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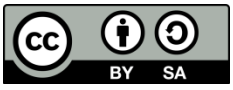

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Investigating a Chalcolithic dwelling at Isaiia, Iași County, Romania

Felix Adrian TENCARIU[1], Măriuca VORNICU[2], Andrei ASĂNDULESEI[3], Loredana SOLCAN[4], George BODI[5], Casandra BRAȘOVEANU[6]

Abstract. *The detailed investigation of dwelling no. 14 (Precucuteni II phase) from the Isaiia site brings interesting and, in some instances, novel data concerning the building system and the internal architecture of the Early Chalcolithic housing. Also, the artefacts from inside the dwelling and from the surrounding features bear witness about prehistoric crafts like pottery manufacture, stone knapping and polishing, animal hard tissue working, about the relations with neighbouring cultural areas, and, last but not least, about the ritual behaviour of the Precucuteni communities.*

Rezumat. *Cercetarea detaliată a locuinței nr. 14 (Precucuteni II) din situl de la Isaiia furnizează informații interesante și pe alocuri inedite privind sistemul de construcție și arhitectura interioară a construcțiilor din eneoliticul timpuriu. De asemenea, artefactele descoperite în interiorul locuinței și în complexele adiacente sunt dovezi ale practicării preistorice a unor meșteșuguri precum prelucrarea ceramicii, cioplirea și șlefuirea pietrei, prelucrarea materiilor dure animale, ale relațiilor cu ariile culturale învecinate și, nu în ultimul rând, ale comportamentelor rituale ale comunităților Precucuteni.*

Keywords: Chalcolithic, Precucuteni culture, surface dwelling, ritual assemblage.

Introduction

The archaeological site *Balta Popii* is located in the north-eastern part of Romania (Figure 1), at about 3 km NE from the Isaiia village (Răducăneni commune, Iași County). Geographically, the location is positioned in the middle sector of the Prut corridor, in the northern part of the Bârlad Plateau, on a fragment of terrace from the right side of the Jijia River, close to the confluence with the Prut River[7] (Figures 2–3).

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[7] URSULESCU, TENCARIU 2006, 11.

The excavations carried out in 1996–2017[8] established and confirmed the general stratigraphy of the settlement. To begin with, it has been observed that the thickness of the cultural layer is not uniform across the surface due to the slope of the terrace, which has an inclination from southwest to northeast. Therefore, the layer gradually thins towards the edge of the terrace and thickens towards the southwest. At the base, above the oolitic limestone layer, covered with sandy loess, there is a yellowish-brown soil layer, where quite sporadic remains of a Neolithic habitation[9] (LBK) are found. Two thicker layers (light-brown and brown) are to be found above, containing the vestiges of the Chalcolithic habitation (the Precucuteni culture). Based on the discovered artefacts (especially the pottery typology) it was established that the lower layer belonged to the Precucuteni II phase, showing two stages of habitation (the oldest—IIA—dates back to the Precucuteni II phase, while the new stage—IIB—corresponds to the passage from the phase II to III), and the upper level—IIIA—falls at the beginning of the Precucuteni III phase[10]. Above, there is a thinner and darker layer, with traces of Bronze Age (two early graves) and Iron Age (early Hallstatt — Corlăteni-Chișinău Culture) habitations. An even thinner layer contains very rare remains of a fourth century AD presence, related to the early Sarmatian tombs[11], which form a small necropolis here. A last layer with archaeological remains reveals a sporadic early medieval habitation (Răducăneni culture). Finally, there is a vegetable layer of which some modern disturbances were recorded.

As mentioned, the Early Chalcolithic habitation, through the complexes of the Precucuteni culture (phases II and III), is the highly represented period in the stratigraphy of the Isaiia site. So far, 11 dwellings and over 60 pits belonging to this culture were investigated (Figure 4). This paper will focus on the investigation of a dwelling (no. 14) from the south-eastern periphery of the settlement; the interior architecture, the inventory (artefacts), the building system as well as the surrounding features (as part of the household) will be considered.

Dwelling no. 14: archaeological description

The excavation of the year 2015 was prefaced by the magnetometric survey of the eastern and southeastearn area of the settlement, by a team of the Arheoinvest Platform (Figure 5). Among others, the survey revealed the existence of a compact anomaly, of considerable size, in an area of the settlement considered peripheral, where the presence of other important

[8] URSULESCU, MERLAN, TENCARIU 2001, 110–113; 2002, 160–163; URSULESCU *et al.* 2003, 158–160; 2004, 149–151; 2005, 188–191; 2006, 187–190; 2008, 161–162; 2009, 124–125; 2010, 79–81; 2011, 58–59; BOLOHAN *et al.* 2016, 39–40.

[9] BRAUNGART 2014.

[10] URSULESCU 2008, 210–211.

[11] URSULESCU, KOGĂLNICEANU 2007.

complexes was not expected. By small-scale excavations intended to verify the magnetic anomaly, a medium-sized dwelling was identified and partially documented[12]. It appeared as a conglomeration of burnt clay — to the fullest extent, a destruction layer of the dwelling, i.e. the walls crashed following the fire that ended its existence. Except for gathering a few vessels and samples for dating, sporo-polinic and phitoliths analysis, the remnants of the dwelling were preserved for future excavations. Two absolute chronology data obtained for the IIB layer (one on a bone from the dwelling, the other on a bone from a stone structure from the same layer in its vicinity) indicate that the construction was used sometime around 5680 ± 40 B.P. (4618–4446 cal BC) / 5660 ± 40 BP (4592–4438 cal BC)[13].

During the campaign from 2017, a detailed investigation of the whole construction was achieved. By the uncovering and thorough clearing of the dwelling 14 area it was observed that its burned remains occupied a quasi-rectangular surface of about 9 × 7 m (Figures 6–7). Of course, to the periphery of the agglomeration the materials were scarce, which indicated, from the beginning, the fact that the actual dwelling had much smaller dimensions. Although, at first sight, the complex seemed quite well preserved, the research revealed a series of subsequent anthropic interventions that affected its integrity: pits no. 75 and 77 (one in the centre of the dwelling and the other on the NW side, both belonging to the Hallstatt period), pits no. 76 and 78 (affecting the western and, respectively, the northern corners of the dwelling, belonging to Precucuteni culture) (Figure 8); also, although we did not observe any pits, the area of the hearth was severely affected (practically destroyed, only a few small groups of fragments of the hearth's surface were identified, some of them turned face down).

However, a number of very interesting observations were made concerning the building system and the interior architecture of this inhabitation structure. The identification of several post holes after the removal of the debris showed the actual dimensions of the dwelling, which had a rectangular shape (7.2 × 5.1 m), with the long axis orientated WNW–ESE (Figure 8).

Apparently, the dwelling had only one room, being served by a single heating installation — a hearth that was heavily damaged after the arson of the dwelling. The sporadic remains of the hearth (typical groups of strongly burned sandy clay, without organic inclusions) indicate the fact that it was built directly on the ground, near the eastern long flank of the dwelling; it probably had an elongated shape (oval or rectangular), with dimensions of maximum 2 × 1.5 m, with the long axis orientated approximately E–W. The identified fragments did not show any redressing. Two fragments of anthropomorphic statuettes were discovered in the area of the hearth. Most likely, the disturbance of the hearth, along with the pit no. 76 (see below), were part of an abandonment ritual of the house after its destruction.

[12] BOLOHAN *et al.* 2016, 39–40

[13] VORNICU 2017, 192, table 1, figure 2.

The area of the dwelling in front of the hearth (westward) and from the northwest (approximately covering squares 105-108/b-f) had no specific interior features, and the multitude of ceramic shards, fragments of several clay boxes, grinders and fragments of grinders make us believe that various household activities were carried out in this space (Figure 9). Instead, a massive clay platform (Figure 10) set on wooden beams, probably split into two, was set up right next to the hearth toward the southeast. The clay platform was 12–15 cm thick and the impressions of the beams underneath the platform showed a thickness of 8–10 cm (Figure 11); the beams were oriented on the short axis of the dwelling (approximately E–W).

Immediately near the hearth, on the platform, in an area of approximately 1.5 m × 0.8 m (along the eastern side of the dwelling), were observed several prints of parallel planks arranged on the long axis of the dwelling (Figure 12). The placement of this area near the hearth and alongside the dwelling's wall could indicate a place for sleeping (wooden bench). In the eastern corner of the dwelling, on an area of about 2 × 1 m, the clay platform was interrupted, making room for another large grouping of storing vessels and clay boxes; one of the vessels was kept almost entirely *in situ*. During the dismantling, it was observed that the pot was slightly buried (about 10 cm below the ancient inhabitation level — Figure 13). In this case we are probably dealing with a storage area.

Last but not least, in the southern corner of the dwelling, where an obvious elevation of the level of the dwelling could be noticed, another element of internal architecture with uncertain destination was discovered. It is a type of impost (which overlaps the platform directly, and was overlaid by a fallen wall, very heavily burned), with the dimensions of 2.30 × 1.40 m, and about 10 cm thick, oriented on the short axis of the dwelling (Figure 14/a). This internal feature has flat surfaces on both superior and inferior faces, without post prints, branches or other supporting elements, which would indicate the fact that it was modelled directly on the platform of the dwelling (Figure 14/b). We should mention that no artefacts have been discovered on the impost or between it and the platform.

As mentioned above, the exact dimensions of the dwelling have been established after it being dismantled, by identifying several post holes for the wooden structure supporting the walls. 17 post holes were observed alongside the walls of the house, and one inside, approximately in the centre of the short axis; this central post was probably intended to support the roof ridge. The post holes were 20 to 35 cm in diameter, with depths between 40 and 50 cm, and they were placed at least 50 cm apart (Figure 8). The area beneath the dwelling was not excavated in its entirety, so the rest of post holes, as well as the pits no. 77 and 78 (delimited, but only partially investigated) remain to be investigated in the following campaigns.

