

# MĂGURA MOIGRADULUI<sup>1</sup>. SACRED AREA (1<sup>ST</sup> CENTURY BC) AND FORTIFIED DACIAN SETTLEMENT (1<sup>ST</sup> CENTURY AD)

Horea Pop, Alexandru V. Matei (Zalău - Romania)

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The only known Dacian fortified settlement located in the Salaj County is the one situated on Măgura Moigradului. Its presence in the nearby of the Meseșeană Gate<sup>2</sup> was not obviously, accidentally. Mandatory pass, main Northwestern access route from and towards Transylvania, the place appears to us as an important communication route used by merchants or by anybody else, desiring to get out or in Transylvania with other purposes.

## Short historic

A volcanic hill, a massive pile of stones, presently exploited by a quarry situated on its Southwestern slope, Măgura Moigradului emerges as an impressive cone body, with a maximum elevation of 514m, elevated with 224m above the Ortelec Valley, the water that created the previously named pass. The upper plateau is oval in shape with the large diameter of approximately 400m and the small one of 250m; with a total surface of seven hectares (**Plate 1**). The site became known in the scientific literature quite early<sup>3</sup>, due to the discovery of some Dacian hoards of silver adornments and coins<sup>4</sup>, and then, after the archaeological excavations between 1938 - 1939<sup>5</sup>, 1940 - 1941<sup>6</sup>, 1958 - 1959<sup>7</sup> as a Dacian cremation necropolis. The site from the Măgura Moigradului proves to be a large and prosperous fortified Dacian settlement<sup>8</sup>

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<sup>1</sup> This short description presents the main conclusions contained in the monographic study of the site, which is in preparation. An analogous Romanian version of this text appeared in *Studii de istorie antica. Omagiu Profesorului Ioan Glodariu*, p. 253-277

<sup>2</sup> V. Mihăilescu, *Porțile Transilvaniei*, Crisia, 1971, I, p. 9-14.

<sup>3</sup> I. Marțian, *Urme din războaiele romanilor cu dacii*, Cluj, 1921, p.6.

<sup>4</sup> I. C. Siedel, *AOG XV*, 1855, p. 324; C. Gohl, *Chronik der arhaologischen Funde Siebenburgens*, Hermannstadt, 1875, p. 37; O. Gohl, *ArchErt XX*, 1900, p. 434; *idem*, *Koizstobokus, Eremlelet Aranyosmedyesen*, NK, Budapest, 1903, II; I. Marțian, *op. cit.*; E. Chirilă, *Descoperiri monetare în Transilvania*, AMN III, 1966, p. 421; K. Horedt, *Die Dakischen Silberfunde*, *Dacia N.S.* 17, 1973, p. 127-167; Bundesministerium Fur Wissenschaft und Forschung, *Die Daker Archalogische Funde aus Rumanien*, Wien, I, Neue Hofburg, Burggartensale, 11, Juni, Bisch, Oktober, 1981.

<sup>5</sup> C. Daicoviciu, *Neue mitteilungen aus Dazien*, *Dacia VII-VIII*, 1937-1940, p. 323.

<sup>6</sup> I. Ferenczi, *Regeszeti megfigyelesek a limes dacicus eszaknyugati szakaszán*, EM, XLVI, 1941, p. 199-206.

<sup>7</sup> M. Macrea, M. Rusu, *Der Dakische Friedhof von Porolissum und das problem des Dakischen Besatzungsbrauche in der spatlatenzeit*, *Dacia N.S.* IV, 1960, p.201-229; M. Macrea, D. Protase, M. Rusu, *Șantierul arheologic Porolissum*, *Materiale VIII*, 1962, p. 485-504.

<sup>8</sup> Al. V. Matei, *Așezarea dacică fortificată de pe Măgura Moigradului*, *ActaMP X*, 1986, p. 126-128; Al. V. Matei, H. Pop, *Șantierul arheologic Porolissum – Moigrad*, in vol. *Cronica Cercetărilor Arheologice*, Satu Mare, 1994, p. 50-51; *idem*, *Raport preliminar în legătură cu săpăturile arheologice și lucrările de conservare și restaurare executate la Porolissum în anul 1993*, *ActaMP XVIII*, 1994, p. 111-134; *idem*, *Șantierul arheologic Porolissum-Moigrad*, in *Cronica Cercetărilor Arheologice*, Cluj Napoca, 1995, p. 55-57; *idem*, *Măgura Moigradului*, in *Situri arheologice cercetate în perioada 1983-1992*, Brăila, 1996, p. 73-74.

previously preceded by a site with a cultic nature<sup>9</sup>, dated between the end of the second century BC and the first century BC<sup>10</sup>. Because of the geographic conditions, the fortified settlements similar to those discovered in the Southern or Eastern Dacia<sup>11</sup>, are not typical to the Salaj County region; only the site from Moigrad stands alone.

We will not detail now problems connected with the site's fortification, which is to be discussed later in the text, but we will try to reflect several aspects of the site revealed in the excavations carried out in the last years, presented also in later studies<sup>12</sup>.

On Măgura Moigradului systematic archaeological excavations took place beginning with the years 1938 - 1939<sup>13</sup>. Well known in this moment are the results of the 1984, 1987 - 1995<sup>14</sup> research campaigns to which we may add with the campaigns from the years 1958 - 1959<sup>15</sup> but only with certain probability, due to the particular situation in which we received the archaeological inventory (**Plate 1** – *The general plan of the excavations*).

**Excavated surface – preliminary results.** The plateau has a total surface of 70.000 square meters from which only 3.730,36 square meters were excavated, representing 5,32% from the total. In this surface there were identified 193 Dacian pits, 32 dwellings, 43 fireplaces and 8 ovens. Several less preserved ovens might have been considered fireplaces, but this possibility does not change the main data of the issue. From the 195 discovered Dacian pits, two were post holes and were connected probably, with a dwelling positioned in the nearby.

For the chronological horizon dated at the end of the second century BC – first century BC, which corresponded to the period in which the site functioned as an area with ritual deposits, there were identified and dated as such, 4 pit-dwellings (**Plate 1**) and 79 pits. For the period between the first century BC and the first century AD one could date 1 dwelling and 6 pits and for the first century AD there were excavated and dated 27 dwellings (**Plate 1**) and 25 pits. For the last two chronological horizons we identified only surface-dwellings but also pits with an unquestionably ritual nature. The rest of the pits could not be dated precisely in one of the three chronological periods, due to their poor inventory or due to poor technical recordings<sup>16</sup> (inaccessible for us).

**The fortification of the plateau – components.** Due to the controversy connected to their chronology, only occasional notes appeared about the fortification elements from Măgura Moigradului. Beginning with the year 1984, when archaeological excavations restarted in this site, the fortification elements were investigated in eleven points corresponding to the six field campaigns which had this objective (**Plate 1**). The seven hectares of the upper plateau were

<sup>9</sup> Al. V. Matei, *op. cit.*, p. 126-128; Al. V. Matei, C. Stoica, *Cercetări arheologice pe Măgura Moigradului Campania 1987*, ActaMP XII, 1988, p. 158-160; H. Pop, *Contribuții metodologice privind cercetarea spiritualității dacice, reflectată în descoperirile arheologice*, ActaMP XVII, 1993, p. 91-105.

<sup>10</sup> H. Pop, Al. V. Matei, *The tipology of grey pottery discovered in the dacian settlement from Măgura Moigradului*, paper sustained at the *Pre Congress Colloquy-The stamped grey pottery*, Zalău, 27-30 June, 1996.

<sup>11</sup> Few examples at I. Glodariu, *Arhitectura dacilor*, Cluj Napoca, 1983; D. Berciu, *Buridava dacică*, București, 1981; others from Transylvania at I. Glodariu, *Așezarea dacică și daco-romană de la Slimnic*, AMN IX, 1972, p. 119-140, idem, *Vase de argint în tezaurile dacice*, Sargetia XI-XII, 1974-1975, p. 19-34; idem, *Așezări dacice și daco-romane la Slimnic (jud. Sibiu)*, București, 1981, p. 191.

<sup>12</sup> H. Pop, *Civil architecture and habitat during Latene D in the Depression of Șimleu*, ActaMN XXXII, 1995, p. 103-118.

