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Cover: The appliqué from Letnisa (north Bulgaria) (after I. Venedikov, The Thracian treasure from Letnitsa, Sofia 1996, fig. 15)

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BRONZE AGE METALLURGY IN TRANSYLVANIA: CRAFT, ART AND RITUAL/MAGIC

MIHAI ROTEA, MIHAI WITTENBERGER,
MONICA TECAR, TIBERIU TECAR

Résumé: La métallurgie en Transylvanie pendant l'âge du bronze est un mélange de techniques, d'art et de magie. On doit les corroborer afin de bien comprendre et interpréter les données archéologiques, donc il faut appeler aux informations offertes par l'ethnographie, l'histoire de l'art et de la technique, les textes antiques etc., sans oublier l'histoire des religions (en particulier l'Ancien Testament). Pour la métallurgie du bronze en Transylvanie on dispose aujourd'hui dans la littérature archéologique de nombreux travaux, traitant l'aspect technologique ou artistique aussi. Dans cette contribution, les auteurs ont insisté sur la connotation magique/religieuse du phénomène métallurgique, en s'appuyant notamment sur les perspectives ouvertes par le travail de M. Eliade. Deux sites distincts (Palatca et Bolduț, tous les deux dans le département de Cluj), présentés ici, ont offert des informations pertinentes sur l'ancienne métallurgie du bronze, et ont été au centre de l'argumentation avancée. Après une vue générale sur l'univers du rituel métallurgique, avec tout ce que peut lui être attribué, furent présentées et analysées dans cette perspective les découvertes archéologiques de Palatca, qui comprennent un complexe rituel et un autel, ainsi que quelques pièces spéciaux de l'atelier qui fabriquait les bronzes. Puis furent traités de la même manière les fours et les dépôts de cendres trouvés à Bolduț.

Mots-clés: rituels métallurgiques; météorite; enclume; autel; offrandes brûlées; four.

During the Bronze Age, Transylvania was the most prolific metallurgical center throughout temperate Europe both in terms of production and creation. Prehistoric metallurgy is a mix between technique, art and magic. In order to correctly understand the phenomenon, one has to corroborate archaeological information with that provided by ethnography, history of religions (especially the Old Testament[1]), history of arts and crafts, antique texts etc.

The purpose of this article is to offer a sketch of these practices as close to reality as possible. Since non-ferrous metallurgy in Transylvania has already been thoroughly investigated from both the technological and artistic point of view[2], we

[1] Generally, the texts cited are after Biblia ortodoxă online (www.bibliaortodoxa.ro).

[2] For some milestones on this subject, most recent including and cultic aspects of bronze culture of hoards, see: V. Dumitrescu, Arta preistorică în România, București 1974; M. Rusu, Metalurgia bronzului din Transilvania la începutul Hallstattului, Iași 1972, mss; M. Petrescu-Dâmbovița, Depozitele de bronzuri din România, București 1977; T. Bader, Epoca bronzului în nord-vestul Transilvaniei, București 1978; C. Kacsó, *Die späte Bronzezeit im Karpaten-Donau-Raum (14.-9. Jahrhundert v. Chr.)*, in M. Rotea, T. Bader (Hrsgg.), Traker und Kelten beidseits der Karpaten, Cluj-Napoca 2000, p. 31-41; T. Soroceanu,

will concentrate on the magical, ritual dimension of this phenomenon[3]. The first question arrising from this perspective is whether prehistoric Transylvanian archaeology can shed some light on these delicate aspects[4]. In this context, we will present in this paper a synthesis of our discoveries from two different dig sites (metallurgical sites), Palatca[5] and Bolduț[6] (Pl. I/1). First, let us see however what are the main characteristics of this ritual metallurgical universe, from a large, interdisciplinary perspective, mostly based on the directions set by the work of M. Eliade[7].

❦

Metallurgy was considered to be a sacred activity everywhere; this sacred nature resulted from the fact that metals were not part of the everyday profane universe, but from extra-terrestrial spaces, either fallen from the sky or ripped out of the

Die Fundumstände bronzezeitlicher Deponierungen-Ein Beitrag zur Horstdeutung beiderseits der Karpaten, in T. Soroceanu (Hrsg.), Bronzefunde aus Rumänien I, Berlin 1995, p. 15-80; B. Hänsel, *Gaben an die Götter-Schätze der Bronzezeit Europas-Eine Einführung*, in A. Hänsel, B. Hänsel (Hrsgg.), Gaben an die Götter-Schätze der Bronzezeit Europas, Berlin 1997, p. 11-22; A. Vulpe, M. Petrescu-Dâmboviţa, A. László, *Epoca metalelor,* in M. Petrescu-Dâmboviţa, Al. Vulpe (eds.), Istoria Românilor, vol. I, Bucureşti 2001, p. 211-395, with references; M. Rotea, *Non-ferrous metallurgy in Transylvania of Bronze Age*, AMN 39-40/I, 2004, p. 7-17; S. Hansen, *Noi cercetări asupra metalurgiei epocii bronzului în sud-estul Europei,* in T. Soroceanu (Hrsg.), Bronzefunde aus Rumänien / Descoperiri de bronzuri din România II, Cluj-Napoca 2005, p. 301-315; C. Metzner-Nebelsick, *Despre importanţa cronologică şi cultural-istorică a depozitelor din România în epoca târzie a bronzului şi în epoca timpurie a fierului,* in T. Soroceanu (Hrsg.), Bronzefunde aus Rumänien / Descoperiri de bronzuri din România II, Cluj-Napoca 2005, p. 317-342, with bibliography; T. Soroceanu, *Zu den Fundumständer europäischen Metallgefäse bis in das 8. Jh. V. Chr. Ein Beitrag zu deren religionsgeschichtlicher Deutung,* in T. Soroceanu (Hrsg.), Bronzefunde aus Rumänien / Descoperiri de bronzuri din România II, Cluj-Napoca 2005, p. 387-428, with bibliography; M. Rotea, Pagini din Preistoria Transilvaniei. Epoca bronzului, Cluj-Napoca 2009.

[3] For few references see: M. Rotea, *Non-ferrous metallurgy in Transylvania of Bronze Age*, AMN 39-40/I, 2004, p. 7-17; idem, Pagini..., p. 32; also: M. Wittenberger, M. Rotea, *Aspects of the Bronze Metallurgy in Transylvania*, in S. Berecki, R. Németh, B. Rezi (eds.), Bronze Age rites and rituals in the Carpathian Basin, p. 261-267; for the complex status of metalworkers see: N. Boroffka, F. Ridiche, Der *Gußformenfund von Plenița, Kreis Dolj, Rumänien / Descoperirea de tipare pentru turnarea bronzului de la Plenița, județul Dolj*, in T. Soroceanu (Hrsg.), Bronzefunde aus Rumänien / Descoperiri de bronzuri din România, II, Cluj-Napoca 2005, p. 162-174, with bibliography.

[4] For similar attempts in other areas see for exemple: C. Prescott, *Symbolic metallurgy - Assessing early metallurgic processes in a periphery*, in D. Olausson, H. Vandkilde (eds.), Form, function and context, Acta Archaeologica Lundensia 31, p. 213-225, with bibliography; S. Blakely, Myth, Ritual and Metallurgy in ancient Greece and recent Africa, Cambridge 2006, with bibliography.

[5] M. Rotea, *Cercetări arheologice la Palatca-Togul lui Mândruşcă. Observaţii preliminare,* RevBistriţei X-XI, 1997, p. 13-19; idem, *Die späte Bronzezeit im Karpaten-Donau-Raum (14.-9. Jahrhundert v. Chr.)*, in M. Rotea, T. Bader (Hrsgg.), Traker und Kelten beidseits der Karpaten, Cluj-Napoca 2000, passim; idem, *Non-ferrous metallurgy in Transylvania of Bronze Age*, AMN 39-40/I, 2004, p. 7-17; idem, Pagini..., passim.

[6] M. Wittenberger, *A special site of the Noua culture - Bolduț, Cluj County,* in N. Bolohan, F. Măţău, F. Adrian (eds.), Signa Praehistorica. Studia in honorem magistri Attila László septuagesimo anno, Iaşi 2010, p. 273-291; idem, *Economical Life in Noua Culture in the Late Bronze Age,* AMN 43-44/I, 2006-2007 (2008), p. 5-47.

[7] M. Eliade, Traité d'histoire des religions (Romanian version: Tratat de istoria religiilor), Bucureşti 2005, passim; idem, Forgerons et alchimistes (Romanian version: Făurari şi alchimişti), Bucureşti 2008; idem, Metallurgy, Magic and Alchemy (Romanian version: Metalurgie, magie şi alchimie), Iaşi 1991. See also C. Bălăceanu-Stolnici, M. Berescu, Gândirea magică. Geneză şi evoluţie, Bucureşti 2007, passim; C. Bălăceanu-Stolnici, *Pământul şi forţele sale tainice*, www.crestinortodox.ro.

subterranean matrix. They were other-worldly, filled with magical forces. When something does not normally belong to man or is absent from his immediate surroundings, it becomes mysterious, secret, sacred or demonic[8]. The transformation from its normal state makes it as belonging to different cosmic levels. This is why only chosen persons and only in special conditions could work with them. Thus, metals bring inside human society an untold number of unknown magical forcy under special conditions[9]. In M. Eliade's conception this is the true meaning of all beliefs related to metallurgy: metals change human behaviour, modifying its existence by bringing an end to the Golden Age (the time of gatherers and hunters) and starting a new era[10].

From the time of creation, Man saw Earth as his domain and perceived it as a solid base, a platform, a support of all earthly beings and objects. Furthermore, the Earth is sacred in all the Universalist traditions: it plays a key role in the spiritual history of humankind. This is based on the idea that certain beings are given birth inside the earth, where they go through a gestation period, as inside a uterus (the Earth's uterus is often symbolized by a cave or mine shafts). This fundamental analogy between Earth and woman is the basis of the concept of the Mother Goddess (the Terra-Mater, Mother Earth, Gee, Cybele, Glia (Romanian) etc.), who gives life to everything that lives and who is present even from Paleolithic in numerous and varied religious beliefs and cults[11].

Earth was considered to be a platform, thus the Sky was perceived as a rooftop, also solid („the firmament of the heaven", Genesis 1:14, or, more visible, at Australians[12]). Just like the Earth was seen as the passive, feminine principle, the sky was considered to be the active, male principle. An impressive number of myths incorporate a magical, sexual like connection between the Earth and the Sky (also sacred), a hierogamy. Thus, we will find the primordial couple Earth-Sky in all the sacred cosmogonist scenarios, where the sky is the Universal Father and the earth is the Great Mother[13].

The presence of meteorites on earth is related to the idea of the sky being a solid celestial dome: they come from the sky, fall on earth, they are sacred and are often connected to the activity of metallurgists[14]. Thus the meteorite discovered in the

[8] M. Eliade, Forgerons..., passim; idem, Metallurgy..., p. 58.

[9] M. Eliade, Forgerons..., passim; idem, Metallurgy..., passim.

[10] M. Eliade, Traité..., passim; idem, Metallurgy..., p. 58.

[11] E. O. James, The Cult of the Mother Goddess, New York 1959, passim; J. Frazer, The Golden Bough, London 1996, passim; M. Eliade, Traité d'histoire des religions (Romanian version: Tratat de istoria religiilor), București 2005, passim; O. G. S. Crawford, The Eye Goddess, New York 1958, passim; M. Gimbutas, The Gods and Goddesses of Old Europe, 7000-3500 B.C.: Myths, Legends, Cult Images, London 1974, passim; E. Anati, *The question of fertility cults*, in E. Bonato (ed.), Archaeology and fertility cult in the Ancient Mediterranean, Amsterdam 1986, p. 2-16; C. Bălăceanu-Stolnici, M. Berescu, op. cit., p. 68.

[12] M. Eliade, Forgerons..., p. 17.

[13] M. Eliade, Traité..., passim; M. Gimbutas, op. cit., passim; B. Hayden, *Old Europe: sacred matriarchy or complementary opposition*, in E. Bonato (ed.), Archaeology and fertility cult in the Ancient Mediterranean, Amsterdam 1986, p. 17-30, with bibliography; C. Bălăceanu-Stolnici, M. Berescu, op. cit., p. 87-88.

[14] M. Eliade, Forgerons..., p. 17-25, with bibliography; idem, Metallurgy..., p. 49-51, with bibliography.

workshop at Palatca (Pl. II/2)[15], even if used only as a hammer because of the hardness of the rock it is made of (the uranian, male essence is transferred to the object[16]), had a meaning that transcended the quality of the tool itself.

The idea of the human being given birth by earth (for example in the Jewish Christian tradition we know very well the divine act of creation, that of molding the human body from clay, Genesis 2:7) is completed by his fate after death, when the body returns to the soil (the model *Homo-Humus*)[17]. This is also meant to illustrate that human beings belong to and are part of the cosmos. It is obvious that this earth-man-earth cycle ("Then the dust will return to the earth as it was", Ecclesiastes 12:7 or the catholic sacramental formula "*pulvis es et in pulverum reverteris*") refers only to the human body[18] because the soul follows a different path. During the Bronze Age, metals seem to follow a similar path, but on a smaller scale and most likely with partially different sacred and religious implications (this is true not just in Transylvania). We refer especially to what is known in prehistoric archaeology as bronze hoard (though hoards seem to follow on the same trajectory) that sometimes contain impressive quantities of metal: after extraction from the earth they are mostly reburied as offerings. They had obviously been processed (melted into ingots or transformed in semi-finished or finished articles) and gathered in one specific place. Thus, we only see the greater ritual interpretation archaeology offers in regards to these bronze hoards[19], rather than an example of the principle: "Yours, from Yours, We bring You everything, and for everything" that can be heard in Orthodox Liturgy today (St. John Chrysostom Liturgy). We also want to emphasize that the offerings had to be perfect, without any flaws. If the offerings did not meet God's required standards, He did not receive them. This proves God wants to be offered only the best, not surpluses. Transylvanian Bronze Age deposits need to be seen mostly from this perspective, not the one related to impending violent events.

The birth-giving function of earth is also related to the fact that inside the enigmatic bowels of Terra-Mater germination, the creation of metals, gems and minerals takes place. We will often be confronted with the idea that minerals grow like some embryos/fetuses inside the earth, metallurgy gaining thus an obstetrical dimension[20]. "However, since the earth is not isolated from the Universe, this earthen mineral genesis is influenced by all the cosmic forces due to the fact that all elements influence all elements"[21]. Telluric forces (combined with those of Uranus, the sky) give birth not just to a slow ontogenesis of metals but also retransforms them one into the

[15] M. Benea, L. Săsăran, M. Rotea, *Palatca-Togul lui Mândruşcă. Analysis of a part of lithic materials from the bronze workshop* (in this volume).

[16] M. Eliade, Forgerons..., p. 19.

[17] M. Eliade, Traité..., passim; Idem, Metallurgy..., p. 64-65, with bibliography; C. Bălăceanu-Stolnici, M. Berescu, op. cit., passim; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

[18] C. Bălăceanu-Stolnici, M. Berescu, op. cit., passim; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

[19] For some items see: B. Hänsel, op. cit., p. 11-22, with bibliography; S. Hansen, op. cit., p. 301-315, with bibliography; A. Ţârlea, *The concept of "selective deposition"*, Peuce 6, 2008, p. 63-132, with bibliography.

[20] M. Eliade, Forgerons..., p. 44-55.

[21] C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

other (perfection in the mineral regnum is to create the noble gold). Obviously, we do not refer to the geological transformations endured by rocks under intraterrestrial pressure, movement and temperature. This is not related to any physics transmutation process, based on scientific laws that can be verified. It is a magical, supernatural process, intermediated by supernatural forces. It is sacred process where metals (minerals) as well as stones act like live, self-aware beings living and hiding (like the hunt and hunter), with their sympathies and antipathies to the people[22]. This conception is what constitutes the theoretical base for two activities: mining and metallurgy on one side and alchemy on the other[23]. In this context, the miner and the metallurgist become central figures. They intervene in the development of subteranean embryology: by increasing the growth rate of minerals they contribute to Nature's work, they help it give birth faster[24].

If metals and minerals are subject to a sacred gestation process inside the earth then (embryological conception of metals), indeed, miners interfeer with it. On one hand, the miner interrupts the magical process taking place inside the bowels of the earth and is thus an evil factor interfering with the „plan of creation". On the other hand, by excavating the ores, metals and gems from the depths and transforming them in daylight he completes (perfects) the telluric gestation process and appears as a positive factor. It is obvious that in both cases the miner has a magical contribution[25]. This is supported by the fact that he goes deep into the sacred (magic) depths of the earth where he finds a strange domain, filled with chthonic forces, giving the human a sense of power, of strength, but also filling him up with unknown magical forces belonging to other cosmic levels[26]. The miners' folklore speaks about mysterious beings, imps, spirits and ghosts, that are related to this activity[27]. For example, the belief in „vâlvele băii" (spirits), well known to us from Romanian folklore, is so present in the mentality of the miners that without it, mining activity could not be conceived[28].

This is why, before going deep inside the mines, they would undergo a purifying process and would take all precautionary measures necessary for the rite of passage, just like before any other magical action. This gave mining something of a sacerdotal characteristic. By purification, we usually understand the actions needed to attain a psychological and physical state of purity allowing the believer to step up in front of the divinity and invoke it[29]. The means to reach this state of purity were, in general, secret, known only by the initiates, such as ritual ceremonies or some type of penance. In mystery religions, purification rituals had a solemn character, generally consisting in bodily cleanliness that the candidate had to achieve by living in abstinence

[22] M. Eliade, Forgerons..., p. 58, with bibliography; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

[23] Ibidem, p. 8-9, 48-51; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

[24] M. Eliade, Forgerons..., p. 8.

[25] Ibidem, p. 56-65; C. Bălăceanu-Stolnici, M. Berescu, op. cit., p. 285-286; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

[26] M. Eliade, Forgerons..., passim; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

[27] M. Eliade, Forgerons..., p. 57-60; M. Ioniță, Cartea vâlvelor, Cluj-Napoca 1982, passim.

[28] M. Ioniță, op. cit., passim.

[29] M. Eliade, Forgerons..., p. 59.

(sexual and/or alimentary)[30]. Usually, these rites consisted of a series of lustrations and washings meant to help the future miner to achieve cleanliness of his whole being. The ritual is present in Greek and Roman beliefs: before the true initiation begins, one of the preparatory steps in the ritual was purification[31] (for example, in Greek temples purification required the washing of the hands before prayer, as described in Iliad, 24:302-306). Therefore, purification was obtained by subjecting the candidate to a thorough ritual of magical practices, the main means for achieving purity being water and the blood of the victim. Even in modern times when a mine or a shaft is built, a religious mass is performed (sometimes, the mine is "baptized" to place it under the protection of a holly person, a saint etc.).

Another element frequently used in purification rituals is fire, a principle both destructive and creative at the same time, a way of modifying the world by allowing matter to pass from one state of to another[32]. Fire is the element that fascinated the human imagination since prehistory. The attraction of light and heat are doubled by the danger of burning fire. It is symbol of that which is forbidden, fascinating and unintelligible. Offerings were frequently passed through fire[33], because it was an agent of both purification and transmutation[34].

"Filled with this mysterious sacredness, minerals are put in furnaces. Now begins the most difficult and hazardous step. The furnaces are the new matrix were metals finish their growth, their gestation. Hence follows the great number of taboos, rituals and precautions that are intertwined with this process"[35]. Camps are set up near the mine or in other special places dedicated to metallurgical activities. "Everyone here lives in a virtual purity for the whole of the season"[36]. In the meantime numerous sacrifices were made, both bloody and otherwise[37].

The ores or metals, after being excavated, are given to metallurgists. They have an even greater impact on the destiny of metals and ores, because they subject them to transformation through fire, purification and alloying, thus substituting themselves to the action of the Divinity. The metallurgist replaces Mother Earth in order to accelerate and perfect the growth of metals. He accelerates and modifies the fate of ores and metals and the oven where these operations take place can be considered a sacred object, an object of adoration, a magical uterus (a furnace discovered in Nepal is a good example[38]) (Pl. III/3) handled by metallurgists who literally become mages[39]. Thus, just like miners but with greater importance, metallurgists readied themselves

[30] Ibidem, p. 56-65, with bibliography.

[31] M. Eliade, Traité..., passim, with bibliography; W. Burkert, Greek religion, Harvard 1985, p. 75.

[32] M. Eliade, Forgerons..., p. 79-86.

[33] For various offerings passed through fire in Transylvania cultic complex see: C. Kacsó, *Contribuții la cunoașterea bronzului târziu din nordul Transilvaniei. Cercetările de la Libotin,* Thraco-Dacica XI, 1990, p. 96-98; M. Rotea, Grupul Copăceni. I, Cluj-Napoca 2003, p. 51-56, with bibliography.

[34] M. Eliade, Forgerons..., p. 79, 110.

[35] Ibidem, p. 60.

[36] Ibidem, p. 60.

[37] Ibidem, p. 65-72, with bibliography.

[38] Apud T. Gansum, *Archaeology of Earth,* Curent Swidish Archaeology 12, Stockholm 2004, p. 14-15, fig. 4.

[39] M. Eliade, Forgerons..., p. 43; C. Bălăceanu-Stolnici, op. cit., www.crestinortodox.ro.

as if their actions were religious (or magical) acts. In ancient times metallurgical activities were conducted only during favorable days determined by tradition, premonitions or by astrologists[40]. The place where they were performed, especially the furnace, was subjected to special ceremonies, sometimes accompanied by animal or even human sacrifices, liturgical and even cosmological ceremonies. Also, their trade was passed on to the next generation through a program that resembled a mystical initiation[41].

The plentitude of ethnographical data that assimilates Earth to the womb, the mine with the uterus and the ore with embryos show us the sexual nature of the minerals and of the craftsman's object and tools. Creating metal objects is equivalent to birth, thereby being imbued with obstetrical symbolism[42]. The craftsman's tools have a similar value, due to the fact that sexual symbolism extends beyond minerals and stones: hand-made objects have it too[43]. It is not a sexuality seen from a vulgar or even psychoanalytical point of view but from that of a cosmogonist universe divided between two sexes. For example anvils are identified with the feminine principle[44]. Under these circumstances, the similarity between the locking point of the anvil from Palatca and the female reproductive organ should not be surprising (Pl. III/4); the essence of Uranus confers upon the hammer found on the same site a masculine value.

❦

A. Palatca-Togul lui Mândruşcă. During eight field seasons (the last one took place in 2001) with limited funding, we excavated the archaeological site from Palatca-Togul lui Mândruşcă, where we have four different sectors[45] (Pl. IV/5). The first and oldest sector (MBA) is represented by a Wietenberg III dwelling, on the eastern part of the terrace whose traces can be seen, albeit very poorly, in the central area (but not the western part), right underneath the Late Bronze Age habitation. The second sector, found in the central and western area, is represented by a late Bronze Age habitation (Bronze D-Ha. A). Since no traces of a permanent occupation were found, it is reasonable to assume that it was a seasonal habitation, most likely an annual camp for production and sale of goods[46]. The third one belongs to the bronze workshop, where several artifacts of immense archaeological value were found: an anvil (Pl. III/4), an oxide type bronze ingot[47] (Pl. VI/7, 1), a meteorite (Pl. II/2). Finally, the fourth sector is the religious area (the altar and a large sacred complex, most probably for metallurgical ritual activity). The last three prehistoric structures are contemporaneous. Geographically, they are situated on a low south sloping terrace, with a south-eastern exposure, located between rivers. The Wietenberg III and the

[40] M. Eliade, Forgerons..., passim.
[41] Ibidem, p. 66-72, with bibliography.
[42] Ibidem, passim.
[43] M. Eliade, Forgerons..., p. 34-43, with bibliography.
[44] Ibidem, p. 62, with bibliography.
[45] See note 5 of the present article.
[46] M. Rotea, Palatca-Togul lui Mândruşcă. General presentation, mss.
[47] For this artifacts in central Europe see: M. Primas, E. Pernicka, *Der Depotfunde von Oberwilflingen*, Germania 76, 1998, p. 25-66, with bibliography.

Late Bronze Age habitation were situated furthest to the south. North from it, there was the workshop and then the sacred area (the altar was built on the same level with the workshop but further east).

What interest us most in this sector are the characteristics of the sacred area. In 2001 we partially investigated an extremely interesting structure, about 14 m north of the bronze workshop. We do not have any precise data about its shape or exact dimensions. What is certain however is that it was very large, the maximum depth being 1.35 m with a length greater than 15 m, the size of our archaeological section[48] (Pl. V/6). The pit was filled in ancient times with clay mixed with large quantities of ash, charcoal, slabs of sandstone, small incinerated bone fragments, entire or fragmentary vessels (including small size shards), metal pieces (an arrow head and round-head needle) (Pl. VI/7, 2-3), small fragments of clay and, on top, a grinder, acting as a cover for the complex[49]. On the bottom of the pit, the clay pots related to the sandstone slabs were disposed in steps. From east to west, at the lowest depth, two halves of pots were found up-side down on a slab of sandstone (Pl. VII/8). Next to it were a few lumps of adobe and a long burnt bone fragment from an animal (bovine?). In the middle there was a bag pot, of poor quality, with thick walls, the fabric containing a lot of temper, fired in oxidizing conditions, very friable, having a diameter of mouth of 28 cm, 24 cm high, covered by a slab of sandstone (Pl. VIII/9). At the end of the section, at the deepest point, we found a complete black pot, decorated with striations on its lower part, sitting on a sandstone slab (Pl. IX/10). The whole content of the deposit has been burnt, including the sandstone slabs. The manner in which the complex was constructed, its composition, the arrangement of the artifacts, their burning, their placement in the metallurgical complex from Palatca etc., prove beyond a doubt, its ritual, metallurgical purpose.

We will not discuss here the different meanings of the ritualistic elements that form the complex (even metallographic analysis for oxide ingot type from workshop talk about it[50]). We will focus instead on the traces of ash, charcoal and burnt bones mixed with the clay that filled the pit as we will try to ascertain the origin of this impressive quantity of burnt debris. First of all, it is clear these were not the remains of a surface structure that burnt on the spot: they were manufactured, gathered together, brought here and then deposited (in a special manner) along with other items in the complex. Second, the fire temperature was high enough to disintegrate the organic materials (ashes, charcoal and bone fragments were all that was left[51]). Third, when measuring the quantity of remains, it becomes obvious that huge quantities of organic material were incinerated repeatedly. Last but not least, since the remains were gathered and placed inside such a complex, it is quite clear that this is no ordinary structure.

[48] M. Rotea, Zs. Molnar, *Palatca-Togul lui Mândruşcă. Archaeological complex C,* mss.

[49] Ibidem.

[50] A. Giumlia-Mair, *The analyses of copper-based finds from the LBA metallurgical site at Palatca* (in this volume).

[51] These remains were not analyzed in the laboratory, therefore can not specify the nature of all burning offerings. In any case, a cereals offering can not be excluded.

The Old Testament reveals significant details regarding burnt offerings[52]. In Leviticus and Numbers, God gives to the Jewish people a lot of indications regarding laws, commandments and divine offerings. Among them, "complete burning" is mentioned. The terminology alone tells us how important, how holly it is (it is a *"complete burning")*. In that period, it was necessary that "the burnt offering shall be on the hearth upon the altar all night until the morning" (Leviticus, 6:9) and that "fire shall be kept on the altar continually" (Leviticus 6:13). The priest is then required to remove the remaining burnt ashes outside the camp, in a proper spot (Leviticul 4:12).

Also, in order to complete the rituals we present here the measures that had to be taken for this offering to be well received by God: it needs to be willingly given, to be from the herd (cows), the flock (sheep), or fowl; to be a flawless male, to be prepared by the one bringing it as a gift to God. The animal or the birds for the offering are to be brought at the door of the Tent of the Meeting, the Israelite must place his hand on the animal's head, the animal must be stabbed and readied by him as the priest sprinkled all around the altar with the blood of the offering, the body of the animal was placed on the altar and burnt, along with the head and the fat, on a wood fire (Leveticul 1:2-13). If these conditions were met, "this [and only this] is a complete burning, an offering devoured by fire, with a smell that God liked" (Leveticul 1:13)[53]. This type of offering (i.e. complete burnings and food offerings[54]) aimed to fulfill all human necessities: forgiveness of sin and bowing before a God.

We find similar customs in ancient Greece[55]. For example, in the first lines of Book 3 of Homer's *Odyssey*, young Telemachus meets King Nestor while he is making a sacrifice of black bulls on the shore of Pylos and burning their thigh bones to the gods.

Now we must ascertain the places from where such an impressive quantity of remains could be obtained. It is clear that the burning place of the offerings must also be special. A different complex, excavated with my colleague Zs. Molnar[56], in 1998, sheds some light in our case. It is a hearth of burnt clay with impressive dimensions (the remaining rough dimensions were 1 × 0.80 m, the estimated diameter, taking in to account the curve of the stone chime and the depth at which we found traces of burning, is maximum 2.50m) and the maximum depth where we found traces of burning (~0.70m from the hearth's surface, which proves it was intensely used) (Pl. X/11; XI/12). The platform had on its southern part a fragmentary stone chime: it has been built on a bed of ceramic fragments and next to it, to the south, we found some medium-size sandstone slabs and some adobe fragments with an imprint of twigs (a screen, a clay case?). On its foundation, was found a vessel what could contained some offerings (Pl. XII/13; XIII/14), most likely a foundational sacrifice indicating that this is not a simple hearth. Also, we did not find any other coherent

[52] A. Hill, J. Walton, A Survey of the Old Testament, Zondervan 2000, passim; H. Soltau, The Tabernacle, The Priesthood and the Offering, Michigan 1972, p. 36.

[53] V. Poythress, The Shadow of Christ in the Law of Moses, Phillipsburg 1995, p. 48.

[54] W. Brown, The Tabernacle, Peabody 2002, p. 121.

[55] N. Marinatos, Minoan sacrificial ritual. Cult practice and symbolism, Göteborg 1986; W. Burkert, op. cit., passim.

[56] M. Rotea, Zs. Molnar, op. cit., passim.

archaeological complex around it: the hearth was not inside a building or close to any other archaeological complex. It was built far away from any other prehistoric structures. Normally, we should have found burnt remains either on the hearth or around it: because we don't found them it proves that they had been gathered and placed in a separate location.

Due to its special role and being fairly close to the workshop (about 15 m), we initially thought it was a smelting furnace[57]. However, the absence of metal - not even small remains - together with its large size and the discovery of the sacred area, point toward a very different interpretation: could be an altar (an altar-platform) for complete burnings.

Webster's Encyclopedic Dictionary defines the altar as "a place, or a high mound, or a platform where religious services are performed, or where sacrifices are offered for the gods..." Altars are built of wood, clay, stone or metal[58]. From the history of religions, we know that altars were present in time immemorial and were places where animal, cereal or even human offerings were made[59]. The Old Testament speaks of several occasions when altars are involved[60]. Noah built himself an altar after the flood and performed complete burnings on it. Elijah built an altar out of 12 rocks, according to the number of the tribes of the sons of Jacob, performed a complete burning three times and "the fire of the Lord fell and consumed the burnt sacrifice, and the wood, and the stones and the dust" (1 Kings, 18:30-38). "And Abraham built an altar there and placed the wood on the altar" in order to sacrifice his son Isaac (Genesis 22:9). Nowhere in these situations is a complex structure involved. In Exodus 20:24-26, God told Moses to command the people to make an altar out of clay or rough stones for their offerings.

At the same time, we know many examples of altars in ancient Greece (*bomos* could be a pedestal, socle or platform in general)[61].

There are also several other archaeological finds in our area showing the existence of altar-platform in the Bronze Age (Sighișoara-Wietenberg[62], Palatca-Sub pădure[63], Bicaz or Lăpuș[64]). At Sălacea, Bihor county, in the southern part of the Ottomans settlement, was discovered a cultic building, a sanctuary of Megaron type, size 5.20 × 8.80 m, with a porch with two columns *in Antis*, a *pronaos* with a suspended altar and a *naos* with two fixed altars[65].

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[57] M. Rotea, Pagini.., p. 36.

[58] C. Yavis, Greek Altars: Origins and Typology. An Archaeological Study in the History of Religion, St. Louis 1949, passim; W. Burkert, op. cit., p. 87; A. Harding, European societies in the Bronze Age, Cambridge University Press 2000, p. 309-311.

[59] W. Burkert, op. cit., p. 64-68.

[60] J. K. Hoffmeier, The Archaeology of the Bible (Romanian version: Arheologia Biblici), Oradea 2009, p. 77-78.

[61] C. Yavis, op. cit., passim; C. Burkert, op. cit., p. 87.

[62] M. Rotea, Cultura Wietenberg, București 1999, PhD thesis mss, with bibliography.

[63] Ibidem, with bibliography.

[64] C. Kacsó, Mărturii arheologice, Baia Mare 2004, p. 43, 55, with bibliography. Some hearths found at Lăpuș and Bicaz, in our view, were altars.

[65] I. Ordentlich, *Contribuția săpăturilor arheologice de pe „Dealul Vida" (comuna Sălacea, județul Bihor) la cunoașterea culturii Otomani,* Studii și Cercetări Satu Mare 2, 1972, p. 63-100.

All these examples show in part the multitude of types, methods of construction and destination of altars.

Thus, the discoveries from Palatca allow us to argue that the altar was used for burning offerings (the place where it was built had been purified and consecrated), and the remains (even if not all of them, for some could be the result of the blast furnaces we still have to locate)[66] along with other artifacts where put in pits similar to the one we partially excavated. Also we will mention here that the placement of offerings in pits is recognition of the role of the Mother Goddess in metallurgical activities. All these rituals are most likely tied to the workshop (due to the spatial characteristics of the Palatca site), with the purpose of creating a proper environment for successful metallurgical activities.

B. Bolduț -„La Rîpă" or „Capul Tăului". In 1998, following a survey, we found some ceramic fragments belonging to the Late Bronze Age Noua culture, in the place called "La Rîpă" or "Capul Tăului". The site is in village of Tritenii de Jos, on the administrative border line with Bolduț Village, Ceanu Mare Commune (Cluj County). In 2006, we started a prevention and rescue excavation, the excavated or supervised area being close to 15 hectares.

The site is located in a pseudo silvo-steppe saline region, in the Transylvanian Plain, 9 km away from the junction between Arieș and Ceanu river valleys and 12 km away from the confluence between Arieș and Mureș rivers. The area is situated on the left bank of Ceanu river, in a dale care has 7 springs in a small area, 4 of which with a high concentration of salt. We noticed the site is east of the Turda salt massif, in close proximity to a spongy volcanic tuff deposit.

The objective here is to present the largest ash deposit and the first blast furnaces in Transylvania. The stratigraphy was similar all throughout the area: a vegetal layer (0-0.20 m), a layer of artifacts (0.20-0.60 m), and yellow clay (from 0.60 m downwards) (Pl. XIV). Next to the Noua artifacts, we discovered a few Coțofeni and Roman ceramic fragments, with no connection whatsoever to the Noua artifacts. Also, this is not an actual habitation structure typical of this culture, but rather a seasonal one also; there are no traces of long term occupation.

The south-east portion of the site is archaeologically unique. On an area marked by a semicircular contour line we identified the remains of 12 "ash deposits" (Pl. XIV/15; XV/16-17; XVI/18-19), and a few hearths, furnaces (Pl. XVII/20-22; XVIII/23) and ritual pits. Sadly, a part of the ash pits were destroyed by the modern clay exploitation. Still, we could locate them both on the surface and in the vertical stratigraphy. We preferred the name special ash deposit because they differ in size, shape and most likely function from ash pits discovered east of the Carpathian Mountains or in the Coslogeni culture.

Ash pits (or *zolnikii*, in Russian), are large agglomerations of ash, shaped like large lens[67] or mounds[68], beneath which traces of habitation and hearths were found.

[66] In one case and in others, intense and long combustion of wood produce ash and very little pieces of charcoal.

[67] A. C. Florescu, *Contribuții la cunoașterea culturii Noua*, ArhMold II-III, 1964, passim.

[68] S. Morintz, Contribuții arheologice la Istoria tracilor timpurii, vol. I, București 1978, p. 152; V. Cavruc, M. Neagu, *Date noi privind stratigrafia Grădiștei Coslogeni*, CCDJ XIII-XIV, 1997, p. 71-80.

Their role has been much debated, without a consensus being reached. Some consider them dwellings[69], while others a sacred area for offerings[70]. We believe ash complexes are the result of a building technique that uses a large quantity of water plants or straws, and must not be related to certain functionality, unless there is archaeological evidence for this[71]. The discoveries from Ţaga (Neolithic)[72], Copăceni-"La Moară" (Early Bronze Age)[73], and many others where under a thick layer of ash. In our excavation we found traces of dwellings and other buildings, which seem to argue in that direction. We believe that the construction system, which had a roof made of water plants or straws, would transform directly in ash and not in charcoal in case of a fire, such as in the case of wood burned in a non oxidizing environment. Ash pits belonging to Noua culture have been discovered in Transylvania only at Zoltan (Covasna County)[74], and Bolduţ (Cluj County). Another one has been signaled at Ungheni (Mureş County), by professor M. Rusu, but surveys done in 1993 and 1994, did not prove its existence.

The ash pits from Bolduţ raise a few problems. They are actually large deposits where large quantities of cold ash were gathered, together with small ceramic fragments (only one small pot could be restored) and bones (some were processed). The whole inventory was incinerated. Ash pits were structured in a semicircle with a total length of 0.96 m, following the contour line; the distance between them is 1-2 m, and their height is over 2 m. Similar to the Palatca case, here we have an impressive quantity of burnt debris especially cared for (this time kept in large deposits). Overlapping horizontal layers of clay were found and we believe their purpose was to prevent ash from being spread by the wind, for they were too thin to be considered floors, and the buildings could not be houses. The building pattern is constant, independent of his nature and quantity of the fill. This is very important for identifying the functionality of these structures.

First, the building system is unique: three walls made of wattles (the fourth is the wall of the above terrace) covered by a framework roof, also made of wood. Second, because at Bolduţ we did not find any other burning installations, at least part of the burnt remains could come from blast furnaces. Third, the mix of the remains with different artifacts shows us a deposition ritual, related to non-funerary rites. Thus, the ash pits from Bolduţ can be considered sacred cult structures where someone

[69] S. Morintz, op. cit., p. 152; M. Florescu, A. C. Florescu, *Unele observaţii privind geneza culturii Noua în zonele de curbură a Carpaţilor Răsăriteni*, ArhMold XIII, 1990, p. 49-76.

[70] O. Levicki, E. N Savva, *Nekotorue aspektu razvitija choyjajstvennych sistem epochi srednej I pozdenej bronzu v Moldove,* Chozjajstvennye kompleksz devnich obşcestv Moldovy, Chişinău 1991, p. 46-66; E. Sava, O. Levitchi, *Aşezarea culturii Noua de la Petruşeni „la Cigoreanu". Investigaţii de şantier*, Cercetări arheologice în aria nord tracă, I, Bucureşti 1995, p. 155-188.

[71] M. Wittenberger, *Cultura Noua în Transilvania*, Iaşi 2006, PhD thesis, mss.; V. Cavruc, M. Neagu, *Date noi privind stratigrafia Grădiştei Coslogeni*, CCDJ XIII-XIV, 1997, p. 71-80.

[72] G Lazarovici, Z. Maxim, D. Bindea, T. Piciu, S. Radu, M. Bodea, *Şantierul arheologic Iclod. Campania din anul 1995*, AMN 34/I, 1997, p. 637-667.

[73] M. Rotea, M. Wittenberger, *The ritual complex of inhumation belonging to the Early Bronze Age from Copăceni "La Moară"*, AMN 35/I, 1998, p. 17-25.

[74] V. Cavruc, G. Cavruc, *Aşezarea de epoca bronzului de la Zoltan,* Angustia II, Sf. Gheorghe 1997, p. 157-172.

deposited along with other artifacts, incinerated remains resulting from metallurgical processes.

Again, we need to ask ourselves from where such a large quantity of burnt remains came from. The answer is provided for us by two identically built complexes, interpreted as smelting furnaces, about 30 m away. Their base was built out of river rocks, pushed into the ground clay and with no archaeological remains. The walls were built of spongy volcanic tuff perfectly joined[75], cut on the inside to give a round shape to the burning chamber. In a few places, the substructure was padded with local argillaceous sandstone, in order to make it air tight. This indicates that the furnace was meant for multiple uses. The remaining superstructure was 30 m in height, the wall was about 0.25 m thick and the diameter at the base of the furnaces was about 0.90 m. Because of the tuff fragments lying around, we believe there were several layers of rock one on top of the other, in order to achieve an optimum height. The entry point of the firing chamber pointed north. Here, we found little ash, a few fragments of slag and a few drops of bronze. Inside the furnace and very close to it, we found four ceramic fragments belonging to Noua culture.

The roof of the furnaces was most likely made out of clay. In pit no. 4, we discovered a large quantity of burnt clay fragments, with a concave shape, possibly parts of an arch, constituting the roof of the furnace (this is supported by the fact that they show traces of powerful firing on their inside face), placed after use in a ritual pit.

As such, the discoveries from Bolduț present a similar scenario to the ones from Palatca (historical period is the same: LBA), except that the burnt debris originate, this time, from furnaces (even if not entirely), are deposited in ritual deposit - like ash complexes presented -, together with different artifacts.

Comparing the results of our excavations with the theory that magical and religious beliefs surround the work of metallurgists, we can create an image of the complex cosmology surrounding prehistoric Transylvanian metallurgical workshops.

This picture could be completed by continuing the research at Palatca excavation site (the investigation of the whole sacred area and/or discovering the smelting furnaces). Due to commercial reasons, unfortunately the site of Bolduț has been destroyed.

From the data presented here, many similarities between the two sites, but also differences result; other discoveries of this kind from Transylvania (for example: Fântânele[76]) will be analyzed in the future.

To conclude, we refer to the Assyrian text discovered in Assurbanipal's bookcase that confirms the important magical function of metallurgical rituals: a favorable day was chosen, in an auspicious month, the area of the furnace was consecrated (a profane could enter it only after going through the purification rituals), libations

[75] Porous volcanic tuff deposits found in about 1.5 to 2 km away has similar thermal properties of refractory bricks, so the oven temperature may be high and extremely efficient combustion.

[76] M. Rotea, Grupul Copăceni. I, Cluj-Napoca 2003, p. 35-56, with bibliography.

are offered to the minerals, followed by a sacrifice, spices are burnt and fermented *kurunna* is spilled. The fire wood is of a special kind, consecrated and pure (the sun does not touch it, the bark is removed and it has been cut in the month of *Ab*)[77].

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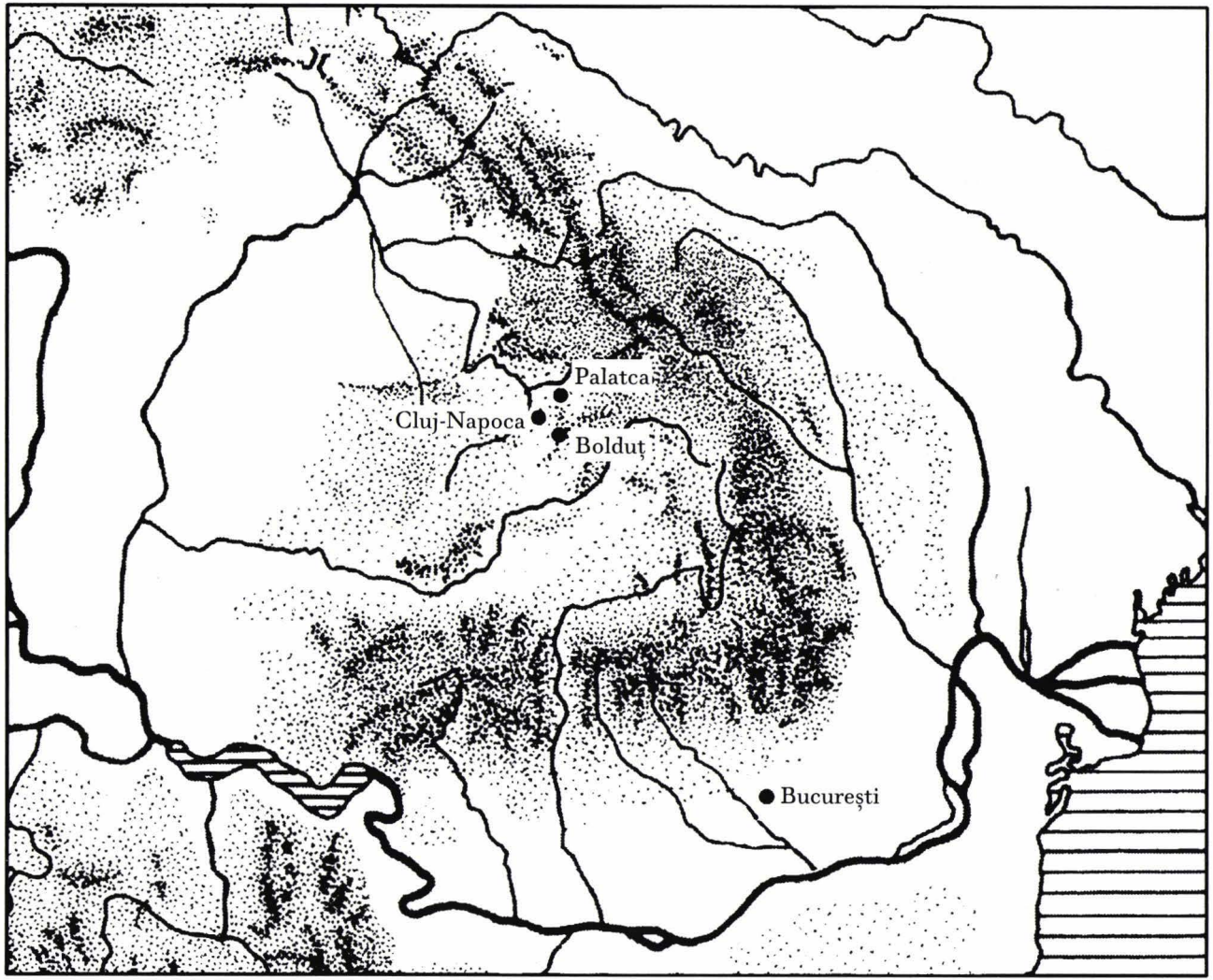
[77] M. Eliade, Forgerons..., p. 73-74, with bibliography.



Pl. I. 1. The geographical position of Palatca and Bolduț sites.

Pl. II. 2. Palatca-"Togul lui Mândruşcă". Meteorite (photos of the authors).

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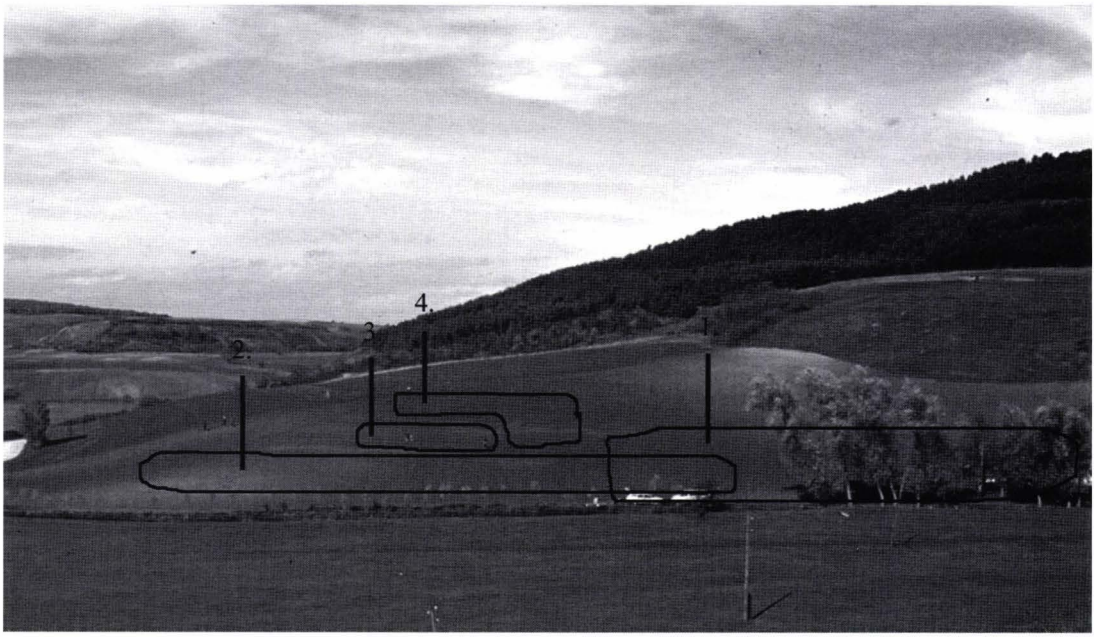
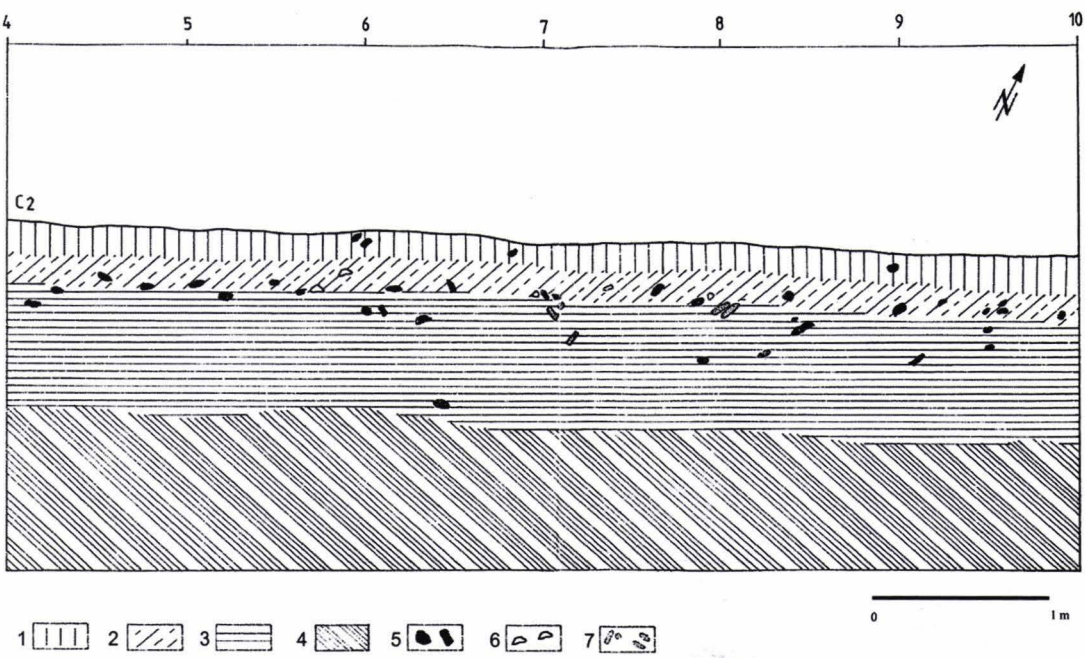
Pl. III. 3. Furnace with breast and vulva penetrated, from Nepal (after T. Gansum, *The Archaeology of Earth*, Current Swedish Archaeology 12, Stockholm 2004, p. 15, fig. 4); **4.** Palatca-"Togul lui Mândrușcă". Anvil (photo of the authors).



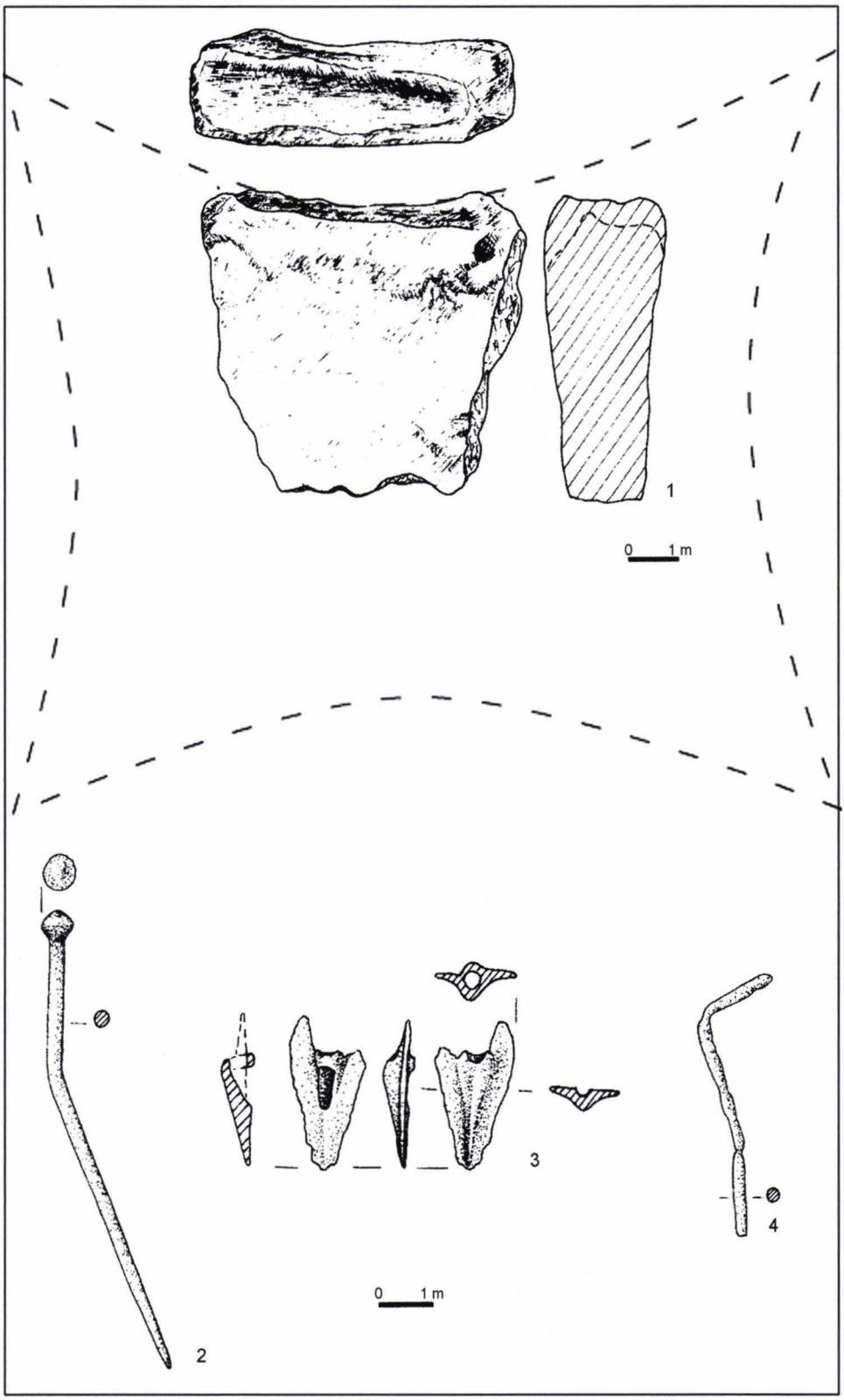
1. Wietenberg site.
2. Late Bronze Age site
3. Bronze workshop
4. Cultic space



1. contemporary humus; 2. level of culture; 3. layer of brown soil; 4. sterile;
5. pottery fragments; 6. stones; 7. bones

Pl. IV. 5. Palatca-"Togul lui Mândruşcă": general view and stratigraphy of the site.

Pl. V. 6. Palatca-"Togul lui Mândrușcă". Ritual complex, general view (photo of the authors).

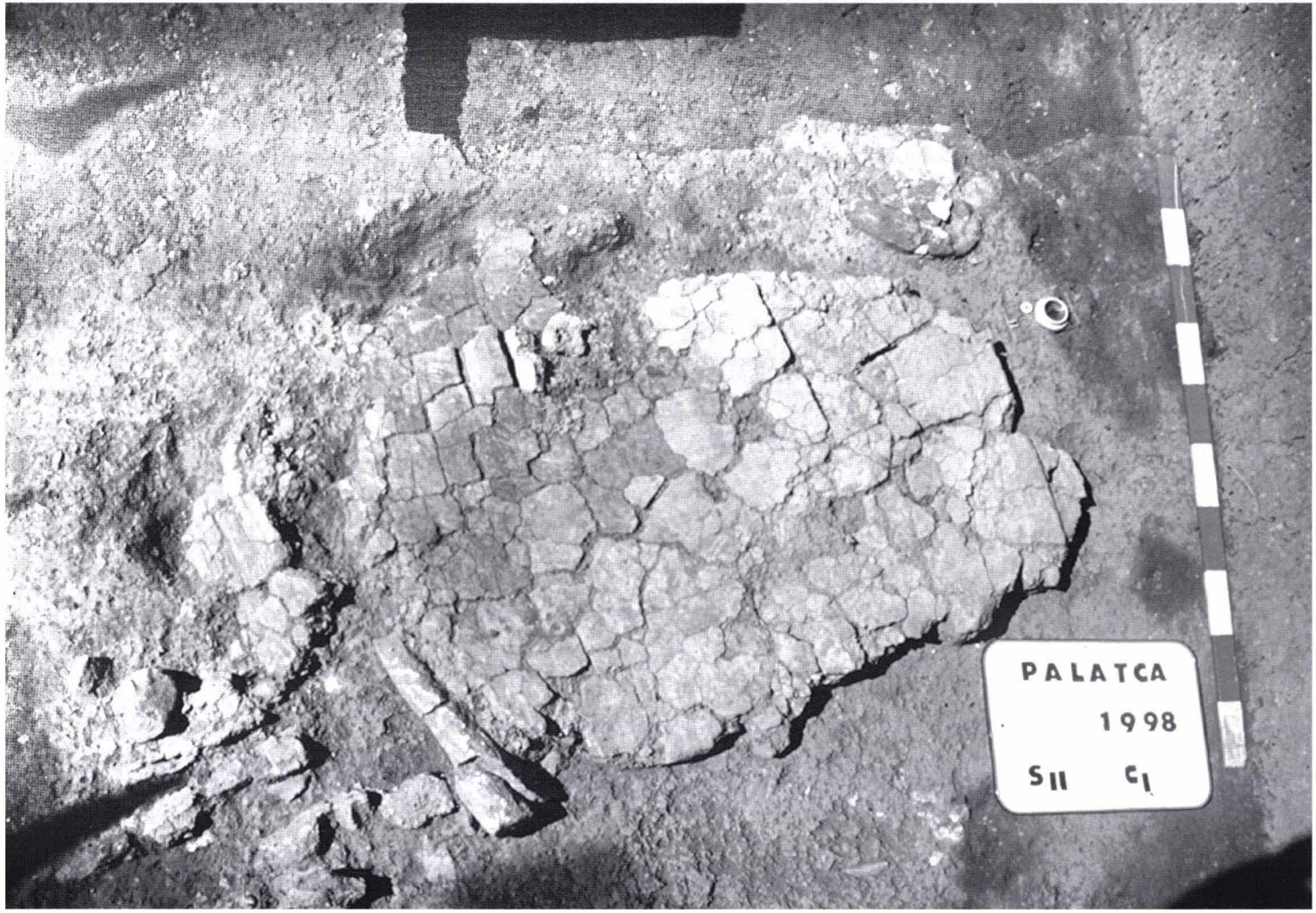


Pl. VI. 7. Palatca-"Togul lui Mândruşcă". Bronze artefacts.

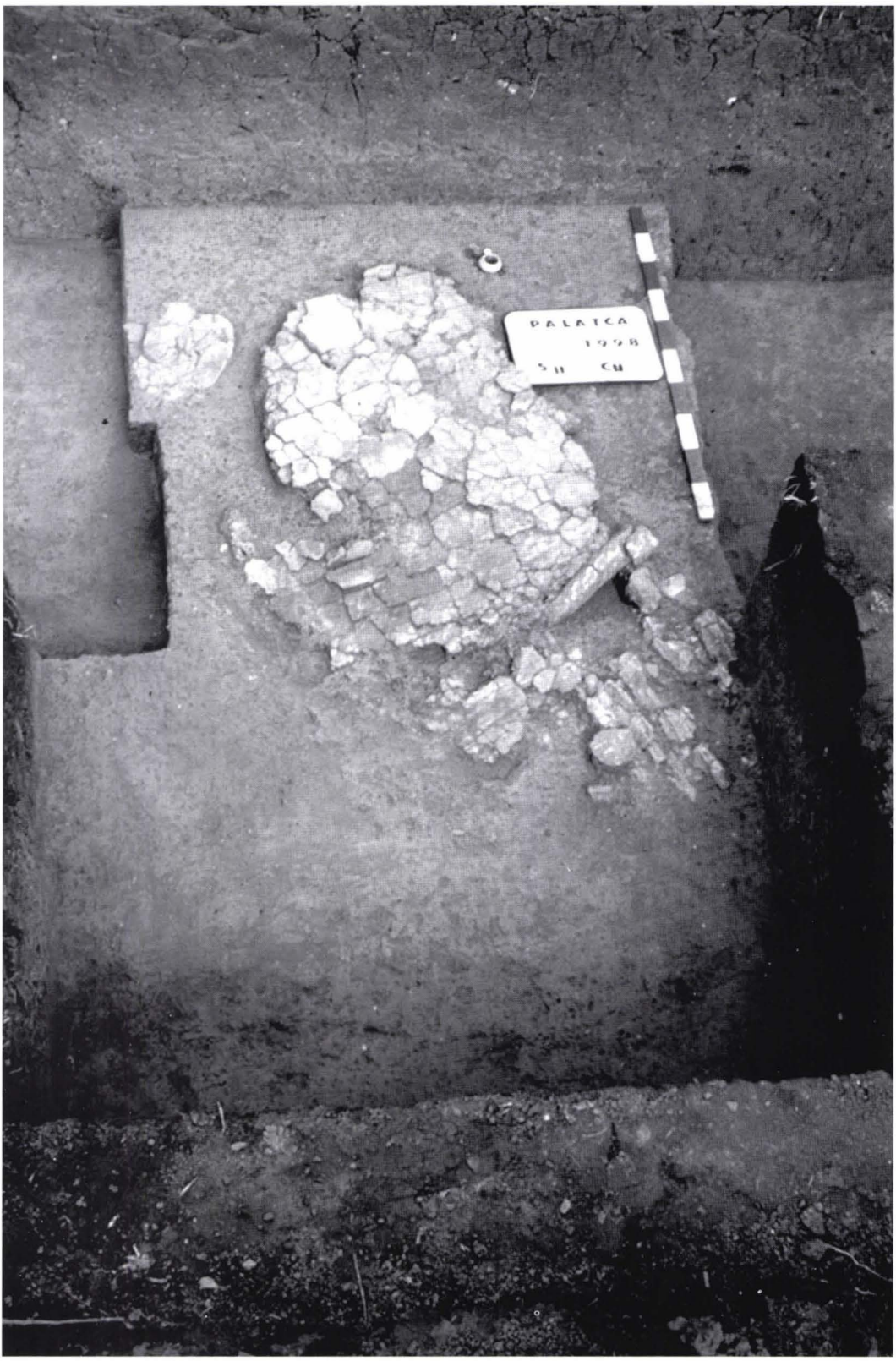
Pl. VII. 8. Palatca-"Togul lui Mândrușcă". Ritual complex, detail (photo of the authors).

Pl. VIII. 9. Palatca – "Togul lui Mândrușcă". Ritual complex, detail (photo of the authors).

Pl. IX. 10. Palatca–"Togul lui Mândruşcă". Ritual complex, detail (photo of the authors).

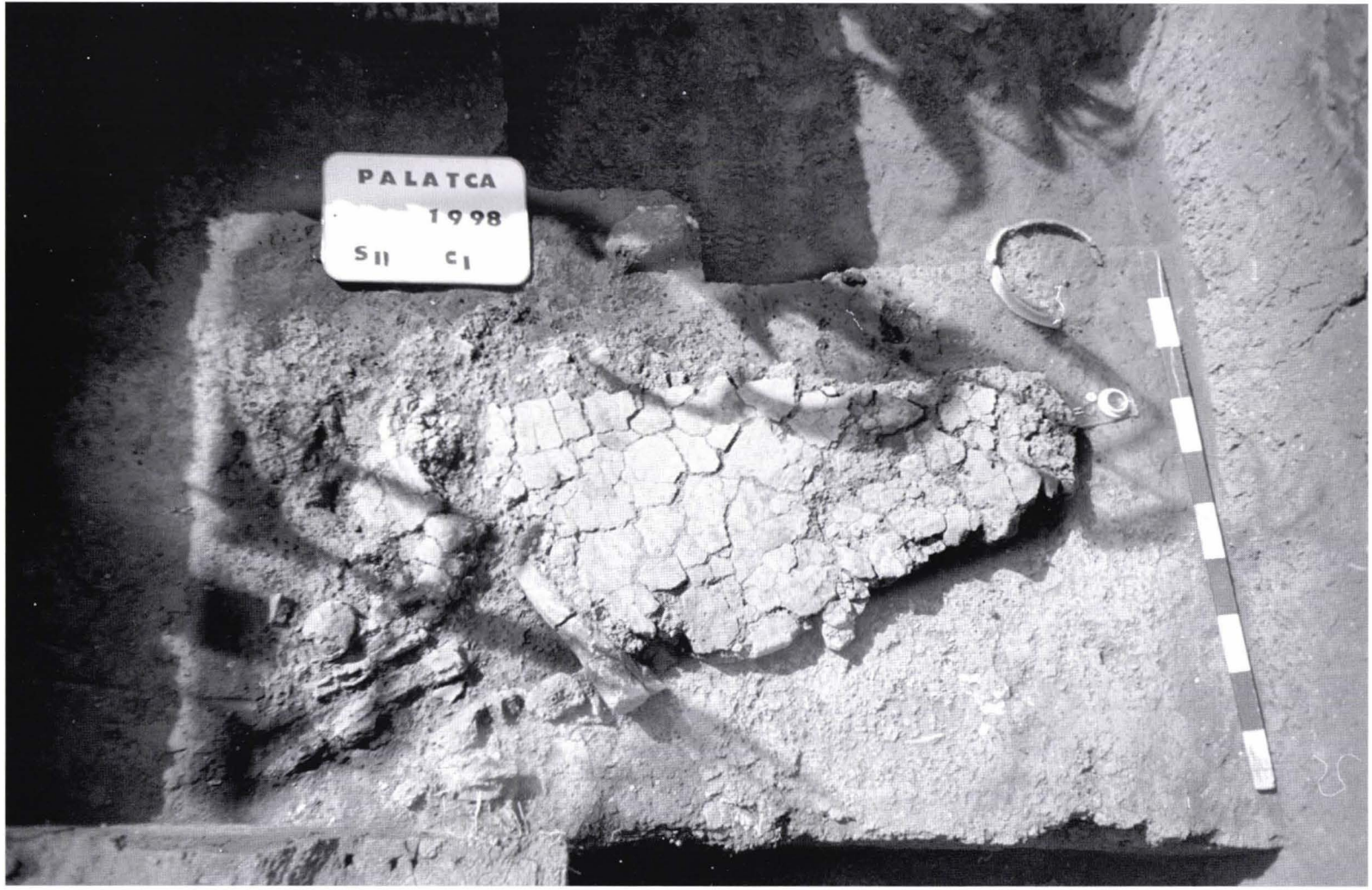


Pl. X. 11. Palatca-"Togul lui Mândrușcă". Altar (photo of the authors).

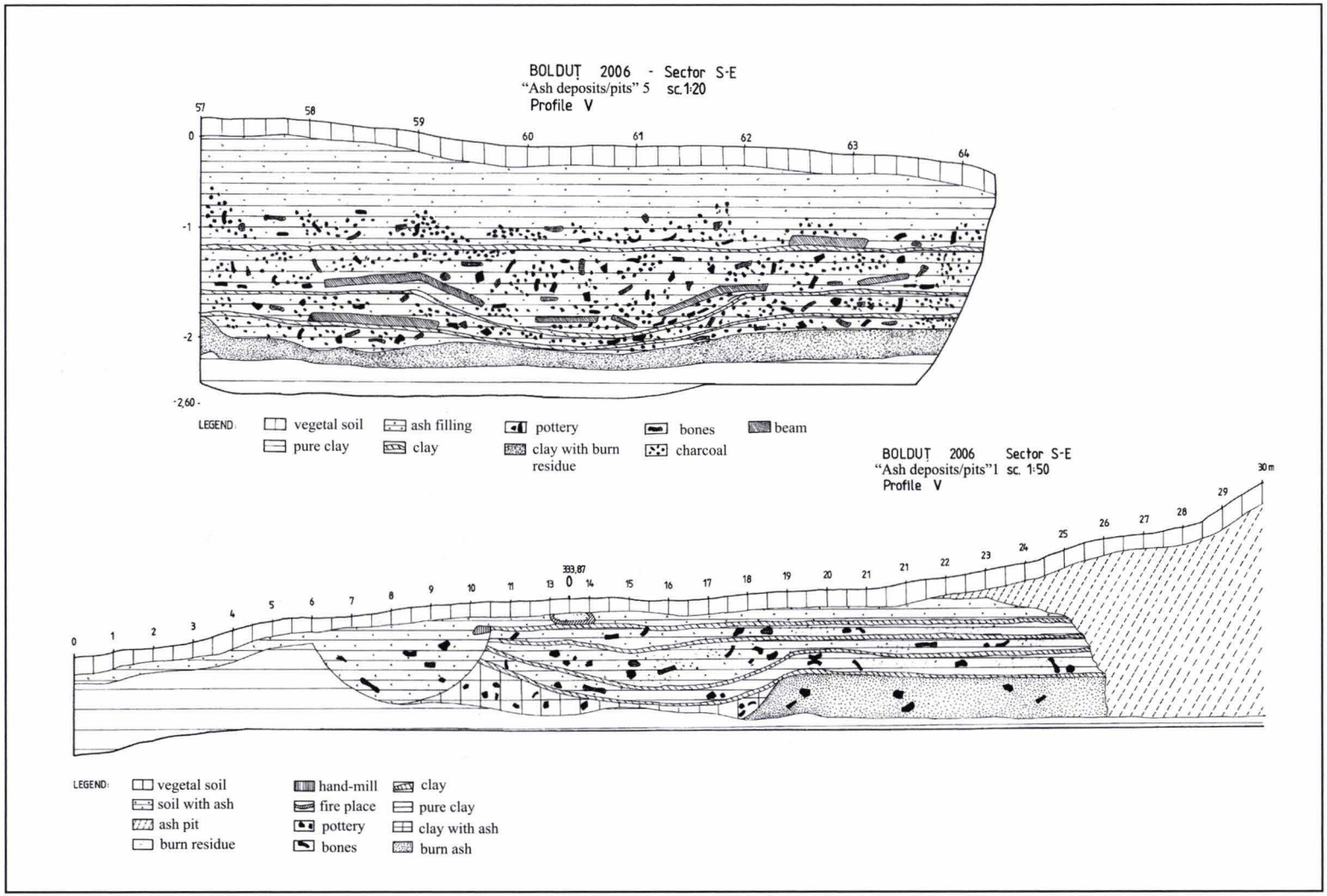


Pl. XI. 12. Palatca-"Togul lui Mândruşcă". Altar (photo of the authors).

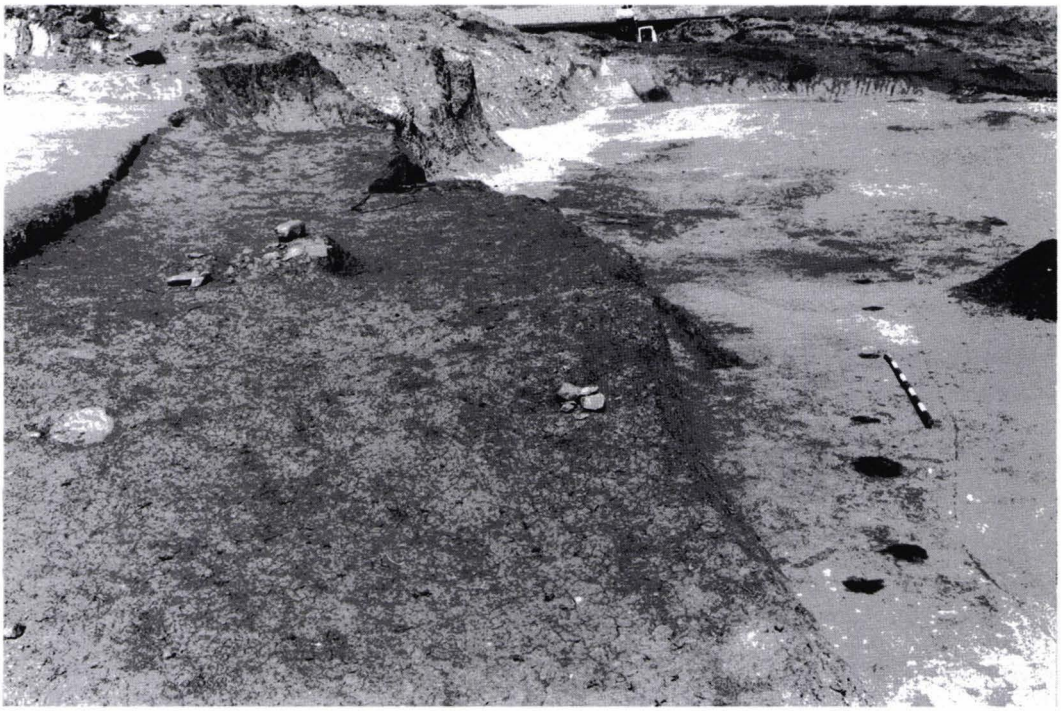
Pl. XII. 13. Palatca–"Togul lui Mândruşcă". Altar with pottery offerings (photo of the authors).



Pl. XIII. 14. Palatca - "Togul lui Mândruşcă". Altar with pottery offerings (photo of the authors).



Pl. XIV. 15. Bolduț. Stratigraphical evidence of "ash deposits/pits" no. 1 and 5.



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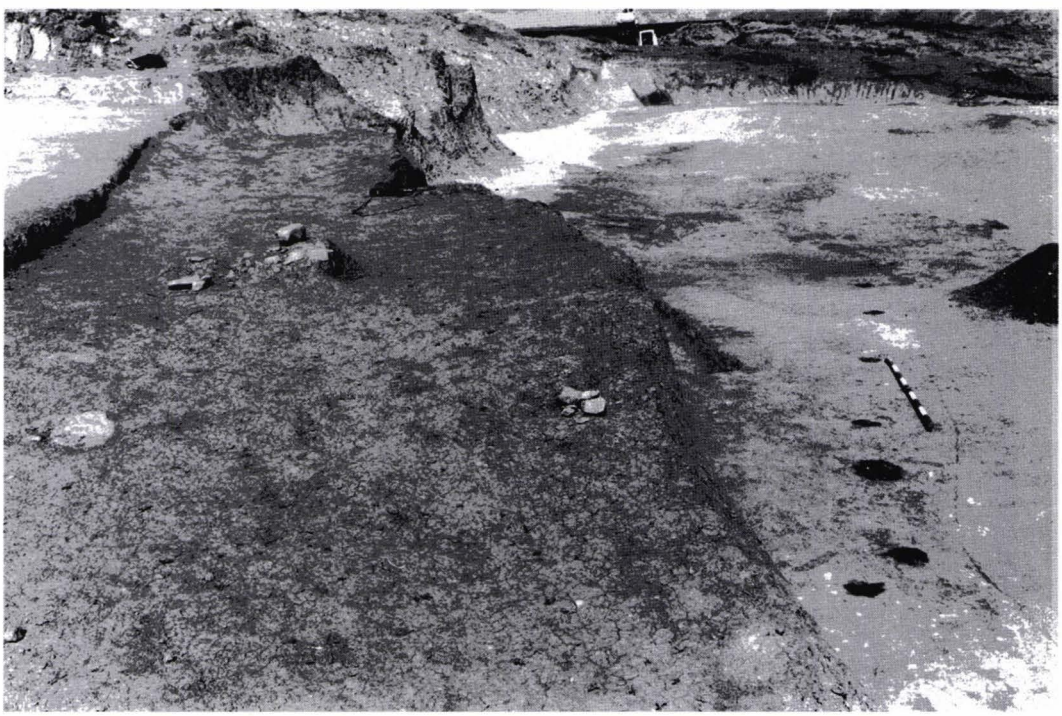

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Pl. XV. 16–17. Bolduț. "Ash deposits/pits" (photos of the authors).

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Pl. XVI. 18–19. Bolduț. "Ash deposits/pits" (photo of the authors).

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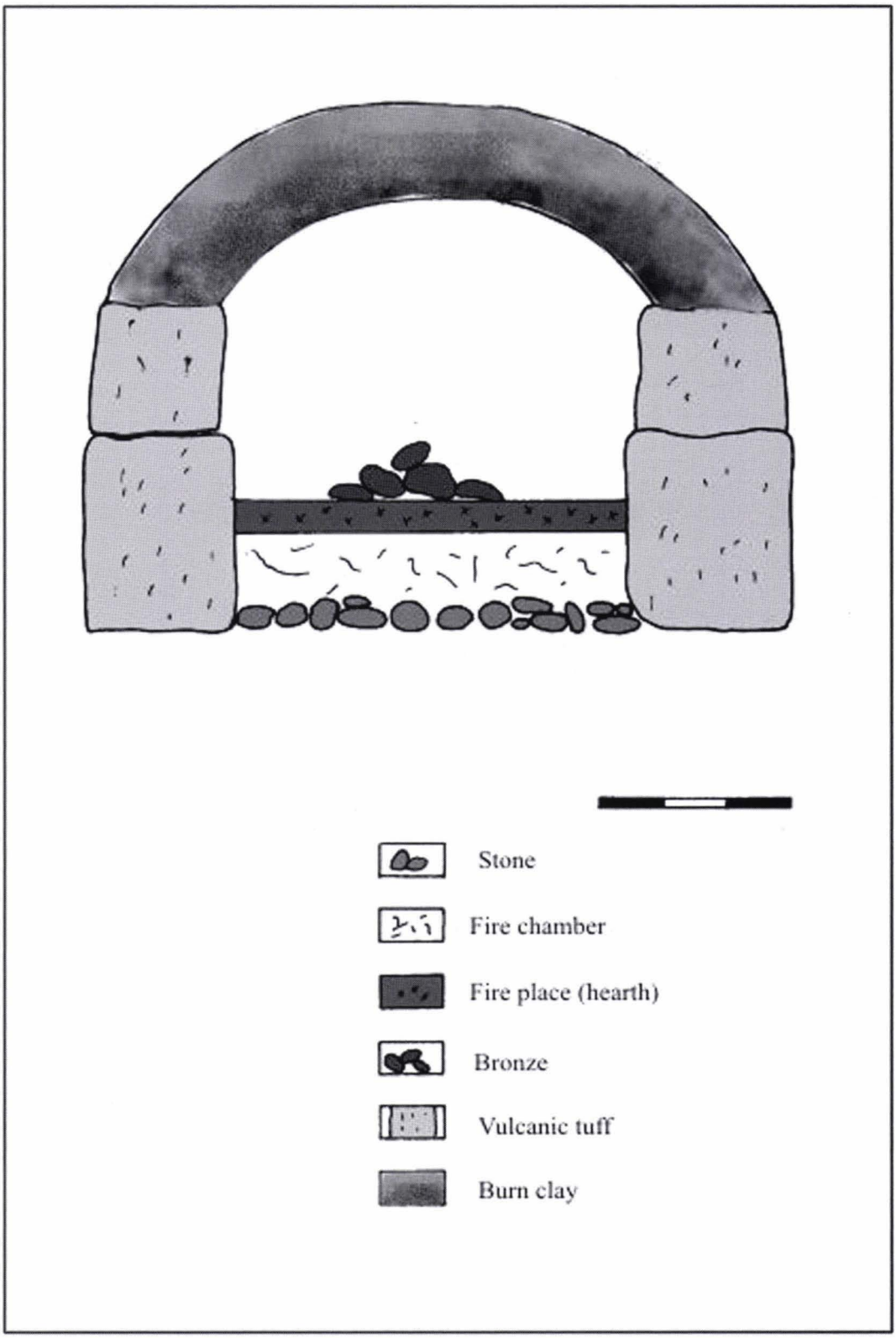
Pl. XVII. 20–22. Bolduț. Furnace no. 8, details (photos of the authors).



Pl. XVIII. 23. Bolduț. Furnace reconstitution.

Acta Musei Napocensis, 45-46/I, 2008-2009 (2011), p. 39-51

THE ANALYSES OF THE COPPER-BASED FINDS FROM THE LBA METALLURGICAL SITE AT PALATCA

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Riassunto: I risultati delle analisi condotte sugli importanti reperti provenienti da Palatca, ora nel Museo di Cluj, sono esposti e discussi nel presente articolo. I reperti sono un grande frammento di lingotto che ricorda una versione ridotta dei lingotti oxhide, un'incudine (o meglio uno strumento metallurgico con varie funzioni) e un lingotto del tipo piano-convesso. Tutti sono stati analizzati per mezzo di spettrometria di assorbimento atomico, prelevando i campioni con un trapano da gioielliere. "L'incudine" è risultata essere fatta di un rame con alte percentuali di piombo (circa 18% Pb). Il lingotto di tipo piano-convesso contiene invece varie impurità, in particolare notevoli tenori di ferro e di arsenico. Il reperto più interessante è il lingotto simile ai lingotti oxhide provenienti da Cipro, ma di misura inferiore. Le analisi hanno mostrato che si tratta di un metallo di composizione completamente diversa da quella dei lingotti oxhide che sono tutti di rame molto puro (98-99% Cu). L'esemplare di Palatca contiene invece varie impurità, in particolare oltre 3% di arsenico, e la sua composizione è dunque simile a quella di pani a piccone e pendenti a ruota della tarda età del bronzo, ma anche a quella dei pendenti di S. Lucia di Tolmino/ Most na Soči e da Vače in Slovenia e da Paularo in Italia nord orientale, datati alla piena Età del Ferro. Come recenti studi hanno dimostrato, sembra che questo tipo di materiale di colore argenteo avesse in questo periodo un particolare significato, perché era impiegato solo per la produzione di questo genere di ornamenti, portati solamente da donne di alto rango e con una particolare posizione sociale all'interno della comunità. È possibile che anche in Transilvania circolassero lingotti di questo materiale, riconoscibile solo attraverso analisi chimico-fisiche, e il lingotto di Palatca è il primo indizio a nostra disposizione.

Parole chiave: Palatca; lingotti; rame; pendenti a ruota; pani a piccone; arsenico.

Introduction

This paper presents and discusses the AAS analysis results of the important copper based finds from Palatca, the richest and the metallurgically most significant site of Late Bronze Age Transylvania, in the County of Cluj. Here a large fragment of what looked like a smallish version of an oxhide ingot, an anvil (or, more in general, a metallurgical tool with different functions), fragments of casting moulds, working remains and fragments of hand mills have been excavated from a workshop with several areas, apparently dedicated to different activities, such as drilling and melting down copper ingots, casting of objects, grinding and retouching[1].

[1] Rotea 2002-2003 (2004), p. 7.

The only other site, dated to roughly this period, in which certain metallurgical remains have been found, is the Wietenberg settlement at Derşida[2], where some casting moulds have been recovered.

The composition of the metal and the implications for the reconstruction of the local metallurgy will be discussed in the next pages.

Method of analysis

The samples were taken in the National History Museum of Transylvania Cluj-Napoca, with a jeweller drill and bits of 1 mm. Approximately 10-12 mg of clean metal were collected for each analysis. The surface material was discarded to avoid the contamination of the sample with elements coming from the burial environment, and only clean metal turnings were collected. In this way also problems of internal segregation are avoided.

The drillings were examined under the microscope and any visible remains of corrosion were removed from the clean metal turnings.

The samples were weighed, dissolved in aqua regia and diluted by following the common procedure for the preparation of AAS solutions, according to the method described by Hughes[3]. The analysis was carried out by atomic absorption spectrometry (AAS). Tin, bismuth and gold were sought, but were not identified.

The results have a precision of approx. ± 1-2% for Cu, ± 5% for elements present at a level greater than 1%, but deteriorating to ± 50% at the respective detection limits.

Discussion of results

Three objects have been analysed by AAS for this project: an ingot with a flattened side, a plano-convex ingot (or bun-ingot) and a large metal fragment which looks like a part of a small oxhide ingot.

The analysis of the "ingot" - a heavy piece of metal which had been most probably employed as an anvil as it has two flattened areas - gave the following values for the 12 elements determined by AAS:

Cu 80.94%; Fe 0.91%; As 0.02%; Sb -; Pb 18.15%; Sn -; Bi -; Mn 0.02%; Ni 0.01 %; Ag 0.02%; Au - %; S 0.03%.

The most striking characteristic of this object is the very high lead content, while, with the exception of iron, only very low trace elements have been determined. This might possibly indicate that the lead had been deliberately added to the copper or at least that an especially lead rich copper had been selected for this use.

The rather flat bun ingot has the following composition, with a slightly higher iron content, a noticeably higher arsenic content, and a very low lead percentage: Cu 97.66%; Fe 1.26%; As 0.49%; Sb 0.09%; Pb 0.09%; Sn -; Bi -; Mn 0.06%; Ni 0.01%; Ag 0.01%; Au -; S 0.34%.

[2] Chidioşan 1980, p. 60; Rotea 2002-2003 (2004), p. 7.
[3] Hughes et alii 1976, p. 19-37.

The most interesting among these finds is the large fragment of ingot with a shape that very closely reminds of the shape of oxhide ingots.

Oxhide ingots are dated to the Late Bronze Age and are widely distributed and quite common, in particular in the Mediterranean area.

These large copper ingots can weigh between 25 and 35 kg and are characterized by their elongated rectangular shape with four "handles" at the corners. A large number of oxhide ingots and of fragments of ingots from different sites, especially those in Mediterranean countries, have been analysed for different projects and the analyses have shown that the material was invariably a copper with a purity of 98-99%[4]. Lead isotope analyses seem to indicate that all oxhide ingots analysed up to now are made of Cypriot copper.

The ingot from Palatca is relatively small, compared with the oxhide ingots known from other contexts; however its shape suggested the possibility that a rather smallish ingot from Cyprus had been imported to Transylvania, possibly along the river Danube.

However, when the ingot was sampled, this hypothesis immediately looked less convincing, because the metal was particularly soft and the metal turnings collected for analysis showed a silvery colour. This fact indicated that the metal was some sort of alloy, instead of the very pure copper which would be expected if the piece was an oxhide ingot.

The following values were determined for the elements sought by AAS: Cu 92.99%; Fe 3.07%; As 3.39%; Sb 0.88%; Pb 0.64%; Mn 0.31%; Ni 0.01%; Ag 0.01%; S 1.44%.

Tin, bismuth, cobalt and gold were also sought, but not detected.

As a comparison, the fragments of oxhide ingots found in the hoard under a wall on the acropolis of the island Lipari, in the North of Sicily[5], had a very high average purity of over 98%, with only very weak traces of iron and arsenic.

Also the analyses carried out in the past on oxhide ingots from Sardinia, Cyprus and from other sites all over the Mediterranean showed very similar results[6], therefore it is quite clear that the ingot from Palatca, with its very high trace elements, is made of a totally different copper which, as we will see in the following paragraphs, has striking characteristics and interesting peculiarities.

A similar composition, with a high arsenic content, is known from the pick ingots (Pl. I/1), dated to the Late Bronze Age, which have been studied by N. Trampuž-Orel[7]. She identified this material as an intermetallic phase formed during the smelting process of polymetallic ores as an intermediate layer between copper and slag and tentatively suggested that the origin of these ores might be the mines of polymetallic ores found in the so-called Grauwackenzone in the Eastern Alps, where important prehistoric mines were located, such as the Mitterberg mine or the ones in the Schladming and Liezen areas[8].

[4] Giumlia-Mair 2009, p. 168-172; Lo Schiavo et alii 2009, passim.
[5] Giumlia-Mair 2009, p. 171-172.
[6] Lo Schiavo et alii 2009, digital archive on CD.
[7] Trampuž-Orel 2001, p. 143-171; Paulin et alii 2003, p. 205-218.
[8] Goldenberg et alii 2004, p. 39-54; Huijsmans et alii 2004, p. 55-64.

However, the ores from this area are also characterized by high impurities of antimony, nickel and cobalt. Some relatively high antimony is present in the ingot from Palatca, but no cobalt and nickel could be detected.

This does not necessarily exclude that the copper might have been extracted from the Grauwacken mines, however deposits with high arsenic percentages are also known from other areas and this metal composition cannot be taken as indication of the provenance of the copper.

It is however very important to point out that the properties of the metal change drastically when in the copper are present several percentage of arsenic and antimony.

Arsenical copper had been used in earlier times, at the beginning of copper metallurgy in Europe, already in the second half of the fifth millennium BC. Very early finds which testify the use of this material have been found for example on the Mariahilfbergl in Brixlegg (Austria)[9], or in Chalcolithic settlements in Spain, dated to the third Millennium BC[10], but this kind of metal alloy was used mainly in the Early Bronze Age and was diffused all over Europe.

Copper which contains a noticeable amount of arsenic hardens faster when wrought, but its more striking property is the beautiful silvery grey colour which develops on the surface of objects cast out of this metal. The silvery colour is due to the phenomenon of inverse segregation. This means that on the surface of the cast pieces of copper containing arsenic (but also antimony) there is the formation of the copper-arsenic alloy which has the lowest possible melting point. This alloy is copper containing 21% of arsenic, it develops inside the metal in the cooling phase and, being liquid, it is pushed through interdendritic filaments (or feeders) to the surface of the castings, where it solidifies and forms the typical silvery layer (Pl. I/2). This phenomenon is commonly called "arsenic sweat".

Laboratory experiments showed[11] that the phenomenon of inverse segregation (or arsenic sweat) can occur in copper alloys already with 1-2% of arsenic in the alloy. The maximum limit of solid solubility of arsenic in copper is 7.5% As. The microstructure of the eutectic shows a solid solution phase α and a compound γ, containing 29.65 As (Cu_3As).

The compound γ is still malleable and can be worked. Copper alloys containing antimony also form a segregation layer on the surface and behave like copper-arsenic alloys. Therefore the presence of both arsenic and antimony greatly enhances the segregation phenomenon and produces a more compact silvery layer. It has to be noted that also inverse segregation of tin in copper exists. This is the so-called "tin sweat", but this compound is extremely fragile and it breaks easily when it is wrought or, in general, when worked by hammering[12].

From all this it is quite clear that the metal of the ingot from Palatca had a very noticeable silvery colour and good working properties.

[9] Höppner et alii 2005, p. 293-315.
[10] Craddock 1995, p. 134-135.
[11] Budd et alii 1991, p. 132-142; Giumlia-Mair 2000, p. 300-301.
[12] Northover 1989, p. 111-118.

With the introduction of copper-tin alloys in the Middle Bronze Age, copper-arsenic alloys were forgotten, as bronze alloys have better working properties and do not produce poisonous fumes like arsenical copper, however, in some special cases, these alloys were employed again for the production of special objects with a particular social and most probably religious significance.

As several studies carried out on different materials have shown[13] in the Late Bronze Age and in the Iron Age, a special class of decorative objects - which were apparently prerogative of women who had special powers and exceptional functions in the society of the time - were still made of arsenical copper or at least of copper rich in arsenic, antimony, nickel and cobalt, i.e. of the metal employed for the pick ingots. The objects are the well known wheel pendants (Pl. II/3-4) and, in the Iron Age, some anthropomorphic pendants which seem to be in clear connection with the very ancient cult of a moon goddess, connected with water, life and death, fertility and abundance[14].

Several finds of wheel pendants are known in the archaeological literature. The best known and thoroughly studied group is that from Kanalski Vrh in Slovenia[15], but important hoards are also those from Villethierry in France[16], from Grünwald[17] and Gammertingen[18] both in Southern Germany, from Thunau am Kamp in Austria[19], and from Velem-Szentviden in Hungary[20].

Among the objects of the hoard from Chiusa di Pesio (Cuneo) in the Italian region of Piedmont there were around 50 wheel-pendants, however these seem to be made of a bronze alloy which was superficially treated, to achieve a light, silvery colour. However the analyses carried out by SEM/EDS and PIXE determined in some of the pieces similar concentrations of As (0.4-2.2%), Sb (up to 0.8%) and Ni (0.2-0.4%). No data are given for Co, but also relatively high Ag concentrations (0.4-1.3) were identified[21].

In Italy there are several examples, e.g. from the region Friuli[22], from the famous S. Francesco hoard in Bologna with 2 examples[23], from the famous site of Verucchio, also in Emilia Romagna, from Capriano-Renate in Lombardy, from Fontanella di Casalromano near the river Po, from Coste del Marano in Lazio with 5 pieces etc. These amulets are also diffused in Central Europe, for example from Lengyeltóti III,

[13] Giumlia-Mair 2000, p. 300-301; Heath et alii 2000, p. 53-70; Trampuž-Orel, Heath 2001, p. 143-171; Paulin et alii 2003, p. 205-218; Giumlia-Mair 2005a, p. 363; Giumlia-Mair 2008, p. 110-117; Giumlia-Mair 2009b, p. 149-163.

[14] Giumlia-Mair 2008, p. 110-117; Giumlia-Mair 2009b, p. 149-163.

[15] Žbona-Trkman, Bavdek 1995-1996, p. 31-71; Heath et alii 2000, p. 53-70; Trampuž-Orel, Heath 2001, p. 143-171; Paulin et alii 2003, p. 205-218; Giumlia-Mair 2008, p. 110-117; Giumlia-Mair 2009b, p. 149-163.

[16] Mordant et alii 1976, p. 169, fig. 144-154.

[17] Wels-Weyrauch 1991, p. 54.

[18] Wels-Weyrauch 1978, p. 67-75.

[19] Lochner 1998-1999, p. 181-186, figs. 2, 4.

[20] Bándi, Fekete 1977-1978, p. 101-133.

[21] Angelini et alii 2007, p. 210.

[22] Giumlia-Mair 2005a, p. 359-367.

[23] Antonacci Sanpaolo 1992, p. 159-206.

Gyermely, Csákberény, Sághegy, Hódmezővásárhely and Magyarkeresztes in Hungary, from Smolenice-Molpír in Slovakia, and from Sierre VS, Oberriet SG, Montlingerberg SG, Estavayer-le-Lac VD and Auvernier NE in Switzerland[24].