The artefacts of the dwelling no. 14

Regarding the archaeological materials, inside the house were found typical chalcolithic categories of artefacts: ceramic ware, clay figurines, knapped and polished stone tools, etc.

By far, the most spectacular discovery from the inventory of the dwelling no. 14 is a biconical vessel and its content, discovered in the western corner of the dwelling (square 107 f). During the 2015 test excavations, our attention was drawn by a decorated pot, typical for the second phase of the Precucuteni culture, which survived almost intact to the walls crash (Figure 15/1). Consequently, it was taken together with the soil within for sampling. The biconical vessel has a symmetrical and very careful made decoration realised by incisions and horizontal and oblique grooves; on the maximum diameter it has four conical bulges, each with horizontal unperforated holes (Figure 15/4).

At the time it was broken open in the laboratory (Figure 15/2–3), two objects of burnt clay were discovered inside the biconical vessel: a fragment of a statuette and a small cone. The figurine is rather rare in the context of the Precucuteni anthropomorphic art, through the very suggestive rendering of pregnancy (Figure 15/5). The clay cone has a small hole at the top (Figure 15/6), suggesting that in the past it probably had a clay ball on top, probably fixed by a wooden rod, just like the pieces of the large cult complex discovered in the dwelling no. 1 from Isaiia[14]. Thus, this composite piece, with a mobile head, was very likely a stylized phaloid image, a symbol of masculinity. In association with the female statue, the complex played a role in the ceremonies dedicated to the cult of fertility and fertility. The fact that the statue is fragmented and the cone lacks the clay ball is not accidental, perhaps the ensemble being dismantled after the symbolic "sending" of the "message" towards the divinity, but without losing its ritual significance.

Also, one can note the relatively large number of ceramic vessels, many decorated with incisions, impressions, grooves and excisions. The ceramic assemblage[15] from the dwelling comprises a censer (Figure 16/2), beakers (Figure 16/1), bowls (Figure 16/8), biconical vessels (Figure 16/9), pear-shaped vessels (Figure 16/4), stemmed bowls (Figure 16/6–7), lids (Figure 16/3, 5), large clay boxes (for storage).

Among and under the debris of the house was found also a number of small finds of particular interest: figurines, miniature chairs (thrones), bone objects. Of these, we note a fragment of a feminine figurine, discovered in the close vicinity of the remains of the hearth, whose shape and dimensions do not fit into the Precucutenian “canon”. The statuette had slightly raised and perforated hips, overgrown buttocks decorated with spiral incisions, legs separated by deep incisions ending with bounded feet shaped as an impost (Figure 17/11). Its

[14] URSULESCU, TENCARIU 2006, 46.

[15] The materials mentioned and illustrated here represent only a small part of the ceramics from the dwelling; the rest are still under processing and restoration.

best analogies were found in the Stoicani-Aldeni area, being almost similar to the figurines discovered at Suceveni and Dodești[16]. Other small finds from the dwelling worth mentioning are the figurines (intact or fragmented) typical for the Precucuteni anthropomorphic art (square 106e — Figure 17/1; square 108b [with hexagonal cross section of the neck] — Figure /7; square 109e — Figure 17 /6, square 109c — Figure 17/3). From under the dwelling (the Precucuteni Inferior IIA layer) came a miniature chair with the back rest finished with two small horns and the seat decorated with stitches disposed in a spiral (Figure 17/9) and an intact figurine (Figure 17/2).

The **chipped stone assemblage** discovered in dwelling 14 and its additional features (pit 74 and 76) is typical for the Precucuteni II phase and has the same technological and typological characteristics as the assemblages from other archaeological features in Isaiia[17]. The main raw material for the 64 flint items was procured from the deposits of Cretaceous flint from the Prut River (n = 44), but also from regions far away as the Balkan platform (one item) or the Volhynian platform (five items). For 14 artefacts it is hard to establish their raw material since they are heavily burnt. Technologically speaking, the flint items can be divided as: cores and core maintenance elements (n = 3: Figure 18/1–2), blanks (n = 26 of which nine flakes and 15 blades: Figure 18/3–10), retouched products (n = 25: Figure 18/11–19, 21), debris (n = 8), hammerstones (n = 1) and atypical artefacts (n = 1: Figure 18/20). As typology, the retouched artefacts can be assign to the following classes: endscrapers (n = 15: Figure 18/11–15), sidescrapers (n = 6, Figure 18/16–19), retouched blades (n = 1), atypical retouched pieces (n = 2), trapezes (n = 1: Figure 18/21).

The flint collection discovered in 2017 is similar to the other assemblages from the settlement: low metric characteristics, the preference for ovoid/round flakes as a support for endscrapers and sidescrapers, the presence of cortical items, the high fragmentation of the blades with rectilinear and parallel edges and arises, the low angle of the platform at the round flakes[18].

The polished stone artefacts are represented by three objects with rectilinear active part (Figure 19/2–4), of which two are intact and one is a fragment. To them it can be added the seven querns (some intact, some broken) and three grinders (Figure 19/1).

Four bone artefacts were discovered in the area of the dwelling 14 and its adjacent features: two knucklebones with wear[19] and one perforated phalange (Figure 19/6). Another perforated phalange was discovered in the inferior layer (Figure 19/7).

[16] DRAGOMIR 1983, 98; fig. 48/6–8; 52/3–6

[17] For a detailed view on the chipped stone industry from the site, see VORNICU 2017.

[18] VORNICU 2017.

[19] For the use-wear analysis of other knucklebones from Isaiia, see SIDÉRA, VORNICU 2016, 379–388

Dwelling no. 14: additional features

In the north-western part of the dwelling 14 (squares 106-107/f-g) its remains looked rather thrown in that place, than being *in situ*. The pile of remains was constituted from wall fragments (some vitrified and glued together, by the heavy fire, with ceramic materials), restorable vessels (also with heavy burning traces), and fragments from a clay brim (coming from a hearth) but also some smaller clay objects. The small clay objects from the pile of materials are: an anthropomorphic statuette (Figure 17/4), a fragment from the backrest of a miniature throne (Figure 17/8), a violin-shaped (*en violon)* object (Figure 17/10), an anthropomorphic foot from a vessel. Also, two knucklebones (from a big ruminant) with wear (Figure 19/5) were part of this pile of materials. After the dismantling of this pile of materials (of almost 40 cm height), **pit 76** was observed. Of an almost round shape at its digging level (~ 0.90 m diameter), the pit was widening as got deeper, having a conical shape (1.10 m in diameter at the bottom) and a 0.90 m depth (Figure 20). On the bottom of this feature there was observed a greenish sticky humus that formed as a consequence of the decomposition of the organic matter deposited in the pit. At 10 cm above the bottom, a thick layer of ash (10 cm thick) was deposited. After that, the feature has been gradually filled, on a layer of 50 cm in height with various materials: ceramics, bones, flint artefacts (n = 11: four endscrapers, one sidescraper, two blades, two flakes, one debris). After this, at one moment in the pit were thrown several vessels, broken on the spot. These vessels were also affected by the heavy secondary burning, all of them being deformed.

The violin-shaped object mentioned earlier (length = 67, width = 52, thickness = 5 mm; Figure 17/10) is made of a fine paste, without impurities, and was submitted to a secondary burning (having a rose colour on the outer surface and reddish colour in fresh break). It has no decoration but four perforations made near the extremities. These items are not a rarity in the Precucuteni culture, as they appear in various settlements, in different shapes (more or less stylised), made of materials such as clay, bone, stone or metal[20]. As shape, the one discovered in 2017 at Isaiia has similarities with the clay pendants from another Precucuteni II settlement, east of the Prut River, Florești III[21].

Probably, the pit affecting one side of the dwelling was dug at a moment near after the burning of the house, being filled probably with debris from it. This feature, together with the disarrangement of the hearth, could be guardedly related to a possible ritual of abandonment of the dwelling.

Pit 74 was interpreted as a trash pit for the inhabitants of dwelling 14. It was found at eight meters south from the dwelling, it had a low depth (only 60 cm), but was wide (1.80x1.20

[20] For more on the subject of the violin-shaped (*en violon*) pendants discovered in the Early Chalcolithic sites see MONAH 2012; MAREŞ, URSU, NICULICĂ 2009, 91–106; URSU 2014.

[21] See BODEAN 2001, 48–49.

m in the upper layer and 1.40 × 1.40 m at the bottom: Figure 21). The outline of this feature is pretty irregular, having a biconical shape in cross-section. It was filled with various materials, mainly animal bones (mostly from the *Bos sp.*), *Unio* shells, ceramics, flint artefacts, and a fragment from a miniature foot of a table made from clay. On the bottom of the pit was placed a quern. The rich ceramic material from its filling is represented by fragments of various recipients, out of which one must note two coming from the upper part of two vessels: one of black pottery decorated with incisions and red painting (Figure 16/12) and the other, a light brown fragment decorated with horizontal grooves, of Stoicani-Aldeni influence (Figure 16/11). Also, it must be mentioned the high number of flint items from this feature (n = 37): four sidescrapers, nine endscrapers, eight unretouched blades (fragments), one trapeze, seven flakes, five debris/shatters, one retouched blade, one fragment from a flake core and one tablet for correcting the core platform. One of the side-scrapers is made of Balkan flint[22].