<sup>13</sup> C. Daicovicu, *op. cit.*, p. 323.

<sup>14</sup> Excavations carried out by dr. Al. V. Matei together with a collective in which took part C. Stoica (1987-1990), D. Tamba (1984, 1987-1989), dr. H. Pop (1988-1995), I. Bejinariu (1994)

<sup>15</sup> See footnote number 6.

<sup>16</sup> This is the case with the 55 pits discovered in the 1958-1959 excavation campaigns.

enclosed with a system of fences fixed into two parallel foundation trenches, positioned at variable distances (from 5 to 10 meters, **Plate 8/13-15**). In a single point (S1/1993, **Plate 8/15a**) located in the Eastern part of the plateau, the observed distance between the two foundation trenches was narrower (0,5m). This area is the most difficult to climb and here the fence fortification was not doubled in the exterior by a ditch. In all the other cases the fortification ditch was located at the base of the fence at a distance of 3,5 – 7m. The opening of the ditch which had a rounded bottom, varied between 2 – 3m, with depths between 0,7 - 1,5m (**Plate 8/13,14**). The wideness of the two trenches with wood beams which supported the fence measured between 0,3 – 0,6m, and depths of 0,8m (**Plate 8/13a**). Even though the steep and long slope of the hill made enough difficult any unfriendly climbing attempt, the entire plateau was fortified with a wood and earth fortification doubled on the exterior, almost on its entire length (approximately 1 km), by a ditch, imposed in a way by the land pattern (**Plate 1**). Moreover, at 25 meters away from these fortification elements, on the western slope of the hill, the one orientated towards the Meseșcană Gate and easier to climb, another ditch, 235m in length, was found (**Plate 11**). The ditch was 3m wide on top and 1,3m in depth and was probably designed to have a fence fixed in a *vallum* which probably fell in time inside the ditch, due to the steep slope (**Plate 8/15b**). Both fortifications seem to function in the same time, during the first century AD, until the Roman conquest. An evidence in this way is the archaeological material found in the ditch filling, but above this, the discovery of a Dacian dwelling dated in the first century AD overlapped by the Dacian fortification of the plateau.

**The sacred area.** An archaeological site may be considered a cult place only with regard to the archaeological context of the discovery, the presence in the nearby of complexes with solid elements of ritual: fireplaces, altars, sanctuaries, ritual pits, items with a cultic signification.

Măgura Moigradului entered the historical literature with some ritual discoveries, initially interpreted as funerary monuments<sup>17</sup>. As result of the excavations carried out during 1984 – 1995, the site may be now considered a large civil Dacian settlement<sup>18</sup> which occupied the entire 7 ha of the upper plateau surrounded by a *vallum*. If this affirmation seems to be unquestionably for the archaeological reality dated in the first century AD, although, also in this period there were discovered ritual pits, for the first century BC the most justified interpretation of the site is that of a cult place.

An argument for this interpretation<sup>19</sup> may be the large number of pits datable in the first century BC (79) compared with the small number of season (none of them had a fireplace) pit-dwellings (4) with a poor inventory. Moreover, for this chronological horizon, the ritual pits were identified also on the slopes of the hill, in the exterior of the fortification, as it was the case with a pit excavated in 1991<sup>20</sup> and with other complexes identified in the Southern sector of the site, during the reconstruction of the road which ensures the access on the plateau. Apart, from the typical inventory (entire or fragmentary ceramic vessels, burnt stones, animal bones, sometimes cremated, ash, coal, entire or fragmentary utensils, pieces of fireplaces and burnt clay

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<sup>17</sup> M. Macrea, M. Rusu, *op. cit.*, p. 201-229; M. Macrea, D. Protasc, M. Rusu, *op. cit.*, p. 361-390; M. Macrea, M. Rusu, I. Mitrofan, *op. cit.*, p. 485-504.

<sup>18</sup> See the text in which the subject is the fortified settlement from Măgura Moigradului.

<sup>19</sup> H. Pop, *Arhitectură civilă și habitat în La Tene D, în Depresiunea Șimleului*, in vol. *Studii de istorie a Transilvaniei. Familie și societate*, Cluj Napoca, 1999. p. 109-122.

<sup>20</sup> *idem*, *Contribuții metodologice privind cercetarea spiritualității dacice, reflectată în descoperirile arheologice*, ActaMP XVII 1993, p. 91-105.

walls, adornments, dress accessories, fragments of grinders), some pits (4 of them) contained inside human skeletons or parts of skeletons<sup>21</sup>.

Without an obvious tendency to group in any part of the plateau, the Dacian pits dated in the first century BC, had regular diameters of 1m and regular depths of 1,2-1,5m. There were identified as well, large pits with diameters of 2,2-2,5m, not much deeper than the rest. The situation was similar for several pits dated in the first century AD.

In general, the four pit-dwellings identified on Măgura Moigradului (**Plate 1**), which correspond to the chronological horizon when the site functioned as a sacred place, had a circular plan and depths of 0,70m, with 30-40cm dug actually in the rock bed of the hill. The roof had two slopes supported by two posts, positioned inside the construction, fixed with 60 cm below the walking level. The diameter of the dwellings varied between 2 to 3,5m. None of these houses had a fireplace inside. This type of complex had as inventory ceramic, bones, small tools and stones fallen from the hay roof, and was observed on the Eastern and Southern parts of the plateau, in opposition with the surface-dwellings, which were identified not only on the Eastern and Southern sides, but also on the Northwestern side, more exposed to winds.

**The fortified Dacian settlement.** The identification of the fortified Dacian settlement resulted after the analyses of the so called *platforms with ceramic*, presented as well in the older literature and moreover, after the appearance of similar complexes in more recent excavations. We consider these *platforms with ceramic*<sup>22</sup> as surface-dwellings (**Plate I**). Their inventory consisted in ceramic vessels broken in situ, pieces of clay walls, sometimes burnt, animal bones, sometimes burnt, other items specific to an everyday life (whetstone, iron items, items for ceramic modeling, grinders). Their contour was often irregularly; often they overlapped a fireplace and frequently pits. The pits usually belonged to the older level. That is why we consider those platforms surface-dwellings built on wood beams foundations, technology used due the small depth where one could find the volcanic rock specific to Măgura Moigradului; the wood beams did not let any traces in the rock except for when they were dug into it.

**The archaeological material. Chronology, types of vessels, functionality, decoration, manufacturing techniques.** For the time interval between the end of the second century BC and the first century BC, when we consider the first chronological horizon of the Dacian habitation in this site to be a sacred area, we mention as chronological markers silver broche with knots (3 items) discovered in 1855<sup>23</sup> (at K.M.V. beginning with the year 1865), datable in the last quarter of the second century BC until the middle of the next one<sup>24</sup>. In the pit G17/1994 there were found pieces of a belt hook covered with a decorated bronze plate (**Plate 2/1**) together with a knife, a spoon (**Plate 2/7**), an iron spur and entire ceramic vessels (3 pots with isolated knobs and a black polished fruit-bowl without its foot). The belt hook can be dated during the first century BC<sup>25</sup>, as well as the iron exemplar discovered in the pit-welling

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<sup>21</sup> Al. V. Matei, *Așezarea dacică fortificată de pe Măgura Moigradului*, ActaMP X, 1986, p. 126-128; Al. V. Matei, H. Pop, Șantierul arheologic Porolissum-Moigrad, in vol. *Cronica Cercetărilor Arheologice*, Satu Mare, 1994, p. 50-51; idem, *Raport preliminar în legătură cu săpăturile arheologice și lucrările de conservare și restaurare executate la Porolissum în anul 1993*, ActaMP XVIII, 1994, p. 111-134;

<sup>22</sup> M. Macrea, M. Rusu, *op. cit.*, p. 201-229; M. Macrea, D. Protase, M. Rusu, *op. cit.*, p. 361-390; M. Macrea, M. Rusu, I. Mitrofan, *op. cit.*, p. 485-504.

<sup>23</sup> R. Florescu, I. Miclea, *Tezaur transilvane la Kunsthistorische Museum din Viena*, București, 1979, p. 20-21.

<sup>24</sup> A. Rustoiu, *Fibulele din Dacia preromană*, București, 1997, p. 32-33.