Two casting moulds for wheel pendants have been found in Switzerland at Auvernier NE and at Grandson VD (Les Corcelettes)[25] and a further example is known from Freghera-Cermenate near Como[26].

Up to now only other three objects made of arsenic rich alloys, dated to the Iron Age, have been scientifically identified. These are the anthropomorphic pendants found in the graves of socially important women in the famous necropolis of S. Lucia di Tolmino/Most na Soči (Pl. III/5) in Slovenia, (the object is now in the Civici Musei di Arte e Storia, Trieste, Italy), in the necropolis of Paularo (Pl. III/6), in the region Friuli Venezia Giulia, Italy (now in the Museum of Zuglio, Udine, Italy), and in the necropolis of Vače Pl. III/7), Slovenia (this piece is now in the Naturhistorisches Museum in Vienna, Austria).

The graves are dated to the late 6th-early 5th century BC and in all cases they were by far the richest burials in the three cemeteries.

The shape, the size and the ornaments of the three pendants are astonishingly similar so that they seem to come from the same mould.

The anthropomorphic pendants were all produced by casting, only slightly cold worked and carefully polished. They seem to represent a female deity on a boat, decorated on both sides with animal heads. The animals were interpreted as aquatic birds and in some cases as horses. More anthropomorphic pendants of smaller size were originally hanging from the stylised boat.

Other small anthropomorphic pendants of different types, belonging to the same large composite ornament, some kind of pectoral, were found in the same graves.

The first pendant analysed by XRF was that from the necropolis of S. Lucia di Tolmino/Most na Soči and the results showed that, surprisingly, the alloy was copper containing 8% Sn, 4.5% of As, 5% Pb, 1.5% Ag and around 1% Fe.

At a later point also the pendants from Paularo and Vače were analysed. The results were similar to that of the first pendant, with high As, some Ag and 7-9% of Sn. The small anthropomorphic pendants and the triangular pendants belonging to the same sets are made of the same alloy, with only slight differences, however the fibula which supports the pendants was made of common leaded bronze[27].

It is important to underline that in previous researches around 150 copper-based finds from the necropolis of S. Lucia[28] and 130 from the necropolis of Paularo[29] had been analysed in the frame of different research projects and that none of the objects was made of a similar metal. Obviously this distinctive material was employed for special objects only and had a special significance.

[24] Giumlia-Mair 2008, p. 110-117.
[25] Wyss 1989, p. 91-99, fig. 3.
[26] Frigerio 1981, p. 81-147.
[27] Giumlia-Mair 2008, p. 110-117; Giumlia-Mair 2009b, p. 165-211.
[28] Giumlia-Mair 1998a, p. 665-672; Giumlia-Mair 1998b, p. 94-122 and the table of results.
[29] Giumlia-Mair 2003, p. 62-64.

Conclusions

Many more object made of "white metal" dated to the Bronze Age and the Iron Age are mentioned in the archaeological literature, in various regions of Central Europe however not many analyses of these materials exist. Most probably copper containing some arsenic and antimony was considered a precious material and circulated in a vast area.

Not many people could distinguish it from silver.

In Roman times this alloy was employed by a few specialists only, who carefully kept secret the procedure and the ingredients as a workshop recipe "to make silver"[30].

In the Middle Ages the phenomenon of colour change was known by the alchemists who called the process of producing arsenical copper *dealbatio aeris* (the whitening of copper). Several important Medieval texts, such as for example the *Mappae Clavicula,* a collection of alchemistic recipes dated to the early Middle Ages[31] or the treatise *De Mineralibus* (On Minerals)[32] of Albertus Magnus, one of the most important scholars of this time (1193-1280), theologian, philosopher and alchemist, mention this material as one of the most important recipes of alchemy.

The ingot from Palatca is for the moment the only identified ingot of this shape and characterised by this composition. The pick ingots which, as discussed above, have very similar characteristics, are found in a wide area, around Slovenia and the Alps, but are also found in graves in the Villanova territory[33]. This indicates that they were considered an especially appreciated metal and were traded to different regions.

It is possible that in Transylvania there was a similar trade of silvery coloured ingots and that the example from Palatca is the first indication of a more widespread phenomenon.

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[30] Giumlia-Mair 2001, p. 218-221.
[31] Smith, Hawthorne 1974.
[32] Goldschmidt 1983.
[33] Chiavari et alii 2007, p. 233.

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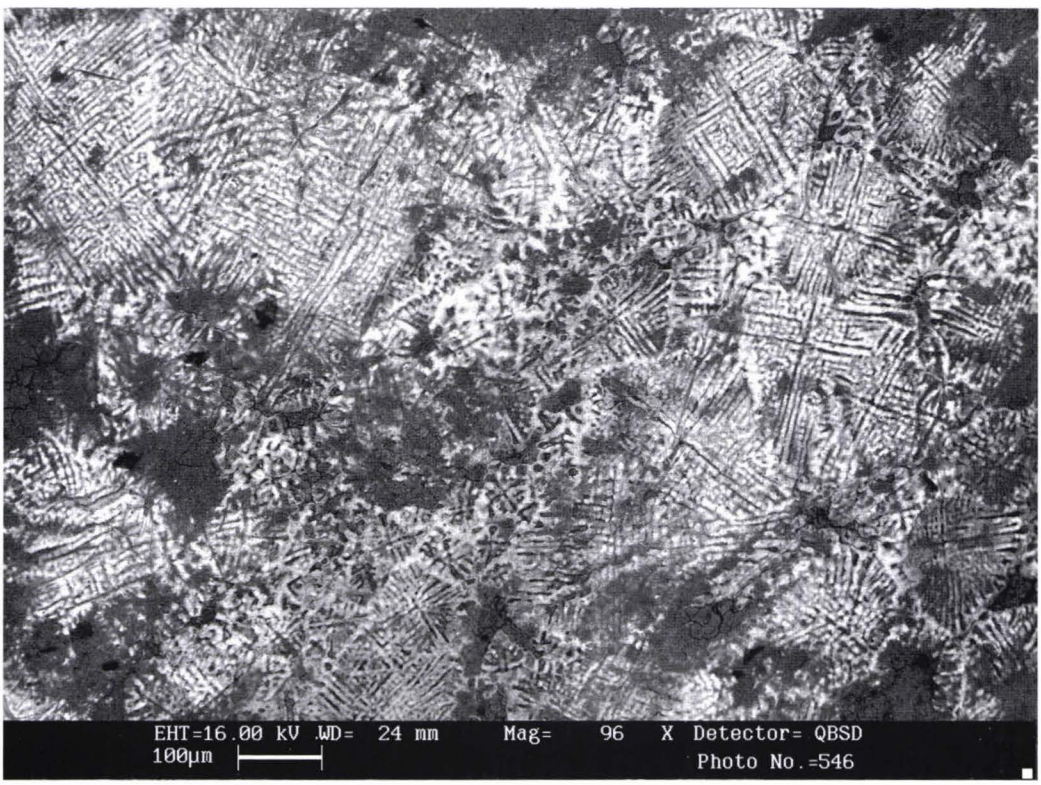

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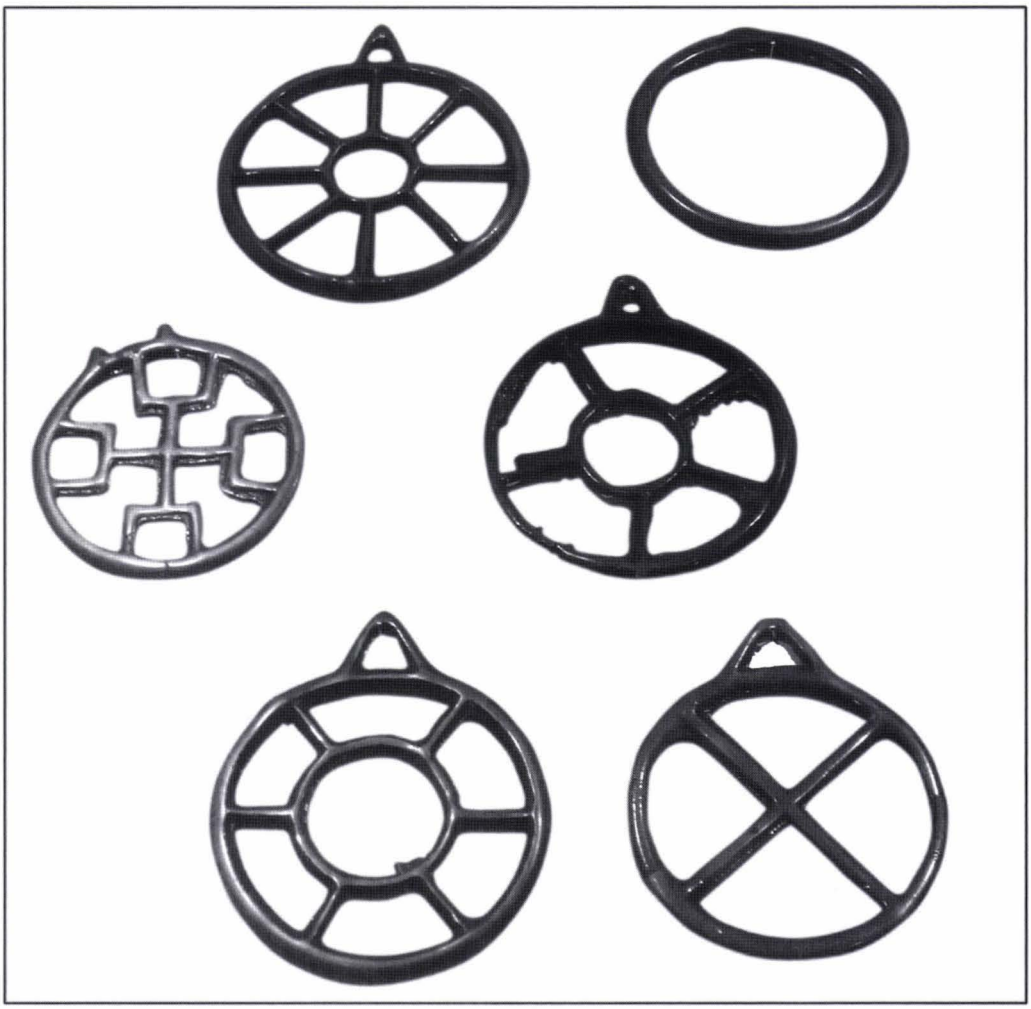
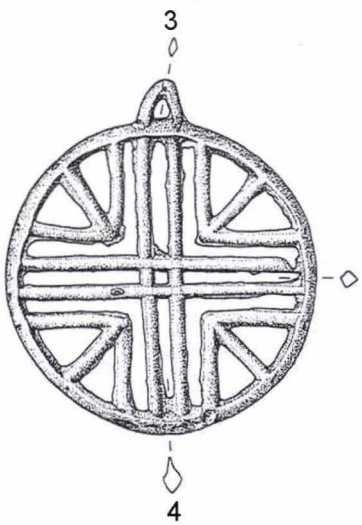
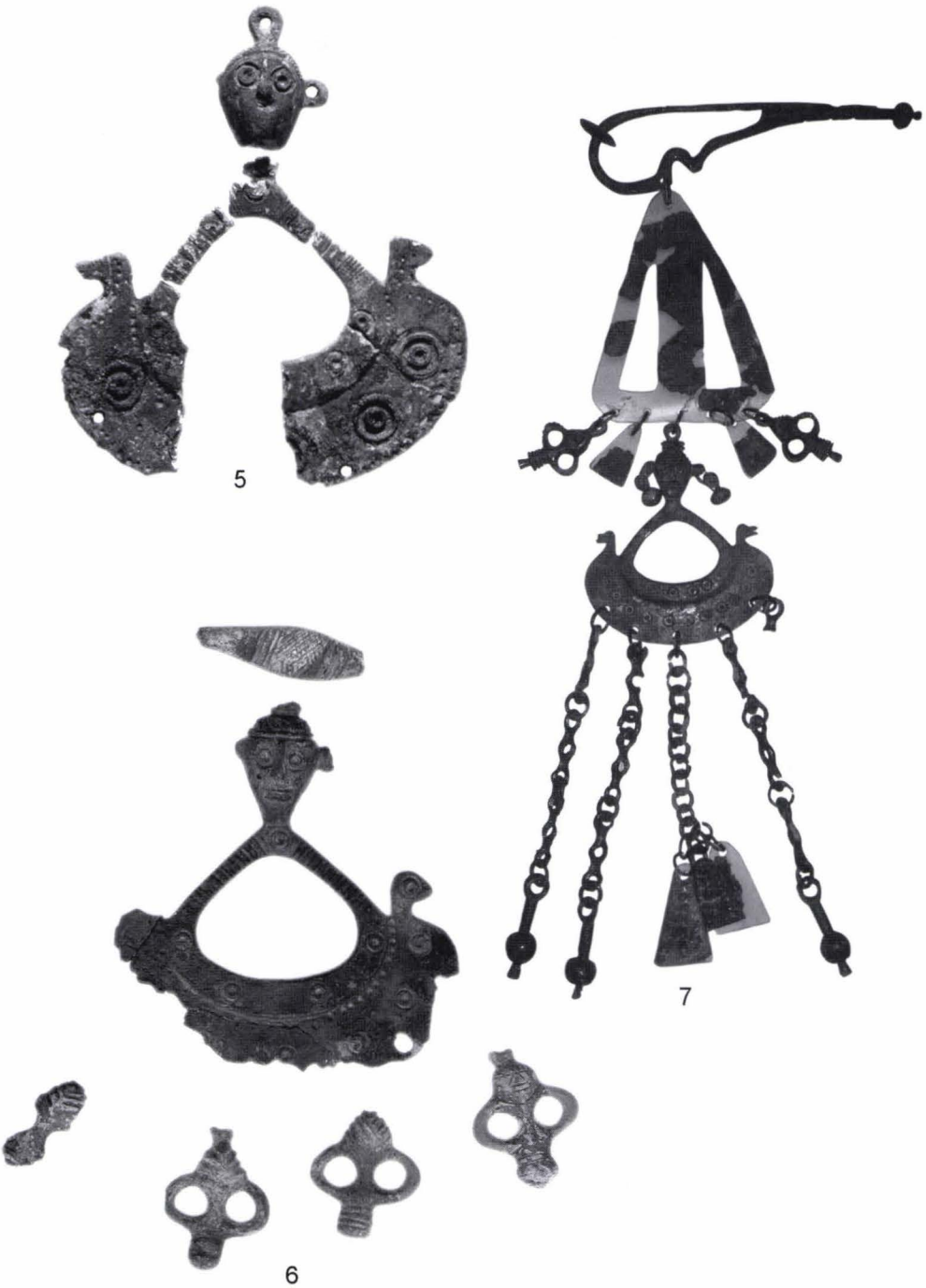
Pl. I. 1. Examples of pick ingots from the Eastern Alps; **2.** The SEM micrograph shows the typical silvery formations on the surface of an arsenic-rich object (photos A. Giumlia-Mair).





Pl. II. 3. Selection of pendants with different shapes from the Slovenian site of Kanalski Vrh (photo A. Giumlia-Mair); **4.** One of the wheel pendants found at Thunau am Kamp in Austria (drawing after Lochner 1998-1999, p. 183, fig. 2).



Pl. III. 5. Anthropomorphic pendant, made of an arsenic-rich alloy, found in the necropolis of S. Lucia-Most na Soči in Slovenia, now in the Civici Musei di Arte e Storia in Trieste, Italy; **6.** Anthropomorphic pendant, made of an arsenic-rich alloy, found in the necropolis of Paularo (Udine, Italy), now in the Museum of Zuglio, Udine; **7.** Anthropomorphic pendant, made of an arsenic-rich alloy, found in the necropolis of Vače, Slovenia, now in the Naturhistorisches Museum in Vienna, Austria (photos A. Giumlia-Mair).

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ARCHAEOZOOLOGICAL ASPECTS CONCERNING THE ECONOMIC LIFE DURING LATE BRONZE AGE IN PALATCA

DIANA BINDEA, IMOLA KELEMEN

Abstract: The archaeozoological material analyzed in the present research comes from Palatca, a settlement in Cluj county, 40 km E-NE from Cluj-Napoca. It is here that the archaeological excavation in 2001 took place. The sample which cumulates 342 remains belongs to the Bădeni culture III - Deva and it was discovered in a place called „Togul lui Mândruşcă". They are all mammal remains, with the exception of one gastropod shell. Animal breeding was the primordial activity of the people from this settlement. The high frequency of domestic mammals attests the importance of this activity within the community. A small percentage of wild mammals were discovered, which underlines the reduced use of wild species as a food source. On the basis of the number of fragments (NR), we estimated that the first place among the food sources in the settlement of Palatca was occupied by cattle. Caprovines follow closely, and the third place is represented by swine. We have a slightly different situation if we calculate everything according to the minimum number of individuals (MNI). All the other wild species identified: the roe deer, the wild boar and the hare are represented in the archaeozoological sample with one fragment each, with an exception: the red deer. Hunting wild birds, fishing or picking mollusks seem to have played an insignificant role in the economy of the Palatca settlement.

Keywords: archaeozoology; fauna; bones; Palatca; Bronze Age; Bădeni III - Deva culture.

The place for the 2011 excavation, from where we obtained the materials analyzed in the present paper - Palatca commune - is situated in Cluj county, 40 km E-NE from the city of Cluj-Napoca. The first archaeological discovery at Palatca was a habitation on a high place in the northern part of the village from where Neolithic stone axes and animal bones were recovered[1]. In the autumn of 1948 the terrain was examined south of the village, on Valea Ţagului, in the spot called "La Pădure" or "Chesăul Mare", after which the research team composed of M. Macrea and Gy. László noticed the existence of a Bronze Age habitation, with houses and hearths[2].

In the last years research has been resumed in the late Bronze Age habitation from Palatca in the place called "Togul lui Mândruşcă". The systematic excavation, done during 6 campaigns, starting from 1991 was supervised by M. Rotea and the 2001 campaign was the one they found the fauna sample analyzed and presented in the present paper. The archaeological material found at Palatca, mostly ceramics, but

[1] Roska 1942, p. 154.
[2] Soroceanu 1972, p. 165-172; RepCluj 1992, p. 303.

also other pieces made from burnt clay, bronze, bone or horns and the osteological ones, were attributed by the chief of the excavations to the Bădeni III-Deva culture, a synthetical cultural entity, dated back to the beginning of the Late Bronze Age period in the east arch of the western Carpathian Mountains[3].

Fauna in the Palatca – "Togul lui Mândruşcă" site

The fauna sample discovered during the archaeological diggings done in 2001 totals 342 determined bone remains which were all recovered from the layer of culture. Except for a shell belonging to a gastropod (an invertebrate) all the other fragments belong to mammals. The aspect of the material indicates that all the fragments are debris from kitchen.

All the 6 domestic species usually found in archaeozoological samples have been identified: *Bos taurus* (cattle), *Ovis aries* (sheep), *Capra hircus* (goat), *Sus scrofa domesticus* (pig), *Equus caballus* (horse) and *Canis familiaris* (dog). To these domestic mammals we can attribute 289 bone remains, which represent 96.98% (table 1, fig. 1) from the total of identified animals. Thus the quota of wild species is very small, just 9 fragments, a 3.02% belong to 4 identified mammals: *Cervus elaphus* (red deer), *Capreolus capreolus* (roe deer), *Sus scrofa ferus* (wild boar) and *Lepus europaeus* (hare).

Another identified group is that of the rodents. A skull and a left mandible, based on the dentition[4], have been identified as belonging to the species *Cricetus cricetus* (common hamster). Besides these another 8 fragments coming from the post-cranial skeleton very probably belong to rodents, without being able to say whether from the common hamster or a different species, but they most certainly come from 2 rodent individuals. These remains were excluded from the statistics, partly because rodents are not consumed, partly because they could be an intrusion into the layer of habitation.

Species analysis

Bos taurus (cattle) cumulated 133 remains, representing 44.63% of the total of mammals (fig 2). Judging by the number of remains (NR) this species occupies first place in the livestock economy. In our opinion the lack of jaw fragments, based on which the minimum number of individuals (MNI) is calculated, led to an undervaluation of this species. Thus, based on the available material, we were able to identify a minimum of 5 individuals. These represent just 20% of the total number of estimated individuals, a percentage which places bovines on third place, after sheep/goats and pigs.

Age repartition[5] of the estimated individuals is as follows: 1 individual under 12 months (distal epiphysis of humerus not ossified), 1 individual approximately 18 months old (primary phalange with proximal ossification line visible), 2 individuals approximately 30-32 months old (degree of jaw dental wear) and 1 individual over

[3] Rotea 1994, p. 42; Rotea 1997, p. 13.
[4] Hillson 1986, p. 63.
[5] Silver 1963, p. 252-253.

4 years old (based on the jaw bone). If we follow the repartition of bone remains belonging to domestic bovines based on anatomical elements (table 2) we notice the existence of a large number of isolated teeth (28). By eliminating this category we notice a balanced distribution of fragments from meaty areas (with developed muscles) as compared to remains from non-meaty areas of the skeleton. Thus the ratio is 49.04% meaty / 50.96% non-meaty areas.

	NR	%	MNI	%
Bos taurus	133	44,63	5	20
Ovis aries / Capra hircus	86	28,85	7	28
Sus scrofa domesticus	44	14,76	6	24
Equus caballus	21	7,04	2	8
Canis familiaris	5	1,67	1	4
Total domestic	**289**	**96,98**	**21**	**84**
Cervus elaphus	6	2,01	1	4
Capreolus capreolus	1	0,33	1	4
Sus scrofa ferus	1	0,33	1	4
Lepus europaeus	1	0,33	1	4
Total wild	**9**	**3,02**	**4**	**16**
Total determined mammals	**298**	**100**	**25**	**100**
Large-sized ribs	19			
Small-medium sized ribs	24			
Total mammals	**341**			
Gastropods	1			
Total	**342**			

Table 1. Frequency of fauna remains at Palatca detailed on species.

Fauna material belonging to domestic bovines unfortunately did not offer us possibilities to estimate their size and sex (no bone was recovered whole). Also the horn identified in an advanced fragmentary state did not give us any clues of the morphologic type ("primigenius" of "brachyceros") of the cattle species from Palatca.

Ovis aries/ Capra hircus (sheep/goat) are represented by 86 bone fragments, representing 28% of the total number of mammals. Because of difficulties of distinguishing between sheep and goats, based on morphological particularities of the skeleton, these two species will be treated together, being included in the artificial group created in archaeozoology named caprovines (sheep/goats). In this group 13 fragments belong to sheep and 4 belong to goats.

The rather large number of jaw bones with fragments discovered *in situ* allowed for an estimate of a number of individuals larger than in the case of bovines. Thus, though from looking at the number of remains, caprovines seem to be far away from bovines, by looking at the minimum number of individuals small horned animals occupy first place with 28%. The 7 estimated individuals have the following age repartition: 2 individuals under 1 year, one of these around 8-10 months (mandible with deciduous teeth), 1 individual approximately 26-28 months (wear of mandible teeth), 2 individuals of approximately 2.5 years (based on mandible remains), 2 individuals

Species / Anatomical element	*Bos taurus*	*Ovis / Capra*	*Sus domesticus*	*Equus caballus*	*Canis familiaris*	*Cervus elaphus*	*Capreolus capreolus*	*Sus ferus*	*Lepus europaeus*
Horns	1	1				2			
Skull	6	2	2						
Maxilla	3		4						
Mandible	13	8	12						
Isolated teeth	28	26	10	11	1	1			
Atlas		1							
Axis	1	1							
Scapula	4	5	2	2		2			
Humerus	11	11	1						
Radius	5	4		1	1	1			
Ulna	2	1	1						1
Carpale	4								
Metacarpus	4	5	4		1			1	
Pelvis	4	2	1				1		
Femur	4	2	1						
Patella									
Tibia	9	2	1	1					
Calcaneus			1		1				
Astragalus	3	1							
Centrotarsale	2								
Metatarsus	4	1	1	1	1				
Metapodial	3	6							
Sesamoid				2					
Phalanx I	8	1	1	1					
Phalanx II	3			2					
Phalanx III	1		1						
Vertebrae	10	6	1						
Total	**133**	**86**	**44**	**21**	**5**	**6**	**1**	**1**	**1**

Table 2. Repartition of bone remains from Palatca on anatomical elements.

over 3.5 years (femur and proximally ossified tibia) and of one individual we can only say that it was over 2 years old at the moment of slaughtering (based on the wear of the definitive premolar teeth). For this individual we do not know the species. One of the individuals over 3.5 years of age was a goat, the rest of them being sheep (determining the species was based on mandible fragments)[6]. From goats we have a right horn slightly broken, with a "sword" like tip with traces of drilling at the base, a distal

[6] Boessneck et alii 1964, p. 34-35.

fragment of a humerus, a fragmentary pelvis, and a proximal fragment of a tibia. The horn and the pelvis possibly indicate a male individual. No sheep horns were identified. We believe that a sheep astragalus belongs to a female individual[7].

The anatomical element distribution of the fragments indicates a slightly higher percentage of fragments from meaty regions (55%) as compared to those from non-meaty regions (45%). This ratio was obtained after removing the 26 fragments representing isolated teeth.

Sus scrofa domesticus (domestic pigs) have a total of 44 fauna remains coming from a minimum of 6 individuals. With 14.76% of the total remains from mammals the pig occupies third place. As for the number of individuals domestic pigs occupy second place with 24%, after caprovines and above bovines. The ages for slaughtering of the 6 estimated individuals are as follows: under 1 year - 2 individuals (approximately 8-10 months), one of which was a male; 16-17 months - 1 individual; between 1.5-2 years - 2 individuals; over 2.5 years - 1 male individual. Sex determination was possible for three individuals, the two males previously mentioned and one female (based on an isolated canine tooth). Age estimation in the case of domestic pigs was based on teeth wear and eruption from jaws and mandible fragments.

Following the distribution of fauna remains of the pig on anatomical elements we noticed that most of the fragments come from body areas with poorly developed muscles. Thus the ratio for non-meaty areas compared to meaty areas is 76.5 / 23.5%.

Equus caballus (horse) is well represented in the analyzed fauna sample, with 7.04% of fragments and 8% of number of individuals. From the 21 fragments attributed to horses half are isolated teeth. Only four fragments come from meaty body areas (2 scapulae, 1 radius and 1 tibia), the rest (except for 2 sesamoids) belong to the autopod. For a secondary phalange, the calculus of the distal index ($47.5 \times 100/50 = 95$) means it belongs to a posterior leg[8]. The horse is represented by at least 2 individuals: one sacrificed under 2 years of age (two of the isolated molars are lacteals) and one whose age we do not know for sure; we can only say that he was over two years of age at the moment of sacrifice (distally ossified tibia and permanent dentition).

Canis familiaris (dog) has 1.67% according to the number of remains. From this species we have 5 fragments (1 canine tooth, 1 radius, 1 metacarpus III, 1 calcaneus and 1 metatarsus IV), probably from a single adult individual. As for the minimum number of individuals the frequency of the dog is 4%.

Cervus elaphus (red deer) takes first place when it comes to wild animals but its frequency is very small, of only 2.01% judging from the number of fragments and of 4% judging by the number of individuals. Six fauna remains from this species have been identified (2 insignificant horn fragments, 1 isolated upper-jaw molar, 2 scapular fragments and a distal radius fragment). It is possible that all these remains come from a single individual over 4 years old (male, because of the horns).

Capreolus capreolus (roe deer) has been identified based on 1 pelvis fragment from a single individual whose age cannot be estimated.

[7] Boessneck et alii 1964, p. 102.
[8] Udrescu et alii 1999, p. 103.

Sus scrofa ferus (wild boar) has been identified based on 1 whole metacarpus III from an individual over 2 years of age whose estimated shoulder height is 88.035 cm[9]. This value, rather small, could indicate a female wild boar but also a mixed, intermediate pig - wild boar (resulting from mixed breeding of the domestic pig with the wild one).

Lepus europaeus (hare) is represented by a proximal ulna fragment, with the ossification limit of the olecranon tuberosity visible, indicating an immature individual.

Since roe deer, wild boar and hare are represented by only one fragment each, they register the lowest percentages: just 0.33% according to the number of remains and 4% according to the number of individuals.

In the table representing the frequency of species the 43 rib fragments were put separately due to the difficulty of establishing the species. A number of 19 rib fragments come from large animals (bovines, horse, red deer) and 24 belong to medium or small sized animals (sheep, goat, pig, roe deer, etc).

Part of the fauna remains was completely or partially burned. If we compare the burnt fragments to the whole batch we get a small percentage of 1.95%. Out of the 19 burnt bone fragments 9 could not be specifically determined, a large number being attributed to large animals. With just one exception - a calcinated fragment - the bones were burnt black either integrally or had black burning spots. From the sample of determined fauna material 10 fragments had traces of fire contact, as follows:

- *Bos taurus*
  1. upper isolated premolar tooth, partially burnt black
  2. root of an isolated tooth, burnt black
  3. astragalus with the lateral half calcinated
  4. metapodial (?) proximally processed, partially burnt black
  5. primary phalange partially burnt black
- *Equus caballus*
  1. tibia with a black burning spot on the lateral distal epiphysis
  2. big sesamoid completely burnt black
- *Ovis aries / Capra hircus*
  1. fragmentary humerus shaft (?) burnt black
- *Sus scrofa domesticus*
  1. metacarpus V, proximal fragment, with traces of burning

On a series of fragments we could see visible traces from objects used in meat processing: humerus cap, shaft fragment of tibia and secondary phalange belonging to bovines, scapula and metacarpus with drilling traces, belonging to caprovines.

We can consider the following three pieces to be bone objects:

- Left bovine mandible (inv. no. P176320), fragment from the proximal side with symphysis, incisor tooth socket and foramen mentale. At the distal end of the piece the mandible wall is cut in a zigzag shape. It is possible that this object was used to decorate ceramics. There are no wear traces resulting from contact with a hard surface. Dimensions: length = 105 mm, piece maximum width (height of the mandible) = 32.2 mm.

[9] Udrescu et alii 1999, p. 86.

- Object (inv. no. P176319) made probably from the shaft of a long bone, from a large-sized animal (the aspect of the piece allows us to suppose a pig fibula, proximal fragment) with the part corresponding to the medullar shaft grinded, with the distal end broken - object with unknown destination. Dimensions: length 73.5 mm, piece width = 12.6 mm.
- Fragment from an object (inv. no. P176318) whose usage is difficult to say; anatomically it could be a proximal metapodial fragment from a large-sized animal, polished on the external face both at the articulation and at the extraarticulation, with drilling traces, almost completely burnt black. Dimensions: length = 45.7 mm, width = 44.5 mm.

The metric data of the fauna remains from Palatca are included in Annex 1.

Exploitation of animals in the Palatca habitation

The archaeozoological study realized on the fauna material from Palatca reveals the fact that the main occupation of the inhabitants of this settlement was animal husbandry.

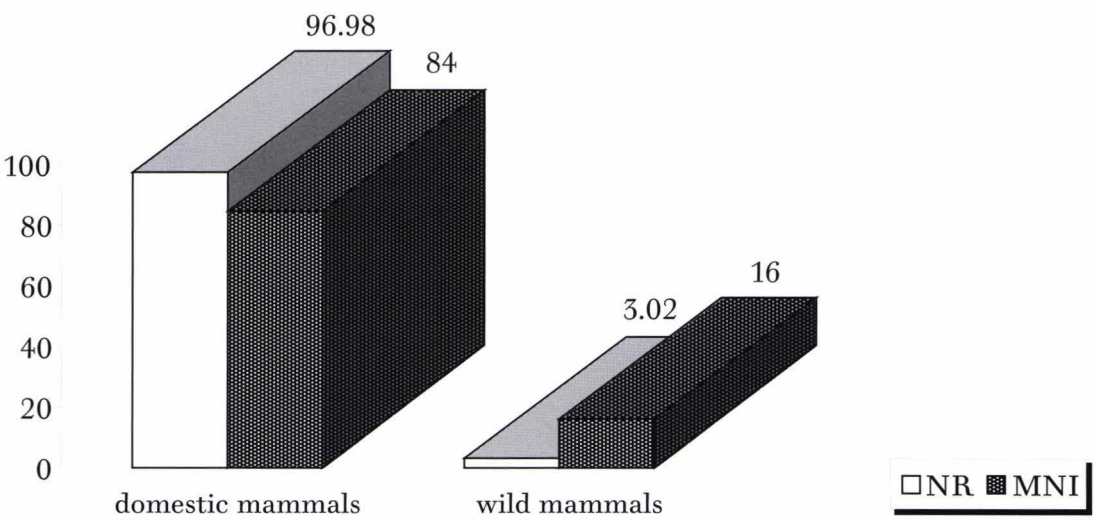

Fig. 1. Domestic / wild mammals' ratio (%) in Palatca habitation.

The increased frequency of domestic mammals, of 96.98% according to the number of fragments, and of 84% according to the number of individuals proves the significance of this occupation. The reduced importance of hunting in obtaining meat is proven by the very low percentage of wild animals, 3.02% according to the number of remains and, slightly higher, of 16% according to the number of individuals.

Ratios calculated based on the number of fragments set domestic bovines in first place which due to their high percentage (44.63% according to the number of remains) would constitute the main food group in the Palatca settlement. Cattle are followed by caprovines with a percentage of 28.85%, according to the number of

remains, and third place goes to domestic pigs that, according to the same criteria (NR) have a percentage of 14.76%.

The facts are distorted if we take into account percentages calculated after the minimal number of individuals. This discrepancy is in our opinion an effect of the low frequency of jaw remains, key element in estimating the number of individuals. Thus in this case we consider the group of bovines to be undervalued with regards to the estimated number of individuals. With a percentage of 20% (NMI) cattle occupy themselves on third place, preceded by sheep/goats that have the highest percentage 28% and pigs with a frequency of 24%. Taking into account the fact that the fauna sample we analyzed is numerically small, these percentages (NMI) can be relative, the reason why, in our opinion, domestic bovines were the main group used by the prehistoric community from Palatca along which caprovines and pigs had an important place.

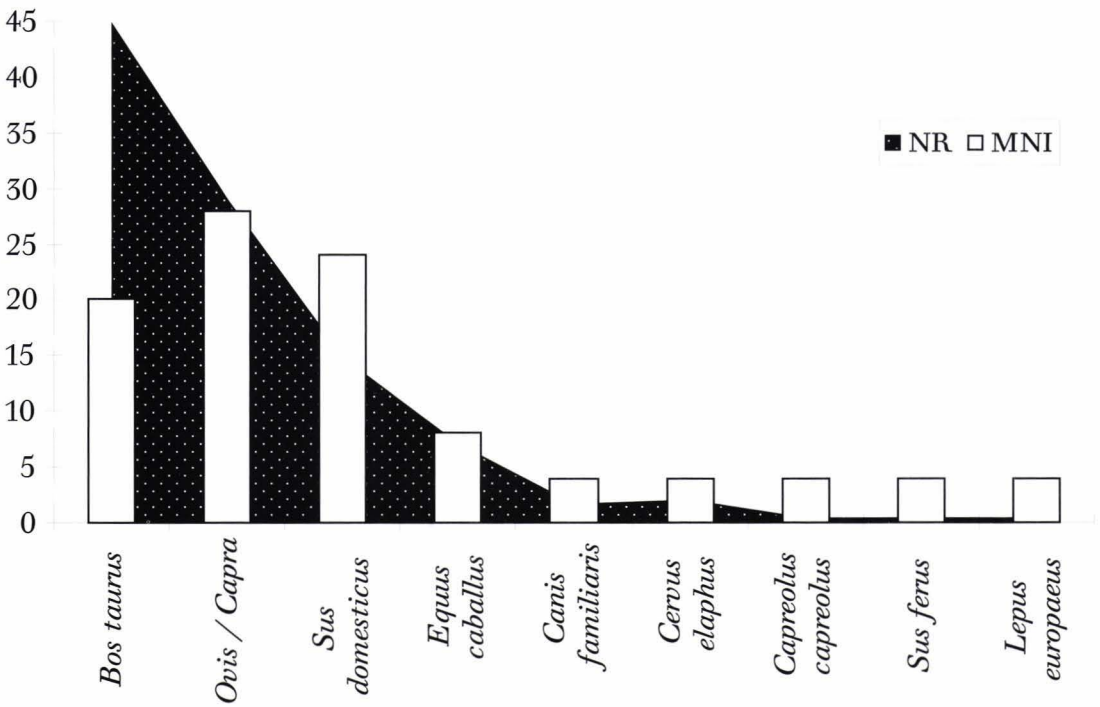

Fig. 2. Frequency of mammals in the Palatca site.

Distribution of the main domestic species whose usage was based on age groups (fig. 3) proves the higher percentage of bovines sacrificed between 2 and 3 years of age (40%) and an equality of percentages in the case of those under 1 year, 1-2 years and over 3 (4) years. This repartition indicates the growth of these species both for their main animal product - meat as well as secondary products (milk, skins, agricultural work), and identifying the three pieces manufactured from bone and described earlier, most likely obtained from cattle bones (most likely a mandible) proves the use of skeletal remains as primary resources for making different objects.

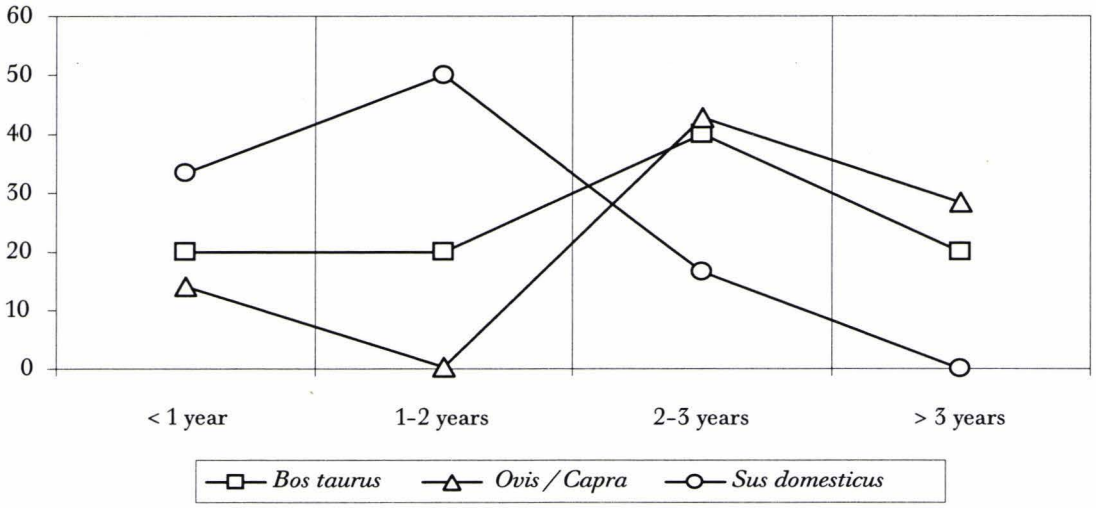

Fig. 3. Age group repartitions of individuals from the main domestic mammals used in the Palatca settlement.

As for sheep/goats the highest percentage is represented by animals sacrificed between 2-3 years of age (42.8%), mature animals (over 3 years old) have a lower percentage (28.5%), and the percentage represented by young animals is even lower (14.2%). We notice a complete lack of animals sacrificed between 1-2 years. The high rate of animals older than 2 years that were sacrificed suggests a usage of caprovines mostly for secondary products and for reproduction.

The ratio sheep/goat is 15.12 / 4.65% according to the number of remains and of 71.42 / 14.28% according to the number of individuals, the rest up to 100% in both cases being represented by the group of sheep/goats. Usage of hard materials from small horned animals in manufacturing activities can be suggested, since the horn from the male goat shows signs of an attempted sectioning at the base.

The strategy for exploiting pigs, as reflected by the slaughtering age is typical for this species, raised exclusively for meat and fat. Proof of this comes from the high percentage of animals between 1-2 years (50%), the age when the prehistoric pig reached the optimum body weight as a meat source. Also a reproductive batch was kept. The percentage of individuals under 1 year slaughtered is 33.3%, and of those with an age between 2-3 years is 16,6%. Animals over 3 years were absent.

The horse occupies fourth place when it comes to domestic mammal exploitation at Palatca with a rather important percentage, over 7%, both as number of fragments and as number of individuals. It was an animal used as food by the Palatca community, bone fragments from this species look like domestic waste, and the two bones (the tibia and the sesamoid) having traces of fire contact, can be the result of roasting meat.

The importance of hunted mammals was, like we stated earlier, very small. Except for the red deer, with a percentage of 2,01% (number of fragments) all the other wild species identified, roe deer, wild boar and hare, are represented each in the

archaeozoological batch by a single fragment signifying 0,33%. Their quota is slightly higher when analyzing the number of individuals, 4% for each wild species (red deer included). This time we have an overvaluation of hunted mammals, due to the fact that we attribute a single determined fragment of roe deer, wild boar and hare to an individual. Thus, an overvaluation we cannot avoid, because of the inconveniences of the estimation method for the establishment of the minimal number of individuals. Hunting wild birds, fishing and gathering shells seem to have had an insignificant role in the economy of the Palatca settlement.

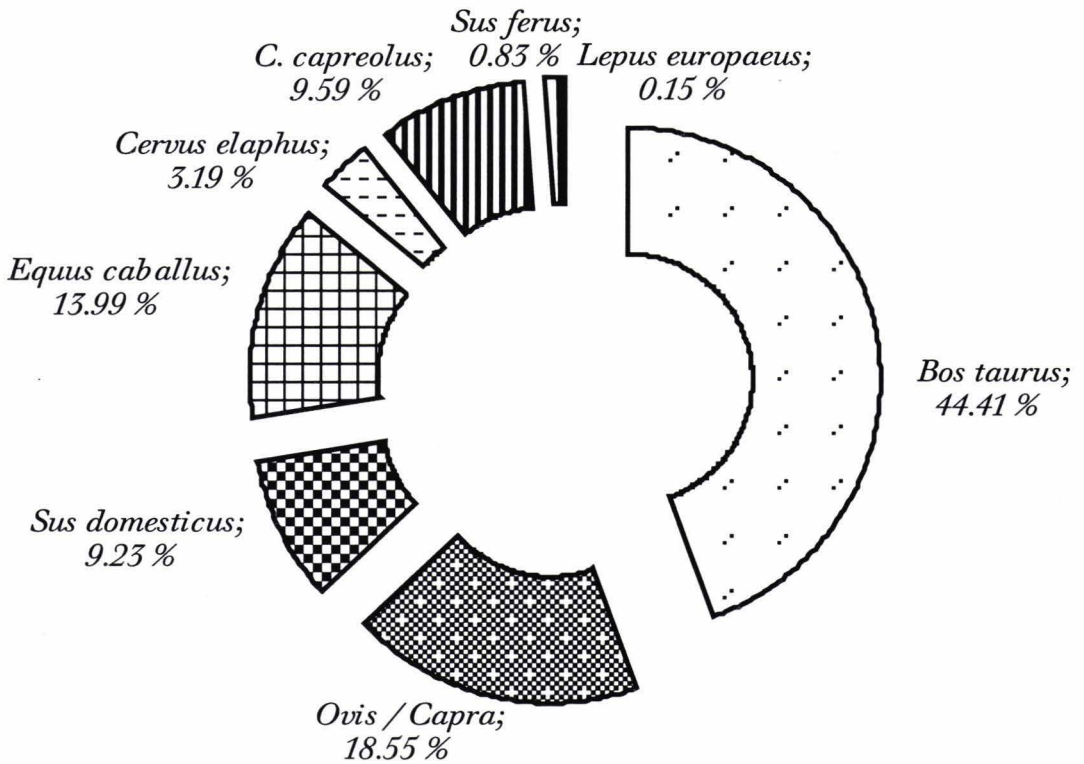

Fig. 4. Estimated meat quantity obtained from exploited or hunted species at Palatca.

The very important role played by domestic species in insuring meat consumption (fig. 4) by the population from the analyzed area is also proven by their high importance as to how much meat could be obtained from them[10].

From the estimated total of 2,500 kg of meat, almost half (44.41%) came from bovines, due to their large size they obviously offered much more meat when compared to caprovines (9.23%) and pigs (18.55%), though the latter are present in larger numbers. Even more so, the quantity of meat provided by 7 sheep or goats is much smaller than that of 2 horses (13.99%) and a single wild boar (9.59%). Red deer meat has a percentage of 3.19% and the one from roe deer and hare is completely insignificant, 0.83% and 0.15% respectively.

[10] Clason 1968, p. 153; Smith 1975, p. 93-106.

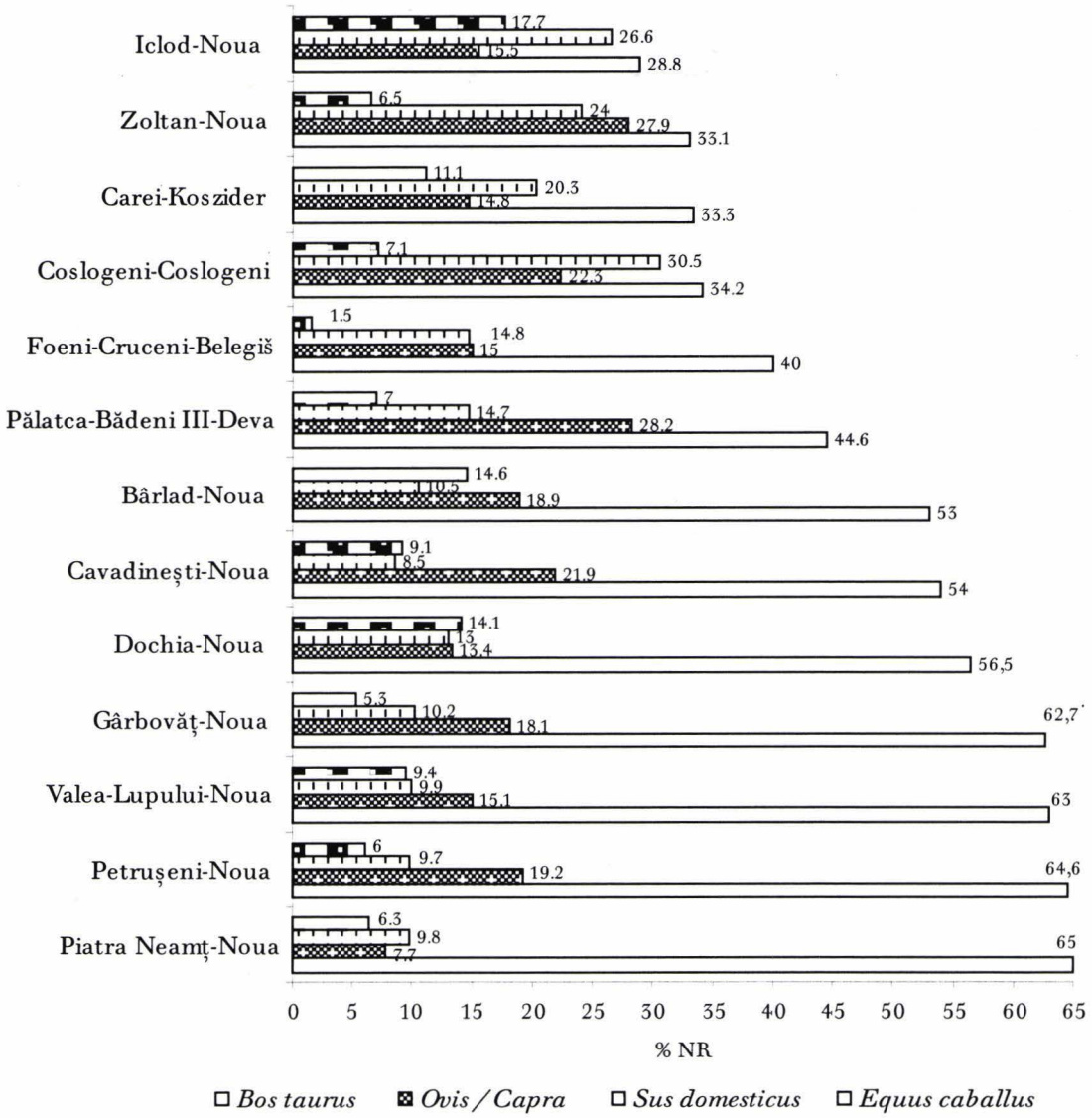

Fig. 5. Frequency of main domestic mammals in Late Bronze Age settlements.

Similarities with other Bronze Age settlements

Archaeozoological analysis done on fauna materials from Late Bronze Age in Transylvania is scarce.

The most representative sample comes from the site from Zoltan[11], belonging to the Noua culture. There are 2 other samples dating from late Transylvanian Bronze Age, though small in number of pieces: Iclod, Noua culture[12] and Carei - "Bobald", Koszider level[13]. The ratio domestic / wild species proves that in all three settlements

[11] El Susi 2002a, p. 165.
[12] Bindea 2005, p. 80; Bindea 2008, p. 97-98.
[13] El Susi 2002b, p. 244.

the percentage of domestic mammals is smaller than at Palatca: 81.48 / 18.52% at Carei, 88.9 / 11.1% at Iclod and 92.1 / 7.9% at Zoltan. These sites present however a trait common to all Late Romanian Bronze Age settlements: a predominance of domestic mammals (fig. 5).

As for quotas of the main domestic mammals in Transylvania, at Iclod, Carei and Zoltan cattle represent a small percentage (about 30%) while the other species are represented in great numbers. When compared to these two settlements cattle are better represented at Palatca, 44,6%, a percentage similar to that from the Cruceni-Belegiš site from Foeni[14]. In many settlements belonging to the Noua culture in Romania, from outside the Transylvanian area, the importance of exploiting bovines is proven by register percentages of over 50%: - Dochia[15], Cavadinești[16], Bârlad[17] - or even over 60% - Piatra Neamț[18], Valea Lupului[19], Gârbovăț[20] and in the site from Petrușeni in the Republic of Moldavia[21].

The amount of caprovines is similar to the one from the settlements from Palatca and Zoltan, about 28%, while at Iclod the percentage is significantly smaller, 15,5%. Sheep /goat do not precede domestic bovines in any of the settlements from the Late Romanian Bronze Age, like we can see in Kastanas[22], Macedonia, where small horned animals play a key role in the economy of the settlement, (40,5%), situation that can be explained by environmental conditions proper for their growth. Domestic pigs have a smaller percentage at Palatca, 14.7%, than at Iclod, 26.6%, Zoltan, 24% and Carei, 20.3%, values very similar to those registered in Foeni and Bârlad. The horse is highly present in Late Bronze Age settlements: in Transylvania, at Palatca and Zoltan, the percentage for this species is around 7%, while slightly higher at Carei and Iclod, with about 10%.

As for wild mammals, generally they are very poorly represented in the Late Bronze Age (fig. 6).

We can suppose that in Transylvanian sites the percentage of hunted species is slightly high, however hunting is not as important as at Foeni, where the red deer percentage is over 18%. Settlements with very low percentages of the main wild mammals (under 2% the red deer and under 1% the aurochs, the roe deer and the wild boar) dating from the Late Bronze Age are, besides Palatca, the ones from Coslogeni[23], Gârbovăț, Bârlad, Valea Lupului, Petrușeni and Dochia.

The cultural horizon Bădeni III - Deva, being a synthetic cultural entity containing elements from Wietenberg and Otomani[24], we believe that a comparison between

[14] El Susi 2001, p. 224.
[15] Bejenaru, Stupu 2001, p. 108.
[16] Haimovici 1983, p. 99.
[17] Haimovici 1964, p. 220.
[18] Haimovici 1964, p. 220.
[19] Haimovici 1962, p. 297; Haimovici 1963, p. 172.
[20] Haimovici 1991, p. 163.
[21] Levitsckii, Sava 1993, p. 130.
[22] Becker 1986, p. 333.
[23] Udrescu 1995, p. 106.
[24] Rotea 1997, p. 13-14.

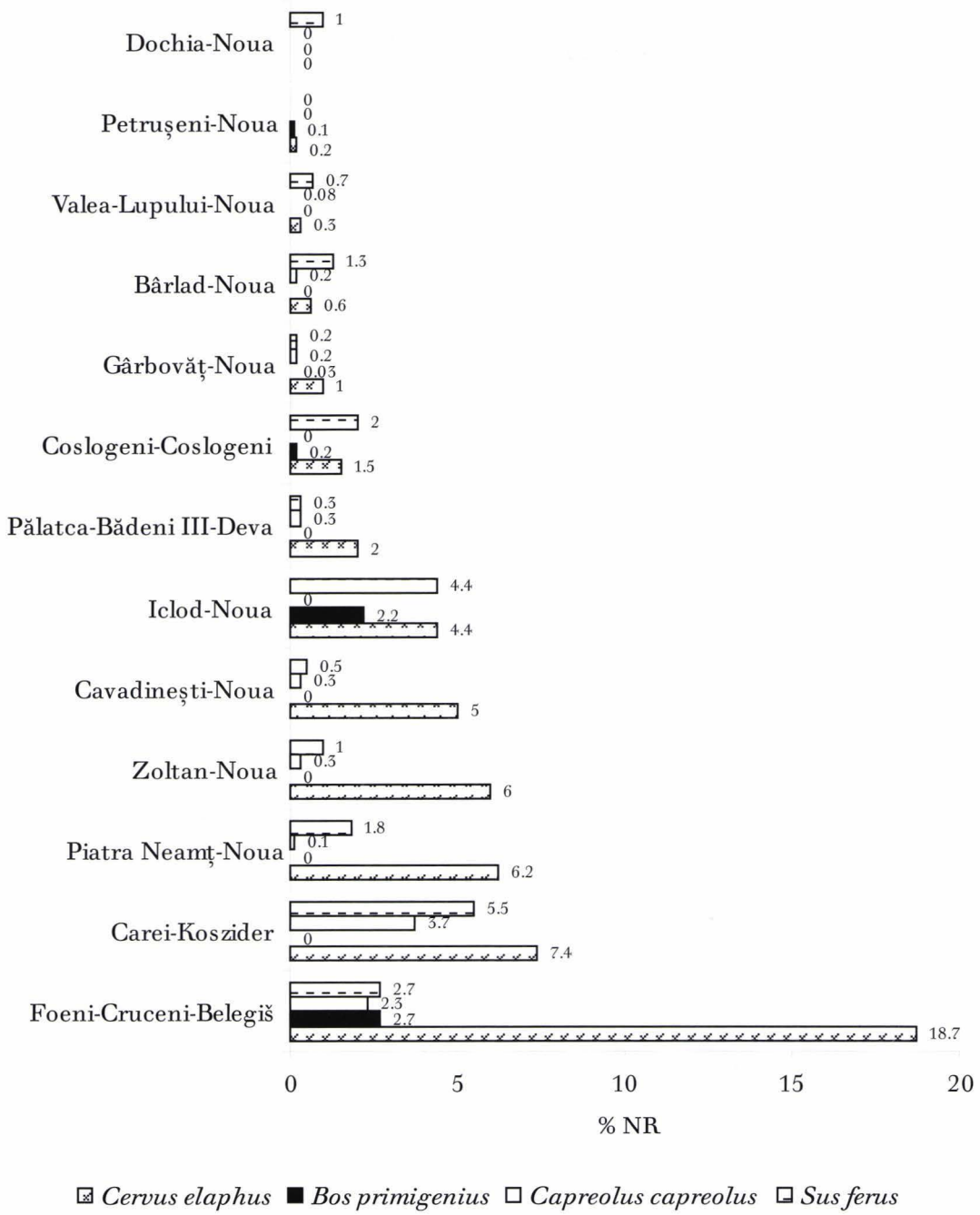

Fig. 6. Frequency of the main wild mammals in settlements belonging to the Late Bronze Age.

the settlement from Palatca and settlements belonging to this Middle Bronze Age culture from Transylvania is very fortunate (fig. 7). The percentage of bovines is greater at Palatca as compared to other settlements; except for Săcueni[25]. The important role

[25] Bader 1978, p. 131-132.

played by sheep and goats at Palatca (considering the minimum number of individuals it is the largest group) is also highlighted at Derşida[26], where all of the three main groups (bovines, caprovines and swine) were widely used in alimentation. Still these two sites fall behind the Wietenberg settlements from Mintiu Gherlei[27] şi Peştera Cauce[28], where it seems exploitation of small horned animals was the most important in the economical life of the communities.

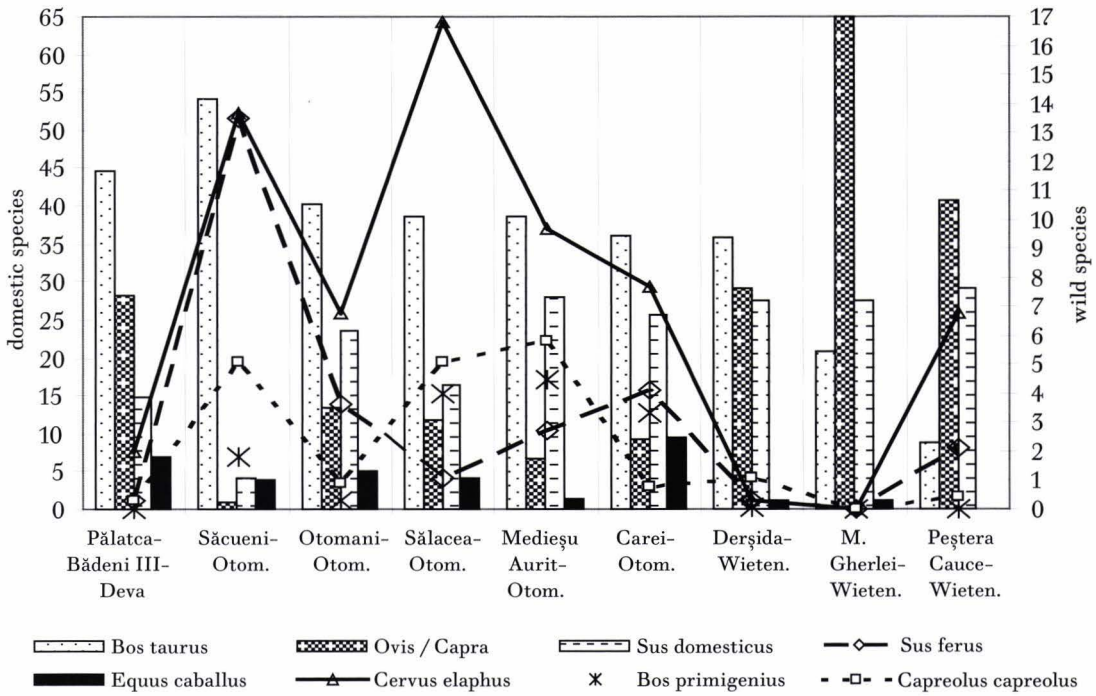

Fig. 7. Frequency of the species (NR) from Palatca as compared to other Wietenberg and Otomani sites from Transylvania.

The growth of pigs had a smaller role as compared to Otomani settlements from Transylvania: Otomani[29], Săcueni, Sălacea, Medieşu Aurit[30], where besides the fact that pig percentages are high, this species occupies second place in the process of animal exploitation, being better represented than caprovines. As for wild mammals it seems that in the middle Bronze Age hunting was more intense in Transylvania (except for Derşida and Mintiu Gherlei) as compared to the end of the Bronze Age.

[26] Bindea 2008, p. 85-91.
[27] Meşter et alii 2005, p. 116; Bindea 2008, p. 93-94.
[28] El Susi 2005, p. 95-97.
[29] Haimovici 1987, p. 49.
[30] Bader 1978, p. 131-132.

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Annex 1

Metric data (mm) of fauna remains in the settlement at Palatca

Bos taurus

Maxilla								
L dp^4	21,6							
L M^1-M^3	76	82,7						
L M^3	29,5	30,5						
Mandible								
L P_2-P_4	48,4							
Bc	41	41,3	46*					
Axis								
B dens	39							
SBV	48							
Radius								
Bp	73,6*							
SD	41							
APD df.	20,7							
Ulna								
BPC	41							
Metacarpus								
Bd	57,6							
APD p	29,2							
Pelvis								
LA	50,5	61*						
BA	53,3							
Tibia								
Bd	56,5	57						
BFd	39,7	39						
APD d	42,2	40,1						
Astragalus								
GLl	59							
GLm		61,9						
Dl	34,2		32,7					
Dm		41	31,2					
Bd		45,3						
Centrotarsale								
GB	55,7	62						
APD	50	61,7						
Metatars								
SD	30,8							
APD df	33,6							
Bd	63,2							
APD d	34,5							
Phalanx I								
GL	58,8	59	60,1	60,7	61,2	61,6	65	60,3
Bp	25,6	25,7	25,3	34,8	28,8	33	31,7	
SD	22	20,4	21,8	29	24,3	29,5	30	
Bd	23,5	24,6	25,2	36	27	31	31,9	

Phalanx II			
GL	43,6	44,4	
Bp	33,3		
SD	26		
Bd.	24,5		
Phalanx III			
DLS	77*		
MBS	23,9		
Ld	64		
LF	28,4		
BF	23,5		
Lumbar vertebrae			
H	86	87,4	
SBV	21,5	24,5	
BPacr	53	51	
BPacd		37	

Ovis aries / Capra hircus

Horncore			
GL	156*c		
LDb	36,7		
SDb	24,6		
Cb	104		
Sex	M?		
Mandible			
L dp_2-dp_4	29°	33,5°	
L dp_4	14,6	17	
L P_2-M_3			72,6
Atlas			
GL	39°		
BFcr	41*		
BFcd	43		
H	30*		
Axis			
BFcr	42,1°		
SBV	23,4		
B dens	20,6		
Scapula			
LG	18,8		
SLC	16,7		
Humerus			
Bd	30,2°	37,1c	31,2
BT	27,8		27
APD d		33,1	
Radius			
Bp	29,2°		
BFp	27		
APD p	15,5		
Metacarpus			
SD	15,5		
APD df	10,7		

Pelvis		
LA	29,5[c]	
Femur		
Bd	28°	
APD d	29,2	
Tibia		
Bp	22,3[c]	
APD p	24	
SD		17
APD df		13,1
Bd		29,8
BFd		21,8
APD d		23,3
Metatarsus		
SD	16	
Astragalus		
GLl	29°	
GLm	28	
Dl	17	
Dm	16,4*	
Bd	20,1	
Phalanx I		
GL	38,7°	
Bp	11,8	
SD	8,5	
Bd	10,3	

Sus domesticus

Maxilla		
L Calv	15	
L P^1-P^4	40	
L P^2-P^4	34,6	
Mandible		
L Calv	16,5	
L dp_1-dp_4		51,5
L dp_2-dp_4		39
L dp_4		18,6
Sex	M	M
Scapula		
GLP	40,8	
LG	31	
BG	26,2	
SLC	25,5	
Ulna		
BPC	26,5	
DPA	47,6	
Metacarpus III		
Bp	22	22,1

Pelvis	
LA	31,2
SH	23,7
SB	11,6
Tibia	
SD	21,2
APD df	17
Bd	32,4
BFd	23,4
APD d	27,2
Calcaneus	
GL	23,2
Metatarsus II	
Bp	6,8
Phalanx III	
DLS	23,5*
MBS	7,2
Ld	22*
LF	14
BF	11,5

Equus caballus

Scapula	
GLP	84,6
LG	45,3 42,7
BG	43,6
SLC	61
Radius	
Bd	82,3
BFd	64,8
APD d	55
Tibia	
Bd	65,5
BFd	50
APD d	41,2
Metatarsus II	
Bp	15,7
APD p	20,7
Phalanx I	
GL	80,4
Bp	55,6
BFp	49,7
SD	33
Bd	44,4
BFd	41,2

Phalanx II		
GL	50	
Bp	53,5	55,5
BFp	44,1	49
SD	47,4	47,4
Bd	47,5	
I_d = Bdx100/GL = 47,5x100/50	95	

Canis familiaris

Canine	
L C	10,3
Radius	
SD	11,9
APD df	8
Bd	24,1
BFd	20,3
APD d	13
Metacarpus III	
GL	60,7
Bp	8
SD	6,5
Bd	8,6
Calcaneus	
GL	43
GB	18,3

Metatarsus IV	
GL	73,5
Bp	8,6
SD	11,2
DAPd	8

Sus scrofa ferus

Metacarpus III	
GL	84,8
Bp	24,7
SD	17
Bd	19,7
Talia (Teichert)	880,35

Cervus elaphus

Scapula	
GLP	59,4
LG	45
BG	39,6

Lepus europaeus

Cubitus	
BPC	9,3
DPA	11,9
LO	10,8
SDO	11,7

* - approximate metric values
° - *Ovis*; ᶜ - *Capra*

APD - Antero-posterior diameter; APD d - Antero-posterior diameter of the distal end; APD df - Antero-posterior diameter of the diaphysis; APD p - Antero-posterior diameter of the proximal end; B dens - Breadth of the dens; BA - Breadth of the acetabulum; Bc - Breadth of the condyle process; Bd - Breadth of the distal end;

BF - Breadth of the Facies articularis; BFcr - Breadth of the Facies articularis cranialis; BFcd - Breadth of the Facies articularis caudalis; BFd - Breadth of the Facies articularis distalis; BFp - Breadth of the Facies articularis proximalis; Bp - Breadth of the proximal end; BPacr - Breadth across the Processus articulares craniales; BPacd - Breadth across the Processus articulares caudales; BPC - Breadth across the coronoid process; BT - Breadth of the trochlea; Cb - circumference of the base; Dl - Depth of the lateral half; DLS - Length of the sole; Dm - Depth of the medial half; DPA - Depth across the Processus anconaeus; GB - Greatest breadth; GL - Greatest length; GLl - Greatest length of the lateral half; GLm - Greatest Length of the medial half; H - Height; L C - Length of the canine; L Calv - Length of the canine alveolus; L dp^4 - Length of the deciduous 4^{th} upper premolar; L dp_4 - Length of the deciduous 4^{th} lower premolar; L dp_1-dp_4 - Length of the deciduous premolar row; L dp_2-dp_4 - Length of the deciduous (2^{nd}-4^{th}) premolar row; L M^1-M^2 - Length of the upper molar row; L M^3 - Length of the upper 3^{rd} molar; L P_1-P_4 - Length of the lower premolar row; L P_2-P_4 - Length of the lower (2^{nd}-4^{th}) premolar row; L P_2-M_3 - Length of the lower cheekrow; LA - Length of the acetabulum; Ld - Length of the dorsal surface; LDb - Large diameter of the base; LF - Length of the Facies articularis; LG - Length of the glenoid cavity; LO - Length of the olecranon; MBS - Middle breadth of the sole; SBV - Smallest breadth of the vertebra; SD - Smallest breadth; SB - Smallest breadth of the shaft of ilium; SDb - Small diameter of the base; SDO - smallest depth of the olecranon; SH - smallest height of the shaft of ilium; SLC - Smallest length of the Collum scapulae.

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PALATCA-TOGUL LUI MÂNDRUȘCĂ. ANALYSIS OF A PART OF THE LITHIC MATERIAL FROM THE BRONZE WORKSHOP

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Riassunto: Il sito di Palatca-Togul lui Mândrușcă rappresenta una delle più interessanti scoperte archeologiche della tarda età del bronzo in Transilvania. Sono state effettuate indagini geologiche su alcune rocce qui rinvenute. Lo studio è stato condotto su sei campioni prelevati dal materiale litico scoperto in un'officina dell'età del bronzo di Palatca. Questo tipo di materiale è stato riportato alla luce esclusivamente nel perimetro dell'officina metallurgica, area maggiormente interessata dal ritrovamento di macinini e lucidatrici. Studiando le mappe geologiche della regione in cui si trova la località di Palatca, si può osservare l'esistenza di tutte le rocce sedimentarie analizzate. Probabilmente le rocce magmatiche (il granodiorite) e metamorfiche (lo gneiss) furono prelevate dai letti dei fiumi dove appaiono in frammenti e provenienti dalle formazioni geologiche ai margini della Depressione della Transilvania. Il meteorite è una presenza unica nel paesaggio preistorico rumeno, ma la relazione tra meteoriti e metallurgia è ben nota.

Parole chiave: Palatca; età del bronzo; indagini geologiche; meteorite; rocce.

The site from Palatca-*Togul lui Mândrușcă* is one of the most interesting archaeological discoveries belonging to late Transylvanian Bronze Age and not only[1]. In an attempt to understand as best as possible its characteristics we subjected some of the discovered rocks to an analysis performed by geologists. The study was done on a batch of 6 samples taken from the lithic material discovered in the Bronze Age workshop from Palatca. These were obtained by drilling them with a jet of water, by using a borer with an internal diameter of 20 mm, electrically powered. The final length of the samples was a maximum 25 mm. The analysis consisted in macro and microscopically description. For the microscopical analysis five thin sections and a polished section were obtained; microphotographs of these sections were also taken.

The investigation of the pieces was done macroscopically (Nikon SMZ 645 binocular magnifying glass) and in thin section under transmitted polarized light (Nikon Eclipse E200 microscope). Explanation of the structure, texture and of the mineral composition was done with the help of digital microphotographies (Nikon FDX-35 camera).

[1] M. Rotea, *Cercetări arheologice la Palatca-Togul lui Mândrușcă. Observații preliminare*, RevBistriței X-XI, 1997, p. 13-19; idem, *Die späte Bronzezeit im Karpaten-Donau-Raum (14.-9. Jahrhundert v. Chr.)*, in M. Rotea, T. Bader (Hrsgg.), Traker und Kelten beidseits der Karpaten, Cluj-Napoca 2000; idem, *Non-ferrous metallurgy in Transylvania of Bronze Age*, ActaMN 39-40/I, 2004, p. 7-17; M. Rotea, Pagini din Preistoria Transilvaniei. Epoca bronzului, Cluj-Napoca 2009.

Sample 1

Macroscopically the rock has a brown color, a fine granular structure and a massive texture. Under binocular quartz crystals and fine spangles of muscovite were noticed. HCl reaction reveals the presence of calcite.

Microscopically, in the thin section we notice quartz crystals ranging from chips-like to slightly rounded shapes, potassic feldspars and fine spangles of muscovite in a calcite matrix. Hematite grains and limonite layers are finely dispersed in the rock, giving it a brown color.

By putting together the macro and microscopical observations we describe this rock as a *quartz-micaceous sandstone with carbonaceous cement.*

Sample 2

Because of the small quantity of material obtained after drilling thin sections could not be obtained from this batch. Macroscopic analysis suggests a magmatic rock, probably a *granodiorite*, but strongly damaged and disaggregated. This observation is based on the presence of quartz, potassic feldspar and biotite, minerals that together lead to the development of a hypidiomorphic granular, phaneritic structure.

Sample 3

Macroscopically the rock has all the characteristics of a *gneiss*: the alternation of quartz and feldspar bands with micaceous ones. The rock has a granular - lepidoblastic structure and a shale-like texture. The feldspars are kaolinitized, as showed by the range of colors from yellowish to brown and along with the quartz easily detaches it self away from the rock giving it a friable character.

In the thin section we can observe granules of xenomorphic quartz, well developed *hypidiomorphic* potassic feldspar crystals, partially sericitized and kaolinitized, plagioclase feldspars with polysynthetic twins and zoned structures, apatite granules and muscovite lamellae.

Sample 4

Macroscopically the rock has a white-grayish color, a fine, granular structure and a compact texture. Existence of calcite is proven by the powerful effervescence following HCl reaction.

Microscopically calcite crystals with rare interspersed quartz crystals are present. The calcite crystals are xenomorphic and form a matrix where small quartz crystals, chip-like and rare, with an undulatory extinction, are placed. Based on this observation we consider this to be a *carbonatic sandstone.*

Sample 5

Macroscopically the rock has a brown color, a granular structure and a weak shale-like texture. This is also evidenced by the muscovite spangles visible to the naked eye.

Microscopically one can notice mostly quartz crystals and subordinate calcite, muscovite, potassic feldspar, titanite, opaque minerals and areas of iron hydroxides.

The quartz is hypidiomorphic, angular tending to round, with an undulatory extinction. The calcite forms a matrix, a binder for the rest of the components. The muscovite is placed in lamellas, potassic feldspar crystals appear sporadically. Titanite appears isolated, in granules, with high refractive indices. Due to opaque (iron) minerals limonite pellicles are formed; they give the brown color to the rock.

By putting together the macro and microscopical observations we describe this rock as a *quartz-micaceous sandstone with carbonaceous cement.*

Sample 6

Macroscopically the batch has a grayish-black color, with brown spots and a compact texture. On the surface of the batch we notice a black-colored crust and some sides have a concave aspect. These characteristics, along with the high density and the fact that dust is drawn to the magnet suggest a *meteorite fragment.*

The microscopic study (Pl. I/1-6) allowed to observe the following minerals: olivine, enstatite, plagioclase feldspars and magnetite. Olivine is colorless, cracked and appears isolated. It shows colors of high interference and right extinction. Enstatite (hipersten) appears frequently idiomorphic, with a prismatic outline, low interference colors and right extinction. Plagioclase feldspars are mostly idiomorphic, have polysynthetic twins and zoned structures, with low refractive index and birefringence. It does not show inclusions and they are not altered. The opaque minerals (identified as magnetite due to the magnetic properties of the powder resulted after drilling) are finely disseminated in the rock mass. Sparsely there are areas with iron oxy-hydroxides, colored in brown-yellow, formed due to the magnetite and Fe-Mg silicates.

Based on the macro and microscopical characteristics we believe this to be a **fragment of a rocky meteorite.**

Conclusions

By analyzing the geological maps of the region[2] where Palatca commune is placed we notice the existence of all sedimentary rocks described above. Magmatic rocks (granodiorite) and metamorphical one (gneiss) could be collected from river beds where they appear as fragments from the rock outcroppings surrounding the Transylvanian Depression.

Archaeologically speaking, we must mention from the start that this type of lithic material appeared solely in the perimeter of the iron workshop, mostly in the area where the grinders and crushers were located. We do not know whether this type of rocks played any part in metallurgical processes, rather they were used in ceramic fabrication because they contain mica. It is possible they were gathered by non-specialists who noticed the luster of the mica spangles, to be further selected by specialists.

The meteorite (Pl. II/1) is a unique presence in the Romanian prehistoric environment, but the connection between meteorites and metallurgy is well known[3].

[2] Geological map 1968, Cluj sheet, sc. 1:200.000, Geological Institute, Bucharest.

[3] M. Eliade, Forgerons et alchimistes (Romanian version - Făurari şi alchimişti) Bucureşti 2008, p. 17-25, with bibliography.

In order to establish the provenience of the meteorite from the iron workshop from Palatca we have two options. The easier one is to include this piece in the meteor cloud that fell in 1882 in Mociu area and the second one is to give it an unknown origin, much older (at least prehistoric). In solving this dilemma we must take into account the following points of view:

1. Meteorites from the 1882 meteor cloud were found in the areas near Mociu, Chesău, Coasta, Tăușeni, Bărăi, Vaida-Cămăraș[4] (Pl. II/3), but this does not mean we can exclude the presence of a meteorite from the same phenomena in areas near to the above-mentioned ones, such as Palatca.

2. By comparing macroscopically the meteorites from Mociu to the one from Palatca we notice they do not resemble much. Comparative microscopically analysis done on the meteorites from Mociu and Bărăi are limited just to the mineral composition and indicate the presence of many ferrous meteorites. Seeing that the percentage of *olivine and pyroxenes* in the meteorite from Palatca differs from those from Mociu and Bărăi we could assume it is part of a previous meteorite.

3. The coincidence would be great indeed for a meteorite from the Mociu cloud to fall in a prehistoric settlement, in an iron workshop and at the right depth (-0.50 m).

4. Archaeological investigations did not reveal any traces of soil burning in the place where the meteorite was discovered (Pl. II/2), taking into account that the space had been thoroughly searched due to the metal detector signaling a piece containing metal. The piece was found in yellow clayey soil, thus very sensitive to burning marks.

5. The Palatca meteorite shows clear traces of breaking at the two ends and on one side. They can be interpreted as usage marks, as long as they cannot be connected to the impact with the soil (the piece was found in clayey soil) or any other celestial bodies during its descent.

6. By taking into account all these arguments we consider that the meteorite from Palatca was discovered in prehistoric time and was used due to its toughness and weight as a hammer, crusher in the late Bronze Age.

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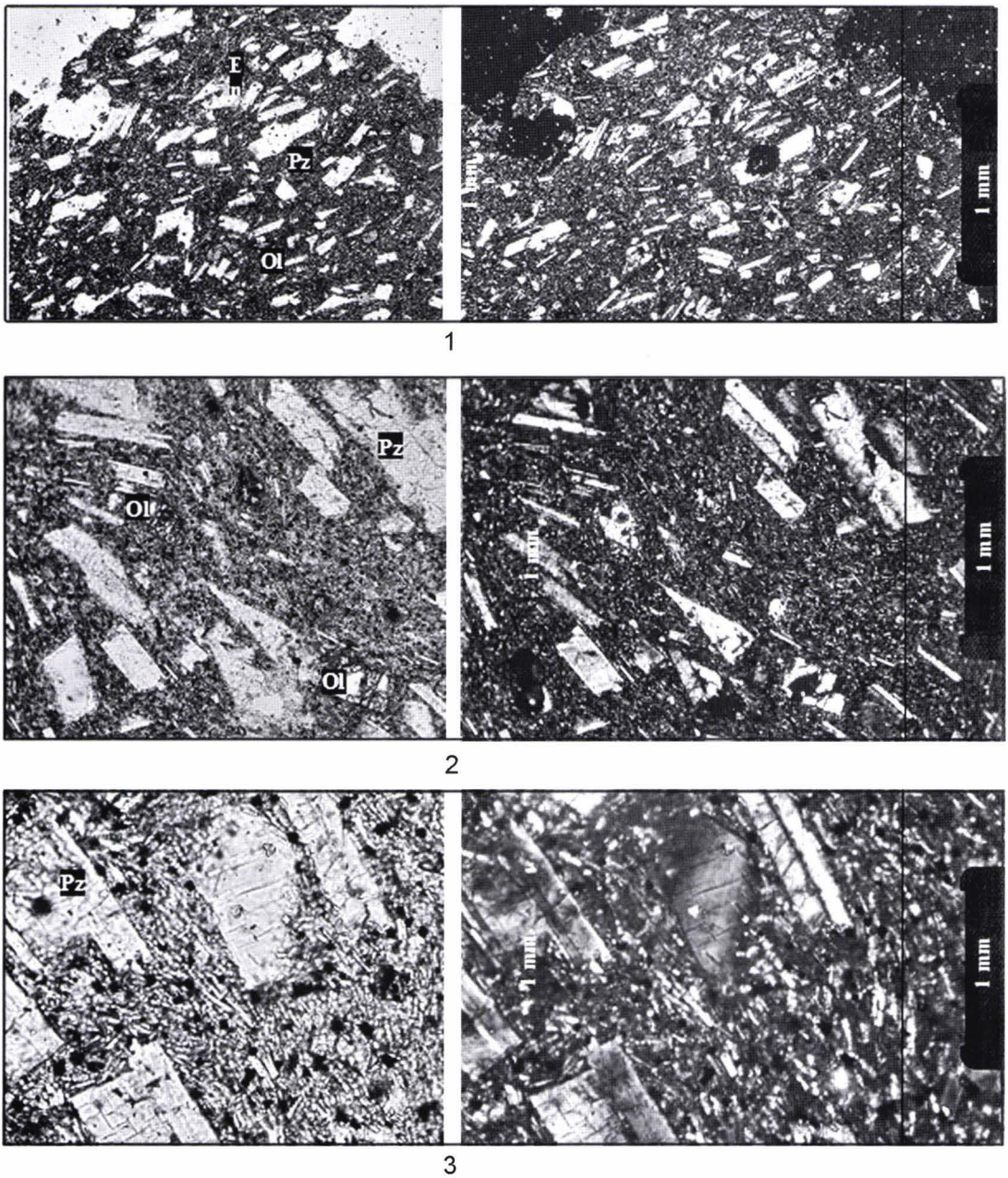
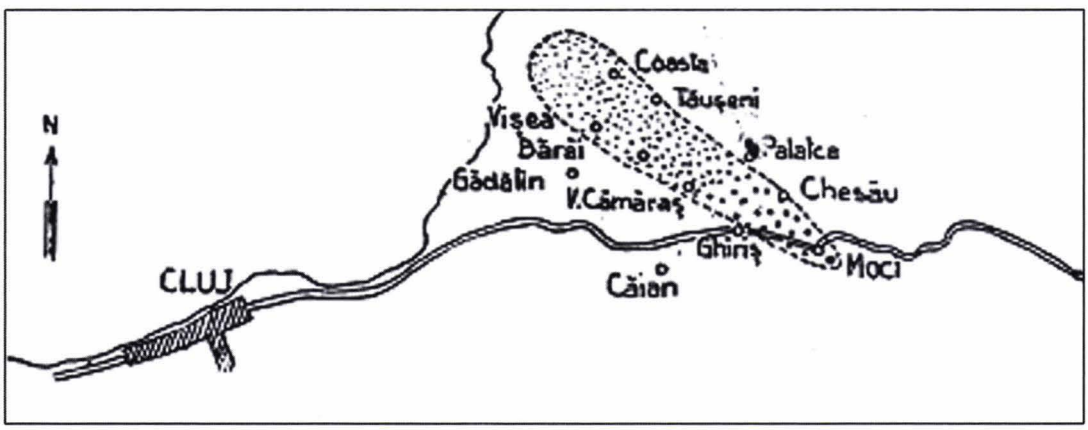
[4] I. Al. Maxim, Meteoriți și materiale meteoritice din România (Notă preliminară la Catalogul meteoriților din România), Studia Univ. Babeș-Bolyai, Geologie-Geografie, 1, Cluj 1968, p. 3-6.



Pl. I. 1. Enstatite crystals (En), Plagioclase feldspars (Pz) and olivine (Ol); 1N (left), N+ (right); **2.** Plagioclase feldspars crystals (Pz) and olivine (Ol); 1N (left), N+ (right); **3.** Plagioclase feldspars crystals (Pz) with polysynthetic twins; 1N (left), N+ (right).

1

2



3

Pl. II. 1. Meteorite from Palatca (photo M. Rotea); **2.** place of discovery of the meteotite (photo M. Rotea); **3.** surface spreading of the meteorite fragments from Moci (after V. Stanciu, E. Stoicovici, *Meteoriții din România*, Revista Muzeului de Mineralogie și Geologie VII, 1-2, Cluj, 1940, p. 8).

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THE GREAVES(?) FROM AGIGHIOL (ROMANIA) AND VRATSA (BULGARIA) RECONSIDERED

DILYANA BOTEVA

Abstract: The following text analyses four Thracian silver greaves with a human face on the kneecap. They all were found in rich tumular graves: one - in the town of Vratsa, Northwest Bulgaria; two - at Agighiol, Tulcea region (Southeast Romania), and one - near the villages of Malomirovo and Zlatinitsa, Yambol region in Southeast Bulgaria. All four of them appear as one piece, not in pair. The widely accepted association of these greaves with the representation of a greave on the visible horseman's left leg on the famous appliqué from Letnitsa (North Bulgaria) is rejected because of the obvious fact that the right leg of the Letnitsa horseman (invisible for us) might have also been protected by a greave. If one takes into consideration such a possibility, one has to deal with a quite different type of greaves: they are bronze, appear usually in pairs and are adorned with Gorgon or a face on the kneecaps. The later, however, show several important features differing substantially from what is attested on the four silver monuments under discussion. These peculiarities allow questioning if the four items were produced to be thought about as greaves at all.

The whole reasoning presented in the article urges a re-consideration of all four silver items - they could be regarded as images of the dead representatives of the Thracian elite, produced for the needs of the funeral ceremony. Accordingly, their different decorations could be grounded with the personal experience, the different social and religious status as well as the military achievements of each one of them.

Keywords: anthropomorphic figures; Great Goddess; horseman; rich tumular graves; serpent cult; silver greaves; Thracian imagery language; Thracian toreutics.

Three Thracian silver greaves with a human face on the kneecap have ranged among the most impressive and important monuments of the Thracian toreutics for the last almost half a century. These are the greave from a tomb, excavated in 1965-1966 in the town of Vratsa, Northwest Bulgaria (Pl. I/1-2)[1] and the two greaves from Agighiol, found back in 1931 but published only in 1969[2]. They originate from a tomb near the village of Agighiol, Tulcea region (Romania), not far from the Danube

[1] Venedikov 1966, p. 10, fig. 3. Since its publication, the greave from Vratsa has often been discussed in the literature: Venedikov, Gerassimov 1973, p. 111; Venedikov 1975, p. 23-30; Marazov 1980; Marazov 1998, p. 159; Ognenova-Marinova 2000, p. 21; Theodossiev 2000, p. 34, figs. 93; 105, cat. no. 248; Torbov 2005, p. 59-60, 134-135. Here I would like to express my gratitude to Dr. Narcis Torbov (Head of the Department "Archaeology", Regional Historical Museum Vratsa) for providing me some needed photos.

[2] Berciu 1969, p. 217-219 with pls. 112-114. See also Berciu 1969a (= Berciu 1974, p. 52-55, 104-122).

delta (Pl. II/3-4)[3]. Recently, the "collection" of the Thracian silver greaves was enriched with a fourth one. It was found in 2005 in a same context as the others - in a very rich tumular grave. The new element here is that it originates from the lands lying south of the Balkan Range: the tumulus is situated near the villages of Malomirovo and Zlatinitsa, Yambol region in Southeast Bulgaria (Pl. III/5-6)[4]. The new find confirmed the impression that these items appear as one piece[5], despite the logical expectation that they should be in pair[6]. This circumstance should be regarded as most significative when trying to interpret these four artifacts.

Because of this I am not inclined to connect undisputedly "our" greaves with the representation of a greave on the visible horseman's left leg on the famous appliqué from Letnitsa (Pl. IV/7)[7]. Such an association is widely accepted in the literature[8], despite the obvious fact that the right leg of the Letnitsa horseman (invisible for us) might have also been protected by a greave[9]. If one takes into consideration such a possibility, one has to deal with a quite different type of greaves: they are bronze, appear usually in pairs and are adorned with Gorgon or a face on the kneecaps. Probably the most famous among them are these from Ruvo, in Apulia, South Italy (Pl. IV/8)[10]. Recently, a new pair came to light in the ancient Thracian lands. It was found during the excavations of a very rich tomb in the Golyamata Kosmatka tumulus near the town of Shipka, Bulgaria (Pl. V/9)[11]. The kneecap of the new greaves is decorated with the head of Athena. They do, however, confirm some important features differing substantially from what is attested on the four silver monuments here under discussion:

Firstly: Obviously enough the ancient bronze greaves were supposed to fit the leg and the calf muscles perfectly[12]. As a result they give the impression of differentiated

[3] Recently V. Sîrbu (Sîrbu 2008) also published a short report of this site. For an analysis of the so called "greave no. 1" from Agighiol see for instance Farkas 1981, p. 45-46; Alexandrescu 1984, p. 96-97 and many others. Marazov 2010, passim, discusses the two greaves from Agighiol.

[4] For a preliminary report see Agre 2006, p. 180-181.

[5] Referring to the greaves from Agighiol as a pair is obviously incorrect - cf. Farkas 1981, p. 38 ("The chief finds at Agighiol were ... a pair of silver greaves..."), p. 40, fig. 21 ("... one of a pair from tomb at Agighiol"), Marazov 1998, p. 159 ("A pair of silver greaves found in 1934 in a burial at Agighiol ...") and Ognenova-Marinova 2000, p. 21.

[6] Venedikov's supposition (Venedikov 1975, p. 23) that in the Vratsa tomb the greaves were a pair, the second one being stolen in the antiquity, is obviously inconsistent.

[7] Letnitsa is a village in Lovech region, Central North Bulgaria. Its name is connected with one of the most spectacular Thracian treasures ever found - see Venedikov, Pavlov 1974; Alexandrescu 1983, p. 52-54, 59-66, fig. 4/1-6; fig. 5/1-2; Venedikov 1996; Kull 1997, p. 207-209; Marazov 1998, p. 160-171; Boshnakov 2000, p. 68-140; Boshnakova 2000; Reho, Ilieva 2006, p. 41-50 etc. For a possible approach to it with some alternative "readings" of the representations see Boteva 2004 and Boteva 2008.

[8] Berciu 1974, p. 111; Marazov 1980, p. 92; Knauer 1993, p. 244; Marazov 1998, p. 159; Ognenova-Marinova 2000, p. 21; Theodossiev 2000, p. 53, 77, 92-93 etc.

[9] Most significantly E. Knauer (Knauer 1993, p. 243) describes the "hunter" on the Letnitsa plaque as wearing κνήμιδες, not a κνημίς.

[10] www.mlahanas.de/Greeks/LX/Greaves BMGR1856_12_26_615.html (visited on 27.04.2010). They are dated to 550/500 BC and are now in the British Museum, Upper floor, Room 73 (accession number GR 1856.12-26.615; Cat. Bronze 249).

[11] The town of Shipka is situated in Central Bulgaria to the south of the Balkan range and is famous for the numerous Thracian tombs and rich graves excavated in its vicinity. On the Golyamata Kosmatka tumulus see Kitov 2005.

[12] See for instance Rusu 1969, p. 278 with fig. 6 on p. 280, who publishes a pair of bronze greaves

products not only from pair to pair (Pl. V/10; VI/11) but even within one pair. An eloquent example in this direction was brought to light during the excavations of the Great tomb at Vergina (North Greece), where a pair of gilded unequal greaves (the left is shorter than the right by 3.5 cm) was found (Pl. VI/12), considered as an evidence of owner's leg injury[13]. When comparing "our" four items with the greaves found usually in pairs the difference in this respect is clearly recognizable.

Secondly: The bronze greaves which usually appear in pair, both with (Pl. IV/8; V/9) and without (Pl. V/10; VI/11-12) a face on the kneecaps, have a lower edge going straight downwards. The silver ones which so far appear as a single piece have a lower edge turned outside or even lightly upwards (Pl. I/2; III/5). This detail could be explained, in my opinion, with some functional differences between the two groups.

Thirdly: Noteworthy is also a third very important feature. Most of the bronze greaves are without any holes (VI/11-12)[14] and it is universally accepted that they were "held to the shin solely by means of the elasticity of the metal"[15]. On the other hand, the silver artifacts here under discussion have small clearly visible holes on their four edges - a feature definitely attested for all four of them (Pl. II/4; III/6)[16]. So far, to the best of my knowledge, only one pair of bronze greaves, which is without a face on the kneecaps, is "supplied" with such holes[17], and they have led to the supposition that "the greaves have four holes each for tying them with two straps above ankle and below the knee"[18]. Occasionally holes are attested on other bronze greaves as well but they do show apparent difference both in location and in number[19]. All such holes are too fine to be used for a lacing[20], grounding the idea that they were used for the soft lining, needed with the bronze greaves[21]. The fact that all four silver greaves are featured with the fixed position of their four holes each imposes a different approach

found in a rich tomb at Ciumești (Romania). E. Knauer (Knauer 1993, p. 238) asserts that "... most greaves from the early sixth century on ... imitate the underlying anatomy". She explains this phenomenon with "the complex idealizing message of the concept of heroic nudity".

[13] See Andronikos 1984 and most recently Palagia 2008. The problem is thoroughly discussed by A. Riginos (Riginos 1994, p. 103-104, notes 1-2 with the literature).

[14] The greaves from Golyamata Kosmatka, Bulgaria (Kitov 2005, p. 46 does not discuss the existence or absence of holes on these greaves; however no holes exist on the edges); from Derveni, North Greece (Loukopoulou, Hatzopoulos 1980, p. 64-65, fig. 43); from Vergina, North Greece (Loukopoulou, Hatzopoulos 1980, p. 226, fig. 128) etc.

[15] See for instance Fortenberry 1991, p. 623 and Maaß 1995, p. 151 with earlier literature. The idea was put forward already by Engelmann (Engelmann 1882, p. 26) who explicitly insists that no thongs were needed.

[16] See http://www.thracians.net/index.php?option=com_datsogallery&Itemid=76&func=detail&id=188 (visited on 19.03.2011) for a 3D image of the Malomirovo-Zlatinitsa greave. A relevant photo of the same monument is given by Marazov 2010, p. 10. For the greaves from Agighiol see Berciu 1969, p. 218-219, pls. 112-113.

[17] The pair of greaves from Ciumești (Rusu 1969, 278 with fig. 6 on p. 280).

[18] Knauer 1993, p. 240, footnote 18.

[19] See e.g. the greaves from Assenovgrad, Bulgaria (Marazov 1980, p. 42 with fig. 32), from Ilyinetskaya barrow, Ukraine (Piotrovsky, Galanina, Grach 1986, fig. 216) and others.

[20] Compare the much bigger holes of the Roman greaves undoubtedly used for lacing (most recently Zerbini 2009).

[21] Koenigs-Philipp 1980, p. 100. See also Fortenberry 1991, p. 623: "some of these holes still retain fragments of leather thongs by which the metal would have been attached to a backing of perishable material".

to them. An observation that the ancient bronze greaves found in present Bulgarian lands are restricted number in contrast to the large number of ancient bronze helmets[22], makes less probable an existence of a settled Thracian tradition in producing greaves[23]. This entire complex of reasoning should lead in my opinion to a search for a specific function of the four silver greaves.

Fourthly: When comparing the two types of items here under discussion in regard of the proportion of the size of the face on the kneecap to that of the entire artifact one sees a striking difference. The face represented on all four silver greaves takes up a disproportionately large ca. 1:3.73 to ca. 1:3.88 of the monuments respectively. However, the face on the bronze pairs covers just ca. 1:6.25 of the greave. This fact could possibly also reflect some functional differences between the two types of items.

As clearly visible, the only common feature between the two types of greaves mentioned above - such of silver appearing as only one piece (Pl. I-III) and such of bronze appearing usually in pairs (Pl. V/9) - is the existence of a face on the kneecap, but even it differs essentially when a comparison is made between the two types. However, despite the plenty of fundamental differences, the conclusions concerning the latter type of greaves have been transferred to the first as well. The result of this approach could be clearly illustrated with the following quotation:

"... A female mask ...is depicted on the part that covers the knee. [...] The greave [from Vratsa, D.B.] is almost identical in shape to bronze examples that have been found throughout the ancient world, many of which are decorated with a Medusa mask and snakes that follow the curves of the muscle. [...] The images were probably intended to be apotropaic (evil averting), invoking their magical power to make the protected body part invulnerable. [...] The figure on this Thracian greave is probably a deity similar in type to the Scythian "snake-legged Goddess" mentioned by Herodotus. [...] The forms that resemble snail shells represent the goddess's breast, while the snakes represent her legs and arms"[24].