Concluding remarks

Dwelling no. 14 from Isaiia (Early Chalcolithic — the end of phase II of the Precucuteni Culture) is a typical surface dwelling of medium size[23], as is the majority of early Eneolithic buildings. It is a rectangular, single-chambered dwelling, built with vertical structural elements implanted into pits, with a platform made from split trunks covered with clay, realized only on approximately half of the floor. The interior architecture comprises only one fire installation (a hearth), an area for domestic activities and storage (with many vessels and stone grinders), another one only for storage (with at least two large clay boxes) and a clay impost of unknown purpose. In one or more moments after the (probably intentional) burning, several anthropic interventions affected the collapsed dwelling: the dismantling of the hearth, the digging of pits nos. 76 and 78. These deliberate actions can be interpreted, with great caution, as parts of a ritual of abandonment of the dwelling. Also in relation to the ritual behaviour of the denizens, in almost every dwelling from Isaiia, objects and structures of a ritual character were found, arranged especially around the fire installations. It seems that every house had a sacred area, a sort of domestic "shrine" in which every family, beyond the rules imposed by the general canons, practiced individual forms of expressions of devotion to deities, inventing original objects of worship. This is the case also for dwelling no. 14, where the “individualisation” of worship lies in the combination of male and female symbols from the assemblage consisting in a vessel containing a fragment of figurine and a small cone.

[22] Another Balkan flint artefact (an endscraper) was discovered at Isaiia in another pit coming from the same archaeological layer: see VORNICU 2017.

[23] COTIUGĂ 2015, 337, 342.

Acknowledgement: This work was supported by the Partnership in Priority Domains project PN-II-PT-PCCA-2013-4-2234 no. 314/2014 of the Romanian National Research Council, *Non-destructive approaches to complex archaeological sites. An integrated applied research model for cultural heritage management* — arheoinvest.uaic.ro/research/prospect. The archaeological excavations from 2017 were possible thanks to the financial support from the 'Cucuteni for the Third Millennium' Foundation and the "Alexandru Ioan Cuza" University of Iași. We also thank 'Merlin's Vitamin Aqua' representatives for "energizing" the research team.

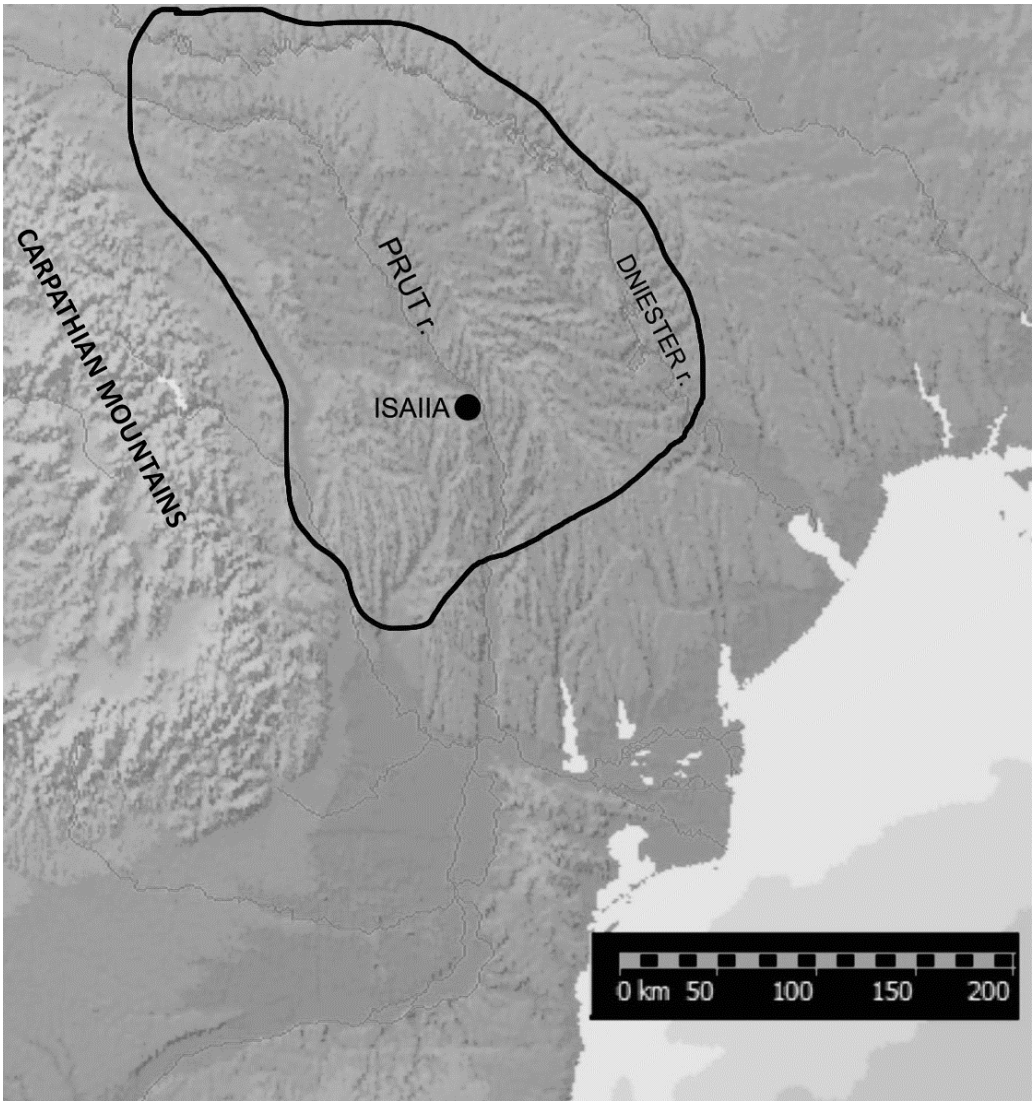

Figure 1. The location of Isaiia–*Balta Popii* site in the area of Precucuteni II – Tripolje A culture (after VORNICU 2017).

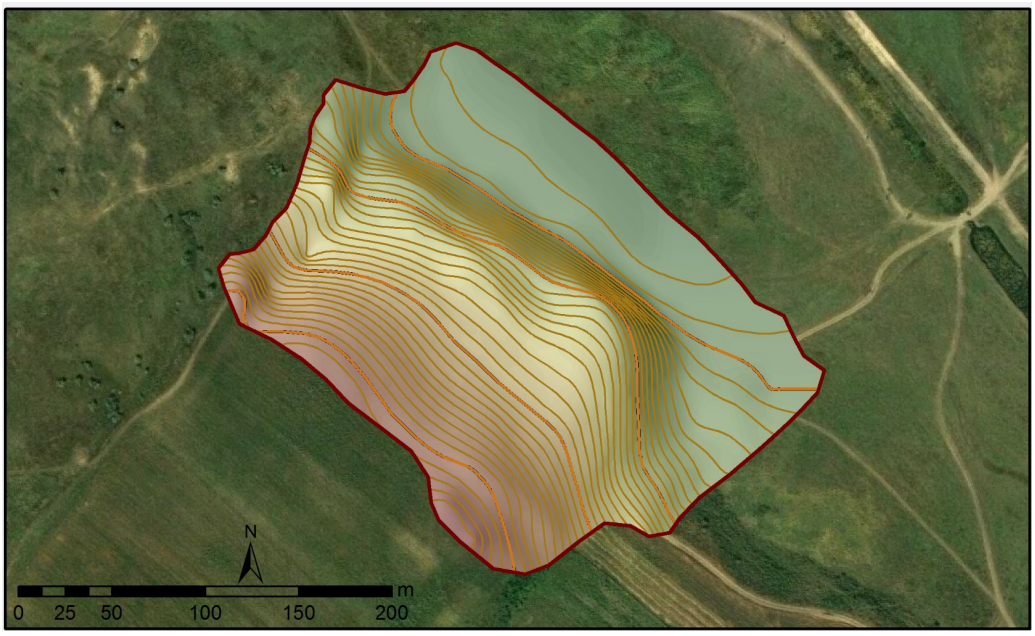

Figure 2. Topographic survey of the Isaiia–*Balta Popii* site.

Figure 3. Aerial image of the Isaiia–*Balta Popii* site (2017).

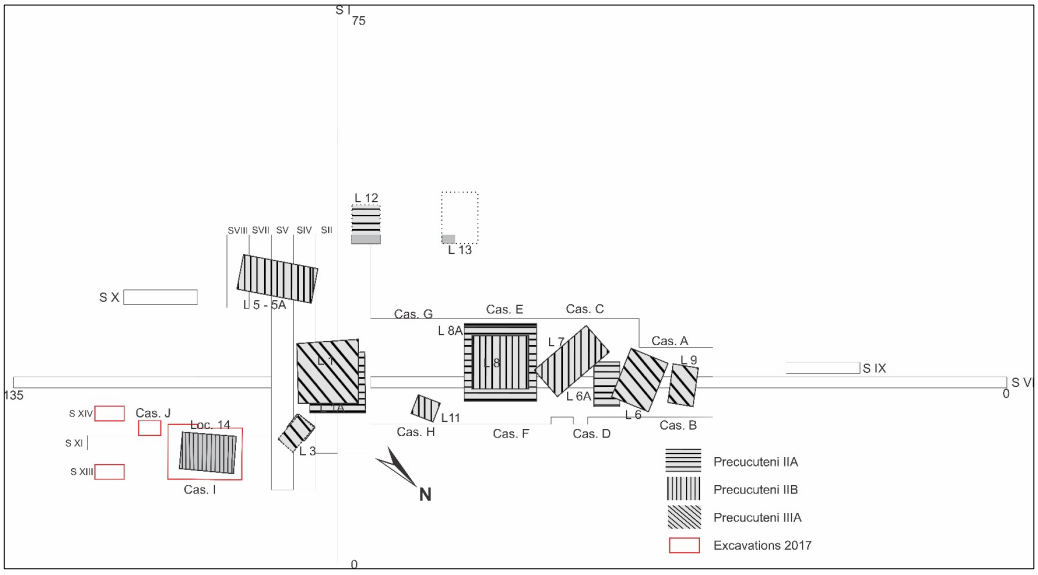

Figure 4. Isaiia–*Balta Popii*. The general plan of excavations (1996–2017).