<sup>25</sup> M. Babeș, *Paftalele Latene târzii din sud-estul Europei*, SCIVA 34, 1983, 3, p. 196-221; A. Rustoiu, *Metalurgia bonzului la daci*, București, 1996, p. 120-121

identified in S1/1993. In this dwelling appeared also a fragment of an iron coat of mail, this type of equipment disappearing gradually at the beginning of the first century AD<sup>26</sup>.

In G5/1984, near the ritual deposited superior half of a woman, there was discovered a globular silver pendant (**Plate 2/4**) with good analogies at Liptovska Mara<sup>27</sup> with Celtic items dated in the II-I centuries BC. These early items provide the chronology for the ceramic vessels discovered inside the pit G5/1984, in an older period, at the end of the second century BC and along the first century BC. The ancient mending observable on the hanging ring of the globular silver pendant, made with a bronze wire, may suggest a long period of use for this item. A tempting hypothesis, considering this adornment as specific to the Celtic world, might assert that the sacrificed individual was a war prisoner (?). The circular silver pendant with three rungs, discovered in the same complex, without any good analogies in the Dacian world, could also sustain the previously named theory. A similar exemplar, but with four rungs, appeared at Sighișoara-Wietenberg<sup>28</sup>, and its Central-European analogies<sup>29</sup> suggest the fact that the item was imported<sup>30</sup>, or that the sacrificed feminine individual from G5/1984 pit was a war prisoner. These types of items are usually chronologically dated between the second half of the second century BC and the first century BC, data which completes, by the way, the proposed chronology for the entire complex<sup>31</sup>.

The chronological horizon of the fortified settlement (1<sup>st</sup> century AD) can be precisely dated due to the presence in several complexes (L1/1991/1992 in S1/1991 and C2-C3/1992 and the dwelling-tower discovered in the Southern sector of the site in 1995) of profiled bronze pendants (**Plate 2/8-12**), dated especially in the first century AD<sup>32</sup>. An iron broche, without the spring, manufactured in a local workshop (**Plate 2/6**), discovered in the dwelling identified in S1/1991 and C2-C3/1992, can be dated in relation with the bronze profiled pendants in the second half of the first century AD<sup>33</sup>.

The lira-shaped bronze buckle (**Plate 2/5**) discovered in the dwelling L2/1992 belongs to a very well known Dacian type<sup>34</sup>, mainly dated in the first century AD<sup>35</sup>. This type of buckle appears in 5 exemplars in Liptovska Mara<sup>36</sup>, in Slovakia, in the Puchov culture, the author who published them, considered they are Noricum-Pannonian imported items. A fragmentary item was discovered in Malaja Kopanja in Ukraine, also considered there, an imported Noricum-Pannonian item<sup>37</sup>. This type of dress accessory provides for the ceramic material discovered inside the dwelling a chronology in the first century AD.

Considering the pottery found in complexes belonging to the two chronological horizons, as chronological markers, we observed that these materials are indeed different, from a period to the other, as decoration, shapes and material used inside the clay mixture.

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<sup>26</sup> A. Rustoiu, *op. cit.*, p. 150.

<sup>27</sup> K. Pietă, *Liptovska Mara*, Bratislava, 1996, p. 94, fig. XI-3, 4, 9.

<sup>28</sup> K. Horedt, C. Seraphin, *Die prahistorische Ansiedlung auf dem Wietenberg bei Sighișoara-Schassburg*, Bonn, 1971, pl. 62/13.

<sup>29</sup> D. van Endert, *Die Bronzefunde aus dem Oppidum von Manching*, in the series *Ausgrabungen in Manching*, Bd. 13, Stuttgart, 1991, p. 15-18.

<sup>30</sup> A. Rustoiu, *Metalurgia bronzului la daci*, București, 1986, p. 126

<sup>31</sup> *Ibidem*, p. 26

<sup>32</sup> M. Macrea, M. Rusu, *op. cit.*, p. 215, fig 13/11; A. Rustoiu, *op.cit.*, p. 123-124.

<sup>33</sup> A. Rustoiu, *op. cit.*, p. 52, fig. 57/1, type 18.

<sup>34</sup> A. Rustoiu, *Catarama în formă de "liră" în Dacia preromană*, Marisia XXIII-XXIV, 1994, p. 577-580

<sup>35</sup> A. Rustoiu, *Metalurgia bronzului la daci*, București, 1986, p. 118-119

<sup>36</sup> K. Pietă, I. Nitra, 1982, p. 253, fig. XI/14; *idem*, *Liptovska Mara*, Bratislava, 1996, p.80, fig. VIII/5-8.

<sup>37</sup> V. Kotigorosko, *Țimuturile Tisei Superioare în veacurile III î.e.n.-IV e.n.*, București, 1995, p. 98 and fig 50/53

If for the first period (the end of the second century BC – first century BC) we identified hand-made pots (**Plate 3**) with slightly flared out lip and more rarely with a lip with facets, decorated with alveoli girdles (never incised girdles) (**Plate 3/5, 6**) which links cylindrical or flat knobs, with finger-tips alveoli, decorated with oblique girdles positioned on the pot's body (**Plate 3/4**) or decorated with incised ornaments made with a “comb” on the entire surface of the pot or with two or four knobs isolated on the maximum curvature of the pot (**Plate 3/7, 8**), containing in the clay smashed shards, limestone or mica, the pots (cooking vessels were the most numerous, **Plate 6**) dated in the second horizon (first century AD) had a pronounced flared out lip, with facets, immediately under the neck decorated with horizontal lines or wave lines incised with a “comb” with 3-5 teeth (**Plate 6/1, 3**), followed almost constantly by continuous horizontal girdles, incised (**Plate 6/7, 8**) or with alveoli (**Plate 6/1, 6, 9**), in relief, positioned on the maximum curvature of the pot. In this period appeared the decoration with incised little fins positioned in the superior half of the vessel (**Plate 6/6**). In the clay they usually mixed fine sand.

For the older horizon<sup>38</sup> typical were the porringers with a lip shaped as a “T” or “S” (**Plate 4/6, 8**), black or brown polished fruit-bowls (**Plate 4/5**) or grey hand-made exemplars and Celtic type hand-made *kantharoi*, with slightly over-elevated handles (**Plate 4/7**)<sup>39</sup>. Also frequent were the small and medium sized bitruncated mugs, with a cylindrical handle, covered with a brownish or dark grayish slip (**Plate 4/1-4**). The rushlight cups had rarely no handles (**Plate 8/11**) and more frequent had one handle (**Plate 8/3-5**) or two handles (**Plate 8/1, 2, 10**), without much decoration (**Plate 8/10**), especially in the first century AD, when the site functioned as a fortified settlement, context in which the increased number of this type of lighting installation may have an explanation. The miniature vessels were not very numerous in the first period; a special entire item, a miniature pot, was decorated with motifs, which were never noticed in totality in the decoration of the large vessels (**Plate 3/3**). For the first century AD we noticed an increased presence of the miniature vessels, imitation of pots (**Plate 8/6-9**) and rushlight cups (**Plate 8/12**).

The wheel-made ceramic was in majority fired without oxygen, presenting a grayish color. For the first century BC horizon we noticed the presence of hemispherical porringers with a lip shaped as a “T” (**Plate 5/4, 5**) or “S” (**Plate 5/2, 3**) and of numerous mugs with one handle (**Plate 5/6-12**), in which water could have been brought from the nearby springs. The large vessels for storage (**Plate 5/1**) lacked almost entirely. The fruit-bowls had in general, large lips of 3,5 -8cm and impressive diameters. The quantity of wheel-made pottery was smaller in comparison with the same technologic type dated in the later period of the site development.

In the first century AD we noticed the presence of large bowls with a wale positioned in the area of the lip (**Plate 7/8**). These vessels were used for transporting the food to the table, furniture item which we can guess as inventory in the surface-dwellings, typical for this century on Măgura Moigradului. The porringers with a similar profile represented a more modest in size relative of these bowls; they were used in the individual alimentation (**Plate 7/6, 7**). The wheel-made fruit-bowls, had with more slender shapes, conical interiors and narrow lips (1,5 – 3cm, **Plate 7/3-5**), suggesting their use more as drinking cups (**Plate 7/2**), than vessels for eating. The

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<sup>38</sup> Good analogies for the pottery dated in this horizon in M. Macrea, I. Glodariu, *Așezarea dacică de la Arpașu de Sus*, București, 1976; I. Glodariu, *Așezări dacice și daco-romane la Slimnic*, București, 1981; V. Sîrbu, *Dava getică de la Grădișteea*, Brăila, 1986.