I find this interpretation problematic not only because of the stated identity between two different types of monuments. Equally unacceptable sounds to me the idea that an ancient craftsman could represent female arms as if coming out of the breast - this is exactly what comes out of the statement quoted above when compared with the monument which it is supposed to describe (Pl. I/1). It further remains unclear why is the face of the Vratsa greave stated to be definitely female[25] - an idea, introduced by the excavator[26], which has been universally accepted[27].

[22] Ognenova-Marinova 2000, p. 21.

[23] L. Ognenova-Marinova (Ognenova-Marinova 2000, p. 21 with earlier literature) puts forward the hypothesis that one of the pairs bronze greaves found in inner Thrace was produced in Messambria Pontica.

[24] Marazov 1998, p. 159. See also Marazov 1980, p. 93: "The very shape of the greave is reminiscent of the Greek leg armor which bears the mask of Medusa at the knee".

[25] See also Torbov 2005, p. 59 (with English abstract on p. 134) and footnote 50 here below.

[26] Venedikov 1966, p. 14; Venedikov, Gerassimov 1973, p. 111.

[27] Several years ago I tried to open a discussion on this issue (Boteva-Boyanova 2000, p. 109-118 with English abstract on p. 166). Despite the existing opinion that the greave no. 2 from Agighiol represents a male face (see here below), the tradition to define all the four faces as female still continues (cf. Marazov 2010, p. 30).

Many questions appear also when reading the proposed interpretation of the greaves from Agighiol. The human face on the so called greave no. 1 has been identified as a female (Pl. II/4)[28] because of the jewelry[29], while the one on the greave no. 2 - as a male mostly due to the lack of jewelry (Pl. II/3)[30]. The earrings and the necklace however could not be entirely decisive in this respect, as clearly indicated by the finds from the Great tomb at Vergina[31].

When trying to find an acceptable answer to all these questions, one has to evaluate the entire available information both from the artifacts here under scrutiny as well as from the ancient literary sources. We have to start with the crucial information that all four monuments were found single, not in a pair. Of course, in ancient times many men might have fought with just one greave as attested for instance by the finds in Denda, tomb no. 12[32]. However, in our case explaining that each of the four silver greaves is found single, not in pair, because it was a part of a parade armament[33] is, in my opinion, not convincing enough[34]. Personally I could not imagine that a ruler would appear with a parade helmet but wearing greave on one of his legs only. While the archaeological contexts both in Agighiol and Vratsa were problematic and there was some space for uncertainty[35], now after the find from Malomirovo-Zlatinitsa, unearthed in regular archaeological excavations, I incline questioning if these items were produced to be thought about as greaves at all[36]. Because of this further in the text when referring to them as greaves I shall always put a question mark[37].

Taking even a further risk I would speculate that all four silver monuments here under discussion do, of course, have a greave shape, but one could also easily recognize in them a very schematic anthropomorphic figure. Logically a question comes

[28] Berciu 1969, p. 218; Berciu 1974, p. 52; Alexandrescu 1984, p. 96.

[29] Kull 1997, p. 294; Sîrbu 2008, p. 269-270.

[30] Berciu 1969, p. 219; Berciu 1974, p. 54; Sîrbu 2008, p. 270.

[31] Cf. Andronikos 1984.

[32] See Fortenberry 1991 with this and other examples. D. Fortenberry (Fortenberry 1991, p. 626) speaks about "the practice of wearing a greave on only the right leg" explaining it with the fact that "a shield would have provided protection to the left side in battle, leaving the right side of the body more vulnerable and in need of reinforcement".

[33] Most recently see Marazov 2010 passim. See also Berciu 1974, p. 120, who offers two possibilities: "Les cnémides d'argent provenant des sepultures sont des pièces de parade ou peut-être elles ont un caractère funéraire ...". D. Fortenberry (Fortenberry 1991, p. 627) suggests that "a single metal greave was worn on the right leg as a symbol of status or rank".

[34] An alternative possibility has been offered by T. Taylor (Taylor 1987, p. 128) according to whom "the objects... were used during hunting and its attendant feasting and drinking, to which the scenes on them directly relate".

[35] On Vratsa see Torbov 2005, p. 118-124. See also note 6 here above.

[36] Modern research thinks of them as greaves even if there are some doubts how exactly they were used. Marazov 2010, p. 31 points out that the Malomirovo-Zlatinitsa greave is too small for the big size of the deceased and puts forward the supposition that "the greaves had a different, both a cultic and a symbolic meaning (translation D. B.)". He further speculates that these greaves "mark the military function of the hero, especially when they appear as one specimen only, because they indicate him in such a way as asymmetric (one-legged, crooked) (translation D. B.)". Theodossiev 2000, p. 53 interprets the Vratsa greave "as an insigne", insisting that "this type of greaves was used as regalia and symbols of the Great Goddess, the deceased aristocrats' doctrinal mother".

[37] The image of the appliqué from Letnitsa (Pl. III/6) could not be relevant here because the represented horseman might have had a second greave - see note 9 here above.

whether the small holes mentioned above were not needed for some kind of nails. It will mean that these silver artifacts were covering not someone's leg, but something made of wood. The silver head from the tomb at Peretu (Romania)[38] with a small hole in the neck offers a similar case: according to A. E. Farkas this hole suggests that this silver head "was attached to something, perhaps a wooden pole"[39]. Such a possibility concerning the silver greaves(?) could be rejected or confirmed only with very precise observations on the archaeological site and context of the discovery, as well as with a suitable analysis of the rests around the holes[40]. Obviously this is a wish addressed to an eventual new find in the future.

A research into the myriad of problems related to the four discussed silver items should, of course, handle in details their decoration. Of a high importance seems to me the fact that all four of them are featured with two coiled snakes, represented in a similar way just below the human face[41]. Formally, they could be seen as an echo of the spiral bands ending with two opposite volutes beneath the kneecap of an archaic greave from Olympia (Pl. VI/13)[42], but obviously they are expressing a disparate idea. Though the snake motive is a frequent embellishment of the bronze greaves from the archaic period[43], there it differs from the two serpents beneath the face of the four silver items. The two coiled "Thracian" snakes look so uniformly on all four silver greaves(?) that they leave the impression of a fixed image in the Thracian thinking. Even more striking is the fact that this fixed Thracian image is twice narrowly correlated with a horseman (Pl. II/4; III/6).

Probably the most impressive feature of the discussed silver items is the decoration with gilt lines on the faces of two of them (Pl. I/1-2; II/3)[44]. Modern scholarship differs in their definition - some speak about "tattoo marks"[45], others - about "stripes"[46]. This uncertainty of how are the lines on the human face to be understood is clearly shown by N. Theodossiev, whose definition is with a question mark: "tattooed(?) face"[47]. It is obvious that these differences are not just terminological; they

[38] Moscalu 1989, 144-147; 162-164.

[39] Farkas 1981, p. 39; Moscalu 1989, p. 162. The idea that the head from Peretu used to be a part of a wooden statue appears already in Marazov 1980, p. 52.

[40] See Fortenberry 1991, p. 623 who discusses the holes at the edges of the greave from Denda tomb no. 12: "Some of these holes still retain fragments of leather thongs ...".

[41] Coiled snakes are seen also by Farkas 1981, p. 45, and by other authors, while an identification of this motive as snakes coming out of "snail shells" is to be found in Marazov 1998, p. 159.

[42] Mallwitz, Herrmann 1980, p. 100-101 with pl. 62, no. 1. See also Maaß 1995, p. 149: "die Beinschiene aus dem thrakischen Schatzfund von Wratsa (sic) zeigt sowohl im Knieschmuck als auch in den Schlangengliederungen deutliche Anklänge an solche archaischen Vorbilder".

[43] On the decoration of the bronze greaves see Koenigs-Philipp 1980, p. 100-101, pl. 62, no. 1 and pl. 63; Kunze 1991, p. 72-75.

[44] The gilt lines on the human faces remained undiscussed in one of the recent publications on the matter (Sîrbu 2008).

[45] See for instance Marazov 1980, p. 94 ("The gilt bands which decorate the right half of the goddess' face should be viewed as tattoo marks."), Farkas 1981, p. 45 ("a tattooed face"), Oppermann 1984, p. 119 ("Streifentätowierung") etc.

[46] Venedikov 1976, p. 66. See also Berciu 1969, p. 219: "Goldstreifen" und Berciu 1974, p. 54: "la face porte des raies".

[47] Theodossiev 2000, p. 34.

do reflect different understanding of the Thracian culture. In the first case we have to deal with permanent marks, while in the second - with removable ones which could be connected with some special (repeating) occasion(s) in the life of the respective community. Because of this the issue is of a high importance and a correct explanation should be sought for.

When turning to the ancient literary sources one finds at least two reports that might be relevant to the pointed issue. They both date to the 5th century BC and when dealing with their translations one confronts the same lack of uniformity. An eloquent example is Herodotus' information in his book V chapter 6. Back in 1860 it was translated by G. Rawlinson as follows: *"**Tattooing** among them [the Thracians, D. B.] marks noble birth, and the want of it low birth"*. Exactly this understanding of the quoted Herodotus' text is to be found in the authoritative dictionary of H. Liddell and R. Scott, where one finds however a strict distinction between four meanings of the Greek verb στίζω, used by Herodotus in this report. Within the first semantic group the word is translated as "*to mark with a pointed instrument, to prick...*", while within the second semantic group three different meanings are given: "1. *to tattoo, as the Thracians used to do (Hdt 5, 6)...; 2. to brand, as a mark of disgrace (Hdt 7, 35)...; 3. merely for the purpose of marking as one's property...*"[48]. No wonder then that in 1890, G. C. Macaulay introduced a translation which reads: "*To be **pricked with figures** is accounted a mark of noble rank, and not to be so marked is a sign of low birth*". However, recently the "tattoo translation" was revived by D. Grene, who offered the following understanding of Herodotus report: *"Being tattooed is among them [the Thracians, D. B.] a mark of high birth and being free of such marks is for the lowerborn"*[49].

Hesychius quotes and comments the play "Babylonians"[50] allowing us to broaden and specify Herodotus' information just presented. It becomes clear that in Antiquity *"those living by the Istros"* were known for tattooing their faces and for wearing pied clothing. The peculiar *"Istrian foreheads"* are described by using the same word we find in the discussed Herodotus' text (στίζω). Despite the certain unclarity concerning the exact meaning of the verb in question, the impression is dominating that these both reports refer to some kind of permanent marks on the faces of the Thracians with high birth living by the Istros River. Such a conclusion coincides with the archaeological material originating precisely from territories of the Istros as it seems reasonable in my opinion to connect the literary evidence with the two greaves(?) with tattooed faces (Pl. I/1; II/3).

If my reasoning is correct, we would be allowed to see in these faces not the Great Goddess as traditionally accepted[51], but Thracians of noble rank, which opens new interpretative possibilities. It is highly indicative that within the group of the

[48] Liddell, Scott 1897, p. 1431.

[49] Herodotus (1987), 358.

[50] Aristoph. Babylon., fr. 90 - see Aristophanes (2007), 156-157.

[51] Marazov 1980, p. 93; Theodossiev 2000, p. 34; Torbov 2005, p. 155; Agre 2006, p. 181; Marazov 2010, passim. Few alternatives have been proposed so far. Mostly because of the ivy wreath, B. Kull thinks about the possibility to define the Vratsa greave as Dionysos (Kull 1997, p. 294). She inclines also to interpret the two greaves from Agighiol as if they represent a couple (Kull 1997, p. 294).

four silver greaves(?) two very distinctive sub-groups are observable: 1) without gilt lines on the face; 2) with gilt lines on the face.

The faces **without** gilt lines (Pl. II/4; III/5) are represented with a necklace of pendant beads, which is almost identical on the two monuments and is not attested on the items with gilt lines on the face. In fact, the same necklace appears also on the silver head from Peretu[52], indicating most probably a sign of status or rank. A further feature of this sub-group are the human, semi-human and animal figures represented on the lower part of the two monuments. There is a scene which is common for both items - a horseman facing a serpent. It is noteworthy that this scene is among the most popular within Thracian imagery language[53]. Some obviously meaningful differences between the two artifacts of this sub-group should be underlined. On the one hand, both sides of the *greave(?) from Malomirovo-Zlatinitsa* are decorated with human, semi-human and animal figures. Along the left side (viewer's standpoint) a centaur is holding an animal (possibly a young goat) as if offering it to the coiled serpent[54]; under this scene a bird of prey is clutching a rabbit[55]. A horseman, holding a *rython*[56] and facing the other coiled serpent is represented on the right side (viewer's standpoint) of the greave(?); below, a female figure[57] is seated holding a cup and a spindle while a maid-servant is standing behind the throne[58]. On the other hand, only the left side (viewer's standpoint) of the *greave(?) from Agighiol* is decorated with human figures: above is represented a horseman holding aloft a bow and facing the coiled serpent; below appears a seated male figure holding a bird of prey and a horn or a horn-shaped *rhyton*[59]. The right side (viewer's standpoint) of this monument lacks of any scenes. It is decorated with a fantastic creature whose body is slim and very long; its identification remains uncertain[60].

The sub-group representing a face **with** gilt lines (Pl. I/1; II/3) also shows some important common features as both of them are dominated entirely by serpents and dragon-like monsters, neither of the two being decorated with human figures or scenes. Noteworthy is however a slight but meaningful difference between the embellishment on the two sides of the *Vratsa greave*(?): on the left side (viewer's standpoint) below the tattooed part of the face the dragon-like monster is grasped by a bird of prey, while on the right side the dragon-like monster is imaged with wings. The snake/dragon layouts of these items are traditionally seen as muscle stylizations[61], due to the

[52] Marazov 1980, p. 52; Farkas 1981, p. 39; Moscalu 1989, p. 147, 163.

[53] Boteva 2006, p. 78; Boteva-Boyanova 2006, p. 15.

[54] This scene is differently read by the researchers. D. Agre (Agre 2006, p. 181) sees it as "a centaur strangling a boar", while according to I. Marazov (Marazov 2010, p. 11) the centaur "is handing a rabbit to the horseman, represented on the right side [of the greave, D. B.] with a *rython* in his hand (translation D. B.)".

[55] Agre 2006, p. 181.

[56] According to Agre 2006, p. 181, this is "a representation of the king drinking from a *rython*".

[57] D. Agre (2006, p. 181) and I. Marazov (2010, p. 12) interpret it as a Goddess.

[58] Marazov 2010, p. 12-13.

[59] Marazov 2010, p. 41 describes this male figure as holding "an eagle and a phiale (translation D. B.)".

[60] Farkas 1981, p. 45 describes it as "a snake-headed monster"; the head of the monster however does not resemble a snake.

[61] Ognenova-Marinova 2000, p. 21 ("la façon de souligner les muscles des jambes, notamment par des dragons marins"; she speaks also of "le monstre marin ... ketos (κήτος)"); Farkas 1981, p. 45 ("the muscle stylizations are elaborated into a snake-headed monster") etc.

obvious formal similarity with a greave from Olympia (Pl. VI/13)[62]. However a question expects a convincing answer: why does the motive labeled as a muscles stylization appear two sided on silver greaves(?) only with a tattooed face? And why this motive either do not appear at all on a silver greave(?) without gilt lines, i.e. without a sign of tattoo, or appear just one sided?

All these numerous correlations are doubtlessly not a result of a pure coincidence and their thorough research is waiting still its time and correct approach. A crucial point for their understanding would be to try establishing whether these silver artifacts were produced to be thought about as greaves or not. In favor of a possible negative answer speaks in my opinion also their place within the grave: close to the head[63]. If D. Berciu was right when recognizing among the finds from Agighiol some beads as similar to those represented on the greave(?) without gilt lines on the face[64], logically emerges the possibility that the greave(?) in question is imaging the deceased. Such a conjecture is supported by the easily recognizable, though very schematic, anthropomorphic figure in the four of them. Because of the whole reasoning presented here above, I incline to see in all four silver items images of the dead representatives of the Thracian elite, produced for the needs of the funeral ceremony[65]. Accordingly, I would prefer speaking not of silver greaves(?) but of silver figures of the deceased, grounding their different decoration with the personal experience, the different social and religious status as well as the military achievements of each one of them.

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[62] See note 41 here above.

[63] Such information is available for both Malomirovo-Zlatinitsa (personal information from the director of the excavation, D. Agre, whom I express my gratitude) and Vratsa (Venedikov 1966, p. 11: at a distance of ca. 60 cm from the head; note however that according to Venedikov a bronze helmet - on it see Torbov 2005, p. 135 with pl. IX, no. 10 - had been broken to pieces during the burial and covered up with stones close to the legs).

[64] Berciu 1969, p. 218; Berciu 1974, p. 52.

[65] The funeral character of the silver greaves(?) was supposed also by Berciu 1974, p. 120.

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Pl. I. 1. The greave(?) from Vratsa (after Marazov 1997, p. 159); **2.** The greave(?) from Vratsa as discovered (after Torbov 2005, p. 59).

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Pl. II. 3. Greave(?) no 2 from Agighiol (after Berciu 1969, pl. 112); **4.** Greave(?) no. 1 from Agighiol (after Berciu 1969, pl. 113).

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Pl. III. 5. The greave(?) from Malomirovo-Zlatinitsa (after Agre 2006, p. 181); **6.** The greave(?) from Malomirovo-Zlatinitsa, detail (after National Geographic Bulgaria, December 2006, p. 67).

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Pl. IV. 7. The appliqué from Letnitsa (after Venedikov 1996, fig. 15); **8.** The greaves from Ruvo, Apulia (after www.mlahanas.de/Greeks/LX/Greaves BMGR1856_12_26_615.html visited on 27.04.2010).

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Pl. V. 9. The greaves from Golyamata Kosmatka (photo St. Dimov; courtesy of D. Dimitrova); **10.** Greaves from the tomb of Denda, South Italy (after www.mlahanas.de/Greeks/LX/GreavesSA4330.html visited on 27.04.2010).

Pl. VI. 11. Greaves from Derveni (after Loukopoulou, Hatzopoulos 1980, p. 64-65, fig. 43); **12.** Greaves from Vergina (after Loukopoulou, Hatzopoulos 1980, p. 226, fig. 128); **13.** A greave from Olympia (after Mallwitz, Herrmann 1980, p. 100-101, pl. 62, no. 1).

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DACIAN IRON BLOOMS DISCOVERED IN THE AREA OF SARMIZEGETUSA REGIA

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Résumé: Cet article passe en revue les découvertes de loupes de fer ayant appartenu aux Daces de la région de Sarmizegetusa Regia. Certaines ont été découvertes à la suite des fouilles systématiques tandis que certaines autres, une bonne partie, ont été déterrées à la suite des actions frauduleuses des « chercheurs de trésors ».

On constate que ces loupes ont des poids variables mais une forme commune, ce qui prouve le fait qu'elles ont été obtenues dans des fourneaux avec hauteur et diamètre variables et dont la cuve se trouvait à la partie inférieure.

On y discute le terme « loupe » et on y combat la thèse selon laquelle ce terme provient du latin « lupus » (loup).

Le nombre impressionnant de loupes découvertes dans les alentours de la capitale dace constitue une preuve de l'ampleur de la métallurgie du fer au I^er^ siècle ap. J.-C. Toutes ces loupes ont la forme d'un fromage rond dont manque une tranche triangulaire, ce qui est du au fait que juste après les avoir sorties du fourneau, tandis qu'encore brûlantes, le forgeron découpait le morceau trouvé du côté du soufflet, partie contenant des impuretés indésirables. La partie découpée pouvait être recyclée tandis que les nouvelles parois de la loupe permettaient l'inspection du contenu de celle-ci. C'est pourquoi on estime que le terme anglais « split blooms » par lequel on désignait ce type de loupes devrait être remplacé par celui de « clipped blooms », loupes à découpage, terme beaucoup plus suggestif.

On doit aussi remarquer le fait que dans la région de la capitale de la Dacie libre ce genre de loupes sont beaucoup plus nombreuses que dans l'ensemble de l'Europe - même si on inclut dans cette catégorie des loupes qui s'ensuivent chronologiquement jusque dans la période moderne. On constate aussi que les loupes à découpage de Dacie sont les plus anciens artéfacts de ce type, une vraie tête de série pour les découvertes européennes du genre.

Mots-clés: Sarmizegetusa; métallurgie; loupes à découpage; Daces.

Over 80 years have elapsed since the beginning of the archaeological research in the area known in specialized literature as "the fortresses and settlements from the Orăștie Mountains"[1].

The research, conducted on a very extensive area, sometimes on a large budget and lasting several months while other times lasting only several weeks, was

[1] On this occasion the museums from Deva and Cluj-Napoca organized a retrospective exhibition including spectacular Dacian artifacts and recalling images of either the specialists that brought them to light or of various moments throughout the excavations. A symposium followed by the release of the volume Daco-geții, Deva 2004, was organized in Deva.

extremely important in order to discover the "way of life of the Dacians from the Orăştie Mountains"[2] as well as the significance of this 2000 years old civilization.

Due to the archaeological investigations in this area one can claim knowing a great deal about its specific fortifications system[3], architecture[4], religious beliefs[5], astronomical knowledges[6], and medicine[7] as well as about the various processing techniques of materials[8] and first of all about iron processing techniques[9].

The resemblances between the Dacian civilization and contemporary ones as well as the various features of the former have been highlighted on more than one occasion.

The development of archaeological research towards excavations sites on both the inner and the outer Carpathian arc, has allowed for some subtle observations as well as for comparisons between the level of civilization of the capital and that of the outlying areas of the Dacian kingdom.

Similarly, at a European level, an exceptional development of the archaeological and historical knowledge is also due to geologists, chemists, physicists and so on who are now able to put to test various hypotheses and ideas previously advanced.

As regards iron smelting, the rebuilding and experimental usage of devices similar to those used in the ancient world were decisive in obtaining new data about the *"chaîne opératoire"*: from gathering the minerals until the final output. Even though most experiments and analysis we possess originate from other countries and refer to other civilizations, we believe they may also prove useful to those interested in Dacian blacksmithing.

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[2] C. Daicoviciu. et alii, *Studiul traiului dacilor în Munţii Orăştiei (şantierul arheologic de la Grădiştea de Munte)*, SCIV 2, 1, 1951, p. 95-126.

[3] C. Daicoviciu, H. Daicoviciu, Sarmizegetusa - Cetăţile şi aşezările dacice din Munţii Orăştiei, Bucureşti 1962; H. Daicoviciu, Dacia de la Burebista la cucerirea romană, Cluj 1972.

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[6] Fl. Stănescu, *Considerations concerning possible modalities to establish the astronomical directions in Dacian sanctuaries*, in E. Iaroslavschi (ed.), Studii de istorie antică. Omagiu profesorului Ioan Glodariu, Deva 2000, p. 325-335; idem, *Posibile orientări astronomice în marile sanctuare dreptunghiulare de la Sarmizegetusa Regia, România. Rezultate preliminare*, ActaMN XXXIV, 1997, p. 808-817; idem, *Absida centrală a marelui sanctuar rotund de la Sarmizegetusa Regia*, ActaMN XXIV-XXV, 1987-1988, p. 124-138.

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[8] E. Iaroslavschi, Tehnica la daci, Cluj-Napoca 1997; A. Rustoiu, Metalurgia bronzului la daci (sec. II î. Chr.-sec. I. d. Chr.). Tehnici, ateliere şi produse de bronz, Bucureşti 1996.

[9] I. Glodariu, E. Iaroslavschi, Civilizaţia fierului la daci, Cluj-Napoca 1979.

This article presents the iron blooms crafted in Dacia prior to the Roman conquest, the raw material of workshops that produced a large array of tools, weapons, construction materials etc.

The number of iron blooms discovered in the said area has significantly increased in the past 15-20 years, particularly due to the unfortunate appearance of treasure hunters. Equipped with detection gear, they invaded the ancient settlements and, mostly at nighttime, they cross mountains and valleys. Traces of their activity can be observed in the form of small or medium sized holes dug where their detectors signaled the presence of metals. They obviously search for precious metals or highly valuable artifacts but they often realize their nature and size only after digging them out. Treasure hunters will only keep the objects they are interested in and discard heavy and large objects made out of common metals. Among the latter, a special case is that of the iron blooms. While out on the field, recovering Dacian artifacts discarded by treasure hunters it was noticed in the past years that such iron blooms are found in the area of the fortresses Costești-Cetățuie, Costești-Blidaru as well as Fața Cetii, Fețele Albe, Dealul Grădiștii, Căprăreața, Piciorul Muncelului, Tâmpu and so on (Pl. I/1).

Sometimes, after being brought to light, the iron blooms are thrown down the steep slopes of the hills. Due to their round shape they roll far away from the hole they were dug out from and their color, similar to that of dead leaves that end up covering them, makes their retrieval difficult. We are aware that the retrieval process is far from being complete and that a possibly large number of artifacts still lie undiscovered in the forests and valleys of the Orăștie Mountains, this time covered not by a stratum of protecting earth but by a thin layer of decomposing leaves.

A possible solution in this respect would be to equip archaeologists with metal detectors so as to allow them to recover these unearthed artifacts.

The recovered iron blooms ended up in the storage rooms of the history museums in Cluj-Napoca and Deva. It was observed that the depth at which they were buried varied between 20 and 100 cm and that each pit contained several such items. It would seem that those who buried them did so in a hurry as they did not dig a regular shaped hole. Usually the hole had a rounded or oval section, without being lined in any way (with stone slabs for example). At times, after removing the iron blooms, the disappointed treasure hunters throw them away from their original location. Quite frequently they don't check the whole content of the hole so that part of it remains *in situ*. This allowed for observations regarding the way in which the original hole was made and the arrangement of the items placed inside of it. Such an example is a certain discovery from Sarmizegetusa Regia: close to the area known as "Tău", a few tens of meters away from a spring, towards the edge of the hill, tens of iron blooms were deposited in an almost cylindrical pit, dug in the stone-free loess. A similar hole was found on one of the slopes of the Muncel peak, close to the walking path (at approximately the same height as the metallurgic workshop from "Căprăreața")[10]. A significant number of iron blooms were found here, most of them whole, others broken in half. Discoveries of iron blooms, albeit in smaller deposits, were also reported

[10] I. Glodariu, *Un atelier de făurărie la Sarmizegetusa dacică*, ActaMN XII, 1975, p. 107-134.

in Dealul Grădiștii, on both the side towards Valea Albă and that towards Apa Godeanului (Pl. I/2). However, the recovered items were isolated and had been removed from their primary position so that it was impossible to say whether they initially belonged to a deposit.

In deposit holes that were not voided of their content by treasure hunters we noticed that the iron blooms had been stacked in a manner so as to fit in as many as possible (the rough, concave side was placed downwards and the convex, smoother side upwards; similarly the halves weren't carelessly thrown in, they were nestled so as to properly fit in the remaining space) (Pl. II/3 a-c; III/4).

At first sight the undisturbed deposits seemed to be rather small in size; in truth they are quite large and heavy[11] (/Pl. III/5). The villagers from Grădiștea de Munte mention a deposit located not far from the present road (close to the forestry building, in a cluster of fir trees) which is said to have been carried by truck to a metal collection center.

Many iron blooms discovered in the mid 20th century are mentioned in the bibliography but are hard to identify in the collections of museums. For example, the storage location of the seven iron blooms originating from a supposedly metallurgic workshop at *Poiana Rădăcinii* (a high terrace of the Stânișoara Mountains[12]) is currently unknown. Similarly, we have little information about the "iron battering rams" (name given by archaeologist to the first iron blooms that were thought to be parts of siege engines) from Sarmizegetusa[13] or about those said to have been found inside earthen walls at Costești-Cetățuie.

As for the blooms that we did have the chance to observe, their weigh, size and shape have all been noted. In fact, these artifacts could be divided in three lots: the first lot belongs to the collection of the Museum of Dacian and Roman Civilization from Deva; the second, comprising items recovered from the Sarmizegetusa area, is in the keeping of the National History Museum of Transylvania, Cluj-Napoca. Similarly, the third lot, constituted by iron blooms discovered at Căprăreața, close to the metallurgic workshop investigated in 1971[14] is now part of the patrimony of the same museum.

The shape of the iron blooms that we were able to examine is similar. However, there are numerous variations in terms of weight, diameter and size.

Most of these artifacts have an almost circular shape but many exhibit uneven diameters and a vaguely oval contour. All items present a triangular clipping in the middle. The clipping was produced with a sharp tool (a chisel or an axe), immediately after the extraction of the iron bloom from the furnace, while still hot and, thus, more malleable (Pl. IV/6; V/7; VI/8; VII/9). The clipping does not generally exceed the center of the iron lump, but there are pieces where the removed "triangle" is almost as extensive as the diameter of the bloom, making it fragile and allowing for it to be

[11] Rangers reported finding in several spots iron blooms or even massive iron tools unearthed by the treasure hunters and then abandoned.

[12] C. Daicoviciu, Al. Ferenczi, Așezările dacice din Munții Orăștiei, București 1951, p. 28.

[13] C. Daicoviciu, *Șantierul Grădiștea Muncelului. Studiul traiului dacilor în Munții Orăștiei*, SCIV 3, 1952, p. 304.

[14] I. Glodariu, op.cit., p. 107-134.

broken it half. Almost all of the analyzed fragments are equal halves of iron blooms whose excessively large clippings led to their fracturing.

The upper part is concave, with a rough, irregular aspect, while the lower part is convex and has a smoother surface (in what follows, we shall explain exactly how this shape was obtained).

The maximum diameter (30 cm) was recorded in two iron blooms; one belongs to the collection of the Museum from Deva, the other can be found at the National History Museum of Transylvania. The minimum recorded diameter is of 16 cm (the item belongs to the Museum from Deva). As for the great majority of blooms, 88% have a diameter of 20-25 cm. Their thickness or height varies from 8 to 16 cm, 73% of them measuring 10 to 13 cm (Pl. VII/10; VIII/11). We must nonetheless take into consideration the fact that most of these items were measured before being completely cleaned so that after proper restoration their dimensions will suffer a slight reduction (Pl. VIII/12).

The items weigh between 4.5-14.2 kg and are unevenly distributed in weight categories.

I. For the pieces from Museum of Deva, resulting mostly from the activity of treasure hunters, the situation is as follows:

Weight	5-6 kg	6-7 kg	7-8 kg	8-9 kg	9-10 kg	10-11 kg	11-12 kg
Number of artifacts	7	10	17	13	15	9	4

The items under 5 kg as well as those over 12 kg are scarce (only 2 blooms, one weighting 4.5 kg, the other 13.5 kg) (Pl. IX/13).

II. In the storage rooms of the National History Museum of Transylvania, Cluj-Napoca, there are 61 whole iron blooms, most of them being treasure hunting retrievals. The situation stands as follows:

Weight	5-6 kg	6-7 kg	7-8 kg	8-9 kg	9-10 kg	10-11 kg	11-12 kg	12-13 kg
Number of artifacts	3	7	7	8	9	7	10	5

Similarly to the Deva lot, the artifacts weighting under 5 kg and respectively over 13 kg are few (only 2 for the first category and 3 others weighting 13.5 kg, 14.1 kg, and 14.2 kg each) (Pl. IX/13).

III. Artifacts resulting from the systematic investigations at Căprăreața:

Weight	6-7 kg	7-8 kg	8-9 kg	9-10 kg	10-11 kg	11-12 kg
Number of artifacts	4	6	6	8	8	2

As can be seen, the size and weight of iron blooms varied. However, most of them belong to the category 7-12 kg (129 out of 172 intact artifacts[15]) (Pl. IX/14). The halves

[15] The numbers quoted by the present article refer to whole blooms or bloom fragments discovered until 2010. Last year as well as this year, 32 more whole blooms and 4 more fragments have been discovered in various areas of the Orăștie Mountains Dacian fortresses region.

that were analyzed confirm the statistics. In the Căprăreața lot, 44 halves belong to blooms that weighed 5-6 kg when whole while another 25 belong to 4-5 kg blooms. In the Deva lot, 40 out of the 73 bloom halves are part of 4-6 kg blooms and similarly the 17 halves in the Cluj-Napoca lot belong to 4-6 kg blooms (Pl. IX/15; X/16). As the rupture usually follows the axis of the clipping two equal parts resulted. Multiplying the resulting weight by 2 we may conclude that, for the most part, the weight of the Dacian iron blooms varied between 7 and 12 kg.

A noteworthy exception is the iron lump discovered at the entrance of the Tâmpu Valley. This one weighs 46.7 kg, has a diameter of 33 cm and a height of 21 cm[16] (Pl. X/17 a). Examples of artifacts weighing less than 5 kg are very rare.

The shape and size of iron blooms are due to the type and size of the furnace they were obtained in. The remains of many metallurgic workshops were found on extensive areas. Chronologically, they range from prehistoric times to the modern age, but their poor state of conservation gave rise to many debates as their type, proportions and usage.

Before proceeding to a comparison between Dacian iron blooms and contemporary blooms discovered in other geographical areas we believe it useful to briefly present our current knowledge of ironworking in Dacia.

Researchers agree that the Iron Age begins when the technology needed to work iron is discovered and not when the crafting of iron tools and weapons becomes a widespread practice. In Romania[17], the Iron Age is thought to begin as early as the Hallstatt A period. However, it is only in middle La Tène that iron gains actual supremacy of use, phenomenon mostly related to the development of the Dacian civilization and the rise to power of the Dacian kingdom.

Such as the case of other ancient civilizations from Europe or the Middle-East, the use of iron by the Dacians proved to be a key factor in gaining access to material goods and military power[18].

Iron ore can be found in many places in Dacia. Though the quality was not necessarily the best and the resources were rather modest, it was more than enough to supply the needs of that period. The ore was close to the surface, easily recognizable and readily gathered. It could also be mined through very small and shallow holes, by working along the lodes. As a general rule, European populations favored the reduction of ore close to the extraction site in order to avoid the various problems related to long distance transport.

[16] In the 1950s, while building a forestry railway, at the entrance of the Tâmpu Valley, the remains of furnaces as well as three unusually large iron blooms were discovered. Unfortunately, as no archaeologist was present on site, no drawings, photographs or descriptions have been made; only one of the three artifacts was salvaged (currently kept in the storage rooms of the National History Museum of Transylvania).

[17] M. Rusu, *Începuturile metalurgiei fierului în Transilvania*, in H. Daicoviciu (ed.), In memoriam Constantini Daicoviciu, Cluj-Napoca 1974, p. 349-360; A. László, *Începuturile metalurgiei fierului pe teritoriul României*, SCIVA, 26, 1, 1975, p. 22; E. Iaroslavschi, Tehnica la daci, Cluj-Napoca 1997, p. 19-20.

[18] E. Iaroslavschi, *Siderurgia dacică în cadrul metalurgiei europene*, in S. Nemeti, F. Fodorean, E. Nemeth, S. Cociș, I. Nemeti, M. Pîslaru (eds.), Dacia Felix. Studia Michaeli Bărbulescu oblata, Cluj-Napoca 2007, p. 53-66.

The forges where iron objects were made or repaired at the clients' request and where recycling took place, were located in populous areas, close to the consumer. Meanwhile the place where the iron ore was obtained was located at a significant distance away from the sites investigated by archaeologists.

Iron and wood, the raw material for obtaining charcoal could be found almost everywhere. This does not mean however that iron metallurgy was equally spread throughout the Dacian territory. Due to the abundance of ore lodes located close to the surface, allowing for easy exploitation, the mining and processing of iron developed in two main areas identified and investigated by archaeologists.

One of these two areas was named "zona siderurgică"[19] ("the ironworks area") by P. János and D. Kovács. The area, quite extensive, is located in the Eastern Carpathian Mountains and contains large quantities of iron slag - sometimes in pieces weighing over 40 kg - and having a rather spongy aspect. It is not by chance that several thriving Dacian communities were located here. The powerful fortresses and the rich settlements prove that the inhabitants knew how to take advantage of the natural resources of the area[20].

The second such area, rich in iron ore, has a quadrilateral shape with Cugir, Vârful lui Pătru, Federi and Boșorod at its four angles. Traces of iron mining and processing have been identified in the area. In fact, this is where the largest metallurgical workshops from Dacia were found as well as easily accessible ore lodes[21], such as those from Bătrâna, Tâmpu, Cugir, Sibișel and so on. The iron blooms discussed in the present article were found in the same perimeter (Pl. XI/ 18).

Iron ore resources were discovered in other Dacian settlements[22] as well, some of them quite small and rather poor[23]. The next step should consist of analyzing the iron blooms, the iron slag and the iron artifacts from the entire Dacian area with the purpose of obtaining certain information regarding the use of these resources, the type of the furnaces as well as the commercial routes the products used to take.

As mentioned previously, the ore lodes closest to the surface were preferred. The term "Dacian mining", used rather frequently, is an exaggeration. The so-called miners resembled gatherers who sometimes used mason or blacksmith tools in order to crush the ore. Such tools can be found in large numbers around Sarmizegetusa[24].

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[19] P. János, D. Kovács, *Periegheză arheologică în bazinul Ciucului,* Studii și materiale II, Târgu Mureș 1967, p. 43-53; E. Iaroslavschi, *Siderurgia dacică în Carpații Orientali*, Angustia 9, Sfântu Gheorghe 2005, p. 155-158.

[20] V. Crișan, Dacii din estul Transilvaniei, Sfântu Gheorghe 2000, p. 147-151.

[21] See the list of the most important ferriferous deposit in Șt. Ferenczi, *Premisele naturale ale metalurgiei fierului în Munții Orăștiei*, Studii și comunicări de etnografie-istorie III, Caransebeș 1977, p. 299-309.

[22] E. Iaroslavschi, *Les fourneaux de reduction du minerai du fer chez les Daces*, in M. Feugère, M. Gustin (eds.), Iron, Blacksmith and Tools. Ancient European Crafts, Monographies Instrumentum 12, Montagnac 2000, p. 97-102.

[23] Even the ferruginous deposits found in some river beds could be used. For example at the furnace in Bragadiru, on the outskirts of Bucharest, a low quality ore was used. The ore was obtained from the river bed of the Sabar River (M. Turcu, *Cuptorul pentru redus minereul de fier descoperit la Bragadiru (sec. II-I î.e.n)*, in H. Daicoviciu (ed.), In memoriam Constantini Daicoviciu, Cluj-Napoca 1974, p. 389-393).

[24] I. Glodariu, E. Iaroslavschi, op. cit., p. 104-108; I. Glodariu, *Cariere și exploatarea pietrei în Dacia preromană,* ActaMN XXII-XXIII, 1985-1986, p. 91-103.

Iron was obtained in small furnaces where ore, charcoal and certain additives meant to facilitate the process were mixed. In order to obtain more iron of higher purity the ore had to be treated. The ore was subjected to mechanical operations such as breaking, grinding, griddling, repeated washing and roasting[25]. The same procedure was applied to non-ferrous ores.

Roasting was a very important thermal procedure, resulting in the elimination of water and, due to chemical reactions, of earthen compounds. In the ancient Europe we find it in Etruscan[26], Celtic[27] and Germanic[28] regions. In Dacia, though surely practiced in other places as well, it is certified in Cireşu[29], Oltenia and Herculian[30], in the Eastern Carpathian Mountains.

At Cireşu, 14 pieces of ore roasting equipment have been discovered. They can be divided in two categories. The first type is represented by an oval hearth, 5 meters in diameter, bordered by a rim consisting of burnt earth, impregnated with slag. The hearth, set upon a slope, had two superposed layers of clay at ground level and a protrusion in the middle, also covered in a layer of clay. A large amount of slag as well as parts of burnt rough cast were found in the hearth. The second type was discovered nearby and it is somewhat similar. The hearth was almost round, surrounded by two rows of raw bricks and presented several grooves that started from the central firing chamber and were disposed in the shape of a fan. The central part was deeper as compared to the rest of the hearth and had bricks on its margins, all of them placed in an upright position with small intervals between them. A clay tube went all the way inside the hearth, through the bricks. L. Roşu and E. Bujor who conducted the research, believed them to be "early types of reduction furnaces". The process was similar to heap roasting: iron ore and charcoal were stacked inside, then everything was covered with a layer of soft earth (its role was to prevent the air from leaking out of the installation). The combustion took place in the center of the hearth, the so-called firing chamber. It was maintained because of the air circulation inside the furnace created by an opening at the lower-end of the slope and by an alleged "chimney" at the upper part.

In 1979, when "Civilizaţia fierului la daci" was first published, theories such as this one began to be explored. The considerable size of the device meant that a large quantity of ore was used each time. The problem is that a lot more air was needed than could be provided by a system such as the one described above. Even if the clay tube, mistakenly believed to have been used for the evacuation of iron from the equipment,

[25] J. Ramin, *La technique miniere et metallurgique des Anciennes*, Latomus 153, 1977, p. 166; E. Iaroslavschi, Tehnica la daci, Cluj-Napoca 1997, p. 161, pl. IX.

[26] G. D'Archiardi, *L'industria mineraria e metalurgica in Toscana al tempo degli Etruschi*, Studi Etruschi I, Firenze 1927, p. 411-420; R. J. Forbes, *Studies in Ancient Technology*, vol. IX, Leiden 1964, p. 181.

[27] Ch. Daremberg, E. Saglio (eds.), Dictionnaire des Antiquités Grecques et Romaines, s.v. *Ferrum*; R. Pleiner, Iron in Archaeology. The European Bloomery Smelters, Prague 2000, p. 106-113.

[28] S. Dušek, *Eisenschmelzöfen einer germanischen Siedlung bei Gera-Tinz*, Alt-Thüringen IX, Weimar 1967, p. 95-183.

[29] L. Roşu, E. Bujor, *Cuptoarele de redus minereul de fier din epocă geto-dacică descoperite la Cireşu*, RevMuz V, 4, 1968, p. 307-309.

[30] Z. Székely, *Contribuţie la studiul prelucrării fierului la dacii din sud-estul Transilvaniei*, Aluta. Revista Muzeului Naţional Secuiesc 12-13, Sfântu Gheorghe 1981, p. 31-34.

had been connected to bellows, the air flow still wouldn't have sufficed. Furthermore, the walls, shaped like a broken cap would have been unable to withstand a temperature as high as was needed to initiate the reduction process. In other words, the components of the furnace could not have offered structural resistance to the building and would have prevented proper ore reduction due to their size and composition[31]. For all these reasons the device from Cireşu was redefined as an ore roasting furnace, used in the preparatory phase of the reduction[32]. Their very large size as well as their construction features makes them significantly different from the ones used by contemporary European peoples.

Their brief description does not allow us to understand what the output looked like after roasting; apparently it was not homogeneous and did not have a compact mass. The temperature, not nearly high enough, allowed nonetheless for some light slag to form at the base of the furnace (all furnaces were located on gentle slopes) as well as for small lumps of ore, much richer in iron. Despite their iron content these lumps of ore cannot be considered "iron blooms" though this term may refer, throughout the European world, to various products having different shapes and sizes.

Most likely, the enriched ore was once again crushed, mixed with charcoal and then inserted into the reducing furnace.

The ore, whether or not roasted, contains iron alongside other elements. In order for the iron to form, these crystalline structures need to be broken and the oxygen atoms (as well as other atoms) need to be removed. Such a reaction requires heat and a reducing agent (a chemical agent with a higher capacity to produce oxides than the metal *per se*). In chemistry this is known as *a reduction process.*

In ferrous metallurgy this reducing chemical is carbon. At temperatures above 700°C, carbon and carbon monoxide extract oxygen from iron dioxide, FeO. This reaction produces carbon dioxide and iron. At higher temperatures this reaction is easily obtained[33].

$FeO + CO = Fe + CO_2$; $2FeO + C = 2Fe + CO_2$

Another possible chemical reaction is this[34]:

$3Fe_2O_3 + CO \rightarrow 2Fe_3O_4 + CO_2$

$Fe_3O_4 + CO \rightarrow 3FeO + CO_2$ $\qquad$ $FeO + CO \rightarrow Fe + CO_2$

In other words, charcoal (a fuel with great heat efficiency) combustion in a furnace will produce heat on the one hand and the reducing carbon monoxide on the other:

$O_2 + C \rightarrow CO_2$

$CO_2 + C \rightarrow 2CO$

[31] I. Glodariu, E. Iaroslavschi, op. cit., p. 31.

[32] E. Iaroslavschi, op. cit., p. 114.

[33] V. Serneels, *La chaîne opératoire de la sidérurgie ancienne*, in Groupe de travail Suisse d'Archéologie du Fer. Minerai, scoris, fer - Erze, Schlacken, Eisen: Technique des fouille-minerai, scories, fer. Cours d'initiation à l'étude de la métallurgie du fer ancienne et à l'identification des déchets de cette industrie, Basel 1997, p. 9-12.

[34] Idem, in M. Feugère, V. Serneels (éds.), Recherches sur l'économie du fer en Méditerranée nord-occidentale, Monographies Instrumentum 4, Montagnac 1998, p. 13.

At 700°C iron is not even close to its melting point. It remains solid, as do other compounds of the ore. At 1,100°-1,200°C the gangue reaches its melting point and liquefies while the metallic iron remains solid (more precisely it turns into a viscous paste). The liquid slag is separated from the iron. This is the direct method of iron reduction. It was spread throughout Europe (and beyond) and was used for a long time, until improvements allowed for higher temperatures to be attained and thus for other forms of reduction to be devised.

Recently, while trying to determine the place held by the Dacian ferrous metallurgy within ancient metallurgy[35], the methods of obtaining iron in Europe, at different times and in different places have been revised and Dacian devices have been compared to other similar devices whether older, contemporary or newer. In what follows, we shall present the main ideas of that (this study so as to better understand why the end products of such different devices in terms of form, technology as well as time frame can all be referred to as *iron bloom.*

Another method of obtaining iron was only discovered when it became possible for the furnaces to generate more heat for a longer period of time. This method allowed carbon to spread through the iron and generate pig-iron that has a lower melting point than iron. Two liquids resulted inside the furnace. On account of their different densities they could be separated and allowed to drain one after the other. This is the indirect method of iron reduction[36].The first blast furnace to produce pig-iron in Europe dates back to the 12th century but the method becomes widespread starting from the 16th century. We shall not insist on this particular method since the Dacians, like other contemporary civilizations, only used the direct reduction method that has to be seen as specific to the ancient period, though it was widely used in Europe until the 18th century and is used traditionally even today.

Various remains of Dacian furnaces have been found on a very extensive area but, unfortunately, their poor state of conservation did not allow a very accurate reconstruction. For instance no standing wall has yet been found; consequently, the actual height of the furnace walls had to be approximated. Most remains have been discovered inside the Carpathian arc: within or near the settlement of Grădiștea de Munte, the ancient *Sarmizegetusa Regia* (Valea Tâmpului, Sub Cununi, Vârtoape, Ohaba Ponor, Federi, Ponorici), Șercaia, Craiva, Teliuc, Cinciș, Cristian, Hărman, Copăcel, Doboșeni, Herculian, Sândominic, Pădureni, Biborțeni, Augustin, Tomești, Cârța, Mădăraș, Delnița, Cosmeni, Cașinu Nou, Bezid. Among noteworthy areas outside the Carpathian arc are the following: Bragadiru, Șirna, Teiu, Ulmetum and so on[37]. As a rule, the furnaces are found together with slag, both on the inside and on the outside but without the iron bloom. This makes sense as the removal of the bloom involves tearing down the walls

[35] E. Iaroslavschi, *Siderurgia dacică în cadrul metalurgiei europene,* in S. Nemeti, F. Fodorean, E. Nemeth, S. Cociș, I. Nemeti, M. Pîslaru (eds.), Dacia Felix. Studia Michaeli Bărbulescu Oblata, Cluj-Napoca 2007, p. 53-66.

[36] V. Serneels, op. cit., p. 13.

[37] Details and bibliography in E. Iaroslavschi, *Le fourneaux de reduction du minerai de fer chez les Daces,* in M. Feugère, M. Guștin (eds.), Iron, Blacksmith and Tools, Ancient European Crafts, Monographies Instrumentum 12, Montagnac 2000, p. 97-102.

of the furnace. There are a few exceptions to this rule: broken furnaces with the bloom still in place or located nearby, such as the ones found in Craiva[38], Şercaia[39], Teliuc[40], Copăcel[41], Sândominic[42] etc. However, because of their brief description and the lack of any photographs or drawings the only thing we know about them is the fact that they had a "round" shape. In all probability they are lost in museum storage rooms or perhaps in other places as we were unable to identify them. From the discussions that we had with their finders we found out that none of these iron blooms presented the typical cut of those discovered in the Orăştie Mountains.

In what furnaces are concerned, experts put forth different timelines, evolution patterns, radiation patterns that seem to present numerous similarities. They all agree, for instance, on the differences that exist between the furnaces (the type in which the ore is mixed with the fuel) whose walls are smaller than the diameter, *low furnaces,* and the furnaces whose walls are higher than the diameter, *blast furnaces*[43].

The Dacians used two types of furnaces: the first produced a single batch of iron and was subsequently abandoned; the other produced several batches.

The first category includes the furnace discovered at Şercaia[44] that we were able to reconstitute (Pl. XI/19, 2). The lower part presents a protrusion, a sort of tank, approximately 30 cm deep and 55 cm in diameter. Above ground the walls seem to have had an almost squared shape, rounded during the building process so that their final shape was that of a truncated cone. Local clay was used for their construction; about a third of their original height was preserved (~25 cm). The hearth was full of slag that still had a round iron bloom on top of it with the diameters 38 × 27 cm. On the inside, the walls presented burn marks 2-3 cm deep. As for the furnace from Copăcel, the author of the discovery[45] mentions, without providing any further details, that the remains as well as the iron bloom are similar to those discovered at Şercaia.

This type of furnace, 50-60 cm high and no more than 1 m in diameter, produced a single batch of material. As a result of the required physical and chemical reactions, an iron bloom was obtained; it could be removed only by dismantlement, be it only partial, of the walls. A new operation meant that a new installation had to be built.

The second type of furnace can be reconstituted based only on the discoveries from Doboşeni[46], in the lowlands of the Eastern Carpathians. Two furnaces were partially investigated there, they were found on a hillside and they had a circular section and a flat bottom. The diameter of the bottom was of about 80-90 cm while the height of the standing portion of the walls varied from 60 to 100 cm. In front of the furnaces

[38] V. Wollmann, *Valoarea cercetărilor metalografice pentru studierea unor descoperiri arheologice*, Apulum IX, 1971, p. 283-292.

[39] I. Glodariu, E. Iaroslavschi, op. cit., p. 23.

[40] O. Floca, M. Valea, *Villa rustica şi necropola daco-romană de la Cinciş*, ActaMN II, 1965, p. 165-166.

[41] Fl. Costea, *Aşezarea dacică de la Copăcel*, ActaMP V, 1981, p. 171-173.

[42] L. Barabaşi, *Din istoria metalurgiei pe teritoriul jud. Harghita*, SympThrac 5, 1987, p. 14-15.

[43] J. Ramin, *La technique minière et métallurgique des Anciens*, Latomus 153, 1977, p. 120-122.

[44] I. Glodariu, E. Iaroslavschi, op. cit., p. 23.

[45] Fl. Costea, op. cit., p. 171-173.

[46] Z. Székely, *Raport preliminar asupra sondajelor efectuate de Muzeul Regional din Sf. Gheorghe în anul 1956*, MCA V, 1959, p. 231-233.

and close by wall fragments and two panes were discovered, the latter were made of burnt clay and they were shaped as a half-disc with an opening in the middle; this is where a tube (also made of burnt clay) used to be inserted in order to blow air inside. A lot of slag, chalkstone (probably used as flux), iron ore as well as Dacian ceramics were discovered around this area[47]. This type of furnace had a flat bottom, 80-90 cm in diameter; part of the wall was made by sparing the hillside slope while the front side was built of local earth. The furnace narrows towards the top, the inside resembling a truncated cone. It was 1 m tall, reaching the natural hillside slope (and went beyond it in some cases). In the front there was an opening shaped like a half-disk where a "door" used to go (the burnt clay pieces previously described) (Pl. XI/19, 1). It was through this opening that the air pipe was inserted. When the reduction process was complete the iron was removed by simply dismantling the "door", the device remaining intact. The inside of the furnace was cleaned and could then be reused, the door was set in its place and the process resumed. It is hard to estimate how many times this operation could be repeated: the furnace still degraded with every use so that it would eventually be abandoned.

This is the furnace that could produce several batches of material. Judging by its size (it was larger than the first type) it had a higher productivity and was thus of a superior kind. Unfortunately the iron resulting from the reduction process was not found. The author of the discovery stated that both furnaces had a flat bottom, without mentioning whether it went any deeper (and if yes, how much so) than the half-disc opening - "the door". Thus, we do not know if the tank was large enough to collect all the slag on top of which the iron bloom would emerge. If the distance between the bottom and the lower end of the "door" was insufficient, the slag might not have gathered properly preventing the formation of the iron bloom (on top of the slag and thus, a little lower than the half-disc opening).

According to available data it is likely for the resulting iron blooms to be quite different from the hundreds discovered in the area of Sarmizegetusa Regia (obtained in single batch furnaces). The poor conservation state of the artifacts from Doboșeni did not allow archaeologists to see where the disc was placed. In 1979, when "Civilizația fierului la daci" was published, a reconstitution placed the disc a bit higher than the bottom of the furnace; as a result, the air hole was placed even higher. However, had the "door" been placed at the bottom of the furnace the end product as well as the shape of the "iron bloom" would have been quite different.

In other areas of Europe, in furnaces with slag evacuation systems, the end-product was a spongy iron accompanied by large quantities of residual material, i.e. slag. This had to be further processed, in order to obtain the desired quality [48].

We also tried to use some rather sketchy information according to which, in the lowlands of the Eastern Carpathians, in Sândominic (Harghita County) the remains

[47] V. Crișan, op. cit., p. 40.

[48] V. Serneels, op. cit., p. 10-11; see also L. Eschenlohr, *La méthode directe de reduction du minerais de fer en bas fourneau*, in Groupe de travail Suisse d'Archéologie du Fer. Minerai, scoris, fer - Erze, Schlacken, Eisen: Technique des fouille-minerai, scories, fer. Cours d'initiation à l'étude de la métallurgie du fer ancienne et à l'identification des déchets de cette industrie, Basel 1997, p. 17-28.

of a furnace consisting of "ceramic panes for the mouth that supported the air tube for the bellows" and an "iron bloom" were found. Unfortunately, the discovery was not published and its brief mention in an abstract is not enlightening[49]. It would have been interesting to see if the iron bloom was or not similar to those found around the Dacian capital. Furthermore the large, spongy lumps, weighing tens of kilograms[50], frequently discovered in the metallurgical area of Ciuc, have to be investigated.

Until further data is gathered as to the furnaces used in eastern Transylvania, we can only assume, based on the few construction details that we know as well as on the size and shape of the lumps, that the device was similar to those used in western Europe (that allowed the evacuation of slag and produced a rather impure "iron sponge").

The situation is not out of the ordinary, it merely completes a long series of discoveries pertaining to nations contemporary with the Dacians. Just as in our case, metallurgical centers are found mostly in mountainous areas: the Carpathians, the Alps or the Pyrenees mountains[51]. Some of them were in use before the Latène period though most developed especially during the second Iron Age and went as far as the Roman and post-Roman ages. They all began by exploiting the ore found on the surface; some resources were exploited in depth and for a long period of time. Roasting remains abound in these areas, the resulting piles of slag being reused as raw material in modern furnaces.

The study of metallurgical areas, with hundreds of furnaces, has been useful in establishing typologies - slightly different at times but mostly complementary, facilitating further research. The experts distinguish several types and versions, perhaps not always acceptable, but understandable taking into consideration the fact that the excavations has been carried out over different periods of time and in different manners and given as the area of expertise of the researcher-in-chief. Modern efforts strive to implement shared excavation techniques, a unity of language as well as simplified exchange of information between specialists. This will surely lead to a development of what is already considered to be "the archaeology of iron"[52].

In accordance with widely used criteria, a first classification of ancient furnaces involves a first category of furnaces that do not posses a slag elimination system and a second type that do. In order to include a furnace into a category or the other, remains of the walls, the "door", the tubes, the slag-bell (shaped or discharged), the iron blooms and the "sponges" are closely analyzed.

As a rule, the earth used for building the walls came from the close vicinity of the chosen spot. It is believed that the shape of the furnace was more important than the material in the roasting process. The typological variety of the equipment is also remarkable - though the state of conservation does not always allow for a detailed reconstitution.

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[49] L. Barabaşi, op. cit., p. 14-15.

[50] P. Iános, D. Kovács, op. cit., p. 43-53.

[51] For a vast bibliography use C. Dunikowski, S. Cabboi, La sidérurgie chez les Sénons: les ateliers celtiques et gallo-romains des Clérimois (Yonne), Documents d'Archéologie Française 51, Paris 1995, p. 178-180.

[52] E. Iaroslavschi, Tehnica la daci, Cluj-Napoca, 1997, p. 8.

In general, furnaces with exterior slag elimination systems were used several times: this is proven by the reconditioning of the walls and their small number as compared to the huge quantity of slag that was found. As for the furnaces with slag discharged on the interior, at the base of the tank, they were used only once. Most of the slag can still be found in the scooped part of the furnace. In order to obtain a certain quantity of iron, several furnaces were used[53]. Perhaps the best example of a place harboring a real "furnace field" (hundreds of them) can be found in Poland - in the Swietokrzyskie Mountains. In these furnaces the slag would take the shape of the tank, becoming almost cylindrical, such as a cask or a cap. Often, when the air intake hole was low, part of the liquid slag occupied the end of the draft tube or canal reason for which the bulk would present a beak-like growth [54].

Records mention in Europe: natural air-flow furnaces with drained slag, furnaces with bellows and drained slag, natural air-flow furnaces or furnaces with bellows and interior or exterior slag draining systems, furnaces with bellows and slag pit furnaces - especially in Northern and Eastern Europe[55]. Other types, spread over a smaller area, are the Catalan furnaces (in the North-Western Mediterranean area) and the Evenstad furnaces (in Norway and Sweden)[56]; they belong to a later age and so will not be discussed in the present study.

Air has a very important role in initiating and maintaining the reduction process; more precisely, the oxygen intake allows reaching high enough temperatures and facilitates the production of chemical reactions. There is still the question of whether the induced draught was an accidental discovery or whether there were several stages in its development. The use of an artificial ventilation system was noticed on several occasions, this was performed by the means of blowpipes attached to bellows or simply by the means of bellows, without any ceramic tubes. The orientation of the holes in the furnace walls proves that, although the rule was for oxygenated air to be directed diagonally towards the bottom of the furnace, where it was meant to reach the maximum temperature, there were cases in which the air flow was performed from the top or from the bottom through one or more horizontal openings - the arrangement of the tubes being bifid or even trifid.

At a certain point, natural draught was thought to be the main feature of archaic metallurgy. We now know that it coexisted for several centuries with induced draught. Natural air-flow furnaces (with one or more side openings and/or several openings in the "door") seemed to be taller than their bellow-using counterparts. But since the furnaces whose original height is known are very scarce this is more of a hypothesis than a proven fact. Artificial ventilation was achieved with the help of several blowpipes inserted into an opening in the wall or in a mobile perforated piece (usually this was placed at the front of the furnace, at different heights,

[53] L. Eschenlohr, op. cit., p. 20.

[54] K. Bielenin, Starozytne hutnictwo Swietokrzyskie, Warszawa 1969, passim; idem, *Dla Kogo produkowana zeleza w Gorach Swietokrzyskich*, Otchlani Wiekow XXXIV, Warszawa 1968, passim; R. Pleiner, op. cit., p. 71, fig. 18.

[55] R. Pleiner, op. cit., p. 259-261, fig. 68-69.

[56] L. Eschenlohr, op. cit., p. 20.

oriented toward the base). With the passage of time the size of the mobile clay components as well as that of the transversal tubes - known in the German and French literatures as *"Düse"* and *"tuyère"* respectively - changed[57]. Made out of clay, they present a large variety of sizes. Generally speaking, their thickness corresponds to that of the furnace walls and the main identified shapes are right-angled or trapezoidal. The tubes inserted into the nozzles or directly into the wall of the furnace also come in different sizes; they are often cylindrical, with the end pointing to the furnace slightly contracted, like a truncated cone or a funnel[58]. The inside diameter of those found in Dacia is only a few centimeters large, while the walls are ~1 cm thick. Funnel-shaped tubes dating back to the Roman age have also been discovered on the Dacian territory alongside cylindrical ones. Such items have been discovered at Şoşdea[59], Fizeş[60] while others have been identified over a larger area through surface investigations[61].

The existence of two types of ventilation for the two main categories of furnaces is not always easy to identify. There are furnaces with the slag gathered at the bottom, with evidence of bellow usage, as well as furnaces without such particularities; this led to the assumption that they used a natural draught. But this is not a phenomenon that evolves in time or space. Any clue might prove valuable and a lot of interest was shown lately in collecting and garnering all possible details, in the hope of obtaining a full picture. Still, all available data must be carefully examined because of the insufficient number of discoveries. The absence of tubes is not sufficient to proclaim the general use of a natural draught.

Explaining the plan of a Latène furnace, L. Eschenlohr speaks about an installation that presents two nozzles: one in the front, the other one in the rear as well as two more orifices on the sides[62], meaning that air was introduced from four sides. The same author presents a simplified layout of furnaces (Pl. XII/20). The furnaces in the second group (called "furnaces with vertical slag separation") are very similar to the ones used by the Dacians. The furnaces in pictures 2.1 and 2.2 (Pl. XII/20) belong to the 1st type of Dacian reduction devices (Pl. XI/19) while the one in picture 2.3 (Pl. XII/20) discovered on the Czech territory[63] is identical to those from Dobogeni (that could produce several batches).

The same pictures may be found in the study of V. Serneels; according to the Swiss researcher, both types are typical of Northern and Eastern Europe[64].

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[57] Idem, op. cit., p. 19.

[58] Modifications tend to happen during usage, coming into contact with the large temperatures inside the furnace they tend to vitrify and change shape; see R. Pleiner, op. cit., p. 204-211, fig. 55-57.

[59] E. Iaroslavschi, *Cuptoarele de redus minereul de fier de la Şoşdea, jud. Caraş-Severin*, ActaMN XIII, 1976, p. 231-237.

[60] E. Iaroslavschi, R. Petrovszky, *Cuptoarele pentru redus minereul de fier de la Fizeş, jud. Caraş-Severin*, Tibiscus III, Timişoara 1974, p. 147-155.

[61] E. Iaroslavshi, G. Lazarovici, *Vestigii arheologice în bazinul Caraşului*, ActaMN XVI, 1979, p. 447-464.

[62] L. Eschenlohr, op. cit., p. 17, fig. 4.

[63] K. Motykova, R. Pleiner, *Die römerzeitliche Siedlung mit Eisenhütten in Ořech bei Prag*, Památky Arch. 78, 1987, p. 371-448.

[64] V. Serneels, op. cit., p. 16, fig. 10.

As to the Dacian furnaces, discoveries so far would suggest that a single type of air inducing equipment was used, a hypothesis also sustained by the shape of the iron blooms specific to this area. We of course hope that new discoveries in the Eastern Carpathians will shed more light on the shape of the end product from furnaces that produced more than one batch.

But let us have a closer look at the reduction process in a Dacian furnace. As previously mentioned the iron ore, enriched, roasted and crushed, was introduced in the furnace through its upper part and was placed in layers alternated by charcoal. Charcoal is a fuel with high caloric efficiency, obtained through the dry distillation of wood, in the absence of air, in pits with the upper side covered so as to moderate the burning process. Unfortunately such pits are not clearly signaled by Romanian archaeologists. This is understandable given the fact that before being found in large numbers in settlements from Poland, Germany, former Czechoslovakia[65] and other countries, their function was unknown; powdered coal found on the bottom was not enough to explain it[66].

Along with charcoal[67] and ore other rocks acting as fluxes were introduced. They were meant to speed up the process by lowering the reduction temperature and allowing the slag to form more easily[68].

The burning once initiated in the lower part of the furnace, filled with charcoal and a little dried wood, was maintained and amplified by the use of bellows. The blowpipes were inclined against the wall of the furnace, as proven by the deposits of slag on one end (noticed at Șercaia). This arrangement of the tubes was identical in all western European furnaces; this way, a maximum temperature was reached at the bottom and a lower one towards the top.

Metallographic analyses conducted in several laboratories from around the world proved that it was possible to attain high temperatures in the furnaces (1,300-1,450°C), not high enough to melt iron but sufficient to initiate and maintain the reduction process. In the first stage the ore is aggregated, the second stage corresponds to the beginning of the gradual reduction process (small grains appear in the ore), another stage is that of an advanced reduction while in the last stage the drops and the viscous metallic iron grains bind together, producing the iron bloom. At this stage, the melting of the earthen compounds also ends; along with a significant quantity of iron they will descend in the tank thus forming the slag[69].

The round/oval iron bloom can be found on top of this slag. Being heavier than the slag, the lower side of the bloom will sink slightly into the slag and acquire a

[65] R. Pleiner, Základy slovanskeho zeleárského v ceskych zemich, Prague 1958, p. 62-70.

[66] Idem, Iron in Archaeology. The European Bloomery Smelters, Prague 2008, p. 118-126, fig. 29-32.

[67] It is highly possible that part of the charcoal was obtained by using pile mounds covered by thin layers of earth. An attempt to recreate the method allowed us to recreate such a pile mound at Sarmizegetusa Regia so that in only two days a charcoal batch of excellent quality was obtained. See D. Sima, *Combustibili în antichitate. Obținerea mangalului între arheologie experimentală și etnografie*, in C. Gaiu, H. Bodale (eds.), Centru și periferie, Lucrările colocviului național, Bistrița 23-25 aprilie 2004, Cluj-Napoca 2004, p. 35-44.

[68] For fluxes used in Dacia and elsewhere see E. Iaroslavschi, Tehnica la daci, Cluj-Napoca 1997, p. 55.

[69] V. Wollmann, op. cit., p. 287-288.

smooth appearance. The upper side however is concave and has a rougher texture because of the air-flow injected by the bellows. This same air flow lead impurities in the region corresponding to the end of the clay tube. In order to eliminate them, right after the bloom's removal from the furnace, that portion was cropped out; this is why the Dacian iron blooms are similar to a round piece of cheese with a triangle cut out (Pl. IV/6; V/7; VI/8; VII/9).

Since all Dacian iron blooms present an only cropping we may safely assume that an induced draught, generated by a single bellow, was the method of choice every time. The cut was made with the help of massive, well tempered tools, with a wide drilling edge. Though most iron blooms were not cleaned of rust and properly preserved, one can easily see that after the removal of the triangle, the edges are smooth, straight, as if made by a skilled metal smith with one mighty hammer blow.

Within the large array of Dacian iron blacksmith tools we noticed a specialization for the most diverse operations. We believe that some of these tools could be successfully used to grab, handle and crop out the unwanted portion of the massive iron bloom[70].

No such removed triangle has ever been found. This is understandable as the operation was performed right after the removal of the iron blooms from the furnaces; moreover the iron blooms discussed in the present article were all discovered in the settlements and fortresses from the Orăștie Mountains. We believe those triangles were not thrown away, but kept, and then added to a new batch after previous crushing.

The purity of the iron blooms is exceptional; the iron concentration in some cases is above 99%. Such an iron is soft[71] and has to be treated in order to be used: by beating, carburetion and tempering the iron modifies its chemical properties and becomes steel[72]. The process would take place in forges, in devices such as those from "Căprăreața" [73] or in furnaces with deep tanks, like the on from Piatra Craivii[74].

Unfortunately we cannot say much about the iron obtained in multi-batch furnaces (from Dobogeni and nearby areas). However there are many similarities between these furnaces and the ones with nozzles or ventilation bricks from the northern Alps. The "door" or "gate" mentioned previously has a rounded upper part; it's taller, wider and less thick than the walls of the furnace[75]. We may safely say that Dacian installa-

[70] See for example the tongs from I. Glodariu, E. Iaroslavschi, op. cit., fig. 13/1-9, the sledgehammers in fig. 10/1-7; the axes in fig. 12/1-4; the chisels in fig. 18/4-5 and so on.

[71] Idem, op. cit., p. 33, tab. II, no. 1.

[72] E. Iaroslavschi, op. cit., p. 88-95.

[73] I. Glodariu, *Un atelier de făurărie la Sarmizegetusa dacică*, ActaMN XII, 1975, p. 107-134.

[74] V. Wollmann, believes this is "a reheating hearth for iron beating" and that the batch of iron inside it, 20 cm in diameter, is a semi finished product that had already undergone the desired transformation. "Considering the carbon (1.94%) as well as the iron content as a classification criterion, it becomes clear that we are dealing with steel" cf. V. Wollmann, op. cit., p. 288.

[75] This type of furnace, with an identical door but belonging to a later age was found in Somogyfajsz (Hungary) and in Nemeskér. Its replica can be seen at the Sopron Museum; see J. Gömöri, *The Bloomery Museum at Somogyfajsz (Hungary) and some Archaeo-metallurgical Sites in Pannonia from the Avar and Early Hungarian Period*, Journal of Metallurgy. Association of Metallurgical Engineers in Serbia AME, Beograd 2006, p. 183-196.

tions were similar to their Roman, Celtic or Germanic counterparts, the high quality iron proving their comparable efficiency.

All iron blooms discovered in the Sarmizegetusa Regia region belong to the same period: end of 1st century-beginning of 2nd century AD. Both, the iron blooms discovered in underground deposits and the ones recovered from workshops, burnt down in 106 AD were meant to be transformed in order to meet the needs for the final confrontation with Rome. We are certain about this timeline mainly because all blooms come from an enclosed area, where the only certified civilization is that the Dacians', whose evolution abruptly ends as a result of the Daco-Roman wars.

In what follows we shall have a look at how Dacian iron blooms from around the capital compared to other contemporary European blooms.

We noticed that numerous studies use the name "iron bloom" to designate various lumps of iron that differ not only in shape, in size but also as regards their production technique.

In most parts of Central and Western Europe, where furnaces that produced "iron sponges" were numerous the end product referred to as "iron bloom" are the "iron sponges" refined in a low furnace. In fact this is a lump of refined metal, be it iron or steel. The bloom has already been hammer-wrought, and may have been shaped so as to facilitate further transformation (such as rectangular-section bars)[76]. The German historians, known for their careful choice of terminology, call the blooms resulted from direct reduction in furnaces with outside slag discharge "*Schmiedeluppe*", differentiating them from those obtained indirectly called "*Luppe*" equivalent of the French "*renard*" (a result of pig iron refining)[77]. The opinion according to which it is possible for the product resulted from sponge refining to have regular shapes, including quadrilateral sections, such as ingots, may give rise to confusions. Usually ingots are thought to be the result of raw iron modeling whereas when made from nonferrous, fusible metals they were obtained by casting.

In general terms, ingots are defined as pieces of molded metal, coming in different shapes and sizes and meant to be stored, transported and traded. We believe these items cannot be defined as iron blooms and that such confusions ought to be avoided[78].

Sometimes iron sponges themselves were called "blooms". In a recent paper about European metalworking industry[79] R. Pleiner observes that "some iron blooms discovered on archaeological dig sites were left unwrought, while others had been subjected to certain operations, at least in the preliminary phases of forging".

Iron sponges obtained in western furnaces are often impure, containing slag. After the reduction process, the resulting product had to be refined. The "sponge" was refined as a whole or in several smaller pieces. If the bloom was hammer-wrought out

[76] See V. Serneels et alii, *Vocabulaire raisonné de la sidérurgie ancienne*, in Techique des fouilles - minerai, scories, fer. Cours d'initiation à l'étude de la métallurgie du fer ancienne et à l'identification des déchets de cette industrie, Basel 1997, p. 79.

[77] Idem, op. cit., p. 79-80.

[78] The subject is worthy of further research, so that we mean to dedicate a future study to the various categories of Dacian ingots.

[79] R. Pleiner, op. cit., p. 230.

of the furnace, the same operation was also important in order to consolidate the slag that contained numerous alveoli. The quality of the iron also changes after being hammer-wrought, the quantity of impurities decreases and the iron becomes harder due to carbon and phosphorous assimilation. Carbon has the property of hardening iron while also lowering its melting point; similarly, phosphorous also slightly increases hardness but its main function is to facilitate welding and protect against corrosion. Too much phosphorous however could make the iron brittle.

Though carbon, phosphorous and slag were unevenly spread within the iron sponge, a skilled blacksmith could nonetheless obtain a homogenous content after the required refining processes: the desired elements (carbon and phosphorous) were retained, while the slag was removed.

Unlike the iron obtained from iron sponges, the one obtained from blooms produced in one batch furnaces, with slag evacuated at the bottom, has a higher purity, it is more malleable, contains very low amounts of carbon and because of this it had to be carburized before it could be tempered.

The names given to the metal products resulted from direct reduction, irrespectively of the furnace type, are numerous, according to the country they were discovered in. The English term is "bloom", from the old English where "bloma" meant iron lump. In other languages, the term derives from local words ("Stuck", "kus", "kos") and from the Latin *"massa"/"massa ferri"* hence terms like "masella", "mass", meaning piece, lump[80]. R. Pleiner believes terms such as "Luppe", "loupe de fer", "lupa", "lupka", "vlk" derive from the Latin: *lupus* - wolf. It is our belief that the root word bears no connection to the animal but rather to the optical instrument to which its shape resembles: the magnifying glass. Indeed, the way in which the metal cools down and solidifies forming small deposits in the earth, leads to the formation of round or oval lumps, with a plan-convex profile that resembles that of optical lenses. The apparatus used to enlarge pictures, the magnifying glass (in French *"loupe"*, in German *"Luppe"*) can thus be found at the origin the name. A very similar comparison led to the Romanian term *"turte"*, another word used to designate blooms.

The Czech term "vlk" meaning "bloom" is quite probably a consequence of translating the word *"loupe/luppe"* by "wolf". There are other terms derived from Germanic languages such as "Deul", "dejl", "plik", the Russian "kritsa", the Hungarian "buca" and the Irish "caer"[81].

One of the oldest iron blooms ever found, belonging to the Kyjatice culture (HaB_3 - 8th century BC) was discovered in a pit in Šafárikovo (Southern Slovakia - 12 × 10.5 × 6 cm; 2.43 kg). Given the scarcity of iron at that time this quantity of metal is remarkable: it could be processed into 3 long swords, 6-8 axe heads or several hundred small knives[82]. Other early blooms are mentioned at Krásna Hôrka (2 kg), Jasov-Fajka (1.5 kg), Berezan, near Olbia, at Nový Smokovec (13 pieces) and Radovesice (North-Western Bohemia), Magdalensburg (Carinthia). All the loca-

[80] Ibidem.
[81] Ibidem.
[82] Idem, op. cit., p. 231.

tions[83] mentioned above produced blooms similar to those we previously discussed, albeit smaller and without the specific cropping.

In Romania, ironworking traditions date back a very long time. Apart from having a long tradition, the metallurgy of non-ferrous metals as well as that of bronze was also very well developed: items produced in Transylvania reached places located at considerable distances away, both to the north-west and to the east[84]. The so called metal-foundry deposits, comprising thousands of pieces, contain alongside broken tools and weapons, numerous iron blooms, the result of recycling such artifacts. The bronze blooms from Uioara have a similar shape, a plan-convex profile, a height over 5 cm and diameters of 15 to 25 cm.

They all contain a certain amount of iron that betrays its presence by appearing in the form of rusty crusts on the greenish patina. All of them date back to the HaA, and are similar to others found in nearby areas (dated in Bronze A): for example the iron bloom from Palatca, 26.5 cm in diameter, 5.2 cm in height, with 3,07% Fe[85].

No iron bloom dating back to the Romanian Hallstatt period has been so far discovered[86], though other metal objects dating back to the said period have been found. The terms referring to blooms of different sizes, shapes, ranging from Prehistory to the Modern Ages are very numerous; the round blooms, with a typical "V" cut, discovered in small numbers on the European territory, are referred to as "split blooms", regardless of their time frame[87].

We believe this name to be improper - as previously explained the blooms are not merely *split* but rather *cut* as the part containing impurities brought in by the bellows was *clipped out*. Indeed, the author of naming himself writes that the clipping was performed while the bloom was hot, by the means of strong axes[88]. In our opinion, other tools were used in the process as well with the purpose of ensuring a greater homogeneity to the entire surface of the bloom. Thus we think it is better to refer to these artifacts as "*clipped blooms*".

In the area of the Dacian capital, Sarmizegetusa Regia, special circumstances allow archaeologists to precisely date artifacts to the 1st century AD-beginning of the 2nd century AD in other areas, the chronology is not as easily established. They are generally believed to belong to the early or even to the high middle Ages[89]. An exception from these European timelines might be the Hungarian clipped blooms, weighing up to 60 kg and dated back to the Roman period by some experts, though others believe them to be much more recent[90].

[83] Idem, op. cit., p. 231-233.

[84] M. Petrescu-Dâmboviţa, Depozitele de bronzuri din România, Bucureşti 1977; T. Soroceanu, Vasele de metal prescitice de pe actualul teritoriu al României, Bistriţa - Cluj-Napoca 2008.

[85] Thanks to information from M. Rotea, M. Wittenberger.

[86] I. Glodariu, E. Iaroslavschi, op. cit., p. 12; M. Rusu, *Începuturile metalurgiei fierului în Transilvania*, in H. Daicoviciu (ed.), In memoriam Constantini Daicoviciu, Cluj-Napoca 1974, p. 349-360.

[87] R. Pleiner, op. cit., p. 238.

[88] Ibidem.

[89] Idem, op. cit., p. 240.

[90] See J. Gömöri, op. cit., p. 85; Z. Hegedüs, *Loupes de fer dans les musées hongrois*, Revue d'Histoire de la Sidérurgie III, Nancy 1962-1963, p. 197-208.

Many opinions were put forth as to the reasons why blacksmiths made these clippings. Some of them are rather amusing and can't be taken seriously so we shall leave them aside on this occasion. The following theory is partly correct and is worth mentioning: "A careful examination clearly shows these bloom were split while still hot, with a single blow from an axe. The reason is obvious: a deep cut allowed workers to observe whether the iron was suitably hardened and thus to appreciate its quality while also allowing for the bloom to be split in half for future processing or trading"[91].

We do agree that the cut was performed while the iron was still hot and that examining the internal aspect of the section allowed buyers to determine the quality of the bloom, both while it was still hot as well as after cooling. In case the buyer was interested in a quality check, he had a benchmark on which to negotiate the price.

But this was not the main reasoning behind the clipping. We believe the blacksmiths noticed the homogenous structure of the bloom and its constant purity. The exception was the part close to the end mouth of the bellows, where induced air deformed the shape of the bloom and inserted impurities (slag, grit). These parts, less pure, were clipped out which left a homogenous purity level on the entire surface of the bloom; the price could thus be established by simply measuring the bloom's weight. This is why certain blooms have two or even three clippings, depending how many air-inducing devices were used[92] - one clipping would have been enough for quality control purposes.

The clipped blooms discovered so far, though not very numerous, are spread from the Middle East to Western Europe (up the Spanish coastline and Ireland) while on the North-South axis they range from Scandinavia to Bulgaria[93] (Pl. XIII/21). Nowhere were they found in such great numbers, dating back to such early times and on such a small area.

Regardless of the geographical area where clipped blooms were produced, experts agree that the process took place near the furnace, while the bloom was still hot. A solid support was needed for this: it could a big rock or an anvil. Unfortunately, in our country, mountain archaeology is not sufficiently advanced so that areas believed to contain remains of furnaces have not been investigated[94].

Thousands of iron blooms from single use furnaces have been found and attributed to the Dacian period. This means thousands of furnace remains are still to be identified - let us hope - in the not so distant future. We believe their remains to be located not very far away from the blooms; otherwise the treasure hunters would have surely stumbled upon them. We remind the reader that most of these blooms were found by treasure hunter. If metal detectors had identified slag filled furnaces, they

[91] R. Pleiner, op. cit., p. 238.

[92] Idem, op cit., p. 239, fig. 64/8-9 - blooms with three clippings, at p. 232, fig. 62/8, a bloom that seems to have the part close to the mouth of the bellows.

[93] Almost all are dated in the Middle Ages however; R. Pleiner, op. cit., p. 241-243.

[94] St. Ferenczi, *Premisele naturale ale metalurgiei fierului în Munții Orăștiei*, Studii și Comunicări II, Caransebeș 1977, p. 299-309; H. Daicoviciu, St. Ferenczi, I. Glodariu, Cetăți și așezări dacice în sud-vestul Transilvaniei, București 1989, p. 50.

would have signaled their presence and treasure hunters would have very probably unearthed them. At our turn, we would have identified the corresponding excavation sites together with their inventory.

We believe that a careful reexamination of the so-called "metallurgical quadrilateral" will shed some light on the places where the ore was collected or extracted, enriched, reduced, as well as on the intensity of such activities.

The identification of large metallurgical centers dating back to Ancient times is facilitated by the large quantities of slag that were left behind, raw material for modern furnaces. Etruscans[95], Celts[96] and other people[97], left tons of slag behind, proof of their intense metallurgical activities; nonetheless the number of iron blooms, ingots, tools or weapons discovered is rather small.

In contrast, the quantity of iron blooms, ingots, tools, weapons as well as other commodities and construction materials found around the Dacian capital is huge, despite the fact that the number of identified furnaces (as well as the quantity of slag) is rather small. We are not aware of such a large array of tools and in such great numbers being found in any another place in Europe. Moreover, the variety of these tools increases year after year. In 1979, when "Civilizația fierului la daci"[98] was published, a large number of items were illustrated - nowadays that number has increased exponentially[99]. Assuming that an anvil suggests a workshop nearby, this means that the 27 massive anvils (some over 50 kg) discovered alongside slag and other metal items at Sarmizegetusa Regia, prove the existence of an exceptional metallurgical centre in this area both in terms of size and output during the golden age of the Dacian civilization.

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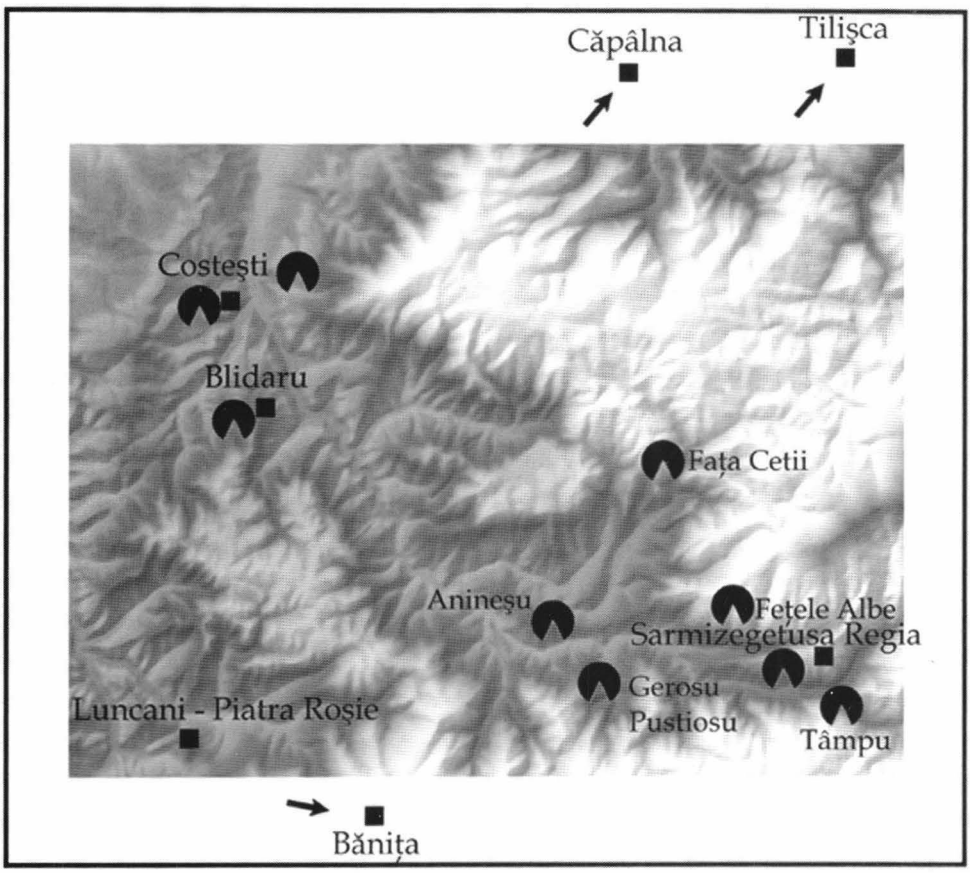
[95] R. Bloch, Etruscii, Bucureşti 1966, p. 111.

[96] Ch. Danikovski, S. Cabboi, La sidérurgie chez les Senons; les ateliers celtiques et gallo-romains des Clerimois (Yonne), Documents d'Archéologie Française 51, Paris 1995.

[97] S. Dušek, op. cit., p. 95-183; R. Pleiner, op.cit., p. 36-46.

[98] I. Glodariu, E. Iaroslavschi, op. cit., fig. 6-73.

[99] The researchers already work on monographs referring to the fortresses, settlements and artifacts; one of them is dedicated to iron working.



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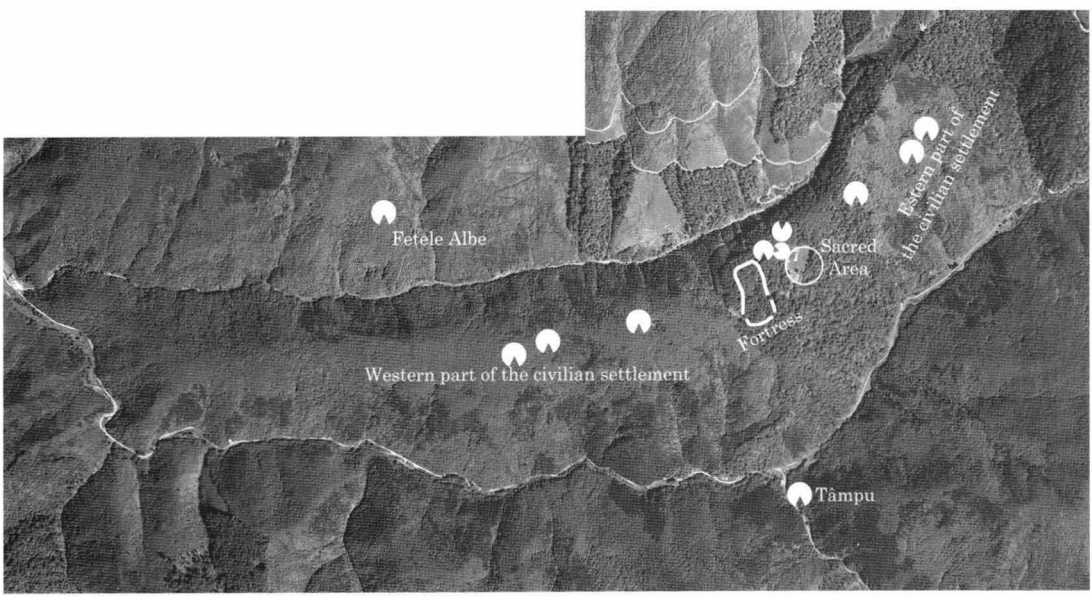

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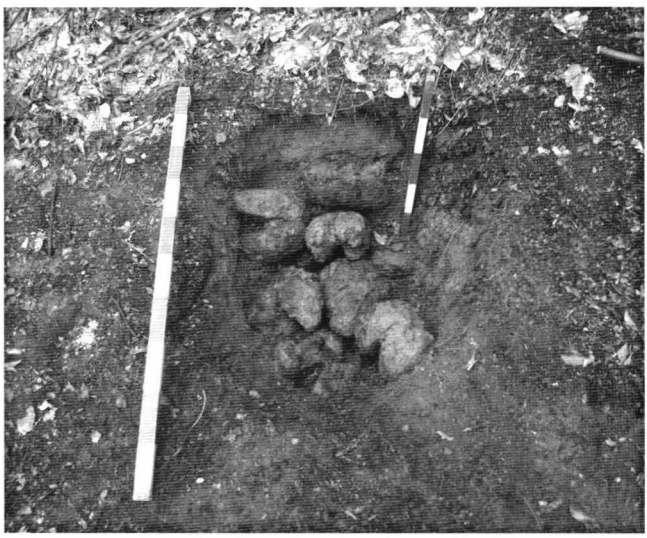
Pl. I. 1. Orăștie Mountains. Map of the main areas presenting clipped iron bloom deposits; **2.** Sarmizegetusa Regia. Map of the main areas presenting clipped iron bloom deposits.

a



b

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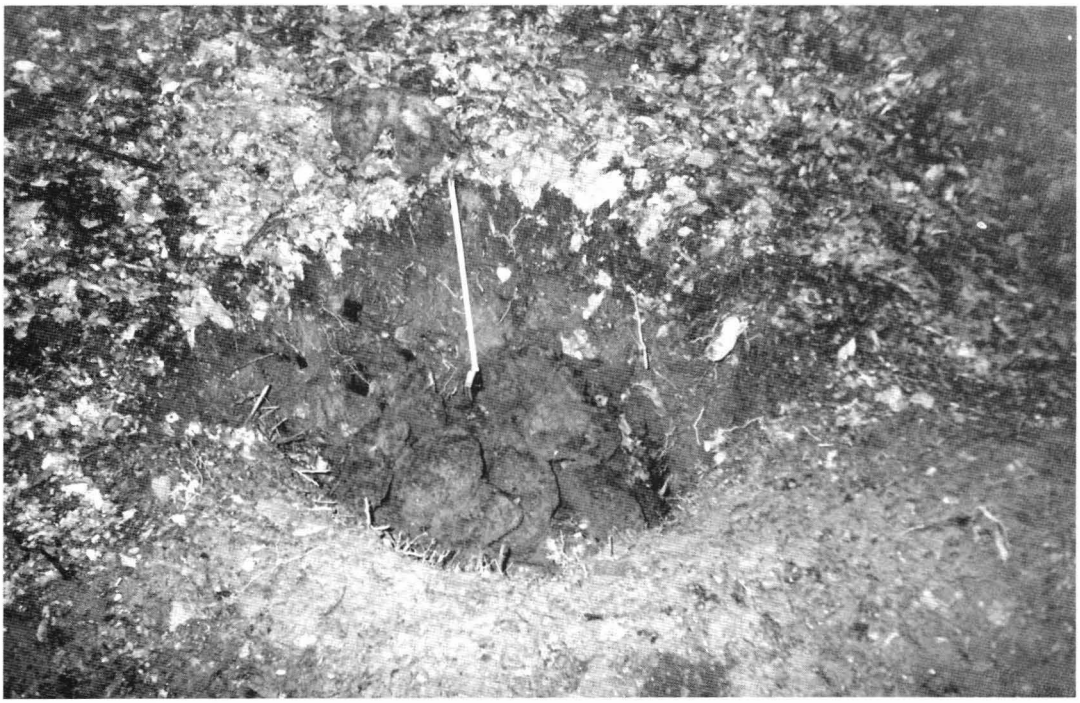
Pl. II. 3. Treasure hunters' hole, full of iron blooms (photos of the authors).



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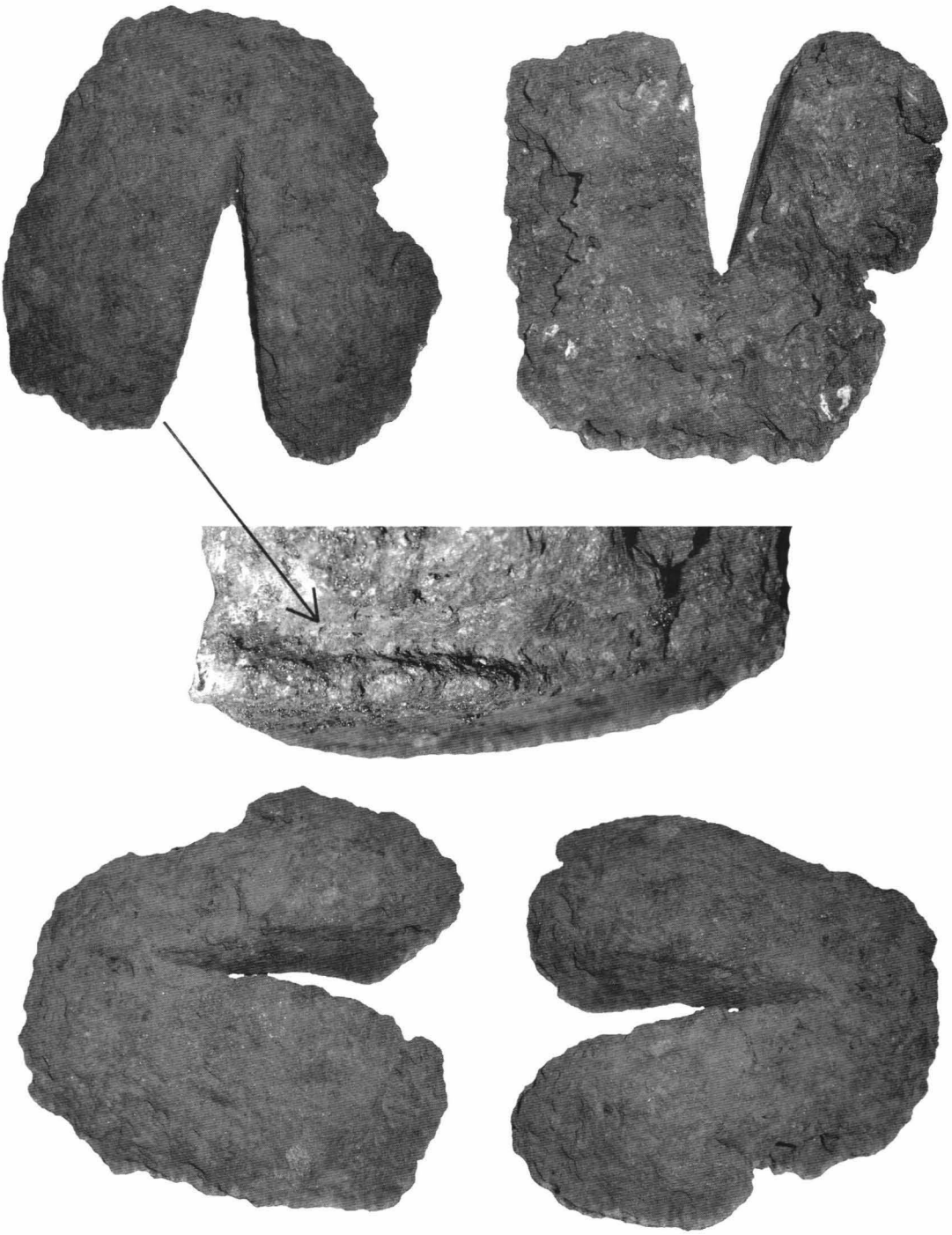
Pl. III. 4. Treasure hunters' hole, full of iron blooms; **5.** Clipped iron bloom deposit found at Sarmizegetusa Regia (photos of the authors).