Figure 5. Isaiia–*Balta Popii*. Magnetometric survey, 2015.

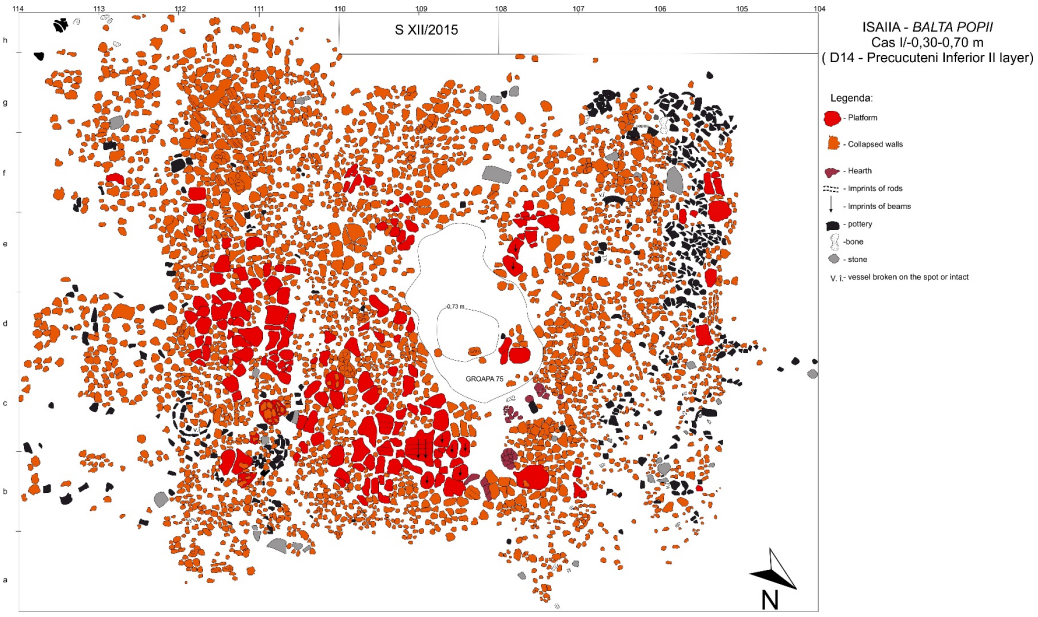

Figure 6. Plan of the dwelling no. 14.

Figure 7. Dwelling no. 14.

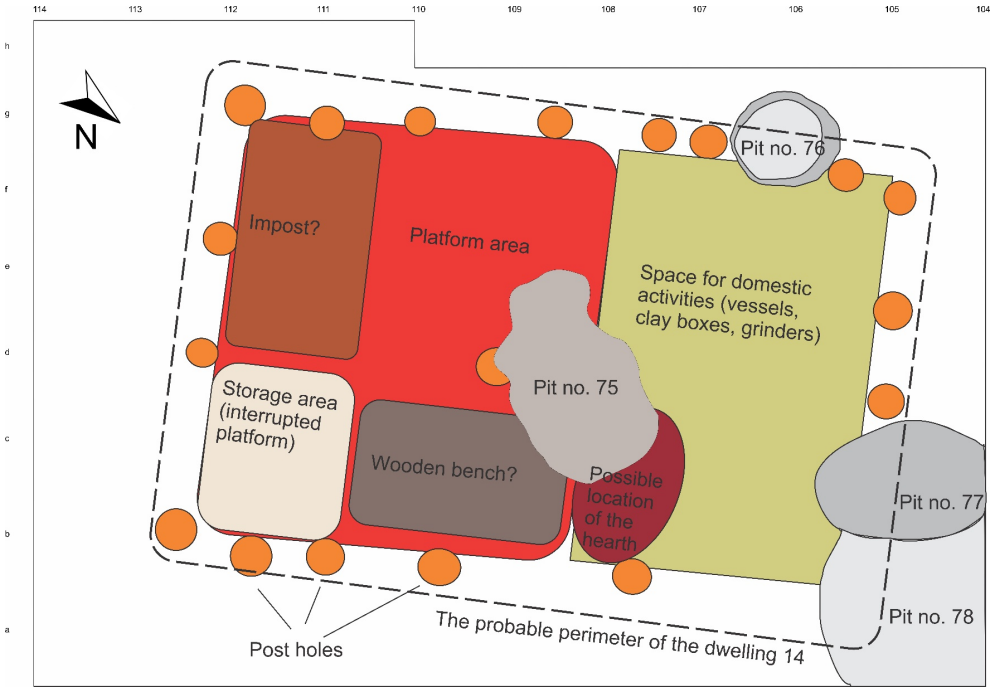

Figure 8. Sketch of the internal architecture and additional features of dwelling no. 14.

Figure 9. Detail of the area for domestic activities.

Figure 10. Image over the area with platform of the dwelling no. 14

Figure 11. Detail of the turned over platform, with imprints of beams.

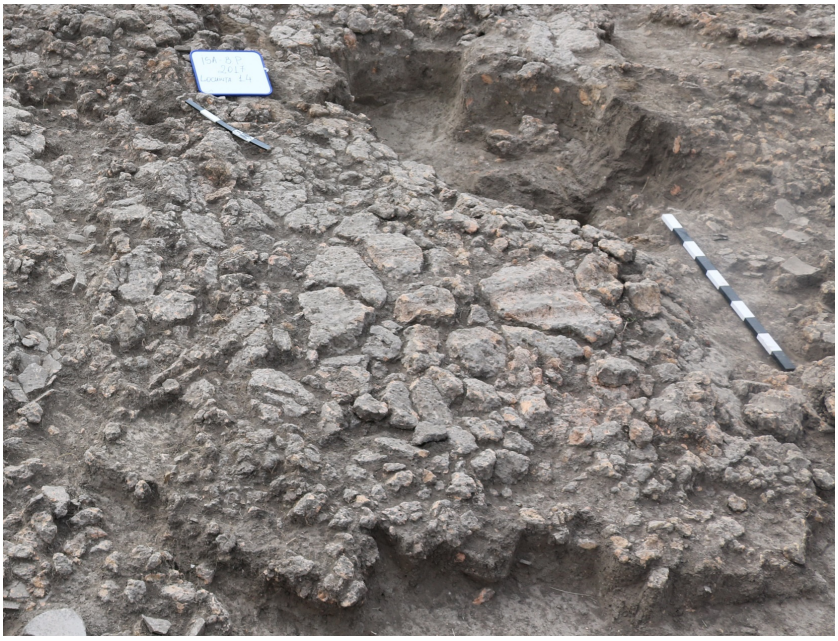

Figure 12. Detail of the platform with imprints of planks (a possible bench).

Figure 13. Detail of the storage area.

a

b

Figure 14. Details of the impost (a) and the platform underneath (b).

Figure 15. The ritual assemblage from dwelling no. 14.

Figure 16. Pottery from dwelling no. 14 and its additional features.

Figure 17. Small finds from dwelling no. 14 and its additional features.