<sup>39</sup> The best analogies in B. Iovanovic, M. Iovanovic, *Gomolava*, Novi-Sad-Belgrad, 1988, where the Celtic type *Kantharoi* belong to the materials dated in the phases VIa and VIb, dated in the time interval between the second century BC and the end of the first century BC. The Dacian material from Gomolava is identical with the pottery discovered at Moigrad.

small number of *kantharoi* (**Plate 9/12**) may be in this way explained. The mugs (**Plate 7/13**) were found again in a large number, completing the functionality of the fruit bowl-cups, that of transporting liquids. The pitchers were also found in a small number (**Plate 7/11**), in comparison with the mugs. In this chronological horizon appeared the hemispherical lid with an exterior collar (**Plate 7/1**) and the large vessels for storage, grey or brick colored, with ring shaped bottom or straight bottom and profiled, flared out lip (**Plate 7/10**). This type of vessel was quite numerous, compensating in a way the lack of major water resources inside the enclosed plateau, as possible water storage vessels. The decorations were always the same: alternative incised sets of horizontal lines or wave lines, realized with “combs” with 4 – 9 teeth. Because of the high humidity level in the soil, few polished ornaments preserved in time, but we suppose they decorated vessels like fruit-bowls, mugs or *kantharoi*; the preserved polished motifs were typical for the Dacian pottery.

These conclusions are sustained by the following tables.

**Statistic table with the situation of the pits on Măgura Moigradului.**

	Dacian					Square meters excavated each campaign
	BC	AD	Between centuries	Not datable	Post holes	
1958	?	?	?	55	?	800
1959						
1984	17	4	2	7	-	441
1987	2	-	-	1	-	40
1988	5	1	-	1	-	166,6
1989	6	4	-	7	-	580
1990	13	1	1	1	-	200,5
1991	3	-	1	-	-	110,25
1992	6	1	1	2	2	299
1993	5	3	1	2	-	233
1994	15	6	-	5	-	503
1995	8	5	-	1	-	437
Total	80	25	6	82	2	3.730,35
%	41	13	3	42	1	
% from total	195=80%					
	Dated Dacian pits			Non dated Dacian pits		
	111=57%			84=43%		

For 45.000 square meters in use we suppose the existence of 2.943 possible pits.

**Statistic table with the situation of the dwellings on Măgura Moigradului**

Year	Dwelling	Context	BC		BC/AD	AD
			pit dwelling	Surface-dwelling		
1984	L1	S3, meter 15-18				I
	L2	S3				I
	L3	S4				I
1988	L1	S1-S2				I

	L2	S2 meter 9-12		1		
1989	L1	S2 meter 113-117				1
	L2	S2 meter 1-4	1			
1990	L1	S1/90				1
1991	L1	S1/91, C2-C3/92				1
1992	L1	S1/92				1
	L2	S1/92 meter 2-10				
1993	L1	Above L2 S1/93				1
	L2	Bellow L1, with G11?	1			
1995	L1	Dwelling-tower?				1
	L2	C17, 20	1			
Total 9	15		3	1		
				4	1	26
	%			13	3,2	83,8
1958-1959	L1-116					16
				31 dwellings		

**The statistical analysis of the wheel-made Dacian ceramic, discovered in the Dacian pits and dwellings in the 1984 archaeological campaign.**

		BC	AD	Total	%	BC%	AD%
1	Vessels with a foot	20	26	46	39	44,4	35,5
2	Mugs	15	23	38	32	33,3	31,5
3	Small mugs	4	1	5	4,2	8,8	1,3
4	Lids	-	1	1	0,8	-	1,3
5	Large storage vessels	2	8	10	8,4	4,4	11
6	Bowls	4	10	14	12,3	8,8	13,6
7	Imitations	-	4	4	3,3	-	5,4
	Total	45	73	118	100%	100	100%
	Total%	38	62				

### Conclusions

The excavations performed in different parts of the plateau showed that the general situation of the settlement remained unchanged no matter the area, except a third of the plateau positioned in the middle, which is higher, therefore exposed to winds and where the number of complexes is very small. A statistic analysis<sup>40</sup> may approximate<sup>41</sup> the total number of complexes which once could have occupied the entire plateau, because of the representative number of researched complexes and due to the excavations performed in various points. We consider for

<sup>40</sup> Similar data can be observed in V. Crișan, *Despre situația demografică în estul Transilvaniei în secolele II î. H.-I d. H.*, ActaMN XXVI-XXX, 1/1, 1989-1993, p. 70-89.

<sup>41</sup> See a first attempt in H. Pop, *op. cit.*, p. 103-118.



this assumption, only the two thirds of the plateau which were intensely and permanently inhabited (45.000 square meters).

Therefore, hypothetically, for the chronological horizon dated in the first century BC, there could have existed 48 dwellings and 952 pits, a regular relation in the case of a sacred place with ritual deposits in pits, of a dwelling to 19,7 pits.

For the intermediary chronological horizon dated between the first century BC and first century AD there could have existed 12 dwellings and 72 pits, and for the third horizon, to which we believe the intermediary belonged also, 325 dwellings and 301 pits.

Calculating that a dwelling could be occupied by a family composed of 5-6 members<sup>42</sup>, we estimate communities of 240 people for the first horizon, 60 for the intermediary and 1625 for the third<sup>43</sup>.

Of course these estimations might seem exaggerate, but only for the third chronological horizon which ends at the Roman conquest, time around when the entire fortification was erected<sup>44</sup>.

What fact determined the growth of population on the plateau of Moigrad remains difficult to establish. A demographic growth is excluded. More probably, we consider the immigration of a population from the valley to the hill in front of a possible danger dated in the first century AD.

The long time performed archaeological excavations on Măgura Moigradului, the nature of the identified complexes (ritual pits, dwellings) permitted through an analysis of these closed complexes, the emergence of a daring proposal for a shorter chronology of the Dacian ceramic identified here, supported by the dating of closed complexes with metal items and analysis of the ceramic typology and manufacturing technology. The association of different Dacian ceramic types in closed complexes offered clues for a shorter chronology of the complexes.

The present attempt aimed the presentation of the most recent historical and archaeological conclusions regarding the controversial nature of the discoveries made at Măgura Moigradului, as a synthetic approach, to be followed soon, we hope, by the complete monographic study of the site (conclusions for the 1984-1995 excavations).

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<sup>42</sup> V. Crișan, *op. cit.*, p. 87.

<sup>43</sup> The calculus used the minimal value of 5 members.

<sup>44</sup> H. Pop, *Der Nordwesten Dakiens von den Dako-Romischen kriegten*, Sargetia XXVI/1, 1995-1996, p. 257; idem, *Nord-vestul Daciei în preajma războaielor daco-romane*, paper presented at the symposium *The Dacian-Roman Wars from the time of Trajan*, Deva-Geoagiu, 7-9 November 1996.