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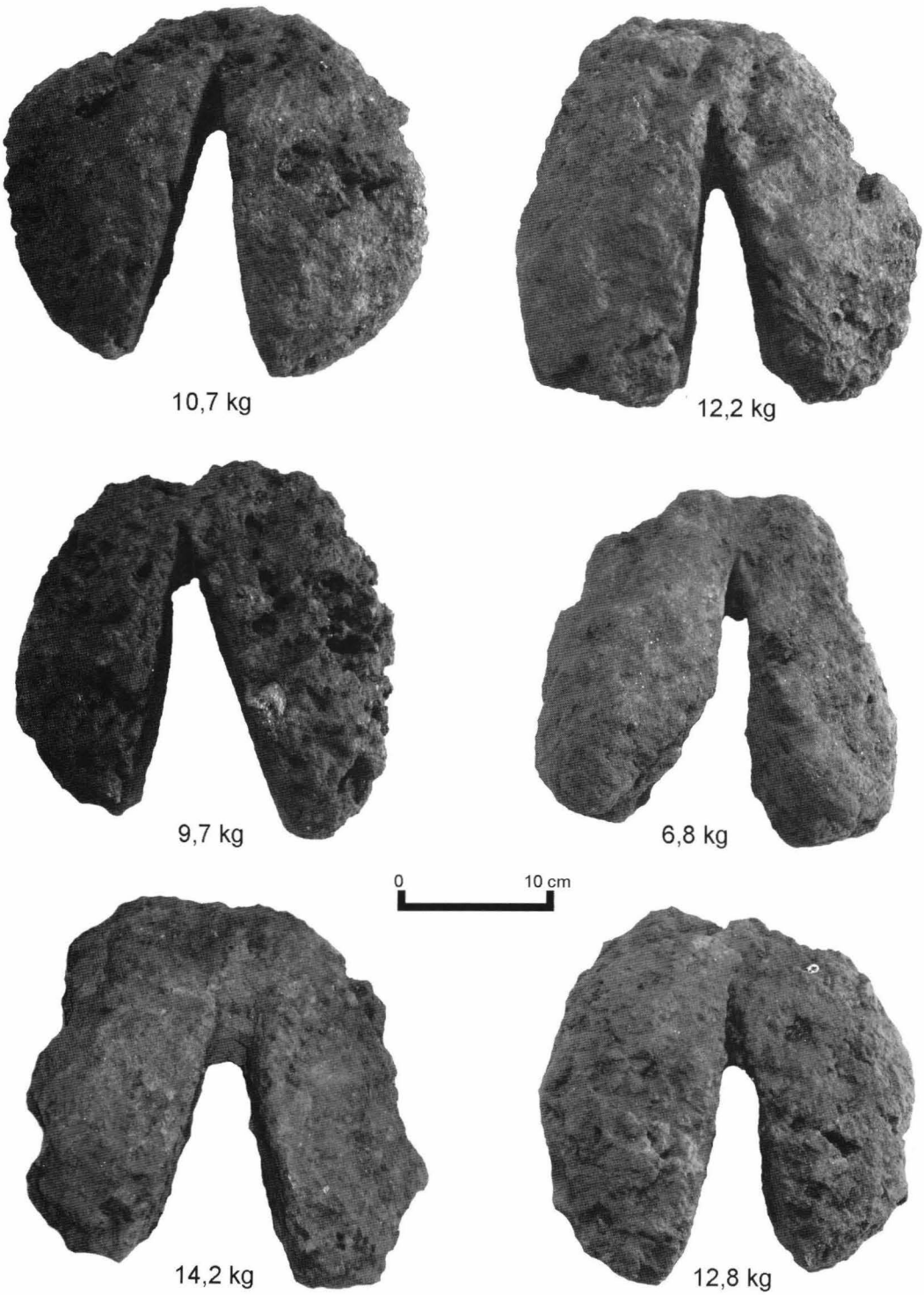
Pl. IV. 6. Clipped iron bloom whose clipping was obtained through several blows from a broad drilling blade tool (photos of the authors).



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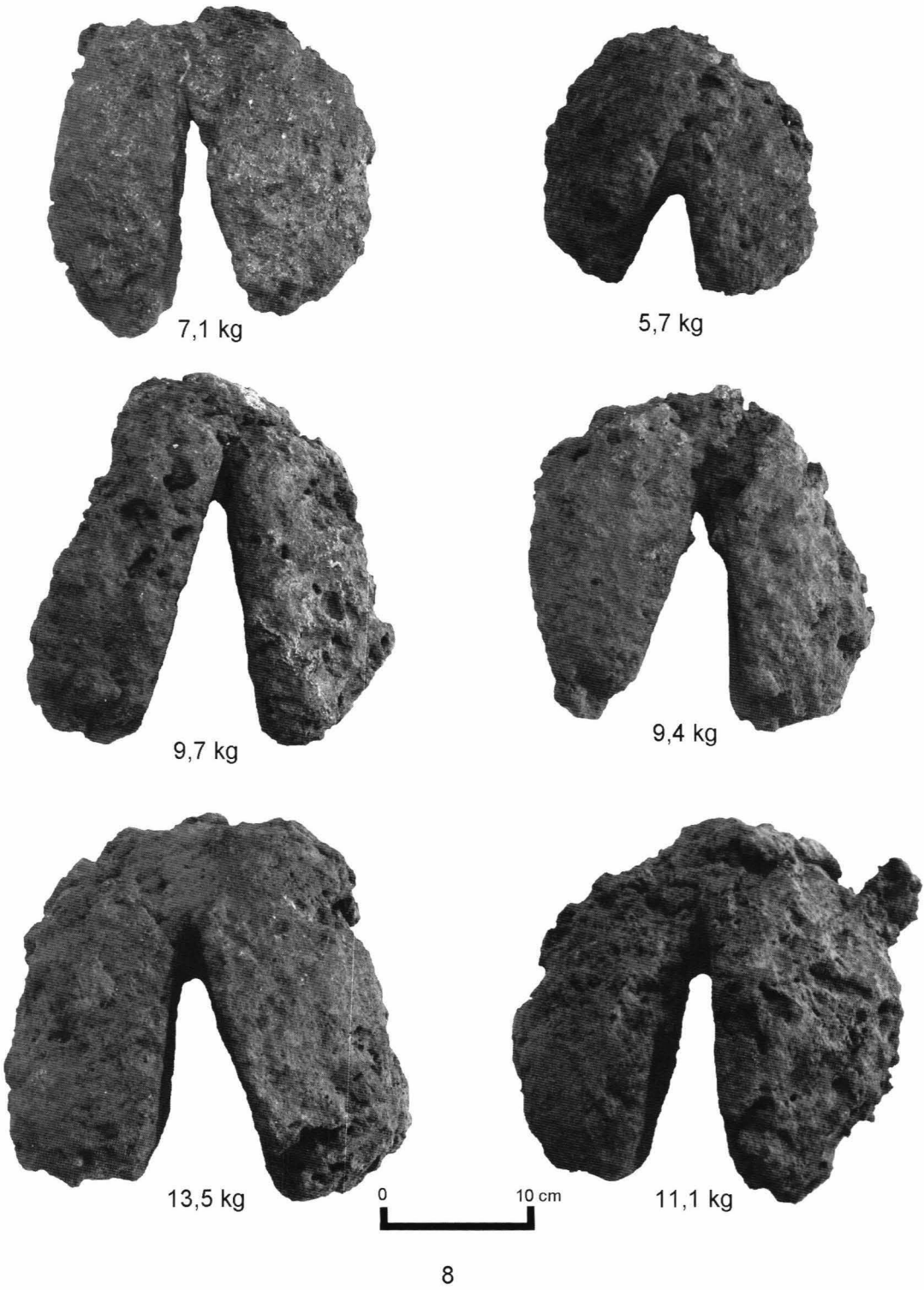
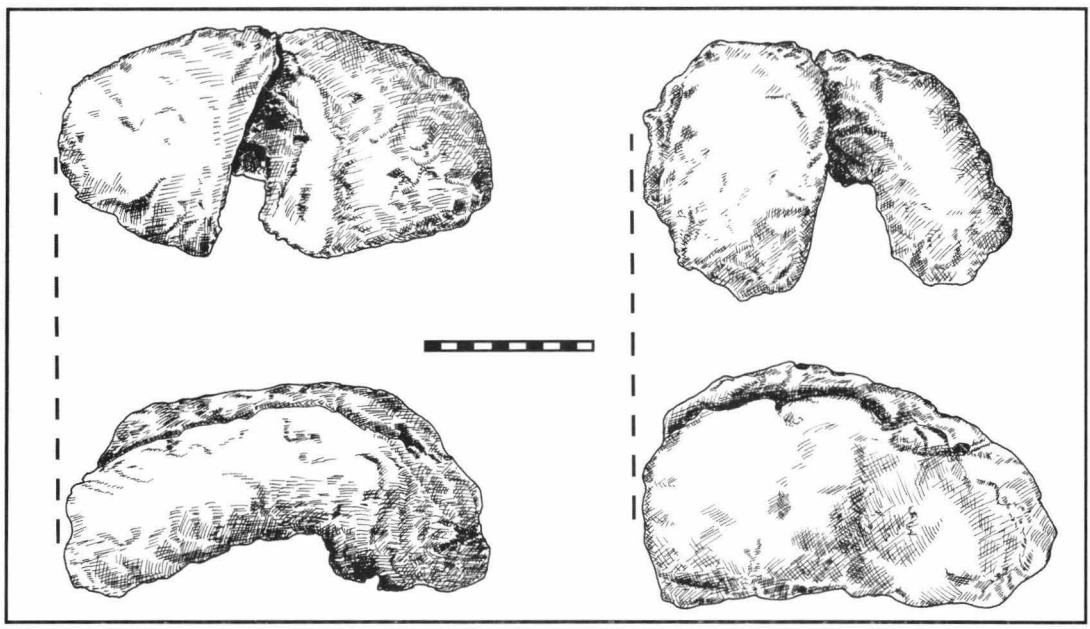
Pl. V. 7. Clipped iron blooms from the lot currently in the keeping of the National History Museum of Transylvania, Cluj-Napoca (photos of the authors).



Pl. VI. 8. Clipped iron blooms from the lot currently in the keeping of the National History Museum of Transylvania, Cluj-Napoca (photos of the authors).



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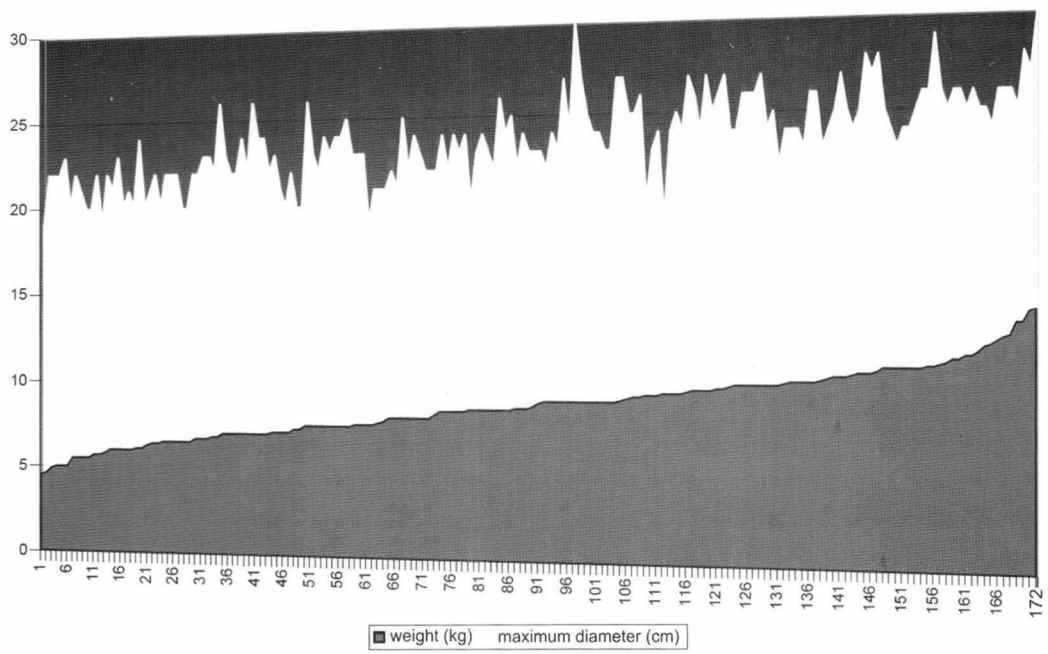

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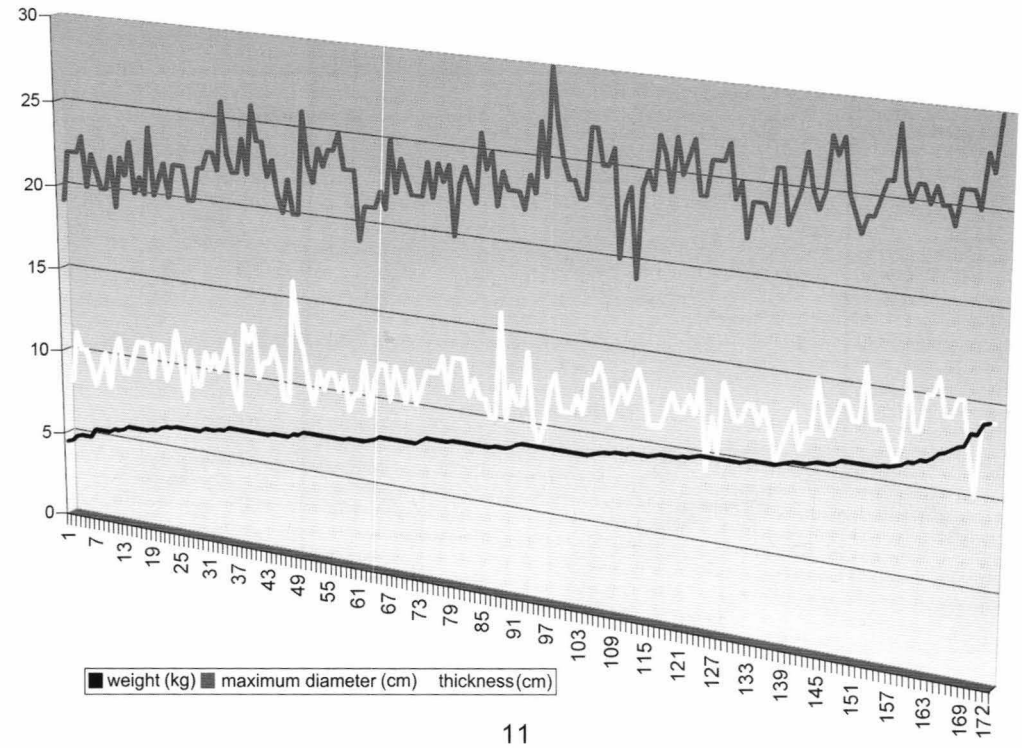
Pl. VII. 9. Dacian blooms (graphical representation); **10.** The evolution of the maximum diameter in relation to the blooms' weight.



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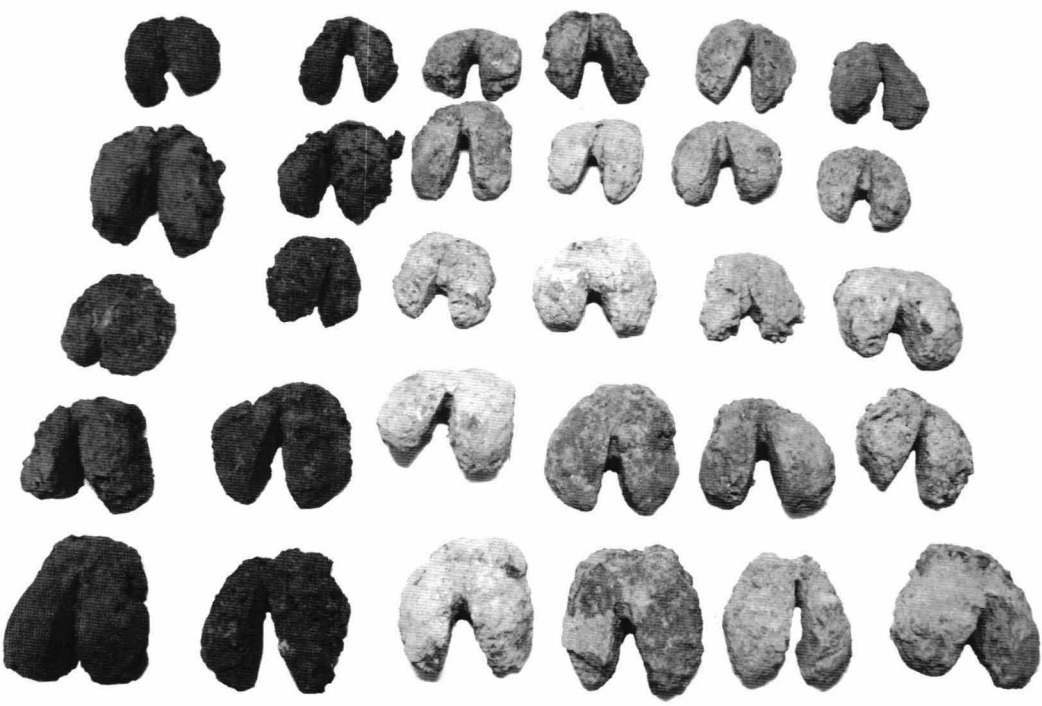

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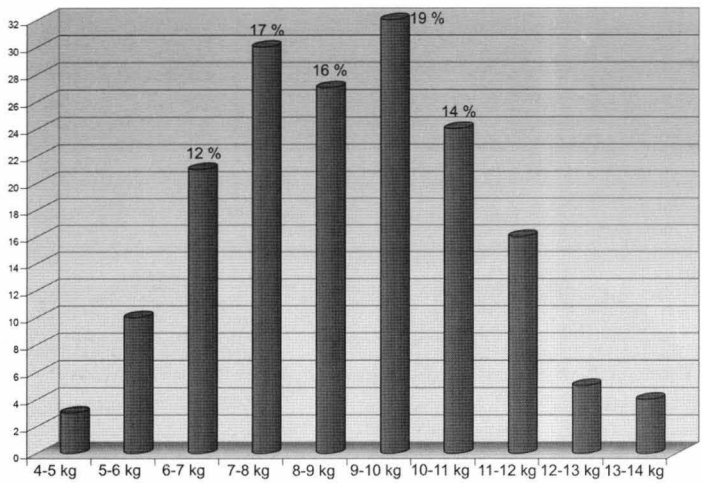
Pl. VIII. 11. The evolution of the maximum diameter and height in relation to the blooms' weight; **12.** Clipped iron blooms from the Cluj lot, currently in restoration (photos of the authors).

WHOLE IRON BLOOMS		
Deva	Cluj-Napoca	„Căprăreața"
weight — number of artifacts	weight — number of artifacts	weight — number of artifacts
4 → 5 kg.....1	4 → 5 kg.....2	6 → 7 kg.....4
5 → 6 kg..... 7	5 → 6 kg.....3	7 → 8 kg.....6
6 → 7 kg.....10	6 → 7 kg.....7	8 → 9 kg.....6
7 → 8 kg.....17	7 → 8 kg.....7	9 → 10 kg.....8
8 → 9 kg.....13	8 → 9 kg.....8	10 → 11 kg.....8
9 → 10 kg.....15	9 → 10 kg.....9	11 → 12 kg.....2
10 → 11 kg.....9	10 → 11 kg.....7	**302 kg 34**
11 → 12 kg.....4	11 → 12 kg.....10	
13 → 14 kg 1	12→ 13 kg.....5	
620 kg 77	13 → 14 kg 3	
	568 kg 61	
172 blooms .....1490 kg		

13



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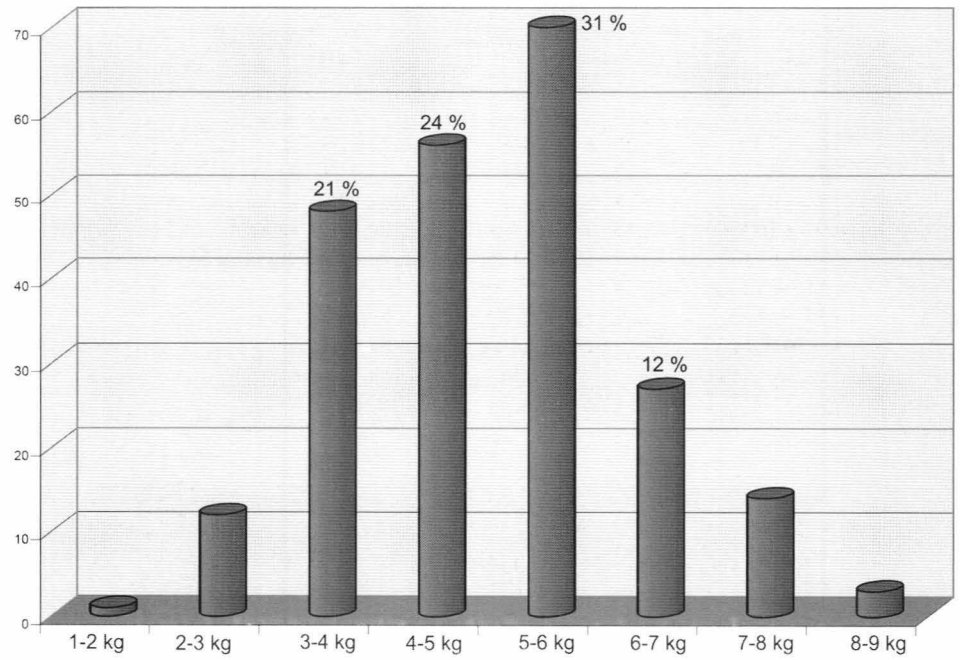
BLOOM HALVES		
DEVA	CLUJ-NAPOCA	"CĂPRĂREAȚA"
weight — number of artifacts	weight — number of artifacts	weight — number of artifacts
2 → 3 kg 2	2 → 3 kg 7	1 → 2 kg 1
3→ 4 kg 21	3→ 4 kg 9	2 → 3 kg 3
4 → 5 kg 26	4 → 5 kg 5	3→ 4 kg 18
5 → 6 kg 14	5 → 6 kg 12	4 → 5 kg 25
6 → 7 kg 5	6 → 7 kg 4	5 → 6 kg 44
7 → 8 kg 5	7 → 8 kg 3	6 → 7 kg 18
73 .....315 kg	8 → 9 kg 2	7 → 8 kg 6
	42 .....192 kg	8 → 9 kg 1
		116 ..... 556 kg
231 bloom halves .....1063 kg		

15

Pl. IX. 13. General statistics of the distribution in weight groups of the whole blooms; **14.** Graph of the distribution in weight groups of the whole blooms; **15.** General statistics of the distribution in weight groups of the bloom halves.



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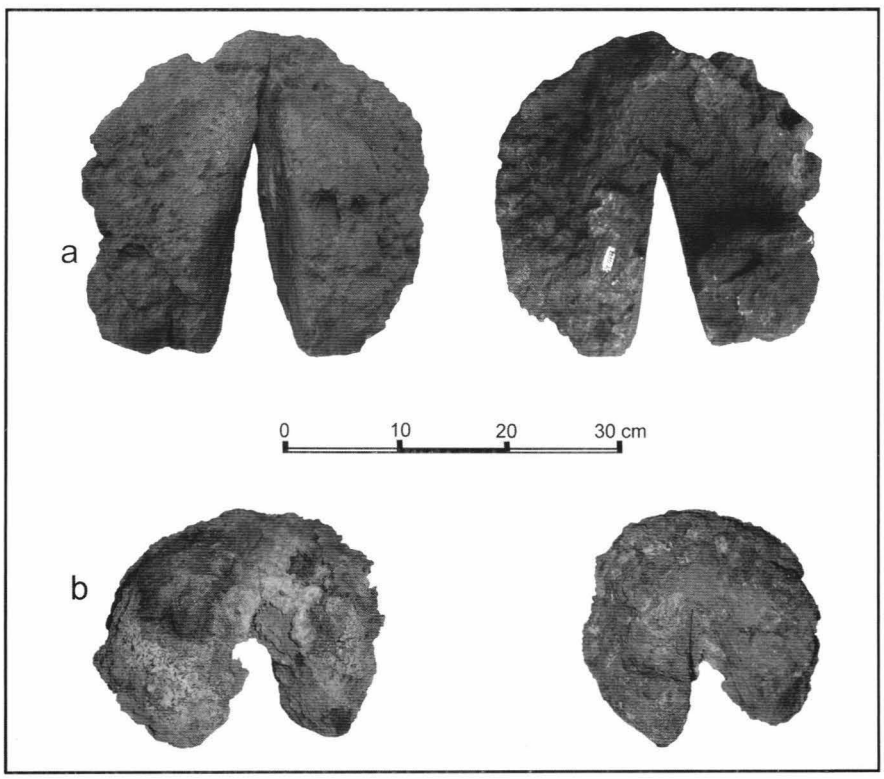

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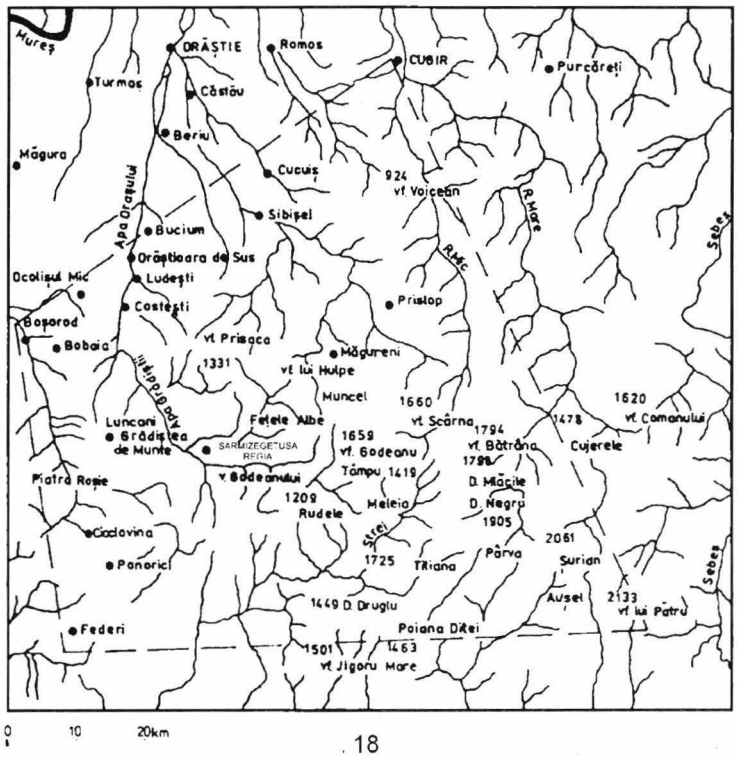
Pl. X. 16. Graph of the distribution in weight groups of the bloom halves; **17.** Unusual clipped iron bloom: **a.** bloom weighing approx. 46.7 k; **b.** the items preserves part of the slag on top of which it formed (photos of the authors).



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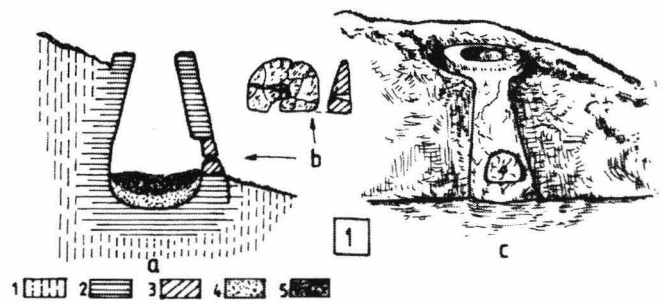

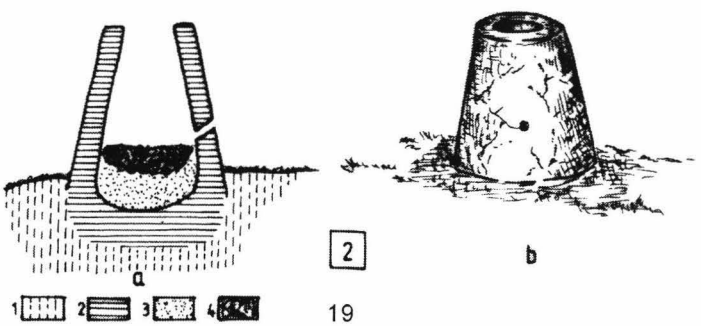

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Pl. XI. 18. The "metallurgical quadrilateral" from the Sarmizegetusa Regia area (after E. Iaroslavschi, *Siderurgia dacică în cadrul metalurgiei europene*, in S. Nemeti et alii (eds.), Dacia Felix: Studia Michaeli Bărbulescu oblata, Cluj-Napoca 2007, p. 62, fig. 1); **19.** Dacian iron ore reduction furnaces: 1. multiple charge (Dobogeni); 2. single use (Șercaia) (after I. Glodariu, E. Iaroslavschi, Civilizația fierului la daci (sec. II î. e. n - I e. n), Cluj-Napoca 1979, p. 199, fig. 5).

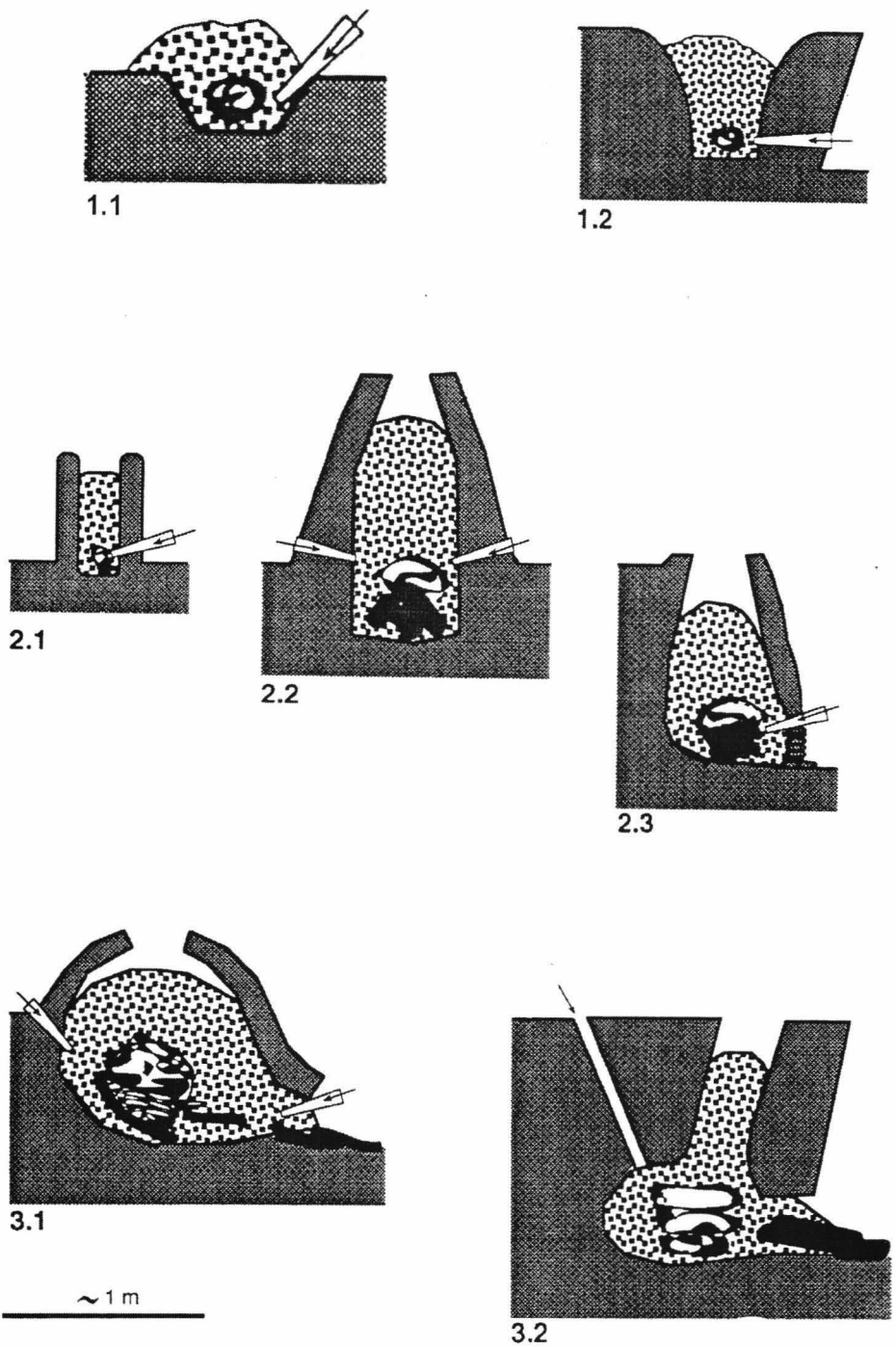

Fig. 20

Pl. XII. 20. The classification of low furnaces based on the model of iron-slag separation (after L. Eschenlohr, *La méthode directe de reduction du minerais de fer en bas fourneau*, in Minerai, scoris, fer. Technique des fouille-minerai, scories, fer. Cours d'initiation à l'étude de la métallurgie du fer ancienne et à l'identification des déchets de cette industrie, Basel 1997, p. 21, fig. 5).

21

Pl. XIII. 21. Clipped iron blooms from northern Europe- 1, 3, 5-6. Norway; 2, 4. Sweden (9th century AD) (after R. Pleiner, Iron in Archaeology. The European Bloomery Smelters, Prague 2000, p. 239, fig. 64).

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TEMPLES OF ETHNIC COMMUNITIES (ASSEMBLY HALLS) IN ROMAN DACIA. AN ARCHITECTURAL PROSPECTIVE

ALEXANDRU DIACONESCU

Résumée: L'objet de cet article sont des locaux de culte de la Dacie romaine, appartenant à des associations religieuses et ethniques. D'après le plan on dirait qu'il s'agit de temples avec cour entourée de portiques, selon un modèle bien documenté en Italie et dans les provinces de l'Empire. L'auteur montre que ces bâtiments avaient l'aspect des grandes salles de réunion. Dans le cas du temple de Bêl à Porolissum les analogies plaident pour une formule traditionnelle dans le Proche Orient, avec deux corridors latéraux. Le local de Sarmizegetusa, dédié lui aussi aux dieux palmyréens, avait une première section utilisée pour les banquets des membres de la petite communauté de la tribu de Bene Agrud. Le local dédié aux dieux paternels des Maurs de Micia, était presque entièrement utilisé pour des rencontres conviviales. Les trois chambres d'arrière étaient probablement utilisées comme chapelle de culte avec annexes. Le local du collège appartenant à la tribu illyrienne des *Sardeates* de Alburnus Maior était bâti en bois, mais il avait les mêmes caractéristiques des autres bâtiments analysés ici.

Mots-clés: Haut Empire; architecture; temple; reconstitution; rencontre conviviale.

Key-words: Early Roman Empire; architecture; temple; reconstruction; convivial meeting.

Both Roman professional and ethnic organizations (*collegia*) possessed assembly halls (*scholae*), used merely for common meals, rather then for more solemn reunions, like sacrificial rituals and such. They were usually provided with cult rooms (*aedes sacra*) dedicated to the Genius of the association, or to a deity acting as its patron. Best known are specific cases, such as underground Mithras temples (*mithraea*), and Jewish assembly houses (*synagogae*), which are not to be dealt with here because of their typical shape and particular aspect, which raises no identification problem. More questionable are buildings with the aspect (at least in plan) of a traditional Roman temple, or what some would call a "classical temple", which is absolutely an improper name, Archaic and Classical Greek temples having a different outlook and other components. In this respect the only type of cult building from Roman Dacia which would indirectly enter into the range of this study are the so called "Italic temples", frequent in the western provinces of the Roman Empire and ultimately deriving from the forum of Augustus in Rome. Such complexes comprise a holy piece of land, which was inaugurated according to "*disciplina Etrusca*" and was actually called "*templum*". It was rectangular in shape, oriented after the Cardinal axes and contained a sacred building, called "*aedes*", where usually the cult statue was kept.

The altar was placed in front of it, in the open. Usually the holy ground was surrounded by a portico, where from the phrase often mentioned in inscriptions "*templum cum porticibus*"[1]. In the Romanian literature, assembly halls and cult clubs were often mistaken for such cult complexes, i.e. "Italic temples"[2].

The main confusion comes from the so called "portico". In fact, the pretended stylobate was not the foundation wall of a colonnade, but a support for banquet couches, or for partition walls of hidden corridors. In order to clarify this matter I need a short digression on ancient porticoes. Tacitus lists the portico amongst the symbols of both Roman civilization and of its decay, along with bath facilities and lavish dinners[3]. Unlike us the Romans would spend most of their day in the shade of deep verandas, making trade, talking politics, or playing social games and even picnicking[4]. To fulfill such purposes a portico needed to be both deep enough for counters, bars and dining tables with their benches, and also high enough to provide the necessary shadow from morning to dawn. At hand are some examples from Sarmizegetusa, the Metropolis of Roman Dacia. Two temples of Italic type, the so called "Great Temple" and the "Temple of Liber Pater" have different sizes, but their porticoes are equally large, 4.50 m (Pl. I a)[5]. The portico of the "Great Temple" had Corinthian columns 4.50 m high, whilst the one of Liber Pater had Tuscan columns around 3.20 m high. The yard of the Great Temple is almost as big as the piazza of the Trajanic forum. This one had a portico 5.60 m wide and Corinthian columns 5.60 m high. The north portico of the same forum was 4.20 m large and the columns reached 6.10 m in height[6]. These figures should suffice to illustrate the difference between a portico and a narrow corridor or a foundation for a couch, whose width did not exceed 2 m or even less. The dimensions of these halls, which do not exceed 12 m in width (Pl. II) make them suitable for roofing and allow rejecting the hypothesis of a central yard.

The other side of my intercession regards the initial aspect of these buildings. Graphic reconstructions of ancient buildings are increasingly popular in Romania, but in most of the cases they have no theoretical or scientific support. Young and enthusiastic architects tend to apply contemporary solutions to ancient problems, with no regard that timber and stone work differently from concrete and iron. In such cases the results are misleading and even harmful for the great public. To avoid such misadventures I feel necessary to recall some basic, paradigmatic (I would say) principles of reconstructing Roman buildings.

1. Lightening. The discovery of glass windows was revolutionary for Roman architecture. The most striking element in domestic and public Augustan architecture

[1] E.g. CIL VIII 21825 = IAM, lat. 377, from Volubilis.

[2] For this category see Eingartner 2005, with earlier references.

[3] Agricola, I, 21: "*paulatimque discessum ad delenimenta vitiorum, porticus et balinea et conviviorum elegantia*" (= "step by step they were led to things which dispose to vice, the portico, the bath, the elegant banquet").

[4] On really unfriendly weather they would move into a "*cryptoporticus*", a closed portico. For the use of such spaces see Luschin 2002, passim.

[5] Diaconescu 2004 (2011), Vol. I, Cap. 7.1; Schäfer 2007, p. 55-64; 110-111; 156-159; 175-190 and 342-344.

[6] For the reconstruction of the porticoes of the Trajanic forum see Diaconescu, Bota 2009, p. 140-149 (ArM 13-35) and Pl. 53-58.

still visible in Pompeii and Herculaneum is the scarce use of windows (in most cases provided with timber shutters). Thermal facilities are sadly dark (despite Seneca's claim that bath builders excessively tend to use large glass openings), basilicas and other assembly buildings were lightened mainly through the doors, otherwise being provided with small windows, placed in the upper part of unusually high walls (see the *curia senatus* in Rome). Private dinning rooms in the villas around Naples bay have large openings towards the seashore (provided with timber doors and heavy curtains), but almost no windows at all. Later buildings, such as the 3rd century "basilica" from Bostra, the later bath of Diocletian in Rome, the basilica of Maxentius near the Republican forum, or the Constantinian bath and basilica in Trier, have enormous glass windows, which make them completely different from earlier buildings[7]. Between these two times limits, the use of glass windows produced progressive changing both in the aspect of the facades and in the organization of inner spaces. The provinces were more conservative then the imperial court and assembly buildings from Gaul to Syria might vex the modern viewer by the lack of a proper lighting. It should be enough evoking here the first century temple of Diana at Nemausus, and the 2nd century huge shrine of the Egyptian gods from Pergamon (see below notes 32, 34 and Pl. VII-VIII).

2. Proportions. Roman buildings, particularly temples, were erected according to precise measurements. Even if the prescriptions of Vitruvius were not followed in detail, modules, proportions, and other numeric relations were carefully observed[8]. It follows that when are in the case of a provincial monument, such as the Trajanic forum of Sarmizegetusa, the proportions are detectable in the ground plan, a strong sign that they were followed in the case of the elevation plan too[9]. When there are enough column fragments, and other elements, such as voussoirs from arches, architraves, or pediments and s. o., the reconstruction becomes more probable. By consequence, I would like to make a clear distinction between reconstructions based on close analogies and sufficient architectural elements of the monument itself and pure artist's impressions.

3. Building materials. All builders are inventive enough to use as much as possible local materials. The Greek classical techniques, based on regulate cut blocks held together with clamps, the so called "*opus quadratum*", was seldom used in the provinces[10]. *Opus incertum* was wide spread, but brick walls, mixtures of brick and stone, mud brick, clay and timber were considerably more often used then some archaeologists are ready to accept. Most of the buildings in this paper were built in such vernacular techniques.

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[7] Ward-Perkins 1994, p. 346, and Fig. 225; p. 418-428, Fig. 282-283 and 289-290; p. 442-449, and Fig. 297-299.

[8] Wilson Jones 2000, passim.

[9] See the discusion at Diaconescu, Bota 2009, p. 21-28.

[10] In the case of Dacia, it is attested at the monumental entrance to the Trajanic forum and at the basilica of the same monument (Diaconescu, Bota 2009, p. 29-44; Pl. 1-11; p. 124, Pl. 47 and p. 56-61, 62-76, ArC 35-94, Pl. 12-32). The same technique was used at the gate of the 13th legion Gemina from Apulum where a tower still stands several meters above the ground. Professor N. Gudea is preparing now a detailed study of it.

4. Analogies. Although the assembly halls in this paper are free standing buildings, the best analogy is, in my opinion, the seat of *collegium fabrum* (association of craftsmen) from the north-east corner of the Trajanic forum at Sarmizegetusa[11] (Pl. III a). In this case, the archaeological information can be combined with the epigraphic one. A first inscription[12], erected by two patrons of the guild (father and son), mentions the painting of the back wall of a *porticus*, the building of a *proporticus* (a veranda in front of the portico) with its gable (*frontalis*), a kitchen (*culina*) and a pair of couches (*accubitus*). All these elements can be identified in the north-east corner of the forum, where a rectangular hall (15.10 × 9.60 m) with an apse (R = 4.80 cm), catches the eye (Pl. III b). On the floor of the first phase of the hall, the prints of the benches were still visible. They left a central space, 2.20 m large, leading to the flight of stairs of the apse, whose floor was raised. Against its back wall, stood a rectangular foundation for a statue base. The presence of the kitchen helps identifying this place as the banquet hall of the *fabri*. In this case, the apse might have been used by the foremost members to dine on a semicircular couch (*sigma*). Another inscription[13] mentions the rebuilding of the western half of the portico by a patron of the 15th *decuria* of *fabri*. The most interesting elements are the two marble plates commemorating the building of the sacred chapel of the craftsmen association[14]. The text is almost identical, the only notable difference is that one mentions *"aedes fabrum"*, whilst the other uses only the term *"aedes"*. Probably the first text was placed outside the complex, and the other inside the seat of the craftsmen, above the entrance in the *aedes* itself, where it was no need to specify what chapel was that. For instance, the second plate could have been placed above the 5.60 m large entrance to the apse, which would serve in this case as a chapel. The statue of the back wall would represent in this case the Genius of the *collegium*. Some fragments of votive altars or statue bases were found in the north east corner of the forum, but their text is too fragmentary to be relevant. The inscriptions dedicated to the Genius of the association[15] or the Genii of different sections of it (*decuriae*)[16] are old finds and their place of origin is unknown. In fact the plate with the complete phrase "*aedes fabrum*" was found in a modern hole at the entrance in the large room (see Pl. III, a), behind the section of portico rebuilt later and mentioned already. So, this large room, provided with a cellar, could be the chapel. For such a solution pleads the case of the seat of Augustales from Misenum, where the sacred chapel (*aedes*) and the banquet hall (*triclinium*) are two separated rooms.

[11] The archaeological report can be found at Étienne, Piso, Diaconescu 2004, p. 110-115 and Étienne, Piso, Diaconescu 2006, p. 102-117. For the inscriptions see Piso 2006, no. 11, 24, 31, 33, 36, 44 and for the sculptural decoration, Al. Diaconescu, *La sculpture* in Diaconescu, Bota 2009, p. 262-264, Sc. 46-49. A detailed presentation of the seat of the craftsmen from Sarmizagetusa was made by Diaconescu 2004 (2011), vol. I, cap. 7,2.2.

[12] CIL III 7960 = IDR III/2, 13 = Piso 2006, no. 36.

[13] IDR III/2, 10 = Piso 2006, no. 44.

[14] IDR III/2, 6 = Piso 2006, nos. 10-11.

[15] CIL III 1424 = IDR III/2, 214 = Piso 2006, no. 23.

[16] CIL III 7905 = IDR III/2, 215 = Piso 2006, no. 24 and at least IDR III/2, 106.

The seat of Augustales from Misenum[17] (Pl. IV) was excavated between 1968 and 1972 under difficult conditions (being partly submersed) and it was published only 20 years later, after the death of the excavator, so that several data are not always as accurate as we would whish. The complex was called in an inscription on a statue base of Trajan: "*templum Augusti qui est Augustalium*" (the temple of Augustus which is also the temple of the Augustales)[18]. It consisted of a yard surrounded by porticoes (which was incompletely investigated) and three large rooms partly built up and partly excavated in the cliff of cape *Misenum*. Probably these rooms were called in the same inscription (r. 24) "*aedes sacrae*" (sacred chapels). The central one, which must have been used for religious services, was preceded by a porch (*pronaos*) with Corinthian columns and an elaborately decorated gable[19]. The shrine ended in an apse with a bench. A statue base dedicated to the Genius of the association of *Augustales* was walled in the middle of the apse. The room to our right, also with an apse, was the banquet chamber of the association. Its floor war decorated with a mosaic which was repaired by a privileged member (*immunis*) of the guild of *Augustales*. The inscription specifies that the space was a "*triclinium*"[20]. The function of the third room is not known (here the famous equestrian bronze statue of Vespasian was found; it was supposed to have fallen from the near by theatre).

With these examples in mind we may proceed at the study of some assembly halls with cultic functions from Roman Dacia.

1. **CONVENTIONAL NAME: TEMPLE OF BEL** or more precisely "the temple of the paternal god Bel of the Palmyrenian *numerus* from Porolissum".

LOCATION, POSITION. *Porolissum* (Moigrad village, commune of Jac), an important military complex (where several auxiliary troops were camped simultaneously) and a civilian-commercial point, the main gate to "*Barbaricum*" for the province of Dacia Porolissensis. Soon a prosperous *vicus* grew up around the auxiliary fort. The settlement on the plateau south-east to the fort was granted municipal rank under Septimius Severus (Pl. V a). The status of the settlement north of the fort is uncertain (it could have been part of the *municipium*, or remain under military jurisdiction). The temple is placed on the so called "terrace of the sanctuaries", i.e. the plateau north-west of the auxiliary fort (square N), some 6 m north of the imperial road leading from the custom building towards the *municipium*. Close to the temple there is another quite large building, provided with a 7 columns portico on the side facing the road. In the small piazza between these buildings and the road there were a

[17] De Franciscis 1991, passim. The honorific, commemorative and votive statue bases found in this complex were analyzed by Diaconescu 2004 (2011), vol. I, cap. 7.2.1, and I will not insist on this matter here. For the seats of different guilds from Italy see Bollmann 1998, passim. For a general overview see Carrillo Diaz Pines 1995, passim.

[18] De Franciscis 1991, p. 24-25, no. 5, fig. 13, r. 3-4. Most of the inscriptions dedicated in this shrine start with the formula "*Augusto sacrum*", which indicates that the complex belonged to the imperial cult.

[19] De Franciscis 1991, p. 41, figs. 52-56. The building inscription mentions: *"pronaum cum columnis et epistyliis"*. On several reasons this *propylon* must be dated under Marcus Aurelius and Lucius Verus.

[20] De Franciscis 1991, p. 45, figs. 65-66.

monumental altar and at least two refuse pits acting as *"favissae"* (Pl. V b). The finds from these contexts remained largely unpublished.

Archaeological research. The investigations at this complex have a long and complicated story. In 1937, somewhere to the north of the auxiliary fort a plate with inscription was found, mentioning some repairing under Caracalla (approx. in the years 215-217) at the temple of Bel, the paternal god of the Palmyrenian unit from Porolissum (inscription no. 1 from the present catalog). Previously, a dedication to Dea Syria was found in the same area (inscription no. 3). In the following years (1938-1939), archaeological excavations were carried out on the plateau known as "terrace of the sanctuaries", probably north of the imperial road. On this occasion the altar or statue base dedicated to Liber Pater by a police officer (*beneficiarius consularis*) sometimes between AD 170-270 (inscription no. 2), was found. This led to the conviction that the structure identified there represented "the ruins of the temple of Liber Pater"[21]. Other investigations followed in 1943, 1949 and 1958. We are well informed about the last ones, when south of the same road traces of fire from the sacrifices and rests of ritual banquets were found. Yet, no walls or any other structure was identified. By then, north of the Roman road, large ruins were still visible (probably those excavated in 1938-1939). In the same campaign from 1958, east of these ruins a rectangular building was excavated by M. Macrea, M. Rusu and D. Protase. It measured 15.20 × 10.10 m, with perimeter wall 0.70 m tick. The building was divided in three rooms by narrow walls, 0.40 m large. In 1975, N. Gudea and V. Lucăcel, when publishing the stone monuments from the local museum, were already assuming that the temple of Liber Pater was burnt down and then repaired by the Palmyrenian troop, who dedicated it to their own god. With this conviction, the excavations on the "terrace of the sanctuaries" were reopened in 1977-1979. This time, a more detailed archaeological report and a plan of the building were produced by Al. Matei. According to him, the upper layers have been disturbed by earlier excavations, but the Roman ones were still intact (for instance he found tiles from the roof). Excepting for the walls and traces of fire in the southern part of the building, no floor or other feature is mentioned by the excavator. The stamped tiles of *numerus Palmyrenorum* found in this building prove that it was erected by this troop. By consequence, this structure was put in relation with the inscription found in 1937. Thus the sequence of phases was built by the excavator to fit the scenario of an earlier temple of Liber Pater replaced by the one dedicated to Bel. My analysis of the building confirms that the last building was an Oriental temple, so that I have no reticence in attributing it to Bel, but I doubt the replacement of a temple by another. It is more reasonable to believe that the building excavated in 1938-1939 was a different one. The huge refuse pits in the vicinity of the temple (*favissae*), partly excavated in 1977-1979, remained largely unpublished, which gives room to all kind of ingenious hypothesis and endless comments. For the purpose of this work, the only relevant building is the last one, representing the temple of Bel.

[21] Macrea et alii 1961, p. 377 quoting Stein 1942, p. 4.

LITERATURE: Stein 1942, p. 4; Macrea et alii 1961, p. 377-378; Ghergariu 1980, p. 77-79; Matei 1980, p. 90-97; Gudea 1989, p. 84-88; Rusu-Pescaru, Alicu 2000, p. 74-77; Gudea 2003, p. 217-225.

INSCRIPTIONS:

1. Building inscription. Gudea, Lucăcel 1975, p. 11-12, no. 7; Gudea 1989, p. 762, no. 10; Piso 1993, p. 179, no. 10. Limestone plate with simple frame. Dimensions: 45 × 60 × 16 cm. The inscription was found in 1937, approximately north of the auxiliary fort.

Pro salute [I]mp(eratoris) M(arci) Aur[eli(i)] / Antonini Aug(usti) Pii Fel(icis), deo / patrio Belo n(umerus) Pal(mirenorum) sagit(tariorum) tem/plum vi ignis consumptum / pecunia sua restituer(unt) dedi/cant[e C] I[ul(io) Sept(imio)Casti] no / co(n)s(ularis) III Dac[iar(um) et M. Ul]pio Victore / proc(uratore) Aug(usti) provi[nc(iae) Po]rol(issesnsis), cura agen/te T. Flavio Saturn[ino (centurione) le] g(inonis) V Mac(edonicae) p(iae) c(constantis).

The inscription informs us that the temple of the paternal god Bel was restored after a fire by the local unit of Palmyrenians (*numerus Palmyrenorum sagittariorum*), under the supervision of its commanding officer, who was a centurion detached from the 5th legion Macedonica, garrisoned in Potaissa. The ceremony of dedication was held for the good health of the reigning emperor, Caracalla, and was presided by the consular governor of the three Dacian provinces, C. Iulius Septimius Castinus (AD 215-217)[22], assisted by the equestrian governor of Dacia Porolissensis. The official character of the text is obvious. The cult building had the status of a Roman temple, being dedicated according to all religious rules. It was not a *"fanum"* or *"aedes"*, as we would expect in the case of a provincial religious foundation, which was not considered properly "sacred" by Roma laws, but "as if it was sacred"[23]. Legally this change of status was made possible only by *constitutio Antoniniana*, which granted Roman citizenship to all free born inhabitants of the Empire. The official character of the cult of the "national" god Bel at Porolissum is sustained also by inscription no. 4. It is paralleled by the case of the Palmyrenian temple from Dura-Europos, dedicated to Bel as well[24]. The ceremony referred to by the inscription from Porolissum must have been similar to the one depicted by the fresco of the sacrifice of *cohors XX Palmyrenorum* from Dura-Europos, presided by its commander in chief, the tribune Iulius Terentius[25]. He is shown when burning some incense over a *tymiatèrion* in front of his stuff. In the second row the priest (*hiereus*), Themes, son of Mokimos, is identified by

[22] Piso 1993, p. 178-182, no. 39.

[23] Gaius, *Inst.* II 7, states that: "*item quod in provinciis [non] ex auctoritate populi Romani consecratum est, proprie sacrum non est, tamen pro sacro habetur*", and Varro *apud* Aulus Gellius 14, 7, 7 points to the difference between a consecrated place according to Augural procedures and a cult building which did not benefit from an "*inaguratio*": "*non omnes aedes sacra templa esse*".

[24] Dirven 1999, p. 31-98. The cult of Bel became gradually the symbol of Palmyrenian identity, both in the oasis of Palmyra (earlier dominated by tribal cults), and in the communities of merchants and soldiers living in Diaspora. In the Christian era, the cosmic triad of Bel, Yahribol and Aglibol was worshipped at Dura and elsewhere. A good summary on the cult of Bel in Palmyra can be found at Teixidor 1979, p. 1-11.

[25] Kaizer 2006, passim.

a Greek graffito. The reason for adding such a note is that Themes was dressed like his fellows and did not wear the usual rich garnets of Palmyrenian priests, which would identify him this way. A standard bearer (*vexillarius*) is also present, thus emphasizing the official character of the scene. As T. Kaizer convincingly demonstrated (see above note 25) the sacrifice was performed in front of the armed statues of the Palmyrene gods, Bel, Yerhabol and Arsu, and not in front of images of Roman emperors. The protective goddess (*Tyché*) of Dura and Palmyra assist to the whole scene.

The inscription from Porolissum is attesting a restoration of the temple following a fire. In my opinion, the disaster must have affected the roof and other timber structures and does not necessary correspond to a rebuilding of the walls and changing of the plan, what would be registered in an archaeological report as a new phase. Thus any attempt to link this inscription with the archaeological sequence of phases could be hazardous if not misleading. That the building and rebuilding of the roof was performed by *numerus Palmyrenorum* is testified by the stamped tiles belonging to the troop, which were found during the excavations.

2. Altar or statue base of limestone. Gudea, Lucăcel 1975, p. 14, no. 12; Gudea 1989, p. 767, no. 32. Dimensions: 132 × 74 × 54 cm. Plinth and cornice are decorated with simple moldings. On the pediment, a triangular gable, crowned by *acroteria* and half crescents, is decorated with a vegetal motif.

Deo Libero / Patri Titus / Flavius / Valentianus / b(ene)f(iciarius) co(n)s(ularis).

The piece was dedicated to the vegetation god Liber Pater, by a policeman in the service of the consular governor of the Dacian provinces. The office was inaugurated in AD 170 and lasted till the end of the Roman province. There is no reasonable argument to link this altar or statue base with the first phase of the temple. The discovery in the *favissae* of a *cantharus* decorated with snakes and campestral scenes depicting Liber Pater with a satyr and Pan, must be linked with the Dionysian cult.

3. Fragmentary altar (upper part is missing). Gudea 1989, p. 768, no. 37. Limestone. Dimensions: 64 × 32 × 18 cm. It was found in the same area of the sanctuaries, "north-west of the Roman fort" and entered a private collection in 1935.

De(ae) Syriae / Aur(elius) Gaianus / de(curio) m(unicipii) P(orolissensis) sace(r)do(s).

The person, that acted as author of the dedication, was a priest of the Syrian Goddess, and fulfilled also an official duty (*decurio*) in the town of Porolissum.

4. Altar or statue base. Limestone. Gudea 1980, p. 89-90, no. 2. Dimensions: 95 × 27 × 25 cm. Found during the excavations from 1979 reused in the defensive wall of the auxiliary fort.

I(ovi) O(ptimo) M(aximo) / P(ublius) Ael(ius) M/alachu(s) / flamen / q(uin) q(uennalis) mun(icipii) / S(eptimii) P(orolissensium) et sa/cerdos dei n(umeri) P(almyrenorum) P(orolissensium) / v(otum) s(olvit) l(ibens) m(erito).

The dedication to the supreme Roman god was made by a person of Palmyrene extraction who had a brilliant career in the *municipium* of Porolissum: he attained the supreme local office, that of *quinquennalis* and also the most important priesthood that of the imperial cult (*flamen*). At the same time, he was priest (*sacerdos*) of the "god of the unit of Palmyrenians", which must have been Bel. The inscription is not directly related with the temple of Bel, but it illustrates very well the official character of this cult at Porolissum.

BUILDING TECHNIQUES. The walls were built in stones and mortar (so called "*opus incertum*" technique). Those of the first building were 0.60 m thick; those of the second one were larger, measuring 0.80 m, with a foundation 1.30 m large, descending in steps in order to counterbalance the natural slope. The inner walls of this second building were 0.60 m thick. The foundation of those belonging to the porch was 0.80 m thick (no actual wall was preserved). The cracks in the walls of the north side were repaired with bricks, which suggest that the upper part of the walls was made not only in stone, but in brick too. The roof was made of clay tiles.

PLAN AND FUNCTION OF ARCHITECTURAL SPACES.

The temple consists mainly of a hall, rectangular in plan, measuring 27.40 × 13.50 m (Pl. VI a). At the east end there is a porch, around 4.75 m deep, preserved only at the level of the foundation, so that no entrance was visible (a 2 m large entrance improperly appears on all plans). The wall was probably a stylobate. Adjacent to the west wall of the porch there are four bases of stone and mortar, which must have supported some pillars or columns. The excavators believe that this porch was a later addition, and the initial facade would have been decorated with the four pillars. The main hall is 20.80 m long. In the inside it has a sort of circumambulator, 1.50 m large. At the west end it encloses an earlier apse. This wall (without a proper foundation) is obviously leaning against the perimeter walls, but is not necessary a later addition, which would have replaced an earlier colonnade, as the first excavators thought. A. Rusu-Pescaru and D. Alicu rightfully pointed out that these walls belong to the initial design, but take them for representing a sort of stylobate for a colonnade. Before that, Al. Matei had already noticed that the corridor is to narrow to be used as portico, so that he suggested that the circumambulatory walls and the perimeter walls could not function simultaneously, the external ones being out of use in the last phase (which is impossible). The division of the inner space, isolating to the west a square chamber (7.75 × 7.75 m including the apse), is taken to be an even later operation, related by some scholars with a supposed Christian church, replacing the pagan temple. It is beyond the aims of this study to discuss such hypotheses, but I would ask of those believing in it first to read the study of C. Popa on the so called Christian basilicas in the province of Dacia[26] before taking any position. From the architectural point of view, the most representative phase, which in this case is the last one, would be the only that matters, the endless debate on the phases of this building being beyond the limits of my study. Although there are doubts about the relation between this structure and the inscriptions found earlier in the area involved, I would gladly take this

[26] Popa 2003, passim.

structure to be an oriental temple, namely the one of Bel. Before any further comments I must mention that in the immediate vicinity of this building there is another one, with a weird seven columns portico and a ceremonial road with a sacrificial altar and two refuse pits for sacred deposits (*favissae*) some 10 × 10 m in surface and 4 m deep. Before the complete publishing of the material coming from these contexts, any discussion of the function of the architectural complex remains conjectural.

As an external observer, who can deal now only with the restored foundations on the spot, I would interpret the remains as following: an earlier square building with an apse and a different orientation was replaced by a sort of hall, reusing a part of the apse wall. The new building consists of a porch, or *pronaos*, followed by a main hall, *naos*, and a chapel, *adyton*, with a semicircular niche, the *thalamos*, in the back wall. Its level was slightly raised by a stone and mortar podium. The whole structure is framed by a sort of ambulatory, considered a stylobate of a portico by most of the commentators. Against a portico speaks the narrow space between the two walls, which could have served only as corridor. Thus reconstructions of this building (by N. Gudea and accepted by A. Rusu-Pescaru and D. Alicu) with an open yard and a portico, in the manner of a classical temple, do not take into consideration the real dimensions and proportions of the spaces involved.

ANALOGIES AND OTHER COMMENTS

The cult building from Porolissum has good analogies in Ancient Levant, namely in Syria and Palestine. Starting with the Late Bronze Age and then during the Iron Age, a specific kind of cult building, similar to the famous Temple of Solomon (described in the first book of Kings, chapter 6), was the most popular temple type of the region. It had the appearance of a *megaroon*, preceded by an antechamber (corresponding to the Greek *pronaos*), or a porch (*"ulam"* in Biblical terms), with two pillars. The main hall (Greek *"naos"*, Hebrew *"hekal"*, called also "Great House" and "Temple") was followed by the sacred shrine ("Holy of Holies", or "Inner House", *"debir"*), which was provided with a niche or a more elaborated aedicule for the cult objects (which could range from statues in the Greek and Roman manner, to a simple a stone, the *"betyl"* of ancient Arabs, venerated in Palmyra, for instance). The sacred chapel corresponds to the *"adyton"* of Greek temples, or *"thalamus"*, the most secrete room, mentioned by Lucian[27]. The more elaborated temples of the Greek and Roman period had a sort of tabernacle, or canopy, also called *"adyton"*, a small temple inside

[27] Lucian, III, *On the Syrian Goddess*, 31. Following passages worth reproducing here: (cap. 31) "The great temple is open to all; the sacred shrine to the priests alone and not to all even of these, but only to those who are deemed nearest to the gods and who have the charge of the entire administration of the sacred rites. In this shrine are placed the statues, one of which is Hera, the other Zeus, though they call him by another name. Both of these are golden, both are sitting; Hera is supported by lions, Zeus is sitting on bulls". The description fits both the Hittite gods Haddad and Astarte, and to the Roman ones, Jupiter Dolichenus and Cybele. Lucian (cap. 33) follows: "Between the two there stands another image of gold, no part of it resembling the others. This possesses no special form of its own, but recalls the characteristics of other gods. The Assyrians themselves speak of it as a symbol, but they have assigned to it no definite name. They have nothing to tell us about its origin, nor its form: some refer it to Dionysus; others to Deukalion; others to Semiramis; for its summit is crowned by a golden pigeon, and this is why they allege that it is the effigy of Semiramis. It is taken down to the sea twice in every year to bring up the water of which I have spoken" (reproduced after Strong, Garstang 1913, p. 73-75).

the great temple[28]. The main cult building was occasionally surrounded by a corridor, sort of *ambulatorium*, described in the Bible as a succession of chambers, "*sela'ot*", with three stores, increasing in width from top to bottom.

The dimensions given in the Bible show concern for mathematical proportions (overall width of the building 20 cubits (9 m), depth of porch 10 (4.50 m), of main hall 40 (18 m), of shrine 20 cubits (9 m)[29]. The entire temple had a length of 27 m and a width of 9 m, i.e. a ratio of 3:1. If we were to add the surrounding corridor the whole building would have reached very similar dimensions with the ones of the temple in Porolissum. The "Inner House" of the Temple of Solomon was actually a cube 20 × 20 × 20 cubits (9 × 9 × 9 m, compare with the square plan, 7.50 × 7.50 m in Porolissum). The main Hall was higher, measuring 30 cubits in height. Each floor of the surrounding corridor was 6 cubits high. The text mentions a rich decoration in cedar-wood and gold, with lavishly decorated monumental doors, and two Cherubim of olive-wood covered in gold and placed in the shrine. Also veils and draperies, painted blue, red (crimson) and purple, are mentioned. Windows were large on the inside but narrow on the outside. The two pillars at the entrance recall the obelisks and flag masts at the entrance of Egyptian temples. Herodotus (II, 44) mentions a pair of similar pillars at the entrance in the temple of Hercules at Tyre. They might have been originally phallic symbols, as Lucian of Samosata implies when describing the temple of Dea Syria (*On the Syrian Goddess*, 28-30). He puts them in connection with the cult of Dionysus and states that twice a year a man would climb the gigantic phallus (around 50 meters high) to spend seven days on the top of it (it seems that the case of Saint Simeon Stylites at Kalaat Seman in North Syria is no hazard). In Lucian's opinion, the custom derives from the habit of putting wooden manikins on the top of the columns. In the Bible, the two pillars Jachin and Boaz (1 Kings 7:21; 2 Kings 11:14; 23:3) were 18 cubits in height (around 10 m) and 12 wide (6 m)[30] and seem to have fulfilled a similar function (derived from the old Hamito-Semitic *"mazzebah"*). They must have been free standing isolated columns, with rich brass capitals (similar to those of the temple of Bel in Palmyra), which might have been used as lamp and fire altar supports.

The structure that answers at best the Biblical description is the temple at Ain Dara, in north Syria (not far from Aleppo) [31] (Pl. VI b). For our case of interest is the last phase, dating between BC 900-740. The total surface covered by it (including the corridor) is 30 × 20 m, very close to the temples of Solomon, and to Porolissum. The structure was erected on a raised platform, the walls being built in big blocks of stone, some decorated with reliefs. The niche-like portico with two pillars is followed by a closed antechamber (*pronaos*) of 6 × 15.50 m, then by the main hall (*naos*), of 16 × 16 m, which contains a stone platform, 0.76 m high, the Holy of Holies (*adyton*). In the rear wall of the sacred chapel a shallow niche (*thalamos*) was lain out, perhaps to shelter a

[28] Ward-Perkins 1994, p. 322-323, notes 30-31 and fig. 208; Schäfer 2007, p. 88-89, Abb. 42-43. A beautiful example is the richly decorated three rooms' *adyton* from the temple of Baalshamin in Palmyra.

[29] One cubit measured around 0.50 m. To these measurements the outer corridor, or row of rooms, 5 m wide, must be added, which gives a total surface of 33 × 12 m.

[30] Some sources give a height of round 17 meters, which might represent the total height of the porch plus the pillars.

[31] Monson 2004, passim; cf. Stone, Zimansky 1999.

cult statue or a standing stone. The most significant item is the ambulatory, provided with internal buttresses, which gives it the aspect of a succession of rooms. Its walls were decorated with reliefs, proving that the corridors were not used just for storage, but for more complex cultic activities. The width of the corridor measured roughly 6 m (18 feet = 11 cubits of the *"sela'ot"* of the temple in Jerusalem). According to the Bible (1 Kings, 6, 8) the entrance in the side rooms was on the right, at Ain Dara it is situated on both sides of the main entrance, close to the corners of the façade.

For the architecture (and reconstruction) of such cult places the so called "Red Hall" from Pergamum is of great significance, since more than 80% of the original structure is still standing[32] (Pl. VII). The sanctuary, probably dedicated to Egyptian deities, was provided with a huge courtyard (probably a park) of 270 × 100 m, surrounded by a 16.50 m large portico. The complex was built presumably under Hadrian. The main building block consists of three bodies, a central one, the Red Hall itself, flanked by two round towers, equally well preserved. The main structure owns its name to the brick walls (an unusual technique in the Roman East) and has the shape of a basilica. It measures 60 × 26 m, twice as much as Solomon's temple, and its walls still stand at a height of 19 m (not far from the original one)[33]. The temple was preceded by a monumental *propylon*, with columns of 14.50 m, a small porch *in antis* and a huge door. The main hall could be divided in two parts. The first one covers two thirds of the space. Here each lateral wall is provided with five niches at the first level, and with five corresponding windows at the second one. When the huge door was shut, the ten windows were the only source of light. The second part was merged in obscurity, darkness even. It contained a 1.50 m high platform, of 12 × 10 m. On it, and against the back wall, there was another podium, 1 m high and measuring 4.50 m on both sides. On this huge pedestal, the cult statue (of a sitting god) must have been placed. The podium was flanked by a row of four columns. To each column corresponded a rectangular pillar set against the wall. They were supporting a two stores corridor or balconies which were attainable by a flight of stairs set in the two back corners of the hall. The traces on the side walls do not allow a clear reconstitution of this structure. It could have been dark corridors or balconies for a chorus, frequently attested in religious ceremonies. A cave placed under the podium and the cult statue, provided with access stairs, must have served to similar purposes, all kind of wonders and tricks being reported by ancient authors in connection with oriental cults. In front of the podium, a series of small pools played also some part in the rituals. The whole building, including the roof, was covered in marble plates of various colors and essences. The unusual height of the structure and the elaborate lightning of this hall must have made a strong Impression on the visitors. In the 6th century, the temple was transformed into a three nave Christian church, which altered part of the original set up.

The so called "temple of Diana" from Nîmes[34] (Pl. VIII) is also suggestive for any attempt to reconstruct the Palmyrenian temple from Porolissum. Excavated in the 18th century, after it had been damaged several times, the function of this building

[32] Radt 1999, p. 200-209.

[33] The probable height of the building, including the roof, reached 25-26 m.

[34] Stierlin 2002, p. 58-59.

remains a mystery. No inscription was recorded by the excavators, but a statue of Diana found here gave the name of the building. Some scholars considered it to be an elaborated fountain, others a library. In any case, an influence of the oriental temples can't be denied. It was built in Flavian or in Hadrianic times (judging after its rich decoration). The whole building covers a surface of 22 × 19 m. Its original height cannot be estimated (it had probably two stores), but the vault of the main hall must have been at least 15 m tall. The facade is rather simple. The main opening is an arched door with a rectangular window above it. This was the only source of light in the main hall. In the upper corners there were two small rectangular windows which gave light to the corridors that flanked the main hall. The inside of this central room (14.52 × 9.55 m) was richly decorated. In the back there were three elaborated *aediculae* with deep niches, similar to the *adyton* from Baal-Shamin's temple in Palmyra. On each side wall there were five niches with triangular and doomed pediments. The most interesting element, probably borrowed from oriental architecture, are the two corridors, accessible from the sides of the building and giving access to a room above the main aedicule and to a second floor, which is not preserved. Despite its "classical" decoration, this building merged in obscurity and provided with mysterious corridors leading to secret rooms is an ideal place for confidential meetings and cryptic rituals, being obviously related to oriental temples.

THE IDEAL RECONSTRUCTION of the Porolissum cult building as a basilica type hall, and not as a classical temple gains now more credibility (Pl. IX). The very dimensions of its components plead against a complex with a yard surrounded by porticoes and an *aedes* on the back side of it, such as the "Great temple" and the "Temple of Liber Pater", both from *Colonia Dacica Sarmizegetusa*[35]. The porticoes of these temples are 4.50 m large (compare with only 1.50 m at Porolissum), designed to accommodate all kind of ceremonies, including common meals. The uncovered yard (piazza), similar to a forum, is 31.20 × 21.30 m in the case of "The Great Temple" (compare with the 9.75 × 7.75 m hall in Porolissum).

The walls delimiting the porch of the temple from Porolissum represented a stylobate, with probably six columns of the front side, and two on the right and left sides. The intercolumniation was around 2.70 m (*i.e.* 9 Roman feet), and the columns might have been 3.60 m tall (*i.e.* 12 Roman feet), a ratio of 3:4. In the absence of any reliable find, the aspect of the columns remains conjectural. About the four pillars in the back of the veranda, we have less data. My solution of Corinthian columns supporting sphinx like figures is based on vague analogies and fits no other label then "an artist's impression".

For the main facade of the edifice, I was inspired by similar structures in provinces with the same climate and building materials as in Dacia, such as Germany and Britain. Despite the introduction of glass windows, the lightening openings remained small. For instance, an isolated Roman building with undisturbed collapsed walls near Rottweil[36], proves that on three sides there was no window or door, and on the facade there were three openings, a larger one in the middle, which served also as

[35] This temple will make the object of another, forthcoming study of mine.
[36] Sommer 2002; Sommer 2007.

doorway, and two smaller windows to its sides (see Pl. X a). It was built in regularly cut stones, which is not the case in Porolissum, where broken rock stones were used, at least for the foundations and the bed-plates of the walls. Since bricks were used at repairing of cracks in the north wall, it is reasonable to imagine a combination of bricks and stone at Porolissum, for which I would recall the impressive Roman facade from Meonstoke, Hunts, reconstructed in the British Museum (Pl. X b)[37]. Several arches are framed in brick and dumped with *opus incertum* masonry, thus reducing the openings from a facade which must have had a Mediterranean model. In the case of Porolissum, the door being rather small (not larger then 2 m), I'm suggesting a larger window above the level of the portico, in a central position. Like in the case of the "temple of Diana" in Nîmes, this could be the only source of light in the main hall. The side windows would thus illuminate the corridors, which must have been accessible from the inside of the main hall, immediately after the entrance (Pl. XI).

For the height of the inner spaces I have no other elements but analogies. The square shape in plan of the Holy of Holies prompts a cubic form, and similar proportions as in Oriental temples should be accepted for the main hall too. The wall painting is purely conjectural. As already mentioned above, the procession depicted here is based on the relation between the building inscription of the temple in Porolissum (inscription no. 1) and the sacrifice scene of Iulius Terentius from Dura-Europos. Since the corridors at Nîmes gave access to an upper room, above the sanctuary, I have designed timber stairs, starting at the sides of the chapel and leading to a platform above it, supported by the walls behind the apse. May be this upper room served for depositing all kinds of ceremonial requisite. A solution with the corridors used as balconies for a chorus raises problems concerning the access, so that I skipped this variant, although it would be very spectacular. At a first glimpse I thought at long benches for banquets, as in other cases of similar assembly halls (see below), but the unusual length and the similarities with other temples from Syria and Palestine made me chose the variant with corridors.

2. CONVENTIONAL NAME: TEMPLE OF PALMYRENIAN GODS OR SYRIAN TEMPLE, in fact the Temple of paternal Gods of a Palmyrenian tribe "Bene Agrud".

LOCATION, POSITION. *Colonia Dacica Sarmizegetusa* (present days village of Sarmizegetusa, former Grădiște, Hunedoara county), was the only colony of Emperor Trajan in Dacia. The temple was placed *extra muros*, west to the precinct of the Roman town, on top of Delineștilor hill, a north-south oriented pitch, flanked by the creeks Drașcului (to the west) and Boculuí (to the east). Both western and eastern slopes are very abrupt and the building, which is orientated east-west, occupies the whole back of the hill. The knoll descends gently towards north, in the direction of the main valley of "Apa Mare" (Zeicani) river and of the Roman imperial road (Pl. XII a). The temple seems to be the only structure from this site. Its remains are not visible any more.

[37] De La Bédoyère 2001, p. 136, fig. 96 and Pl. 27.

ARCHAEOLOGICAL INVESTIGATIONS. Excavated in 1881 by the Hungarian archaeologists G. Téglás and P. Király, from the local county archaeological unit. According to the first one, a decade prior to the excavations, in 1873, a fragmentary altar was found on the same spot, the missing part of the text being filled out by Th. Mommsen himself. I could not firmly identify the inscription, which might be IDR III/2, 345 = CIL IIII 7963, that was found in 1878 "in the point called Drașcovu". The text mentions a well known local leading family, that of Procilii (certain Flore and Ingenuus, and their freedman Primus). The excavation technique must have been the one in use by then, which explains the lack of detailed information. As usual, the report is a mixture of objective data, personal impressions and subjective interpretation. With the exception of some fugitive remarks of P. Király, the main information comes from the report written by G. Téglás 25 years after the excavation campaign. Some data, including measurements, are inaccurate and even contradictory. By consequence, later scholars (D. Alicu and A. Schäfer), tried to reinterpret the data, even denying part of the original information, which is uneven as working method. Most of the debate concerns the entrance in the temple, and in this respect it must be emphasized that, according to the own words of the excavators, the walls were not cleaned from the topsoil, which explains the lack of any mention of doorsteps and of archaeologically identified entrances.

LITERATURE: Király 1889; Téglás 1905, p. 321-330; Daicoviciu, Alicu 1984, p. 70-73; Rusu-Pescaru, Alicu 2000, p. 84-90; Nemeti 2004, passim; Schäfer 2007, p. 85-89, 237-243 and Abb. 37-43.

INSCRIPTIONS:

1. Building inscription: IDR III/2, 18 = CIL III 7954. Plate made of Bucova marble (local quarry, some 11 km from Sarmizegetusa). Dimensions: 131 × 88 × 18 cm. The epigraphic field is bordered by a simple frame. On both sides there is a triangular gable with two *acroteria*. In the gable a bunch of leafs with a central button is rendered, and the *acroteria* are decorated with a vegetal motif, in form of successive *strygilles*. Preserved in the National History Museum of Romania, Bucharest.

Dis Patriis / Malagbel et Bebellaha/mon et Benefal et Mana/vat P(ublius) Ael(ius) Theimes II viral(is) / col(oniae) templum fecit solo et / impendio suo pro se suisq(ue) / omnibus, ob pietate(m) ipsorum circa se, iussus ab ipsis, fecit / et culinam subiunxit.

The text informs us that the temple of the "paternal gods" was entirely built on the expenses of P. Aelius Theimes, a former mayor and judge (*duumviralis*) of the town, for his own benefit and that of his kin. His generosity was a response to the divine grace (*pietas deorum*) he experienced and at the direct demand (*iussu*) of the same gods. He also added a kitchen (*culina*). In the inscription is used the term *"templum"* probably because this foundation was made of Roman soil (it is known that *colonia Dacica* benefited from *ius Italicum*). For various prosopographic reasons, the beneficence of P. Aelius Theimes is to be dated in the last quarter of the 2nd century, when he was particularly active[38]. He survived well till under the Severans, since

[38] For a detailed discussion see Diaconescu 2004 (2011), cat. V. 7.

he died at the age of 89, after the premature death of his elder son, who had become centurion in Britain under Septimius Severus. Despite his Palmyrenian origin (the name *"tym"* = "Θαιμης", is quite frequent in the Syrian oasis) he must have been born Roman citizen and was probably recruited in the German unit from Tibiscum *(cohors I Vindelicorum)* where he reached the rank of a professional officer *(centurio)*. It is his father who must have served in the Palmyrenian unit of the same small town of Tibiscum *(numerus Palmyrenorum Tibiscensium)*. Theimes must have been discharged in the decade AD 160-170, and then followed a municipal career in Sarmizegetusa, where he eventually reached the highest rank of *quinquennalis* (as we are informed from later inscriptions). All in all the building of the temple must have been financed by Theimes around AD 180 (after the town recovered from the Sarmatian attack in AD 168), if not later.

Unlike the building inscription from Porolissum, which had an official character, the one in Sarmizegetusa is a private one. Instead of the "national" supreme god Bel, we encounter here several gods which deserve a special discussion[39]. The most striking aspect is that Malakbel (the messenger of Bel) is evoked in the first place. L. Dirven has convincingly argued that Malakbel was worshipped as the Sun god by militaries of Palmyrenian origin all over the Empire[40]. At Dura for instance, Malakbel was the main god of the soldiers from *cohors XX Palmyrenorum*[41]. The next gods in the inscription from Sarmizegetusa, Bel, Bel-Hamon, Benefal (Fene-Baal) and Manawat, represent probably two couples, a Phenician Baal-Hammon + Benefal (= Tanit, Fene-Baal, "the Face, or Presence of Baal", which is the feminine counterpart of the main god) and Bel-Belhamon + Manawat. The last couple was identified with the divine pair worshiped on the top of Jebel Muntar, the hill dominating Palmyra from the west[42]. The origin and nature of these gods is controversial, but the inscription mentioning *"bl blhmn wmnwt"*, points to a local origin for Bel-Hamon as a manifestation of the Babilonian Bel rather then the Phenician Baal, and as a local combination linked to the kin of *bene Agrud*. Theimes must have belonged to this kin and the temple built by him should have represented the meeting place of the small community of Palmyrenian *"bene Agrud"* from Sarmizegetusa. There are too many other epigraphic references to Palmyrenian gods (Malagbel, Iarhibol and so on) not to accept the hypothesis that this was a club limited to a faction of the Syrian minority from the metropolis of Dacia.

2. Votive inscription: IDR III/2, 262 = CIL III 7955. Local marble plate without frame, which must have been walled in the central nave, according to the opinion of the authors of the excavation. Broken into seven pieces. Dimensions: 180 × 150 × 20 cm according to G. Téglás, 150 × 48 × 30 cm after IDR. Preserved in the Museum of Deva.

[39] See above all Nemeti 2004, passim (cf. Kaizer 2002, p. 111-113).

[40] Driven 1999, p. 157-189. A well known altar from Rome (CIL VI 710) identifies Malakbel with *"Sol sanctissimus"* (Driven 1999, p. 177-180).

[41] Driven 1999, p. 181-188.

[42] Teixidor 1979, p. 12-17; Kaizer 2004, p. 108-116.

Deo San[cto] Malagbel[o] / pro salut[e Imp(eratoris) C]aes(aris) M(arci) Aur(elii) / Severi [[Alexandri]] pii fel(icis) Aug(usti) / et Iuliae [[Mameae]] Augustae / matri Aug(usti) n(ostri) et castrorum / Primitivos Aug(usti) lib(ertus) tabularius / prov(inciae) Dac(iae) Apulens(is) posuit.

The plate must have been walled under a niche or in a podium on which must have stood the offering made by the imperial freedman Primitivos in the times of Severus Alexander. Since this was a dedication to Malacbel, the offering must have consisted in a gilded statue or other effigy of this god, similar to those described by Lucian of Samosata in the *"talamos"* of the temple of Dea Syria from Hierapolis[43]. It remains a mystery what kind of relations could have existed between this member of the imperial administration and the segment of the Palmyrenian community from Sarmizegetusa, represented by the Beny Agruds since his name, Primitivos, does not indicate any Oriental origin.

BUILDING TECHNIQUE. The perimeter walls of the building had a foundation and a plinth of stone, the wall being most probably of bricks (or a mixed one, combining rows of bricks, *opus latericium*, with stones, *opus incertum*). Brick walls were well attested at Sarmizegetusa in the late Antonine period[44]. The roof was made of tiles. No stamp was found neither on bricks nor on tiles, which confirms the private character of this building. The foundation was 1.40 m large and had an unknown depth. Above it there was a plinth of stones and mortar, 1.20 m wide. According to the ideal elevation drawn by G. Téglás at the east and west wall the edge of the foundation is visible only on the outer face. If the brick wall was also 1.20 m thick, the walls must have been quite high. Inner walls were built in *opus incertum* technique and measured only 0.60 m in width. They were not partition walls, as generally accepted, since in the corners they supported columns, whose bases were found *in situ*. They had a hole in the middle for fixing the column. The very presence of these plinths proves that the walls could not be higher, otherwise they would incorporate the columns, which is absurd. It follows that these walls did not exceed three Roman feet (0.90 m) in height, according to many available analogies of podiums in Roman dining spaces[45]. The excavators do not mention fragments of column; if they were of limestone they would have belonged to the Tuscan order, if they were of marble probably they would have belonged to the pseudo-Corinthian order, which was very popular in Sarmizegetusa. Judging after the limestone plinths, which measured 0.60 × 0.70 m, the columns must not have exceeded 4.50 m in height (if pseudo-Corinthian, and on only 3.20 m

[43] Lucian, *On the Syrian Goddess*, 31-34.

[44] Brick was used at the hall built in the north-west corner of *forum vetus* by the family of Procilii, in the last years of Commodus and the first of Septimius Severus (Étienne, Piso, Diaconescu 2004, p. 115-120; Étienne, Piso, Diaconescu 2006, p. 119-120 and p. 192, under M8 and M7, a detailed description of the walls), and at the north *cryptoporticus* of *forum novum*, built at the middle of the 2nd century. A segment of a fallen brick wall, about 2 m long, was discovered in my presence in the bath complex belonging to the seat of the financial governor of Dacia Apulensis (the find dates from the mid 1980's but remains unpublished).

[45] For instance, the well known "Podiensaal" from Pergamum, where the walls sustaining the mattresses or pallets were 1 m tall, and the width of the benches measured 2 m (including the support for the tables). See Radt 1999, p. 196-199.

if Tuscan). According to our understanding of the text signed by G. Téglás, the four columns were aligned, designing a rectangle of 7.60 × 3.10 m. On the plan published by the same author the distance between the two column bases in front of the sacred chapel is bigger then the one between the bases of the banquet hall (*pronaos* in the terms of Téglás), but from the text it comes out very clear that at the entrance in the chapel there were two low walls, each 1.25 m long, absolutely similar to those of the podium for banquets, and that the distance between the column bases was of 2.50 m, identical to the one of the banquet room.

The walls were painted, the excavators noting fragments "Pompeii red". The plaster must have been replaced once, since on the painted surface traces of sketches for a better adherence of the new stratum were visible.

The central nave was paved with mortar, containing "fine grained pebbles and pieces of ground brick", *i.e. opus signinum* ("terrazzo" in the terms of the excavators). In the banquet room and podiums no clear floor could be identified.The excavators supposed it was made of bricks and tiles, which were broken when the roof and the walls collapsed. I am afraid that the floor of the room and the cover of the podiums were planked, and after it decayed they were covered with debris of the roof and the upper part of the wall.

PLAN AND FUNCTION OF SPACES. The plan itself (Pl. XII b) deserves a special discussion because the general dimensions given by P. Király do not match with the most specific ones mentioned by G. Téglás (as for myself I would credit the excavation report, because the site documentation must have been left with the last one). Unfortunately, as mentioned above, even the plans published by G. Téglás do not correspond to the text of the same author. The most obscure part of the text (which is missing from the translations used by D. Alicu and A. Schäfer) concerns the entrance in the sacred chapel. In contradiction to the graphic plan, where the two column bases are placed in immediate extension to the two corners of the walls that retreat by 0.55 m inwards, the text mentions between the corners of the retreating walls and the column bases the presence of a wall not higher then 0.60 m and 1.25 cm long, thus the distance between the columns becoming 2.50 m. More than this, G. Téglás mentions here the discovery of a badly preserved wall, which closed the entrance in the sacred chapel, and was placed against the bases. This mysterious wall, which seems to be the face of a podium, is not rendered on the plan. He also mentions a walled foundation inside the chapel. This base is also missing from the ground plan, but is represented in a rather artistic way on the ideal section across the building from Fig. 3, here Pl. XIII a. These details must be kept in mind for a good reading of the plan and the interpreting of the function of each space.

According to G. Téglás, the building consisted from west to east of: a vestibule, *pronaos*, preceded by a supposed flight of steps, and flanked by two side rooms, where the cult objects were kept. Then followed the temple, *naos*, and the sacred shrine, or *cella*, where the cult statues were sheltered. It is obvious that he had in mind an Oriental temple and he evoked a succession that he knew from the Bible, *"ulan"*, *"hecal"* and *"debir"* (see above). As analogies for this non classical building he quotes the Temple of Magna Mater in Rome and a *Mithraeum* from Dalmatia.

D. Alicu called in question the point of view of the excavators, on the account of the fact that it is hard to believe that the entrance would have been from the west, which is from the opposite direction of the Roman town. He finds that an entrance from the direction of the "Iron Gates of Transylvania" is also unsustainable because of the very abrupt slope of the hill. He supposes an entrance from the east, in the direction of the Roman town, but in fact here the slope is equally improper. Because he did not benefit from an accurate translation concerning the sacred chapel, he ignored the presence of the low cross wall here and of the foundation for the cult statues. By consequence, D. Alicu turns the plan upside down, makes a veranda of the sacred chapel and turns the *pronaos* into a tripartite *cella*. At his turn, A. Schäfer agreed with this ingenious solution, adding as an argument that an entrance from the east corresponds to the description of the Temple of Dea Syria by Lucian of Samosata. By consequence, he reconstructed in the west side an *adyton*, of a typical form for Syrian temples. The solution is the more likely since it benefits from good analogies, such the three room *adyton* from the temple of Baal-Shamin in Palmyra (see above)[46]. Only the reality of the excavated features is different, because the two low walls of the so called "*pronaos*" turn and butt against the side walls, leaving no wall between them, which would be expected if a flight of stairs was there.

My interpreting is different from that of my both colleagues and friends, but does not contradict the excavation report (Pl. XIII a). First of all, the 5 × 2.50 m east room, is obviously the "Holy of Holies", the *thalamos*, the most secrete room of both the Greek house and the Greek temple. Here Lucian places the statues of the gods, well protected from the eyes of uninitiated persons (even some of the priests). According to the excavators, the plate with inscription of P. Aelius Theimes would have been placed above the entrance in this holy place[47]. Unfortunately we do not know whether this assumption was based of observations made during the excavations, or the plate with inscription was found before the archaeological campaign, and had maybe determined the very decision to excavate there. It is almost certain that the second plate, broken into several pieces, and which mentions a gift for Malagbel, was found during the excavations in the main hall (*naos*). It must have been walled under the niche or in the podium on which the offering stood. In my reconstruction, I have put it into relation with the low wall in front of the *cella*. May be the wall and the plate attached to it were dismantled when the temple was vandalized and spread on the floor. Yet, as a matter of fact, anywhere in such thick walls (0.90, may be 1.20 m), a niche could be placed.

The structure to the west (*pronaos*) is, in my opinion, a banquet chamber. In favor of that I can evoke several arguments:

1. The inscription mentions a "*culina*" which P. Aelius Theimes has added (*subiunxit*) to the temple. This kitchen was unanimously identified with the narrow room adjacent to the south of the main building. The very presence of such a facility

[46] See the very solid argumentation at Schäfer 2007, p. 88-89.

[47] One might suppose there was another similar inscription outside, above the main entrance in the sanctuary. For instance, in the north-east corner of the forum of Sarmizegetusa, such a double inscription concerning *aedes fabrum* was found (see above notes 12-13).

implies that the ceremonies performed there by Theimes and his kin included ritual banquets. For example in Palmyra, on a *"tessera"* (RTP 99) a certain *"symposium of Bel, of the kin beny Agrud"* (*'gn bl bny 'grwd*) is mentioned. On the reverse are depicted the two towers of Bel Hamon and Manawat on Mount Jebel, which were the cult places of Theimes' kin[48]. Such banquets were very popular allover Palmyra and the temples were usually provided with banquet halls[49]. In the hometown of Theimes, a fragmentary Aramaic inscription from the middle of the 1st century AD contains the regulations of a religious guild, *"thiasos"*, elaborated by the priests of Belastor (Bel-Ishtar) and Baalshamin[50]. This act provides interesting information on the way such a guild was organized and how it functioned[51]. In the 3rd row an average banquet ceremony is mentioned *"sm[ky']"*, and in the 14th row a sacrifice followed by a ritual banquet, *"mšt"* is evoqued[52]. In the 11th and 14th row the banquet hall is referred to with the term *"'drwn"*[53]. The confraternity comprised only male members of the *"benê 'Ate'aqab"*, although in the more Hellenized Dura-Europos it seems that in the *"thyasoi"* women were also admitted[54].

2. The two small walls bordering the narrow rooms (only 1.70 m large) did not exceed in height 0.90 m, since on their top were found *in situ* the two plinths for columns. They are typical for the couches on which participants to a festive meal would usually recline. They are frequent in Dionysian clubs and in the sanctuaries of Mithras, but are documented in Palmyrenian temples as well. The most reliable epigraphic information on a banquet coach and hall comes from the temple of Baal-Shamin[55]. In the room immediately north of the temple, on a low bench ("sur le rebord des dalles qui s'alignent à six mètres à droite de la cella"[56]), is written an inscription attesting that a certain association has built on its own expenses "this banqueting hall": *smk'* (transcribet in Greek as "σομμακο") *dnh*, which was dedicated to the gods Baal-Shamin and Durahlun[57]. A second example is the banquet hall from the sanctuary of Bel[58], which consists of a long narrow room with low benches along the side walls, continued by an almost square piece, obviously the kitchen. The dinning hall measures 30 m in length and could accommodate around 100 people. The building is believed to have been 10 m high and decorated with 11 columns and arches.

[48] Kaizer 2002, p. 114.

[49] Milik 1972, passim; Kaizer 2002, p. 220-229 and Kaizer 2008, passim.

[50] Such groups of worshipers, or "confraternities", were called "*mrzh (marzeah)*", although the term could be applied to all kind of associations, not only to what the Greeks would call a "*thyasos*" (Kaizer 2002, p. 221-222). Other terms used in Greek inscriptions for such clubs were: "*phratria*", "*hetaireia*" or "*symposion*" (Teixidor 1981, p. 308-309 and Milik 1972, p. 109-110 and 135-138).

