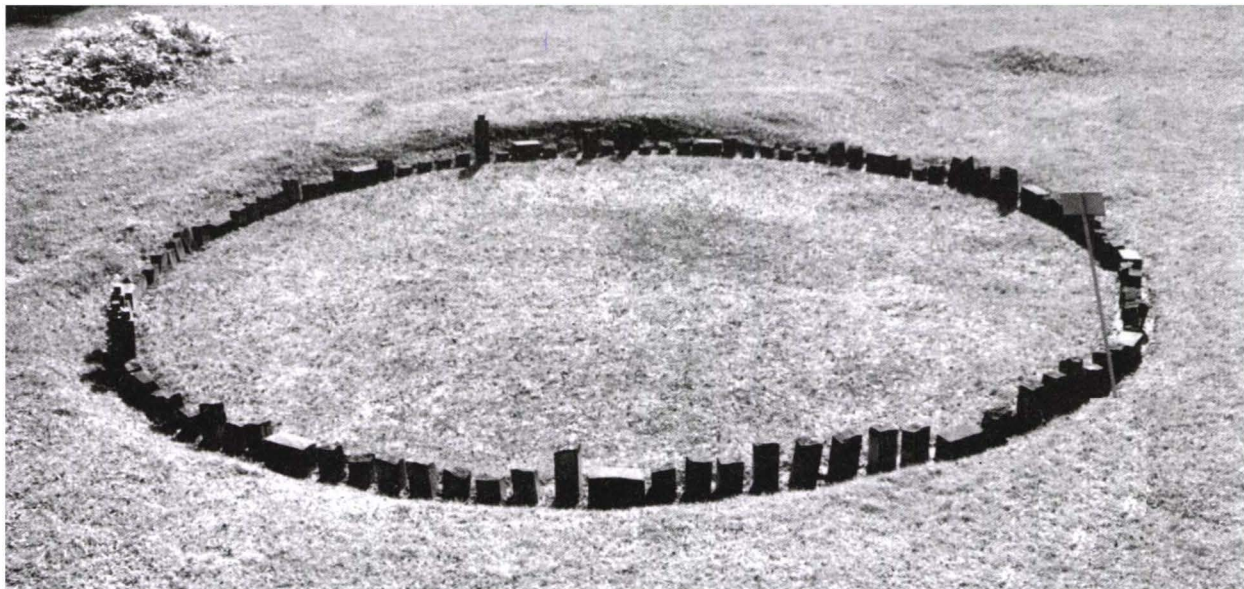
DRAWING XVII. Grădiștea Muncelului - Sarmizegetusa Regia. Big circular Sanctuary from the XIth terrace. Reconstruction proposal (acc. to H. Daicoviciu).



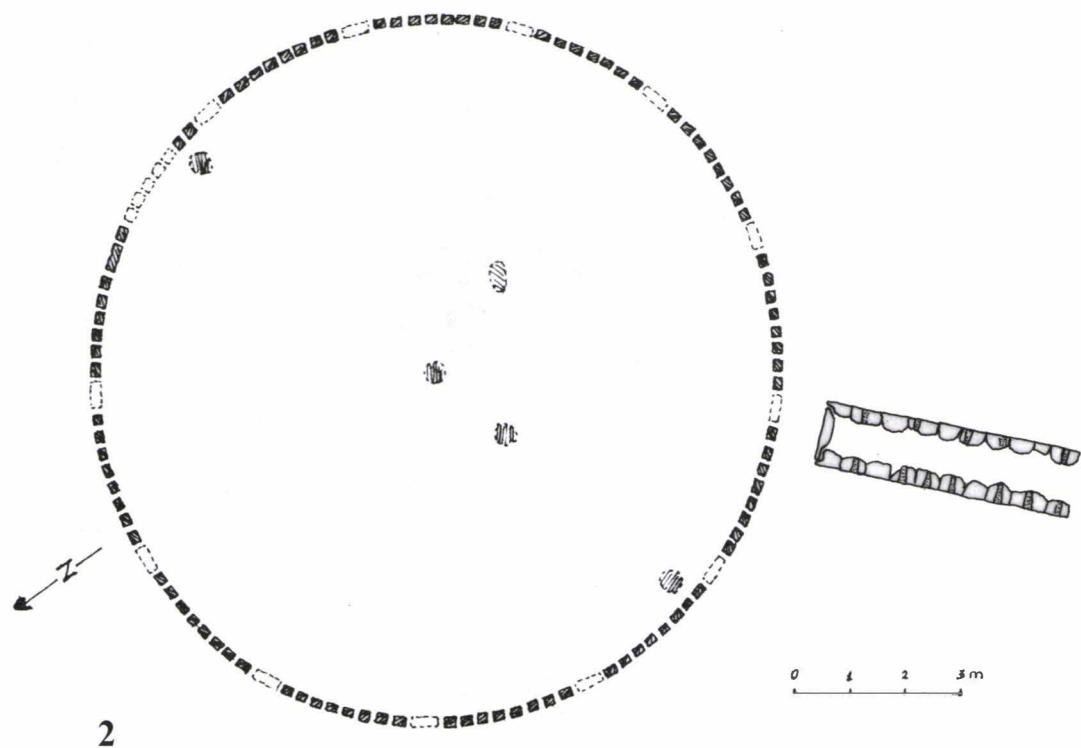
DRAWING XVIII. Grădiștea Muncelului - Sarmizegetusa Regia. Big circular sanctuary from the XIth terrace. 1. Plan; 2. Elevation; 3. Perspective reconstruction proposal (acc. to D. Antonescu).