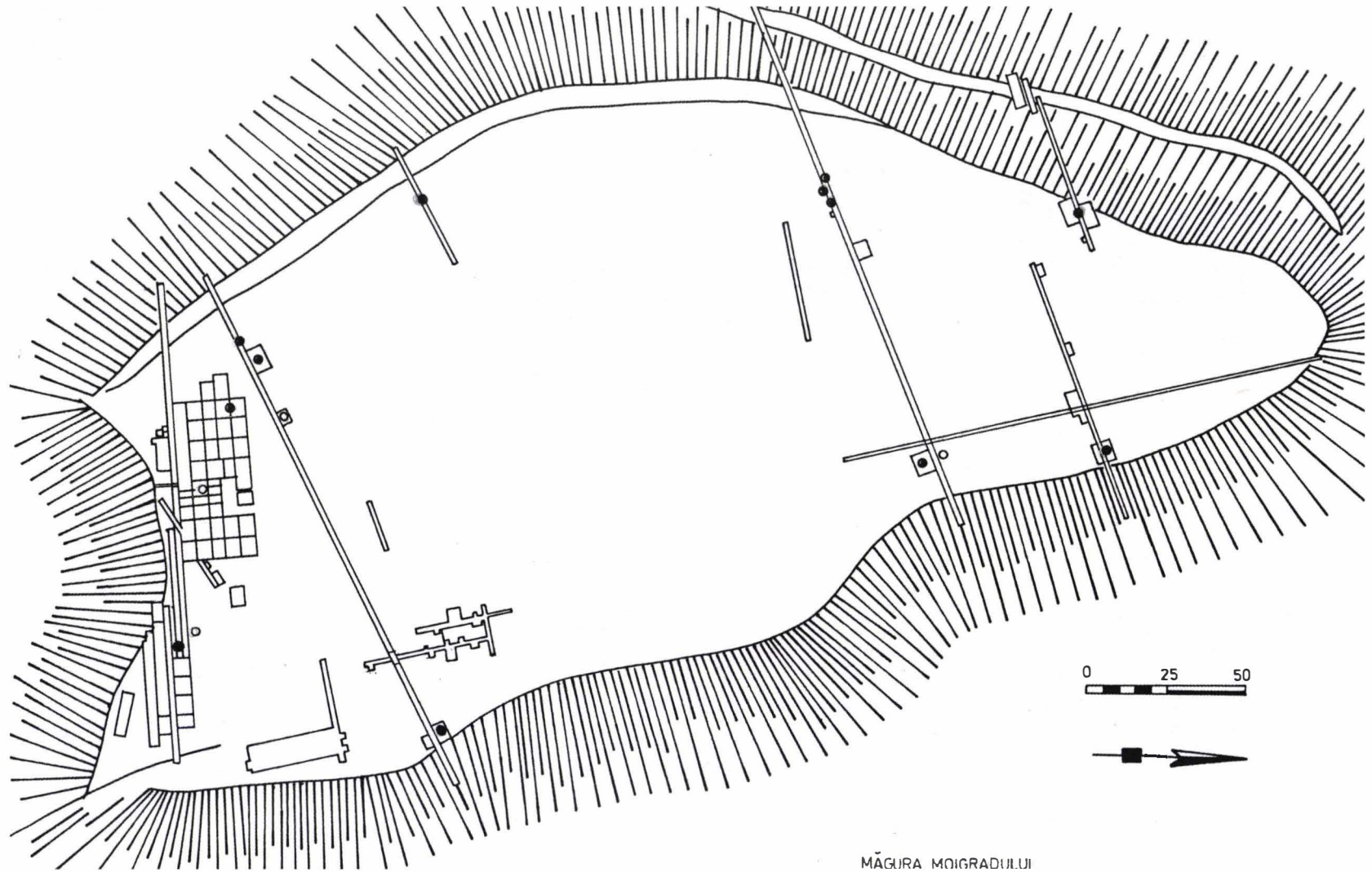


Plate 1: Măgura Moigradului. The general plan of the excavations (1958-1959, 1984, 1987-1995). The empty circles and partially filled circles represent the dwellings dated at the end of the second century BC-first century BC. The filled circles represent dwellings dated in the first century AD.

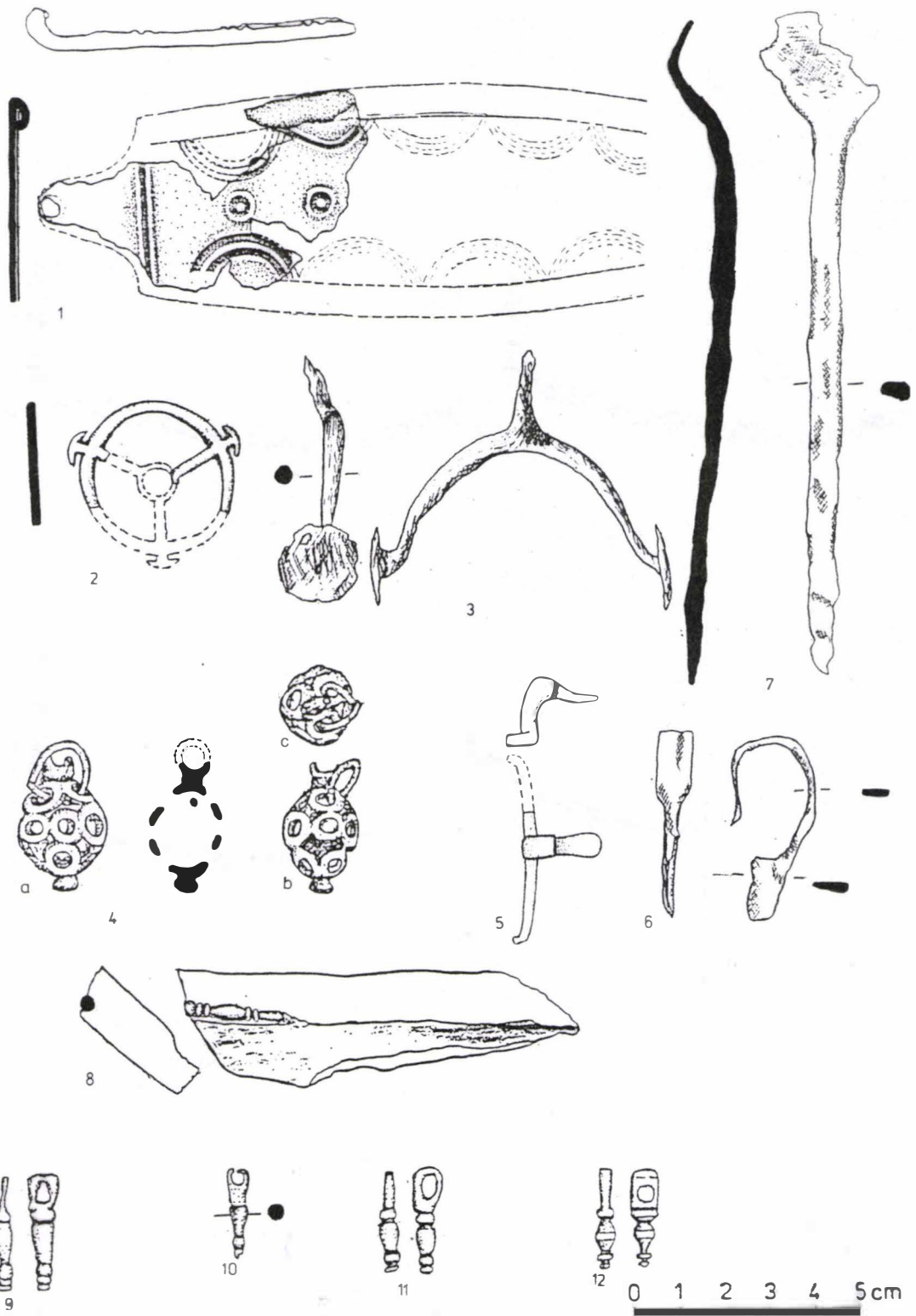


Plate 2: Metal items discovered in Dacian complexes from Măgura Moigradului. Older horizon the end of the second century BC first century BC (1-4, 7), later horizon first century AD (5, 6, 8-12). Belt plate (1), pendants (2, 4, 8-12), spur (3), spoon (7), buckle (5), broche (6). Iron with bronze plate (1), iron (3, 6, 7), bronze (5, 8-12), silver (2, 4).