[51] Teixidor 1981, passim; Kaizer 2002, p. 168-169.

[52] For the difference between the two terms, see Teixidor 1981, p. 310.

[53] The term probably derives from the Greeek "*androon*", but is also related to the Syrian "*endrûnô*" = "inner chamber". See Teixidor 1981, p. 311. On other occasions for the banquet halls, called in Aramaic inscriptions "*wsmk*", has was given the Greek equivalent "*συμπόσιον*"= *symposion* (Kaizer 2002, p. 223).

[54] Milik 1972, p. 122-140.

[55] Kaizer 2002, p. 221-223.

[56] According to Bounni, Al-As'ad 1998, p. 56.

[57] See also Kaizer 2002, p. 81-82.

[58] Bounni, Al-As'ad 1989, p. 47; Kaizer 2002, p. 228.

In the case of Theimes and his fellows Palmyrenians from Sarmizegetusa, such convivial meetings played an important part in maintaining the cohesion of the group. Like in the case of other similar associations, both religious and ethnical, banquets were held once a month (from the laws concerning *collegia tenuiorum*, to which I will come back later, it comes that the Roman state would not allow more frequent meetings). In the case of Theimes' association, the number of members would not have exceeded a lot more then a dozen of members, since after my estimations on the couches could not be properly accommodated more then 16 persons at once. Probably they were all males.

The entrance or entrances to the temple is another disputable matter, because no soils or other typical element were recorded by the excavators. An entrance from the west side is to be supposed since the succession of rooms presented by G. Téglás corresponds to Oriental temples, where the entrance is opposite to the "Holy of Holies". Yet it remains unclear how the connection with the kitchen was made (through this door or using another one, placed on the southern wall). On the other hand, a main entrance placed in the middle of the north wall and leading directly into the main hall can not be rejected. First, it would be similar to the entrance in the temple of Bel in Palmyra, which had two *talamoi*, at both ends, like in many Mesopotamian temples. Second, the north slope is very smooth and leads directly to the imperial road, facilitating the access to the temple.

To summarize, we have here a basilica like building, with a single nave. It has a total length of 18.70 m and a width of 8.50 (almost a ratio of 2:1). The central part consisted of a simple hall (on the inside: 7 × 6.10 m). To the east there was a rectangular exedra, of 5 × 2.50 m, which was used as sacred chapel. To the west there was a banquet chamber (6.10 × 5.80 m) with couches on both sides. The passages from the main hall to the chapel and to the dining room were provided with two low walls and two columns. To the south, a narrow room was added which served as kitchen. According to the archaeological report, its walls were ill preserved, but it seems that its width and length could be established (a fragment of wall might indicate that it was as long as the banquet room).

IDEAL RECONSTRUCTION (Pl. XIV, XV). Besides analogies and deductions from the plan, for the reconstruction of the temple in Sarmizegetusa there are some internal elements which could be taken into consideration. In the absence of any fragment of column we must operate with the plinths, 0.70 × 0.60 m. As mentioned above, if we consider limestone Tuscan columns the height could be appreciated at 3.20 m, and if we take marble pseudo-Corinthian columns, very popular in Late Antonine and Severan times, the columns would have reached 4.50 m. The two passages from main hall towards holy chapel and banquet chamber must have been provided with semicircular arches. Since their clear span measures 2.50 m, their height should have measured 1.75 m. Together with the low walls of 0.90 m and the columns, the arches would have reached over 7 m. Above that, we must allow at least 1 m till the level of a virtual ceiling, which gives a total height of 8 m, which corresponds to earlier estimations, based on the width of the walls. As far as I am concerned, I do not think that there was a ceiling, which would imply a supplementary effort and huge

beams, over 9 m long, so that I preferred a simple roof. The windows must have been small and placed high above the sight level, as usually at 2nd-3rd century buildings. The "Holy of Holies" had probably no external source of light, and since the entrance door was normally shut, the room was in plain darkness and needed candles and oil lamps for lightening. The main hall could have been half-dark, receiving light only from the banquet chamber, if we were to take into consideration the Red Hall from Pergamum (see above). It might have had its own windows, because at the end of the 2nd century glass was largely used at windows in the Roman provinces. For the dining room I have chosen a window above the door in the western wall and three more windows in the side walls. The painted plaster and the draperies are conjectural and based only on analogies. I have added them for the sake of the atmosphere.

SUPPLEMENTARY DOCUMENTATION. Whereas the interpreting of this cult building depends a great deal on the original report of G. Téglás, I decided to reproduce it here entirely. The translation into Romanian was achieved by two of my students, Boda Imola and Sidò Katalin. We discussed every passage to make sure that we achieved the right meaning.

"The 1881 excavations undertook by **Hunyadmegyei Tőrténelmi Régészeti Tarsulát** achieved the discovery of the plan and internal organization of a temple belonging to a cult unknown till now in (the province of) Dacia. This is the first archaeological approach of a building known only from inscriptions (the sole analogy is an altar from Salona, dedicated to the Syrian Gods[59]). The archaeological investigations were executed by G. Téglás and P. Király at the demand of Graf G. Kuún and Doctor F. F. Sólyom, directors of the above mentioned society.

As a result of these actions, was discovered the temple built by the *duumvir* of the colony, P. Aelius Theimes, for the benefit of his kin and the kitchen for cult purposes added to it. It layed to the west, some half an hour walk from the "*castrum*" (fortified precinct of the town), on a lonely hill top.

Because of several obligations, the publishing of these excavations was postponed, but now, since the author has retired from field research he has more time to analyze the results. The present day's road crosses from east to west Roman Sarmizegetusa, which is covered by a few poor lodges. The "*castrum*" lies south of the modern road and thus the former *via Traiana* passed by the north precinct wall of the "*castrum*", very close to it [... follows a digression on Roman Sarmizegetusa which does not worth reproducing here].

Temple plan. The temple was situated on a slope ascending towards south. The orientation of the cult building was east-west, the entrance being placed on the west side, towards (*the mountain pass known as*) the Iron Gates of Transylvania. Most probably the temple was burnt down and the walls were smashed to the ground by the West Goths, who then reached to the statues and all kinds of metal items which were robbed. The surface covered by the roof was 8.50 m large and 20.30 m long. It was a simple structure. Little has survived from the walls themselves, because of recent destructive agricultural activity. All the debris was concentrated inside the

[59] *Dii Syrii*, CIL III 1961.

walled precinct. In order to preserve the walls, the excavation was performed on sides, exposing them (*and leaving the topsoil over the walls).* Thus progressively the complete plan of the building emerged. On the west side of the temple there was a *pronaos* 2.50 m wide and 5.10 m long. To the right and to the left of the *pronaos* there were two rooms, each 1.70 m wide. They were separated from the *pronaos* by a wall, only 0.60 m large, which indicates that it was sustaining a lighter structure then the precinct walls, which had a foundation 1.35 m large, and the plinth with the rest of the wall was 1.20 m large. In the two corners of the *pronaos* there are two blocs of sandstone, discovered *in situ.* They measure 0.60 × 0.70 m, and have a rectangular hole in the centre, for fixing the two columns that flanked the entrance to the main nave of the temple (*naos*). The central nave was 7 m long and 6.10 m large, being limited by walls 1.20 m thick. Further east we find in the left and right corner two walls which retire themselves towards the centre for 1.25 m, a situation similar to the one found in the *pronaos.* There were also discovered two blocks of sandstone (0.60 × 0.70 m). The distance between them was 2.50 m. Throw this space one would enter in the main sanctuary. The north outer wall retreats towards south for 0.55 m and continues eastwards with the same thickness of 1.20 m. At the entrance of the sanctuary we identified with some difficulty a badly preserved 0.60 m high wall, running across to the left and right of the columns. The sanctuary was 2.50 m large and 5 m long and had the shape of a rectangle positioned across the main axis of the temple. The plate with inscription of P. Aelius Theimes must have stood behind this wall, and the second one, of Primitivos, *Augusti libertus*, was probably placed in the main nave. Under the main inscription must have been built a carved pedestal (visible in fig. 3, here Pl. XIII a.). The wall was built in rolling stones from Zeicani creek. Most of the buildings in Sarmizegetusa were built like that [...]. The walls of the temple were covered on the inside with plaster colored in Pompeii red (fragments of plaster with incisions on it were found). Inside the temple precinct a lot of fragments of brick were found, which suggests that the walls were built in brick and the roof was made of tiles. The interior of this structure recalls a Roman temple; an analogy for it might be the temple of Magna Mater on the Palatine. Since the outer walls of the temple were 1.20 m thick the total height of the building can be estimated at around 8-10 m. The heavy tiled roof necessitated such thick walls. In the central nave we found lot of fragments of flat and half piped tiles (*tegulae* and *imbrices*).

The west entrance, from the hill slope, was probably provided with some steps. The two side walls at the entrance in the *pronaos* could have held an opened portico, the weight of the columns being easily supported by the foundation.

In the *pronaos* and in the two side rooms the floor must have been of bricks which were broken when the roof collapsed. The floor of the main nave was made of "terrazzo" (*opus signinum*) which was found intact. It was so compact that it remained intact when the walls of the building felt down. The pavement was made of small stones and tiny fragments of brick held together with mortar.

The kitchen (*culina*) was not so solidly built as the temple. The cult kitchen was placed to the right of the entrance, to the north. The foundation of the wall could be traced on a length of 2.50 m, along the inner side. But the side walls (that closed the

room) were not found (being recently robbed). (Follows a comparison with a *mithraeum* in Dalmatia). In both *pornaia* (from Sarmizegetusa and Dalmatia) ashes, animal bones and some fragments of red vessels were found. In the kitchen too were found ashes and animal bones. Judging after the jaws they belonged to sheep, goat, cattle and pig (*ovis eries*, *capra*, *bos taurus*, *sus scropha*). These must be the remains of sacrifices.

Besides wall and roof fragments in the central nave were found pottery, corroded glass fragments and a piece of led which must have served for holding together the columns. In addition iron nails were found. The tiles had no stamps at all. The flat tiles (*tegulae*) measured 30 × 25 × 6 cm, and the half piped ones (*imbrices*) had 35 × 15 × 4 cm.

The most important finds are the two inscriptions. The one which mentions the building of the temple was made of marble which can be found between Zeicani and Bucova. The dimensions of the plate are: length 1.32 m, height 0.88 m, depth 0.15 m.

The second inscription plate was also of marble, but it was discovered broken into small pieces (2 fragments were larger and other 5, smaller). Dimensions: length 1.82 m, height 1.5 m, depth 0.2 m. The names of Severus Alexander and of Iulia Domna have been partly erased. Date: AD 222-235.

3. CONVENTIONAL NAME: TEMPLE OF MOORISH GODS (*DII MAURI*) in fact the Temple of paternal Gods of the Moors from Micia.

LOCATION, POSITION: Mintia village, commune of Veţel, Hunedoara county = *pagus Miciensis*, a small town, comprising a district of *colonia Dacica Sarmizegetusa* and a "kastellvicus" which was born in the vicinity of the auxiliary fort. Similar to Porolissum, in Micia were stationed several auxiliary units, among which a *numerus Maurorum*. The temple was placed approx. 1 km south-west from the fort, not far from the Roman road along the Mureş River.

ARCHAEOLOGICAL EXCAVATIONS. In 1937, three years after the discovery of the building inscription (inscription no. 1) and of the altar (inscription no. 2), C. Daicoviciu, O. Floca and M. Moga excavated most of the surface occupied by the cult building (excepting the eastern side, where they could not follow the walls because they were robbed and the excavators probably were not able to identify robbing trenches). Because of the archaeological technique of the time, stratigraphic information is missing, and the data about archaeological contexts and small finds are scarce. Probably as usual the top soil was not removed from the walls, so that soils and passages were not identified. The ground must have been already disturbed by agricultural labors, whereas the inscriptions coming from that temple were uncovered three years before.

LITERATURE: Daicoviciu 1941 = Daicoviciu 1969; Benea 1987, p. 131-152; Rusu-Pescaru, Alicu 2000, p. 92-94 = Alicu 2004, p. 63-68; Nemeti 2004a, p. 36-45.

INSCRIPTIONS:

1. Plate with building inscription. AE 1944, 74 = IDR III/3, 47. The bloc is entirely preserved, was carved in Bucova marble. Dimensions: 100 × 59 × 17 cm. Discovered

in 1934 in the point called "Comoara" ("the treasure"), around 1 km south-west of the auxiliary fort. Later archaeological excavations were carried out on that spot. Preserved in Deva Museum. Left and right of the epigraphic field there is a *tabula ansata* with the handles in shape of a *pelta* ending in vulture heads. In the four corners there is a vegetal decoration in shape of a bunch of leafs with a button in the middle.

Pro salute d(ominorum) n(ostrorum) in/victissimor(um) Imp(eratorum) Severi / et Antonini et [[Getae Caesaris Aug]]/g(ustorum) et Iuliae et [[Plautillae Aug(ustarum) et / Plautiani c(larissimi) v(iri) praef(ecti) pr(aetorio) part(is) / Aug(ustae)]] sub Pomponio / Liberale co(n)s(ulari) Mauri Mic(ienses) / et Iul(ius) Euangelianus praef(ectus) / templum deorum patrio/rum vetustate conlapsum / sua p(ecunia) et opera restituer(unt) / Cilone II (secundum) et Libone co(n)s(ulibus).

The text informs us that the temple of the paternal gods was restored by the local irregular unit of Moors, under their commander (*praefectus*), Iulius Euangelianus. The dedication was made for the good health of the imperial family in AD 204. The text resembles a lot the one from Porolissum but the consular governor, Pomponius Liberalis, did not preside the inauguration ceremony, he only supervised it. Probably because of the official patronage, the building is called "*templum*", although the Moors did not possess Roman citizenship. The phrase "*vetustate conlapsum*" does not necessary signify that the walls were ruined and had to be replaced, the original plan being altered. It could refer to plaster restoration ant other secondary repairing. The Moors not only gathered money for this action, but they directly contributed to the works (probably by lending their slaves to fulfill the tasks).

The temple was built by the Moors from Micia for what they call "*Dii Patrii*". In his comment, S. Nemeti has rightfully pointed out that that these "paternal gods" are not to be mistaken for "*Dii Mauri*", which appear as such on inscriptions only in north-western Africa (often in opposition with the "*Dii Patrii*" of the author of the dedication, who was there a foreigner, and equally worshipped both the local gods and those of his own homeland)[60]. Who were the specific gods of the Micia Moors is difficult to say. An ingenious solution was offered by S. Nemeti, who made the connection between the three chambers of the temple from Micia, which suggest a triad, and the altars raised by a certain Rufus, who was a commander of the Moorish irregular unit. This is the reason for including here the following altars, although only one was found in the temple, but we have good reasons to believe that the rest of the altars came from the same place.

2. Altar with votive inscription. AE 1944, 75 = IDR III/3, 118. Sandstone. No moldings. Entirely preserved. Dimensions: 53 × 31 × 28 cm. Discovered on the spot where the tempel of the paternal gods of the Moors was later excavated. Deva Museum.

Silvano / Rufus / pr[aef(ectus)] / v(otum) s(olvit) m(erito) l(ibens).

[60] The same by Shaw 2007, p. 44-45.

The author of the dedication was a commander in chief (*praefectus*) of the irregular unit (*numerus*) of the Moors from Micia. Silvanus, the god of woods and wild vegetation, in charge also with the clearing of future agricultural grounds, was popular in North Africa and coresponded to a god of the natives. For instance he was one of the members of the local triad of *colonia Marciana Traiana Thamugadi* (Numidia), together with Liber Pater and Saturn, the supreme Punic god[61]. Obviously he was one of the paternal gods of the Moors from Micia.

3. Altar with votive inscription. IDR III/3, 104. Fragmentary. Made of andesite, so it differes from the other altars. Dimensions: 62 × 25 × 20 cm. In 1900 it was walled in the "Palatul Prefecturii" from Deva. Deva Museum.

Libero / Patri / Rufus / [pr]a[ef(ectus)] / [v(otum) s(olvit) l(ibens)] m(erito).

This altar, dedicated by the same Rufus, most probably commander of the Moorish unit, seems to be different from the others, because it is made of another type of stone. Still this altar could have belonged to the same triad of the paternal gods of the Moors. Liber Pater, the god of cultivated vegetation and of vineyards, was another autochthonous North-African deity, worshipped in several triads of the region. For instance, besides Thamugadi, Liber Pater was one of the "paternal gods" of Septimus Severus, together with Hercules[62].

4. Altar with votive inscription. IDR III/3, 116. Sandstone. Very simple, without decoration. Similar to inscription no. 2. Dimensions: 57 × 30 × 20 cm. Found in the village of Vulcez, commune Veţel. It came probably from the same temple of the Moorish gods.

Pluton(i) / Rufus / praef(ectus) / v(otum) s(olvit) m(erito) l(ibens).

Pluto (*Dis Pater*), lord of the underworld, was a deity related to the fertility of the soil and the great cycles of nature and life. Thus he is well integrated in a triad together with other two male gods Silvanus and Liber Pater. Being a brother of Zeus, he must have been the main deity of this triad, which S. Nemeti rightfully considered to represent the "*Dii Patrii*" of the Moors from Micia. In North Africa, where the Punic and Berber traditions were very strong, the choice of a Roman equivalent for a local god is perfectly explainable.

BUILDING TECHNIQUES. The walls seem to have been built in round stone from the river bad and mortar, in the *opus incertum* technique. The perimeter walls, comprising the main hall and the three back rooms had an average width of 0.65-0.70 m. Most probably these were merely foundations and footings, the proper walls

[61] They were worshipped in the temple of the Genius of the colony together with the Capitoline triad. See Diaconescu 2004 (2011), vol. I, cap. 7.1. Cf. Eingartner 1992, p. 233-236.

[62] I have already drown attention on the similarities between the gods worshipped in the Great Temple of Sarmizegetusa and the "*Dii Patrii*" of the Severan family (Diaconescu 2004 (2011), cap. 7.1; for the temple cf. Rusu-Pescaru, Alicu 2000, p. 114-119; Schäfer 2007, p. 110-111; 156-159; 342-344). See also a relief from Moesia Superior, which confirms the worshipping of such a triad in the Danube provinces: Pilipović 2008 (2009), passim.

might have been made of well burnt bricks (*opus latericium*) or in mud-bricks and timber, a technique more wide-spread in the province of Dacia then most Romanian archaeologists are ready to admit. Whereas the excavators did not report a great quantity of bricks and tiles, the solution of timber and clay walls is the most probable. There are no data on plaster and wall painting.

The inner walls (so called "partition walls of the naves") were quite narrow (0.35 m) and probably did not exceed in height 0.60-0.70 m, 0.90 m the most. The three back rooms might have been floored with timber beams and planks, which left the traces of burnt wood of charcoal reported by the excavators. It is possible that the central space of the main hall was paved with ceramic *tesserae* shaped like an "8", which were found during the excavations, but no clear trace was found of any mortar floor on which the *tesserae* would have been fixed. The roof was made of tiles, which did not bear any stamp.

PLAN AND FUNCTION OF SPACES. The building is rectangular in plan, having a total width of 11.90 m and a length over 18 m (Pl. XVI a). At the west end of the main hall there are three rooms (*cubicula*). They have a length of 3.50 m each and a width that differs as follows: the central one was wider, measuring 3.40 m, while the ones to the right and left measured only 3-2.90 m. Probably the entrance in the central room was also larger then the other ones. It is obvious that the central room was the most important one, may be the shrine itself, or the chamber of the main deity (in this case Pluto), flanked by the cult rooms of the other two gods of the triad (in this case Silvanus and Liber Pater). D. Alicu made already the remark that such a display is attested in the case of Liber Pater temple at Sarmizegetusa, where the main room was the *aedes* of Liber Pater and the side rooms (*cubicula*) were used as shrines for other gods (Silvanus to the west, and Diana to the east, I would add)[63]. At Micia there is another room, adjoined to the south and slightly bigger then the others, measuring 4.40 × 5.50 m. The excavators consider it a later addition, but in my opinion it is an annex, which could have been part of the original plan, like in the case of the temple built by Theimes in Sarmizegetusa. The similarity pleads for the same function, as kitchen[64]. The idea of two phases, shared my most of the students of this monument, was prompted by the inscription who speaks about a repairing of the temple which was ruined in time "*vetustate conlapsum (templum)... restituerunt*". This phrase is often used in Roman epigraphy but must not be taken word to word, because it was also applied to small reparations, such as the repainting of wall plaster, or restoration of windows and roof tiles, which do not imply great changing that, would be detectable in an archaeological excavation. This would explain why in some cases the phrase "*vetustate dilapsum*" (or similar) is used for the same building at a few years distance, to early for a real ruin and collapse of the walls.

The narrow "partition walls", that separate the hall in "three naves" had 14.20 m in length and were entirely preserved. At the east end they turned towards

[63] For a more accurate description of this temple see Schäfer 2007, p. 55-64; p. 175-190, and Diaconescu 2004 (2011), vol. I, cap. 7.1.

[64] D. Alicu, although pointing to the same analogy, choosed the variant of the later addition.

north and south, abutting against the perimeter walls. D. Alicu rightfully remarked that such "walls" were simple foundations, or socles for a colonnade. Whereas they turned touching at the perimeter walls they could not belong to a portico, but must have been low walls supporting couches (*accubitus*) for convivial meetings. Another argument for a banqueting podium is the width of the supposed naves, 2.20 m, which is not enough for a portico. The fact that the walls are not very elaborated does not mean they are late, the two podiums being a functional part of the initial plan of the building (Pl. XVI a).

The ultimate function of this building is illustrated by the building inscription and the altars which came probably from the same spot. Actually the cult building facilitated the meetings of the Moors from Micia for ritual and religious meals which would strengthen the esprit de corps of the troop and preserve its cultural and ethnic identity. Besides gathering contributions for funerary services and religious ceremonies or solemn sacrifices on special occasions, the main activity of the members of the confraternity of the Moors would be to meet at monthly dinners. According to my estimation, on the couches could be accommodated around 40 persons (Pl. XVI b-c). It is not the case to enter the debate on the number of soldiers forming the *numerus Maurorum* from Micia, but if the troop led by a *praefectus* might have had around 200 members, it seems that only the commanding officers (*decuriones*), and the non-commissioned ones (*duplicarii*, *sequiplicarii* and *immunes*) had access at the ritual banquets held in the temple of paternal gods.

IDEAL RECONSTRUCTION (Pl. XVII). This building must have resembled a great deal the temple of the Palmyrenians from Sarmizegetusa. It must have been lower whereas its perimeter walls have only 0.65-0.70 m in width (compare to 1.20 m at Sarmizegetusa). Yet, the grater width of the entire building (almost 12 m by comparison with 8.50 m of the one in Sarmizegetusa), suggests a central nave of almost 7 m, flanked by two lower ones, where the 2.20 m couches were placed. We can easy imagine some columns on the couches walls, supporting the central nave, which was more elevated then the lateral ones. In this case, which resembles more the Christian basilicas of the 4th century, the lightning could be provided not only by windows through the short, east wall, but also by a range of windows through the lateral walls of the central nave. Only the three chapels would have remained in half-darkness. The rest in my reconstruction is conjectural.

4. **CONVENTIONAL NAME: BUILDING TII,** in fact the Temple of the *Genius* of *collegium sardeatum.*

LOCATION, POSITION: *Alburnus Maior* (Roşia Montană) was a mining settlement spread over several hills and comprising a number of departments (*vici*), probably each inhabited by a kin of immigrants (most of them miners from Dalmatia and Asia Minor). It contained also some official points, such as police posts (*stationes*). Recent archaeological excavations have identified several hills with cult buildings associated with a specific kin and a corresponding graveyard. Cult building T II belongs to the group from Valea Nanului. On a hill with very abrupt slopes

(called "Curișiul Monului"), which dominates the confluence of Nanului and Găuri creeks, four such buildings (TO-TIII) were identified, together with a necropolis (conventionally called TI-II) (Pl. XVIII a). One building (T o) was placed on the very top of the hill, then T I on a small plateau, not far from it, known as the Szekely property, and TII and TIII on a lower plateau (some 125 m away). The cult building T II is situated on Rozalia Drumuș property at the east end of the same plateau with T III.

ARCHAEOLOGICAL EXCAVATIONS. Despite being rescue-excavations dug under external pressure, they were complete and very well executed. The north-west end of the building with the entrance were cut and partly destroyed on the occasion of a road building (that ultimately led to the identification of the site). The excavators, C. Crăciun and A. Sion, made several evaluation trenches and then opened more boxes, leaving a considerable number of baulks which provided a good control of the stratigraphy. According to the graphic plan and the published photos these balks were not removed, but the aspect of the ground plan of the building is clear enough. Yet some details remain questionable, especially because the "dry walls" are not well preserved and part of them slept on the slopes. Thus the temple which was initially rectangular in plan is now trapezoidal (for instance a short wall is 11.35 m long, while the corresponding one is 12.90 m long) (Pl. XVIII b).

LITERATURE: Crăciun, Sion 2010, p. 283-331.

INSCRIPTIONS:

1. Votive altar of volcanic stone. Ciongradi 2009, p. 77-78, no. 85, Taf. 39, with earlier literature = Crăciun, Sion 2010, p. 291-292, A. Undecorated, very simple form (block); on the top a functional *focus* (diameter = 18 cm). Dimensions: 54.5 × 26 × 27 cm. Discovered between the row of altars and the flight of stairs leading to the *aedes*, approximately on the axis of the building.

Plautius / Dasantis / Genio / Sardiate(nsium) / d(o)n(um).

The correct reading of the text belongs to C. Ciongradi, who in stead of *Sardeat(a)e*, which would refer to the tribe or kin as a whole, suggested "*Sardiate(nsium)*", which would apply to the members of the ethnic community living in Alburnus Maior. Other inscriptions also use the plural.

2. Votive altar of marble. Ciongradi 2009, p. 66, no. 58, Taf. 29, with earlier literature = Crăciun, Sion 2010, p. 301-302, B. Undecorated, very simple form (block). Dimensions: 70 × 37 × 26 cm. Discovered in the row of altars fallen in front of the main building (*aedes*). It was the first from the right side (our left).

[A]el(ius) Qui/[n]tus / Di(i) / [G]enio col / [l]egi(i) Sar[d]/[i]atarum.

The text alludes to the "*collegium Sardiatarum*", in this case the ethnic name being inflected according to the first declension.

3. Votive altar of sandstone and volcanic tuff. Ciongradi 2009, p. 78, no. 86, Taf. 39 with earlier literature = Crăciun, Sion 2010, p. 292-293. Undecorated, very

simple form. Dimensions: 62 × 29.5 × 21 cm; focus diameter = 19 cm. It is the second from right (our left) in the row of altars.

Terr(a)e M/atri sa/c(rum) S{i}urio {i/o} Sume/letis / v(otum) s(olvit) l(ibens) m(erito).

The dedication was made for Terra Mater by a certain "*Siurioio*". Supposing the name was falsly written, he myght have been a "*Surio*". In this case, he would be identical with the person who dedicated in another shrine an altar to Neptunus (Ciongradi 2009, p. 77, no. 84).

4. Votive altar of sandstone and volcanic tuff. Ciongradi 2009, p. 49, no. 22, Taf. 16 = Crăciun, Sion 2010, p. 293-294, D. Pediment decorated with incised *pulvini* and triangular gable. Dimensions: 64 × 30 × 19.5 cm; focus: 18 × 11 cm. It is the third in the row of altars.

I(ovi) O(ptimo) M(aximo) D/asas Lo/ni col/legi(i) S/ardeate(nsium) / d(ono) d(edit).

The person who dedicated this altar sems to be the same with one of the widnesses of a fragmentary wax tablet[65].

5. Votive altar of sandstone and volcanic tuff. Ciongradi 2009, p. 49, no. 22, Taf. 16 = Crăciun, Sion 2010, p. 295-296, E. Similar to the precedent, decorated with incised *pulvini* and gable. Dimensions: 70.5 × 32.5 × 28 cm. Focus diameter = 19 cm. It is the fourth in the row of altars.

Iano Ge/m(ino) Lonius Tiz/ius Celsi / v(otum) s(olvit) l(ibens) m(erito).

The dedication is made to Ianus Geminus, wery popular among the Illyrians from Alburnus Maior, by another person of peregrine extraction.

6-16. Votive altars (probably 10), some with fragmentary inscriptions. Crăciun, Sion 2010, p. 297-298, G-R. They occupied the rest of the row of altars in front of the *aedes*. The impressive number of pieces that were destroyed makes useless any attempt to comment on the choice of deities from this sanctuary.

17. Votive altar. Ciongradi 2009, p. 79-80, no. 89, Taf. 40. Sandstone and volcanic tuff. Undecorated. Dimensions: 59 × 29 × 22 cm. Found in front of the row of altars, towards the entrance to the temple.

Apollini / Piruneno / sac(rum) Mac/rianus Surio(nis) / v(otum) s(olvit) l(ibens) m(erito).

Another altar dedicated by a peregrine of Illyrian origin, probably a member of the kin of *Sardiatae / Sardiatenses*. The byname (attribute) "*Pirunenus*" was linked by

[65] CIL III, TC XX = TabCerD XXI.

C. Crăciun and A. Sion[66] to a Greek term deriving from a verb meaning "to penetrate (with an arrow)" or similar. The etymology is not entirely convincing, but this has little if no relevance for the functional role of the building.

The inscriptions found in the building T II, are all votive altars with functional focus. This building must have been the residence of *collegium Sardiatarum* or *Sardeatensium*. The main deity worshiped here was the Genius of the guild.

BUILDING TECHNIQUES. The traces of this building consist of alignments of local stones kept together without mortar and are designated by the excavators as dry walls. In fact they are foundations or, footages (socles), of timber walls, according to a tradition in use even today at Roșia Montană[67]. Because of the heavy rain seasons, timber structures would rotten and perish in a few years if buried in the ground as in dryer regions, so that postholes, so popular among archaeologists, do not exist here. The walls were sustained by bottom beams in which the timber studs were inserted, the whole structure being held together by top plates. The floor was suspended and thus protected from humidity. The whole timber structure is sustained by dry walls, some considerably high if the building is situated on a slope. Drainage trenches are regularly cut to prevent flooding and dampness. The stone foundations of building T II are very large (0.90-1.00 m) and their height (not over 0.90 m) depended on the light slope of the plateau. Water drainages were also found.

PLAN AND FUNCTION OF SPACES. The building resembles in plan a classical temple, although the simple drawing can be misleading. In my opinion, the two walls of the supposed portico are not far enough from the side walls of the building to fit a functional colonnade (the space between these walls and the side ones is around 1.80 m, almost identical to the one between the "partition walls" and the perimeter ones of the Palmyrenian temple from Sarmizegetusa). The south-western wall turns left and touches the side wall, after a scheme typical for podiums. The opposite one continues obviously towards the entrance and is detectable even beyond the precinct wall. Here the plan is unclear because of the damages produced by a recent road work. Against a "classical" temple pleads also the absence of a consistent gravel layer in the supposed piazza of the temple. The dimensions (width around 7 m) also plead for a covered hall and against a yard.

The entire building measured 23.60 × 11.30 m, being similar in size with the other meeting halls discussed in this article. C. Crăciun and A. Sion hade the sagacious remark that these dimensions transferred into Roman feet would give 78 × 39 (*pedes*), both being a multiple of 13 *pedes*, which proves that the design of this building was an elaborated one. More then that, if we take the inner parts of the building, a pattern of multiples of 7 Roman feet emerges clearly enough to use it for the reconstruction in elevation too (Pl. XIX).

The function of this building can be determined by the help of the inscriptions found here. Three of them mention a "*collegium Sardiatarum*" or "*Sardeatensium*", two

[66] Crăciun, Sion 2010, p. 297.

[67] For Romanian traditional building techniques see Ionescu 1982; for Roman earth-and-timber buildings in Britain: Perring 2002, p. 87-110. Many usefull remarks on timber buildings can be found at Shirley 2001.

of them being specifically dedicated to the Genius of the above mentioned association. The best parallel is, in my opinion, the "*templum*" of the "*Augustales*" from Misenum. In the centre of the apse of the main hall, which served cultic purposes, stood the statue of the Genius of that *collegium*. In the two side niches were located the naked statues of *Divi Augusti* (Vespasian and Titus). Next to this room there was another chamber, *triclinium*, used for banquets, as we are informed by an inscription on its floor[68]. The association from Alburnus Maior could be classified among the *collegia tenuiorum*, clubs of humble people, similar to the one of Jupiter Cernunos, attested in the same settlement by a wax tablet[69]. The association had apparently a religious character, but in fact its purposes were restricted to mutual help in case of funeral occasions. Initially it had 54 members, but the protocol from AD 167 recorded the dissolution of the guild because of lack of contributors. From what we are informed by comprehensive texts, such as the regulations of *"cultores Dianae et Antinoi"* from Lanuvium (from AD 136)[70] and *"collegium Aesculapii et Hygiae"* from Rome (from AD 153)[71], the main activity of these associations was to meet (not more then once per month) to feast[72]. The amount of wine (and its quality), distribution of bread, sardines and other items were carefully covered by rules[73]. In our case the association has an obvious ethical character. Whereas the Roman authorities were so reluctant in granting the privilege of association (see Trajan's negative answer to the letter of Pliny concerning the *collegium fabrum* from Nicomedia, Ep. X, 34), it was probably in the course of colonization of this Illyrian community under Trajan or Hadrian (less probable under Antoninus Pius) that the privilege of gathering in an ethical guild was granted (somehow similar was the case of *Amiseni*, Ep. X, 90, who were treated as allies of the Romans not as subjects, and thus given the privilege of assembling). The main purpose of this club must have been to assist its members at burials and to organize convivial meetings. It follows that this sanctuary, "*aedes*" or "*templum*" whatever it might have been called, was meant to accommodate the monthly dinners of the *Sardeates* (Pl. XX). The connection between such cult buildings and cemeteries is well attested archaeologically at Alburnus Maior[74].

[68] See above notes 17-20; De Franciscis 1991, p. 37-41, for the *aedes* and p. 65-66 for the *triclinium*.

[69] IDR I/1, 31 = TabCerD I.

[70] CIL XIV 2112.

[71] CIL VI 10234.

[72] The occasions for conviviality were provided by important dates in the life of the association, such as the birthday of its patron gods, its human patrons and benefactors, or popular festivals, such as *floralia* and *rosalia*.

[73] Kloppenborg 1996, passim.

[74] So far 7 incineration cemeteries were excavated and a total of 1 430 graves have been unearthed. The graveyards were placed on the slopes of the hills. The most significant are: necropolis on Țarina hill (495 graves), the ones at Tăul Cornei (324 pieces; see Alburnus Maior III, 2008, passim), Pârâul Porcului-Tăul Secuilor (310 graves) and Hop-Găuri (255 graves). To these a circular mausoleum at Tău Găuri should be added (Simion, Apostol, Vleja 2004, *passim*). Cult buildings and not less then 40 votive altars were discovered on several hilltops and plateaus, such as Hăbad-Brădoaia and Dalea, Tomuș, Szekely and Drumuș, the last situated in the valley of Nanului creek. In addition stone buildings with central heating and bath facilities were identified on Carpeni hill and some traces of similar structures were found also in the area of Tăul Țarcului, which should be related to the Roman authorities. Other isolated or small groups of timber structures, most of them on stone foundation, without a clear function, found at Găuri-Hop and Hăbad, might represent small hamlets belonging to the miners and their families. For all see Alburnus Maior I 2010, passim

IDEAL RECONSTRUCTION (Pl. XX-XXII). The initial aspect of this building becomes more vivid, if we take into consideration the analogies pointing to banquet rooms. In addition to that, the building being modulated, as the first publishers rightfully remarked, helps us in guessing the average height of the parts. Thus the main hall, which measures 3 × 7 feet in width, should measure as much in height, plus additional 7 feet for the roof. According to the same principles used at Porolissum and Sarmizegetusa, the sacred chapel, would have had an elevated floor and a lower ceiling, forming a cube of 2 × 7 feet on each side. The foundations of the sacred chapel and of the flight of stairs are well documented archaeologically. The altars were aligned in front of it, which emphasizes the cultic character of this room. At a first sight it could have been a representative podium on which the local leaders, *primores*, would have been accommodated during the banquets. For luck of ideas concerning the decoration of the shrine, I have left the room empty in my attempt of reconstruction. No statues or any other trace of cult images were ever found during the extensive excavations at Alburnus Maior. May be they used gold or silver symbols and abstract images (such as ornamented shields), painted standards and draperies, and also wooden idols dressed with fancy clothes. I used some of these in the decoration of the main hall realizing that a simple timber structure would be to poor, and less suggestive for a cult building. The lightning might have been very simple, only from the side of the entrance, but I have decided for the variant of a central nave, with windows from the sides, the couches corresponding in this case with the side naves[75]. As for the entrance, its reconstruction is conjectural whereas its initial aspect is unclear.

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[75] As already mentioned at the beginning of this paper the "basilica" from Bostra, Syria had windows all along the side walls (see above note 7).

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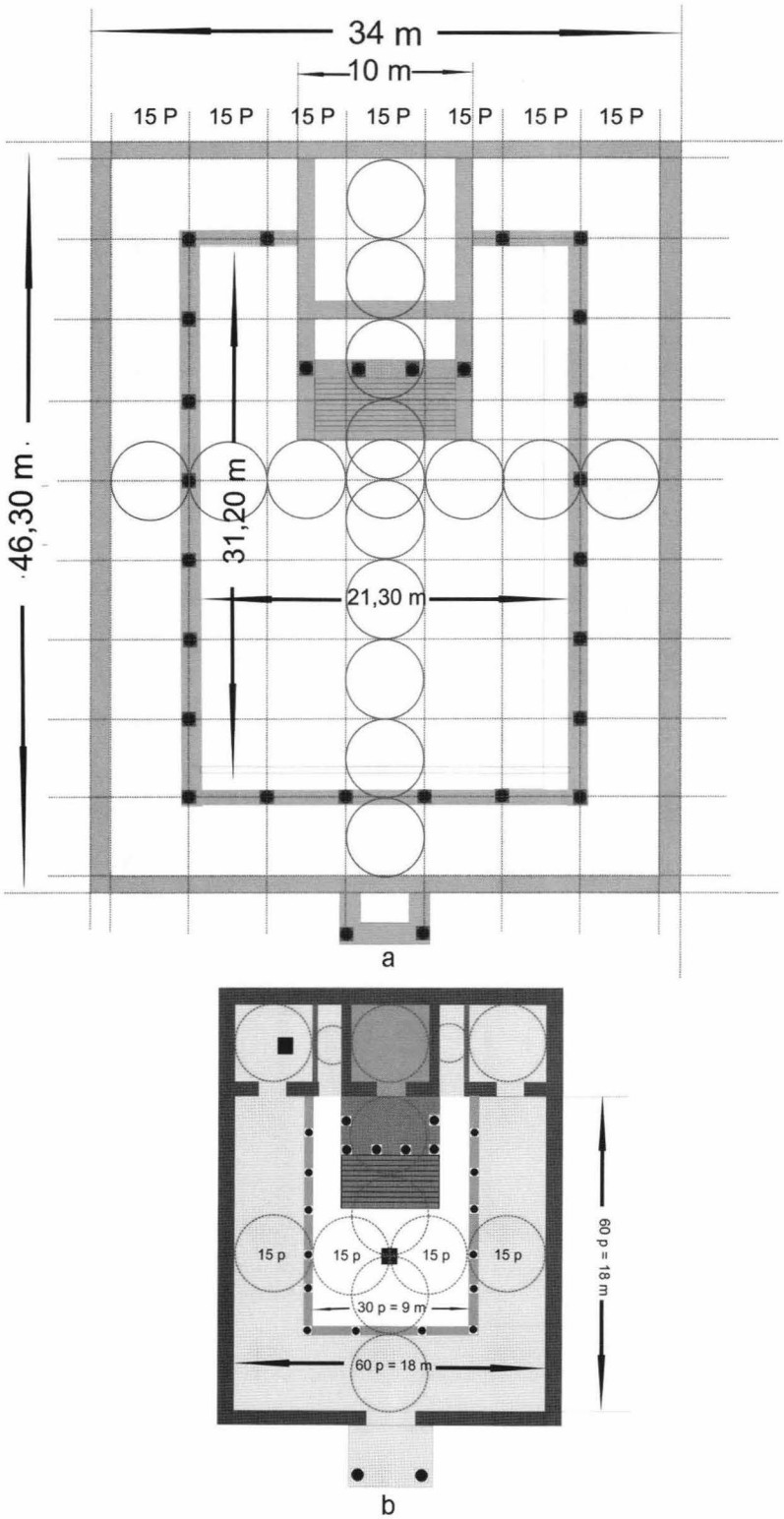
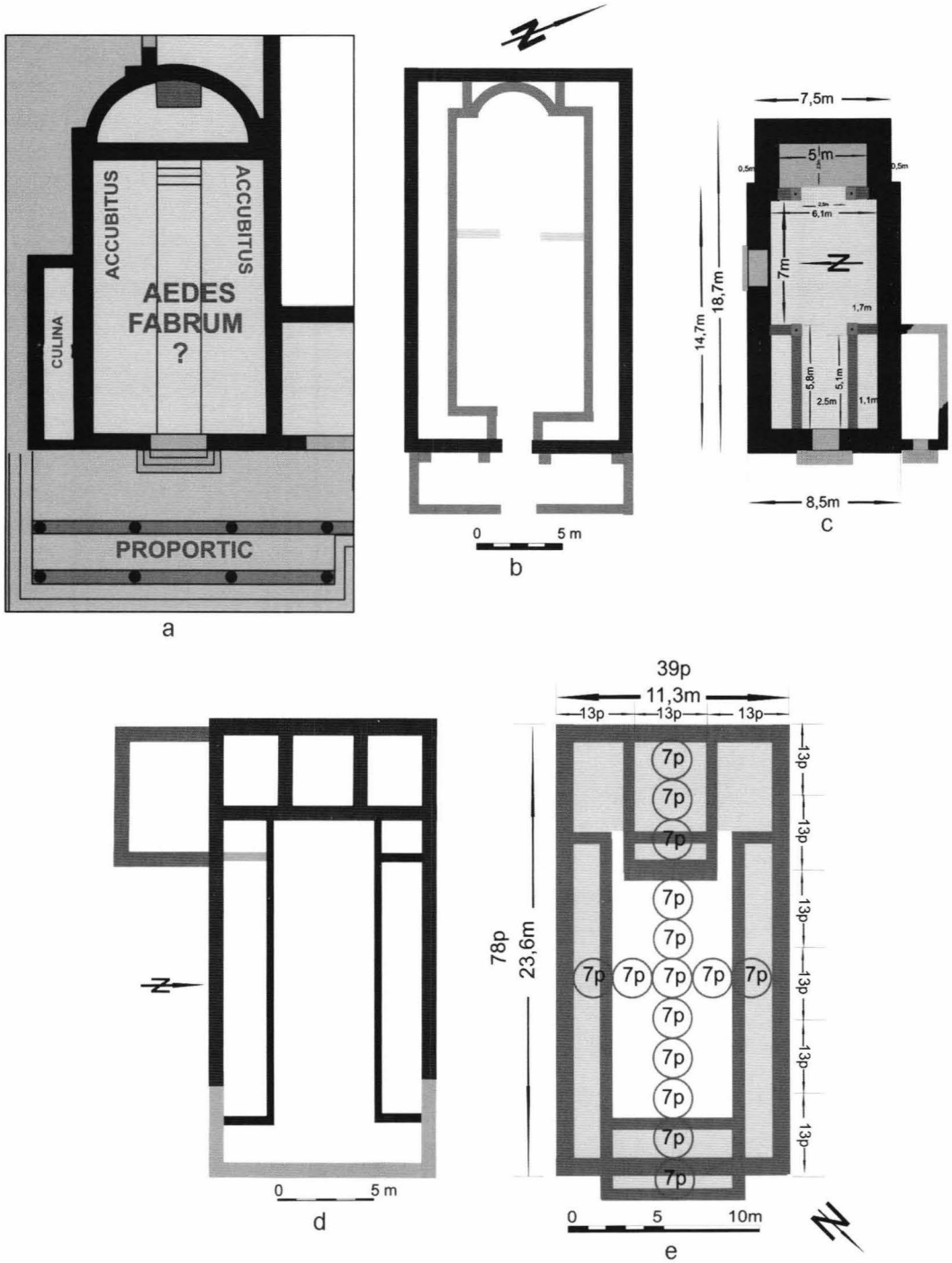
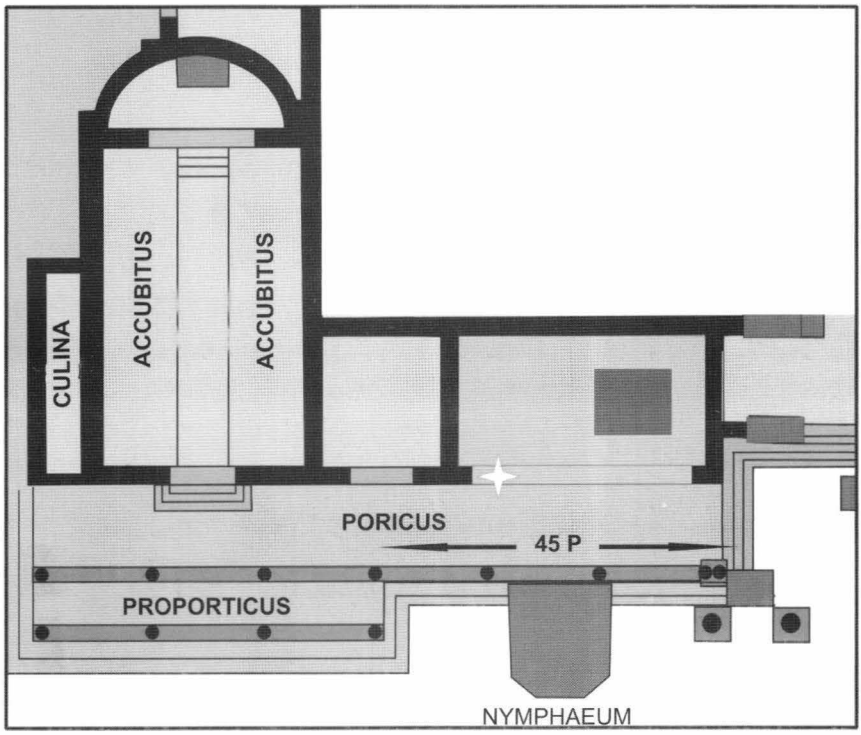


Pl. I. *"Templa cum porticibus"*: **a.** Great Temple; **b.** Liber Pater temple from Sarmizegetusa (plans redrawn by the author).



Pl. II. Assembly halls functioning as temples: **a** and **c.** Sarmizegetusa; **b.** Porolissum; **d.** Micia; **e.** Alburnus Maior (plans reinterpreted by the author).



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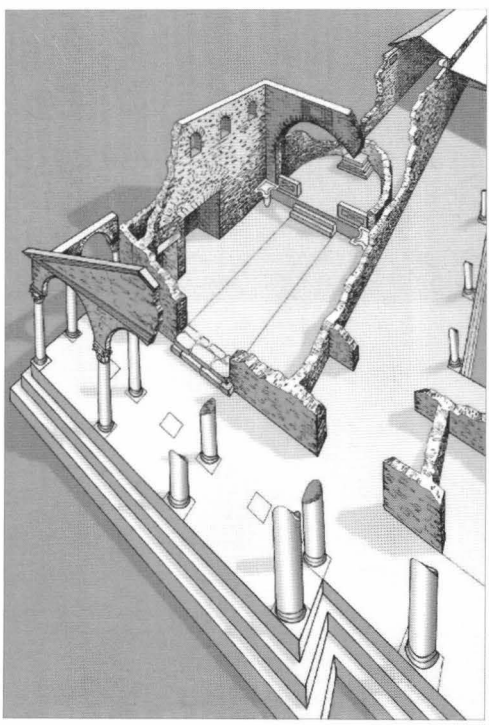

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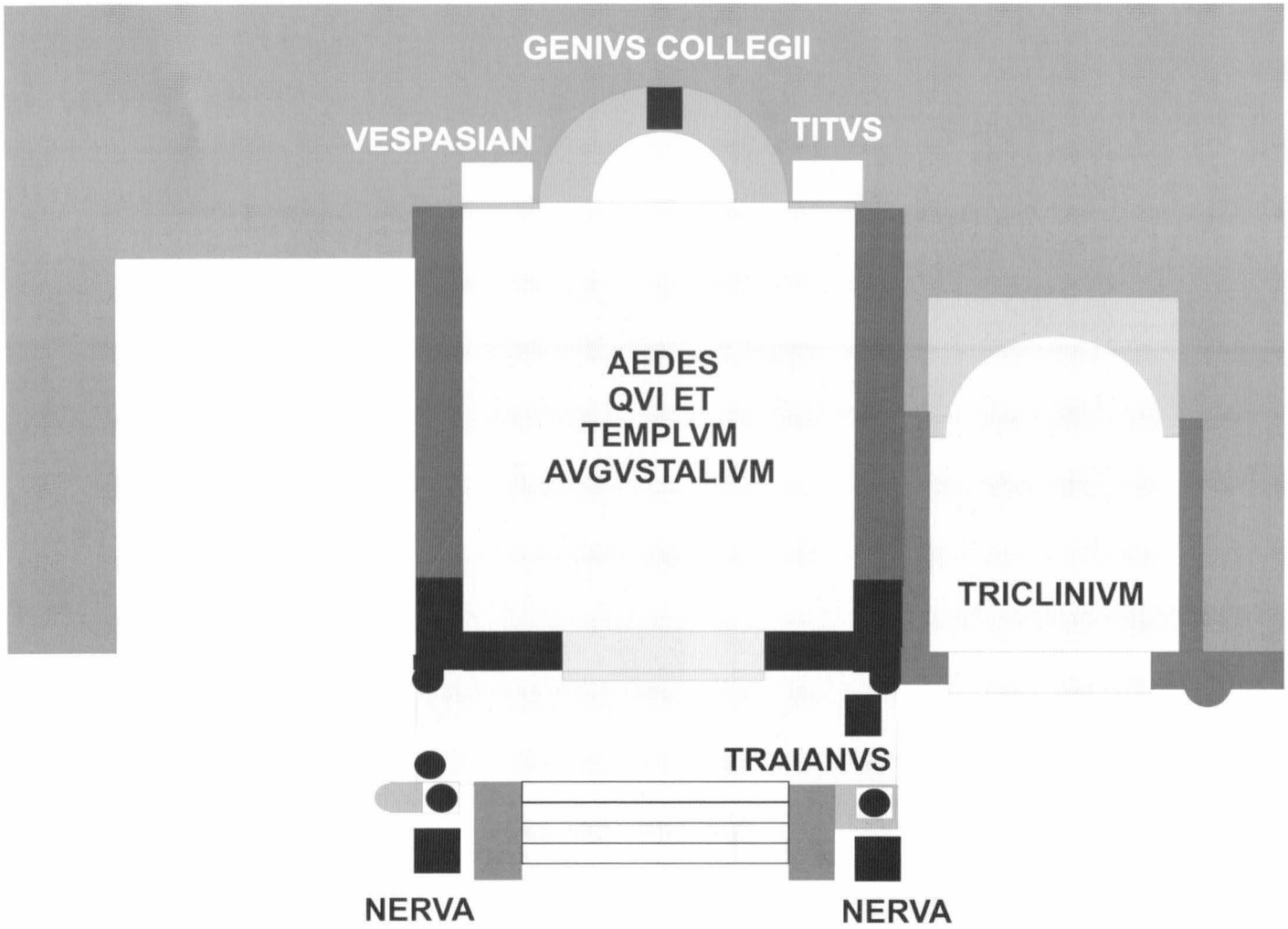
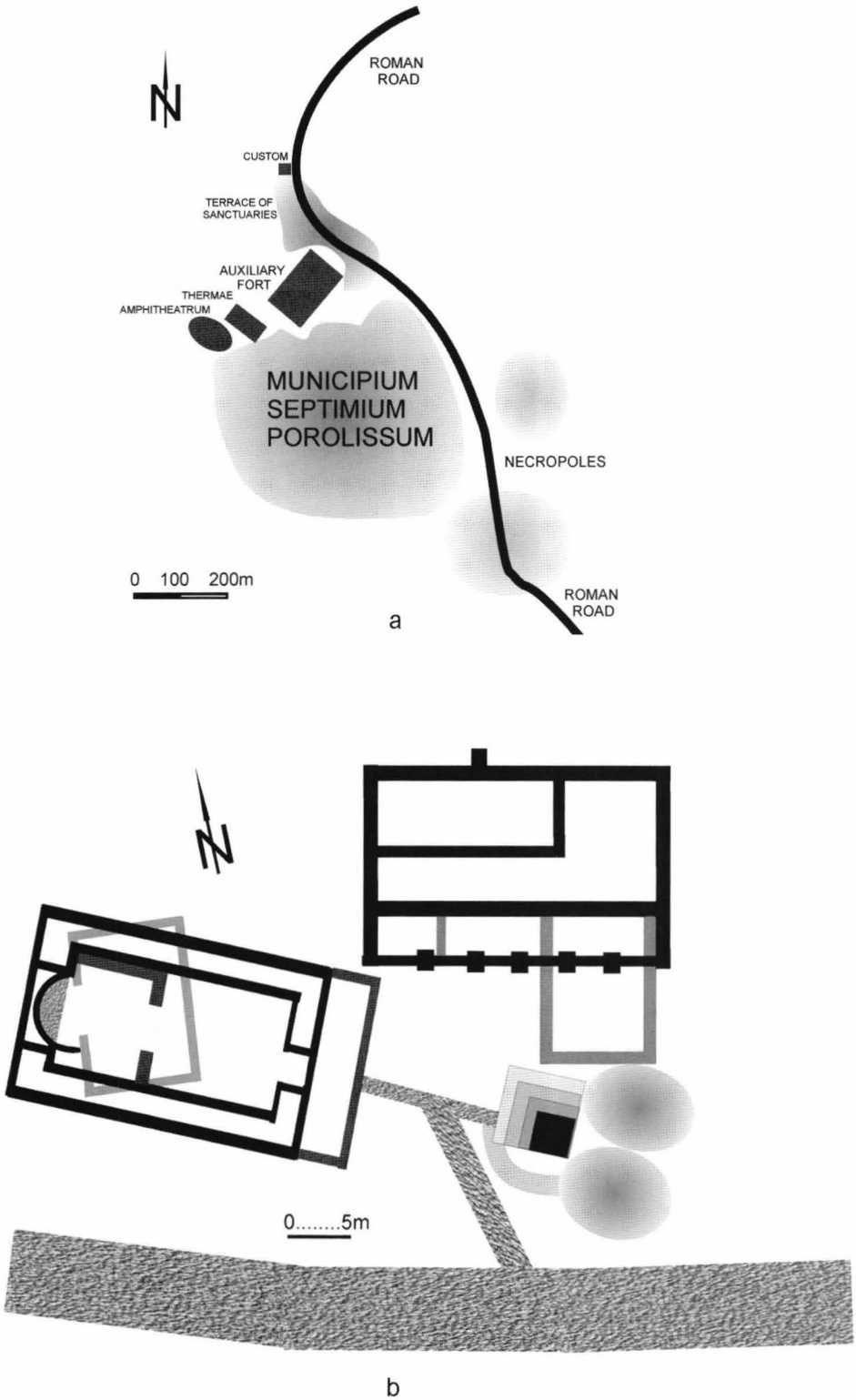
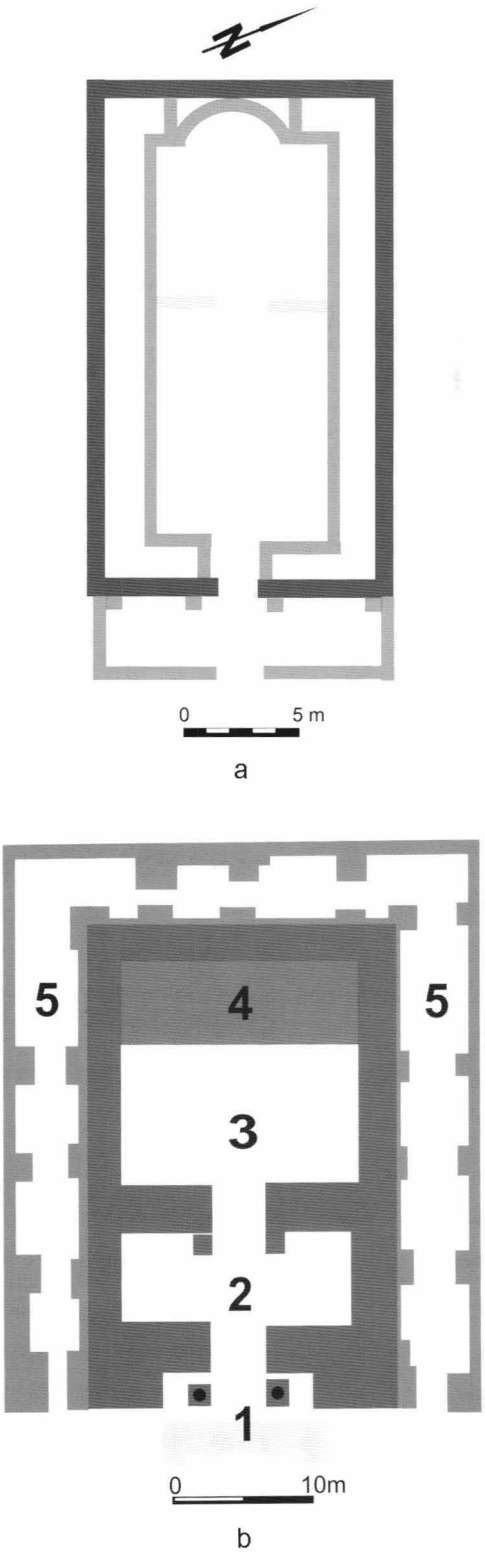
Pl. III. a. North-east corner of the Trajanic forum from Sarmizegetusa. (author's redrawing). The star marks the finding place of the inscription mentioning *"aedes fabrum"*; **b.** Sarmizegetusa. Banquet hall of *"fabri"* (partial reconstruction of the author).



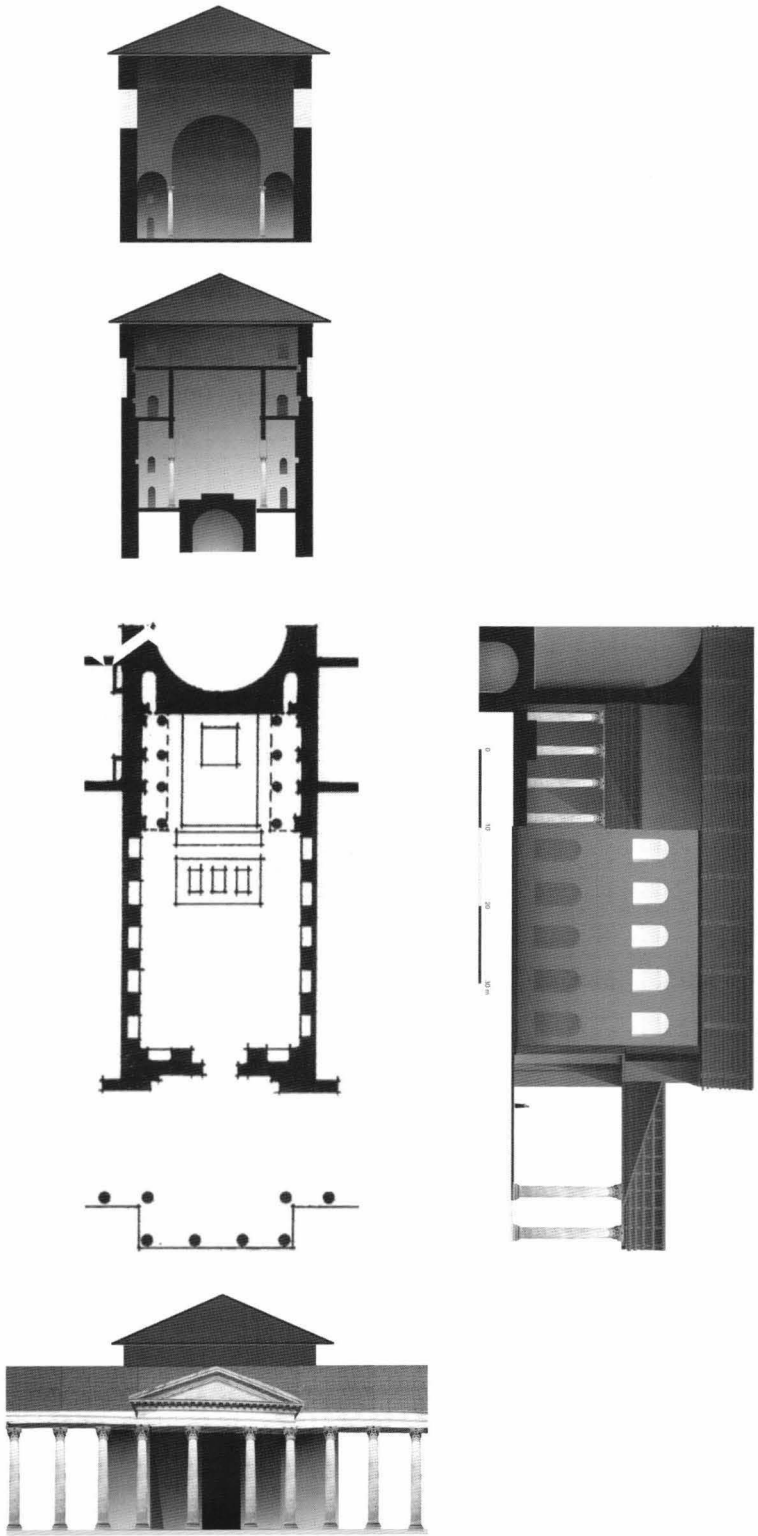
Pl. IV. *"Templum Augusti"* and seat of *"Augustales"* from Misenum (plan of the backside with *"aedes"* and *"triclinium"*, redrawn by the author).



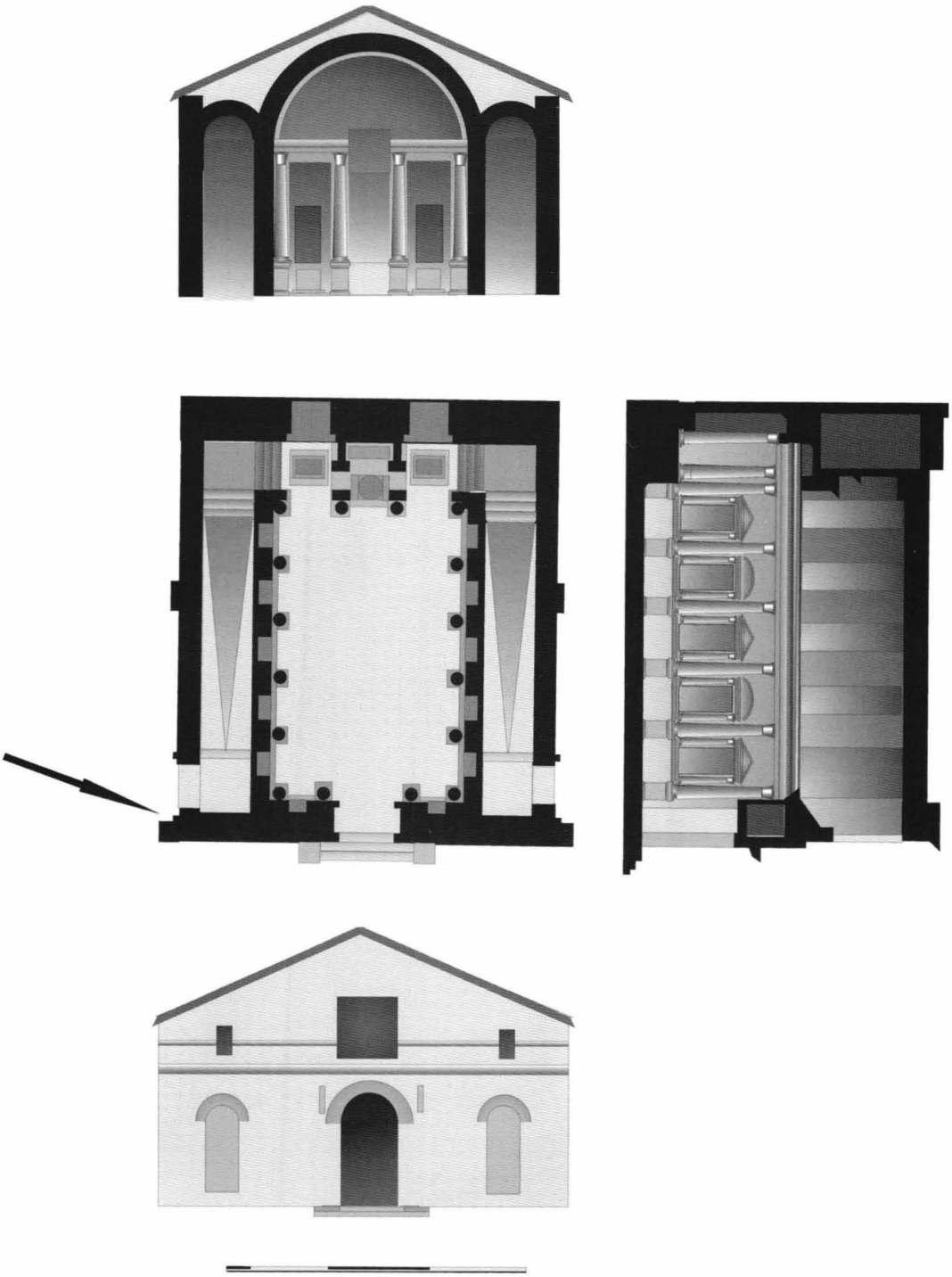
Pl. V. Porolissum: **a.** general plan redrawn by the author; **b.** supposed cult complex of Liber Pater and Bel, with altar and *"favissae"* (after Matei 1980).



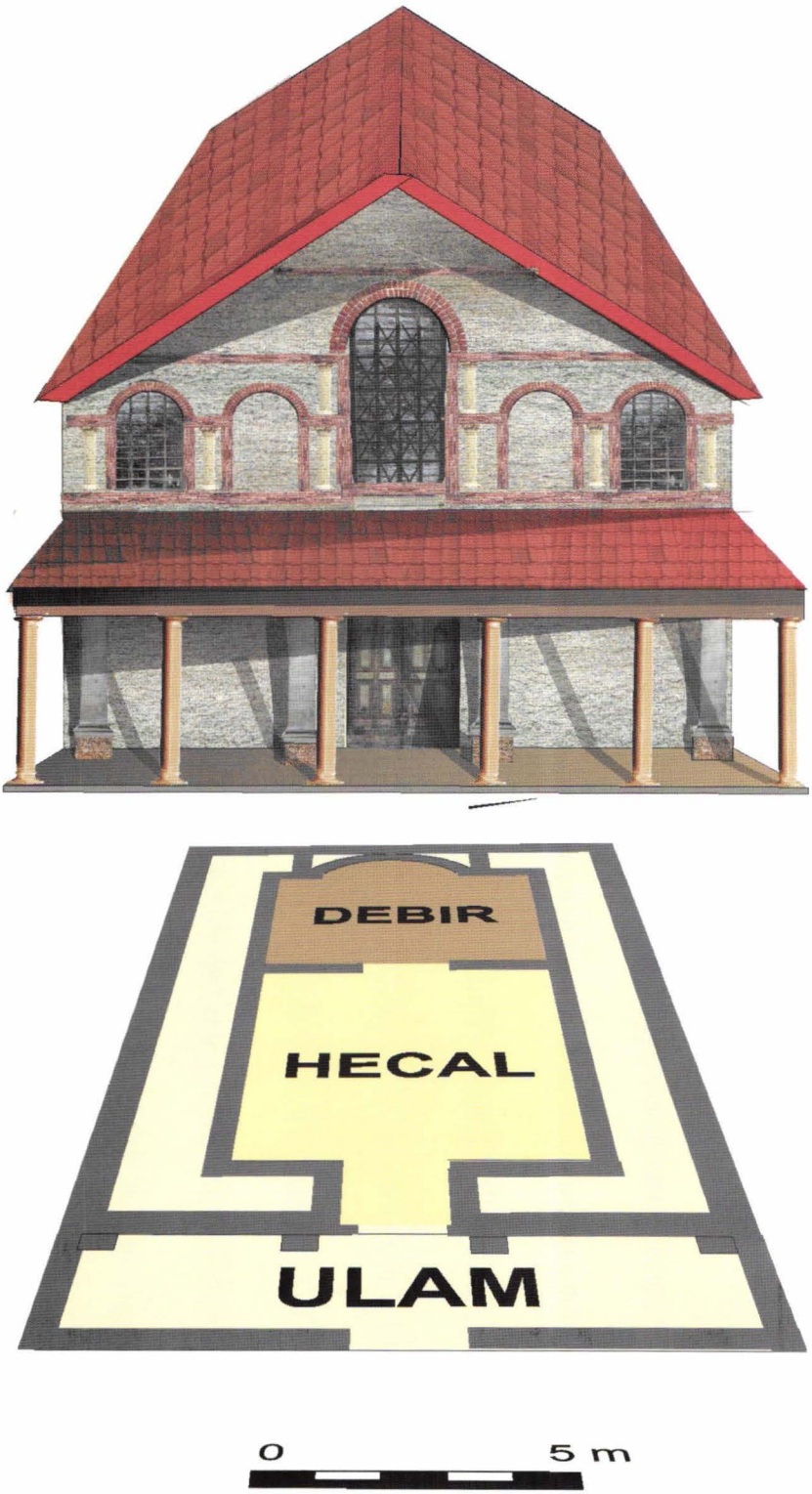
Pl. VI. a. Porolissum. Cult building of Bel (last phase redrawn by the author); **b.** Ain Dara, Syria (plan redrawn by the author).



Pl. VII. The "Red Hall" from Pergamum. Plan and elevation reconstructed by the author after old drawings (see Radt 1999, Abb. 143-144 and 148) and own photos.

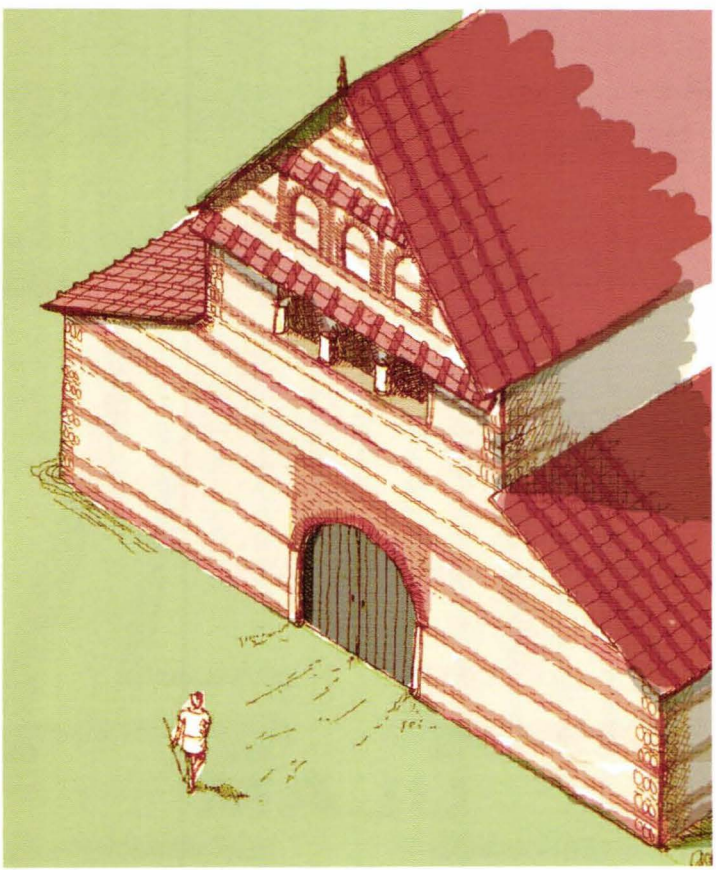


Pl. VIII. The "Temple of Diana" at Nîmes (plan and elevation reconstructed by the author after Stierlin 2002, p. 59 and own photos).



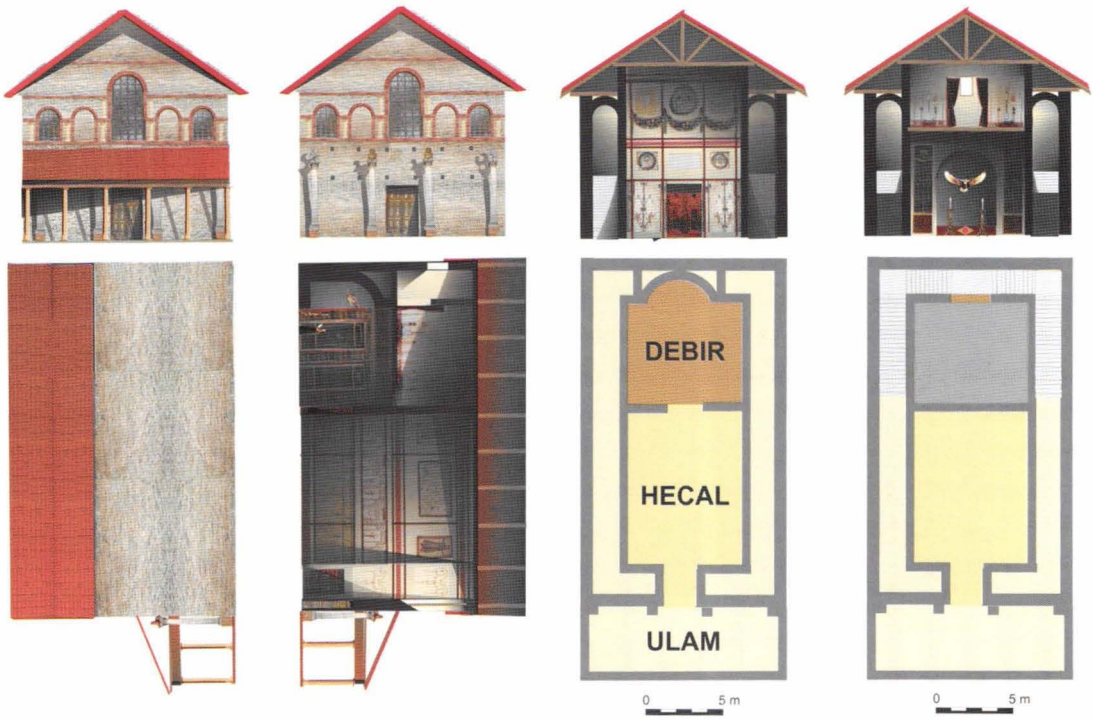
Pl. IX. Porolissum. Temple of Bel (ideal reconstruction of the facade and author's vision on its components).

a

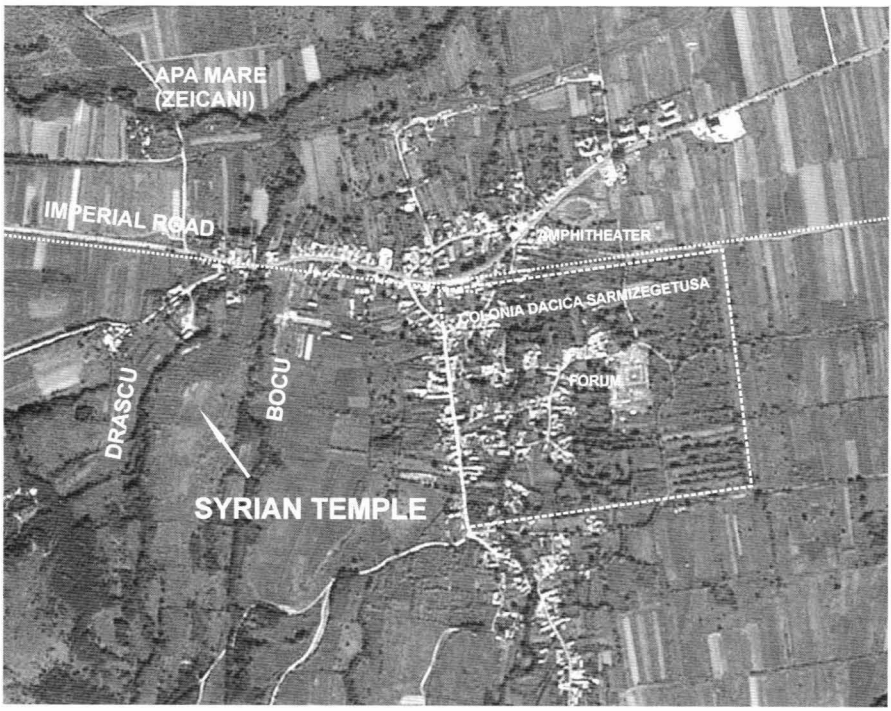


b

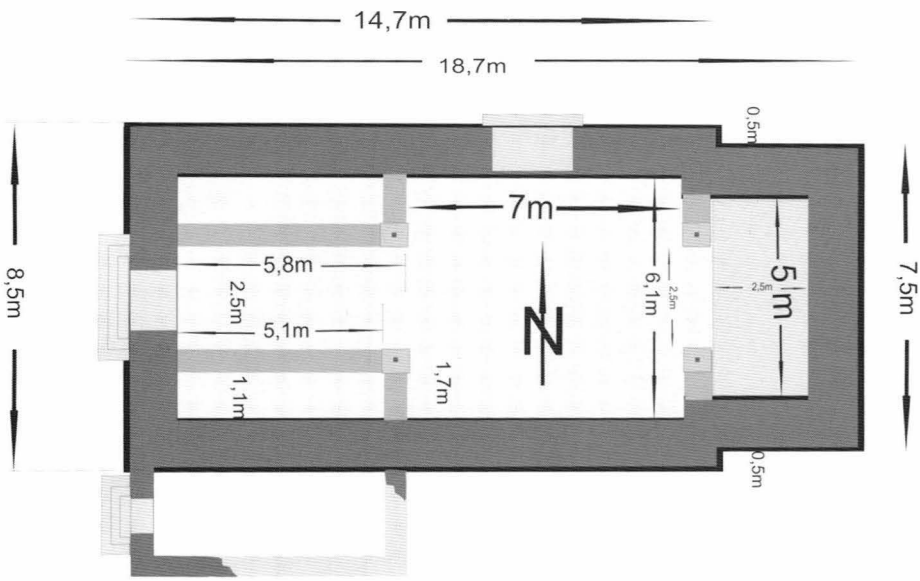
Pl. X. a. Collapsed facade of Roman building near Rottweil (Foto: LAD, O. Braasch after http://www.denkmalpflege-bw.de/denkmale/projekte/archaeologische-denkmalpflege/dreidimensionale-rekonstruktion-roemischer-gebaeude-die-villa-rustica-von-oberndorf-bochingen.html); **b.** Elevation of the facade of villa from Meonstoke (after De La Bédoyère 2001, p. 136, fig. 96).



Pl. XI. Ideal reconstruction of the temple of Bel from Porolissum (the author's impression).

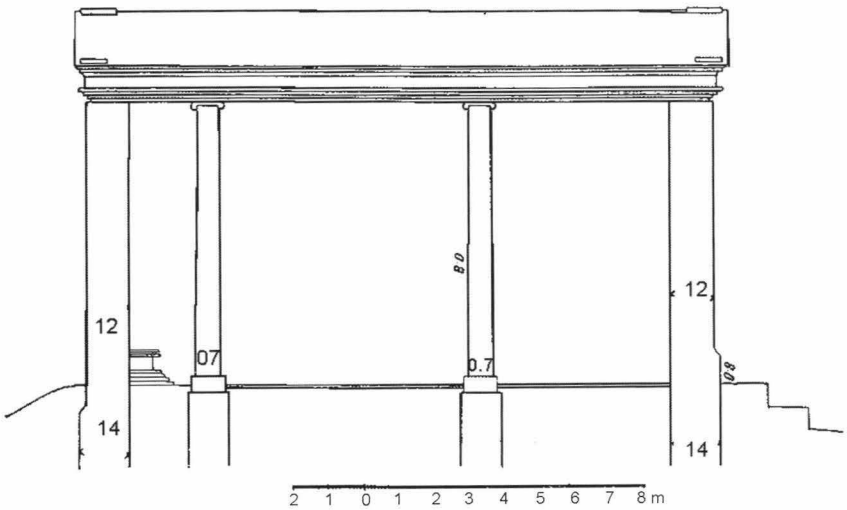


a

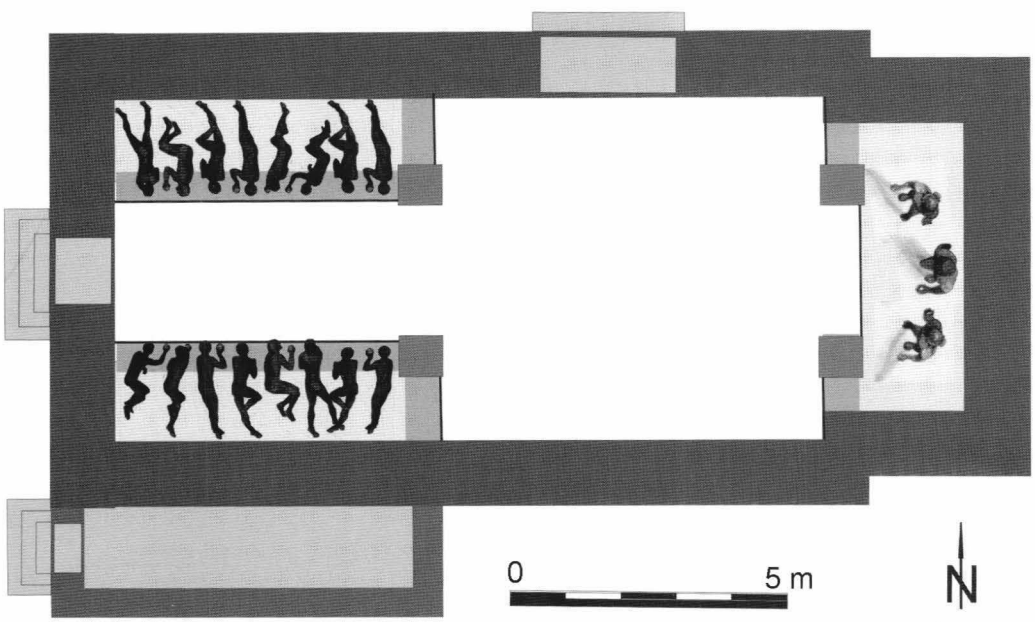


b

Pl. XII. a. Sarmizegetusa. Position of "Syrian Temple" (after Téglás 1905, fig. 1 - drawing of the author on Google Earth satellite image); **b.** Sarmizegetusa. Plan of the "Syrian Temple" (drawn by the author after the new translation of G. Téglás archaeological report). The position of entrances is conjectural.

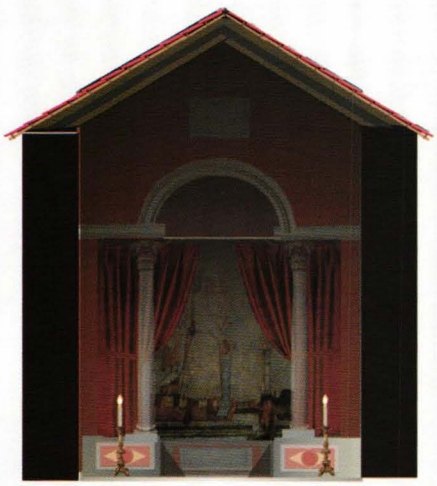


a

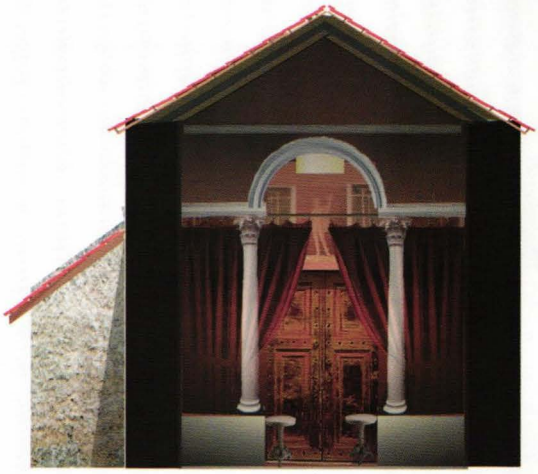


b

Pl. XIII. a. Ideal cross section of the "Syrian Temple" in Sarmizegetusa (reproduced after Téglás 1905, fig. 3); **b.** Sarmizegetusa. Plan of the "Syrian Temple" (author's interpreting of the functions of different spaces).



a

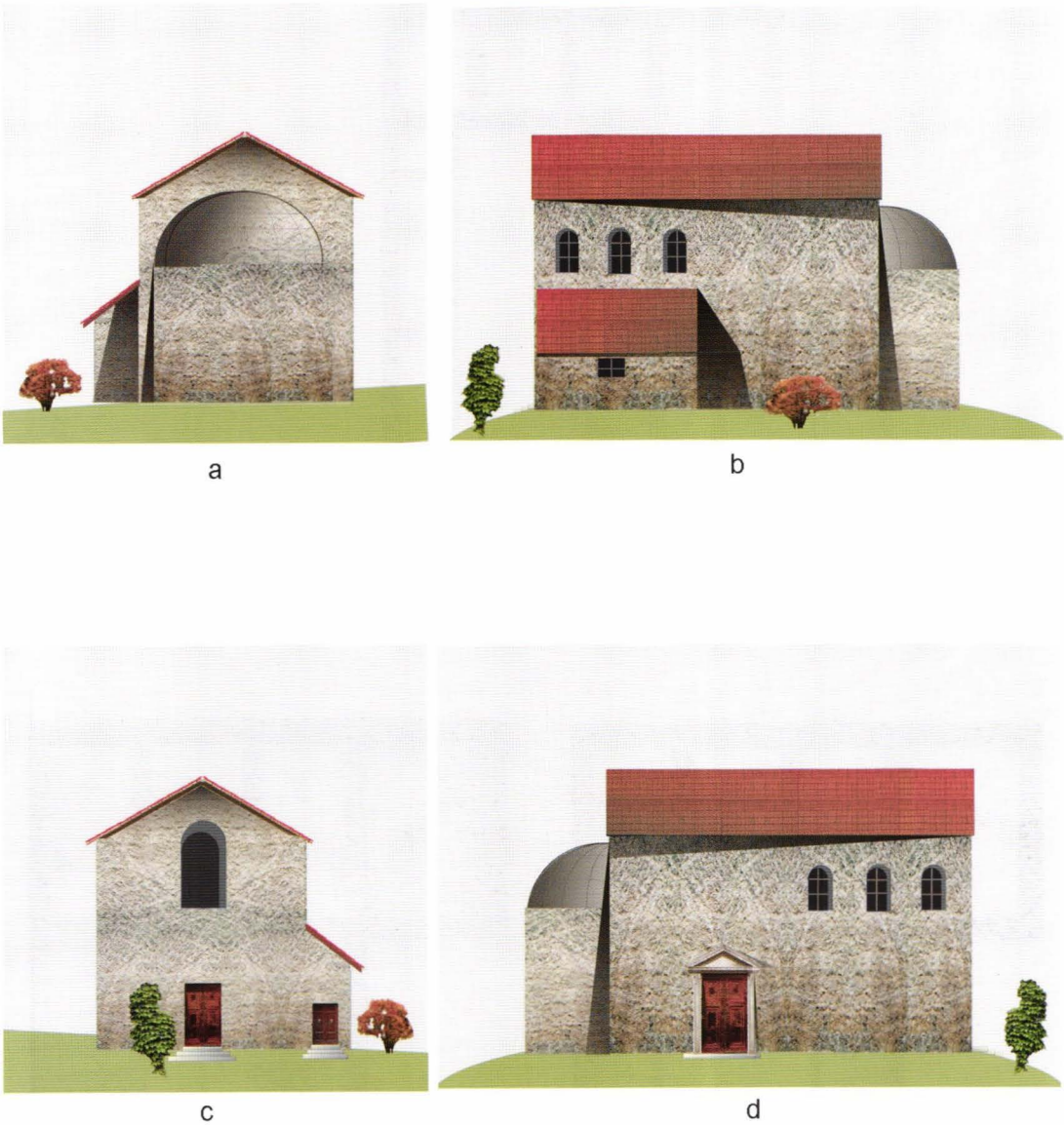


b

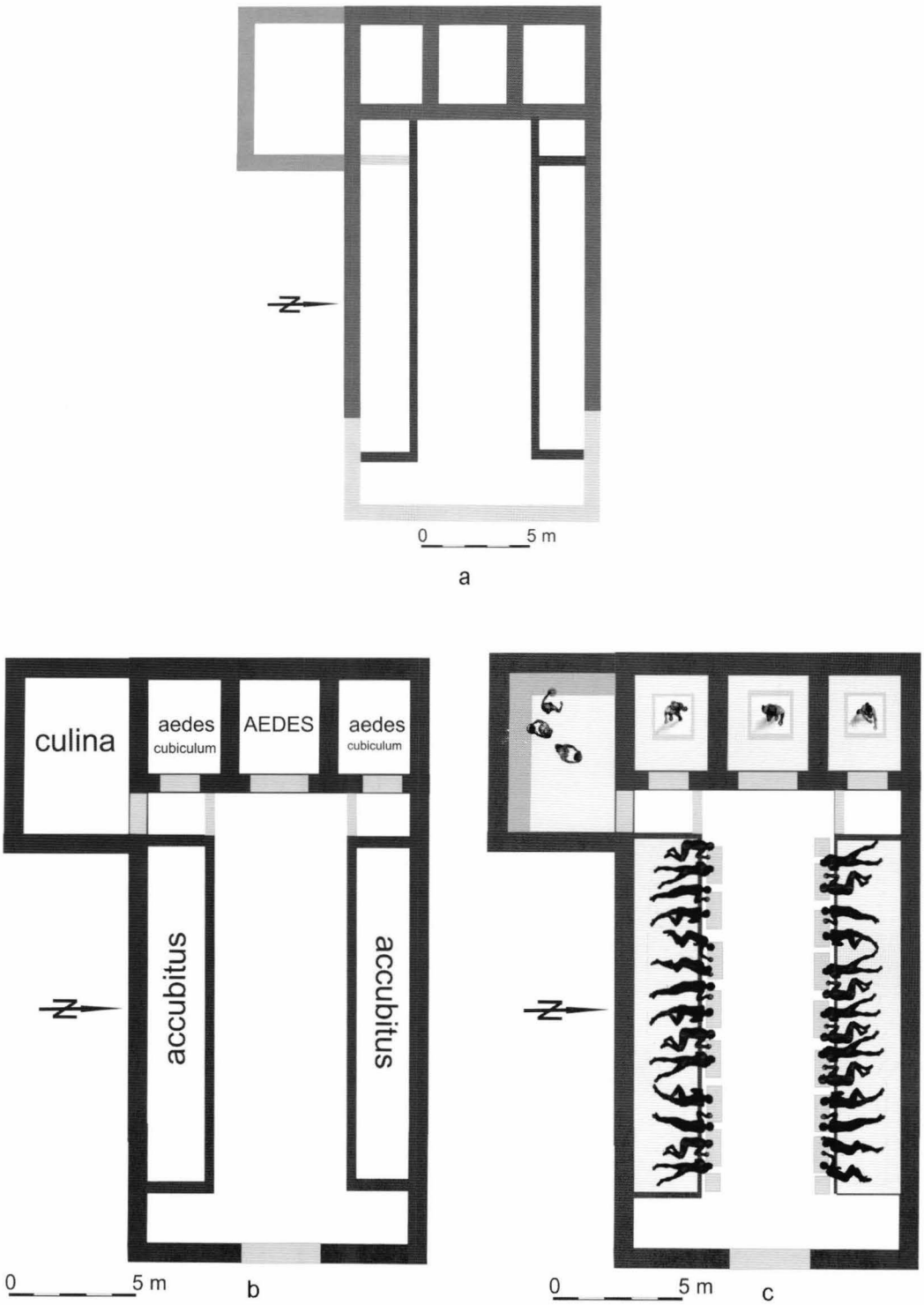
c

d

Pl. XIV. a-d. Author's ideal reconstruction of the "Syrian Temple" from Sarmizegetusa - cross sections through the temple.

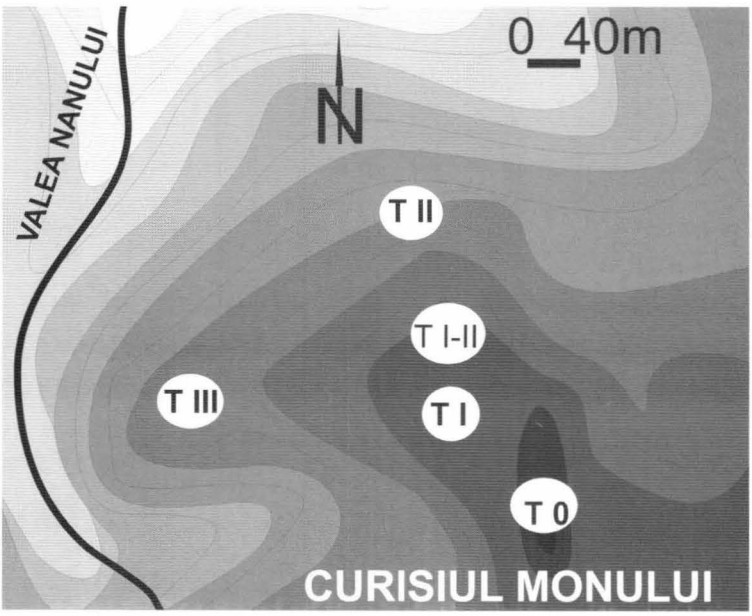


Pl. XV. a-d. Author's ideal reconstruction of the "Syrian Temple" from Sarmizegetusa - elevation seen from outside.