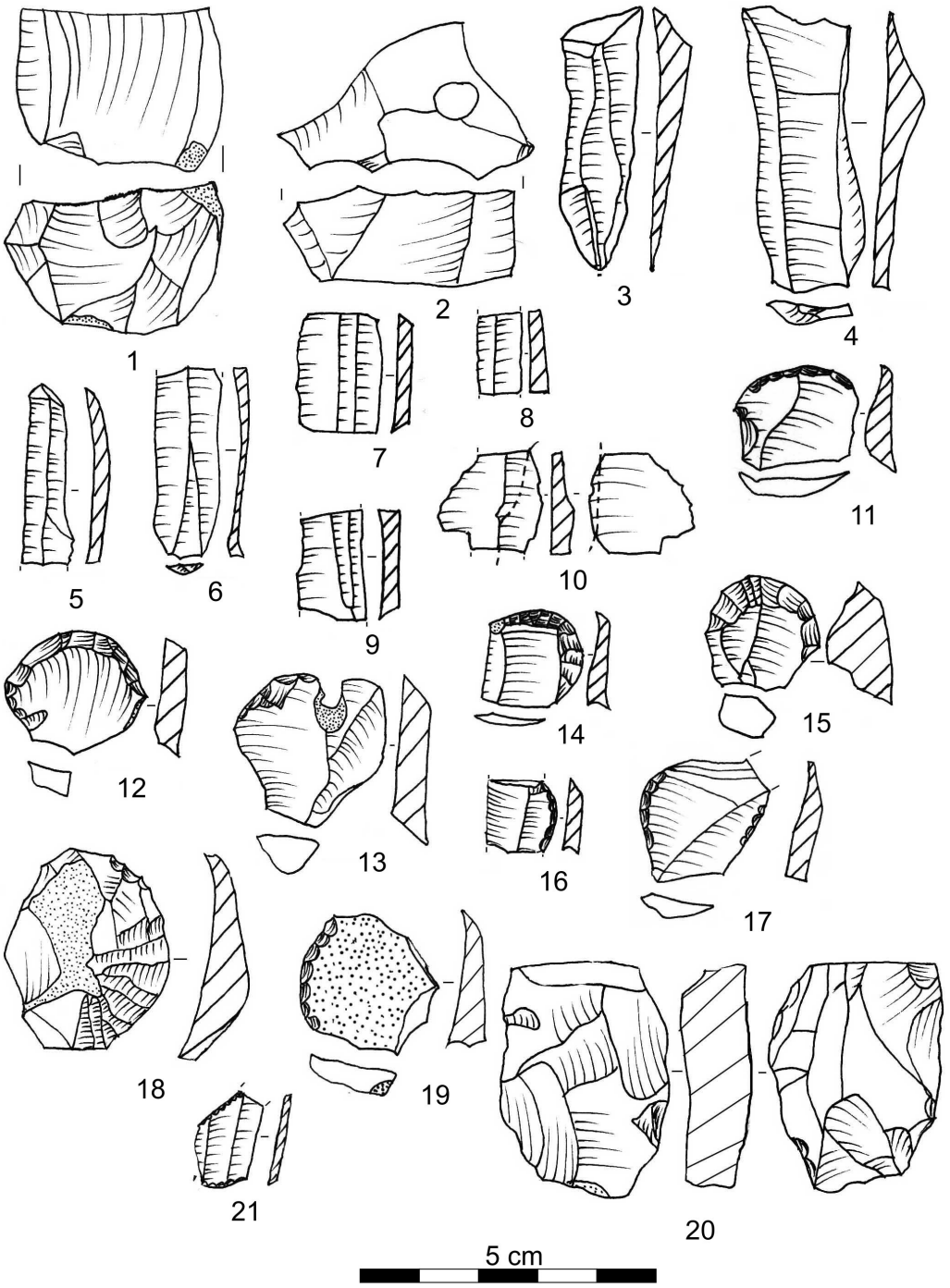

Figure 18. Chipped stone assemblage from dwelling no. 14 and its additional features.

Figure 19. Polished stone and bone artefacts from dwelling no. 14 and its additional features.

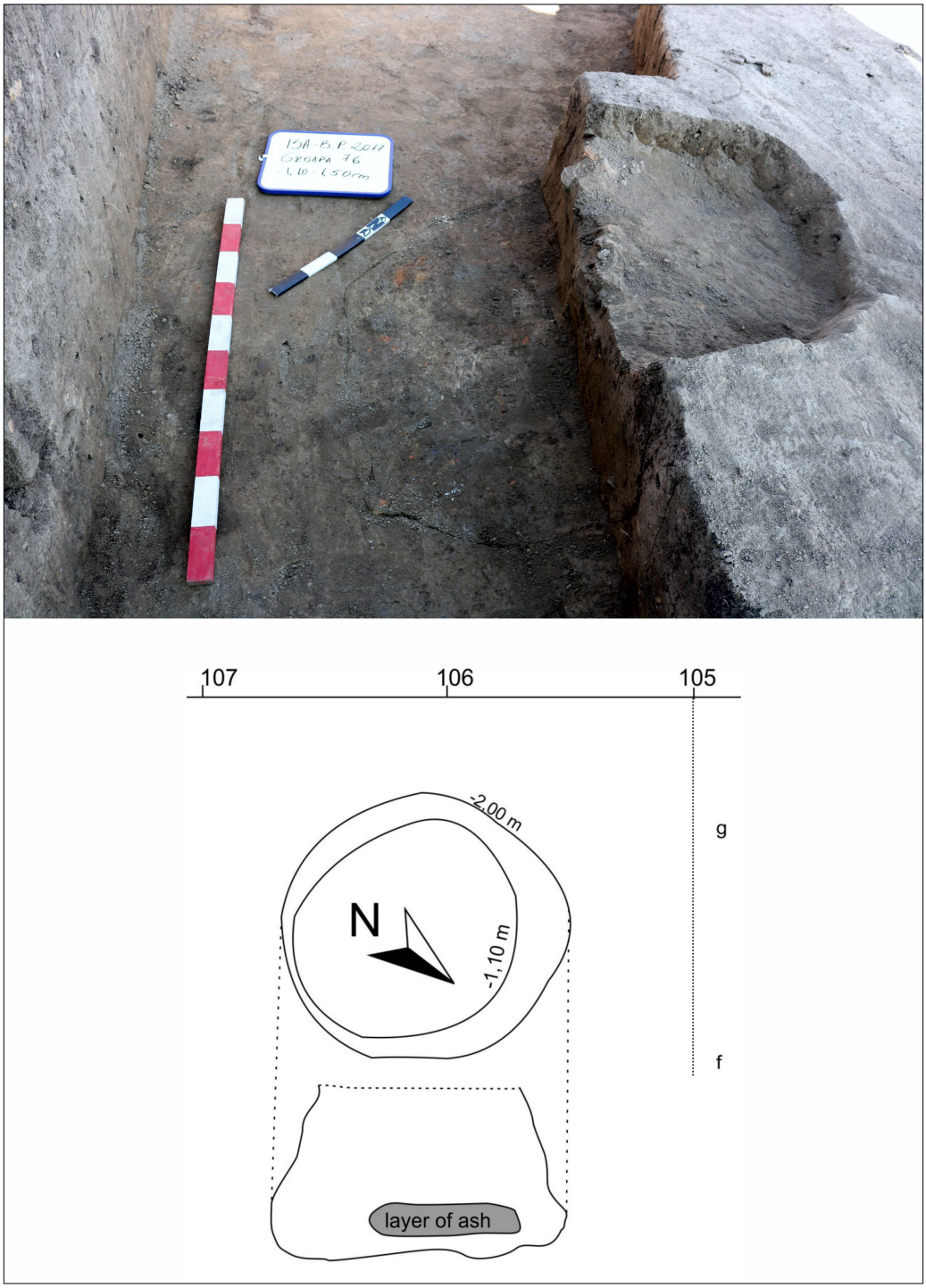

Figure 20. Pit no. 76 from Isaiia–*Balta Popii.*

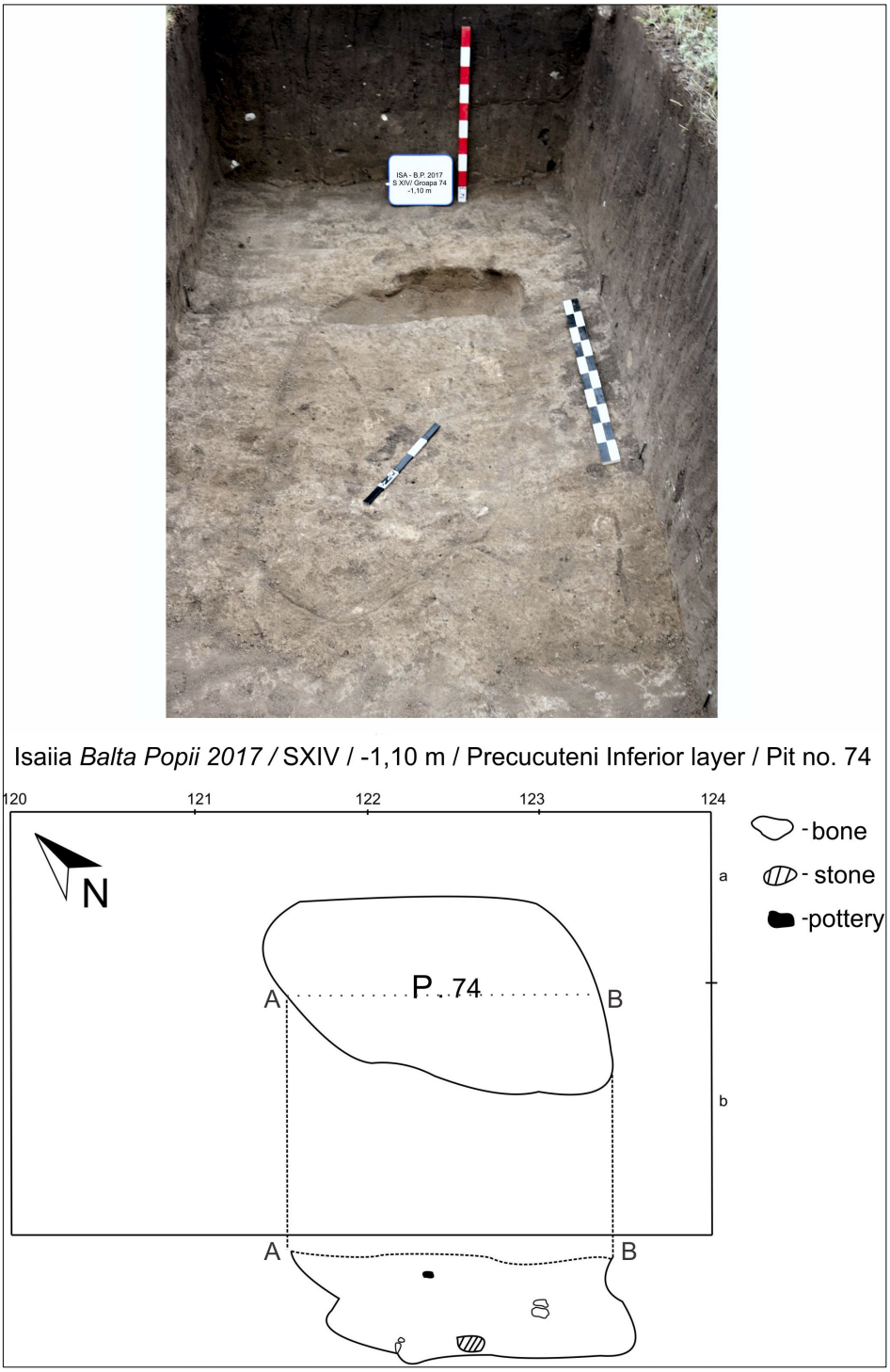

Figure 21. Pit no. 74.