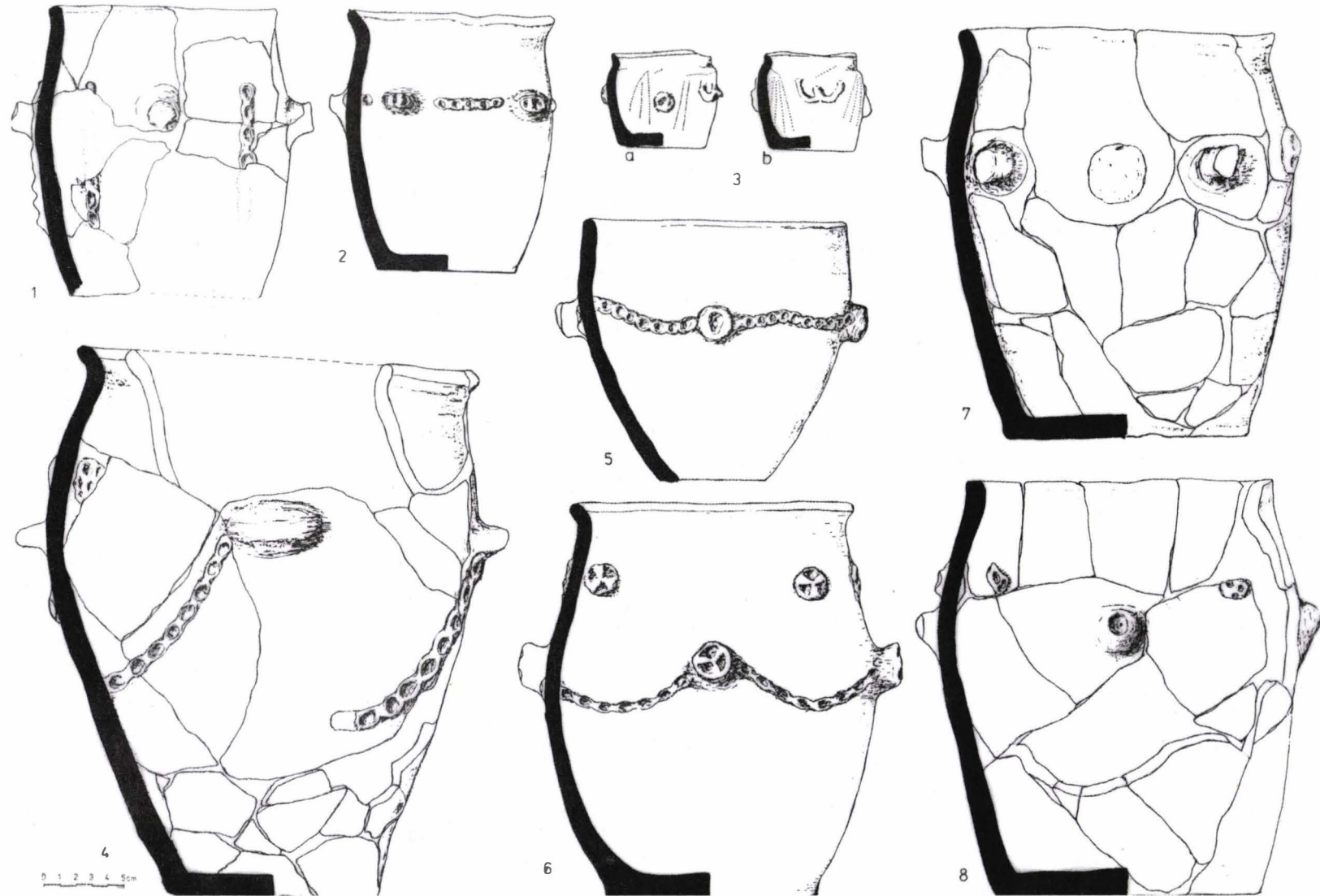


Plate 3: Hand-made Dacian pots from complexes found on Măgura Moigradului (the end of the second century BC first century BC).

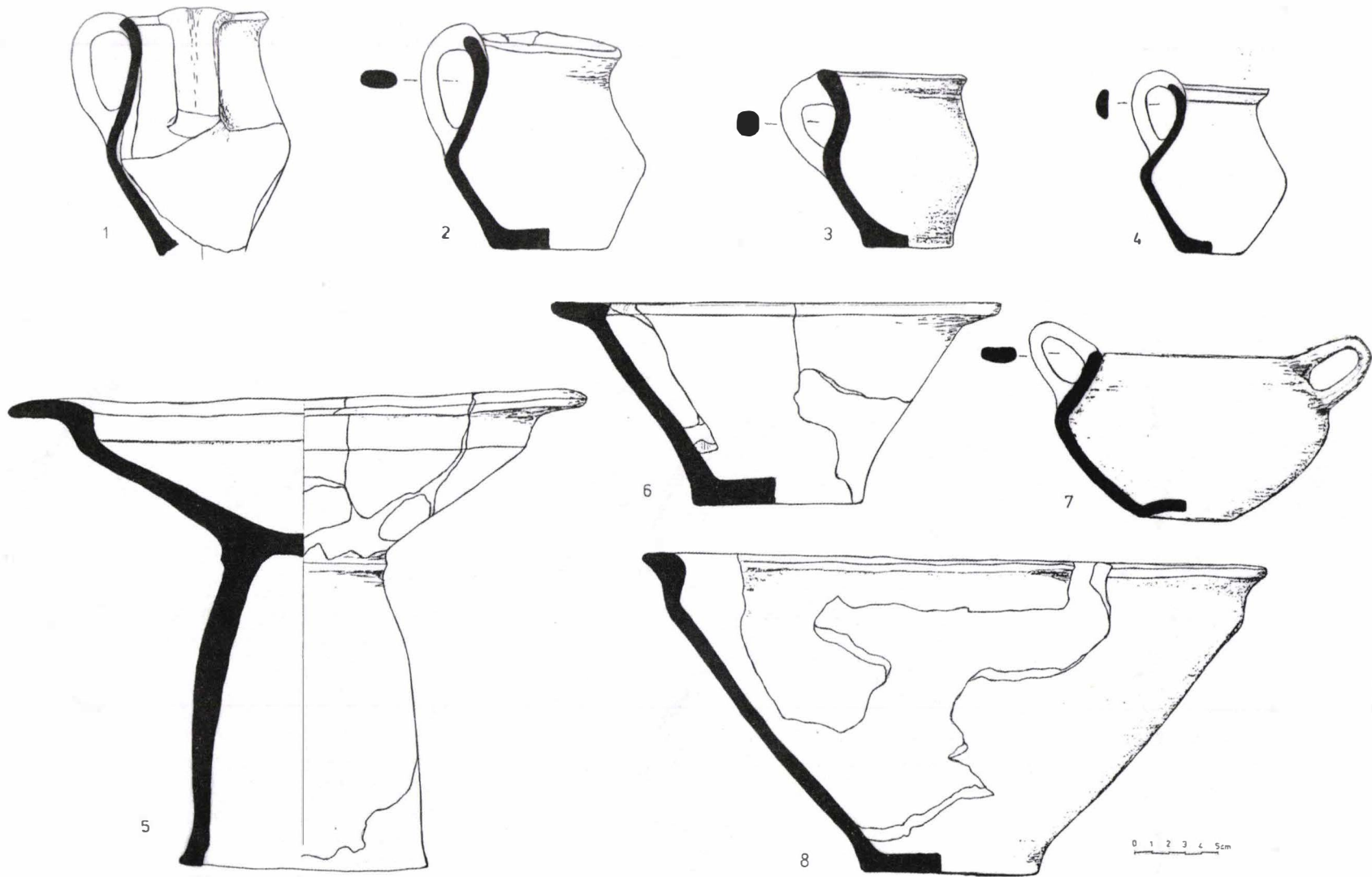


Plate 4: Hand-made Dacian pottery from complexes found on Măgura Moigradului (the end of the second century BC-first century BC)  
Mugs (1-4), fruit-bowls (5), porringers, bowls (6, 8), kantharos (7).