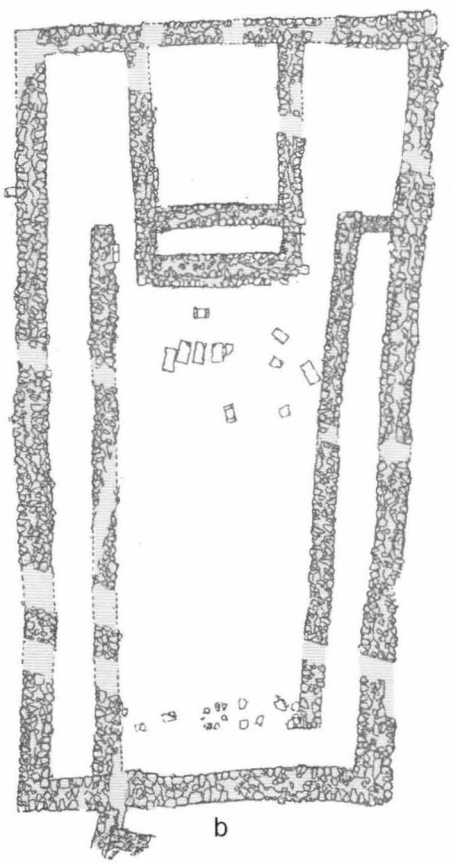


Pl. XVI. a. Plan of the "Temple of *Dii Mauri*" from Micia, redrawn by the author; **b-c.** Plan of the "Temple of *Dii Mauri*" from Micia, as interpreted by the author.

Pl. XVII. Inside view of the Moorish temple from Micia (the author's artistic impression).

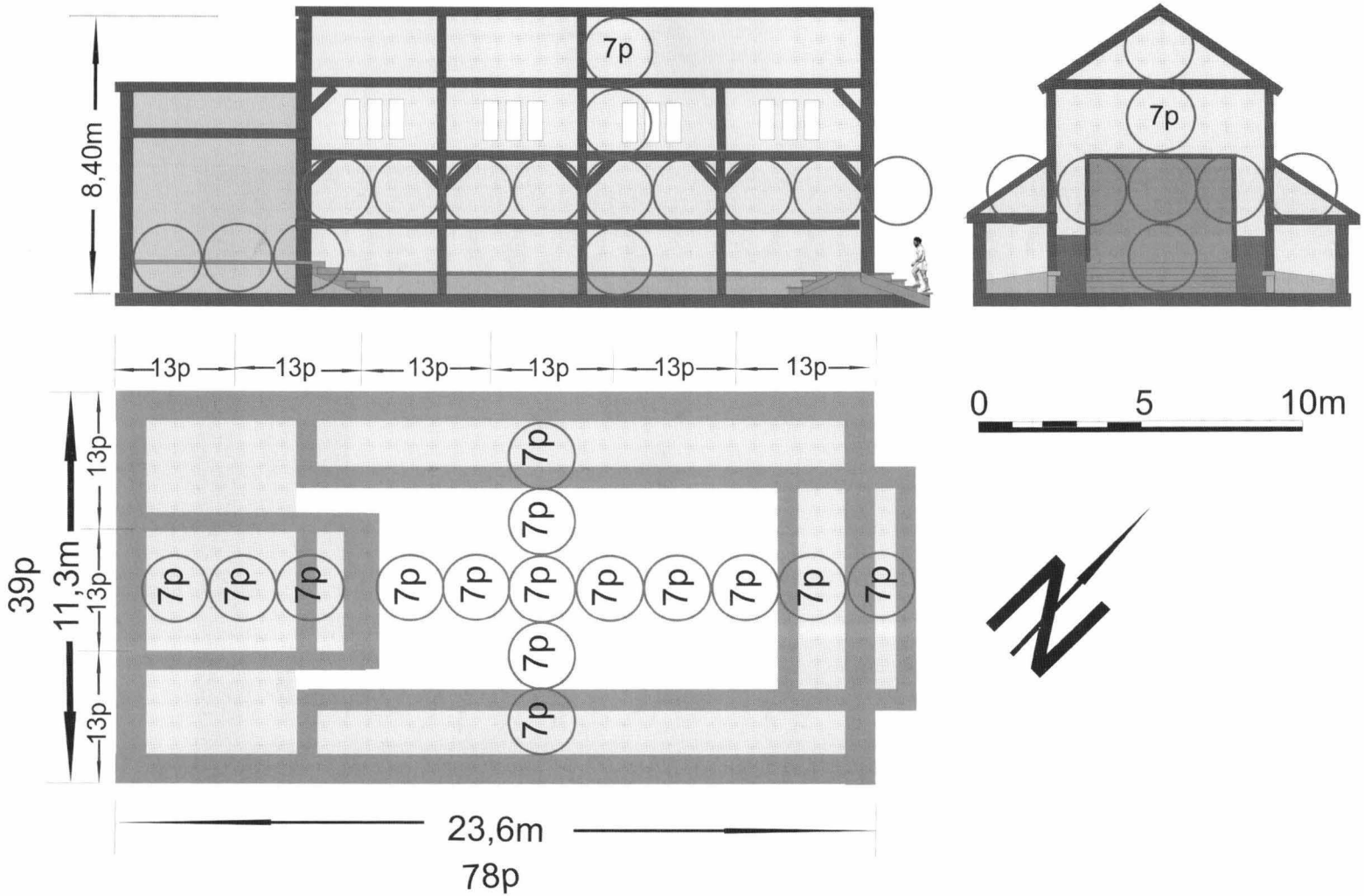


a

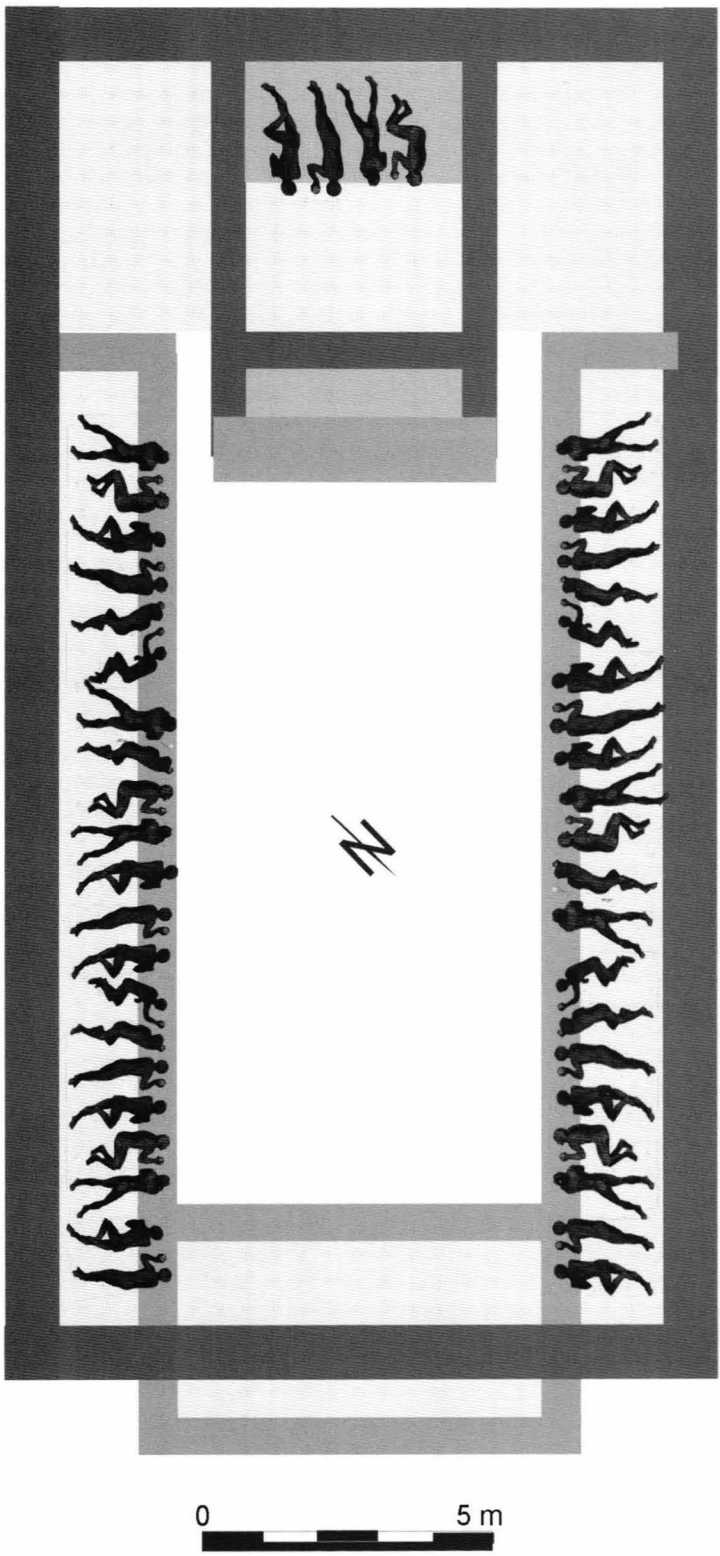


b

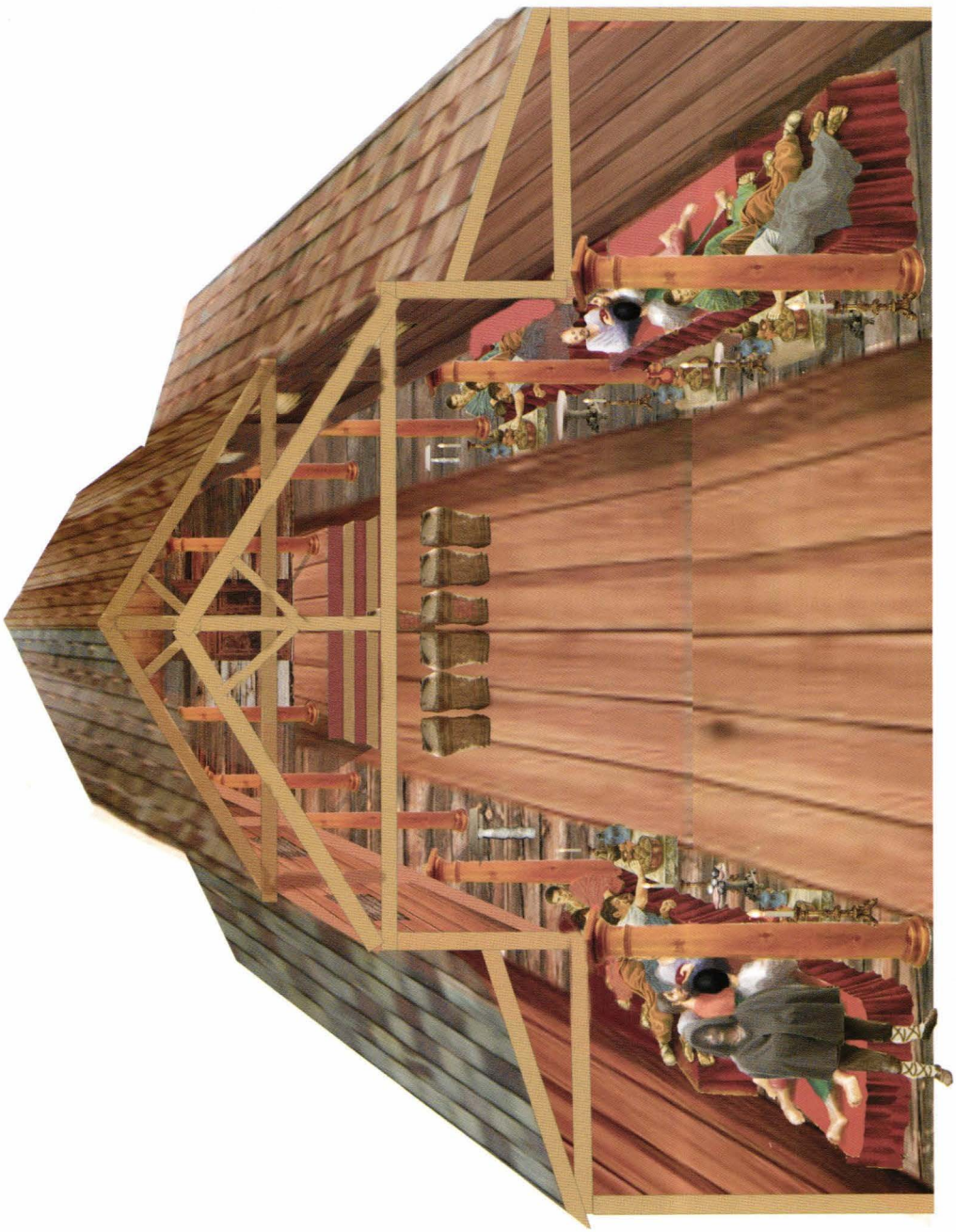
Pl. XVIII. Alburnus Maior: **a.** The "Curișiul Monului" hill with the archaeological objectives so far identified here (redrawn by the author); **b.** temple of *Sardeatae* (plan redrawn by the author).



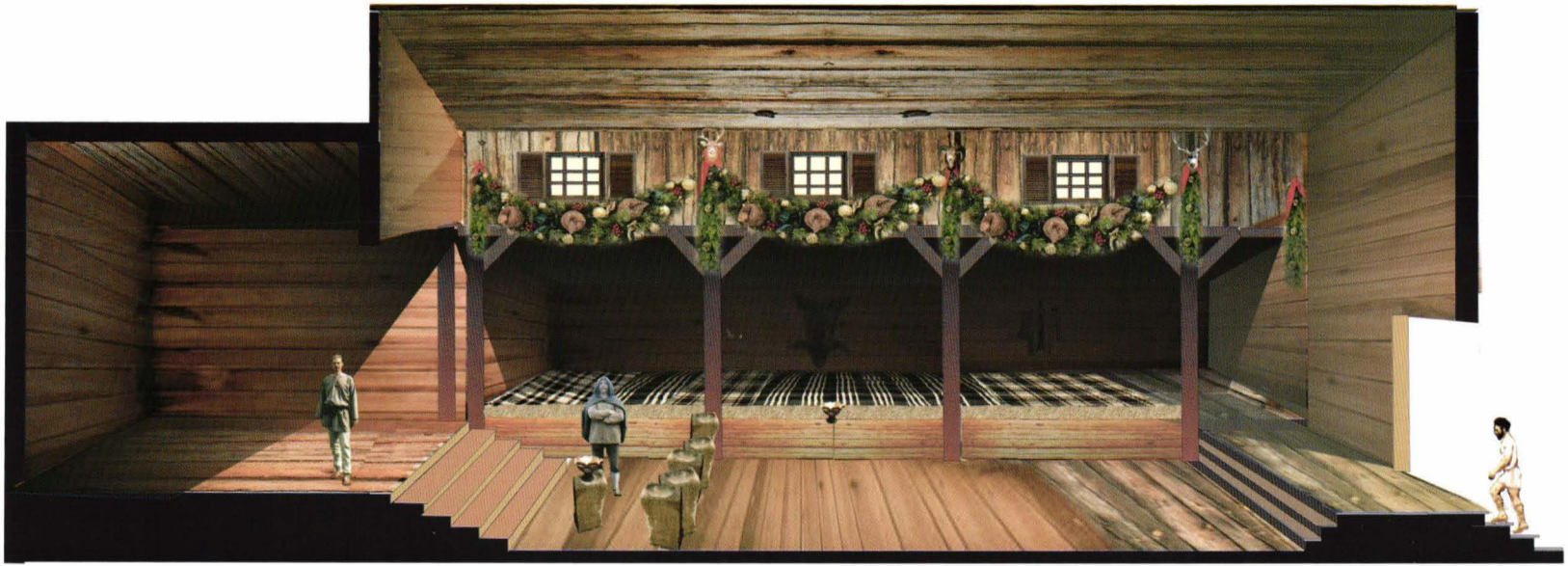
Pl. XIX. Alburnus Maior, temple of *Sardeatae* - plan and elevation showing modulation and proportions.



Pl. XX. Alburnus Maior, temple of *Sardeatae*, plan with functions interpreted by the author (the persons lying in the cult chamber are conjectural).



Pl. XXI. Alburnus Maior, temple of *Sardeatae* (the author's artistic impression).



Pl. XXII. Alburnus Maior, temple of *Sardeatae* (the author's artistic impression).

Acta Musei Napocensis, 45-46/I, 2008-2009 (2011), p. 193-205

EIN DIPLOM FÜR DIE RAVENNATISCHE FLOTTE UNTER DEM PRÄFEKTEN AURELIUS ELPIDEPHORUS AUS DEM JAHR 221 N. CHR.

WERNER ECK, ANDREAS PANGERL

Radu Ardevan zum 60. Geburtstag gewidmet

Abstract: A new fragment of a military diploma attests an imperial constitution of Elagabal for the fleet of Ravenna in the year 221. The name of the *praefectus classis* was partially preserved: *[--]dephoro*. It leads to the name Elpidephorus. The person must be identified with the equestrian procurator Aurelius Elpidephorus. The same prefect can be found in the RGZM 53 = RMD V 457 fragment of diploma as well. Also RMD V 463 is discussed in an appendix.

Key words: fleet of Ravenna; imperial constitutions; a new fleet's prefect Aurelius Elpidephorus for the year AD 221.

Die Zahl der bekannten Militärdiplome hat in den letzten zwei Jahrzehnten sprunghaft zugenommen, speziell diejenigen für die Truppen außerhalb Italiens, die den Großteil des römischen Heeres darstellen. Entsprechend besser wurde für viele Provinzen die Dokumentation der dort tätigen Statthalter und Militärkommandeure, da diese in den Diplomen genannt werden. Mit der spätseverischen Zeit entfällt diese Quellengattung für die Auxilien völlig. Das bisher späteste genau datierte Diplom für ein Provinzheer stammt aus dem Jahr 206, das eine Konstitution von Septimius Severus und Caracalla für den *exercitus* in Ägypten bezeugt[1]. Nach dem Jahr 212 sind Bürgerrechtsverleihungen an die Soldaten in den Provinzen offensichtlich nicht mehr als nötig erachtet worden; damit entfiel auch diese Form der Beurkundung. Allein um das *conubium* zu beurkunden, stellte man keine Bronzediplome mehr aus; dieses konnte man, wenn nötig, auch auf einfacherem und billigerem Schreibmaterial bestätigen.

Umso erstaunlicher ist im Gegensatz zum Verhalten gegenüber den Auxilien die große Zahl von Bronzediplomen, die für die Zeit ab Caracalla für die Truppen in Italien bekannt geworden sind und immer noch bekannt werden, zum einen für die Prätorianerkohorten und für die *equites singulares*, zum andern für die italischen Flotten. Darin drücken sich vermutlich der höhere Rang und die größere politische Bedeutung dieser Truppen aus[2]. Während die Prätorianerdiplome außer den Namen

[1] W. Eck, *Septimius Severus und die Soldaten Das Problem der Soldatenehe und ein neues Auxiliardiplom*, in B. Onken, D. Rohde (Hrsg.), *In omni historia curiosus*. Studien zur Geschichte von der Antike bis zur Neuzeit. Festschrift für Helmuth Schneider zum 65. Geburtstag, Wiesbaden 2011, 63 ff.

[2] Siehe dazu W. Eck, *Diplomata militaria* für Prätorianer, vor und seit Septimius Severus. Eine Bestandsaufnahme und ein Erklärungsversuch, Athenaeum 100, 2012 (im Druck).

und der Herkunft der Soldaten keine weiteren Details zur inneren Struktur oder den Kommandeuren dieser Kohorten beibringen, ist dies bei den Flottendiplomen anders; denn sie verweisen zumindest auf die jeweiligen Flottenpräfekten. Die vielen Diplome haben damit auch unsere Kenntnisse über diese Kommandeure deutlich verbessert[3].

In der letzten zusammenfassenden Bearbeitung der Flottendiplome durch A. Magioncalda ist auch ein Dokument eingeschlossen, das aus mehreren Fragmenten zusammengesetzt werden konnte (RGZM 53 = RMD V 457) und noch drei Buchstaben vom Namen eines Präfekten der *classis Ravennas* entziffern ließ: *in c[lasse praet(oria) A]ntoninian(a) [Ravennate quae est sub ---]++++oro [praef(ecto)]*[4]. Durch die Angabe der Konsuln ist das Diplom in das Jahr 221 n. Chr. unter Elagabal datiert. Dass es sich bei diesem Diplom, obwohl der Name der *classis* nicht erhalten ist, um einen Erlass für die Flottensoldaten von Ravenna handelt, hatte man wegen einer Parallelkonstitution für die Flotte von Misenum vom 29. Nov. 221 erschlossen, in der der Kommandeur genannt ist, dessen Name jedoch anders lautet: Appius Celer[5]. Somit musste das Diplom RMD V 457 für die *classis Ravennas* bestimmt sein.

Die noch vorhandenen Lücken sowie kleinere Unsicherheiten im Text und in der Interpretation dieses Diploms können nun durch ein neues Diplomfragment geschlossen werden.

Erhalten ist ein Fragment aus der oberen linken Hälfte einer tabella I (Abb. 1-2). Eine zweifache Linie bildet den Rahmen. Die Buchstaben sind auf der Außenseite tief und klar eingraviert, selbst auf der Innenseite sind die Buchstaben recht deutlich und nicht in der in der späten Severerzeit sehr oft recht nachlässigen Weise geschrieben.

Höhe 5,3 cm; Breite 5,0 cm; Dicke 1 mm; Buchstabenhöhe außen 4 mm, innen 4 mm. Gewicht 22 Gramm.

Zur Herkunft gibt es keine Information. Doch stammen, jedenfalls nach den Diplomen des 3. Jh., die meisten Flottensoldaten aus den Donauprovinzen. Damit darf man annehmen, dass auch dieses Diplom am ehesten aus dieser Region kommt.

Folgendes ist zu lesen[6]:

[3] A. Magioncalda, *I prefetti delle flotte di Miseno e di Ravenna nella testimonianza dei diplomi militari: Novità e messe a punto*, in M. L. Caldelli, G. L. Gregori, S. Orlandi (Hrsg.), Epigrafia 2006, Rom 2008, III, S. 1149 ff.

[4] Vgl. Magioncalda (Anm. 3), S. 1150 f. mit Anm. 15.

[5] Dazu W. Eck, *Ein neues Militärdiplom für die misenische Flotte und Severus Alexanders Rechtsstellung im J. 221/222*, ZPE 108, 1995, S. 15 ff. = RMD IV 307. Dazu auch in Kürze W. Eck, Bürokratie und Politik. Bürokratische Routine und politische Reflexe in Bürgerrechtskonstitutionen der römischen Kaiser, Wiesbaden 2011, F, 49 ff.

[6] Die sicheren Ergänzungen sind bereits eingesetzt.

Abb. 1

Außenseite:

[--]+[--]
[M] AVRELLIVS A[NTONINVS PIVS FELIX AVG SACER]
DOS AMPLISS[IMVS DEI INVICTI SOLIS ELAGABALI]
PONT MAX TR[IB POT -- COS -- P P]
IIS QVI MILITAVER[VNT IN CLASSE PRAETORIA ANTO]
NINIANA RAVE[NNATE QVAE EST SVB --]
DEPHORO PRA[EF OCTONIS ET VICENIS STIPENDIS]
EMERITIS DIM[ISSIS HONESTA MISSIONE QVORVM]
NOMINA SVB[SCRIPTA SVNT IPSIS FILISQVE EORVM]
[QVOS] SVSCE[PERINT EX MVLIERIBVS QVAS SECVM]

Abb. 2

Innenseite: [--]++[--]
[PROBAVE]RINT CIVITATE[M ROMANAM DEDIT ET]
[CONVBIV]M CVM IISDEM Q[VAS TVNC SECVM HA]
[BVISSENT CV]M EST CIVITAS II[S DATA AVT SI QVI]
[TVNC NON HABVI]SSENT CVM IS [QVAS POSTEA]
[VXORES DVXISSENT] DVMTAXAT S[INGVLIS]
vacat SINGVLAS

Das Diplom wurde unter Elagabal ausgestellt, und zwar zu einer Zeit, als Severus Alexander noch nicht in die Bürgerrechtskonstitutionen eingeschlossen wurde; das geschah erst gegen Ende des Jahres 221[7]. Elagabal ist hier noch allein als privilegierender Kaiser angegeben. Der Text entspricht dem Formular, das wir auch sonst für die Flottenprivilegierung in dieser Zeit kennen; es weist keine Besonderheiten auf. Vom Namen des Präfekten ist auch hier nur ein Teil erhalten, aber doch um so viel mehr als in dem zuvor genannten Diplom, dass eine Identifizierung der Person möglich ist.

Der Rest des Namens *[--]dephoro* kann allein zu *Elpidephoro* ergänzt werden. Seit langem ist nun ein Aurelius Elpidephorus durch zwei epigraphische Zeugnisse

[7] Siehe Anm. 5.

bekannt. Zum einen wird er in einer Inschrift aus Sparta bezeugt, in der ein *Αὐρήλιος Ἐλπιδεφόρος* als *ἐπίτροπος τῶν Σεβαστῶν* erscheint[8]. Zudem wird eine Person gleichen Namens in einem Text aus Synnada in Phrygien angeführt, und zwar in einer Inschrift unter einer Ehrenstatue für eine Claudia Septimia Nicarete, die die Bezeichnung *ἡ κρατίστη* trägt, genauso wie ihr Gatte Aurelius Elpidephorus *ὁ κράτιστος* genannt wird[9]. Aus dem ersten Zeugnis darf man erschließen, dass Aurelius Elpidephorus als Prokurator in Achaia tätig gewesen war. Das zweite Zeugnis, nach dem für seine Frau Claudia Septimia Nicarete durch einen Amtsträger der Stadt Synnada eine Statue errichtet wurde, gibt keinen direkten Hinweis auf eine amtliche Stellung des Aurelius Elpidephorus. Deshalb könnte man den dortigen Text zum einen so deuten, dass beide vielleicht aus dieser Stadt stammten oder zumindest dort ihren Wohnsitz hatten; möglich wäre aber auch, dass Elpidephorus in der Region um Synnada ebenfalls einer amtlichen Funktion nachging, z.B. als verantwortlicher Prokurator für die Steinbrüche oder vielleicht noch allgemeiner von Phrygia. Da freilich bei beiden nur die Rangtitel erscheinen, ist eine Zugehörigkeit zur dortigen lokalen Gesellschaft vielleicht wahrscheinlicher als ein amtlicher Auftrag in der Region.

Bisher hatte man den Prokurator entweder in die Zeit der Samtherrschaft von Marc Aurel und Verus[10] oder in die von Septimius Severus und Caracalla zwischen 198 und 208 gesetzt[11]. Die erste Datierung ist sehr unwahrscheinlich, weil die Ehefrau des Elpidephorus als zweites Gentile *Septimia* trägt; das ist vor der Regierungszeit des Septimius Severus kaum zu erwarten.[12] Wer genau mit *τῶν Σεβαστῶν* gemeint ist, ist nicht sicher zu klären, aber vermutlich Septimius Severus und Caracalla oder auch Septimius Severus mit seinen beiden Söhnen. Auch Caracalla und Geta könnten während ihrer kurzen gemeinsamen Regierung gemeint sein. *Σεβαστῶν* kann auf zwei oder drei Kaiser verweisen.

Es scheint kaum zweifelhaft, dass dieser Aurelius Elpidephorus mit dem *[--]phorus praefectus classis Ravennatis* unter Elagabal identifiziert werden darf. Ein anderer Elpidephorus ist bisher in der kaiserzeitlichen Prosopographie nicht bekannt[13]. Setzt man nun diesen Namen in dem Diplom ein, dann wird damit der Platz in der entsprechenden Zeile perfekt gefüllt:

---

[8] IG V 1, 501.

[9] IGR IV 705 = MAMA IV 65.

[10] PIR² A 1497.

[11] H.-G. Pflaum, Les carrières procuratoriennes équestres sous le Haut-Empire romain, Paris 1960, III 1071.

[12] Die Statue in Synnada ist wohl erst nach 212 errichtet worden, da der für die Statuenerrichtung verantwortliche Magistrat das Gentile Aurelius trägt, während der Vatersname bei ihm nur als Euagros erscheint.

[13] Siehe die Namensliste der PIR unter http://www.bbaw.de/cgi-bin/pir/pir-suche. Man könnte vermuten, der ritterliche Prokurator sei vielleicht der Sohn oder Nachkomme von *M. Aurelius Augg(ustorum) lib(ertus) Elpideforus*, der aus CIL VI 13078 = D 8109 bekannt ist. Denn dass die Nachkommen kaiserlicher Freigelassener immer wieder die Chance hatten, in den Ritterstand aufzusteigen und dann auch in die prokuratorische Administration einzusteigen, ist bekannt. Doch ist das cognomen Elpidephorus zu häufig, als dass es als entscheidendes Argument angesehen werden dürfte. Immerhin würden die Zeugnisse zeitlich zusammenpassen.

IIS QVI MILITAVER[VNT IN CLASSE PRAETORIA ANTO]
NINIANA RAVE[NNATE QVAE EST SVB AVRELIO ELPI]
DEPHORO PRA[EF OCTONIS ET VICENIS STIPENDIS]
EMERITIS DIM[ISSIS HONESTA MISSIONE QVORVM]

Dieser Aurelius Elpidephorus befehligte die Flotte von Ravenna unter Elagabal. Allerdings gibt das neue Diplom keinen genauen zeitlichen Hinweis auf ein bestimmtes Jahr. Da aber hilft das oben angeführte Diplom RGZM 53 = RMD V 457 weiter. Auch dort kann man den Namen des Aurelius Elpidephorus ergänzen. Dort waren bisher nur drei Buchstaben sicher gelesen worden. Doch hat Peter Weiß, als er von dem neuen Fragment und dem vollständigen Namen des Präfekten erfuhr, jetzt nochmals die Lesung an dem Fragment selbst überprüft und mitgeteilt, dass auch dort (in Kenntnis des neuen Diploms) die Buchstaben DEPHORO zu erkennen sind, also genauso wie auf dem neuen Diplomfragment, womit die entsprechende Passage in RGZM 53 = RMD V 457 nunmehr lautet: *[iis qui mili]taver(unt) in c[lasse praet(oria) A]ntoninian(a) [Ravennate quae est sub Aurelio Elpi]dephoro [praef(ecto) --].*

Dieses Diplom kann bei der Datierung des neuen Diploms helfen; denn RGZM 53 = RMD V 457 ist durch die Angabe der Konsuln ins Jahr 221 datiert; damit hat der in beiden Diplomen angeführte Präfekt der Flotte, Aurelius Elpidephorus, zumindest in diesem Jahr den Befehl über die Flotte gehabt. Das muss zwar nicht zwingend heißen, dass auch das neue Diplom ins Jahr 221 gehört und dass somit beide Diplome auf dieselbe Konstitution zurückgehen, doch ist dies wahrscheinlicher als die Annahme, dass zwei verschiedene Konstitutionen zugrundeliegen. Akzeptiert man diese Schlußfolgerungen, dann lässt sich auch die Kaisertitulatur Elagabals ergänzen und der Wortlaut des Diploms in der folgenden Weise vervollständigen:

[Imp(erator) Caes(ar) divi Antonini Magni Pii Aug(usti) fil(ius) divi Severi Pii nepos M(arcus)] Aurellius A[ntoninus Pius Felix Aug(ustus) sacer]dos ampliss[imus dei invicti Solis Elagabali] pont(ifex) max(imus) tr[ib(unicia) pot(estate) IIII co(n)s(ul) III p(ater) p(atriae)]

iis, qui militaver[unt in classe praet(oria) Anto]niniana Rave[nnate, quae est sub Aurelio Elpi]dephoro pra[ef(ecto) octonis et vicenis stipendis] emeritis dim[issis honesta missione,

quorum] nomina subscripta sunt, ipsis filiisque eorum, quos] susce[perint ex mulieribus, quas secum in consuetudine vixisse probave]rint, civitate[m Romanam dedit et conubiu]m cum iisdem, q[uas tunc secum habuissent, cu]m est civitas ii[s data aut, si qui tunc non habui]ssent, cum is, [quas postea uxores duxissent,] dumtaxat s[ingulis] singulas.

[A(nte) d(iem) V id(us)[14] *--- G(aio) Vettio Grato, M(arco) Vitellio Seleuco con(sulibus)]* etc.

[14] Siehe im Folgenden.

Man darf also davon ausgehen, dass beide Diplome ins Jahr 221 gehören, doch hat keines Tages und Monatsdatum bewahrt. Es gibt jedoch noch ein weiteres Diplomfragment aus dem Jahr 221, das wohl ebenfalls für die ravennatische Flotte ausgegebeben war und auf dieselbe Konstitution zurückgeht wie die beiden bisher behandelten Diplome: RMD V 458[15]. Dort ist auf der Innenseite von tabella II wenigstens ein Teil des Datums erhalten: *a(nte) d(iem) V id[us --] Grato et S[eleuco co(n)s(ulibus)]*. Gerade dieses fragmentarische Datum *a(nte) d(iem) V id[us --]* ist für eine weitere Schlussfolgerung hilfreich.

Um aber dieses Datum für weitere Schlussfoglerungen verwenden zu können, ist noch ein anderes Diplom einzubeziehen, ebenfalls aus dem Jahr 221 stammend, aber für die Flotte von Misenum ausgestellt. In diesem Diplom, RMD IV 307[16], ist Tages- und Monatsdatum überliefert, es ist der 29. November 221: *a(nte) d(iem) III kal(endas) Dec(embres)*. Dieses Datum stimmt nicht mit dem in den Diplomen für die Flotte von Ravenna überein. Denn hier ist der fünfte Tag vor den Iden eines Monats: *a(nte) d(iem) V id[us --]*) genannt, für die Flotte von Misenum aber der dritte vor den Kalenden des Dezember. Das ravennatische Diplom könnte an den Iden jeden Monats des Jahres 221 ausgestellt worden sein, nur nicht an den Iden des Dezember. Dieses Datum kann man ausschließen. Denn das Diplom vom 29. November für die Flotte von Misenum zeigt eine ganz außergewöhnliche Eigenheit, die eine Datierung der Diplome für Ravenna in den Dezember ausschließt:

Es enthält nämlich als *Nachtrag* neben dem Namen Elagabals auch den Namen des Severus Alexander als Urheber der Konstitution. Allerdings war der Name des Caesars Severus Alexander nicht in der ursprünglichen Konstitution enthalten gewesen, sonst wäre der Name direkt auf die tabella geschrieben worden. Doch hatten wohl diejenigen, die die Diplome herstellten, erfahren, dass es Spannungen am Hof gäbe und dass es notwendig werden könnte, den Namen von Severus Alexander in Dokumenten wie den Diplomen einzufügen. Deshalb hatten sie, in Vorahnung des Kommenden, nach dem Namen Elagabals und vor dem Privilegierungstext eine ganze Zeile freigelassen, was sonst *niemals* in irgendeinem Diplom geschehen ist. Als dann die Entscheidung über den Einschluss des Severus Alexander in den Konstitutionstext getroffen war, wurde sein Name in die eine vorher freigelassene Zeile hineingequetscht und im Privilegierungswortlaut das dort schon stehende Verbum *dedit* zu *deder(unt)* verbessert, damit beide, Elagabal und Severus Alexander, als Handelnde erschienen.

Dieser Tatbestand findet sich in dem Diplom für die Flotte von Misenum vom 29. November 221, nicht jedoch in den zuvor behandelten zwei Diplomen für die Flotte von Ravenna. Sowohl die Außenseite des neuen als auch die Innenseite von RGMZ 53[17] = RMD V 457 zeigen, dass nur Elagabal als Privilegierender erscheint, aber

[15] Dazu auch P. Weiß, *Neue Militärdiplome*, ZPE 117, 1997, S. 261 ff. sowie der Kommentar zu RMD IV 307.

[16] Publiziert W. Eck, *Ein neues Militärdiplom* (Anm. 5).

[17] Ursprünglich publiziert von B. Pferdehirt, P. Weiß, *Fragmente eines Flottendiploms aus dem Jahr 221 n.Chr.*, AKB 29, 1999, S. 367 ff.; P. Weiß, *Ein weiteres Bruchstück des Flottendiploms vom Jahr 221*, AKB 29, 1999, S. 553 ff.

noch nicht Severus Alexander wie in dem Diplom vom 29. November. Damit aber muss diese Konstitution für die Flotte von Ravenna vor dem 29. November erlassen worden sein, frühestens *a(nte) d(iem) V id[us Novembres]*, was dem 9. November entspräche. Noch etwas weiter kann man das Datum vielleicht dadurch einengen, weil in dem Diplom vom 29. November die Designation Elagabals zu seinem vierten Konsulat angegeben ist; dieses fehlt jedoch in RGMZ 53 = RMD V 457. Deshalb hatten die Herausgeber dieses Diploms angenommen, die Konstitution müsse spätestens im Oktober erfolgt sein; diese Schlussfolgerung ist nicht absolut zwingend, da wir nicht wissen, wann die Designation jeweils erfolgte, allerdings ist sie recht wahrscheinlich. Trifft dies zu, dann ist immer noch jeder Monat zwischen Januar und Oktober als Publikationsdatum der Diplome, in denen Aurelius Elpidephorus erscheint, möglich.

Der innerhalb eines Jahres unterschiedliche Zeitpunkt für die Ausgabe der Konstitutionen für die beiden Flotten weist aber auch noch auf einen weiteren Aspekt hin. Es wäre naheliegend zu vermuten, dass die kaiserliche Administration gleichartige Vorgänge zusammen behandelte. Privilegierung von Veteranen in beiden italischen Flotten war eine Routineangelegenheit, sie kam wohl in jedem Jahr vor und zwar in beiden Flotten. Diese Angelegenheit damit auch zusammen zu erledigen, wäre in einem rein rationalen System sicherlich naheliegend. Doch gerade das geschieht nicht. Warum das so war, lässt sich naturgemäß nicht sagen; aber dass es nicht geschah, sagt wohl doch etwas Symptomatisches über das römische administrative System aus.

Bemerkenswert ist, dass von dieser Konstitution für die classis Ravennas insgesamt drei Diplome, wenn auch fragmentarisch, erhalten sind. Bei der bekannten geringen Überlebensrate von Diplomen sind das erstaunlich viele. So müssen auch entsprechend viele Flottensoldaten damals entlassen worden sein, die ein Diplom erhalten haben.

Appendix zu RMD V 463

Peter Weiß hat in ZPE 127, 1999, S. 246 ff. ein Fragment eines Flottendiploms aus dem Jahr 224 publiziert, das sodann in RMD V 463 durch ein daran anschließendes Fragment ergänzt wurde; Andreas Pangerl hatte Paul Holder eine Abschrift zukommen lassen, damit dieser den Text komplettieren konnte. Da aber in RMD noch nicht alle Details dieses zusätzlichen Fragments in die Publikation eingeschlossen wurden und vor allem noch die, gerade in diesem Fall wichtigen Photos fehlen, soll das hier nachgetragen werden.

Das neue Fragment stammt aus der rechten unteren Ecke einer tabella I (Abb. 3-4). Rechts und unten ist der originale Rand erhalten. Die Schrift ist außen sehr klar und gut lesbar, was in etwas minderem Maß aber auch für die Innenseite gilt. Zwei ganz leicht eingeritzte Linien bilden den Rahmen. Das Fragment schließt passgenau an das frühere Fragment an, an der Bruchstelle sind die Reste mancher Buchstaben zum Teil auf beiden Fragmenten erhalten; in der Abschrift sind diese mit **fett** gekennzeichnet.

Höhe 8,5 cm; Breite 6,8 cm; Dicke 1-3 mm; Buchstabenhöhe außen 4-7 mm, innen 4-6 mm. Gewicht 106 Gramm.

Zur Herkunft gibt es keine Information. Doch stammen, wie oben bereits vermerkt, zumindest nach den Diplomen des 3. Jh., die meisten Flottensoldaten aus den Donauprovinzen.

Der Außentext lautet zusammen mit dem von Peter Weiß publizierten Fragment:

Abb. 3

[---]
ISDEM [QVAS TVNC SECVM HABVISSENT CVM EST]
CIVITAS IIS DATA AVT SI QVI [TVNC NON HABVISSENT]
CVM IIS QVAS POSTEA VXOR[ES DVXISSENT D]VMTAXAT
SINGVLIS SINGVLAS A D [---] DEC
APP CLAVDIO IVLIANO II L BRVTTIO CRISPINO COS
EXGREGALE
M AVRELIO SPORI FIL VICTORI CVI ET
DRVBIO NICOPOLI EX MOESIA VICO
DIZERPERA ET M AVRELIO
VALERIO FILIO EIVS
DESCRIPT ET RECOGNITVM EX TABVLA AEREA QVE FIXA EST
ROMAE IN MVRO POSTEMPLVM DIVI AVG AD MINERVAM

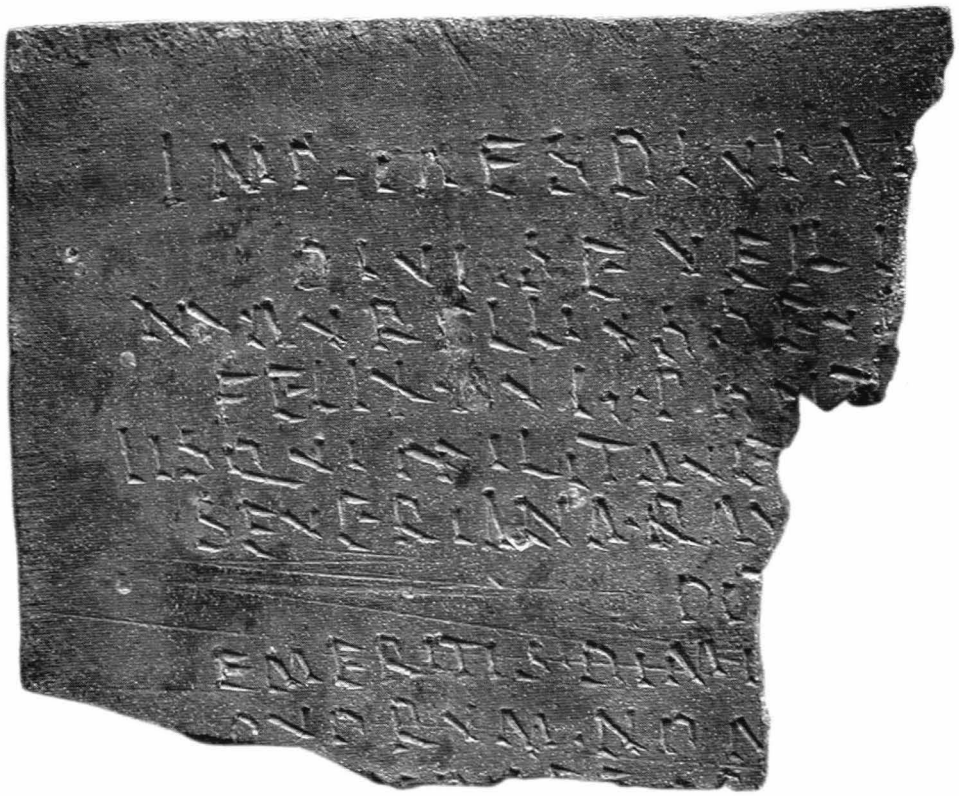


Abb. 4

Der Innentext lautet:

IMP CAES DIVI AN[TONINI MAGNI PII FIL]
DIVI SEVERI [PII NEPOS]
M AVRELLIVS SEVE[RVS ALEXANDER PIVS]
FELIX AVG PONT [MAX TRIB POT COS P P]
IIS QVI MILITAVE[RVNT IN CLASSE PRAET]
SEVERIANA RAV[ENNATE QVAE EST SVB]
OCT[ONIS ET VICENIS STIPENDIS]
EMERITIS DIMI[SSIS HONESTA MISSIONE]
QVORVM NOM[INA SVBSCRIPTA SVNT IPSIS]
FILISQVE EORV[M QVOS SVSCEPERINT EX]
MVLIERIB QVAS SE[CVM CONCESSA CON]
SVETVDINE VIXISS[E PROBAVERINT CIVITATEM]
ROMANAM DEDIT [ET CONVBIVM CVM ISDEM]
QVAS TVNC HABV[ISSENT CVM EST CIVITAS]
IIS DATA AVT SIQV[I TVNC NON HABVISSENT]
CVM IIS QVAS POS[TEA VXORES DVXISSENT]
DVMTAXAT SINGV[LIS SINGVLAS]

Die Lesung weist nirgendwo Probleme auf, außer in Zeile 7 der Innenseite, wo zum einen der Name des Präfekten gestanden haben sollte, sowie die Angabe über die Dienstzeit der entlassenen Flottensoldaten.

In der Erstpublikation war die Zeile mit [--]+++[--] wiedergegeben. Der Befund aber ist so, dass die Zeile gänzlich unbeschrieben geblieben ist, nur am rechten Rand stehen unmittelbar vor dem Bruchrand noch drei Buchstaben, die man als OCT lesen muss. Zwar sieht der erste Buchstabe zunächst aus wie ein D oder P; doch tatsächlich ist es ein O, wie das O in Zeile 9 in den Wörtern *quorum* und *nomina* beweist. Dann aber erfasst man hier den Anfang der Formel zur Dienstzeit der Flottensoldaten: *octonis et vicenis stipendis*. Setzt man diese Worte in der Zeile ein, dann ragt sie zwar in der Rekonstruktion auf der rechten verlorenen Seite etwas über die vorausgehende Zeile hinaus. Doch ist, wie das Photo zeigt, der Text der Innenseite insgesamt so geschrieben, dass nicht etwa in jeder Zeile gleich viele Buchstaben stehen; vielmehr ist die Zahl der Zeichen in den Zeilen sehr verschieden, so in der ersten Zeile 30, in Zeile 2 nur 18, in den Zeilen 5 und 8 je 31, dagen in Zeile 6 nur 28. Im linken erhaltenen Teil der Innenseite gewinnt man zudem den Eindruck, als ob man bei dem Diplom einen Flattersatz vor sich hätte. Dieser Eindruck ist offensichtlich dadurch entstanden, dass sich der Graveur bemüht hat, die Buchstaben in jeder Zeile symmetrisch so zu verteilen, dass sie zentriert waren und damit auf beiden Seiten einen gleichen Abstand zum Rand aufwiesen. Damit aber muß in Zeile 7 auf der rechten Seite der Text wegen seiner Länge über die vorausgehende und nachfolgende Zeile hinausgereicht haben. Wenn man vom Bruchrand des Fragments ausgeht, dann müssen in Zeile 6 im verlorenen rechten Teil noch 16 Buchstaben ergänzt werden, in Zeile 7 aber 22, also deutlich mehr (freilich findet sich darunter fünfmal ein I, das weniger Platz einnimmt). Das heißt, dass diese Zeile rechts länger war als die vorausgehende, dass aber dennoch die Formel *octonis et vicenis stipendis* ohne Probleme im verlorenen Teil von Zeile 7 unterzubringen ist. Das heißt weiterhin, dass auch auf der linken Seite die Zeile 7 über die Zeilen 6 und 8 hinausgereicht hat, also einige Buchstaben mehr dort gestanden haben können als in 6 und 8. Dieser Platz für rund 14 bis 15 Buchstaben aber reicht aus, um dort den Namen eines Präfekten einschließlich der Amtsbezeichnung *praef.* unterzubringen.

Warum aber blieb der linke Teil der Zeile unbeschrieben? Nach aller Wahrscheinlichkeit bedeutet dies, dass es zu dem Zeitpunkt, als der Text der Innenseite geschrieben wurde, keinen Präfekten bei der Flotte gegeben hat; vielmehr dürfte der unmittelbar vorher amtierende Präfekt nicht mehr im Amt und sein Nachfolger noch nicht ernannt gewesen sein. Deshalb hat man den Platz freigelassen, um den Namen später nachzutragen, was dann aber nicht mehr geschehen ist. Vielmehr wurden die beiden Tafeln mit dem Bindungsdraht verschlossen, ohne die Lücke auszufüllen[18].

[18] Zu solchen Leerstellen in Diplomen siehe zusammenfassend P. Weiß, *Von der Konstitution zum Diplom. Schlußfolgerungen aus der „zweiten Hand", Leerstellen und divergierende Daten in den Urkunden*, in M. A. Speidel, H. Lieb (Hrsgg.), Militärdiplome. Die Forschungsbeiträge der Berner Gespräche von 2004, Stuttgart 2007, S. 187 ff., bes. S. 199 ff.

Genau dieser Fall ist aus einem zeitlich benachbarten Diplom bekannt, der Konstitution von Elagabal und Severus Alexander vom 29. November 221, auf die oben bereits zu verweisen war[19]. Auf der Außenseite von tabella I ist dort der Name des Präfekten vorhanden, allerdings ist er nachgetragen, wie die schlechtere Schrift und auch die verkürzte Amtsbezeichnung zeigt: PR statt des üblichen PRAEF[20]. Man hatte, als der Text zunächst auf der Außenseite eingraviert wurde, den Namen des Präfekten noch nicht gekannt und deshalb Platz für das Nachtragen frei gelassen, aber den nötigen Platz etwas zu gering kalkuliert. Auf der Innenseite dieses Diploms fehlt der Name des Präfekten, allerdings hatte man dort den Titel schon geschrieben, und zwar richtig als PRAEF. Ob die verspätete Einfügung des Namens des neuen Präfekten mit der politischen Unruhe um Elagabal und Severus Alexander am Ende des Jahres 221 n. Chr. zusammenhängt, lässt sich nicht erklären, wäre aber möglich.

In dem neuen Diplomfragment fehlt in gleicher Weise wie im Jahr 221 auf der Innenseite der Name des Präfekten, hier sogar einschließlich der Amtsbezeichnung. Da die Außenseite von tabella I im oberen Teil verloren ist, bleibt es unsicher, ob dort der Name des Präfekten etwa vorhanden und möglicherweise nachgetragen worden war[21].

Zu den sonstigen Aussagen des Diploms ist gegenüber dem Kommentar von Peter Weiß in der ZPE und von Paul Holder in RMD V 463 nichts hinzuzufügen. Der rekonstruierte Text des Diploms lautet damit auf der Innenseite:

Imp. Caes(ar), divi An[tonini Magni Pii fil(ius),] divi Severi [Pii nepos,] M. Aurellius Seve[rus Alexander Pius] Felix Aug(ustus), pont(ifex) [max(imus), trib(unicia) pot(estate) ---, co(n)s(ul), p(ater) p(atriae),

iis, qui militave[runt in classe praetoria] Severiana Rav[ennate, quae est sub] vacat *oct[onis et vicenis stipendis] emeritis dimi[ssis honesta missione,]*

quorum nom[ina subscripta sunt, ipsis] filisque eoru[m, quos susceperint ex] mulierib(us), quas se[cum concessa con]suetudine vixiss[e probaverint, civitatem] Romanam dedit [et conubium cum] isdem, quas tunc <secum> habu[issent, cum est civitas] iis data, aut, siqu[i tunc non habuissent,] cum iis, quas pos[tea uxores duxissent,] dumtaxat singu[lis singulas].

Text der Außenseite:

[et conubium cum] isdem, [quas tunc secum habuissent, cum est] civitas iis data, aut siqui [tunc non habuissent,] cum iis, quas postea uxor[es duxissent, d]umtaxat singulis singulas.

a(nte) d(iem) [--] Dec(embres) App(io) Claudio Iuliano II, L(ucio) Bruttio Crispino co(n)s(ulibus)

[19] Siehe Anm. 4; Photos Tafel XIII-XV.

[20] In der Erstpublikation war dies nicht festgestellt worden.

[21] Zu weiteren Beispielen für solche Leerstellen in Flottendiplomen siehe RMD V 471 b und Weiß (Anm. 18) S. 200 ff. Im folgenden Jahr 225 ist ein Valerius Oclatius als Präfekt der Flotte von Ravenna bekannt (RMD III 194 = RMD IV 312; IV 311); dass er auch schon im Jahr vorher diese Flotte kommandiert hat, ist möglich, aber bisher nicht zu beweisen.

ex gregale M(arco) Aurelio Spori fil(io) Victori [*q*]*ui et Drubio, Nicopoli ex Moesia, vico Dizerpera, et M(arco) Aurelio Valerio filio eius.*

Descript(um) et recognitum ex tabula aerea quae fixa est Romae in muro pos(t) templum divi Aug(usti) ad Minervam.

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THE IMPORTANCE OF WATER IN THE SANCTUARIES OF AESCULAPIUS. A STUDY REGARDING THE NORTHERN PROVINCES OF THE ROMAN EMPIRE

ANDREA CUMURCIUC

Zusammenfassung: Die Beziehung zwischen dem Aesculapius-Kult und Wasser ist in den wichtigsten Heiligtümern der griechischen Welt gut nachgewiesen. Wasser hatte in diesem Kult sowohl einen praktischen als auch einen religiösen Verwendungszweck. Für alle nördlichen Provinzen des römischen Reiches ist die Präsenz des Aesculapius dokumentiert, in Pannonien und Dakien aber war seine Popularität deutlich höher. Soweit uns genügende Zeugnisse vorliegen, können wir in allen Provinzen die Verbindung zwischen Aesculapius und dem Wasserkult beobachten. Entweder gibt es eine Quelle auf dem Gelände eines Asklepieion, wie in Brigetio, Aquincum und Sarmizegetusa, oder die dem Aesculapius geweihten Monumente sind innerhalb von Quellheiligtümern errichtet, wie in Carrawburgh, Vichy, Mont-de-Sène, Germisara und Băile Herculane.

Stichworte: Römische Religion; nördliche Provinzen; Aesculapius; Heiligtümer; Votive Inschriften.

From the many healing cults that coexisted in the Roman Empire mostly outspread was the one of Aesculapius, healing hero and medicine God, hailing from Thessaly. His cult was officially introduced in Athens in the year 420 BC, but his main sanctuary was placed in Epidaurus, from where the cult spread across the Hellenistic and then the Roman world.

Regarding the iconography of Aesculapius, in 90% of the cases, he is represented as a noble father, with serene attitude, wearing beard, and being either seated, or leaning on his snake-entwined staff. He is associated with his daughter, Hygia, who in the iconography took the place of his wife Epione. In the rest of the cases, approximately 10%, he is represented as a new-born, or a child, as a beardless young man, or as a mature man, seated or laying[1]. The narrative representations are missing from the iconography of Aesculapius, only on some *ex-voto* he appears performing a libation[2].

The water had an important role in all the sanctuaries of the God, both in the Greek world and outside of it. Its utility was in the first place a ritual one. At the entrance of the sanctuary the ritual hand washing took place, the act having also a hygienic purpose, considering that the place was frequented by people carrying different diseases. Before consulting the God, the visitor paid a tax, and performed an

[1] LIMC I, p. 865.
[2] Ibidem.

ablution in order to be purified before presenting the offers and making the sacrifice. The visit of the healing deity took place during the night, while the worshiper was sleeping in the *adyton*, a sacred process, known under the name of incubation. Inside the *adyton* the worshiper had permanent access to fresh water, thanks to an open channel that surrounded the building[3]. The water of the sacred fountains was also consumed as a therapy.

The relationship between water and the cult of Aesculapius is well documented in the main sanctuaries of the Greek world. At Epidaurus, Corinth, Kos and Pergame a series of hydraulic installations were identified. A representative case is the one offered by the sanctuary in Kos, situated on three terraces, the middle one being the original place of the cult. A small ionic temple was placed here, two large rooms, a group of fountains and an altar for sacrifices. The upper terrace was surrounded by a portico, having in the centre a temple, while the lower terrace contained a number of pools[4], used for the healing baths prescribed by the sacred personal. In order to mark the importance of bathing, in the Roman period a bath-house was attached to the sanctuary.

The importance of water in these sanctuaries is not only practical, and it is not limited to simple purifications, which took place in all the sanctuaries of the Roman world. It has a more profound, religious meaning. Aesculapius, having as main attribute a snake, is a chthonian deity. His cult is based on the nightly appearances of the God, during which he sends codified messages to his believers, so we can also consider him an oracular deity. As a chthonian and oracular deity he can easily be associated with springs.

Considering the importance given to springs and in the lack of those to fountains, the presence of water became the condition *sine qua non* for the placement of an Asklepieion. The chosen place must be rich in springs, preferably thermal or mineral ones, must be situated outside the settlements, because of hygienic reasons, and if possible near woods, or on high platforms, were the clean air could help heal certain diseases[5]. But, as we will see, these theoretical prescriptions were not always respected in practice.

The cult of Aesculapius was officially introduced to Rome in 293 BC, as a consequence of a major plague. The Sibylline Books were consulted in order to see if the new deity could be brought to Rome. The sacred snake representing the God himself was brought from Epidaurus, but according to the legend he refused to take his place in the temple of Apollo, and preferred the Tiber Island, where in 291 BC a temple was dedicated to Aesculapius[6]. The fact that the Tiber Island was chosen as place of the first Asklepieion in the Italian peninsula has a mythological, a practical and also a religious explanation. Isolating a placement, that was going to function as a hospital, away from the inhabited area, surrounded by water, was obviously the result of a

[3] G. Argoud, *L'utilisation médicale de l'eau en Grèce et le plan des sanctuaires d'Asclépios*, in Actes du Colloque Archéologie et Médecine. VIIè[me] Rencontres Internationales d'Archéologie et d'Histoire, Antibes 1986, p. 534.

[4] J. Riethmüller, Asklepios. Heiligtümer und Kulte, Heidelberg 2005, p. 365.

[5] Idem, op. cit., p. 360.

[6] C. Tiussi, *Il culto di Esculapio nell'area Nord-Adriatica,* Studi e ricerche sulla Gallia Cisalpina 10, Roma 1999, p. 15.

hygienic measure. On the other hand, the island housed another healing cult, an older one, represented by the river god Tiberinus. The inefficiency of this cult during the plague led to the introduction of a new healing deity. But, in order to preserve an old Italic cult, and not to eliminate it in favor of a foreign one, a compromise was made: to place them both in the same sanctuary.

The sanctuary on the island remained the most important center of cult in the Italian peninsula, from where it spread across the Northern provinces. The cult of Aesculapius is present in all of the studied provinces: Britannia, Gallia, Germania, Raetia, Noricum, Pannonia and Dacia, but the importance varies considerably.

In Roman Britain we have no knowledge about the existence of an Asklepieion. The few votive inscriptions and figurative representations were found in various points[7]. A votive altar dedicated to Aesculapius, with two inscriptions, one in Latin and one in Greek, was found at Lanchester[8]. The dedication was made by Titus Flavius Titianus, who calls himself a tribune. In Roman times near the modern town Lanchester an auxiliary fort and his *vicus* were placed, known under the name of *Longovicium*. Titianus is tribune of the cohort stationed here. The fact that the name of the troop is not mentioned in the inscriptions reveals that we are dealing with a private offering, and not with one made in the name of the entire unit. The altar could be placed in the fort's *valetudinarium*, but also inside another sanctuary.

Another inscription, together with a votive relief dedicated to Aesculapius was found in Binchester[9], also a military region. The altar was erected by a doctor named Marcus Aurelius, who offers the monument to Aesculapius and Salus, for the health of *ala Vettonum*, troop formed from Roman citizens. The troop was stationed at Binchester, and Marcus Aurelius was a military doctor, working in the fort's *valetudinarium*, where the inscription was probably placed.

A votive altar, dedicated to Fortuna Redux, Aesculapius and Salus, was also discovered in Chester, where in Roman times was the headquarters of the II legion. The altar was raised by freedmen and slaves of Titus Pomponius Mamilianus Rufus Antistianus Funisulanus Vettonianus, son of Titus from Galeria tribe, a *legatus Augusti*[10]. The monument dates back to the begining of the 2nd century, and the person named was the comander of the legion, probably left in a mission, reason why the first deity mentioned is Fortuna Redux. A figurative representation of Aesculapius was also found in Chester[11]. Although the head of the statue and the upper part of the shoulders are missing, the male figure, dressed with a tunic can be identified with Aesculapius because of the snake-entwined staff.

The Roman fort of Overborough was the source of an altar dedicated *Deo Sancto Asclepio et Hygiae,* by Iulius Saturninus, for the health of his family and himself[12]. Another altar with a Greek dedication to Aesculapius, by Aulus Egnatius Pastor, was

[7] E. Birley, *The deities of Roman Britain,* in ANRW II, 18.1, 1982, p. 19.
[8] RIB I 1072.
[9] RIB I 1028.
[10] CIL VII 164.
[11] CSIR - GB, I/6,1.
[12] RIB I 609.

found at Maryport[13], and at South Shields, on the territory of the Roman fort, Publius Viboleius Secundus offers an altar to the same deity[14].

From the few figurative representations of Aesculapius known in Britain, one was found at Carrawburgh, a settlement attached to an auxiliary fort on Hadrian's Wall. It is a fragmentary relief in which Aesculapius is associated with Minerva[15]. From the figure of Aesculapius only the feet and the lower part of the cope is preserved. He is dressed with a long *himation*, and has the snake-entwined staff next to his right foot. The two deities are represented in a niche. The association of Minerva with Aesculapius can be explained by the healing character that Minerva owns in some of the cases. In Carrawburgh we know about the existence of a spring sanctuary, but we cannot associate it for sure with a healing cult. However a statue of Aesculapius could be placed in this sanctuary.

Another possible representation of Aesculapius was also found inside a spring sanctuary in Bath. It is an altar carved on three sides[16]. On the frontal side we can see Bacchus and on the opposite side a dog, a tree with a snake and two human figures. The dog and the snake could be references to Aesculapius, in which case the two human figures are Coronis, the mother of Aesculapius, and Apollo. However the meaning of the scene remains uncertain, because the references regarding Aesculapius are vague and the representation would be unique in the iconography of the god.

As we can see, the cult of Aesculapius was not too popular in Roman Britain. The small number of monuments and their presence almost exclusively in military regions shows the lack of interest of the local population towards this cult, the believers being soldiers coming from different parts of the Empire.

The cult is not too popular neither in Gallia or Germania. In Gallia Narbonensis, Aesculapius owns four epigraphic monuments, at Nîmes[17], Grenoble[18], Riez[19] and Aosta[20], then one in Gallia Lugdunensis at Lyon[21], and one in Gallia Belgica at Trier[22]. In none of the six inscriptions, Aesculapius is associated with another deity, but in two of them he is mentioned together with the term *Deus*. The worshipers of Aesculapius are: Valerius Symphorius and Protis, who use in the text of the inscription from Riez the Greek terms *enchiridium* and *anabolium*, which could indicate their Greek origin; Caecus, who calls himself *Isidis aedituus;* Lucius Cornelius Adgubilli, a person of Gallic origin; Marcus Pennius Apollonius; and Titus Iulius Saturninus, *procurator Augusti*. The inscription from Riez is the only one offering some information about the cult. The worshipers name the objects offered to the deity, among them a golden torques figurating two snakes.

[13] RIB I 808.
[14] RIB I 1052.
[15] CSIR - GB, I/6, 85.
[16] CSIR - GB, I/2, 3.
[17] CIL XII 3042.
[18] CIL XII 2215 = AE 1959, 198.
[19] CIL XII 354 = CAG IV, p. 366.
[20] CIL XII 2386.
[21] AE 1982, 712, 4.
[22] CIL XIII 3636.

All the representations of the god from the Gallic provinces, made of bronze, marble or limestone are realized according to the classical prototype, without local attributes or associations with indigenous deities. The figurative representations have all small dimensions, between 8.5 and 9 cm[23], so we can not consider them cult statues, and we have no archaeological or epigraphic proof for the existence of an Asklepieion. In these conditions we have to ask the question, where were the few discovered votive altars and offerings placed, and in the absence of Aesculapius which deity or deities took over the healing attributes.

The spring sanctuaries with healing character were very popular sites in Roman Gaul. The deities worshiped in these sanctuaries are mostly of local origin, or they are Roman deities associated with local ones. Healing rituals took place in these sanctuaries, similar with those from an Asklepieion, and we could expect to find offerings to Aesculapius. In reality, only in Vichy and in the spring sanctuary from Mont-de-Sène we have one representation of the Roman medicine god[24]. The cult's lack of popularity can be explained through the population's loyalty towards the pre-Roman healing cults, in which case they did not feel the need of introducing a new deity with the same characters.

The situation is mostly similar in the Germanic provinces. In Germania Superior, Aesculapius owns three inscriptions in Mainz[25], Augst[26] and Obernburg[27], and four other monuments were found in Germania Inferior, at Bad Godesberg[28], Bonn[29], Köln[30] and Dormagen[31]. In Obernburg, Aesculapius is associated with Jupiter Optimus Maximus, Apollo, Salus and Fortuna, and on the right side of the altar appears Neptune. In Bad Godesberg, Aesculapius is associated with Fortuna Salutaris and Hygia, in Bonn and Mainz - only with Hygia, and in Dormagen - with Apollo. In Augst, Aesculapius is named with the epithet *Augustus*, probably because the monument was placed on a territory controlled by the municipality, as we can see from the ending formula of the inscription: *loco dato decurionum decreto*. In Mainz, the worshiper Valerius ... addresses to the *numen* of Aesculapius. Among the worshipers we can also find: Tiberius Claudius Claudianus, a Roman citizen who does not mention any function or profession; Q. Venidius Rufus, legate of the I Minervia legion; Marius Maximus Calvinianus, legate of the province Cilicia; and Marcus Rubrius Zosimus. The last one, of Greek origin, is a doctor of the *cohors IV Aquitanorum* and offers the monument for the health of Lucius Petronius Florentinus, the prefect of the unit. The doctor mentions his residence, Ostia, fact that could explain the presence of Neptune on the right side of the altar, as the protective deity of Rome's harbor. Another Greek doctor could be the worshiper in the Greek inscription found in Köln[32]. Here used to

[23] E. Sikora, *Le culte d'Esculape en Gaule,* in A. Pelletier (éd.), La médecine en Gaule, Paris 1985, p. 196.
[24] Idem, op. cit., p. 197.
[25] CIL XIII 6695.
[26] AE 1993, 1221.
[27] CIL XIII 6621 = AE 1903, 382.
[28] CIL XIII 7994.
[29] AE 1963, 43.
[30] CIG 2391.
[31] AE 1977, 564 = AE 2007, 1022.
[32] B. H. Stolte, *Religiöse Verhältnisse in Niedergermanien,* in ANRW II, 18.1, 1986, p. 641.

be the headquarters of *classis Germanica*, where our person could work as a doctor. But unfortunately he doesn't mention any name or function.

The discoveries made in the Germanic provinces do not allow us to identify any Asklepieions, the doctor from Ostia working obviously in the unit's fort. A final interesting remark about the cult of Aesculapius in the Gallic and Germanic provinces is related to a recent study realized by G. Masson[33]. The researcher identifies oculist stamps in almost all the establishments where Aesculapius was worshiped. We could be dealing with a simple coincidence, but there is also the possibility of associating the cult of Aesculapius with ophthalmological problems, which needed more precise procedures, for what the doctors of Aesculapius were preferred.

In the Danubian provinces we can observe a change of attitude towards the cult of Aesculapius. In Noricum the god owns two monuments at Virunum[34]. The first one is an altar dedicated to Aesculapius Augustus by Caius Marius Lucanius Priscus, decurion of the *colonia* having also the function of *duumvir iure dicundo*[35]. He dedicates the altar in his own name and those of his children. The second inscription is a fragmentary one, so we cannot read the name of the worshiper, but in this case Aesculapius is associated with Hygia[36], as a difference to the first altar where he appears alone.

A figurative representation of the god was found at Lauriacum in the pad of a Roman fountain. It is a torso of a statue[37]. Although the head and the lower part of the feet are missing, Aesculapius can be identified on the base of his clothing, a *himation*, the egg that he holds in his left hand and the snake-entwined staff.

The existence of an Asklepieion in Noricum is possible at Iuvavum, where a number of figurative representations were found. A statue made of local marble, with a height of 49 cm, represents Aesculapius wearing the *himation*, which covers the lower part of his body, his back and the left shoulder. The head, the neck and the right arm of the statue are missing, but we can still see the end of the staff on which he was leaning his right arm[38]. The god appears in a similar position in another statue from which the head, the right arm, the left hand and a part of the right foot are missing. Next to the right foot we can see the lower part of the staff with the tail of the snake[39]. From another Aesculapius statue only the basis is preserved, with two feet next to a tree and a tail of a snake[40]. The last figurative representation from Iuvavum is a double statue of Aesculapius and Hygia, from which the heads and the feet are missing[41]. Aesculapius is dressed with a *himation* and holds in his left hand the staff with the snake. Hygia is dressed with a *chiton* and a cloak, holds in her right hand a short

[33] G. Masson, *Les médecins en Gaule et dans les Germanies et les divinités Asclépios/Esculape et Hygie*, DHA 31/2, 2005, p. 120.
[34] H. Vetters, *Virunum*, in ANRW II/6, 1977, p. 335.
[35] AEA 2005, 5.
[36] CIL III 4772.
[37] CSIR - Österreich, III/2, 14.
[38] CSIR - Österreich, III/1, 5.
[39] CSIR - Österreich, III/1, 6.
[40] CSIR - Österreich, III/1, 7.
[41] CSIR - Österreich, III/1, 8.

snake and in the left one a basket with fruits. Under Hygeia's basket is still visible the right hand of Aesculapius, holding a vessel with fruits.

As an argument for the existence of an Asklepieion in Iuvavum we have to mention that all the presented statues were found in the same room, together with the head of a statue representing Serapis. In Roman times Serapis was also worshiped as a healing deity, and the rituals performed in his cult were similar with those from an Asklepieion. But so far we have no epigraphic proof for the existence of an Asklepieion in Iuvavum.

In Pannonia, the cult of Aesculapius is present in different points. In Emona, Lucius Petitius Technicus raised an altar to Aesculapius[42]. He calls himself *medicus* and according to his name he is probably a freedman. In Poetovio, Marcus Messius Messor dedicates a statue for *Aesculapius Augustus*[43]. Different fragments of statues representing Aesculapius and Hygia were found in Poetovio, which could indicate the existence of an Asklepieion, although such an establishment has not been identified[44].

Two inscriptions regarding Aesculapius were found in Vindobona[45]. There are two altars raised by the same person: Publius Aelius Lucius, centurion in the *legio X Gemina*, stationed at Vindobona. Aesculapius is associated with Jupiter Optimus Maximus, Apollo and Sirona. Jupiter is the official deity of the state, his presence in the first line of the inscription being an act of political loyalty, needed by an officer in the Roman army. Jupiter is followed in the inscription by a series of healing deities, such as Apollo, Sirona and Aesculapius. Under the name of Apollo we can guess the Celtic Grannus, the traditional companion of Sirona. The order of the deities shows the religious preferences of the centurion. He seems to trust more the local deities than Aesculapius. Nevertheless, because the monument was placed in the fort's *valetudinarium*, a dedication also for Aesculapius was needed.

In Brigetio, the cult of Aesculapius is confirmed by several epigraphic monuments and figurative representations. One of the most interesting pieces is an altar raised by Quintus Ulpius Felix, an augustal of *Municipium Brigetio*, who confirms the fact that he built a temple for Apollo and Hygia from his personal funds[46]. The inscription dates back in the year 205 AD, when Aurelius Antoninus Augustus was consul for the second time[47]. After 12 years, the same person raises a new altar, that confirms the enlargement of the temple: *porticum a portis II ad fontem Salutis a solo inpendiis suis fecit*[48]. The word *fontem* from the text of the inscription is a reference to one of the sanctuaries' sacred springs, which in the lack of a natural source could be replaced by an artificial one. But in the case of *Municipium Brigetio*, the public fountain also had healing characters, because the city's water supply system started from healing

[42] CIL III 3834.
[43] AE 1920, 64.
[44] Z. Kadar, *Der Kult der Heilgötter in Pannonien und den übrigen Donauprovinzen*, in ANRW II, 18.2, 1989, p. 1040.
[45] AE 1957, 114; Lupa 4783.
[46] CIL III 3649 = RIU III, 773.
[47] Z. Kadar, op. cit., p. 1048.
[48] AE 1944, 110 = RIU II 377.

springs situated 17 km away from the settlement in the Tata region[49]. It is important to mark that both altars raised by Quintus Ulpius Felix are dedicated to Apollo and Hygia. Apollo is a very popular healing deity in the former Celtic area and the association with Hygia clearly shows the healing character of the sanctuary from Brigetio. Identifying this sanctuary with an Asklepieion is justified because Hygia is a secondary deity in the cult of Aesculapius, and the medicine god also owns some epigraphic monuments in Brigetio. Aesculapius Augustus alone appears on two votive altars[50] and on a third one together with Hygia[51]. Probably in the same sanctuary were placed the two statues of Aesculapius found in Brigetio, together with a relief and a statue of Hygia[52].

In Carnuntum were discovered two funerary inscriptions, confirming the existence of three doctors. They are Lucius Iulius Euthemus and his slave, Eucratus *medicus*[53], and Lucius Iulius Optatus, *medicus*.[54] The three of them were probably military doctors working for the legion stationed at Carnuntum, and their presence cannot be considered an argument for the existence of a healing cult. On the territory of the same settlement two votive inscriptions were found, unfortunately fragmentary ones, dedicated to *Fontibus*[55]. They had to be placed on the territory of a sanctuary in which water had an important role. Identifying this sanctuary with an Asklepieion is not possible, because in Carnuntum there are no votive altars dedicated to Aesculapius. The only monument raised in the honor of the medicine god is a sculptural fragment, representing the head of a marble statue[56].

In Pannonia Inferior, in Aquincum, the cult of springs had an important role, also visible in the name of the town. The aqueduct responsible with the city's water supply started from a group of springs, situated 1 km north of Aquincum, in a glade dedicated to the Nymphs[57]. In the 14 springs and around them several votive monuments were discovered, altars dedicated to healing deities. The 14 altars found inside the sacred area were dedicated to Jupiter, Aesculapius and Hygia, Apollo and Sirona, Silvanus and Mithras[58], but we will only present the ones regarding Aesculapius and Hygia. The first one was found near spring number 14, and it's dedicated to Aesculapius and Hygia by Marcus Foviacius Verus[59]. He is decurion of the *canabae* and of *Municipium Aquincum*, *duumvir quinquennalis* and *flamen*. The second altar was discovered near spring number 13 and it's dedicated to Aesculapius and Hygia by Caius Gavillius Eutychus[60]. The altars for Aesculapius and Hygia and the one dedicated to

[49] Z. Kadar, loc. cit.
[50] CIL III 10971; RIU II 374.
[51] RIU II 373.
[52] Z. Kadar, op. cit., p. 1049.
[53] AEA 2008, 19 = AE 1929, 215.
[54] AEA 2006, 24 = AE 2006, 1058.
[55] AE 1938, 166; AE 1956, 52.
[56] CSIR - Österreich, I/2, 20.
[57] K. Póczy, *Wasserver- und -entsorgung. Gebäude des Stadtzentrums*, in P. Zsidi (Hrsg.), Forschungen in Aquincum 1969-2002. Zu Ehren von Klára Póczy / Clarae Póczy Octogenariae, Aquincum nostrum II.2, Budapest 2003, p. 144.
[58] Eadem, *Szent kerületek Aquincum és Brigetio aquaeductusánál*, AErt 107, 1980, p. 9.
[59] AE 1972, 363 = TitAq I, 30.
[60] K. Poczy, op. cit., p. 3.

Apollo and Sirona were found next to a group of three springs, placed at the entrance into the sanctuary[61], showing the relationship between the springs and the healing deities. As every spring sanctuary or as every Asklepieion, the one from Aquincum was frequented by sick people who spent some time there, hoping to regain their health. Obviously they needed accommodation in one of the buildings situated nearby. Such a construction was found in Aquincum, situated west from the sanctuary, a building with the dimensions of 120 × 30 m, fed with water from spring number 3[62].

The cult of Aesculapius was practiced in Aquincum also inside the legionary fort. Four votive altars for Aesculapius, Hygia and Telesphorus were found in the *valetudinarium*[63]. Tiberius Martius Castrensis, doctor of the *legio II Adiutrix*, raises an altar for Aesculapius[64]. In the same place was found also the altar dedicated to Aesculapius and Hygia by another doctor, Marcius Marcellus[65]. Titus Venusius Aper, *optio valetudinarii*, dedicated an altar to Aesculapius and Hygia[66], and Titus Flavius Priscus, veteran of the *legio IV Flavia* and *ex optione valetudinarii*, raised an altar for Telesphorus[67]. The large number of monuments discovered in a relatively small space indicates the existence of a sanctuary dedicated to the medicine gods, attached to the fort's *valetudinarium*.

Other worshipers of Aesculapius and Hygia from Aquincum were also active in the army. Aurelius Artemidorus was *beneficiarius* in the *legio II Adiutrix Pia Fidelis*[68], and Domitius Victorinus, who raises an altar to Aesculapius and Hygia for the health of the emperor, was centurion in the *legio IV Flavia*[69]. Another worshiper of Aesculapius and Hygia from Aquincum, Iulius Iulianus[70], doesn't mention his job or social status.

Based on the presented materials we can confirm a significant presence of Aesculapius in Pannonia, especially in Aquincum, where he owned two sanctuaries, a civilian and a military one, both having attached a hospital.

If in the western provinces the cult of Aesculapius is insignificant, and the number of monuments increases in the Danubian provinces, in Dacia we have an impressive number of 73 epigraphic monuments in the honor of Aesculapius and Hygia. 79% of the monuments were found in the two most important towns of the province, Ulpia Traiana Sarmizegetusa and Apulum.

In the majority of the inscriptions found at Ulpia Traiana Sarmizegetusa, Aesculapius is associated with Hygia and only rarely with other deities. On an altar dedicated by Marcus Lucceius Felix Aesculapius is associated with Salus[71], Quintus

[61] Eadem, op. cit., p. 9.
[62] Eadem, op. cit., p. 15.
[63] P. Zsidi, *Doctoring in the border province of the Roman Empire, the relics of healing in Pannonia Inferior and its governor's seat in Aquincum*, in P. Zsidi, Gy. Németh (eds.), Ancient Medicine and Pannonia, Budapest 2006, p. 51.
[64] AE 1937, 180.
[65] CIL III 3413.
[66] AE 1937, 181.
[67] AE 1955, 13.
[68] CIL III 3412.
[69] TitAq I, 37.
[70] AE 1937, 182.
[71] AE 1983, 837.

Axius Aelianus associates him with Salus, Epione, Venus, Neptune, Salacia, Cupid and Fons[72], and Publius Aelius Hammonius raises an altar for Jupiter, Juno, Minerva, *Dei consentes*, Salus, Fortuna Redux, Apollo, Diana, Nemesis, Mercury, Hercules, Sol, Aesculapius and Hygia[73]. In nine of the cases the worshipers speak to the *numen* of Aesculapius[74], in one inscription he is called *Deus*[75], in another text we have the expression *Pergameno*[76] as a reference to his main sanctuary in Pergamum, and one altar is dedicated to the Fountains of Aesculapius[77]. Among the worshipers we have a decurion from *collegium fabrum,* Publius Flaccinius Felix, who raises two altars for the health of his daughter Lucilla[78] and other two altars with unknown destination[79]. Among the other worshipers we can find a *flamen* of *Colonia Sarmizegetusa*[80], a soldier of the VI[th] legion[81], a *duumvir* of the *colonia*[82], an augustal of the colonies Siscia and Sarmizegetusa[83], and three *procuratores Augusti*[84].

As we could expected it, because of the large number of monuments, in Ulpia Traiana Sarmizegetusa was also a sanctuary of the medicine gods. Two votive inscriptions confirm the existence of an *aedes* of Aesculapius[85]. The establishment situated north from the city wall and east from the amphitheatre was studied between 1973 and 1976. The buildings with two phases of construction are grouped inside the sacred area with a surface of 57 × 41 × 70 × 61 m[86]. In the first phase, the establishment consists of two temples, a Gallo-Roman one and a classical one[87]. Situated south of the second temple we have a rectangular building with an unknown destination. North of the same temple the remains of a circular fountain were found, with a diameter of 1 m and a depth of 5.5 m[88]. Probably this is the fountain of Aesculapius mentioned in one of the votive inscriptions. In the second phase of construction, which dates back to the reign of Marcus Aurelius, the first temple is enlarged, the second one is demolished, and in his place a new rectangular building is constructed. In the north-eastern corner of this building another rectangular fountain is dug, with a depth of 4.5 m[89]. The third building is also enlarged, and south of it another rectangular construction appears, with the dimensions of 5 × 5.9 m[90].

[72] AE 1998, 1101.
[73] IDR III/2, 246.
[74] AE 1911, 33; AE 1976, 569; AE 1977, 671, 678; IDR III/2, 151, 156, 159, 166, 329.
[75] IDR III/2, 174.
[76] IDR III/2, 164.
[77] IDR III/2, 183.
[78] IDR III/2, 163; AE 1977, 676.
[79] IDR III/2, 162; AE 1977, 675.
[80] IDR III/2, 164.
[81] IDR III/2, 167.
[82] IDR III/2, 153.
[83] IDR III/2, 165.
[84] IDR III/2, 246; AE 1983, 837; AE 1998, 1101.
[85] IDR III/2, 329; AE 1977, 671.
[86] D. Alicu, I. H. Crișan, Medicina la romani, Cluj-Napoca 2003, p. 96.
[87] J. Nicolaus, *Asklepionul din Ulpia Traiana Sarmizegetusa*, Sargetia XV, 1981, p. 51.
[88] A. Rusu-Pescaru, D. Alicu, Templele romane în Dacia, Deva 2000, p. 40.
[89] Iidem, op. cit., p. 36.
[90] Iidem, op. cit., p. 40.

Unfortunately the archaeological excavations do not allow us to identify the exact purpose of each building. But the excavations led to the discovery of a statue and a relief of Aesculapius and of 14 votive altars, from which eight are dedicated to the medicine gods[91]. Regarding the rituals that took place in the sanctuary, the inscriptions offer very few clues. On one single altar, the one dedicated by Lucius Bononius Saturninus, we can find the formula *ex viso,* a reference to the ritual of *incubatio*[92]. Although, we have no reasons to believe that the rituals from this Asklepieion were any different than those from the rest of the Empire.

In the inscriptions found at Apulum, Aesculapius is usually associated with Hygia[93], but he appears also together with Lares, Penates, Neptune, Salus, Fortuna Redux, Diana, Apollo, Hercules and Spes[94], with Apollo and Diana[95], with the other healing deities of the spot[96], with Caelestis, the Genius of Carthage and the Genius of Dacia[97], and with Jupiter, Juno and Minerva[98]. In five cases the worshipers speak to *Numini Aesculapii*[99], on one single altar he is called *Deus*[100], and on one altar the worshiper speaks directly to the ears of the deity[101]. Aurelius Aeternalis places his inscription for Aesculapius and Hygia[102] on a votive relief, on which we can see in the center Aesculapius wearing a *himation* and holding in his right hand the snake-entwined staff. He is flanked by Hygia and Epione, both holding a snake and a vessel with fruits. Between Aesculapius and Epione we can also see Telesphorus.

Among the worshipers of Aesculapius in Apulum we can find: Publius Catius Sabinus, a tribune of the *legio XIII Gemina*[103]; Marcus Gallius Epictetus, an augustal of *colonia Apulum*[104]; C. Iulius Metrobianus, *duumvir* of *colonia Ulpia Traiana Sarmizegetusa*, priest of Aesculapius and *duumvir* of *colonia Apulum*[105]; Publius Aelius Genialis, *duumvir* of *colonia Apulum*[106]; Publius Aelius Rufinus, decurion of *municipium Apulum* and patron of the *collegium fabrum* from *colonia Apulum*[107]; Publius Aelius Syrus, augustal of *municipium Septimium Apulense*[108]; Carpion, imperial freedman, head of the tax service from Dacia Apulensis[109]; Tiberius Claudius

[91] D. Alicu, I. H. Crișan, op. cit., p. 98.
[92] IDR III/2, 159.
[93] IDR III/5, 3-11, 13, 14, 16-21.
[94] IDR III/5, 299.
[95] IDR III/5, 20.
[96] IDR III/5, 21.
[97] IDR III/5, 41.
[98] IDR III/5, 199.
[99] IDR III/5, 1, 3, 4, 8, 19.
[100] IDR III/5, 9.
[101] IDR III/5, 20.
[102] IDR III/5, 9.
[103] IDR III/5, 299.
[104] IDR III/5, 13.
[105] IDR III/5, 1.
[106] IDR III/5, 4.
[107] IDR III/5, 6.
[108] IDR III/5, 7.
[109] IDR III/5, 10.

Valerianus, centurion in the *legionis XIII Gemina* and *I Adiutrix*[110]; C. Pomponius Fuscus, *duumvir* of *colonia Aurelia Apulensis*[111]; Lucius Septimius Nigrinus, patron of the *collegium fabrum* from *colonia Aurelia Apulensis*[112]; Marcus Ulpius Valens, *quattuorvir* of *municipium Septimium Apulense*[113]; Dius, Farnax and Irenicus, augustals of *municipium Aurelium Apulense*[114]; C. Iulius Frontonianus, *beneficiarius consularis* in the *legio V Macedonica*[115]; Aulus Terentius Uttedianus, legate of the *legio XIII Gemina* and governor of province Raetia[116]; Septimius Asclepius Hermes, freedman and augustal of *colonia Apulum*[117]; Lucius Iulius Bassinus, decurion of *colonia Apulum*, *duumvir* of *Colonia Napoca*, *flamen* of *colonia Drobeta*, *flamen* of *municipium Dierna*, decurion of *municipium Apulum* and *municipium Porolissum*, and tribune of *legio IV Flavia*[118]; other persons do not mention their social status.

The inscriptions from Apulum reveal also the existence of some priests of Aesculapius: C. Iulius Metrobianus[119], C. Nummius Verus[120] and Septimius Asclepius Hermes[121]. The first one owns public offices both in Sarmizegetusa and Apulum, so we do not know for sure where he was a priest. Septimius Asclepius Hermes was a freedman of the temple of Aesculapius, and probably because of his services he got the distinction called *ornamenta decurionalia,* the external signs of the magistracy, which he couldn't normally own because of his servile birth.

Other three inscriptions confirm constructions made in the name of the medicine god. Publius Aelius Syrus, together with his wife and daughter, dedicated to the god a 30 feet long portico[122]; Publius Aelius Rufinus built a 40 feet long portico for the health of his wife and son[123]; and Marcus Gallius Epictetus built a 36 feet long portico for the health of his family[124]. These constructions prove the existence of a sanctuary where they could be placed. Other two inscriptions dedicated to healing deities were found inside the sanctuary. C. Iulius Varianus raises an altar for Apollo Salutaris for the health of his wife and son[125], and C. Iulius Frontonianus builds a bridge for Apollo, Diana, Letona and the other healing deities of the spot[126]. The building place was discovered on the territory of *colonia Aurelia Apulensis*, near the lake Tăușor, in the same place with the altar dedicated to Aesculapius, Hygia and the

[110] IDR III/5, 11.
[111] IDR III/5, 16.
[112] IDR III/5, 18.
[113] IDR III/5, 19.
[114] IDR III/5, 20.
[115] IDR III/5, 21.
[116] IDR III/5, 41.
[117] IDR III/5, 199.
[118] IDR III/5, 14.
[119] IDR III/5, 1.
[120] IDR III/5, 2.
[121] IDR III/5, 199; AE 2004, 1201.
[122] IDR III/5, 7.
[123] IDR III/5, 6.
[124] IDR III/5, 13.
[125] IDR III/5, 34.
[126] IDR III/5, 36.

other healing deities of the spot[127]. We can localize the sanctuary near the lake and the bridge built by C. Iulius Frontonianus, which probably permitted the access into the sacred area[128].

Some inscriptions offer clues regarding the rituals that took place in the sanctuary. Marcus Gallius Epictetus built the portico as a consequence of a dream[129], and C. Iulius Frontonianus raised the monument according to the directives given by the god also during a dream[130]. The dream is obviously a reference to the ritual of *incubatio* practiced in the sanctuary. Regarding the efficiency of the rituals, C. Iulius Frontonianus confirms the healing of an ophthalmologic disease: *redditis sibi luminibus.*

Votive inscriptions dedicated to Aesculapius were found also in other settlements of Roman Dacia. Three altars were discovered in Germisara[131], where the cult of Aesculapius and Hygia is related with the healing springs protected by the Nymphs. The same relationship is visible also in the case of the altars discovered at Băile Herculane. Marcus Aurelius Veteranus, prefect of the *legio XIII Gemina*, raises an altar for *Diis magnis et bonis Aesculapio et Hygiae*[132], and an altar dedicated for the health of Iunia Cyrilla confirms that the healing power of Aesculapius works through the thermal springs of the spa[133].

Another interesting inscription was found at Ampelum, administrative center of the mining area in the Apuseni Mountains. Eutyches, imperial freedman, confirms that he built a temple for Aesculapius and Hygia[134]. The Roman settlement from Ampelum had never been archaeologically researched, and nowadays it's mostly destroyed by modern constructions, so identifying the temple will be a very hard if not an impossible task. Other two inscriptions dedicated to Aesculapius were found at Ampelum. The first one is fragmentary, and besides the name of the deity doesn't offer any other relevant information[135]. The second one is dedicated to Aesculapius and Hygia by Marcus Antonius Saturninus, decurion of the colony[136]. Considering the fact that Ampelum had never been raised to the status of a *colonia*, we do not know the decurion's place of origin.

Other three altars dedicated to Aesculapius were also found in the mining area, this time in Alburnus Maior. One of them was discovered in 2001, on the territory of a sanctuary where other deities were also worshiped: Aptus, Apollo, Fortuna, the Nymphs, Mercury, Jupiter, Terra Mater, Silvanus, Liber and Libera[137]. The altar for Aesculapius was raised by Marcus Ulpius Clemens and Aelius Mes...[138]. The second altar dedicated to Aesculapius is fragmentary and the name of the worshiper is not

[127] IDR III/5, 21.
[128] I. Piso, *Epigraphica XII*, AMN XVII, 1980, p. 86.
[129] IDR III/5, 13.
[130] IDR III/5, 21.
[131] IDR III/3, 230, 231, 232.
[132] IDR III/1, 54.
[133] IDR III/1, 55.
[134] IDR III/3, 280.
[135] IDR III/3, 287.
[136] IDR III/3, 286.
[137] C. Ciongradi, Die Römischen Steindenkmäler aus Alburnus Maior, Cluj-Napoca 2009, p. 45.
[138] AE 2003, 1495.

preserved[139]. The third altar was found in 2003 in secondary position, in the Roman cemetery; Fronto Plarentis raises the monument in the name of an unidentified *collegium*[140].

Other votive inscriptions for Aesculapius were found in Dacia at Săcelu[141], Galt[142] and Ilișua[143]. An altar with unknown place of discovery was raised by Veturius Marcianus, a veteran of the XIII legion, for the health of his family[144]. He mentions that the altar was raised for Jupiter Dolichenus from the order of Aesculapius, which was transmitted to him through a dream. We can presume that he visited one of the province's Asklepieions and participated there to the ritual of *incubatio.*

Conclusions

Based on the presented facts we can establish the general features of the cult of Aesculapius and Hygia in the northern provinces of the Roman Empire, and the role of the water in their sanctuaries. In Roman Britain, the medicine god doesn't own any sanctuaries, the few epigraphic monuments and figurative representations were found in military regions and they were probably placed in the fort's *valetudinarium.* The only case of association between the cult of Aesculapius and a water cult was identified in Carrawburgh, where a votive relief of the god was placed on the territory of a spring sanctuary. The situation is mostly similar in the Gallic provinces; where we don't have any epigraphic or archaeological prove for the existence of an Asklepieion, although, the relationship with the water is visible through the two votive monuments placed each on the territory of a spring sanctuary, in Vichy and Mont-de-Sène. In the Germanic provinces, the seven discovered altars don't offer any clues regarding the association of the cult with a spring or a fountain, and in the lack of a sanctuary we can't make any other presumptions. In Noricum, a series of figurative representations of the god were found in the same room, allowing us to identify it with an Asklepieion, but unfortunately in lack of epigraphic and archaeological evidence we have no information about the use of water in this building.

The situation changes considerably in the Pannonian and Dacian provinces. In Brigetio, two inscriptions confirm the construction of a temple of Apollo and Hygia, one of them mentioning also the sacred fountain inside the sanctuary, probably an artificial one, but fed with the water of healing springs. The relationship between the cult of Aesculapius and that of the healing springs is clearly visible in Aquincum, where the medicine god is worshiped inside a spring sanctuary, which has also attached a building for the accommodation of visitors. A second sanctuary of the god in Aquincum was attached to the *valetudinarium* inside the legionary fort, but in this case we have no information about the existence of a fountain or spring.

[139] IDR III/3, 382.
[140] C. Ciongradi, op. cit., p. 59-60.
[141] IDR II, 182.
[142] IDR III/4, 233.
[143] CIL III 786.
[144] IDR III/5, 220.

As a difference to the other provinces, in Dacia the cult of Aesculapius is highly popular. The god owned a sanctuary in Ulpia Traiana Sarmizegetusa, on the territory of which a sacred fountain was discovered, fountain also mentioned in one of the votive inscriptions. Another sanctuary was placed in Apulum. In this case we have no information about a spring or a fountain, but the establishment was situated near the water, as one of the inscriptions reveals. The relationship between Aesculapius and the healing springs is visible both in Germisara and Băile Herculane.

As we could see, where we have enough evidence, the cult of Aesculapius is associated with a water cult, either there is a sacred spring or fountain on the territory of the Asklepieion, or the votive monuments for Aesculapius are placed inside spring sanctuaries.

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URBAN ARCHAEOLOGY IN CLUJ-NAPOCA. THE FINDINGS FROM THE ART MUSEUM' COURTYARD

LUCA-PAUL PUPEZĂ

Résumé: L'archéologie urbaine suit le développement d'une ville au cours de toute son histoire, en insistant sur des notions telles que dedans-dehors, planifiée-spontanées, denses et dispersées, notions qui sont des concepts communs pour les archéologues et les architectes ou urbanistes, faisant partie d'archéologie du processus d'urbanisation. Outre la récupération, la protection et la conservation, à l'archéologie urbaine un nouvel objectif a été ajouté: celui de l'intégration du patrimoine dans l'environnement urbain. L'archéologie urbaine a plus à voir avec les problèmes spécifiques de la ville contemporaine, avec l'urbanisation croissante et la mondialisation, et moins à faire avec la chronologie ou la spatialité. Les découvertes de la cour du Musée d'Art couvrent l'ensemble du segment chronologique urbain de Cluj-Napoca, faisant de ces découvertes un point d'intérêt de l'archéologie urbaine.

Mots-clés: archéologie urbaine; patrimoine; urbanisme; Napoca.