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From antiquities to memorabilia: a standardised terminology for ancestral artefacts according to manufacture date

Policarp HORTOLÀ[1]

Abstract. *An ancestral artefact can be defined as any object of natural raw material made by a people following a lifestyle based on foraging and/or basic agriculture or pastoralism. A problem when cataloguing or reporting a research focused on an ancestral artefact is the absence of a fixed chronological terminology encompassing any age. The issue of terminology of age of objects is especially relevant when a researcher wants to study museum collections. Consequently, putting into practice a standardised terminology for ancestral artefacts according to manufacture date is required to avoid misinterpretations, which can even jeopardise legal actions. In this paper, a standardised terminology is presented for such kinds of original artefacts, from prehistory to the present. Subsidiarily, ancestral peoples have been arranged in concordance with the terminology for ancestral artefacts. While this terminology is centred on ancestral artefacts and is primarily addressed to people engaged in museum specimens—from curators to researchers—it is applicable to other collectable objects and, accordingly, also relevant to tribal-art dealers, antiquarians, and cultural heritage legislators.*

Rezumat. *O problemă în catalogarea sau raportarea unei cercetări axate pe un artefact ancestral este lipsa unei terminologii cronologice fixe care să cuprindă o anumită epocă. Problema terminologiei vârstei obiectelor este deosebit de relevantă atunci când un cercetător dorește să studieze colecții muzeale. În consecință, punerea în practică a unei terminologii standardizate pentru artefactele ancestrale în funcție de data fabricației este necesară pentru a evita interpretările greșite, care pot chiar periclita acțiunile legale. În această lucrare este prezentată o terminologie standardizată pentru astfel de artefacte originale, de la preistorie până în prezent.*

Keywords: material culture, ethnography, archaeology, nomenclature, museum studies.

Introduction

Etymologically, the word 'ancestral' comes from Latin *antecedere*, which means to go before. From this word, several definitions can be made. Ancestral technology should be the material culture—understood as the physical objects of a people whose manufacturing skills

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are transferred from generation to generation—based on natural raw materials. Subsidiarily, an ancestral people can be regarded as that practising an ancestral technology. An ancestral artefact (from the Latin phrase *arte factum*, to make with skill; from *ars*, skill, and *facere*, to make) can be defined as any object of natural raw material (chert, obsidian, wood, bone, native copper, and so on) made by a people following a lifestyle based on foraging (e.g. hunting, gathering) and/or basic agriculture or pastoralism (e.g. horticulture, transhumance).

An example of an ancestral artefact is the bamboo knife used in headhunting by several peoples of New Guinea and Torres Strait Islands[2]. The core elements of this weapon (Marind *sok*, Kiwai *uere*, Western Torres Strait *upi*, Eastern Torres Strait *kwoier*, etc.) were a blade made of a split piece of bamboo and a handle prepared by inserting a piece of wood or fibrous pith into the concavity of the bamboo, both components being fastened together with plaited string knotted at intervals in such a manner as to form zigzags running along the length of the handle. A number of such bamboo beheading knives can be found as forming part of museum collections, for example in the Horniman Museum and Gardens (horniman.ac.uk). Another example is the shell tool employed as a knife, hand-axe, or scraper by the 'Canoe people' of Tierra del Fuego[3]. This artefact (Yahgan *ufker*, Alacaluf *afsaske* [?]) was composed of a blade made of a modified mussel valve, a handle made of a long stone fastened together with hide strip or sinew rope, and a small bunch of shredded wood or a wad of moss inserted between the shell and the stone as cushioning material to prevent blade breakage. Some of these multifunctional shell tools can also be found in museums, for instance in the British Museum (britishmuseum.org).

The peoples owning the type of material culture and lifestyle described above can also be called 'ancestral'. Some examples are the Korowai of Southwest New Guinea, the Xingu of the Amazonian Basin, and the Himba of Southwest Africa. An overview of the latest ancestral peoples can be found elsewhere[4]. Adjectives that have been commonly used to refer to this type of peoples are 'aboriginal', 'indigenous', 'native', 'tribal', and even 'primitive'[5].

An efficient transmission of information is essential in all spheres of knowledge. A problem when cataloguing or reporting research focused on an ancestral artefact is the absence of a fixed chronological terminology encompassing any age. The issue of terminology of age of objects is especially relevant when a researcher wants to study museum collections. Irrespective of the ancestral or non-ancestral ('developed') origin of the object, what words such as 'antique', 'ancient' or simply 'old' denote from the point of view of age is not

[2] HADDON 1901, 115; 1912; MURRAY 1912, 191; VAN BAAL 1966, 313; LAWRENCE 1994.

[3] E.g. LOTHROP 1928, 139–141 & pl. X; GUSINDE 1986 [1937], 475–477; BIRD 1938; 1946; COOPER 1946.

[4] E.g. BOSCH-GIMPERA 1928; WEYER 1959; EVANS-PRITCHARD 1973.

[5] E.g. EVANS 1922; BENEDICT 1932; MEAD 1937; WEYER 1959, 11–38; SOUTHALL 1970 and references therein; GANGULY 1975; HODDER 1977; GROSS *et al.* 1979; LEMONNIER 1986; WRIGHT 1988; SHANKMAN 1991; DUTTON 1993; NIEZEN 2000; KRUPNIK 2002; KUPER 2003; GILANI & ATTA-UR-RAHMAN 2005.

universally agreed. Consequently, these and other terms can designate at once objects differing greatly in manufacture date. Although specifically focused on modern garments, the lack of consensus regarding the particular periods of some terms, such as vintage or antique, has been acknowledged previously by McColl and his collaborators[6]. Referring to archaeological objects, Sullivan and Childs have pointed out that "the identifications made for cataloguing purposes often can be used for very general analyses (e.g., sherd counts)"[7]. Furthermore, as noted by Bourcier and his collaborators[8], "standardized classification and controlled vocabularies greatly facilitate museums' ability to search, use, and share their collections data."

In a previous paper, I proposed a standardised terminology for (non-original, copy) experimental artefacts[9]. Putting into practice a standardised terminology for (original, non-copy) ancestral artefacts according to manufacture date is also required to avoid misinterpretations, which can even jeopardise legal actions[10]. In order to address this concern, in this paper I present a standardised terminology for such kinds of original artefacts, from prehistory to the present.

A terminology for ancestral artefacts according to manufacture date

The proposed terminology, together with a subsidiary arrangement of ancestral peoples in concordance with their artefacts, is provided in Table 1. By way of a case study, examples of application of the proposed terminology to some museum-housed ancestral artefacts are given in Table 2. Apart from Table 1, an at-a-glance timeline for ancestral artefacts according to their date of manufacture is displayed in Figure 1.

Firstly, it must be considered that the concept 'ancestral artefact', as used in this work, is different from that of 'ancestor artefact'. According to Caple[11], "Ancestor artefacts (objects of an earlier period, valued for their age and associations, which are retained into a later period) are normally identified by archaeologists owing to the difference between the date of the object and its context." Here, 'ancestral artefact' is applied to objects of which date and context are coincident.

Regarding antiquities, although placing discrete dates to historically continuous processes can always raise discussions, each ancestral artefact's delimiting date was not

[6] MCCOLL *et al.* 2013.

[7] SULLIVAN, CHILDS 2003, 63.

[8] BOURCIER, DUNN & THE NOMENCLATURE TASK FORCE 2015, xi.

[9] HORTOLÀ 2016.

[10] E.g. ADES 1995 and references therein.

[11] CAPLE 2010.

Table 1. Proposed terminology for ancestral artefacts according to manufacture date. It is not based on local events, but on world (pre)history. Especially for 'exotic' memorabilia, pre- or post-European contact is not taken into account, but only the predominant material culture. The words for peoples are used as adjectives only. Those for artefacts are used, when applicable, as either a noun in the singular form or an adjective. The qualifiers for artefacts are obviously used as adjectives only. The terms of the antiquarian-like lexicon are used as nouns only. AD (*anno Domini*) = CE (current era), BC (before Christ) = BCE (before the current era), *ya* = years ago.

<table>
<tr><th>Ancestral people</th><th>Artefact</th><th>Artefact's qualifier</th><th>Antiquarian-like lexicon</th></tr>
<tr><td rowspan="2">Prehistoric
> 3200 BC</td><td>Primigenial
> 3200 BC
From Latin primus, first, and generare, to create.
Adj, Noun (ex-profeso nominalised adjective) Object manufactured before the first known writings.
E.g. "Aborigine primigenials".</td><td rowspan="3">Ancient
> 100 ya
From Latin ante, before. Adj Relating to an antiquity.
E.g. "an ancient knife".</td><td rowspan="3">Antiquities
> 100 ya
From Latin antiquitates, ancient times, through antiquus, ancient. Noun pl Ensemble of objects manufactured more than a century ago.
E.g. "Aborigine antiquities" would denote the Aborigine objects manufactured more than a century ago.
Sing antiquity.</td></tr>
<tr><td rowspan="2">Ethnohistorical
> 100 ya – 3200 BC</td><td>Archaic
AD 1570 – 3200 BC
From Greek ἀρχαίος, archaios, ancient.
Adj, Noun (ex-profeso nominalised adjective). Object manufactured between the beginnings of globalisation and the first known writings.
E.g. "Aborigine archaics".</td></tr>
<tr><td>Antique
> 100 ya – AD 1571
From Latin antiquus, ancient.
Adj, Noun Object manufactured between more than a century ago and the beginnings of globalisation.
E.g. "Aborigine antiques".</td></tr>
<tr><td rowspan="3">Recent
≤ 100 ya</td><td>Vintage
> 50 – 100 ya
From Latin vindemia, a grape-gathering.
Noun, Adj Object manufactured between more than half a century and a century ago. E.g. "Aborigine vintages".</td><td>Old
> 50 – 100 ya
From Proto-Indo-European *$h_2$eltós, grown, tall, big.
Adj Relating to a vintage.
E.g. "an old knife".</td><td rowspan="3">Memorabilia
≤ 100 ya
From Latin memorabilia, things worth remembering, through meminisse, to remember.
Noun pl Ensemble of objects manufactured a century ago at the most.
E.g. "Aborigine memorabilia" would denote the Aborigine objects manufactured a century ago at the most.
Sing memorabile.</td></tr>
<tr><td rowspan="2">Memento
≤ 1 – 50 ya
From Latin meminisse, to remember.
Noun Object manufactured between 'this year' and half a century ago.
E.g. "Aborigine mementos".</td><td>Aged
1 – 50 ya
From Latin ævum, lifetime.
Adj Relating to a memento manufactured at least a year ago.
E.g. "an aged knife".</td></tr>
<tr><td>New
< 1 ya
From Proto-Indo-European *néwos, of current origin.
Adj Relating to a memento manufactured less than a year ago.
E.g. "a new knife".</td></tr>
</table>