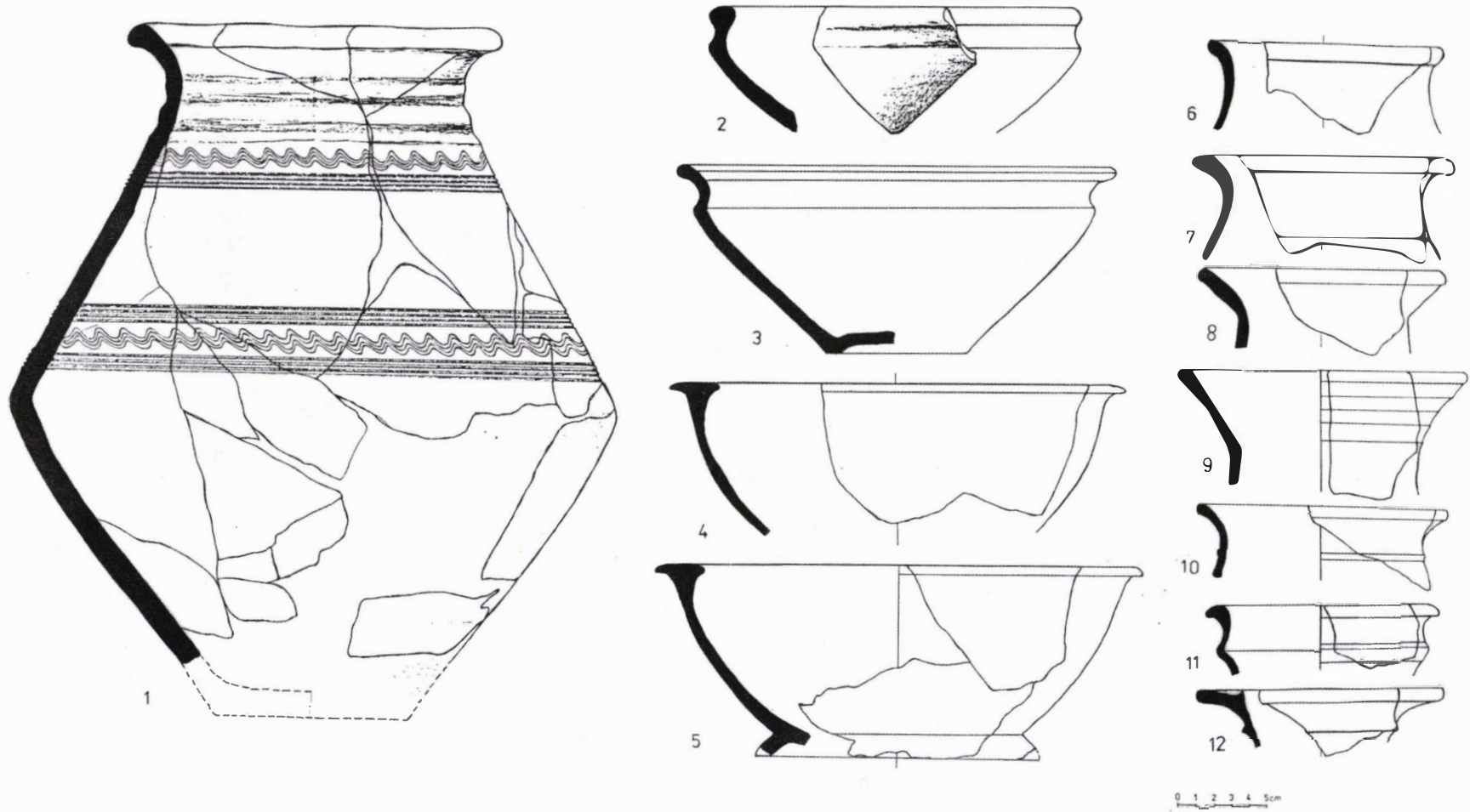


Plate 5: Wheel-made Dacian pottery from complexes found on Măgura Moigradului (the end of the second century BC-first century BC). Mugs (6-12), porringers (2/5), storage vessels (1).

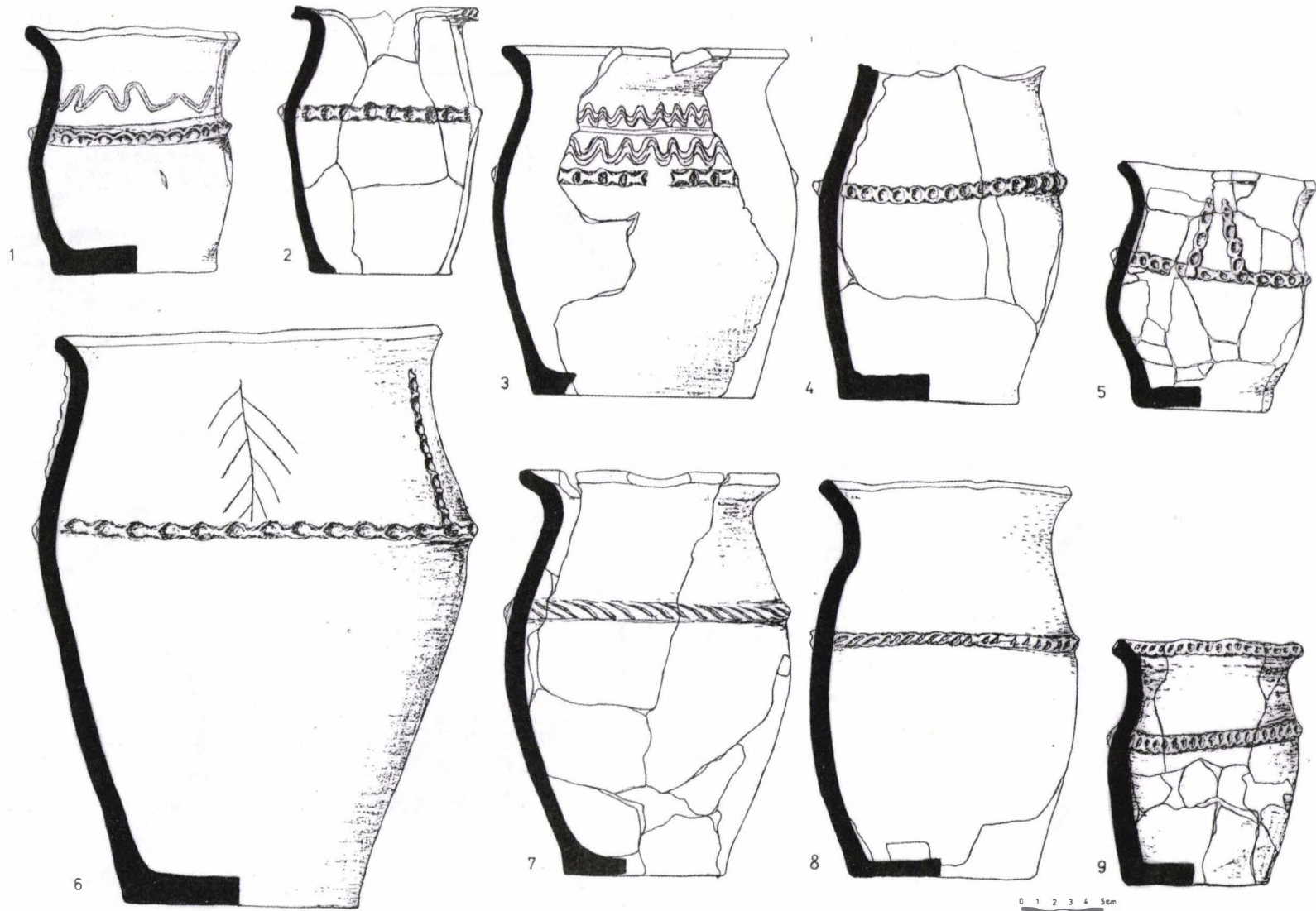


Plate 6: Hand-made Dacian pots from complexes found on Măgura Moigradului (first century AD).