I. Urban archaeology

By urban archaeology[1] we refer to that archaeological research of a broad purpose taking place in a city, which follows the whole chronological development, from its founding until today[2]. This is not a research confined to only one historical age or to just one monument but one that has a global perspective, focused on wider phenomena such as the man-place, climate-economy or change-environment relationship. From this perspective, the concept of urban archaeology differs from the simple archaeology in a city, offering as an alternative the integration and not the transposition of an interpretative pattern. Its standards and techniques are very different from those of classical, systematic archaeology, reflecting in certain measure archaeology's adaptability to the new realities. Preventive research in the cities is first of all limited by time, by space, or by financial or human resources. The digging techniques have also been modified, stratigraphy, the method of the singular complex or digging in disproportionate layers being emphasized upon. Unlike systematic archaeological research, the preventive one focuses on details and not on the whole, on particular and not on the general.

[1] General aspects of urban archaeology in Romania have been taken into account in a larger paper, partially used in the present paper: P. Pupeză, *Arheologia urbană în România. De la oraşul antic la oraşul contemporan*, in H. Pop et alii (eds.), Identităţi culturale locale şi regionale în context european. In memoriam Alexandru V. Matei, Zalău 2010 (in print).

[2] R. Francovich, D. Manacorda, Dizionario di archaelogia, Roma-Bari 2002, p. 350, s.v. *urbana, archaeologia*; Ch. E. Orser, Encyclopedia of Historical Archaeology, London-New York, p. 612, s.v. *urban archaeology*.

Urban archaeology follows the development of a city during the course of its whole history and emphasizes notions such as empty-full, inside-outside, rich-poor, native-foreign, planned-spontaneous, and dense-dispersed. These notions are common concepts to archaeologists and public authorities, architects or urban planners, making archaeology part of the urbanization process[3]. In truth urban archaeology has more to do with the specific problems of the contemporary city, with increased urbanization, and less with chronology or spatiality. Modern town planning launched the concept of a city that is connected, tied, amalgamated by several connections: social, economic, environmental and historic[4]. Besides saving, protecting and conserving the patrimony, a new goal was added in what the archaeological research regards that of integrating patrimony in the urban environment. In fact the term "patrimony" gained new meaning, it being different from any other patrimony by simply belonging to the city, as a unique, individualized entity. Unlike cultural patrimony, (which is) a vague, relative, general notion, urban patrimony is more precisely defined. Thus a more precise goal can be given[5].

Strangely, economic, political or cultural globalization led to a deep segmentation of human society, by disrupting the balance between tradition and recent values. Cities are the main vector of this phenomenon, each transforming in a small, globalised world, breaking the limits of traditional boundaries, imposing a new vocabulary, symbolic for group identity. The traditional life style lost the battle with modern times and the old cultural and political identities become daily little more than simple clichés[6]. Urban archaeology wants to provide an answer to the new global requirements of the city, by marking the identity of the city instead of the identity of its old inhabitants. Herein lays the subtle difference between classical archaeology, seeking to identify and mark spaces in the past, and urban archaeology, seeking to identify and mark spaces in the present.

II. Cluj-Napoca – urban site

Every contemporary city is an urban site, no matter the economic development, how much space is used for living and for how long people have lived there. But the importance of every site for urban archaeology differs on the basis of a series of decisive factors. Among these is the chronological factor (people lived there since Antiquity, Middle Ages, Modern Age), the continuity/discontinuity of some elements of urbanism (fortified space, organized streets, public spaces), the relevance of archaeological finds (stone constructions, deposits rich in materials, different artifacts) and the quality of auxiliary sources (aerial photographs, cadastral surveys, topographical surveys, written documents).

[3] ***_Archaeology and urban development. New Council of Europe code of practice_, The European Archaeologist 13, Praha 2000, p. 1-3.

[4] ***The New Charter of Athens. The European Council of Town Planners' Vision for Cities in the 21st century, Athens 2003, passim.

[5] _Archaeology and urban development_, p. 2-3.

[6] J. Friedman, _The World City hypothesis_, in P. Knox, P. Taylor (eds.), World cities in a world system, Cambridge 1995, p. 317-331.

Taking these factors into consideration, among the most important urban archaeological sites in Romania are: Alba-Iulia (*Apulum*, Weissenburg, Gyulafehérvár), Bistrița (Bistritz, Beszterce), Brașov (Kronstadt, Brassó), Cluj-Napoca (*Napoca*, Klausburg, Kolozsvár), Constanța (*Tomis*), Drobeta-Turnu Severin (*Drobeta*), Mangalia (*Callatis*), Sibiu (Hermannstadt, Nagyszeben), Sighișoara (Schaessburg, Segesvár) or Turda (*Potaissa*, Thorenburg, Torda). At a first glance, cities that are created in Antiquity (*Apulum*, *Napoca*, *Tomis*, *Drobeta*, *Callatis*, *Potaissa*) are the ones that provide most information, due to long functioning, a continuity of the urban elements and the plentitude of archaeological finds. Cities dated in the Middle Ages (Bistritz, Kronstad, Hermannstadt, Schaessburg) have more material when it comes to auxiliary sources or continuity of habitation while not lacking archaeological discoveries.

III. Archaeological findings from the Art Museum' courtyard

The findings from the Art Museum' courtyard (the Bánffy Palace), the result of archaeological preventive research[7], cover the whole urban chronological segment of the city of Cluj-Napoca, making these discoveries a point of interest from the perspective of urban archaeology.

Bánffy Palace, the highest achievement of Transylvanian baroque, is situated in the central area of Cluj-Napoca, in Piața Unirii, next to St. Michael cathedral and the statue of Mathias Rex (Pl. I). Geographically, the palace is on the first terrace of Someș River, just like the whole old center of the city, about 500 m south of the river. A single section was made, S1, 23 × 3 m, with N-S orientation, (Pl. II-III, V-VI), the layers containing archaeological materials being one on the top of the other on a depth of over 6 m (Pl. IV).

Contemporary Age

The latest complex identified during the excavations in the Art Museum' courtyard belongs to the contemporary age. It is part of a concrete structure from a cinema (named Apolló, Capitol and then Progresul) that functioned from the inter-war period up until 1971 (Pl VII). The material in the complex was poor, more important being two coins dated in the inter-war period (Pl. VIII-IX).

Modern age

Findings dated in the modern age are closely related to the construction of the palace, in the period 1774-1785, by the governor of Transylvania G. Bánffy. In the south-east of the courtyard were found two stone walls, parts of a cellar, one of them with an arch. The building which these walls belonged to was partially destroyed, in

[7] D. Alicu, A. Isac, P. Pupeză, B. Gergely, *Cluj-Napoca, punct: Muzeul de Artă*, CCA 2009, nr. 140, p. 285-287; A. Antal, P. Pupeza, *Ceramica ștampilată de la Napoca. Descoperirile din curtea Muzeului de Artă*, in V. Rusu-Bolindeț, T. Sălăgean, R. Varga (eds.), Studia Archaeologica et Historica in honorem magistri Dorin Alicu, Cluj-Napoca 2010, p. 67-85.

order to gain enough space to build the palace. The cellar was filled with black, clay-like earth, with a persistent smell.

Two phases of the pavement of the courtyard remained, one paving with river stone, afterwards covered with massive stone slabs, of an irregular shape, with a relatively smoothed top surface (Pl. XII). Most of the complexes of this age are pits for obtaining slaked lime (Pl. X-XI). The pits had different shapes and were filled with lime, sand or pebbles and scarcely any archaeological material. In the cultural layers of the modern age we found pottery fragments, one with an inscription on the bottom (Pl. XXI/2, 4), clay pipes (Pl. XIV, XVI), coins (Pl. XIII), tiles (Pl. XV, XVII), processed stones, one from a window frame as well as different bronze and iron objects.

Medieval age

We could not observe stratigraphically successive layers between the 12th-17th centuries of the medieval age, the most consistent layer being a leveling one, with mixed materials. Few pits and a "V"-shaped ditch were found. The most consistent layer of material has a black color, with many stones, some of them of great size. The material found consisted of ceramic fragments (Pl. XXI/1, 3), animal bones, tiles (Pl. XVIII, XX), coins (Pl. XIX, XXII) and different bronze and iron objects.

Roman age

From the Roman city of *Napoca*, at least two phases have been identified. To the Severan phase, after the second half of the 2nd century AD, belonged a road made of stone slabs, with the approximate orientation NV-SE, similar to a *cardo*, with a massive foundation of river rocks and sand (Pl. XXV). In the debris where the slabs were found some processed stones have been discovered as well (Pl. XXIII/1), including a funerary cone (Pl. XXIII/2), coins (Pl. XXIV), many pottery fragments (Pl. XXVI), tiles, ceramic pavement pieces, bronze and iron objects as well as animal bones, including horns.

To the Hadrianic phase, dated in the first half of the 2nd century AD, belonged a thick layer of reddish burning, with a lot of archaeological material: pottery fragments, animal bones, a large quantity of bronze slag, iron objects as well as a massive bronze coin. No doubt we are dealing with a construction that burnt, the fire being strong enough to almost vitrify the layer of sand and pebbles from underneath.

Neolithic age

The oldest culture layer we could identify belongs to the Neolithic age, where we found a lot of bones, processed flint as well as pottery fragments belonging to the cultural group Cluj-Cheile Turzii, without finding an archaeological complex however.

IV. Urban archaeology in Cluj-Napoca

All the findings from the Art Museum' courtyard remained at the level of a rescue excavation, just like all the other discoveries in Cluj-Napoca or any other of the above-mentioned urban sites. The material was separated by ages in order for it to be

published by the experts, increasing the amount of knowledge we posses about the province Dacia, the medieval age or the modern age. For saving, conservation and capitalizing on the patrimony it is, probably, more than enough. But, from the perspective of urban archaeology, integrating the patrimony in the local environment, transforming it into an identity symbol or from vague, cultural patrimony into real, urban patrimony, this was not succeeded.

Thus, the Roman or early medieval findings have too few connections with the modern cities, which, from the perspective of urban archaeology, is the main failure. In the way it is now conceived urban archaeology is missing from the Romanian archaeology. In Romania urban archaeology is more of a wish, being rather archaeology inside a city, an archaeology separated on ages, in which the general aspect is missed by following particular points.

Such a fragmented archaeology follows just the history of the Roman city, of the medieval city or of the modern one. Even if all these stages are united in the covers of a single book, we still lack that unifying, global perspective and we miss the general notions that break the boundaries of time. History is thus not the history of Cluj-Napoca[8], but the history of the cities of Cluj-Napoca, the history of Cluj, of Klausenburg, of Kolozsvár, or of the Roman *Napoca*.

V. Urban archaeology – perspectives

One of the problems solved in the West due to urban archaeology was that of passing from Late Antiquity to Middle Ages, from the Roman to the medieval city but the solution did not cone by following the disparate history of a site. The city is a product of a political context and the changing of the political context brings the changing or disappearance of the city[9]. The Roman city is no exception: with the disappearance of the Roman Empire it will be subject to numerous changes or even disappear. The medieval city replacing the Roman one is also a by-product of the political context, thus it is a city entirely different from the previous one, with completely different aspects[10]. Beyond the differences between the Roman and medieval city, some aspects of continuity were discovered, especially as a result of the rescue excavations in urban sites. The presence of common elements between the Roman city and the medieval one is due chiefly to a continuity of urban life in some cities, even after the fall of the Roman Empire.

An important clue relating to the continuation of urban life is the overlapping of the medieval and Roman streets[11]. If Roman cities had disappeared, it would have been impossible for the streets to have the same course, the old one being most likely

[8] Șt. Pascu (coord.), Istoria Clujului, Cluj-Napoca 1974, passim.

[9] M. I. Finley, *The ancient city: from Fustel de Coulanges to Max Weber and beyond*, in B. D. Shaw, R. P. Saller (eds.), Economy and society in Ancient Greece, London 1981, p. 21.

[10] D. Hill, *Unity and diversity - a framework for the study of European towns,* in R. Hodges, B. Hobbley (eds.), The rebirth of towns in the west AD 700-1050, London 1988, p. 8-15.

[11] B. Ward-Perkins, From Classical Antiquity to the Middle Ages: urban public building in northern and central Italy, Oxford 1984, p. 179.

covered by vegetation. When a society changes the topography of living changes, so accidental continuity is almost excluded[12].

The most examples obviously come from Italy, where over 20 present day cities follow the Roman street course, some almost completely[13]. Fewer such examples come from Great Britain, France, Spain or Germany. In Verona (Italy), archaeological excavations proved what the street topography assumed: an overlapping of Roman and medieval streets. But, after the fall of the Empire, the intensity of urban living decreased. In an *insula* it was discovered a continuity of living in the outside area, towards the street, while in the inside area, black earth separating the two living stages was found[14]. In other Italian cities (Brescia, Verona, Pavia), was found black earth deposited between the Roman and medieval periods and this lead to an initial assumption about an abandonment of living at the end of the Roman Empire. Afterwards it was noticed that this earth does not appear inside the habitation structures, rather proving a reduction in habitation, but not its disappearance[15].

A special case of urban continuity is represented by the *praetorium* of a city. Home of the *praeses provinciae* or of a local military leader, the *praetorium* was often placed near the walls. In this building, especially in Gallo-Roman cities, the Frankish king, the duke or count will choose to reside, the Roman *praetorium* becoming the medieval *palatium*[16]. The discovery of the *praetorium* of the city of *Genava* (Geneva, Switzerland) proved archaeologically what was mentioned only in the written papers of the time[17]. It seems we have the same situation for the *praetorium* from *Colonia Claudia Ara Agrippinensium* (Köln, Germany), which was used for a while as a palace by the Merovingian kings[18]. In fact, even maintaining the functionality of the streets implies that some authority was present in the city after the Roman administration was gone. Such an authority probably took charge of keeping the bridges and the sewage systems functioning. Here we can include the conservation of the Roman *forum* used as a market place in the medieval time (Florence, Brescia, Verona)[19].

Along with the streets, the other topographic example of continuity is represented by fortifications. Due to a decrease in what regards urban living, at the beginning of the Middle Ages and up to the 12th century, no Roman fortification was enlarged, in certain cases fortifications being kept as they were in the Antiquity. Afterwards, as the number of urban dwellers swelled, most of the Roman city walls were destroyed. They

[12] P. Banks, *The Roman inheritance and topographical transitions in early medieval Barcelona*, in T. F. C. Blagg, R. F. J. Jones, S. J. Keay (eds.), Papers in Iberian archaeology, Oxford 1984, p. 629.

[13] B. Ward-Perkins, *The towns of northern Italy: rebirth or renewal?*, in R. Hodges, B. Hobbley (eds.), op.cit., p. 18.

[14] P. J. Hudson, *La dinamica dell'insediamento urbano nell' area del cortile del Tribunale di Verona. L'età medievale*, Archeologia Medievale 12, Firenze 1985, p. 282-291.

[15] B. Ward-Perkins, op. cit., p. 18, with bibliography.

[16] C. Brühl, *Problems of the continuity of Roman civitates in Gaul, as illustrated by the interrelation of cathedral and palatium*, in R. Hodges, B. Hobbley (eds.), op.cit., p. 44.

[17] L. Blondel, *Praetorium, palais burgonde et château comtal*, Genava 18, Genève 1940, p. 69-87.

[18] W. Janssen, *The rebirth of towns in the Rhineland*, in R. Hodges, B. Hobbley (eds.), op.cit., p. 50, with bibliography.

[19] B. Ward-Perkins, From Classical Antiquity to the Middle Ages: urban public building in northern and central Italy, Oxford 1984, p. 182-186.

were kept only as streets that follow the patrol road[20]. Unlike the maintaining of the streets or of some buildings, usage of Roman fortifications does not necessarily imply continuity of habitation. It is the case of most Roman fortifications reused by early medieval towns in Great Britain. Here, like in other places in Germany[21], the Roman city did not transform itself into a center for urban life during the Middle Ages, but it functioned as a place of refuge[22]. For this reason the direction of the streets was lost, except the main streets connecting the gates.

The situation of urban centers in Dacia after the withdrawal of the Roman administration is an integral part of this transformation phenomenon of Roman urban life into medieval urban life. Based on information obtained from archaeological excavations, results that *Napoca* had a right-angled enclosure and the plan of the streets was orthogonal[23]. The fortified enclosure of the Roman city was archaeologically observed on three sides, those from the west and north being overlapped by the medieval fortification (Pl. I). The first medieval fortified enclosure, *Castrum Clusium*, seems to have occupied the north-west corner of the Roman city[24], the enclosure being afterwards enlarged, exceeding the limits of the antique settlement.

By following the street layout on a map, we can easily assume the existence of a *cardo maximus* along Ferdinand street, the medieval *Hid utcza*, and then in Piața Unirii, in front of Bánffy Palace. The route of the *decumanus maximus* was probably along 21 Decembrie and Memorandumului streets, the *Belső Monostor utcza* from the Middle Ages. The importance of the direction of these two streets is obvious in the Middle Ages, the two main access roads following their course as shown in maps dating from that period. If correctly identified, the fortified enclosure *Castrum Clusium* followed on two sides the Roman walls, on one side the *cardo maximus* and on the other side the *decumanus maximus*, intersecting each other near its south-east corner. Other streets that follow Roman ones could be I. Bob, Iuliu Maniu, Napoca or Cotită streets. For those, we lack archaeological proof, the only clues coming from medieval or modern maps.

Just like other European cities, in certain areas of Cluj-Napoca was found a black earth layer separating the late Roman layer from that of the early medieval one, the situation being proven stratigraphicaly in the Art Museum' courtyard. But, in the present stage of research, we cannot say whether this is a general phenomenon in the whole city or it is specific only to certain areas.

It cannot be made any direct connection, similar to the *praetorium-palatium*, between some Roman buildings and early medieval fortifications inside the antique walls. In the case of *Napoca - Castrum Clusium*, one can speculate that the medieval habitation evolved in the north-west corner of the Roman fortification because there

[20] C. Brühl, op. cit., p. 44.

[21] W. Janssen, op. cit., p. 47-51.

[22] D. G. Russo, Town Origins and Development in Early England, c. 400-950 A.D., London 1998, with the whole bibliography of the phenomenon.

[23] H. Daicoviciu, Napoca romană, in Șt. Pascu (coord.), Istoria Clujului, Cluj-Napoca 1974, p. 25-49; RepCluj, p. 118-154, fig. 69, s.v. *Cluj*.

[24] J. Lukács, Povestea orașului-comoară. Scurtă istorie a Clujului și a monumentelor sale, Cluj-Napoca 2005, p. 28-32, with bibliography.

were the ruins of a more massif construction, such as the *praetorium*, almost always placed near the enclosure wall. It would be identical to situations in sites such as Geneva or Köln. Early medieval engravings and maps show a higher density of habitation in this area, but it is not enough to prove this.

Besides these rather topographical than archaeological observations, details of continuity/discontinuity of the urban phenomenon are missing. Due to the lack of consistent archaeological excavations, we do not know how many of the medieval streets follow the Roman course. Thus, we cannot surely prove that the main roads connecting the gates survived, that the fortress was used in the Medieval Age or that some *insulae* were kept in use, as a sign of true urban life. Generally this is the course of things with regards to most of the information we have about this phenomenon on the actual territory of Romania. We can only make assumptions without having certain information. It is an important aspect of history that urban archaeology could clarify.

VI. Conclusions

The transformation of cities in small, globalised worlds represents a general tendency of global urbanism. Sooner or later this will deeply affect all cities, including Cluj-Napoca, forcing them to discover new identities and to build new individualities. Urban archaeology is an integral part of this process.

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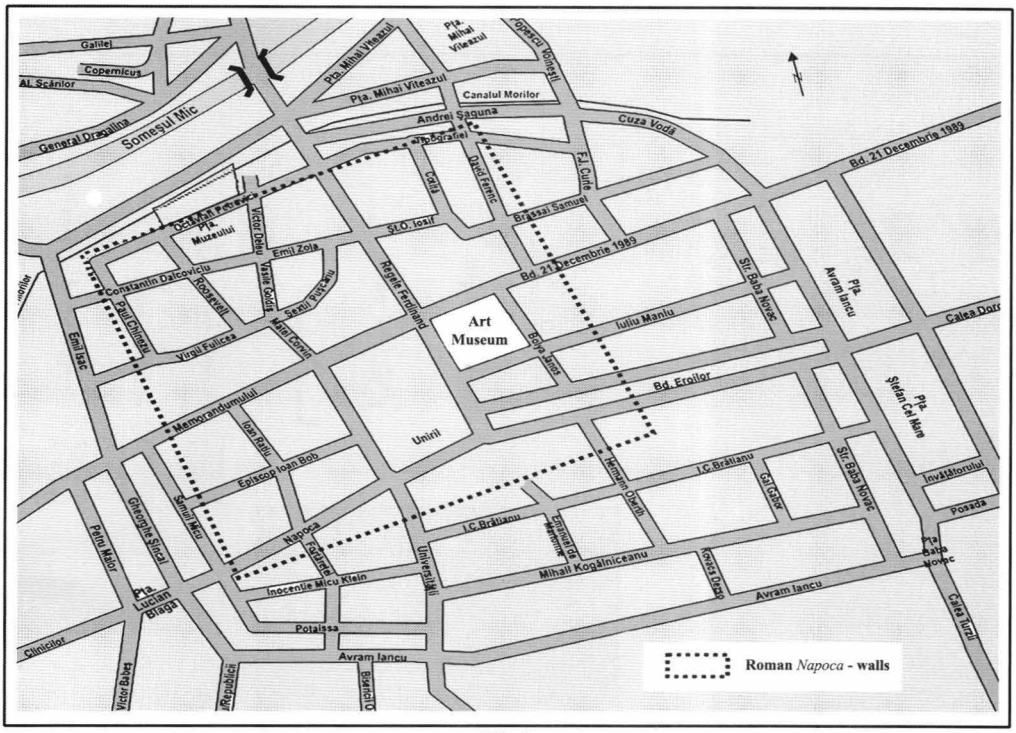
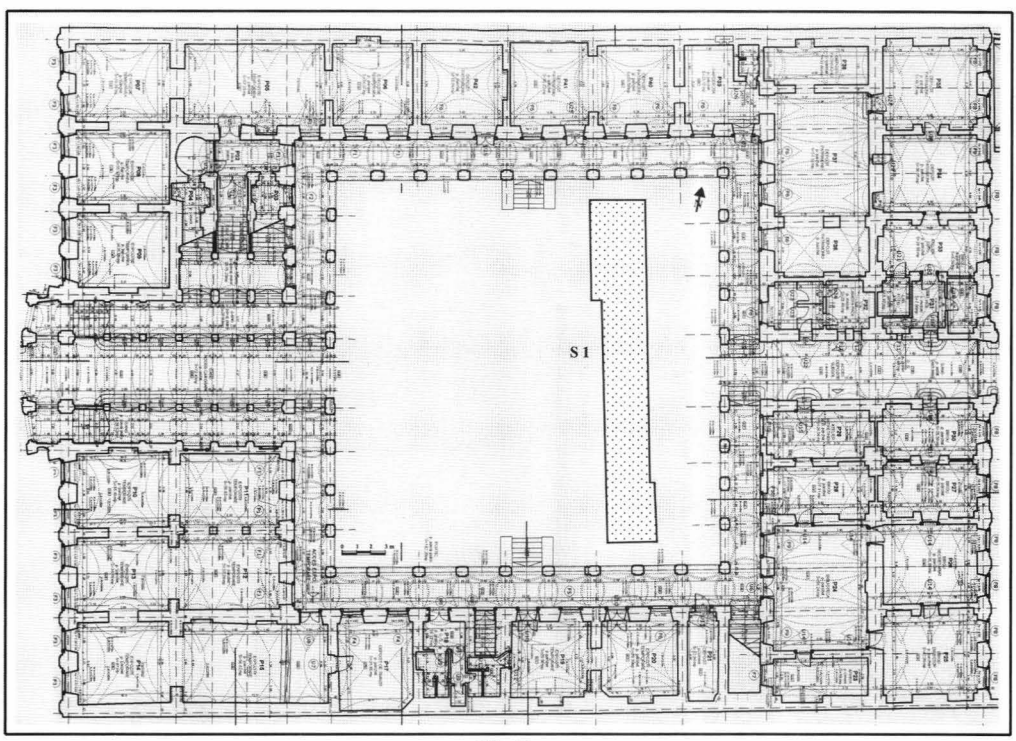
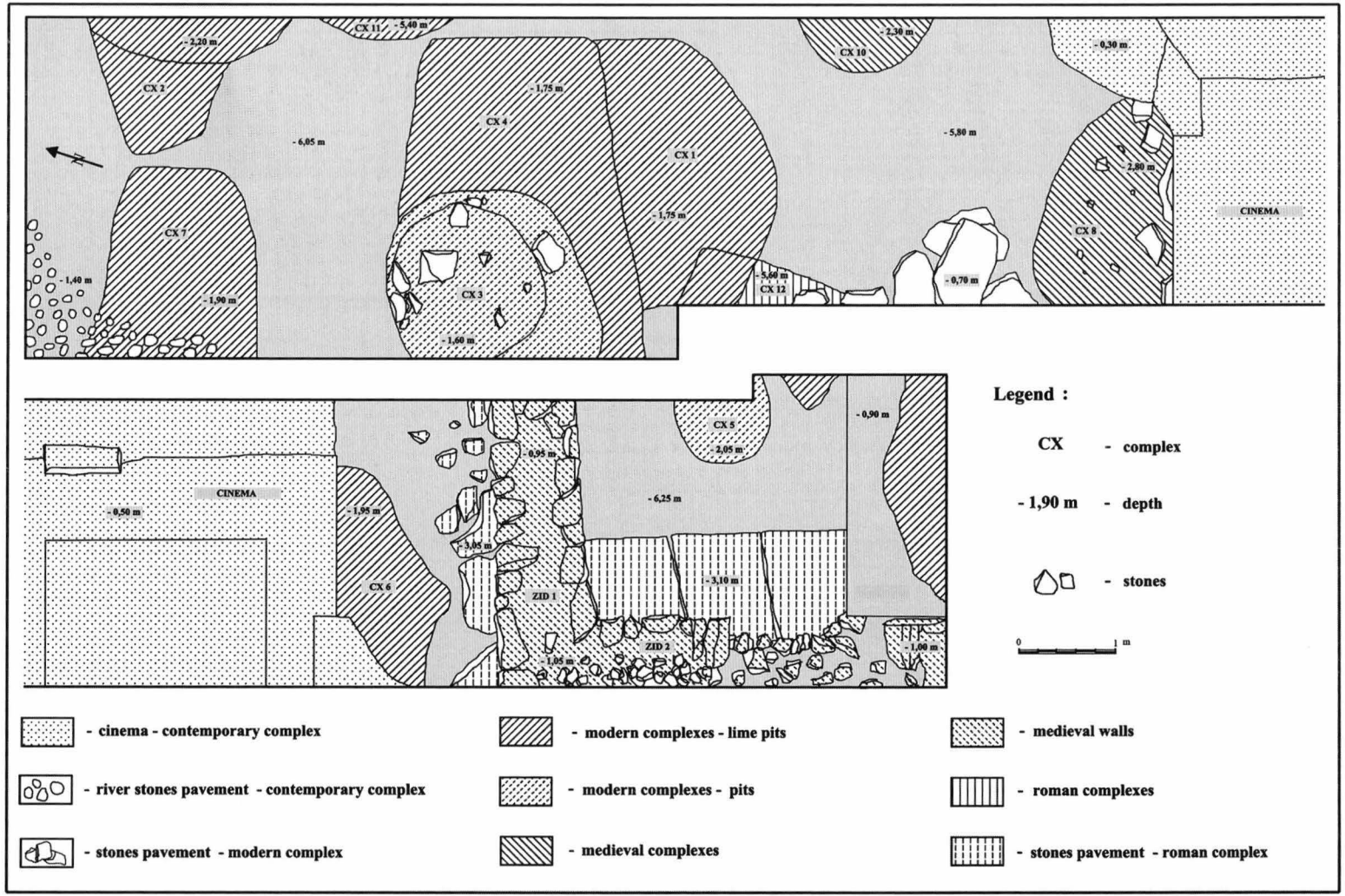


Pl. I

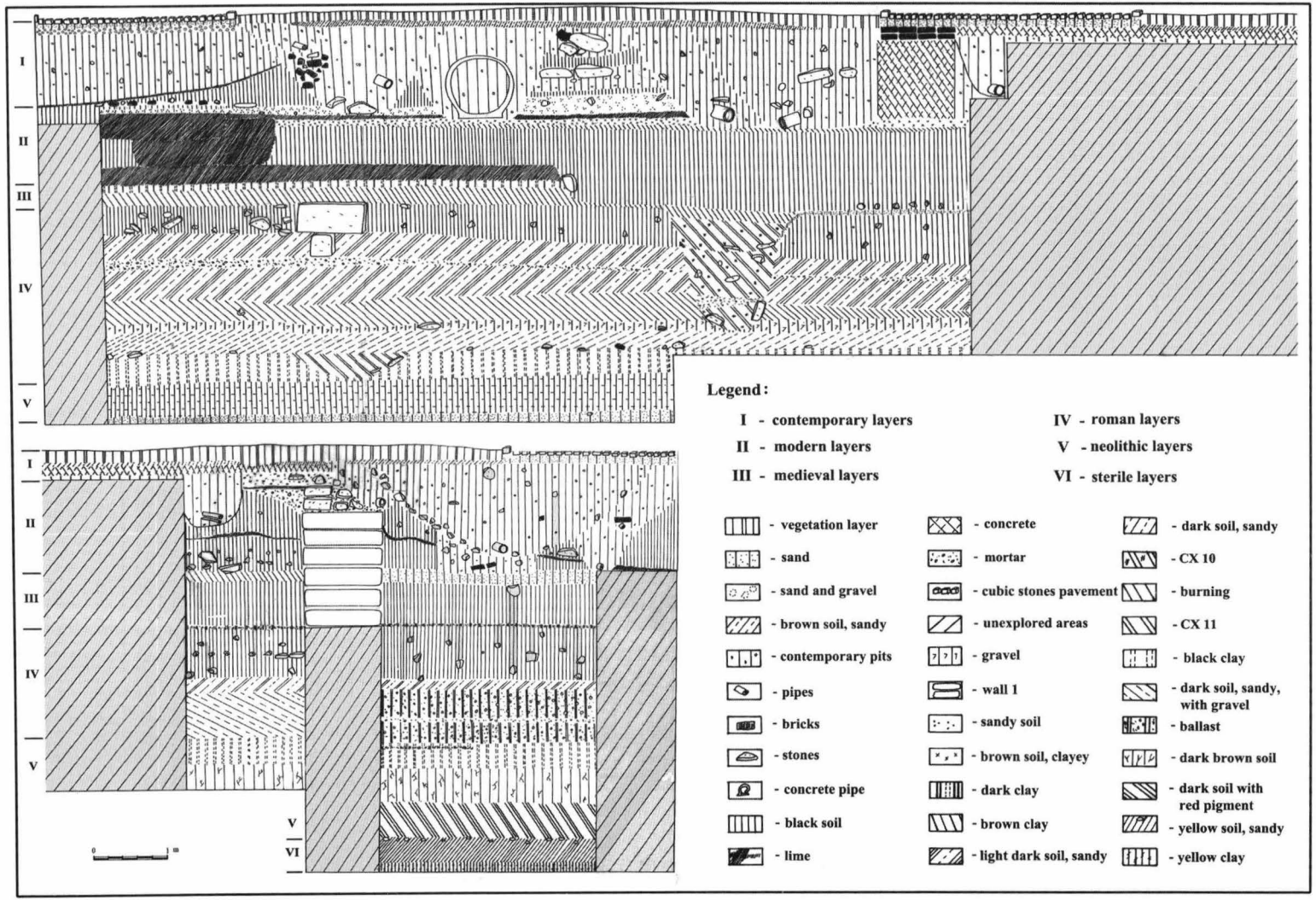


Pl. II

Pl. I. Cluj-Napoca - central area the fortifications of the Roman city *Napoca* (after RepCluj, p. 125, fig. 69); **Pl. II.** Art Museum (Bánfy Palace) - plan (after *Releveu Arhitectural - plan parter*, made by *Utilitas SRL*, Cluj-Napoca).



Pl. III. Surface S1 - plan (drawing of the author).

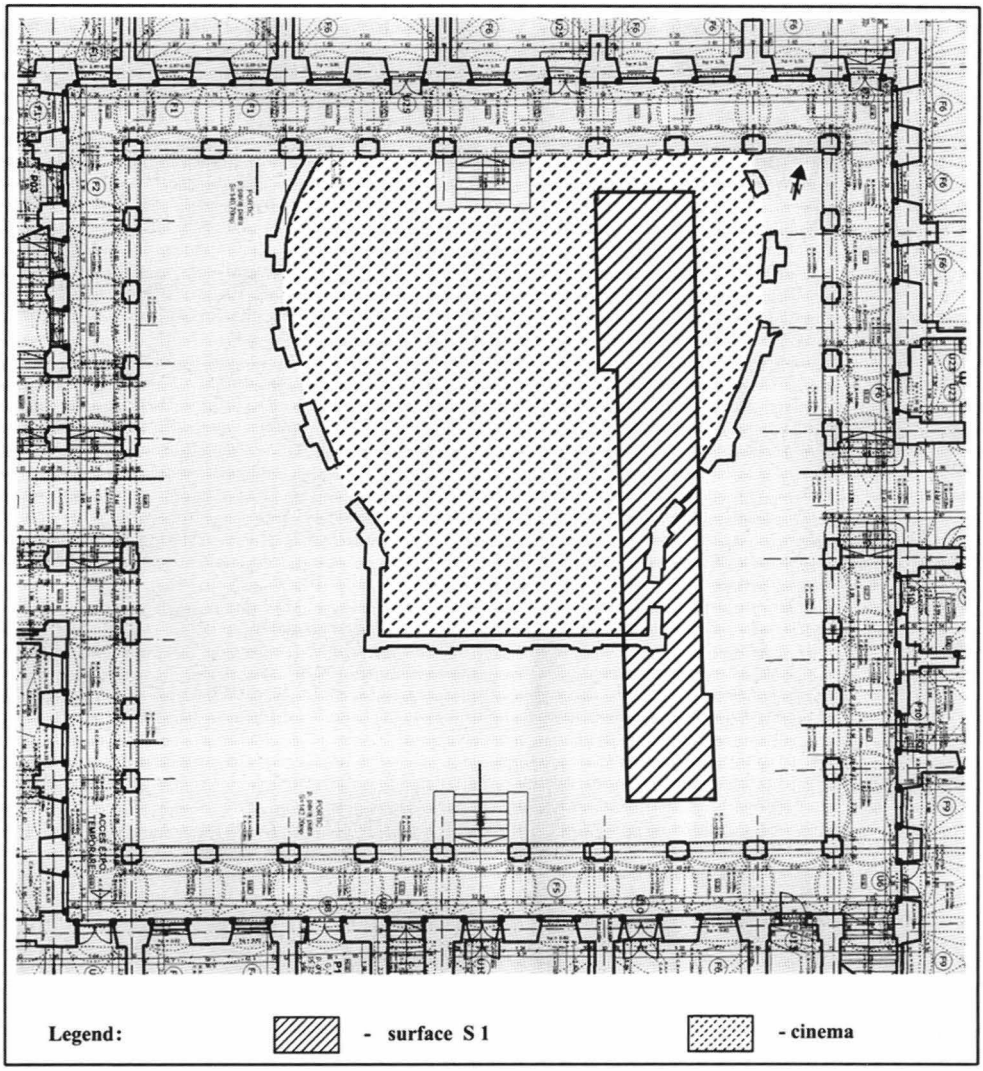


Pl. IV. Surface S1 - eastern profile (drawing of the author).

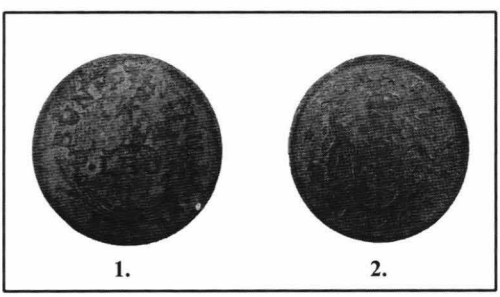
Pl. V

Pl. VI

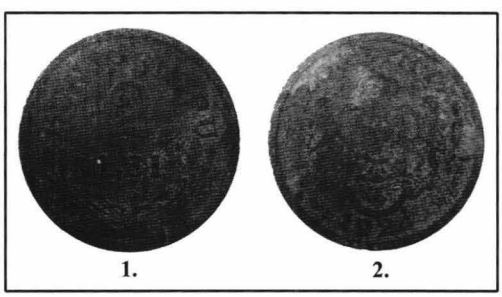
Pl. V. Surface S1 - south view; **Pl. VI.** Surface S1 - north view (photos of the author).



Pl. VII



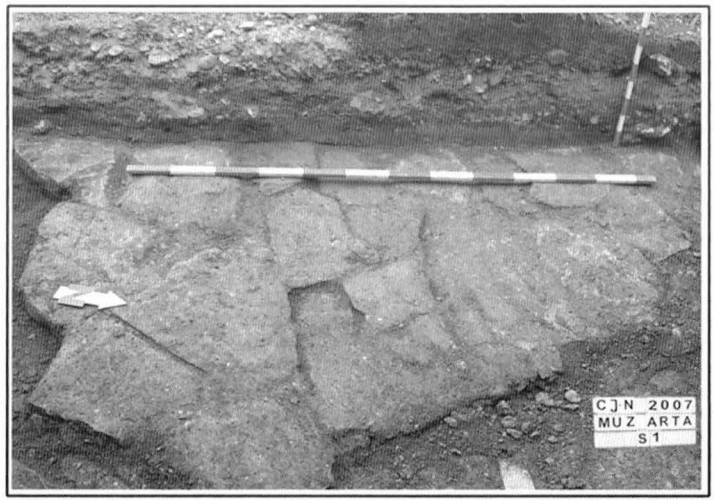
Pl. VIII

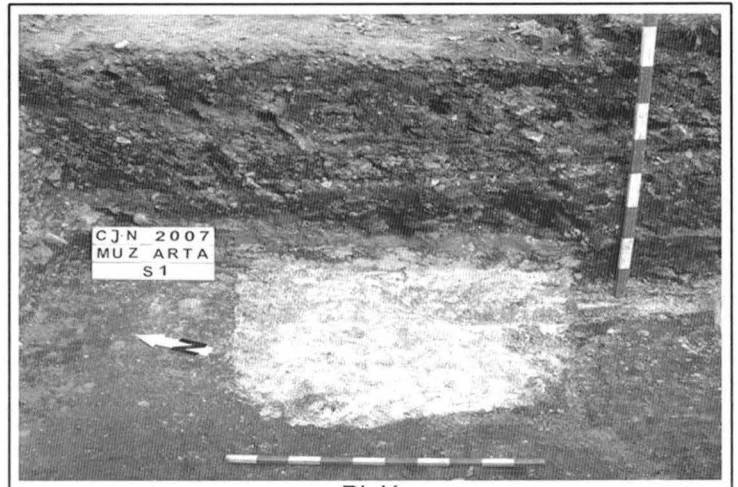


Pl. IX

Pl. VII. Progresul Cinema - plan (after (after *Releveu Arhitectural - plan parter* made by *Utilitas SRL*, Cluj-Napoca); **Pl. VIII.** 1 LEU coin from the 1920's, reverse (1) and obverse (2); Pl. IX. 2 LEI coin (photos of the author).

Pl. XII

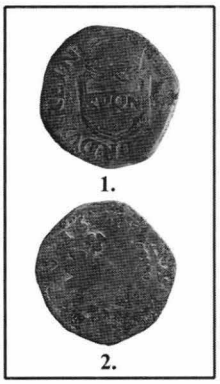




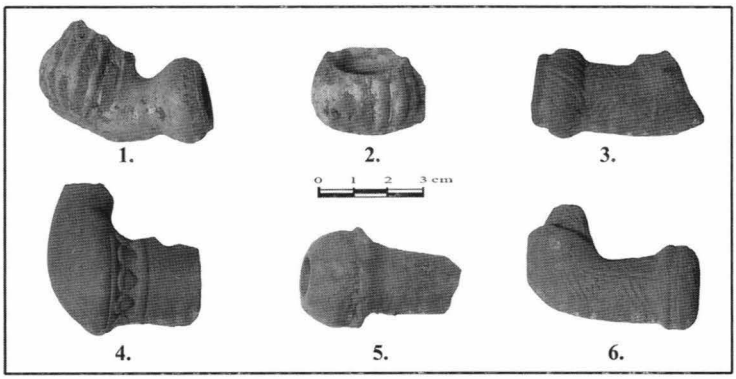
Pl. X

Pl. XI

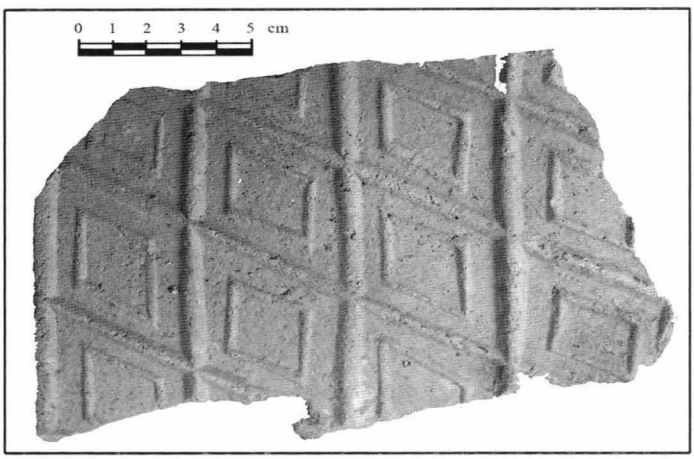
Pl. X. Surface S1-CX2; **Pl. XI.** Surface S1-CX1; **Pl. XII.** Stone pavement – modern complex (photos of the author).



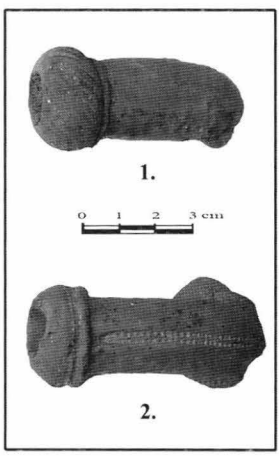
Pl. XIII



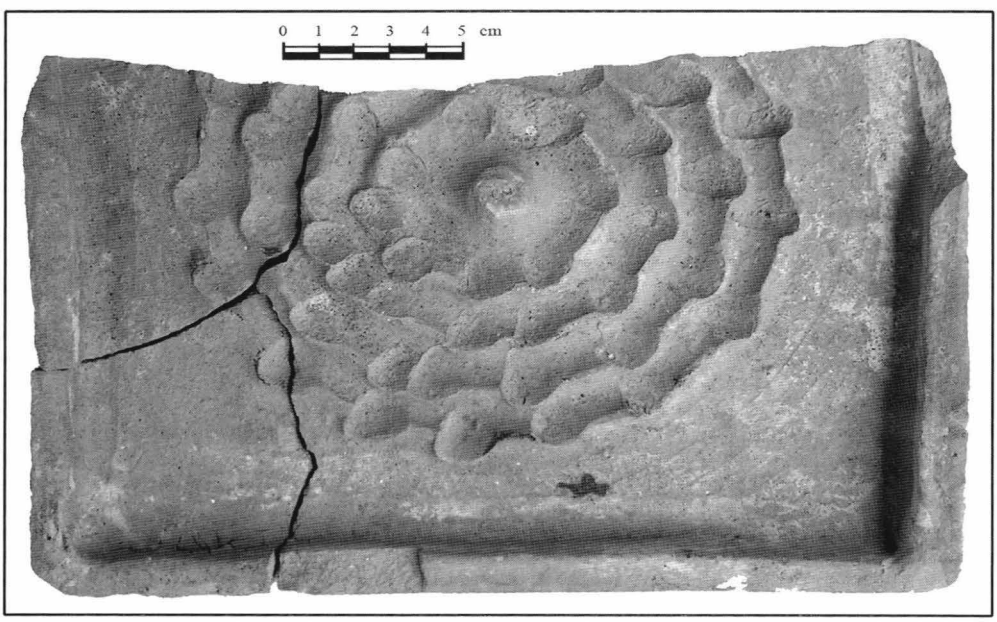
Pl. XIV



Pl. XV

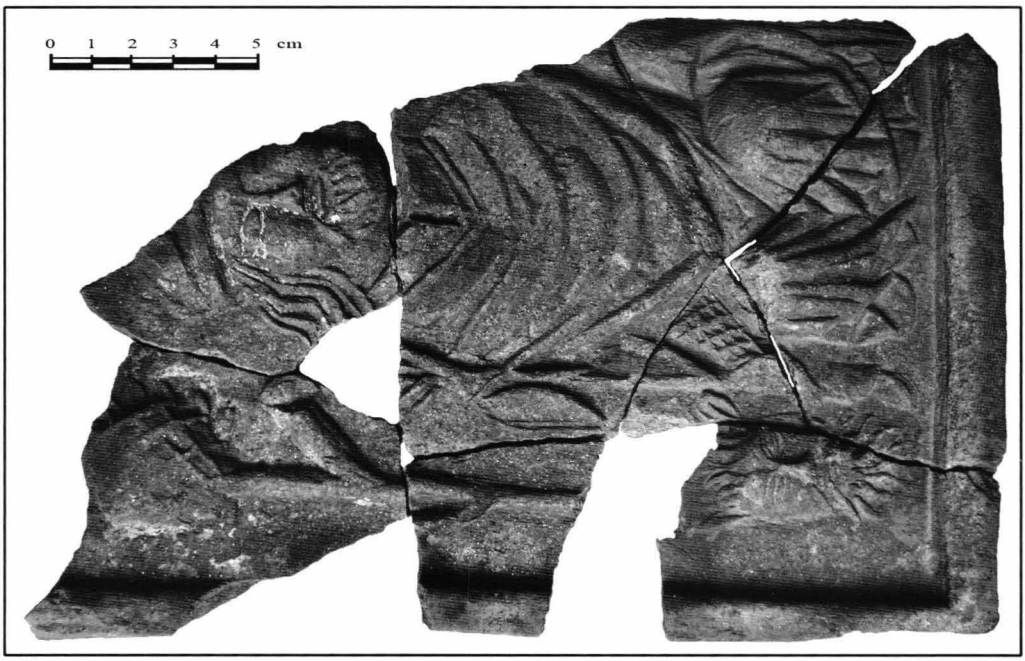


Pl. XVI

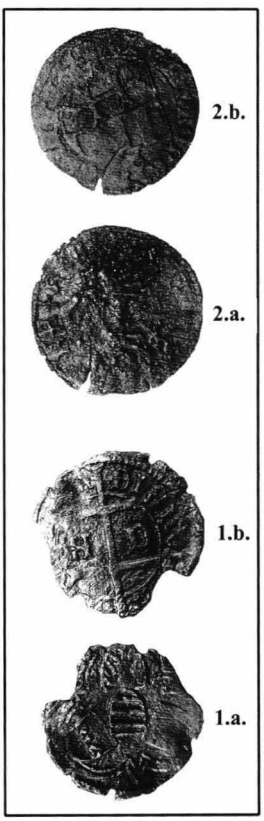


Pl. XVII

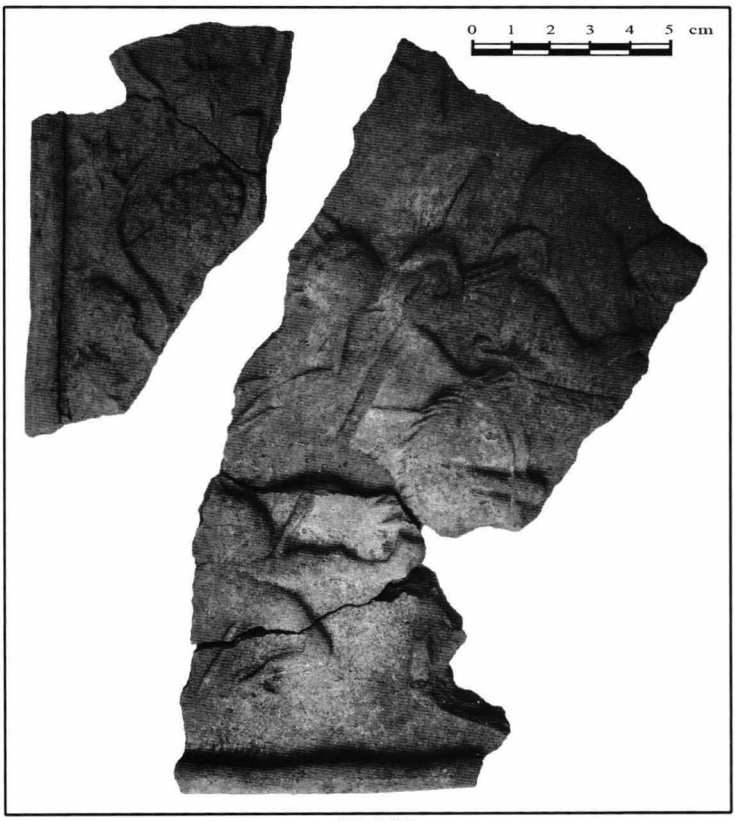
Pl. XIII. Bronze coin, obverse (1) and reverse (2); **Pl. XIV, XVI.** Clay pipes; **Pl. XV.** Tile decorated with geometrical motifs; **Pl. XVII.** Decorated tile (photos of the author).



Pl. XVIII

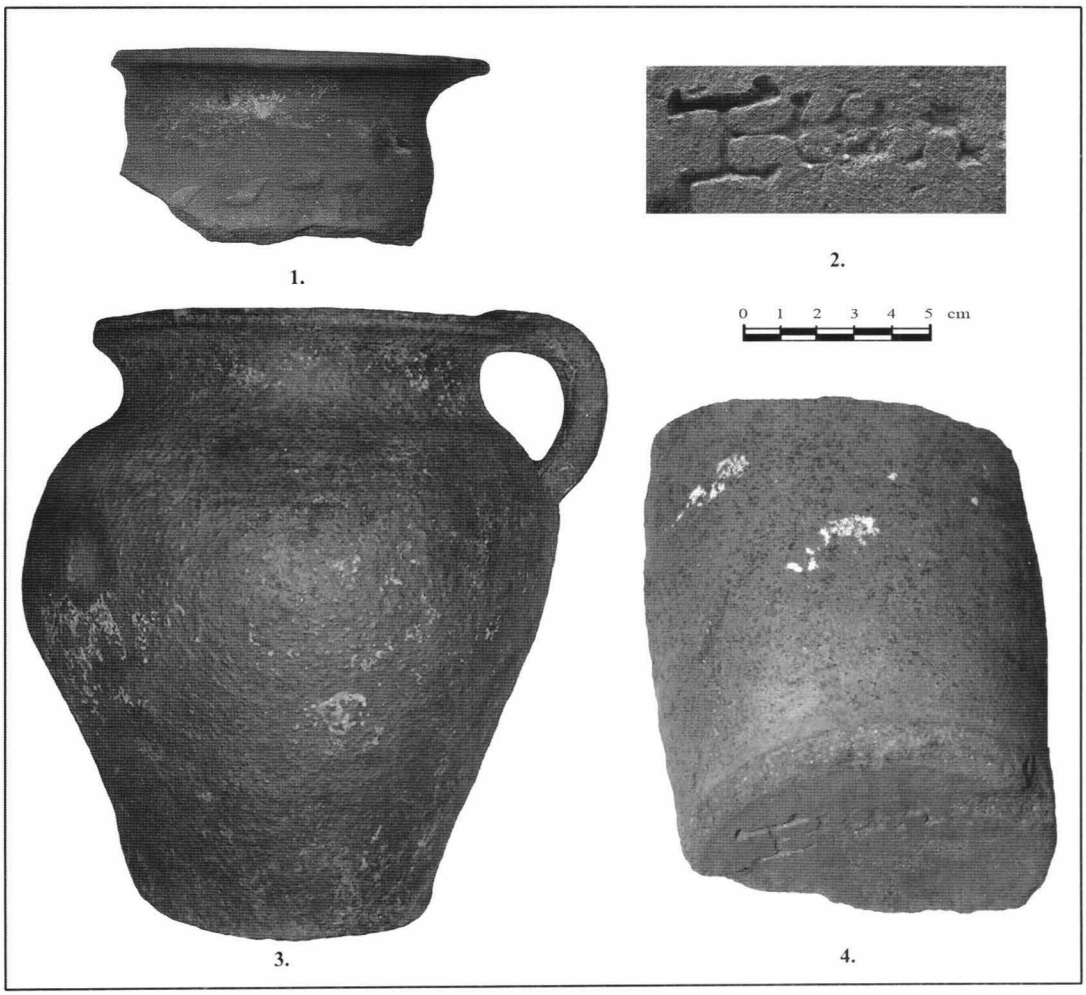


Pl. XIX

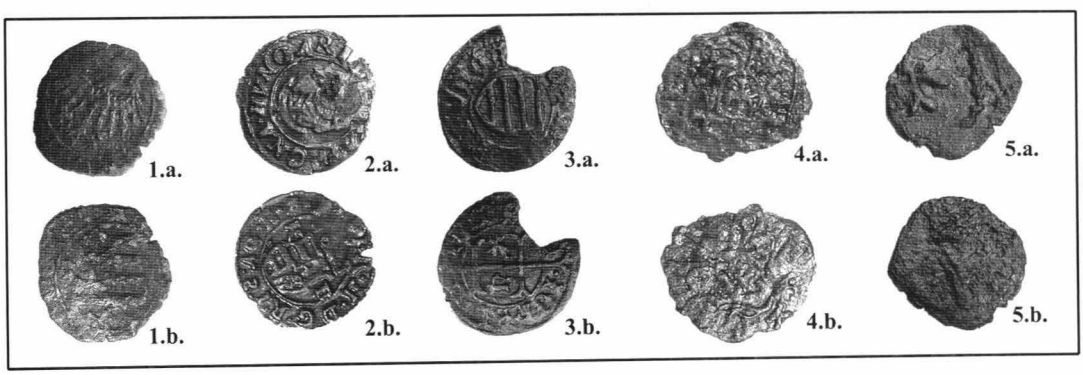


Pl. XX

Pl. XVIII. Tile decorated with a male character; **Pl. XIX.** Silver coins, obverse (a) and reverse (b); **Pl. XX.** Tile with Saint George slaying the beast (photos of the author).

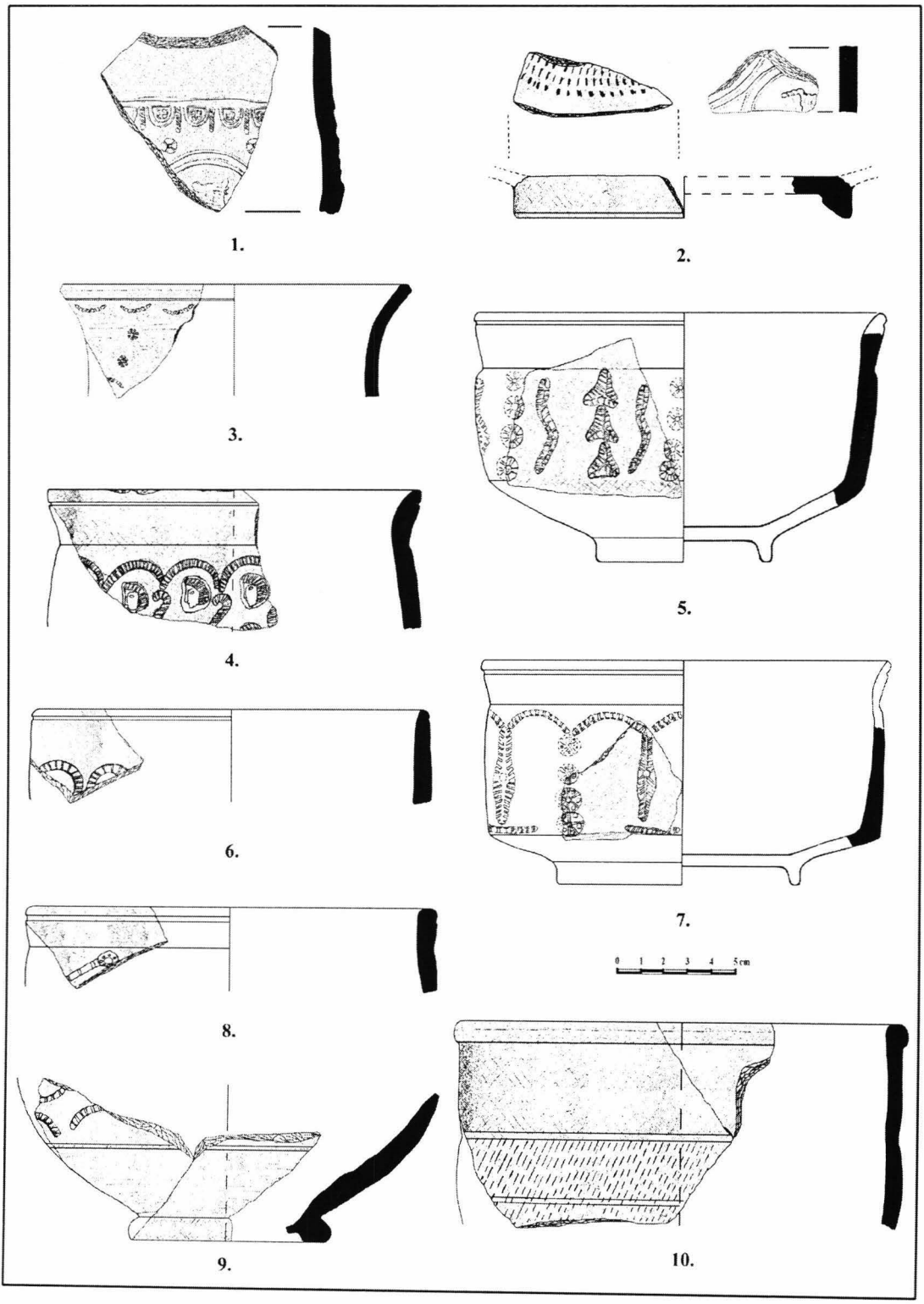


Pl. XXI



Pl. XXII

Pl. XXI. Medieval pottery; **Pl. XXII.** Silver coins, obverse (a) and reverse (b) (photos of the author).



Pl. XXVI. Roman pottery (drawings of the author).

Acta Musei Napocensis, 45-46/I, 2008-2009 (2011), p. 241-252

THE BATTLE OF MARGUM OR WHERE EMPEROR CARINUS DIED?

PÉTER KOVÁCS

Abstract: Eusebius in his lost Chronicon mentions that Emperor Carinus died in Cornacum that contradicts the Latin tradition based on the lost Kaisergeschichte. Based on this tradition the emperor was killed in the battle of Margum against Diocletian. In this paper the author examines the written sources of this event, the several Byzantine variants and comes to the conclusion that Carinus was killed after the battle around the Pannonian fort Cornacum as he tried to flee.

Keywords: Emperor Diocletian; Margum; Carinus; Eusebius and his later Byzantine tradition.

It is a well-known fact that Diocletian seized the control over Rome and the European provinces only after Emperor Carinus' death in the summer of 285 and it is generally accepted that Carinus died in the battle of Margum in the Balkans[1]. In my paper I will deal with these sources of this event.

Latin sources

A major group of Latin sources named the place of battle as *Margum*. All these sources have a common source, the lost Kaisergeschichte (EKG).

Margum: The common source is the EKG:

Chronographus anni CCCLIIII, Chronica urbis Romae a. 354, Chron. Min. I, p. 148,20. *occisus campo Margense.*

Consularia Constantinopolitana a. 285 (before 395 AD) Chron. Min. I, p. 229. *His conss. occisus est Carinus Margo...*

Aurelius Victor, De Caesaribus, 39,11. (after 360 AD). *At Carinus ubi Moesiam contigit, illico Marcum iuxta Diocletiano congressus, avide premeret, suorum ictu interiit, quod libidine impatiens militarium multas affectabat, quarum infestiores viri iram tamen doloremque in eventum belli distulerant.*[2]

Eutropius, Breviarium Historiae Romanae 9.20.2. (cca. 370 AD). *Postea Carinum omnium odio et detestatione viventem apud Margum ingenti proelio vicit, proditum ab exercitu suo, quem fortiorem habebat, aut certe desertum, inter Viminacium atque Aureum montem*[3].

[1] Seston 1946, p. 53; Ensslin 1948, 2424; Meloni 1948, p. 168-170, 189-190; Bird 1976, p. 131-132; Barnes 1982, p. 50; Kolb 1987, p. 11; Leadbetter 1994, p. 54-59; Kuhoff 2001, p. 25; Kreucher 2008, p. 423; Leadbetter 2009, p. 50-51.

[2] Bird 1984, p. 109; Bird 1994, p. 163-164, note 7.

[3] Bird 1993, p. 147, note 31; Eutrope, Abrégé d'histoire romaine, texte établi et traduit par J. Hellegouarc'h, Paris 1999, p. 125, notes 2-4.

Hieronymus, Chronicon 225b (380-381 AD). *Carinus proelio victus aput Margum* (in codd. *Marcum*) *occiditur.*[4]
Historia Augusta vita Cari et Carini et Numeriani 18.2. (end of the 4th century) *nec ei tamen defuit ad vindicandum sibimet imperium vigor mentis. nam contra Diocletianum multis proeliis conflixit, sed ultima pugna apud Margum commissa victus occubuit*[5].
Prosper Tiro, Epitoma Chronicon 934 (before 455 AD), Chron. Min. I, p. 445. *Porro Carinus proelio apud Margum victus occubuit.*
Cassiodorus, Chronicon Chron. Min. II, p. 149 (after 519 AD). *Carinus apud Margum proelio victus interiit.*
Jordanes, Romana 295 (after 552 AD). *Carinus vero apud Margum proelio victus occiditur.*
Fredegarius Scholasticus, Chronicon II.41. (middle of the 7th century). *Carinus in proelio vinctus apud Margum occidetur.*
Marianus Scottus, Chronica clara III.300. (12th century): *his consulibus Carinus prelio victus, apud Margum occiditur.*
Eutropius' Greek translation:
IX.20. (Paeianius, cca. 380 AD) Χωρήσας δὲ καὶ ἐπὶ. τὸν Καρῖνον, τῷ τε στρατεύματι καὶ τοῖς λοιποῖς προςεστηκότα, νικᾷ τε μάχῃ καὶ μετὰ ταῦτα ὑπὸ τῶν οἰκείων προδοθέντα περὶ Μάργον τὴν πόλιν ἀνεῖλε, καὶ γίγνεται μόνος αὐτοκράτωρ.

Other sources are based also on the same source but they do mention a place-name:
Orosius, Historiarum adversum paganos libri VII.25.1 (415-417 AD). *Carinum deinde, quem Carus Caesarem in Dalmatia reliquerat, flagitiose uiuentem difficillimo bello et maximo labore superauit.*
Polemius Silvius, Laterculus a. CCCCXLIX 55, Chron. Min. I, p. 522 *Carinus filius occisus.*

The place of battle was generally and correctly identified with the *municipium* of Margum (today Orašje: It. Ant. 132,4, It. Burd. 564,7, Tab. Peut. Seg. VII.3, Geogr. Rav. IV.7, Not. Dig. Or. XLI, 24, 39, Prisc. Frag. FHG IV,72, Ennod. Pan. 12.63, Marc. Com. Chron. XIII a. 505 Chron. Min. II p. 96, Jord. Get. LVIII.300, CIL III 8141, 8253, 14598, ILJ 575) or with the river Margus (Morava: Plin. Nat. hist. III.149, Ptol. I.453, Marc. Com. Chron. XIII a. 505 Chron. Min. II p. 96, Jord. Get. LVIII.300, IMS 2, 50) in Moesia Superior.[6]

Most probably based on the same source, a false record was added in the Itinerarium Burdigalense (composed after the year 333) to the neighbouring Viminacium (the next station of the road but cf. the description of Eutropius: *inter Viminacium atque Aureum montem*). It cannot be dated before the EKG and it cannot be an independent source because it is probably a later addition in the itinerary[7].

[4] Here, Jerome used the EKG as his source and he changed Eusebius' text: Burgess 1995, p. 349-369; Burgess 1999, p. 91 with similar cases from the 3rd century AD.
[5] Paschoud 2001, p. 391-392, notes 4.2.
[6] TIR-L34 Aquincum - Sarmizegetusa - Sirmium, Budapest 1968, p. 77-78.
[7] Festy 2002, p. 248-249.

Viminacium:
It. Burd. 564.8-9. *ciuitas Viminacio milia x, ubi Diocletianus occidit Carinum.*

Greek/Byzantine sources

In the Byzantine Greek tradition and their Eastern (Armenian and Syriac) translations quite different versions are known. In this paper I will deal with all of them. As we will see, the Greek sources are derivating from similar sources as the Latin tradition (EKG) and the influence of the EKG (through the use of a late Roman Latin source (probably Nicomachus Flavianus)[8] and Eutropius' Greek translations) can be pointed here e. g. in Georg. Syncellus' chronicle[9]. The only exception is Eusebius' Chronicon. At least seven different versions exist, most of them are based on the misunderstanding of their sources.

Version 1

Persians (instead of Carus and Valerianus):
Anonymus, Chronicon Paschale 510,8-17 (after 629 AD). Καρῖνος δὲ ἡττηθεὶς ἔφυγεν εἰς Κάῤῥας τὴν πόλιν. καὶ παραφωσεύσαντες οἱ Πέρσαι ἔλαβον αὐτὸν αἰχμάλωτον, καὶ εὐθέως αὐτὸν ἐφόνευσαν. καὶ ἐκδείραντες αὐτὸν ἐποίησαν τὸ δέρμα αὐτοῦ σάκκον, καὶ σμυρνίσαντες ἐφύλαξαν εἰς ἰδίαν δόξαν. τελευτᾷ δὲ οὗτος Καρῖνος ὢν ἐτῶν λς'. καὶ μετὰ θάνατον αὐτοῦ Νουμεριανὸς ὁ ἀδελφὸς αὐτοῦ ἐπεστράτευσεν κατὰ Περσῶν εἰς ἐκδίκησιν τοῦ ἰδίου ἀδελφοῦ Καρίνου, καὶ περιεγένετο αὐτῶν δυνατῶς.
Εἶτα σφάζεται Νουμεριανὸς ἐν Περίνθῳ τῆς Θρᾴκης τῇ νῦν καλουμένῃ Ἡρακλείᾳ ὑπὸ Ἄπρου ἐπάρχου.
Cf. Ioannes Malalas, Chronographia 303,5-304,6 (after 574 AD) (where instead of Carinus Numerian was mentioned, Georg. Mon. 477,5-8, Ephr. Chron. 240 and Psellus Hist. Synt. 53 where a different version can be found, Carinus fought against the Armenian Arsaces)[10].

Version 1/a

A slightly different version given by Malalas, here Carinus fought against the Persians but he won and died later by natural causes (mixed up with Carus) and it was followed by the Chron. Pasch. According to Malalas, Numerian was defeated by the Persians (confused with Valerian: 303,5-304,6 and Georg. Mon. 477,5-8, Syn. Sath - 40,9-13).
Ioannes Malalas, Chronographia p. 304,7-14, 306,7-8 = XII.36.404, 306 (after 574 AD).

Μετὰ δὲ τὴν βασιλείαν Νουμεριανοῦ ἐβασίλευσε Καρῖνος Αὔγουστος ὁ ἀδελφὸς αὐτοῦ ἔτη β. ἦν δὲ κονδοειδής, παχύς, πλάτοψις, λευκός, οὐλόθριξ, ἀναφάλας, σπανός, μεγαλόψυχος. ἐφίλει δὲ τὸ Πράσινον μέρος.

[8] Bleckmann 1997, p. 14-31.
[9] On the Greek chronicle tradition on the 3rd century Roman history (esp. after Dexipp) see Bleckmann 1992, Brecht 1999.
[10] Michaelis Pselli Historia syntomos. Recensuit, Anglice vertit et commentario instruxit W. J. Aerts. Editio princeps. Corpus fontium historiae Byzantinae; Series Berolinensis 30, Berlin 1990, p. 129.

Ἤ μόνον δὲ ἐβασίλευσεν, ἐπεστράτευσε κατὰ Περσῶν εἰς ἐκδίκησιν τοῦ ἰδίου αὐτοῦ ἀδελφοῦ Νουμεριανοῦ καὶ περιεγένετο αὐτῶν κατὰ κράτος. ...

Here comes the story of the martyrium of Saint Cosmas and Damian (and the healing of Carinus by them).

Ἐν δὲ τῷ μέσῳ χρόνῳ τοῦ πολέμου ὁ αὐτὸς Καρῖνος τελευτᾷ ἰδίῳ θανάτῳ, ὢν ἐνιαυτῶν λβ'[11].

Here in the sources the person of Carinus was confused with his father Carus and his campaign against Persians and the circumstances of his death, but Malalas and the compilator of the Chronicon Paschale who followed here Malalas added even Emperor Valerian's story. Malalas' source remaisn unknown[12].

Version 2

Carinus was killed by Aper in Thrace (instead of Numerian)

a. killed in Thrace

Misunderstanding the source and instead of Numerian, Carinus was killed in Thrace in a town called Numerian.

Nicephorus, Chronographia brevis 95.12. καὶ ἐσφάγησαν καὶ ὁ μὲν οὖν Κάρος ἐν Μεσοποταμίᾳ τελευτᾷ, ὁ δὲ Καρῖνος ἐσφάγη ἐν πόλει Νουμερίᾳ τῆς Θρᾴκης.

Nicephorus Patriarch obviously misunderstood his source as he abbreviated the sentence (coming from Eusebius (or one of his followers, the Chronicon Paschale) because they were the only ones who also mentioned Thracia) dealing with Numerian's and Carinus' death and the Eusebius' restored passage is very similar[13].

b. killed by Aper

Cod. Vindob., Hist. Graec. 40.

καὶ Καρῖνου τυφλωθέντος, ἀνεῖλεν αὐτὸν Ἄπρως, Ῥωμαιὸς τις ἀνὴρ. ἐβασίλευσε Νουμεριανός ... τοῦτον ἀνεῖλε Διοκλητιανός, δοὺξ τυγχάνων Μυσίας.

Symeón Logothetes, Chronicon 85.1-2 (10th century)[14].

καὶ Καρῖνου τυφλωθέντος ἀνεῖλεν αὐτὸν Ἄπρος καὶ ἐβασίλευσε Νουμεριανός ... τοῦτον ἀνεῖλε Διοκλητιανός, δοὺξ τυγχάνων Μυσίας.

Georgius Cedrenus, Compendium historiarum 568,3-5 (beginning of the 12th century).

κτίζει δὲ καὶ πόλιν ἐν Θρᾴκῃ, Θεοδοσιόπολιν ὀνομάσας, τὸν πρὶν λεγόμενον Ἄπρων ἀπὸ τοῦ κτίσαντος αὐτὴν κατ' ἀρχὴν Ἄπρου, ὃς ἦν πενθερὸς Καρίνου, ὃς καὶ ἀνεῖλεν αὐτόν.

Cf. 464,10, where Numerian was correctly mentioned.

The origin of this version 2b was correctly observed by C. Boor, who could point out comparing the texts in Codex Vind. (coming from the Logothete Chronicle - redaction B), Symeon Logothetes and Cedrenus that in the original source, in the Epitome of the Logothete tradition Carinus's death was shortly and correctly

[11] Schenk 1931, p. 396-397; Malalas, p. 140, 240; Bleckmann 1992, p. 135; Anm. 293.

[12] On Malalas' sources see E. Jeffreys, Malalas' sources, in Malalas, p. 167-216.

[13] Krumbacher 1897, p. 349-352; Burgess 1999, p. 27, 60.

[14] Symeonis Magistri et Logothetae Chronicon, Ed. S. Wahlgren. CFHB, Series Berolinensis 44, Berlin 2006, 85.5, 104.

mentioned: καὶ ἐβασίλευσε Καρίνος. ἐπὶ αὐτοῦ ... τοῦτον ἀνεῖλε Διοκλητιανὸς. - killed by Diocletian but in Vind. and Symeon's works the text was changed in order to mention saint Babylas' martyrium. The problem was caused by the addition of St Babylas' martyrdom and that is why Numerian was mixed up with Carinus and Carinus was killed by Aper. Cedrenus (originally correctly followed his source, but in a later passage the same mistake can be observed) and Symeon also followed the mistake and falsely attributed Carinus' death to Aper[15].

Version 3

In Italy, after the victory over Julian, he was killed by his own officer because of jealousy:

Ioannes Antiochenus, Historia Chronica Frag. 163 (6th century) = Zosimos, Historia Nova I.73.3. (498-518 AD). Ἔτι δὲ ὄντος αὐτοῦ κατὰ τὴν ὁδὸν, συμβαλὼν ὁ Καρῖνος τοῖς Σαβινοῦ Ἰουλιανοῦ στρατιώταις, καὶ στρέψας ἐν τῇ μάχῃ τούτους, τῶν σὺν αὐτῷ τινῶν ἐπελθόντων, αἰφνίδιον ἀναιρεῖται, τῶν χιλιάρχων ἑνὸς, οὗ τὴν γυναῖκα διαφθείρας ἔτυχεν, ἀνελόντος αὐτόν.[16]

Anonymus, Epitome de Caesaribus 38.8. (end of the 4th century). *Ad extremum trucidatur eius praecipue tribuni dextera, cuius dicebatur coniugem polluisse.*[17]

Synopsis Sathas 40,26 (probably Teodorus Scutariota, second half of the 13th century) ἀναιρεῖται δὲ καὶ ὁ Καρῖνος ὑπὸ τινος χιλιάρχου[18].

The former Zosimus' passage remained only among Ioannes Antiochenus' fragments because the end of Book I of Zosimus' New History is missing. Almost the same version can be found in the Epitome de Caes. Here, most probably the use of a common source (Eunapius?) can be observed who probably mixed up the battles of Verona against Iulianus and Margum against Diocletian.

Version 4

Killed by Diocletian in Rome or on the way to Rome:

Georgius Syncellus, Ecloga chronographica 427,20-26. (after 806 AD): ἦν δὲ τότε κατὰ τὴν Ῥώμην Καρῖνος ὁ Κάρου παῖς ὑπὸ τοῦ πατρὸς ἐκεῖ καταλειφθείς, ἡνίκα ἐπὶ Πέρσας ἐστράτευσε, χαλεπὸς τοῖς Ῥωμαίοις φανείς. Διοκλητιανὸς δὲ παραλαβὼν τὴν ἀρχὴν τὸν μὲν ὕπαρχον Ἄπερα τὸν τοῦ Νουμεριανοῦ σφαγέα παραχρῆμα φονεύει, τὸν δὲ Καρῖνον ἀδίκως τῇ ἀρχῇ χρώμενον ἀναζεύξας εἰς Ῥώμην ἀναιρεῖ, καὶ ἄριστος κατὰ πᾶσαν τὴν ἡγεμονίαν φανεὶς τοῖς Ῥωμαίοις ἐβασίλευσεν κ' χρόνους[19].

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[15] Boor 1893, p. 13-15; Georgius Monachus, Chronicon. Edidit. C. de Boor. Editionem anni MCMIV correctiorem curavit Peter Wirth I, Stuttgart 1978, p. XXXIV.

[16] Ioannis Antiocheni fragmenta ex Historia Chronica. Introduzione, edizione critica e traduzione a cura di Umberto Roberto, Berlin-New York 2005, Frag. 246, p. 426-427, note 1; Zosimos, Neue Geschichte. Übersetzt und eingeleitet von O. Veh. Durchgesehen und erläutert von Stefan Rebenich, BGL 31, Stuttgart 1990, p. 298; Anm. 136; Zosime, Histoire nouvelle I (Livres I et II). Texte établi et traduit par F. Paschoud, Paris 2003², p. 188-189, note 103.

[17] Schlumberger 1974, p. 171.

[18] E. Patzig, Über einige Quellen des Zonaras, BZ 5, 1896, p. 50.

[19] Bleckmann 1992, p. 24, 28, 47; Bleckmann 1997, p. 28; Anm. 56.

Based on Syncellus but abbreviates the story:

Anononymi Matritensis Chronographia 55,6. (10th century) τὸν δὲ Καρῖνον Διοκλητιανὸς ἀναιρεῖ [20].

Ioannes Zonaras, Epitome XII.30. (before 1150 AD): Θάτερος μέντοι τῶν Κάρου υἱῶν ὁ Καρῖνος εἰς Ῥώμην διάγων χαλεπὸς τοῖς Ῥωμαίοις ἐτύγχανεν, ἀσελγὴς γενόμενος καὶ ὠμὸς καὶ μνησίκακος ὃς ὑπὸ Διοκλητιανοῦ εἰς Ῥώμην ἐπιδημήσαντος διεφθάρη.

Here, the use of a Latin source (not Eutrop) through Syncellus is likely as it was correctly pointed by B. Bleckmann[21].

Version 5

Killed by the people:

Nicephorus Callistus, Historia Ecclesiastica VI.33 (1197). (before 1317) Ἀλλὰ καὶ Καρῖνος αἰσχρῶς τῇ ἀρχῇ κεχρημένος παρὰ τοῦ λαοῦ σφάττεται.

In his Ecclesiastical History, the 14th century writer followed here his 10th century unknown source as usually[22].A previous passage that mentions Carus' and his sons' rule is derivating clearly from Eusebius' Ecclesiastical History (VII.30.22), the martyrdom of St Babylas is coming from Malalas (303,12-20) but Numerian's death is coming from the Logothete tradition. The use (influence) of a Latin source in the case of the above cited sentence is also likely because in the Byzantine sources this variation is unknown: cf. Aur. Vict. 39.11. *suorum ictu interiit.*

Version 6

Killed by Numerianus:

Georgius Monachus, Chronicon breve 477,2-3 (before 867 AD): Μετὰ δὲ Κάρον ἐβασίλευσε Καρῖνος υἱὸς ἔτη β' καὶ ἐσφάγη ὑπὸ Νουμεριανοῦ.

Joel, Chronographia compendiana 35,9-10 (13th century): Μετὰ δὲ Κάρον ἐβασίλευσε Καρῖνος υἱὸς αὐτοῦ ἔτη β', καὶ ἐσφάγη ὑπὸ Νουμεριανοῦ.

In this passage, Joel followed Georgius Monachus word for word as usually who mixed up the reign of Numerian and Carinus and attributed Carinus' death to Numerian instead of Diocletian[23]. It is highly likely that Georgius had no further information with the exception of the names of the emperors (in correct order - Carinus acclaimed Augustus before Numerian) and their reignal years[24].

[20] A. Bauer, Anonymi Chronographia syntomos e codice Matritensi no. 121 (nunc 4701), Leipzig 1909, p. 55.

[21] Bleckmann 1992, p. 313-315; Bleckmann 1997, p. 18-19; The history of Zonaras: from Alexander Severus to the death of Theodosius the Great. Translation by Thomas M. Banchich and Eugen N. Lane. Introduction and commentary by Thomas M. Banchich, New York 2009, p. 63, 133-134, note 116.

[22] Krumbacher 1897, p. 247, 291-293.

[23] de Boor 1893, p. 12-14.

[24] de Boor 1893, p. 13-15.

Version 7

Cornacum: from Eusebius' Chronicon[25]**:**

The Armenian and Syriac translations of Eusebius' Chronicon

Armenian Chron. 227 (Karst): *Caro in Mesopotamia exstincto, Numeriano quoque interea contigit occidi in Thracia, pariter et Carino in Cornacis praelio* (H. Petermann, var. aduersum Cornacum).

„*Nach des Karos Tode im Zwischenstromland erfolgte unterdessen auch die Tötung des Numerianos in Thrakien und ebenso die des Karinos in dem Krige des Kornakos*" (Karst).

Chronicon miscellaneum ad annum Domin 724 pertinens or Liber Calipharum. (CSCO 4 p. 99) (between 724-743 AD): *Carus mortuus est in Mesopotamia. et Numerianus occisus est ab eo in Thracia, et Carinus similiter in pugna cum Carinino.*

Et Numerianos occisus est ab eo (sc. Caro) in RTKA (Thracia), itemque Karinos in proelio cum KVRININVS (Cornace) commisso (Petersmann in Ed. Schoene p. 218).

Dionysius Telmarensis 78. (= Pseudo-Dionysius 110, 30-31/147, 27-28) (after 775 AD): *Carinus pariter interfectus est in proelio, quo cum Carnace contendit.*

Moses Khorenats'ï History of Armenia 2.79. (second half of the 5th century): *Carinus adversus Cornacum in deserta progressus, comite Tiridate, ipse cum copiis periit.*

Samuel Aniensis, Summarium temporum 40/661-662 (late 12th century) (PG XIX (1857) p. 661): *Dum Carus occumberet in Mesopotamia, Numerianus item periit in Thracia, necnon Carinus in praelio adversum Cornacum* (translation of Zohrab).

According to the fictitious continuation of his story, Cornacus was a military commander with magical power who extended his life: *Magni Chosrois patris Tiridatis copiarum dux summus Cornacus, qui vitam ad annum CLX corporis iuvenilibus. Hic Caesarem Carum, qui cecidit in pugna, cum filio debellavit*[26].

Because of the confusion of the names, another side version is known in the work of Michael the Syrian; here Carinus fought against the Germans.

Michael Syrus Chronicon 6.9 p. 198/118a 11-14 (before 1199 AD): « *Ensuite Carinus, l'autre fils de Carus, fut tué accidentellement dans la guerre avec les germains* » (translation of J.-B. Chabot)[27].

As it was recently pointed out by Burgess in the Syriac translations, the name was misunderstood and it was connected to a fictitious person against whom Carinus would have been fought but in the Armenian translations of the Chronicon Cornacum was correctly translated as a place-name[28]. The text was restored by him as follows[29]:

Τελευτήσαντος Κάρου ἐν Μεσοποταμίᾳ, Νουμεριανὸς [ἐν τουτῷ] ἐσφάγη ἐν Θρᾴκῃ καὶ Καρῖνος ὡσαύτως [τῇ κατὰ Κόρνακον μάχῃ].

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[25] B. Borghesi, Eusebii Chronicon. Giornale arcadico di scienze, lettere, Ed arti 5, 1820, p. 355-356; Thomson 1978, p. 227, note 9, Dodgeon-Lieu 1991, p. 271, 319, note 21; Burgess 1999, p. 49, 85-86, 99; Festy 2002, p. 248-252; Kreucher 2008, p. 423.

[26] Thomson 1978, p. 227, note 9.

[27] Chabot 1895, p. 198.

[28] Burgess 1999, p. 86.

[29] Burgess 1999, p. 60.

The place-name was correctly identified by Burgess with the Pannonian auxiliary fort *Cornacum* (today Sotin in Croatia).[30] As far as I know, no other Roman place-name or personal-name is similar to Cornacum. The translators did not know the name of the fort that is why they interpreted it as a personal-name (probably the use of the preposition κατά or ἐπί with the meaning „in" or „against" confirmed them). This confusion reflects in the fact that Pseudo-Dionysius interpreted the name as plural (Q'rn'qs) or in Michael's work, where the author could not understand the name, he changed the story and according to him, Carinus would have fought against the Germans. In the Chron. a. 724 a corrupted form, Carininus, can be found.

The same form of the name Cornacum is given in the antique sources: Ptol. II.15.1. Ἡ κατὰ Κορνακὸν ἐπιστροφὴ τοῦ Δανουβίου ποταμοῦ, 16.5 Κόρνακον, It. Ant. 243,3. Cornaco, Tab. Peut. VI.2. Cornaco, Not. Dig. Occ. XXXII,3 Cornacu (Cornatii), 12 Cornaco, 22 cuneus equitum scutariorum Cornacu (Cornatii), 31 equites Dalmatae Cornaco, V.122. Corniacenses, V,272. Corniacenses, VII,102, Cornacenses, Rav. Geogr. IV.20. Cornacum. The fort was the center of the *civitas peregrina* of the Pannonian tribe *Cornacates* (Plinius, Naturalis hist. III.148; CIL V 6985-6986; CIL XVI 2; RMD 169). The names is obviously Celtic and it means probably 'hornartig' (concerning the Danube) = ἐπιστροφὴ τοῦ Δανουβίου by Ptolemy[31].

Eusebius' data was not interpreted by Burgess, who added only that it is probably erroneous and nothing is known on Eusebius' source[32]. Festy explained Eusebius' location based on the HA v. Carini 18.2 and Oros. VII.25.2[33]. According to him, there were several battles between Carinus and Diocletian, and the final one was located around Margum: *nam contra Diocletianum multis proeliis conflixit, sed ultima pugna apud Margum commissa victus occubuit.* The battle at Cornacum might have happened earlier. This hypothesis seems to be at least problematical because:

a. Cornacum, located 164 MP west of Margum (cf. It. Ant. 243,3-242,1, 131,6-132,4)[34]. Cornacum, located along the limes road, and not on the imperial roads that connected East and West/Italy: road Treveri-Mursa-Cibalae-Sirmium. and Aquileia-Cibalae-Sirmium: It. Ant. 131, 232, 261, 267, It. Burd. 563[35]. The troops in civilian wars used these roads as in the case of the great battles of 314 around Cibalae and of 260 and 351 around Mursa[36]. In my opinion, a decisive battle around Cornacum cannot be reasonable.

b. These sources do not speak about Diocletian's withdrawal eastward.

c. The Historia Augusta (and Orosius) cannot be treated as authentic source because the sources derivating from the EKG speak about only one battle: Aur. Vict. 39,11, Eutr. 9.20.2, Hier. Chron. 225b, Jord. Rom. 295, Epitom. Chron. 934,

[30] Holder 1896, p. 1129; Graf 1936, p. 113; TIR L-34 Budapest. Aquincum - Sarmizegetusa - Sirmium, Budapest 1968, p. 49; Anreiter 2001, p. 165-167.

[31] Anreiter 2001, p. 165-167.

[32] Burgess 1999, p. 86.

[33] Festy 2002, p. 248-252.

[34] Löhberg 2006, p. 140, 203-204.

[35] Miller 1916, p. 435-436; Löhberg 2006, p. 203-204, 213, 219, T. 21.3.

[36] TIR L-34 Budapest. Aquincum - Sarmizegetusa - Aquincum, Budapest 1968, p. 46-47, 82.

Cassiodori Chron. Chron. Min. II p. 149, Fredegarius Scholasticus Chron. II.41, Marianus Scottus III.300. The breviaria followed the EKG, more precisely than the Historia Augusta[37]. The battle of Verona against Iulianus at the same year might have had a role in the confusion where Carinus defeated the usurper. In the case of Zosimus' and of the Epitom. de Caes., it is likely that the battles were mixed up, but here Carinus was killed in the battle of Verona.

Another possibility must be considered: it is a congruent data of Latin and Greek sources that Carinus was deserted (Eutrop. 9.20.2) and killed by his own people. The written sources are confirmed by the fact that Carinus' several military commanders might have held their positions. The best example can be Carinus' *praefectus praetorio* Aurelius Aristobulus, who was *consul ordinarius* in 285 (later procos Africa, urban prefect) or Pomponius Ianuarianus (Carinus' praef. Aegpyti, cos. ord. in 288) as it was explicitly emphasized by Aurelius Victor 39.14: *Ceteris venia data retentique hostium fere omnes ac maxime vir insignis nomine Aristobulus praefectus praetorio per officia sua.*[38] Carinus' troops showed also loyalty based on a coin struck at Siscia with legend FIDES MILITVM[39]. The battle and Carinus' death did not happen necessarily at the same place. The possibility cannot be ruled out that Carinus after the battle at Margum tried to flee when he was killed by one of his officers. Losing the battle, Carinus obviously had to flee westward. In this case he was probably killed around Cornacum by one of his officers.

The arising question why this tradition did not survive in the Byzantine chronicle tradition can easily be answered. Eusebius' Chronicon was not so widely used as his Ecclesiastical History and this event did not seem to be noteworthy to mention[40]. As for example nothing is known on Carinus' death in several Byzantine works: Sym. Log. 81,3-13, Cedrenus 464,6-13 and Suda K 391, Ephr. Chron. 240, Anon. Chron. brev. 223,20, Glycas Ann. 456,13, Euagr. III.41[41]. It is also a fact that in his Church History, Eusebius did not mention this story because it had no importance in the point of view of the Church (cf. Eccl. Hist. VII.30.22). Another fact is that Emperor Carus (and his campaign against the Persians) was confused by the chroniclers with his sons, Numerian and Carinus, but in some of the sources the sons were also mixed up (see versions 2, 5). Instead of Eusebius, the use of Latin sources can be pointed out e. g. in the works of Zosimus, Syncellus and Zonaras. It is also a problem that the other important Greek source after Dexipp, the work of Anonymus post Dionem (Continuator Dionis who can most probably be identified with Petrus Patricius)[42] has been lost. Carinus' death was mentioned by Diocletian only in a later fragment: Frag. 181: Ὅτι ἐν αὐτῇ τῇ οἰκείᾳ ἀναγορεύσει ὁ Διοκλητιανὸς τὰ τότε σεβόμενα θεῖα μαρτυρόμενος ἔλεγεν μὴ διὰ <τὸ> τῆς βασιλείας ἐφίεσθαι Καρῖνον ἀνελεῖν, ἀλλὰ διὰ τὸ ἐλεεῖν τὴν πολιτείαν (cf. HA v. Car. 10.2).

[37] Paschoud 2001, p. 392.
[38] Leadbetter 2009, p. 50-51.; PLRE I, Aristobulus 106, Ianuarianus 2, 452-453.
[39] RIU V 2, 266.
[40] Krumbacher 1897, p. 319-408; Brecht 1999, p. 38-63.
[41] Burgess 1999, p. 23-27.
[42] Brecht 1999, p. 48-49, 56-58.

To sum up: the Latin and Greek sources concerning Carinus' death do not necessarily contradict each other. The first possibility is that there were several battles, and one of them happened near Cornacum. If the other tradition is the authentic one, there was only one battle and it took place around Margum, as the sources derivating from the EKG show. After his defeat, Carinus tried to flee, but he was killed by his own people. The most authentic seems to be the interdependent fragments of the Epitome de Caesaribus and Ioannes Antiochenus. According to them, Carinus was murdered by one of his officers. The Latin sources do not mention where Carinus died but the place of battle. Beside the Latin tradition, another independent one existed, Eusebius' Chronicon (his source is unknown). Based on this tradition, during his flee westward, Emperor Carinus died in the Pannonian auxiliary fort Cornacum.

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DE SANCTA AGNETE ROMANA E FONTIBUS LATINIS ANTIQUISSIMIS... SAINTE AGNÈS DE ROME DANS LES SOURCES LATINES LES PLUS ANCIENNES JUSQU'À AUGUSTIN D'HIPPONE[1]

PHILIPPE HENRI BLASEN

Abstract: Saint Agnes of Rome is probably one of the earliest and most known juvenile virgin saints. In Rome, she has two sanctuaries, one in the centre on Piazza Navona and the other one outside the antic town, on Via Nomentana. This article presents along with new translations the earliest Latin texts and inscriptions about the saint and her shrine and shows how the story of her martyrdom has evolved between the 4th and 5th century AD and became out of very little information a long and complex narrative. It also shows the high probability that the sanctuary mentioned in the *Liber Pontificalis* is the actual Sant'Agnese-fuori-le-mura on Via Nomentana.

Keywords: Saint Agnes of Rome; Epigrams of pope Damasus; Early Christian Latin poetry; Patristics; Christian Rome in the 4th century AD.

I. Introduction

Pendant l'été 2008 nous avions entrepris la traduction des celles des lettres de la *Collectio Avellana* qui avaient été rédigées pendant le schisme romain de 418, conflit dont les deux acteurs principaux furent Boniface et Eulalius, tous les deux prétendants à la papauté. A ce moment, nous nous sommes rendus à Rome afin de pouvoir visiter, tel un pèlerin médiéval, les lieux saints qui ont été le théâtre des différents moments du schisme. Un des endroits au programme était Sant'Agnese-fuori-le-mura (Sainte-Agnès-hors-des-murs) sur la Via Nomentana qui nous a enchanté par sa tranquillité qu'elle a réussi à garder au milieu des nouveaux quartiers qui l'enferment désormais. Intéressé par ce site, nous avons entrepris, par le biais de l'*épigramme de Damase* dédié à Sainte Agnès, une recherche qui allait porter et sur le sanctuaire extraurbain de la martyre et sur sa vie et sa passion telles qu'elles étaient connues et diffusées au temps du pape Boniface. En rassemblant les textes latins[2] qui devaient former la structure de base de notre travail, nous avons constaté que le genre littéraire chrétien des hymnes occupe un rôle essentiel: en effet, parmi les cinq versions les plus antiques et les plus élaborées de la vie et de la passion d'Agnès, quatre sont des hymnes.

Afin de simplifier la présentation de notre recherche, nous avons respecté l'ordre chronologique des sources latines utilisées que nous présenterons avec nos propres

[1] Nous remercions le professeur Eric Chevalley de l'Université de Lausanne pour son soutien.

[2] Vu que le premier texte grec sur Agnès ne date que du V^e^ siècle tardif, nous ne l'avons pas inclus dans notre recherche.

propositions de traduction, sauf indication contraire. Nous diviserons le sujet en trois parties:

II. Diffusion du culte de Sainte Agnès de Rome
III. Sanctuaire de Sainte Agnès et premières mentions de la sainte
IV. Vie et martyre de Sainte Agnès

II. Diffusion du culte de Sainte Agnès de Rome

Parmi les Saintes Vierges martyres, Agnès est sans doute une de celles dont le culte s'est le plus diffusé, même si, probablement à cause de son origine romaine, il s'est répandu avant tout au sein de l'Eglise catholique: à part à Rome même, sur le lieu prétendu de son martyre sous un pilier du cirque de Domitien, l'actuelle place Navone, et à l'endroit de sa sépulture sur la Via Nomentana, des reliques lui sont attribuées notamment en Allemagne, en Belgique, en Espagne, en France et aux Pays-Bas. Les *Acta sanctorum* des Bollandistes relèvent les translations suivantes: une première depuis Rome aurait pris place vers 450, lorsque l'impératrice Pulchérie décide d'ériger une église en l'honneur de Saint Laurent et de Sainte Agnès à Constantinople que le corps de la sainte aurait quittée cependant un demi-millénaire plus tard pour l'Europe occidentale[3]. Ensuite, vers la fin du Ve siècle, le roi Clovis Ier aurait installé les reliques d'Agnès, après leur arrivée depuis Rome, dans un monastère sur la Loire d'où elles auraient été transférées plus tard à Ebreuil et puis, au moment de la Réforme, à Paris, à l'église Saint-Eustache ou à l'abbaye de Saint-Magloire. La tête par contre se trouverait dès alors à Rouen, à l'église Saint-Ouen[4]. Vers l'an 966, l'empereur Othon Ier aurait ramené la dépouille d'Agnès de Rome à Utrecht où elle est dédiée à la cathédrale Saint-Martin et encore changée d'écrin en 1414. Les sources ignorent cependant le devenir exact de ces reliques suite à la Réforme. D'autres reliques ont été «trouvées» à Anvers, Bruxelles, Cologne et Melun[5]. Nombre d'autres sanctuaires dédiés à la martyre romaine ont vu le jour en Europe occidentale et il est probable qu'elle a substitué au cours du temps d'autres saintes plutôt locales ayant porté le même nom[6].