DRAWING XIX. Grădiștea Muncelului - Sarmizegetusa Regia. Big circular sanctuary from the XIth terrace. Reconstruction proposal.

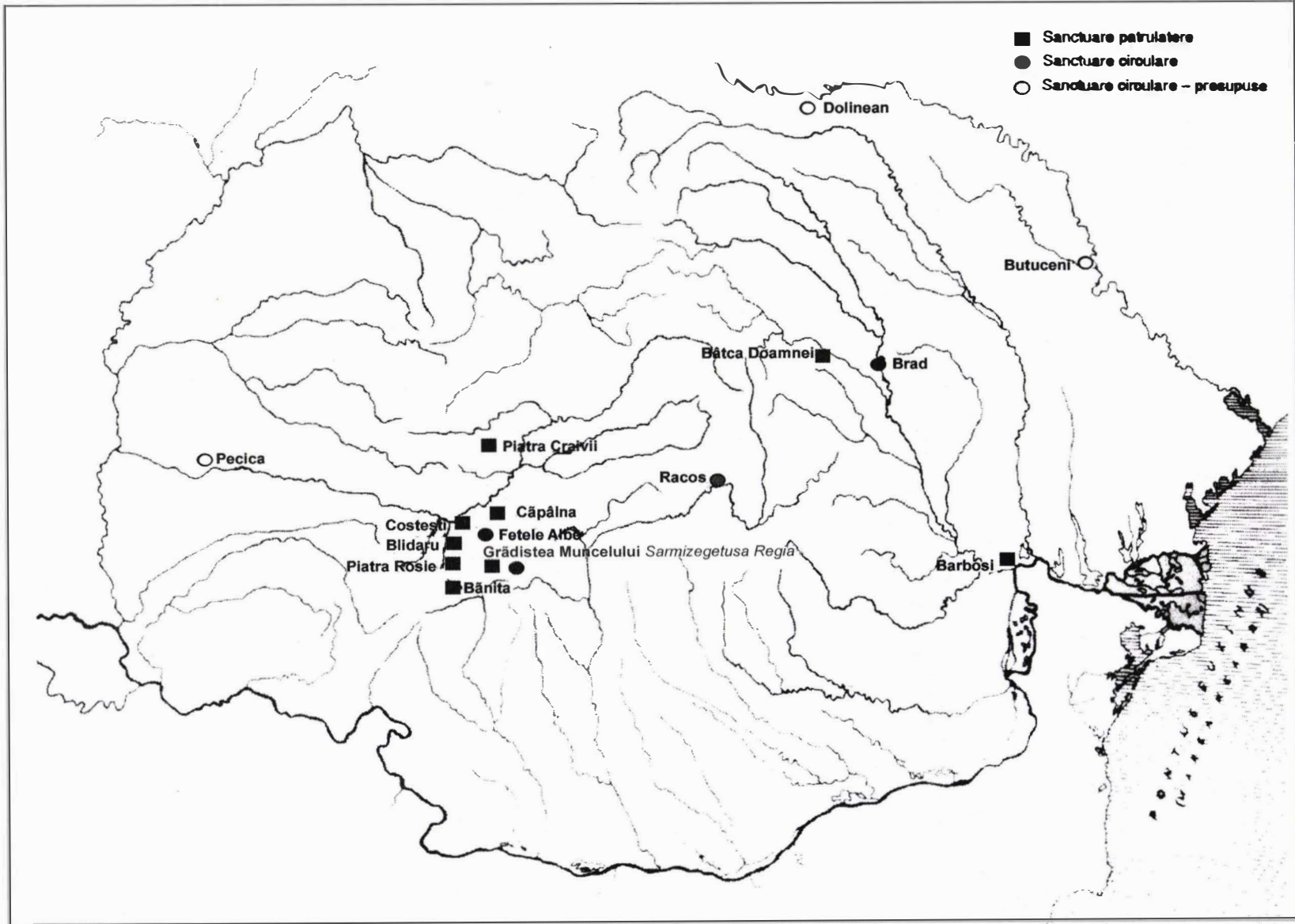


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DRAWING XX. Grădiștea Muncelului - Sarmizegetusa Regia. Small circular sanctuary from the XIth terrace. 1. Photo; 2. Plan.



DRAWING XXI. Quadrilateral and circular sanctuaries.
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