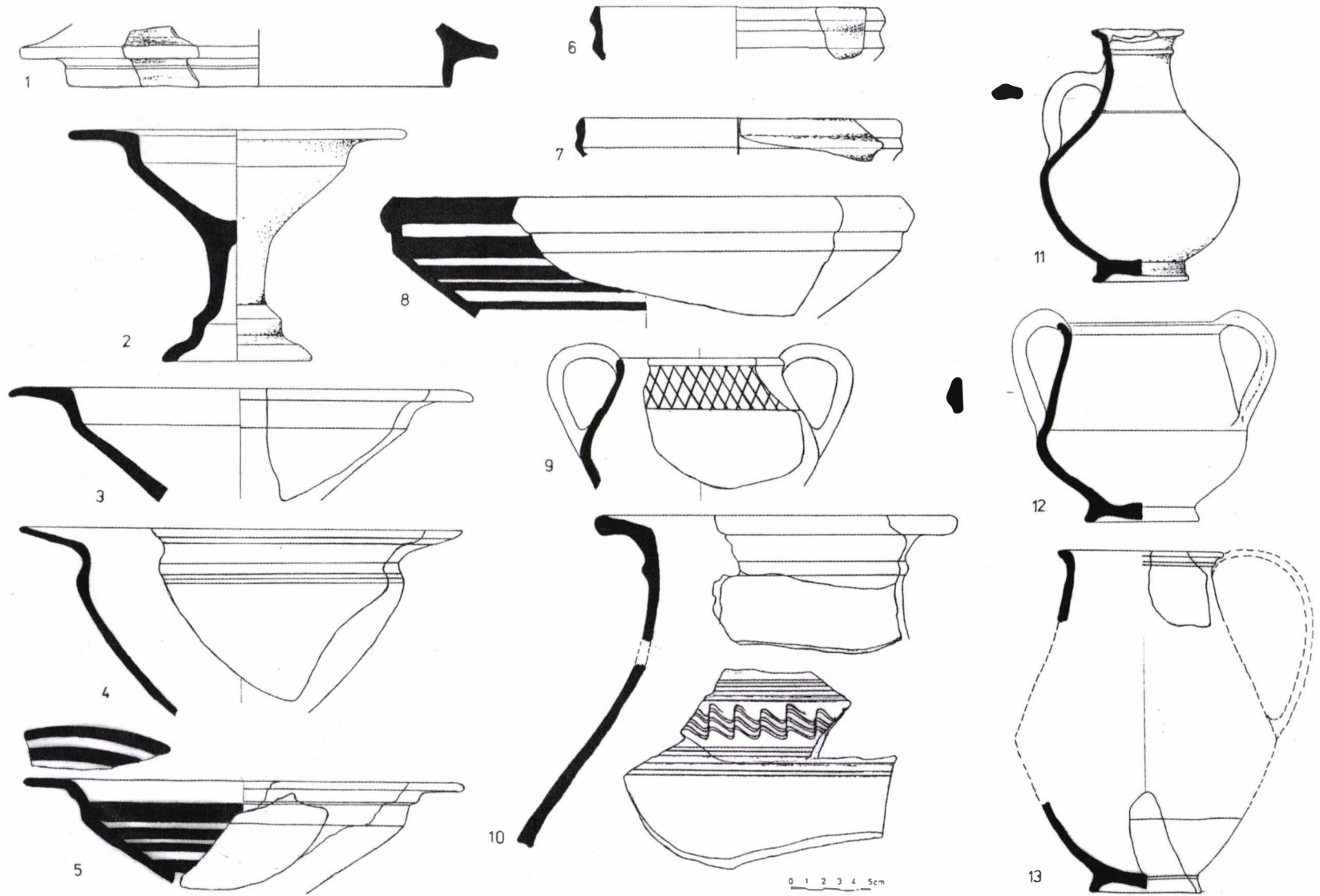


Plate 7: Wheel-made Dacian pottery from complexes found on Măgura Moigradului (first century AD). Mugs (13), porringers (6, 7), storage vessels (10), bowls (8), kantharoi (9, 12), lids (1), fruit-bowls (3-5), cups (2), pitchers (11).



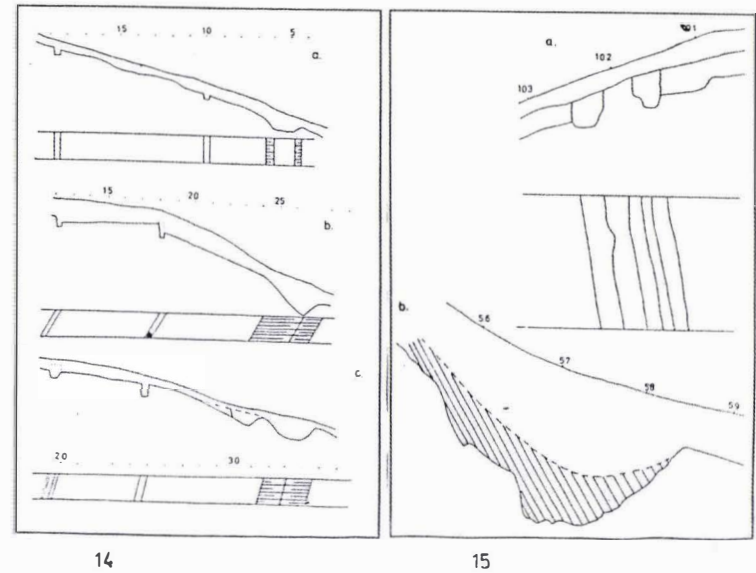
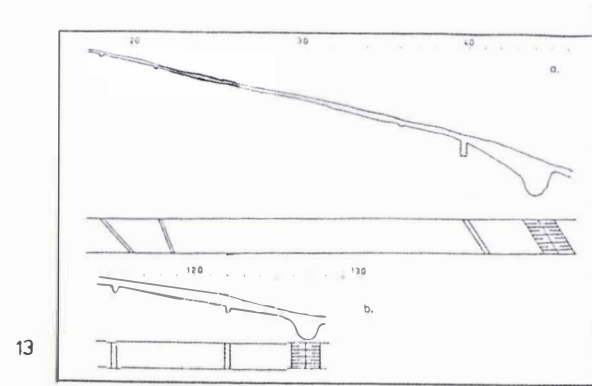
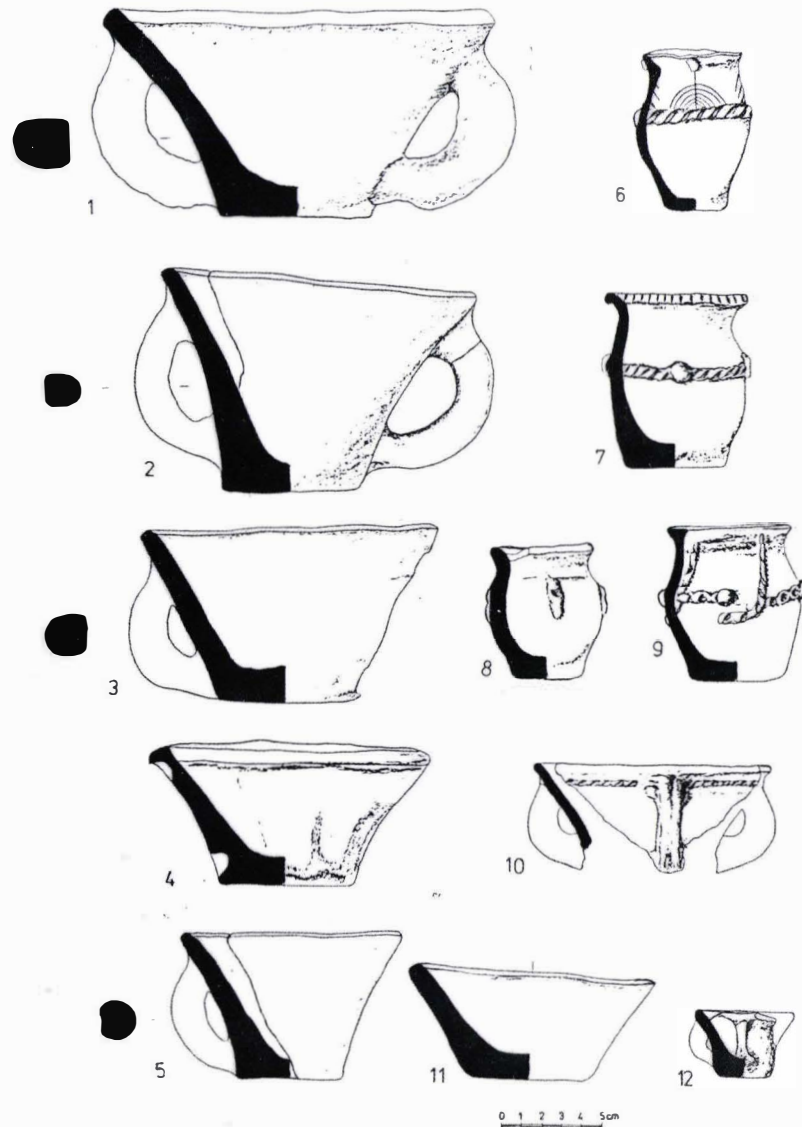


Plate 8: Hand-made Dacian pottery from complexes found on Măgura Moigradului (first century AD). Rushlight cups (1-5, 12), miniature pots (6/9).



Plate 9: Plans and schematic profiles of the Dacian defensive elements from Măgura Moigradului (13-15).