arbitrarily chosen, but selected according to events in world history that reflect changes in material culture. The rationale behind placing a boundary coinciding with the end of prehistory is obvious in that this word entails human history before writing. Concerning the concrete date, in the specialised literature the oldest use of writing is often placed in Mesopotamia at some time in the mid/late 4th millennium BC[12]. When trying to be more accurate, it is traditionally given the date of 3200 BC[13], which falls on the Eanna's archaeological level IVa of the Late Uruk period of Sumer[14]. Because the exact date of the earliest writing is elusive, such a traditional date has been used here as a working hypothesis to make feasible the demarcation of the boundary between primigenial and archaic ancestral artefacts, and between prehistoric and ethnohistorical ancestral peoples as well. Apropos of the term 'archaic', it should be noted that it is used here in the sense of an inclusive stage within the ancestral artefact chronology. Hence, it does not have direct connection with homonymous periods of regional history. Such periods are applied, for instance, to (mesoindian) North America, (early dynastic) Egypt, or (preclassical) Greece[15].

For its part, the meaning of introducing a delimiting date coinciding with the beginnings of globalisation requires a wider explanation. Besides establishing relationships and networks, globalisation involves a flow of cultural elements, for instance goods[16]. Obviously, this flow results in technological changes in ancestral peoples[17]. Such technological changes often mark a turning point in the material culture of these peoples. Bentley suggested that, to identify historical periods from a global point of view, processes of cross-cultural interaction might have some value[18]. Which is the watershed that best appoints the beginnings of globalisation is difficult to decide. Because there are several different perspectives on this issue, that moment can arguably be placed on very diverse times, as a function of the characteristics that are required to be highlighted. Thus, these beginnings can be located at points ranging from the late Pleistocene, when our ancestors walked out of Africa, to late 2007, when the current Great Recession was triggered[19]. According to Strayer, the beginnings of genuine globalisation can be traced back to the early modern era, and the clearest expression of such globalisation "lay in the oceanic journeys of European explorers and the European conquest and colonial settlement of the Americas[20]." Following this view, the beginnings of globalisation would fall on the so-called Age of Discovery, encompassing

[12] E.g. GLASSNER 2003; COOPER 2004.

[13] WOODS 2015.

[14] NISSEN, DAMERO, ENGLUND 1993, 4–7.

[15] E.g. FORREST 1991; FORBIS 1992; WILKINSON 1999, 50; ADAIR 2003; SHAPIRO 2007; THOMPSON 2008, 19.

[16] BERRY 2008.

[17] E.g. GALKE 2004; BAYMAN 2009.

[18] BENTLEY 1996.

[19] RITZER 2011, 17–22 and references therein.

[20] STRAYER 2012, 611.

landmarks such as Christopher Columbus' arrival to America in 1492, Vasco da Gama's arrival to India in 1498, or the completion of Earth's circumnavigation by Ferdinand Magellan's expedition in 1522. According to McKay *et al.* "By 1550 the European search for better access to Asian trade goods had led to a new overseas empire in the Indian Ocean and the accidental discovery of the Western Hemisphere. With this discovery South and North America were soon drawn into an international network of trade centres and political empires, which Europeans came to dominate. The era of globalization had begun, creating new political systems and forms of economic exchange as well as cultural assimilation, conversion, and resistance. Europeans sought to impose their values on the peoples they encountered while struggling to comprehend these peoples' societies. The Age of Discovery from 1450 to 1600, as the time of these encounters is known, laid the foundations for the modern world"[21]. As said by Green, "There may have been common experiences within each of the hemispheres; but, prior to 1492, history at its grandest level could only be hemispheric. A completely integrated world history is only possible after the hemispheres were in permanent contact"[22], as well as "Ideally, all periodization should be rooted in disciplined concepts of continuity and change." During European expansion in the 16th century, the impact was not equally distributed, with some cultures persisting with little change in the slow evolution of their artefacts without interference until well into the 18th century, while many indigenous cultures in the Americas experienced very violent perturbations. As long as is known, the sole precise date for the beginnings of globalisation has been suggested by Flynn and Giráldez, who stated "The birth of globalization occurred in 1571, the year that Manila was founded as a Spanish *entrepôt* connecting Asia and the Americas via the Manila Galleons route"[23]. In the absence, in the specialised literature, of other precise date suggested for the beginnings of globalisation, this year has been used in this work to place the frontier between archaic and antique ancestral artefacts.

Regarding *memorabilia*, it is particularly complex to decide which terminology and artefacts' qualifiers are the most useful. Thus, there is no chronological range for some nouns mainly coming from the tourism business and sport collecting, and for adjectives of generalised use. Two examples are the noun 'memento' ("an object kept as a reminder of an event, person, etc."[24]) and the adjective 'old' ("made or built long ago"[25]). Moreover, it must be borne in mind that the concrete intra-memorabilia dates shift relative to the contemporary date. Thus, the assignation of a memorable to one or other category will

[21] MCKAY *et al.* 2015, 457.

[22] GREEN 1995.

[23] FLYNN, GIRÁLDEZ 2002.

[24] STEINMETZ 2008, 146.

[25] STEVENSON 2010, 1235.

Table 2. Examples of application of the proposed terminology to some museum-housed ancestral artefacts.
AD (*anno Domini*) = CE (current era); BC (before Christ) = BCE (before the current era);
BM = British Museum (britishmuseum.org); NMAI = National Museum of the American Indian (nmai.si.edu).

Museum	Catalogue number	Artefact type	Material	People or culture	Associated place	Manufacture date	Proposed term
BM	2015,2003.1	Club	Wood	Maasai	Narok Town (Rift Valley, Kenya)	2010 (Ole Esho, producer)	Memento
BM	Oc1934,0316.4	Shield	Wood, natural pigments	Asmat	Eilanden or Kampong river area (Papua, Indonesia)	1929 (collected)	Vintage
NMAI	20/6703	Spear head	Bone	Yahgan	Isla Grande de Tierra del Fuego (Argentina and Chile)	1825 (circa)	Antique
NMAI	15/2291	Harpoon head	Bone, hair	Thule (attributed)	Pond Inlet (Nunavut, Canada)	AD 1100–1300	Archaic
NMAI	21/9672	Arrow head	Stone	Clovis (attributed)	Wellington (Ohio, USA)	10,000–8000 BC	Primigenial

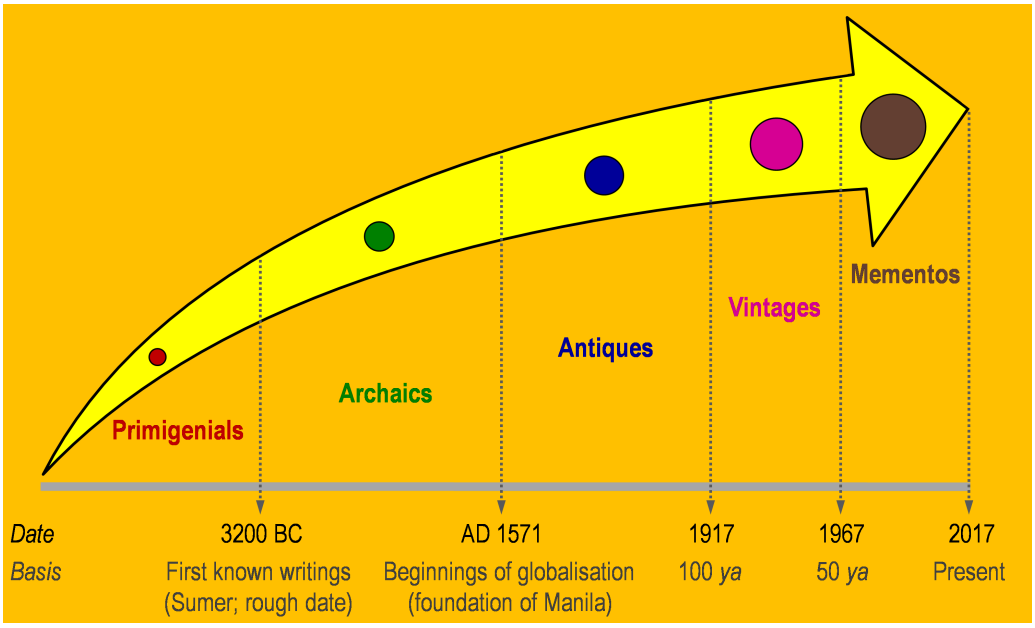

Figure 1. Timeline for ancestral artefacts according to their date of manufacture.
The concrete intra-memorabilia date limits vary in function of the current year (here referred to 2017).
AD (*anno Domini*) = CE (current era), BC (before Christ) = BCE (before the current era), ***ya*** = years ago.

change as time elapses. The rationale behind placing a boundary coinciding with 100 years ago is that this interval of time is usually taken to discriminate antiques from 'modern' objects. Thus, in the American trade administration, to qualify an article as an 'antique' it is required that it be "over 100 years of age at the time of importation"[26]. On the other hand, in the absence of known specialised literature providing a unambiguous criterion concerning the temporal scope of the terms 'vintage' and 'memento'[27], their delimiting date has been placed at 50 years ago because it represents the half of the time span of memorabilia as defined in this work (Figure 1).