III. Sanctuaire de Sainte Agnès et premières mentions de la sainte

Au centre de quantité de légendes qui comportent de nombreuses variantes locales et reprennent sans doute aussi des éléments de vies d'autres saintes, Sainte Agnès est cependant une martyre dont la vie historique est complètement inconnue: en effet, nous ignorons même si elle a été la victime d'une persécution particulière et, le cas échéant, de laquelle. C. Baronius date son martyre de la dernière grande

[3] *Acta sanctorum* 1643, p. 360.
[4] *Acta sanctorum* 1643, p. 357.
[5] *Acta sanctorum* 1643, p. 357.
[6] *Acta sanctorum* 1643, p. 354; l'auteur y cherche à démêler l'Agnès romaine des autres Agnès avec qui elle a possiblement été confondue.

persécution, soit celle de Dioclétien dès 303 tandis que les Bollandistes arguent qu'il aurait aussi pu avoir lieu sous le règne d'Aurélien ou vers 257, sous Valérien et Gallien[7]. Plus récemment, M. Lavarenne reprend l'hypothèse qu'il s'agirait plutôt de la persécution de Dioclétien[8]. D'autre part, puisque les catacombes où Sainte Agnès a été enterrée ne sont pas antérieures au III^e^ siècle[9], il faut supposer que sa mort ne remonte non plus à une époque beaucoup plus reculée.

Si nous admettons que le ***Livre pontifical***, bien que ne prenant sa forme actuelle que dès le VII^e^ siècle, reprend des sources contemporaines aux faits qu'il rapporte, la première mention de Sainte Agnès se référerait à sa basilique et à son baptistère:

Eodem tempore fecit (Constantinus) basilicam sanctae martyris Agnen ex rogatu Constantiae filiae suae et baptisterium in eodem loco, ubi et baptizata est soror ejus Constantia cum filia Augusti a Silvestrio episcopo, ubi et constituit donum hoc: patenam ex auro purissimo, pens. lib. XX; calicem aureum, pens. lib. X; coronam farum cantarum ex auro purissimo cum delfinos XXX, pens. lib. XV; patenas argenteas II, pens. sing. lib. XX; calices argenteos V, pens. sing. lib. X; fara cantara argentea XXX, pens. sing. lib. VIII; fara cantara aurocalca / aerea aurocalca / canthara aerea aurocalca XL; cerostata aurocalca argento clusa sigillata XL; lucerna aurea nixorum XII qui pens. lib. XX; super fontem, pens. lib. XV

et donum in reditum: circa civitatem Fidelinas omnem agrum, prest. sol. CLX; via Salaria sub parietinas usque omnem agrum sanctae Agnen prest. sol. CV; agrum Muci, prest. sol LXXX; possessio Vicum Pisonis, prest. sol. CCCL / CCL; agrum Casulas, prest. sol. C.[10]

«A la même époque Constantin fit construire la basilique de la sainte martyre Agnès suite à la demande de sa fille Constance[11] ainsi qu'un baptistère au même endroit, baptistère où sa sœur Constance et la fille de l'Auguste furent aussi baptisées par l'évêque Silvestre. Constantin dota le sanctuaire des offrandes suivantes: une patène en or très pur, d'un poids de 20 livres; un calice en or, d'un poids de 10 livres; une couronne garnie de bougeoirs en or très pur avec 30 dauphins, d'un poids de 15 livres[12]; deux patènes en argent, d'un poids de 20 livres chacune; cinq calices en argent, d'un poids de 10 livres chacun; 30 bougeoirs en argent de 8 livres chacun; quarante lustres garnis de bougeoirs, en laiton / en airain et en laiton / bougeoirs en airain et en laiton; 40 chandeliers d'acolyte en laiton, argentés et marqués de sceaux; une lampe en or à douze mèches, d'un poids de 20 livres; au-dessus des fonts, d'un poids de 15 livres.

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[7] *Acta sanctorum* 1643, p. 350.

[8] M. Lavarenne dans Prudence, p. 191.

[9] *Lexicon* 2001, p. 33-34.

[10] *Liber pontificalis* 1898, p. 62-63; en souligné les éléments qui n'apparaissent que dans certaines variantes.

[11] Apparemment il y a eu une confusion: en effet, la sœur de Constantin s'appelle Constance alors que sa fille s'appelle Constantine bien que la tradition leur attribue souvent le même nom (Cooper 2007).

[12] Il faut probablement s'imaginer un lampadaire ressemblant par sa forme à celui retrouvé à *Aquilea* (Aquilée).

Et (il le dota) des terres à revenu suivantes: près de la cité de Fidelinae[13], tout le terrain, rendant 140 solidi; sur la Voie Salaria, sous les murs en ruine, tout le terrain jusqu'à Sainte-Agnès[14] rendant 105 solidi; le terrain de Mucius, rendant 80 solidi; le domaine de *Vicus Pisonis*[15], rendant 350/250 solidi; le terrain de *Casulae*[16], rendant 100 solidi ».

Le *Livre pontifical* nous donne des indications très détaillées sur un sanctuaire d'Agnès, ses ornements et ses possessions. Généralement le passage est tout de suite interprété comme se référant à Sant'Agnese-fuori-le-mura, situé à la troisième borne milliaire de la Via Nomentana. Nous voudrions cependant contrôler ici ce raisonnement, ce qui nous permettra aussi d'introduire d'autres textes en lien avec Sainte Agnès. Or, quels sont les indices qui nous permettent d'identifier les lieux du texte latin avec un site archéologique ou un endroit moderne?

D'après le *Livre pontifical*, il s'agit d'un lieu de culte dédié à la sainte martyre Agnès. Il est donc probable qu'il soit en rapport avec un lieu de mémoire de la sainte, que ce soit l'endroit où elle est née, où elle a vécu, où elle a subi le martyre ou encore où elle est enterrée.

Ensuite, le lieu peut comporter des traces qui le lient encore à Constantin et à sa sœur, respectivement à sa fille ou encore au pape Silvestre (pontife de 314 à 335).

En troisième lieu, le site doit comporter au moins deux bâtiments ou leurs ruines, à savoir une basilique et un baptistère. Vu qu'il s'agit de constructions de Constantin le grand, il est plus que probable que la basilique a la forme constantinienne classique, soit une nef centrale longée de chaque côté par une nef latérale. Les deux nefs latérales, au lieu de se terminer par des absides latérales séparées, continuent en entourant en demi-cercle l'abside centrale, formant une sorte de déambulatoire. Quant au baptistère, nous ignorons quelle forme il devrait prendre, vu que, sous Constantin, il n'y a qu'une seule construction connue qui soit spécifique à cet usage et désignée par ce terme, à savoir le baptistère de la basilique du Latran. D'autre part, pour le règne de Constantin, le *Livre pontifical* en mentionne deux et exclusivement deux: celui du Latran et celui de Sainte-Agnès. Puisque dans le même texte nous ne voyons non seulement les fonts baptismaux décorés de somptueux présents mais même le baptistère en fonction et, ce qui plus est, pour des membres de la famille impériale, nous pourrions éventuellement supposer qu'une basilique de Sainte Agnès a disposé d'un même édifice que le Latran, édifice qui est une innovation et une rareté pour l'époque.

Finalement, il y a une grande probabilité que le sanctuaire en question se trouve à proximité de ses dépendances, des « terres à revenu » dont au moins la Via Salaria est un répertoire géographiquement sûr.

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[13] Peut-être *Fidenae* (Fidene, Fidènes) sur la Voie Salaria, près de l'actuel Castel-Giubileo (*Liber pontificalis* 1916, p. 61).

[14] La phrase présente des difficultés de grammaire qui permettent de nombreuses interprétations; notre traduction essaye de suivre celle qui, d'un point de vue géographique, semble la plus probable si la Sainte-Agnès du *Livre pontifical* est l'actuelle Sant'Agnese-fuori-le-mura, tel qu'il faut l'admettre comme nous le démontrerons par la suite.

[15] Peut-être l'actuel Pisoniano à 53 km de Rome?

[16] Littéralement: « de petites maisons ».

Quelles sont les réponses que nous pouvons apporter à ces questions?

En ce qui concerne Sainte Agnès, de nos jours, il n'y a que deux sanctuaires qui lui sont dédiés à Rome: l'un *intra pomerium*, l'actuelle Sant'Agnese-in-Agone sur la place Navone, l'antique cirque de Domitien sous un des piliers duquel, suivant certaines légendes tardives, Agnès aurait reçu le martyre et où se trouve apparemment aujourd'hui la relique de son crâne; l'autre *extra pomerium*, Sant'Agnese-fuori-le-mura, que nous avons déjà cité auparavant, dans les catacombes de laquelle la sainte aurait été enterrée originellement et où les reliques qui lui sont attribuées sont encore conservées de nos jours. Nous ignorons cependant s'il a pu y avoir un troisième lieu de mémoire au temps de Constantin.

En ce qui concerne la mention, qui est d'ailleurs la plus antique, de la sainte dans la *depositio martyrum* du calendrier romain du milieu du IV^e^ siècle: *XII. Kal. Feb. Agnetis in Nomentana*[17], « 21 janvier: (fête) de Sainte Agnès sur la Via Nomentana », elle nous renseigne sur le fait qu'à l'époque le 21 janvier[18] est considéré comme le jour de la mort d'Agnès puisque le jour mentionné dans le calendrier est toujours celui du martyre et qu'elle est enterrée à ce moment-là sur la Via Nomentana, le lieu suivant le nom du saint désignant partout l'endroit de la sépulture. Cette mention légitime donc l'idée que le sanctuaire actuel de Sant'Agnese-fuori-le-mura se trouve effectivement à l'emplacement du tombeau de la martyre. Cependant, à elle seule, elle n'est pas un argument suffisant pour faire le lien entre le texte du *Livre pontifical* et le sanctuaire extraurbain actuel.

En ce qui concerne les rapports entre la famille impériale et un sanctuaire donné, ils peuvent être plus concluants: en effet, le site de Sant'Agnese-fuori-le-mura comporte un mausolée qui a été attribué par la suite à une Sainte Constance dont l'origine est cependant obscure. Il semble que c'est essentiellement le nom et la datation de l'édifice, dont la première phase de construction de 337 à 351[19] s'est déroulée pendant la vie de la fille de Constantin, Constantine dite Constance, qui font que le mausolée est considéré comme le lieu de sépulture de ce membre de la famille impériale, qui se serait fait enterrer près de la sainte qu'elle vénérait à tel point qu'elle vivait près de son cimetière à un moment donné, s'il faut faire foi au *Livre pontifical*. En effet, ce dernier mentionne une rencontre prolongée sur un tel lieu entre le pape Libère (pontife de 352 à 366) et la sœur de l'empereur Constance II qui est nécessairement sa sœur unique Constantine dite Constance:

Rediens autem Liberius de exilio habitavit in cymiterio sanctae Agnes aput germanam Constanti / Constantis Augusti, ut quasi per ejus interventionem aut rogatu rediret Liberius in civitatem...[20]

« Or, en revenant d'exil, Libère habita dans le cimetière de Sainte Agnès près de la sœur de l'Auguste Constance, afin que ce soit pour ainsi dire par son intervention ou sur sa demande qu'il puisse retourner dans la Ville... ».

[17] *Acta martyrum* 1859, p. 631.

[18] Dans certains martyrologues, on trouve conjointement les dates du 21 et du 28 janvier.

[19] http://www.santagnese.org/mausoleo.htm 16/06/2011.

[20] *Liber pontificalis* 1898, p. 78-79.

Le cimetière en question est sans aucun doute le sanctuaire de Sant'Agnese-fuori-le-mura: en effet, celui-ci se trouve hors de la Ville et comporte à la fois les catacombes où tant les Anciens que les modernes affirment que la sainte a reposé et une grande basilique cimitériale de l'époque constantinienne aujourd'hui en ruine, dont la fonction était sans doute celle d'un cimetière couvert[21]. Cette structure pouvait par conséquent porter le nom de sa sainte principale. Par ailleurs le manque de spécification géographique supplémentaire nous porte à supposer qu'il n'a dû y avoir qu'un seul cimetière de Sainte Agnès dans l'évêché de Rome et dans la conscience des Romains. Finalement, dans la même vie de Libère il est dit que:

Hic Liberius ornavit de platomis marmoreis sepulchrum sanctae Agnaes martyris[22].

« Ici Libère orna de plaques de marbre le tombeau de la sainte martyre Agnès ».

Or deux plaques de marbre insérées dans les murs du grand escalier renaissant qui descend vers celle des basiliques du sanctuaire de Sant'Agnese-fuori-le-mura, où les reliques de Sainte Agnès reposent depuis le VII[e] siècle sont considérées comme étant les vestiges des ornements que Libère a fait installer près de la sépulture de la martyre[23]. Il s'agit là d'une des plus anciennes voire de la plus ancienne des représentations d'Agnès, en position de prière, revêtue d'une tunique longue: ainsi l'identification de Sant'Agnese-fuori-le-mura avec le lieu où Libère a séjourné à un moment donné et où résidait aussi à l'époque la fille de Constantin et sœur de Constance II, Constantine dite Constance, semble établie.

Cependant, il n'est pas encore pour autant évident qu'il faut identifier par le lien de la personnalité de Constantine le cimetière et le tombeau de la martyre mentionnés dans la vie de Libère à la basilique et au baptistère évoqués dans la vie de Silvestre. Mais la demande en faveur de la construction d'une basilique pour Sainte Agnès, que Constance adresse à son père dans le *Livre pontifical* a une parallèle sur le site de Sant'Agnese-fuori-le-Mura: en effet, il subsiste des transcriptions d'une épigramme entretemps perdue qui, semble-t-il, a couronné l'arche d'une basilique du sanctuaire[24]. En forme d'hymne, elle a été attribuée au pape Damase (pontife de 366 à 384), mais vraisemblablement à tort, puisque, contrairement à la large majorité des autres hymnes de ce pontife, Damase n'y est pas mentionné. Par contre, l'acrostiche en donne ***Constantina Deo***[25]:

Constantina deum venerans Christoque dicata
Omnibus impensis devota mente paratis
Numine divino multum Christoque juvante

[21] http://www.santagnese.org/basilica.htm 16/06/2011.
[22] *Liber pontificalis* 1898, p. 78-79.
[23] http://www.santagnese.org/sacello.htm 16/06/2011.
[24] Franchi de Cavalieri 1908, p. 168.
[25] Damase, p. 43-45 (hymne 84 = ICUR 08, 20752).

Sacravit[26] *templum victricis virginis Agnes,*
Templorum quod vincit opus terrenaque cuncta
Aurea quae rutilant summi fastigia tecti.
Nomen enim Christi celebratur sedibus istis,
Tartaream solus potuit qui vincere mortem
Invectus caelo solusque inferre triumphum
Nomen Adae referens et corpus et omnia membra
A mortis tenebris et caeca nocte levata.
Dignum igitur munus martyr devotaque Christo
Ex opibus nostris per saecula longa tenebis[27]*,*
O felix virgo, memorandi nominis Agnes.
Constantina deo[28]***.***

« Constantine, craignant Dieu et s'étant au Christ consacrée
Ayant subvenu, l'esprit dévoué, à toutes les dépenses
Grâce à la Providence divine et au Christ qui l'aidèrent beaucoup
A consacré le temple de la vierge victorieuse Agnès
Lequel dépasse l'œuvre des temples et toute chose terrestre
Les faîtes dorés sur les hauteurs du toit qui rayonnent;
En effet dans ces lieux est célébré le nom du Christ
Lui qui seul a pu vaincre la mort infernale
Et, élevé au ciel, seul a pu apporter le triomphe;
Ravivant le nom d'Adam et son corps et la totalité de ses membres
Des ténèbres de la mort et de la nuit aveugle libérés;
Voilà pourquoi, ô martyre et dévouée au Christ, c'est un digne présent
Que tu tiendras de nos œuvres pour de longs siècles encore
Ô toi dont la mémoire doit garder le nom, ô vierge bienheureuse Agnès.
Constantine à Dieu ».

Cette dédicace en elle-même a un contenu qui est surtout d'ordre théologique et ne recèle que peu d'informations sur le lieu où elle a été montée. Cependant, si Constantine doit-être identifiée avec la Sainte Constance à qui a été attribué le mausolée du site de Sant'Agnese-fuori-le-mura et avec la fille de Constantin citée dans le *Livre pontifical*, cet hymne pourrait être le lien manquant entre le *Livre pontifical* et le sanctuaire de Sant-Agnese-fuori-le-mura. A cette fin, il faudrait cependant être sûr qu'il s'y trouvait à l'origine. Or, au cas où la Constantine de l'hymne est la fille de Constantin, nous pouvons supposer que sa donation devait être assez somptueuse, ce qui est le cas pour Sant'Agnese-fuori-le-mura où le temple de l'hymne pourrait être identifié avec l'énorme basilique constantinienne.

[26] Version rétablie depuis ICUR.
[27] ICUR: *tenebris*, *r* effacé.
[28] Ajouté depuis ICUR; on peut s'interroger sur les raisons pour lesquelles l'acrostiche a été recopié à la fin de la dédicace.

Ceci nous amène à parler des bâtiments: entre Sant'Agnese-fuori-le-mura et Sant'Agnese-in-Agone, cette dernière ne peut pas être prise en compte: en effet, elle n'a été qu'un modeste *sacellum* avant sa transformation en basilique sous Calliste II en 1123[29]. Le complexe de Sant'Agnese-fuori-le-mura comporte quant à lui dès l'époque de Constantin un *sacellum ad corpus* à l'ouest, construit au-dessus du tombeau de la martyre[30] et une basilique cimitériale constantinienne à l'est ainsi que le mausolée de Santa-Costanza qui y est attaché au sud, édifice dont il est contesté s'il a effectivement servi comme tel à l'origine: en effet, la basilique cimitériale contient dans son intérieur, sous l'abside centrale même, un espace séparé à abside dont l'usage est inconnu mais qui aurait pu être la vraie sépulture de la fille de Constantin[31]. En plus, selon le *Livre pontifical*, il a dû y avoir un espace, même minimal, pouvant accueillir des hôtes, tels Libère et Constance.

Cependant, sur ce site manque un élément central mentionné dans la vie du pape Silvestre, à savoir le baptistère. Les fouilles n'en ont pas porté au jour et le plus antique baptistère que l'on y connaît est le mausolée de Santa-Costanza, qui aurait pris cette fonction dès le VII[e] siècle[32]. D'autre part, le site comporte un bâtiment qui n'est pas évoqué dans le *Livre pontifical:* en effet si, comme le *Lexicon topographicum urbis Romae suburbium*, nous identifions la basilique du *Livre pontifical* à la basilique cimitériale[33], nous devons supposer que le recueil de vies papales a oublié de mentionner le *sacellum ad corpus*. Quant à localiser un baptistère de l'époque constantinienne sur le site, nous pourrions supposer que le mausolée de Santa-Costanza a déjà servi avant le VII[e] siècle comme baptistère, ce qui expliquerait aussi sa forme exceptionnelle pour l'époque, étant donné qu'ensemble avec le baptistère du Latran, il est le seul bâtiment constantinien chrétien rond à coupole et déambulatoire circulaire intérieur[34]. Cependant, de telles hypothèses ne peuvent être confirmées que par l'archéologie (voir fig. 1).

Finalement, en ce qui concerne les terres à revenu que la basilique de Sainte-Agnès reçoit dans le *Livre pontifical*, pour ce qui en est de la Via Salaria, sur la hauteur de Sant'Agnese-fuori-le-mura, son tracé est parallèle à celui de la Via Nomentana et le passage en question pourrait bien concerner les terrains entre la Via Nomentana et la Via Salaria à proximité de Sant'Agnese-fuori-le-mura. D'autre part, si le lieu de *Fidelinae* se rapportait effectivement à la localité de *Fidenae*, il s'agirait également de terrains à proximité de ce sanctuaire. Nous ignorons cependant combien L. Ropes Loomis a été influencée par la localisation de la basilique de Sainte Agnès à l'endroit de l'actuelle Sant'Agnese-fuori-le-mura lorsqu'elle émettait cette hypothèse[35].

[29] http://www.santagneseinagone.org/origini.html 16/06/2011.
[30] http://www.santagnese.org/sacello.htm 16/06/2011; le *Lexicon* 2001 n'en fait pas mention.
[31] http://www.santagnese.org/basilica.htm 16/06/2011.
[32] http://www.santagnese.org/mausoleo.htm 16/06/2011.
[33] *Lexicon* 2001, p. 34.
[34] http://www.santagnese.org/mausoleo.htm 16/06/2011.
[35] Quant aux autres lieux, puisque la recherche afin de les situer dépasserait largement le cadre de ce travail, nous ne nous y attardons pas ici mais espérons que d'autres prendront la relève.

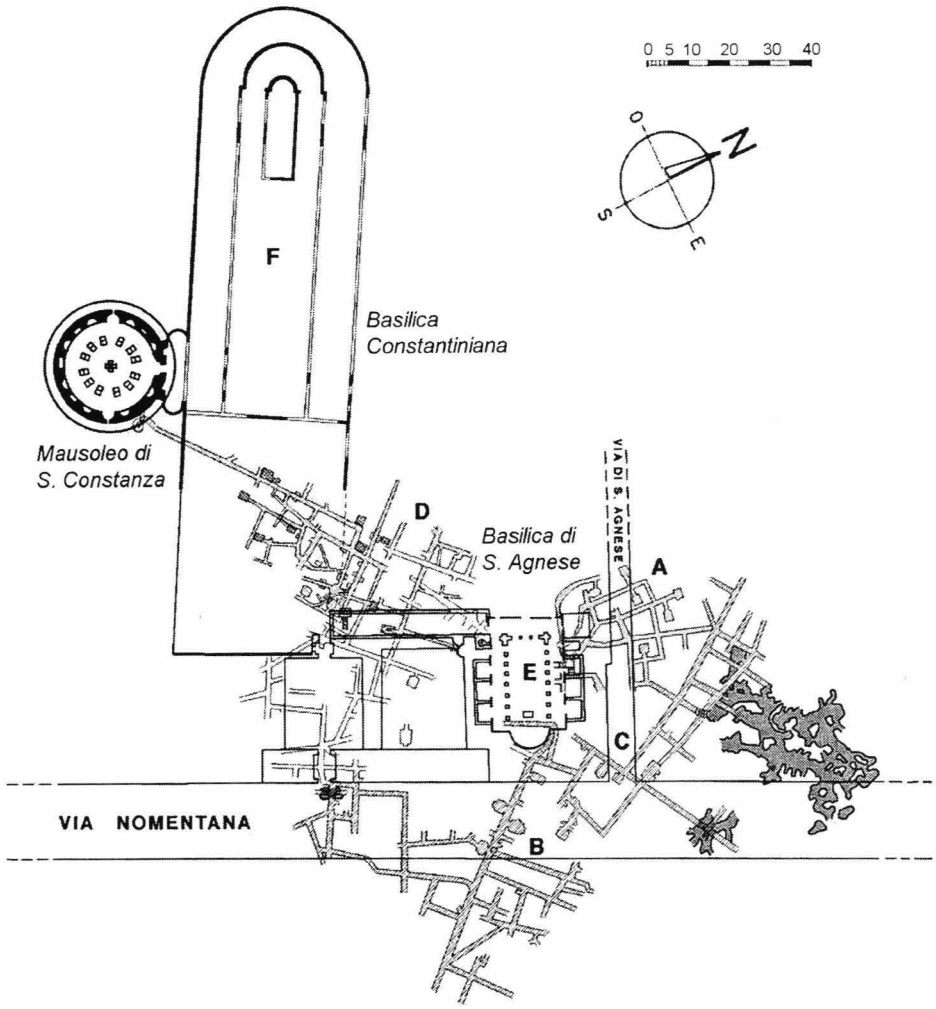

Fig. 1. Plan du sanctuaire et des catacombes.
(http://www.santagnese.org/img/catacombe_plan.gif 04/01/2010)

Ainsi, l'identité de la basilique et du baptistère de Sainte Agnès mentionnés dans la vie de Silvestre avec des édifices du site de Sant'Agnese-fuori-le-mura ne peut être prouvée avec certitude. Cependant, à cause des parallélismes que nous avons trouvés pour chacun des points entre le texte latin et le sanctuaire extraurbain, la probabilité que cette identification est correcte est assez élevée. Ceci d'autant plus que d'une part l'archéologie n'a pas encore trouvé d'autre construction pouvant prétendre à ce statut et que de l'autre les textes de l'époque mentionnent toujours *la* basilique de Sainte Agnès ou *le* cimetière de Sainte Agnès sans jamais spécifier davantage, c'est-à-dire qu'ils admettent que le lecteur sait tout de suite de quel lieu il s'agit, ce qui laisse à supposer qu'il n'y a qu'une seule basilique et qu'un seul cimetière. Finalement, nous avions déjà vu que, par la personne de Constance ou Constantine, le lien entre la basilique, le cimetière et le tombeau pouvait être établi et les deux situés à

Sant'Agnese-fuori-le-mura. Ceci nous semble d'autant plus être le cas parce qu'en écrivant aux empereurs, dans leur lettre ***Contre Damase***, les prêtres Faustin et Marcellin, qui y accusent le successeur de Libère de différents crimes, utilisent le nom de Sainte-Agnès comme un toponyme, sans préciser s'il s'agit de la basilique, du cimetière ou de la sépulture:

Unde cum ad sanctam Agnem multi fidelium convenissent, armatus cum satellitibus suis Damasus irruit et plurimos vastationis suae strage dejecit[36].

«En conséquence de quoi, alors que de nombreux fidèles étaient venus vers Sainte Agnès, Damase fit irruption avec ses suppôts et expulsa une foule de gens par ses ravages dévastateurs».

Bien qu'il ait été question des *coemeteria martyrum* dans la phrase précédente, il faut donc apparemment comprendre qu'à l'époque, l'on se rend chez la sainte, sans distinguer si on va sur sa tombe, dans son cimetière ou dans sa basilique, ce qui, il nous semble, signifie que tous ces lieux se trouvent sur un seul site unique.

Dans le *Livre pontifical*, le sanctuaire de Sainte Agnès est encore mentionné à plusieurs reprises.

Ainsi il nous informe que le pape Innocence I[er] (pontife de 401 à 417) attribue le titre de Sainte Agnès aux prêtres de Vestina qui est vraisemblablement l'actuel San-Vitale sur l'actuelle Via Nazionale, une église *intra pomerium* donc, et demande à deux prêtres, Léopard[37] et Paulin[38] de réparer la basilique, éventuellement après des dommages subis lors de la prise de Rome par Alaric en 410:

Hic (Innocentius) constituit, ut basilicam beatae Agnae martyris a presbiteris Leopardo et Paulino sollicitudini gubernari et tegi et ornari eorum dispositione. Tituli supra scripti Vestinae presbiteris concessa potestas[39].

«Innocence décida de placer la basilique de la bienheureuse martyre Agnès sous la direction consciencieuse des prêtres Léopard et Paulin et de leur en remettre la réparation du toit et l'ornementation suivant leurs plans.

Le titre mentionné ci-devant a été soumis au pouvoir des prêtres de Vestina».

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[36] Faustin et Marcellin, p. 83.

[37] Apparemment attesté en lien avec la réparation de la basilique de Saint Laurent sous Zosime (*Liber pontificalis* 1916, p. 87).

[38] Le nom est courant, mais peut-être y a-t-il un lien avec le Paulin qui, selon J. de Voragine, a été le bénéficiaire d'un miracle de Sainte Agnès dans la basilique même de cette sainte?: «Certain prêtre de l'église de sainte Agnès, nommé Paulin, commença un jour à être tourmenté d'une terrible tentation de la chair; et, comme il ne voulait pas offenser Dieu, il demanda au souverain pontife la permission de prendre femme. Mais le pape, qui connaissait sa bonté et sa simplicité, lui remit un anneau orné d'une émeraude, et lui de s'adresser avec la même demande à une belle statue de sainte Agnès qui se trouvait dans son église. Et comme le prêtre demandait à sainte Agnès de l'autoriser à se marier, la statue étendit tout à coup vers lui son doigt annulaire, y passe l'anneau donné par le pape, puis retira sa main; et, sur-le-champ, le prêtre fut délivré de toutes ses tentations. Telle est, dit-on, l'origine de l'anneau qui se voit aujourd'hui encore au doigt de la statue...» (Voragine 1910, p. 100).

[39] *Liber pontificalis* 1898, p. 90.

En 419 le pape Boniface (pontife de 418 à 422) y donne les baptêmes, sacrement qui a l'époque était traditionnellement célébré le jour de Pâques:

Bonifatius vero, sicut consuetudo erat, celebravit baptismum pasche in basilica sanctae martyris Agnae[40].

« Quant à Boniface, comme il était la coutume, il célébra le baptême de Pâques à la basilique de la Sainte Martyre Agnès ».

Vu que Boniface est à ce moment interdit de cité, il s'agit nécessairement de la basilique extraurbaine de Sant'Agnese-fuori-le-mura. Cependant, nous ignorons où les baptêmes prennent place: s'agit-il du baptistère mentionné dans la vie du pape Silvestre? La suite *« celebravit baptismum ... in basilica »* pourrait nous faire penser qu'il s'agit de fonts baptismaux situés sinon dans la basilique, du moins dans son enceinte: à cet effet, il faudrait également savoir si l'édifice d'une basilique cimitériale pouvait recevoir à l'époque des non-baptisés entre ses murs.

Au-delà de l'époque qui nous intéresse dans ce travail, nous apprenons encore que le pape Symmaque (pontife de 498 à 514) fait réparer à nouveau des édifices du sanctuaire qui sont menacés de ruine:

Hic (Symmachus) absidam beatae Agnae, quae in ruinam imminebat et omnem basilicam renovavit[41].

« Symmaque fit rénover l'abside de la bienheureuse Agnès, qui menaçait de tomber en ruine ainsi que la basilique toute entière ».

Il est possible que l'abside évoquée soit celle de la basilique qui suit dans le texte, basilique qui serait alors la basilique constantinienne[42]. L'abside en question pourrait cependant aussi être le *sacellum ad corpus* ou l'espace séparé à abside au sein de la basilique cimitériale, tandis que la basilique du texte serait la grande basilique cimitériale constantinienne. En tout cas, de l'époque de Symmaque date la première structure en forme de basilique au-dessus du tombeau de la sainte et qui remplace le *sacellum ad corpus*[43].

La basilique qui, encore de nos jours, se trouve à l'emplacement du tombeau de la sainte voit le jour sous le pape Honorius I^er^ (pontife de 625 à 638)[44]. Elle est

[40] *Liber pontificalis* 1898, p. 92.

[41] *Liber pontificalis*, 1898, p. 125.

[42] *Lexicon* 2001, p. 35.

[43] http://www.santagnese.org/sacello.htm 02/01/2010; *Lexicon* 2001 p. 35: « *La costruzione di questa struttura più antiqua è stata attribuita ad un periodo compreso tra il 490 ed il 514; si tratta probabilmente degli unici resti dei lavori compiuti da Simmaco per monumentalizzare e rendere meglio visitabile la tomba di Agnese: un piccolo edificio di culto che ospitava nella sua abside il sepolcro della martire isolato dalla catacomba circostante* ».

[44] Voir aussi l'intéressante comparaison entre les complexes basilicaux honoriens de San Lorenzo (Saint-Laurent) et celle de Sant'Agnese-fuori-le-mura sur le site de cette dernière: http://www.santagnese.org/onoriana.htm 02/01/2010.

attestée tant par le *Livre pontifical* que par le bâtiment et les épigrammes du site de Sant'Agnese-fuori-le-mura.

Dans le *Livre pontifical:*

Eodem tempore (Honorius) fecit ecclesiam beatae Agne martyris via Numentana miliario ab urbe Roma III a solo, ubi requiescit, quem undique ornavit exquisite, ubi posuit dona multa. Ornavit autem sepulchrum ejus ex argento, qui pens. lib. CCLII; posuit desuper cyburium aereum deauratum mirae magnitudinis; fecit et gavatas aureas III pens. sing. lib. sing.; fecit absida ejusdem basilicae ex musibo, ubi etiam et multa dona optulit[45].

«A la même époque Honorius fit construire l'église de la bienheureuse martyre Agnès sur la Via Nomentana, à la troisième borne miliaire depuis Rome, à l'endroit où elle repose[46], église qu'il orna de toute part avec goût et où il déposa de nombreuses offrandes: il fit décorer le tombeau de la sainte d'ornements en argent, d'un poids de 252 livres; au-dessus il fit installer un ciboire en airain doré d'une taille impressionnante; il fit aussi faire des patènes (ou des lustres) en or d'un poids de 3 livres chacune; il fit décorer l'abside de la basilique de la sainte d'une mosaïque, où il dédia encore de nombreuses autres offrandes».

Dans deux épigrammes rapportées par Giovanni Battista de Rossi dont l'une provient probablement du reliquaire honorien et dont l'autre se réfère peut-être à la mosaïque[47]:

Inclita vota suis adquirunt praemia laudis,
Dum perfecta micant mente fide meritis.
Virginis hoc Agnae clauduntur membra sepulchro,
Quae incorruptam tamen vitam[48] *sepulta tenet.*
Hoc opus argento construxit Honorius amplo
Martyris et sanctae virginis ob meritum.

«Des vœux illustres procurent la récompense de l'éloge à ceux qui les ont faits
Lorsque réalisés ils brillent par un esprit et une foi pleins de mérite.
Dans cette sépulture sont enfermés les membres de la vierge Agnès
Qui, ensevelie, garde cependant sa vie intacte.
Honorius a fait faire cette œuvre en argent de vastes proportions
A cause du mérite de la martyre et sainte vierge».

[45] *Liber pontificalis* 1898, p. 171.

[46] Donc le tombeau de la sainte; un autre extrait de la vie du même pape nous informe en effet que le pape Honorius est enterré à Saint-Pierre et que, par conséquent, dans le passage que voici, il ne peut être question de lui.

[47] Damase, p. 44 = ICUR 08, 20755 et ICUR 08, 20756; cf. aussi ICUR 08, 20758: [*Mar*]*tyre Agneti potitus ser<v=B>us dei ornavit.*

[48] Correction de *incorrupta vita* par ICUR.

Et:

Virginis aula micat variis decorata metallis,
Sed plus namque nitet meritis fulentior amplis.

« Le palais de la vierge étincelle, orné qu'il l'est de métaux variés (ou: de pierres variées), Mais plus encore, car il brille d'un éclat supérieur par ses immenses mérites ».

Finalement, une inscription dans la bordure inférieure de la mosaïque même qui représente Sainte Agnès au-dessus de l'épée et entre les flammes du bûcher de son martyre; elle est entourée de deux évêques, présumablement les papes Symmaque I^er^ et Honorius I^er^; les travaux de ce dernier sont rappelés:

AVREA CONCISIS SVRGIT PICTVRA METALLIS
ET COMPLEXA SIMVL CLAVDITVR IPSA DIES
FONTIBVS E NIBEIS CREDAS AVRORAS VRIRE
CORREPTAS NVBES RVRIBVS ARVA RIGANS
VEL QVALEM INTER SIDERA LVCEM PROFERET IRIM
PVRPVREVSQVE PAVO IPSE COLORE NITENS
QVI POTVIT NOCTIS VEL LVCIS REDDERE FINEM
MARTVRVM E BVSTIS HINC REPPVLIT ILLE CHAOS
EVRSVM (sursum? rursum?) VERSA NVTV QVO CVNCTIS CERNITVR VNO
PRAESVL HONORIVS HAEC VOTA DICATA DEDIT
VESTIBVS ET FACTIS SIGNANTVR ILLIVS ORA
AECET (decet?) ET ASPECTV LVCIDA CORDA GERENS[49]

« Une peinture dorée naît de pierres taillées
Et la lumière du jour elle-même est embrassée et en même temps enfermée
Tu croirais que, montant de sources transparentes, l'aurore consume par son feu
Les nuages resserrés, baignant[50] les champs dans les campagnes
Ou que c'est comme une lumière[51] que l'arc-en-ciel étale entre les astres
Et le paon splendide brillant dans son éclat,
Qui a pu remettre fin aux nuits et aux jours
Lui, d'ici, de la sépulture des martyrs, a chassé le chaos,
Ce qui était sens dessus dessous, et par ce seul signe Il est reconnu de tous.
L'évêque Honorius a réalisé les vœux que voici faits (à la martyre):
La figure de la sainte est représentée avec ses vêtements et ses hauts faits[52],
Montrant, comme il sied, son cœur lumineux par son apparence ».

[49] Leçons: Barbet de Jouy 1857, p. 34-35; Barbier de Montault, 1901; nous avons essayé de reconstituer le texte à partir de la mosaïque.

[50] Il semble que le participe présent n'est pas décliné dans ce chant.

[51] Passage grammaticalement difficile. Construction brisée: proferet = proferre?

[52] Par la représentation des instruments de son martyre?

IV. Vie et martyre de Sainte Agnès

Les premiers textes qui mentionnent Sainte Agnès ne nous apprennent que le jour de son martyre, le 21 janvier, son lieu de sépulture, la catacombe de la Via Nomentana et nous donnent le *terminus ante quem* du martyre de la sainte qui a dû se produire nécessairement avant l'époque de la construction de son sanctuaire sous l'empereur Constantin et le pape Silvestre.

C'est le pape Damase (pontife de 366 à 384), le même qui est accusé par Faustin et Marcellin, qui est le premier a écrire un hymne en l'honneur de la sainte où il fait des allusions à la vie de cette dernière. Cet hymne a la double qualité de source littéraire et matérielle: en effet, une fois rédigé, il a été taillé dans la pierre par le lapicide Furius Dionysius Philocalus et monté sans doute près des reliques de la martyre, soit dans le *sacellum ad corpus* primitif de Sant'Agnese-fuori-le-mura, où, retourné, il a été employé plus tard comme dalle du pavement de la basilique du pape Honorius I[er] (pontife de 625 à 638), qui a remplacé le *sacellum* (voir fig. 2). Il fait ainsi partie des célèbres ***épigrammes de Damase:***

Fama refert sanctos dudum retulisse parentes
Agnen, cum lugubres cantus tuba concrepuisset,
Nutricis gremium subito liquisse puellam,
Sponte trucis calcasse minas rabiemque tyranni.
Urere cum flammis voluisset nobile corpus,
Viribus inmensum parvis superasse timorem,
Nudaque profusum crinem per membra dedisse,
Ne domini templum facies peritura videret.
O veneranda mihi, sanctum decus, alma pudoris,
Ut Damasi precibus faveas precor, inclyta martyr[53].

« La tradition rapporte que jadis ses saints parents avaient raconté
Que lorsqu'avait retenti la trompette de sons lugubres, Agnès,
Encore petite fille, avait d'un bond quitté les genoux de sa nourrice
Et spontanément foulé au pied les menaces et la rage du cruel tyran
Alors qu'il avait voulu détruire par le feu son noble corps,
De ses faibles forces elle avait triomphé d'une angoisse immense
Et répandu ses cheveux défaits sur ses membres nus,
Afin qu'aucun regard mortel ne voie le temple de Dieu.
Ô toi, à qui je dois vénération, sainte vertu, chaste entre toutes
Je te prie d'exaucer les prières de Damase, ô martyre sans égal ».

[53] Damase, p. 43-45 (hymne 40 = ICUR 08, 20753).

Fig. 2. La dalle inscrite de la basilique du pape Honorius I^er^ (photo de l'auteur).

L'histoire d'Agnès nous est présentée comme une tradition orale née du récit des parents d'Agnès. Ces parents sont désignés du terme de *sancti*, donc sans doute ont-ils été chrétiens eux-mêmes. L'âge d'Agnès est important: en effet, elle n'est non seulement une *puella* mais elle va droit des genoux de sa nourrice au martyre, ce pourquoi nous jugeons que M. Lavarenne interprète à tort la phrase «*Nutricis gremium subito liquisse puellam*» comme un simple «elle partit de chez elle»[54]. En effet, l'âge d'Agnès fait que sa spontanéité, son souci de veiller à sa chasteté en étalant ses cheveux sur son corps nu lorsqu'elle est exposée sur le bûcher et le fait qu'elle agit avec la force d'une enfant acquièrent une valeur supérieure et qu'elle devient un modèle pour les adultes parmi qui Damase. Dans cet hymne, nous n'apprenons cependant ni les motifs de son martyre ni le mode du supplice lui-même: s'agit-il d'une persécution, Agnès est-elle menacée uniquement pour sa foi ou également pour la résistance qu'elle oppose à d'éventuels désirs du tyran, que nous trouvons dans d'autres passions de la sainte? Agnès est-elle suppliciée par le seul feu ou également par d'autres tourments? Ces questions sont laissées ouvertes par l'hymne qui n'interdit pas d'énoncer de telles spéculations.

Un détail demeure peu clair; c'est celui de la trompette au son lugubre que X. Barbier de Montault interprète comme étant celle qui «promulgue l'édit de la persécution»[55] et que M. Lavarenne voit comme une allusion possible à «des sonneries de trompette au forum lors des procès criminels»[56]. Nous ignorons s'il faut chercher l'interprétation de ce vers du côté du contexte historique de la persécution et du martyre ou s'il faut plutôt y voir une référence au symbole de la trompette dans le Nouveau Testament (Corinthiens I 15, 52; Thessaloniciens I 4, 16; Apocalypse 8) ou encore si l'allusion se rapporte aux deux à la fois.

Notons encore que, contrairement à l'hymne de Constantine, l'épigramme de Damase contient également une invocation de la vierge martyre et, sur les lieux de sa sépulture, pouvait peut-être prendre ainsi la fonction d'une prière éternelle.

Quatre textes qui se réfèrent à Sainte Agnès ont été attribués à un contemporain de Damase, connu pour son éloquence et sa fermeté, un personnage qui, de

[54] Prudence, p. 192.
[55] Barbier de Montault, 1901, p. 175.
[56] Barbier de Montault, 1901, p. 175.

son temps déjà une autorité, a été considéré plus tard comme un des docteurs de l'Eglise catholique, à savoir Ambroise (Aurelius Ambrosius, 340 à 397). Les textes en question sont un sermon et un passage d'une œuvre sur les devoirs des ministres, un hymne et une passion. Alors que pour l'avant-dernier il demeure un doute, la dernière date cependant selon toute vraisemblance du Ve siècle et est donc due à un autre auteur[57]. Nous ne l'inclurons pas dans ce travail puisqu'elle dépasse les limites temporelles que nous nous sommes fixées.

Le sermon sur lequel s'ouvre l'œuvre d'Ambroise, qui s'intitule ***Sur les Vierges***, a été rédigé le jour de la naissance d'Agnès, donc sans doute le 21 janvier, jour de sa naissance au ciel[58]:

5. *Et bene procedit, ut quoniam hodie natalis est virginis, de virginibus sit loquendum, et a praedicatione liber sumat exordium. Natalis est virginis, integritatem sequamur. Natalis est martyris, hostias immolemus. Natalis est sanctae Agnes, mirentur viri, non desperent parvuli; stupeant nuptae, imitentur innuptae. Sed quid dignum de ea loqui possumus, cujus ne nomen quidem vacuum luce laudis fuit? Devotio supra aetatem, virtus supra naturam: ut mihi videatur non hominis habuisse nomen, sed oraculum martyris, quo indicavit quid esset futura.* 6. *Habeo tamen unde mihi subsidium comparetur. Nomen virginis titulus est pudoris. Appellabo martyrem, praedicabo virginem. Satis prolixa laudatio est, quae non quaeritur, sed tenetur. Facessant igitur ingenia, eloquentia, conticescat, vox una praeconium est. Hanc senes, hanc juvenes, hanc pueri canant. Nemo est laudabilior, quam qui ab hominibus laudari potest. Quot homines, tot praecones, qui martyrem praedicant, dum loquuntur.* 7. *Haec duodecim / tredecim annorum martyrium fecisse traditur. Quo detestabilior crudelitas, quae nec minusculae pepercit aetati: imo magna vis fidei, quae etiam ab illa testimonium invenit aetate. Fuitne in illo corpusculo vulneri locus? Et quae non habuit quo ferrum reciperet, habuit quo ferrum vinceret. At istius aetatis puellae torvos etiam vultus parentum ferre non possunt, et acu districta solent puncta flere, quasi vulnera. Haec inter cruentas carnificum impavida manus, haec stridentium gravibus immobilis tractibus catenarum, nunc furentis mucroni militis totum offerre corpus, mori adhuc nescia, sed parata: vel si ad aras invita raperetur, tendere Christo inter ignes manus, atque in ipsis sacrilegis focis tropaeum Domini signare victoris: nunc ferratis colla manusque ambas inserere nexibus: sed nullus tam tenuia membra poterat nexus includere.* 8. *Novum martyrii genus? Nondum idonea poenae, et jam matura victoriae: certare difficilis, facilis coronari: magisterium virtutis implevit, quae praejudicium vehebat aetatis. Non sic ad thalamum nupta properaret, ut ad supplici locum laeta successu, gradu festina virgo processit, non intorto crine caput compta, sed Christo: non flosculis redimita, sed moribus. Flere omnes, ipsa sine fletu. Mirari plerique quod tam facile vitae suae prodiga, quam nondum hauserat, jam quasi perfuncta donaret. Stupere universi, quod jam divinitatis testis exsisteret, quae adhuc arbitra sui per aetatem esse non posset. Effecit denique ut ei de Deo crederetur, cui de homine adhuc non crederetur. Quia quod ultra naturam est, de auctore naturae est.* 9. *Quanto terrore egit carnifex ut timeretur, quantis blanditiis*

[57] Kirsch 1907.

[58] Ambroise, *De virg.*, I, II, 5-9.

ut suaderet! quantorum vota ut sibi ad nuptias perveniret! At illa: Et haec Sponsi injuria est exspectare[59] *placiturum. Qui me sibi prior elegit, accipiet. Quid, percussor, moraris? Pereat corpus quod amari potest oculis quibus nolo. Stetit, oravit, cervicem inflexit. Cerneres trepidare carnificem, quasi ipse addictus fuisset: tremere percussoris dexteram, pallere ora alieno timentis periculo, cum puella non timeret suo. Habetis igitur in una hostia duplex martyrium, pudoris et religionis. Et virgo permansit, et martyrium obtinuit.*

«5. Et il se trouve bien qu'il faille parler des vierges alors qu'aujourd'hui est le jour d'une vierge et que le livre s'ouvre sur une prédication. C'est le jour d'une vierge, poursuivons la voie de la pureté. C'est le jour d'une martyre, offrons des sacrifices. C'est le jour de Sainte Agnès, que les hommes soient pleins d'admiration et que les plus jeunes ne désespèrent pas; que les femmes mariées soient frappées d'étonnement et que celles qui ne le sont pas imitent son exemple. Mais que pouvons nous dire à propos d'elle qui soit digne d'elle, elle dont jusqu'au nom rien ne manque de l'éclat lumineux de la louange? Sa dévotion dépassait son âge, sa vertu allait au-delà de tout ce qui est naturel: à tel point qu'il me semble qu'elle ne détenait pas le nom d'un être humain mais la prophétie d'être une martyre et que par son intermédiaire elle montra ce qu'elle allait devenir.

6. J'ai cependant un appui d'où il me vient secours: le nom de (la) vierge est un titre de chasteté. J'en appellerai à la martyre, je louerai ses qualités virginales. L'éloge est abondant à désir, si on le détient sans l'avoir recherché. Que se s'éloigne donc l'inspiration rhétorique et que l'éloquence se taise: la voix seule doit être son héraut. Qu'elle soit chantée par les vieillards, par les jeunes, par les enfants. Personne n'est plus digne d'éloge que celui qui peut recevoir la louange de l'humanité. Autant d'hommes, autant de hérauts qui célèbrent la martyre pendant qu'ils parlent.

7. On rapporte qu'elle a reçu le martyre a l'âge de douze / treize ans. Qu'est-ce qui est plus détestable qu'une cruauté qui n'a même pas épargné un âge si tendre? Non, plutôt: grande est la force de la foi qui a trouvé un témoignage même à un âge pareil. Y avait-il assez de place dans ce petit corps pour une blessure? Et celle qui n'avait rien pour recevoir le fer, eut quelque chose pour le vaincre! Pourtant les filles de cet âge-là ne peuvent même pas supporter un regard menaçant de leurs parents et pleurent d'habitude à la moindre piqûre d'aiguille comme si c'était une blessure sévère. Or elle sans peur entre les mains pleines de sang des bourreaux, sans chanceler alors qu'elle traîne le lourd poids des chaînes qui grincent, voici qu'elle offre son corps tout entier au poignard du soldat enragé, encore ignorante de la mort, mais préparée à mourir: ou si, malgré elle, elle était traînée vers l'autel, entre les flammes elle tend les mains vers le Christ et dans ce feu sacrilège même plante le trophée de la victoire du Seigneur: la voici qu'elle passe le cou et les deux mains dans des anneaux de fer: mais aucun anneau ne pouvait retenir des membres si frêles.

8. Un nouveau genre de martyre? Encore mineure pour la loi et déjà majeure pour la victoire; elle lutte avec difficulté et avec facilité reçoit la couronne de la victoire;

[59] Éventuellement *spectare;* Ambroise, *De off.* 202 note 15.

elle qui avait le désavantage de son âge a donné l'exemple de la vertu. L'épouse qui se hâte vers sa couche nuptiale n'a pas cette joie dans sa course et cette impatience dans son pas que les avait cette vierge en se rendant au lieu du supplice; ornée non pas par des cheveux enroulées autour de sa tête, mais par le Christ; non pas affranchie par de petites fleurs mais rachetée par ses mœurs. Tous pleurent, elle ne verse pas une larme. La plupart des gens s'étonnent que si facilement, pour ainsi dire acquittée, elle donnait déjà les richesses de sa vie, alors qu'elle n'y avait même pas encore puisé. L'humanité entière est frappée de stupeur parce que déjà est témoin de Dieu celle qui jusqu'alors, à cause de son âge, ne pouvait pas disposer d'elle-même. Finalement elle a fait en sorte que, pour ce qui en est de Dieu on croit celle à laquelle on ne faisait pas confiance lorsqu'il s'agissait d'affaires humaines, parce que ce qui dépasse la nature vient de son créateur.

9. Avec combien de terreur s'acharnait le bourreau pour se faire craindre, avec combien de caresses pour lui faire changer d'avis! Combien souhaitaient l'avoir en mariage! Mais elle: « C'est un affront pour mon Epoux que d'attendre ce qui lui plaira. Celui qui m'a choisi en premier, me recevra. Quoi, éventreur, tu hésites? Que périsse ce corps qui peut être aimé par des yeux dont je ne veux point. » Elle se tint debout, pria, baissa la tête. Tu aurais vu le bourreau s'agiter, comme si lui-même avait été jugé; la droite de l'éventreur trembler et pâlir le visage de celui qui craint le danger d'autrui, alors que la petite fille n'a pas peur de celui qui la menace. Vous avez ainsi dans une seule victime un martyre double: le témoignage de la chasteté et celui de la religion. Et elle resta vierge et reçut le martyre ».

Ce sermon d'une grande éloquence est tout aussi implicite que l'épigramme de Damase. Contrairement à celui-ci, les parents d'Agnès ne sont pas mentionnés. Son âge par contre est précisé: d'après la version du texte, elle aurait eu douze ou treize ans. Il semble que, si le sermon est pris à la lettre, ceci pose problème: en effet, en prenant le jeune âge de la sainte à l'appui, Ambroise met en exergue qu'Agnès a été capable de réussir, encore mineure, par rapport à Dieu ce à quoi sa majorité seulement lui aurait donné droit chez les hommes. Or, suivant Tertullien, une jeune fille aurait dû être envoyée *ad negotia* dès sa douzième année[60]. Comme Damase, Ambroise fait l'éloge de la foi, de la chasteté et de la force au-delà de son âge d'Agnès, tout en y ajoutant le mépris de la vie terrestre. Cependant, il n'introduit pas la scène où la martyre couvre sa nudité sur le bûcher. Chez Ambroise, le tyran peut, tout comme chez Damase, être non seulement celui qui veut faire abjurer Agnès mais également celui qui s'est épris d'elle. En tout cas, il insinue qu'Agnès est une jeune fille que nombre de personnes désireraient en mariage. Par ce biais, il peut aussi introduire l'idée qu'Agnès a choisi le Christ comme époux et veut lui rester fidèle. Le supplice d'Agnès qu'Ambroise évoque à plusieurs reprises est celui du fer. Cependant, un passage demeure peu clair à ce propos: la proposition *vel si ad aras invita raperetur*, au-delà de se rapporter à l'obligation de renier la foi en sacrifiant sur l'autel d'une divinité païenne, peut, par

[60] Voir Ambroise, *De off.* 201 note 14: l'éditeur y oppose d'autres commentateurs qui relèvent que, malgré cela, les *pupillae* restent sous l'autorité d'une *muliebris tutela* et la loi de Constantin qui prévoit la responsabilité des jeunes gens dès l'âge de 18 ans pour les *puellae* et de 20 pour les *masculi*.

le *si*, se référer à une variante de l'histoire d'Agnès: en effet, par la suite nous voyons la jeune fille tendre ses mains dans le feu vers le Christ et marquer la victoire du Seigneur dans le *feu sacrilège*. Ambroise pourrait donc faire ici allusion à un supplice par le feu. Dans des versions plus tardives, les deux formes de supplice coexistent même et Agnès, après avoir échappé à l'un, succombe à l'autre. Ambroise introduit également l'idée du double martyre d'Agnès au sens originel du terme: elle prête un témoignage de chasteté et un témoignage de religion à Dieu.

Plus loin, dans un passage de son œuvre sur les ***Devoirs des ministres sacrés***, *Ambroise* évoque Agnès qui préfère la chasteté à la vie et reçoit l'immortalité en récompense. Cette fois, l'idée du jeune âge de la sainte est introduite par le fait qu'elle est mentionnée en lien avec les *bimuli*, les nourrissons:

Quid de bimulis loquar, qui ante palmam victoriae acceperunt, quam sensum naturae? Quid de sancta Agne, quae in duarum maximarum rerum posita periculo, castitatis et salutis, castitatem protexit, salutem cum immortalitate commutavit?[61]

« Que dire des nourrissons qui ont reçu la palme de la victoire avant même que leurs sens naturels se soient éveillés? Qu'en est-il de Sainte Agnès qui, en danger de perdre les deux choses les plus précieuses, à savoir la chasteté et la vie, défendit sa chasteté et changea sa vie contre l'immortalité? »

Un hymne ***In sanctae Agnes*** s'est conservé dans la liturgie ambroisienne:[62]

Agnes, beatae virginis,	D'Agnès, vierge bienheureuse,
Natalis est, quo spiritum	C'est le jour, où son âme
Coelo refudit debitum	Due au ciel elle rendit,
Pio sacrata sanguine.	Sacrée par son sang pieux.
Matura martyrio fuit,	Elle était mûre pour le martyre,
Matura nondum nuptiis;	Alors qu'elle ne l'était pas encore pour le mariage;
Nutabat in viris fides,	Chez les hommes la foi chancelait,
Cedebat et fessus senex.	Et des vieillards fatigués cédaient.
Metu parentes territi	Les parents, accablés de peur,
Claustrum pudoris auxerant,	Avaient multiplié les barrières de sa chasteté,
Solvit fores custodiae	A ce contrôle la fit échapper
Fides teneri nescia.	Sa foi qui ne pouvait être retenue.
Prodire quis nuptum putet,	On penserait qu'elle s'avance vers son mariage,
Sic laeta vultu ducitur,	Ainsi elle est entraînée, l'air joyeux,
Novas viro ferens opes	Amenant de nouvelles richesses à son époux
Dotata censu sanguinis.	Portant en dot l'impôt du sang.
Aras nefandi numinis	(Sur) les autels d'une divinité abominable
Adolere taedis cogitur,	On la force à allumer (les offrandes) d'une torche,
Respondet: haud tales faces	Elle répond: « de tels flambeaux n'ont encore été
Sumpsere Christi virgines	Touchés par les vierges du Christ

[61] Ambroise, *De off.*, I, 41, 203.
[62] Dreves 1893, p. 135-136.

Hic ignis exstinguit fidem	Ce feu éteint la foi
Haec flamma lumen eripit,	Cette flamme dérobe la lumière,
Hic, hic ferite, ut profluo	Ici, frappez-moi ici, que des flots
Cruore restinguam focos.	De mon sang je noie le feu ».
Percussa quam pompam tulit!	Une fois transpercée, quel comportement magnifique elle adopta!
Nam veste se totam tegens	En effet, se couvrant complètement de son habit
Curam pudoris praestitit,	Elle fit preuve qu'elle veillait à sa chasteté,
Ne quis retectam cerneret.	Afin que personne ne la voie dévoilée.
In morte vivebat pudor,	Dans la mort sa chasteté demeurait vivante,
Vultumque texerat manu,	Elle avait couvert son visage de la main,
Terram genu flexo petit	Tomba par terre en fléchissant les genoux
Lapsu verecundo cadens.	Gardant sa dignité dans la chute.

Dans cet hymne, comme chez Damase, les parents sont à nouveau mentionnés. Cependant, ils y apparaissent comme ceux qui, bien qu'ils prennent soin de la chasteté de leur fille, ne lui permettent pas d'aller au martyre et de rejoindre ainsi son Epoux divin, ce qui semble être une affirmation que leur foi en Christ n'est pas assez ferme ou qu'elle est inexistante. En tout cas, l'auteur de l'hymne peut en profiter pour rehausser encore les qualités d'Agnès: non seulement elle est la petite fille qui, encore trop jeune pour le mariage, épouse le Christ et qui résiste au moment où les hommes adultes chancellent et des vieillards abandonnent, mais en plus, elle désobéit à ses parents, mettant ainsi la foi avant le devoir filial. Sa chasteté est décrite d'une façon semblable que chez Damase: ici ce ne sont pas ses cheveux mais ses habits dont elle se couvre pour protéger sa nudité. En plus, elle veille à garder sa dignité dans sa chute. Le tyran cruel, cette fois-ci, n'est pas mentionné même s'il est présent dans la forme passive *cogitur*. Le martyre est par contre décrit comme une suite bien établie: Agnès doit sacrifier sur un autel afin de renier sa foi. Elle refuse et préfère mourir. Ainsi, elle est transpercée d'une épée. Par rapport au sermon d'Ambroise, l'unique différence véritable est le développement des figures parentales de la martyre. Du point de vue du contenu, l'hymne suit par conséquent clairement la même tradition que le docteur de l'Eglise. Sur cette base, la paternité de l'hymne ne pourrait donc pas lui être reniée. Peut-être se serait-on cependant attendu à une mention du double martyre de la vierge?

Au tournant du IV^{e} siècle, c'est un haut fonctionnaire impérial, Prudence (Aurelius Prudentius Clemens, 348 à 410), qui, entre autres, compose une ***Passio Agnetis*** en forme d'hymne[63]:

Agnes sepulchrum est Romulea in domo,	Agnès est enterrée dans la maison de Romulus,
fortis puellae, martyris inclytae.	Une courageuse petite fille et martyre illustre.
Conspectu in ipso condita turrium,	Inhumée en vue même des tours de la Ville,
servat salutem virgo Quiritium,	La vierge veille sur la vie des Romains,

[63] Prudence, p. 196-200.

nec non et ipsos protegit advenas	Et protège aussi les étrangers
puro ac fideli pectore supplices.	Qui l'implorent d'un cœur pur et plein de foi.
Duplex corona est praestita martyri:	Une double couronne a été donnée à la martyre:
intactum ab omni crimine virginal,	Sa virginité demeurée pure de tout crime,
mortis deinde gloria liberae.	Et puis la gloire d'une mort librement acceptée.
Aiunt jugali vix habilem toro	On dit qu'à peine assez âgée pour monter sur la couche nuptiale
primis in annis forte puellulam	Presqu'encore dans ses premières années, la petite fille,
Christo calentem fortiter impiis	Aimant ardemment le Christ, après avoir aux ordres impies courageusement
jussis renisam, quominus idolis	Résisté, pour que, après s'être aux idoles
addicta sacram desereret fidem.	Attachée, elle ne déserte la sainte foi.
Temptata multis nam prius artibus,	En effet, d'abord soumise à de nombreuses tentations:
nunc ore blandi judicis inlice,	Tantôt confrontée au visage séducteur du juge aux manières caressantes,
nunc saevientis carnificis minis,	Tantôt aux menaces du bourreau enragé,
stabat feroci robore pertinax,	Elle restait debout dans une forte et farouche fermeté
corpusque duris excruciatibus	Et à la dureté des tortures son corps
ultro offerebat non renuens mori.	En plus elle présentait, ne refusant pas de mourir.
Tum trux tyrannus: «Si facile est», ait,	Alors le tyran cruel lui dit: «S'il t'est facile
«poenam subactis ferre doloribus	De supporter le châtiment en ayant été soumise à la douleur
et vita vilis spernitur, at pudor	Et de mépriser ta vile vie, ta chasteté cependant
carus dicatae virginitatis est.	Est chère à ta virginité consacrée.
Hanc in lupanar trudere publicum	De l'enfermer dans un lupanar public
certum est, ad aram ni caput	J'ai décidé, si elle ne se tourne pas vers l'autel
applicat ac de Minerva jam veniam rogat,	Et demande désormais grâce à Minerve,
quam virgo pergit temnere virginem:	Vierge que cette vierge continue à mépriser:
omnis juventus inruet et novum	Tous les jeunes se jetteront sur elle et la nouvelle
ludibriorum mancipium petet.»	Esclave de leurs outrages sera recherchée par eux tous.»
«Haud», inquit Agnes, «immemor est ita	Agnès répondit: «A tel point n'oublie
Christus suorum, perdat ut aureum	Le Christ les siens qu'Il mènerait à la perte
nobis pudorem, nos quoque deserat;	Notre chasteté qui est d'or voire qu'Il nous abandonnerait;
praesto est pudicis nec patitur sacrae	Il se tient aux côtés des filles chastes et ne permet pas que de leur sainte
integritatis munera pollui.	Intégrité le don soit souillé.
Ferrum impiabis sanguine, si voles,	Par un acte impie tu maculeras le fer de mon sang, si tu veux
non inquinabis membra libidine».	Mais tu ne souilleras pas mes membres par la débauche.»

Sic elocutam publicitus jubet	Le tyran ordonne qu'en public elle qui a parlé de la sorte,
flexu in plateae sistere virginem.	La vierge, soit exposée dans un coin de la place.
Stantem refugit maesta frequentia,	La foule consternée fuit celle qui est ainsi debout
aversa vultus, ne petulantius	Le regard détourné, de crainte que, trop effrontément,
quisquam verendum conspiceret	Quelqu'un n'aperçoive (de son corps)
locum.	les parties à respecter.
Intendit unus forte procaciter	Un seul passant de fortune, impudemment, dirigea
os in puellam nec trepidat sacram	Son regard sur la jeune fille et sans hésitation, sa sainte
spectare formam lumine lubrico.	Beauté, il la regarde, un éclair pervers dans les yeux.
En ales ignis fulminis in modum	Voici qu'une flamme ailée, telle un éclair,
vibratur ardens atque oculos ferit;	Descend comme un dard et frappe ses yeux;
caecus corusco lumine corruit	Il s'écroule aveuglé par l'éclat de la lumière
atque in plateae pulvere palpitat.	Et s'agite dans la poussière de la place.
Tollunt sodales seminecem solo	Ses camarades le relèvent à moitié mort du sol
verbisque deflent exequialibus.	Et le pleurent avec des mots de funérailles.
Ibat triumphans virgo,	La vierge triomphait et Dieu le Père
Deum Patrem	
Christumque sacro carmine concinens	Et le Christ elle chantait dans un hymne, sacré,
quod sub profani labe periculi	Parce que, au moment où elle risquait de choir sous le danger sacrilège
castum lupanar nec violabile	Ayant d'un chaste et inviolable lupanar
experta victrix virginitas foret.	Fait l'expérience, sa virginité serait victorieuse.
Sunt qui rogatam rettulerint preces	D'aucuns ont rapporté même qu'implorée
fudisse Christo, redderet ut reo	Elle s'est répandue en prières au Christ afin qu'il rende au coupable
lucem jacenti: tunc juveni halitum	Etendu sur le sol la lumière du jour; et qu'alors le jeune homme a vu son souffle
vitae innovatum visibus integris.	De vie renouvelé et que ses facultés de voir étaient à nouveau intactes.
Primum sed Agnes hunc habuit gradum	Et ce fut là la première marche de l'escalier
caelestis aulae; mox alius datur	Vers le palais céleste; bientôt il lui est offert
ascensus; iram nam furor incitat	Une nouvelle ascension: en effet le délire fait éclater la colère
hostis cruenti: « Vincor »,	De l'ennemi sanguinaire: « Je m'avoue
ait gemens	vaincu », dit-il en gémissant,
« i, stringe ferrum, miles, et exere	« Va, soldat, prends ton épée et fais connaître
praecepta summi regia principis! »	Les ordres royaux du Prince suprême! »
Ut vidit Agnes stare trucem virum	Lorsque Agnès vit cet homme cruel debout
mucrone nudo, laetior haec ait:	L'épée tirée, sa joie montait et elle dit:
« Exulto, talis quod potius venit	« J'exulte, lorsqu'arrive un homme semblable
vesanus, atrox, turbidus armiger,	Un homme d'armes forcené, atroce, plein de furie
quam si veniret languidus ac tener	Plutôt que s'il venait un faible et tendre
mollisque ephebus tinctus aromate,	Ephèbe ramolli et parfumé,
qui me pudoris funere perderet.	Qui me perdrait en ruinant ma chasteté.
Hic, hic amator jam, fateor, placet;	Voici, je l'avoue, l'amant qui me plaît;

ibo inruentis gressibus obviam,	J'irai à la rencontre des pas de celui qui fonce sur moi
nec demorabor vota calentia:	Et je ne ferai pas languir ses désirs ardents:
ferrum in papillas omne recepero,	J'aurai reçu son fer tout entier dans mon sein
pectusque ad imum vim gladii traham	Et je pousserai jusqu'au fond ma poitrine à la rencontre de la violence de l'épée
Sic nupta Christo transiliam poli	Ainsi mariée au Christ du ciel je franchirai
omnes tenebras aethere celsior.	Toutes les ténèbres, allant plus haut que l'éther.
Aeterne rector, divide januas	Seigneur éternel, ouvre les portes
caeli obseratas terrigenis prius,	Du ciel qui étaient fermées auparavant aux créatures terrestres
ac te sequentem, Christe, animam voca,	Et, appelle, ô Christ, l'âme qui te suit
cum virginalem, tum Patris hostiam!»	Autant âme chaste qu'offrande de ton Père!»
Sic fata Christum vertice cernuo	Ayant ainsi professé sa foi, elle incline la tête et le Christ
supplex adorat, vulnus ut imminens	Elle adore, le suppliant que la blessure imminente,
cervix subiret prona paratius.	Le cou qu'elle tend soit mieux préparé à la recevoir.
Ast ille tantam spem peragit manu,	Quant au bourreau, de sa main, il réalise cet espoir si grand:
uno sub ictu nam caput amputat;	en effet d'un seul coup il lui tranche la tête;
sensum doloris mors cita praevenit.	Dans sa rapidité, la mort prévient la sensation de la douleur.
Exutus inde spiritus emicat	Alors, dégagée, son âme s'élance dehors
liberque in auras exilit; angeli	Et affranchie bondit vers le ciel; des anges
saepsere euntem tramite candido.	L'entourèrent qui allait sur la route éblouissante
Miratur orbem sub pedibus situm,	Elle admire le monde sous ses pieds
spectat tenebras ardua subditas,	De sa position élevée elle aperçoit les ténèbres sous elle
ridetque solis quod rota circuit,	Et rit de ce dont la roue du soleil fait le tour,
quod mundus omnis volvit et implicat,	De ce que l'univers dans son ensemble fait tourner et enveloppe,
rerum quod atro turbine vivitur,	De ce dont la vie est soumis au cruel engrenage du monde,
quod vana saecli mobilitas rapit:	De ce que le vain cours du temps emporte:
reges, tyrannos, imperia et gradus	Les rois, les tyrans, les empires, les hiérarchies,
pompasque honorum stulta tumentium,	Les cortèges des magistrats stupidement enorgueillis,
argenti et auri vim rabida siti	Le pouvoir de l'argent et de l'or qu'avec une soif d'enragé
cunctis petitam per varium nefas,	Tous recherchent par le moyen d'une panoplie de crimes
splendore multo structa habitacula,	Des lieux de résidence construits avec beaucoup d'éclat
inlusa pictae vestis inania,	Les vanités trompeuses de vêtements colorés
iram, timorem, vota, pericula,	La colère, la crainte, les désirs, les dangers
nunc triste longum, nunc breve gaudium,	Tantôt une longue tristesse tantôt une brève réjouissance,
livoris atri fumificas faces,	Les flambeaux fumeux d'une sombre envie
nigrescit unde spes hominum et decus,	Qui obscurcit l'espoir des hommes et leur dignité
et, quod malorum taetrius omnium est,	et, mal hideux entre tous,
gentilitatis sordida nubila.	Le brouillard sordide de l'esprit païen.

Haec calcat Agnes ac pede proterit,	Tout cela, Agnès le piétine et le foule du pied
stans et draconis calce premens	Debout et écrasant du pied la tête du serpent.
caput.	
Terrena mundi qui ferus omnia	L'être féroce qui tout ce qui est terrestre
spargit venenis, mergit et inferis,	Arrose de son venin et précipite dans les enfers,
nunc virginali perdomitus solo	Maintenant terrassé par sa seule chasteté
cristas cerebri deprimit ignei,	Abaisse la crête de sa tête de flammes
nec victus audet tollere verticem.	Et vaincu, n'ose plus lever son chef.
Cingit coronis interea Deus	Dieu entretemps ceint de couronnes
frontem duabus martyris innubae;	Au nombre de deux le front de la pucelle martyre:
unam decemplex edita sexies	L'une, c'est sa six fois décuplée
merces perenni lumine conficit,	Récompense qui la compose de lumière éternelle,
centenus extat fructus in altera.	Un fruit centuple se trouve dans l'autre.
O virgo felix, o nova gloria,	Ô vierge bienheureuse, ô gloire nouvelle,
caelestis arcis nobilis incola,	Noble habitante des vôutes célestes,
intende nostris conluvionibus	Tourne vers nos souillures
vultum gemello cum diademate,	Ton visage décoré du double diadème
cui posse soli Cunctiparens dedit	A qui seule le Créateur universel a donné le pouvoir
castum vel ipsum reddere	De rendre la vie chaste jusque dans la prostitution!
fornicem!	
Purgabor oris propitiabilis	Je serai purifié par de ton regard clément
fulgore, nostrum si jecur impleas.	L'éclair, si tu combles mon cœur.
Nil non pudicum est, quod	Rien n'est impudique de ce que, pieuse
pia visere	vierge, contempler
dignaris, almo vel pede tangere.	Tu daignes, ou toucher de ton vénérable pied ».

Cet hymne, très long par rapport aux autres que nous avons vus jusqu'à présent, amplifie le récit de la vie d'Agnès tout en se limitant à sa passion: ainsi ses parents ne sont pas évoqués. Nous ignorons si cette amplification s'effectue sur la base de la pure invention rhétorique ou s'il inclut encore d'autres traditions que les auteurs précédents n'avaient pas prises en compte ou ne connaissaient pas, peut-être parce qu'elles n'ont apparu qu'au temps de Prudence. Les formes verbales *aiunt* et *sunt qui rettulerint* semblent confirmer la reprise de traditions orales.

L'hymne s'ouvre sur la description de l'endroit de la sépulture de la sainte: *in domo Romulea* semble indiquer un lieu d'enterrement au sein de la Ville éternelle. Cependant, vu la mention qu'il se trouve *in conspectu turrium*, il nous paraît probable que la *domus Romulea* est une référence au territoire de la ville de Rome dans son ensemble, y inclus les *suburbes*. En effet, les *turres* nous semblent être une référence aux tours des remparts de la Ville et non, comme l'entend M. Lavarenne, aux « hautes maisons de la ville »[64], ce qui nous permet d'identifier de façon assez naturelle le *sepulcrum Agnes* au site de Sant'Agnese-fuori-le-mura qui devait être effectivement visible à l'époque depuis les tours de la Porta Nomentana et vice-versa, même sans devoir être indulgents face à des licences poétiques. Les *advenae* que la sainte protège en même temps que les Romains désignent ainsi sans doute surtout ceux qui se recueillent au passage sur le tombeau de la sainte en se rendant à Rome par la Via Nomentana.

[64] Prudence, p. 196.

L'âge de la sainte est à nouveau mis en exergue: dans un premier temps elle est dite *vix habilis toro jugali* mais tout de suite après elle est désignée de *puellula in primis annis*, contradiction qui montre clairement l'exagération voulue de sa jeunesse. A côté de ses qualités exceptionnelles, son courage, sa détermination et sa chasteté, s'ajoute chez Prudence la compassion: elle ressort de l'épisode du lupanar où Agnès prie pour celui qui a osé violer sa chasteté du regard. En plus, cet ajout par rapport aux textes précédents remplit le rôle de mettre encore plus d'emphase sur la chasteté d'Agnès, de montrer comment elle fait confiance à Dieu qui la protège jusque dans la prostitution en obligeant les gens à détourner leurs regards d'elle et en foudroyant la seule personne qui ne le fait pas et il donne l'occasion à la vierge de faire son premier miracle en priant Dieu de guérir celui qui a été aveuglé pour avoir osé la regarder.

Cette fois-ci il n'est non plus question d'un bourreau qui exécute ou fait exécuter Agnès parce qu'elle résiste à ses projets de mariage. Le juge n'a aucun lien émotionnel avec la petite fille, il est juste la figure du païen monstrueux, fréquente dans les légendes chrétiennes, qui essaye par toutes sortes de supplices d'obliger la martyre à sacrifier à la déesse païenne Minerve et à abjurer ainsi sa foi chrétienne. Ces supplices qui, par leur cruauté, empirent de tour en tour, puisque le tyran refuse la mort à Agnès et la soumet d'abord à la douleur physique et essaye ensuite de souiller sa dignité, augmentent le mérite de la martyre qui a su y résister et qui obtient sa victoire et celle de Dieu sur le bourreau qui doit finir par lui accorder la mort, telle qu'il était la volonté divine. Chez Prudence, le rôle actif d'Agnès dans son supplice est souligné de façon hyperbolique: non seulement - après s'être préparé à être transpercée! - tend-elle le cou, mais aussi veut-elle pousser son corps dans l'épée de son exécuteur plutôt que de laisser celui-ci l'y enfoncer, dans une description si ostensiblement érotique que l'on ne peut s'empêcher de se demander si elle ne nuit pas à son image de chasteté plutôt que d'y contribuer par le contraste que Prudence établit entre les deux bourreaux possibles.

La suite de son martyre par décapitation est beaucoup plus développée chez Prudence que chez les auteurs cités plus haut: le chemin qu'elle parcourt depuis sa mort jusqu'à son couronnement en passant par le moment où son âme est recueillie par les anges permet à Prudence de faire un long excursus sur les vanités du monde terrestre, parmi lesquelles il inclut des charges et des biens qu'il a dû lui-même posséder à un moment donné de sa vie et de présenter Agnès comme celle qui a vaincu le Diable, le Tentateur et le Mal, représenté par le serpent biblique (Genèse 3, 15; Luc 10, 19).

Finalement, Dieu couronne Agnès deux fois: ainsi l'idée d'Ambroise, soit qu'elle a été reprise, soit qu'elle faisait partie de la conscience collective, soit qu'elle a été réinventée, se retrouve ici sous forme de métaphore, à part que Prudence attribue, au début de l'hymne, la première couronne à la virginité de la martyre et la seconde à sa gloire d'une mort librement acceptée, et non à sa foi; de même il introduit une hiérarchisation: la première couronne vaut moins que la seconde. Il semble donc que, contrairement à l'équivalence faite par Ambroise dans le passage cité des *Devoirs des ministres sacrés*, Prudence donne plus d'importance à la vie qu'à la chasteté. Cependant, la *libera mors* est peut-être aussi la mort que le martyre accepte librement afin de

ne pas abjurer sa foi et par là l'acte de foi central est donc son mérite essentiel devant Dieu, alors que la conservation de sa chasteté est un mérite supplémentaire.

L'invocation qui clôt l'hymne est aussi plus élaborée chez Prudence que chez Damase. Agnès y apparaît encore une fois comme la martyre chaste voire comme la chasteté incarnée puisqu'il lui a été donné de se maintenir pure jusque dans la prostitution. Ainsi elle devient la sainte qui enlève les souillures et en tant que telle l'auteur la vénère et s'adresse à elle, la mention du pied vénérable, donc le pied qui a écrasé le mal, étant sans doute une métaphore par laquelle l'auteur indique sa soumission et sa confiance face aux qualités purificatrices de la sainte. Ce dernier passage de l'hymne n'est pas sans rappeler les invocations aux dieux dans les poésies grecques et latines traditionnelles.

Au début du IV[e] siècle, Eusèbe Jérôme (Eusebius Sophronius Hieronymus, 347-420) écrit une ***Lettre à Démétrias*** pour l'exhorter à garder la voie de la pureté dans laquelle elle s'est engagée et où il cite Agnès comme un modèle qui l'emporte non seulement sur son âge mais également sur les modèles masculins[65]:

Si te virorum exempla non provocant, hortetur faciatque securam beata martyr Agnes quae et aetatem vicit, et tyrannum, et titulum castitatis martyrio consecravit.

...omniumque gentium litteris atque linguis, praecipue in Ecclesiis Ἁγνὴ vita laudata est. Sed hoc ad eas pertineat, quae necdum elegerunt virginitatem, et exhortatione indigent, ut sciant quale sit, quod eligere debeant.

«Si les exemples masculins ne te poussent pas à réagir, que ce soit donc la bienheureuse martyre Agnès à t'y encourager et à te donner la certitude, elle qui a triomphé de son âge et du tyran et a consacré l'honneur de la chasteté par le martyre.

... dans les littératures et les langues de toutes les nations, et surtout dans les Eglises, la vie d'Agnès (ou: la vie chaste) est célébrée. Mais cela doit toucher celles qui n'ont pas encore choisi la chasteté et manquent de l'encouragement nécessaire pour connaître la nature de ce qu'elles devraient choisir».

Par rapport à Ambroise, le premier passage n'introduit aucune idée nouvelle quant à la martyre. Le second par contre pourrait parler en faveur d'une reconnaissance universelle de Sainte Agnès. C'est dans ce sens qu'il a été cité et interprété dans les Martyrologues tardifs[66]. Cependant, nous n'avons pas rencontré jusqu'à présent de génitif du nom d'Agnès qui serait *Agne* et ainsi il semble s'agir plutôt de l'adjectif grec accordé avec le substantif *vita*: l'expression *hagnè vita* ne signifierait donc pas «la vie d'Agnès», mais «la vie pure», ce qui peut être plus aisément admis comme valeur universelle que la personne d'Agnès comme modèle omniprésent et montre également quelles connaissances poussées Jérôme détient sans doute sur d'autres

[65] Jérôme, *Epistolae Secundum Ordinem Temporum Distributae*, CXXX.
[66] Par exemple *Martyrologium Romanum* 1770.

cultures[67]. Il est cependant possible que Jérôme ait à dessein introduit cet adjectif afin de renvoyer à la sainte citée en début de lettre ou de relier son nom et sa potentielle étymologie grecque.

Sur l'étymologie du nom d'Agnès revient aussi le dernier auteur inclus dans notre travail, à savoir Augustin d'Hippone (Aurelius Augustinus, 354-430). Dans un de ses ***Sermons au peuple***, il cite Agnès alors qu'il incite ses ouailles à ne pas comparer les dieux païens aux martyrs chrétiens:

Beati quorum passio recitata est. Beata Agnes sancta, cujus passionis hodiernus est dies. Virgo quae quod vocabatur, erat. Agnes latine agnam significat; graece, castam. Erat quod vocabatur: merito coronabatur. Quid ergo, fratres mei, quid vobis dicam de hominibus illis quos Pagani pro diis coluerunt, quibus templa, sacerdotia, altaria, sacrificia exhibuerunt? Quid vobis dicam? non illos esse comparandos martyribus nostris? Etiam hoc ipsum injuria est, quia vel dico. Quibuscumque, qualibuscumque infirmis fidelibus, licet adhuc carnalibus et lacte alendis, non cibo, absit ut illi sacrilegi comparentur. Contra unam aniculam fidelem christianam quid valet Juno? Contra unum infirmum et trementem omnibus membris senem christianum quid valet Hercules? Vicit Cacum, vicit Hercules leonem, vicit Hercules canem Cerberum: vicit Fructuosus totum mundum. Compara virum viro. Agnes puella tredecim annorum vicit diabolum. Eum puella ista vicit, qui de Hercule multos decepit[68].

« Heureux ceux dont on récite la passion! La sainte dont c'est aujourd'hui le jour de la passion est la bienheureuse Agnès. Une vierge qui avait les qualités de son nom: en latin, Agnès veut dire agnelle; en grec, chaste: elle avait les qualités de son nom: elle était couronnée à juste titre. Quoi donc, mes frères, que vous dirais-je à propos de ces hommes que les Païens ont vénéré comme des dieux, à qui ils ont offert des temples, des sacerdoces, des autels et des sacrifices? Que vous dirais-je? Qu'il ne faut pas les comparer à nos martyrs? C'est déjà un affront que de le dire. Il est hors de question qu'à n'importe lequel de nos fidèles, quelque infirme qu'il soit, qu'il soit encore charnel (bien en chair?) ou doive être nourri avec du lait au lieu de nourriture solide, on compare ces sacrilèges-là. En face d'une petite vieille chrétienne pleine de foi, que vaut Junon? En face d'un vieillard chrétien infirme qui tremble de tous ses membres, que vaut Hercule? Hercule a vaincu Cacus, il a terrassé le lion, il a dompté le chien Cerbère; le Seigneur riche en fruits a triomphé du monde entier. Il faut comparer l'homme à l'homme. Agnès, une jeune fille de treize ans, a vaincu le démon. Cette jeune fille a triomphé de celui qui a trompé de nombreuses personnes au sujet d'Hercule ».

La référence à Agnès dans ce texte table surtout sur sa faiblesse, l'argumentation étant que le plus faible des chrétiens l'emporte sur le plus fort des dieux et

[67] En effet, à côté du savoir ethnique classique composé essentiellement d'Hérodote et de Strabon, nous trouvons chez Jérôme des descriptions de coutumes orientales dont il est le seul témoin occidental dont nous ayons connaissance aujourd'hui.

[68] Augustin, *Sermones ad populum*, CCLXXIII, VI.

des héros païens ainsi que sur l'Ennemi. Cependant l'évocation de sa chasteté paraît superflue pour le propos du sermon et d'autres saints auraient pu servir d'exemple à Augustin. Quoi qu'il en soit, alors qu'Augustin ne nous donne pas de nouvelles informations à propos d'Agnès, il confirme cependant l'âge qu'Ambroise lui avait attribué: treize ans. La mention d'Agnès par l'Africain Augustin peut être sans doute expliquée de deux façons: soit elle montre qu'à l'époque le culte d'Agnès s'est déjà répandu au-delà des limites de l'Italie; soit elle doit être ramenée aux échanges et à la rencontre entre Ambroise et Augustin et alors nous pouvons supposer qu'Augustin a appris l'âge et la vie de la sainte de son maître italien.

V. Conclusion

Comme nous pouvons le constater, au temps de Boniface, au moins pour ce qui en est de la littérature, les versions de la vie et de la passion d'Agnès restent encore assez sobres, sans développements exagérés, contrairement à ce qui sera le cas un peu plus tard avec la *Passion d'Agnès* très riche en détails et, beaucoup plus tard, avec la *Légende dorée* de J. de Voragine qui relate nombre d'anecdotes miraculeuses supplémentaires. D'autre part, nous voyons que les sources littéraires semblent démontrer une certaine évolution dans le temps de la légende de la sainte, dont nous ignorons cependant si elle correspond à une évolution de la tradition orale. De même, nous ne savons pas en quelle mesure les auteurs chrétiens se sont influencés les uns les autres. Il est étrange que la version de la passion d'Agnès de l'épigramme de Damase ne trouve pas d'écho, au moins clair, dans la littérature chrétienne du demi-siècle qui suit: elle ne réapparaît qu'avec la *Passion d'Agnès* au V^{e} siècle et y est amalgamée avec les versions que nous trouvons chez Ambroise et Prudence: d'abord traînée en vain sur le bûcher, elle est finalement décapitée.

A ce propos, il serait intéressant d'analyser dans une étude ultérieure la façon dont les premières versions de la vie et de la passion d'Agnès ont été intégrées plus tard dans une version unique, canonisée en quelque sorte, par J. de Voragine et de voir comment cette version a influencé la lecture des textes les plus anciens: ainsi, vu que dans la version vulgarisée de la vie d'Agnès les cheveux de la martyre poussent par un miracle, nombre d'auteurs ont considéré que Damase parle déjà de ce miracle-là en évoquant comment Agnès couvre son corps nu de ses cheveux, alors que rien dans l'hymne en question ne paraît indiquer que le pape entend faire plus qu'illustrer la qualité principale de la sainte vierge martyre: sa chasteté.

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Ambroise, *De virg.* — *Ambroise,* De *virginibus,* I, II, 5-9, PL 16.
Ambroise, *De off.* — Ambroise, *De officiis Ministrorum*, I, 41, 203, PL 16.

Augustin	Augustin, *Sermones ad populum*, CCLXXIII, VI PL 38.
Damase	Damase, *Damasi Epigrammata*, M. Ihm (éd.), Teubner, Leipzig 1895.
Faustin et Marcellin	Faustin et Marcellin, *Adversus Damasum Libellus Precum ad Imperatores*, PL 13.
ICUR	G. B. de Rossi, A. Ferrua, *Inscriptiones christianae Urbis Romae septimo saeculo antiquiores*, Rome 1922-1992.
Jérôme	Jérôme, *Epistolae Secundum Ordinem Temporum Distributae*, CXXX PL 22.
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ABBREVIATIONS – ABKÜRZUNGEN – ABRÉVIATIONS

Die Abkürzungen im vorliegenden Band befolgen jene der L'Année Philologique. Solche, die dort nicht vorkommen, werden im folgenden aufgelistet:

AAH	*Acta Archaeologica Academiae Scientiarum Hungaricae*, Budapest.
ACMIT	Anuarul Comisiunii Monumentelor Istorice, Secțiunea pentru Transilvania, Cluj.
AEA	Archivio Español de Arqueologia, Madrid.
AHB	The Ancient History Bulletin, Calgary.
AE	L'Année Épigraphique, Paris.
AMN (= ActaMN)	*Acta Musei Napocensis*, Cluj-Napoca.
AMP (= ActaMP)	*Acta Musei Porolissensis*, Zalău.
Apulum	*Apulum*. Anuarul Muzeului Național al Unirii din Alba Iulia, Alba Iulia.
ANRW	H. Temporini, W. Haase (Hrsgg.), Aufstieg und Niedergang der römischen Welt, Berlin-New York.
ArhMold	Arheologia Moldovei, Iași.
BAR	British Archaeological Reports, Oxford.
BGL	Bibliothek der griechischen Literatur, Stuttgart.
BZ	Byzantinische Zeitschrift, Berlin.
CA	Cercetări Arheologice, Muzeul Național de Istorie, București.
CAG	Carte archéologique de la Gaule, Paris.
CAH	*Communicationes Archaeologicae Hungaricae*, Budapest.
CCDJ	Cultură și civilizație la Dunărea de Jos, Călărași.
CFHB	*Corpus Fontium Historiae Byzantinae, Series Berolinensis*, Berlin.
Chiron	Chiron. Mitteilungen der Kommission für Alte Geschichte und Epigraphik des Deutschen Archäologischen Instituts, München.
CIG	*Corpus Inscriptionum Graecarum*, Berlin.
CIL	*Corpus Inscriptionum Latinarum*, Berlin.
CSIR - GB	*Corpus Signorum Imperii Romani* - Great Britain, Oxford.
CSIR - Österreich	*Corpus Signorum Imperii Romani* - Österreich, Wien.
DAF	Documents d'Archéologie Française, Paris.
DissPann.	Dissertationes Pannonicae, Budapest.
Dizionario Epigrafico	E. di Ruggiero (ed.), Dizionario epigrafico di antichita romane, Roma, I (1895) - III (1922).
EKG	Enmanns Kaisergeschichte.
EN	*Ephemeris Napocensis*, Cluj-Napoca.
Epigraphische Studien	Epigraphische Studien, Bonn.

HSCPh	Harvard Studies in Classical Philology, Cambridge.
HTRTÉ	A Hunyadmegyei Történelmi és régészeti Társulat Évkönyve, Deva, I (1880) - XXII (1913).
IAM	M. Euzenat, J. Marion, Inscriptions antiques du Maroc. 2. Inscriptions latines (publié par J. Gascou), Paris 1982.
IDRE I	C. C. Petolescu, Inscriptions externes concernant l'histoire de la Dacie, I, București, 1996.
IDRE II	C. C. Petolescu, Inscriptions externes concernant l'histoire de la Dacie, II, București 2000.
IGB I²	G. Mihailov, *Inscriptiones Graecae in Bulgaria repertae, I, Inscriptiones orae Ponti Euxini. Editio altera emendata*, Serdicae 1970.
IGB II	G. Mihailov, *Inscriptiones Graecae in Bulgaria repertae, II, Inscriptiones inter Danubium et Haemum repertae.* Serdicae 1968.
IGLNovae	J. Kolendo, V. Božilova, Inscriptions grecques et latines de Novae (Mésie Inférieure), Bordeaux-Paris 1997.
IGLR	Em. Popescu, Inscripțiile grecești și latine din secolele IV-XIII descoperite în România: culese, traduse în românește, însoțite de indici și comentate, București 1976.
ILD	C. Petolescu, Inscripții latine din Dacia, București 2005.
ILBulg	B. Gerov, *Inscriptiones Latinae in Bulgaria repertae*, I, Sofia 1989.
ILS (= Dessau)	H. Dessau, *Inscriptiones Latinae Selectae*, Berlin, I (1882) - IV (1916).
IMS II	M. Mirković, Inscriptions de la Mésie Supérieure. II. Viminacium et Margum, Belgrade 1986.
ISM	Inscripțiile din Scythia Minor grecești și latine, București.
JRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums zu Mainz, Mainz.
LIMC	*Lexicon Iconographicum Mythologiae Classicae*, Basel.
Lupa	www.ubi-erat-lupa.org.
Marisia	*Marisia.* Studii și materiale. Arheologie, istorie, etnografie, Muzeul Județean Mureș, Târgu Mureș.
MCA	Materiale și cercetări arheologice, București.
Mel. Bidez	Mélanges Joseph Bidez, Bruxelles 1934 (= Annuaire de l'Institut de Philologie et d'Histoire Orientales et Slaves, 2, Bruxelles 1933-1934).
Montana II	V. Velkov, G. Alexandrov (ed.), *Епиграфски паметници от Монтана и района*, София 1994.
OPEL	B. Lőrincz, F. Redő et alii, *Onomasticon Provinciarum Europae Latinarum*, I-IV, Budapest 1994-2002.
PamátkyArch	Památky Archeologické, Praga.
PAS	Prähistorische Archäologie in Südosteuropa, Berlin.
PBF	Prähistorische Bronzefunde, Berlin.

PIR²	E. Groag, A. Stein et alii, *Prosopographia Imperii Romani²*, Berlin 1933 sqq.
PLRE	Prosopography of the Later Roman Empire, Cambridge University Press 1971 (vol. I), 1980 (vol. II), 1992 (vol. III).
Pontica	*Pontica.* Studii și materiale istorice, arheologie și muzeografie, Constanța.
PZ	Prähistorische Zeitschrift, Berlin.
PWRE	A. Pauly, G. Wissowa, W. Kroll, K. Ziegler (Hrsgg.), Pauly-Wissowa Realencyclopädie der classischen Altertumswissenschaft, Stuttgart 1893 sqq.
RE	Real-Encyclopädie der classischen Altertumswissenschaft, Stuttgart 1894 sqq.
RGZM	B. Pferdehirt, Römische Militärdiplome und Entlassungsurkunden in der Sammlung des Römisch-Germanischen Zentralmuseums, I-II, Mainz-Bonn 2004.
RepCluj	I. H. Crișan, M. Bărbulescu, E. Chirilă, V. Vasiliev, I. Winkler, Repertoriul arheologic al județului Cluj, Cluj-Napoca 1992.
RIB	The Roman Inscriptions of Britain, Oxford.
RIU	Die römischen Inschriften Ungarns I-VI, Budapest-Bonn 1972-2001.
RMD	M. M. Roxan, P. Holder, Roman Military Diplomas, London.
RevBistriței	Revista Bistriței, Bistrița.
RMI	Revista Monumentelor Istorice, București.
RevMuz	Revista Muzeelor, București.
Sargetia	*Sargetia.* Buletinul Muzeului Județean Hunedoara, Deva.
SCIV (A)	Studii și cercetări de istorie veche (și arheologie - since 1975), București.
SMMIM	Studii și materiale de muzeografie și istorie militară, București.
StComSatuMare	Studii și comunicări, Satu Mare.
SympThrac	*Symposia Thracologica.* Lucrările Simpozionului Anual de Tracologie, Institutul Român de Tracologie, București.
TAPA	Transactions of the American Philological Association, Baltimore.
Thraco-Dacica	*Thraco-Dacica.* Institutul de Tracologie, București.
TIR	*Tabula Imperii Romani.*
TitAq	P. Kovács, *Tituli Aquincenses*, I - II, Budapest 2009.

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