Some terms in common use have been demonstrated to be inappropriate for this framework because they are not related to originals, but to copy items. Thus, 'retro'—used together with given goods such as garments, cars, or toys—only denotes the style, fashion or design that is a mere copy of one of the recent past. By the same token, the term 'souvenir' (from Latin *subvenire*, to come to mind), which is occasionally equated to or differentiated from a memento[28], has been avoided. The ground of such avoiding is that it refers to objects that, even if they are 'authentic' as defined by Hampp and Schwan[29], their real age—from just some days to a few years—is very difficult to know.

Regarding the proposed classification of ancestral peoples, as expected they have been arranged according to their artefacts, generating three chronological groups: (1) those whose objects would match with 'primigenials', (2) those whose objects would match with either 'archaics' or 'antiques', and (3) those whose objects would match with either 'vintages' or 'mementos'. Following this criterion, some examples of ancestral peoples would be the prehistoric Clovis Palaeoindians (North America) and Pavlovian 'mammoth hunters' (Central and Eastern Europe), the ethnohistorical Guanches (Canary islands) and Yahgan (Tierra del Fuego), and the recent Maasai (East Africa) and Dani (New Guinea Highlands)[30]. This concept of 'ancestral peoples' should be irrespective of the occurrence of some level of cultural and/or genetic admixture, or migrations from the original geographic setting, as has occurred with the Maasai pastoralists and the Negrito hunter-gatherers[31]. It is worth noting that, although according to Latorre and Farrell (2014) "the concepts of 'ancestrality' and 'peoplehood' are often associated with claims to indigenous territorial rights", this aspect goes beyond the conceptual limits of this work.

Finally, it should be borne in mind that, in the context of this work, the term 'ancestral' must not be perceived as something with negative implications. It simply denotes the transfer

[26] U.S. CUSTOMS AND BORDER PROTECTION 2006, 14.

[27] E.g. STEINMETZ 2008, 146; STEVENSON 2010, 1982.

[28] STEINMETZ 2008, 146; WILKINS 2011.

[29] HAMPP, SCHWANN 2014 and references therein.

[30] E.g. HODGKIN 1848; SOFFER 1993; ZELEZA 1994; HAMPTON 1999; CHAPMAN 2010; SMALLWOOD 2014.

[31] E.g. WALLER 1985; HEADLAND & REID 1989; EHRET 2010; HIGHAM 2013.

of a category of skills from one generation to the next one. Although this kind of transfer is usually linked to the word 'traditional', here this term has been deliberately avoided because it can also be applied to complex societies such as those of the Mesopotamian, Egyptian, Indus, and Chinese first civilizations.

Concluding remarks

Because a pre-arranged lexicon for ancestral artefacts according to their date of manufacture has not yet been fixed, in this work a five-term framework of chronological categories' terminology for such kind of original artefacts has been presented. The intended purpose is that this temporal classification be applied to any ancestral object—bearing in mind 'ancestral' as used here—from any time up to the present, irrespective of cultural origin.

In this work, contemporary age and date conventions are considered in a global economy. The primary focus is on a taxonomy of dating specimens that are more recent as a post-globalisation strategy for recognising ways of considering material culture from the past half millennium. Of the whole categorisation, the three more recent categories are most likely to be negotiable in a global context, while the first and second terms are considered something that defers to other areas of scholarship rather than an actual dating strategy. Concerning this post-globalisation interval, these three more recent categories are considered sufficient for classifying ethnographic or archaeological objects in a useful manner.

The issue of standardised vocabularies is useful for managing museum collections, and such a lexicon represents a user-friendly approach to objects of value to cultural heritage studies, by establishing a shared language among museum professionals and researchers. Obviously, the development of lexicons is tied to theoretical thought, cultural assumptions, and exigencies of practice.

While this terminology is centred on ancestral artefacts and is primarily addressed to people engaged in museum specimens—from curators to researchers—it is applicable to other collectable objects and, accordingly, also relevant to tribal-art dealers, antiquarians, and cultural heritage legislators.

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Diagenetic analysis and historical interpretations. Case studies from eastern Romania

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Abstract. *Interdisciplinary investigations of the human osteological remains help us to understand the genetic diversity, the mobility or the paleodiet of the past communities and offer us insights on the diagenetic processes. The present study aims to assess the results of chemical, mineralogical and microscopic analyses performed on different human osteological remains selected from archaeological sites situated in Eastern Romania in order to understand the diagenetic transformations involved in the site formation processes and to estimate their influence on the historical interpretation.*

Rezumat. *Analiza interdisciplinară a fragmentelor osteologice umane contribuie la înțelegerea diversității genetice, a mobilității și paleodietei comunităților din trecut, dar și la evidențierea proceselor diagenetice care au afectat structura materialului osteologic. Studiul prezent își propune să integreze date privind compoziția chimică, mineralogică și structurală a unor fragmente osteologice selectate din situri arheologice ce provin din estul României pentru înțelegerea proceselor diagenetice care au afectat formarea siturilor arheologice și modul în care acestea influențează reconstituirea istorică.*

Keywords: diagenetic parameters, eastern Romania, human bones, ATR-FTIR analysis, SEM-EDX analysis.

Introduction

The transformations which affect the human bones in the burial environment are of archaeological, paleontological and forensic interest. The preservation of the bone can be estimated by measuring the so-called *diagenetic parameters*. Understanding the mechanisms, which control the bone diagenesis, is very useful for gaining insights into how the

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archaeological and taphonomic record was formed[6]. One of the key issues in the bone diagenetic studies over the last twenty years was represented by the enquiries into understanding its bio-molecular preservation, especially, for predicting DNA survival[7]. In addition, we regularly use chemical indicators (trace elemental compositions, stable and radioactive isotopes) as a key source of information for dating, climatic reconstructions, identifying past diet and mobility. For this, we must be able to distinguish if we are measuring the original composition and trace the degree of alteration and the extent to which modifies the proxy indicators we are targeting[8]. Another area where diagenetic investigations can offer valuable information is in initiating long-term preservation strategies for archaeological heritage[9].

Bone structure varies according to the length of scale at which the structure is examined. Bone is thus a hierarchically organized material. Understanding structure is the key to better understanding diagenesis and the information embedded in the structure[10].

The basic constituents are mineral, organic matter (the *organic matrix*) and water. The relative proportions of these constituents can vary considerably between bones. The mineral phase of the bone is represented by the carbonate hydroxylapatite [$Ca_{10}(PO_4,CO_3)_6OH)_2$] which can be described as a more deformed version of the geogenic mineral hydroxylapatite, having some of the initial carbonates replaced by the phosphates. The average mineral content of a particular bone is under strict biological control. Most bones have mineral contents that range from 60 to 70 weight percent. Furthermore, the mineral phase continues to form after it is initially deposited. The forming mineral phase replaces some of the water in the material. During diagenesis, the mineral crystals of bone increase in size and in the atomic order[11].

The organic phase of the modern bone usually constitutes about 20 % by weight of the material. The major constituent (about 90 % by weight) is the protein type I collagen. In fact, type I collagen is the most abundant protein in the vertebrates[12]. Collagen is composed of polymers of amino acids and therefore comprises hydrogen, nitrogen, oxygen and carbon atoms. The carbon and nitrogen content from the collagen and the strontium may be substituted for calcium in the inorganic portion of the bone which influences the content of the isotopic analysis based on which the archaeologists are trying to reconstruct past paleodiet or migration pathways. Carbon has several isotopes in nature, and these are incorporated into the collagen and bone mineral fraction in ratios determined by the food source utilized by the organism. The nitrogen content, also, is dependent on the trophic

[6] WEINER 2010.

[7] For further details see TĂTAR *et alii* 2014.

[8] ZAZZO 2014; PESTLE *et alii* 2014; SZOSTEK 2009; GRUPE *et alii* 2002.

[9] SMITH *et alii* 2007; NIELSEN-MARSH *et alii* 2007.

[10] WEINER 2010, 102.

[11] WEINER 2010, 87.

[12] KEENAN 2016, 1945.

chain. Strontium isotopic ratios preserved in bone are dependent on the age and on the chemical composition of the underlying rock and are therefore a strong indicator for the geographic origin[13].

Collagen loss can be the result of enzymatic hydrolysis promoted by collagenase activity, creating pathways that facilitate microbial invasion. Microbial attack in specific areas produces focal microscopic destruction, during which collagen loss follow bone demineralization, leading to reduction in bone strength. The extent of these changes can vary dramatically depending on the time and conditions of burial. They are especially influenced by factors such as humidity, pH and temperature. While physico-chemical deterioration is accelerated by extreme pH or high temperature, microbial activity is optimized in conditions close to neutral pH[14].

The remaining 10% by weight of the organic matrix of bone is a complex assemblage of other proteins, proteoglycans (proteins associated with polysaccharide chains), and various lipids. Among the noncollagenous proteins (NCPs) is a group of relatively acidic proteins that are thought to play a direct role in mineralization. After type I collagen, the second most abundant protein is osteocalcin (also referred to as bone Gla protein). It is important to note that some of these proteins (including osteocalcin, but excluding collagen) are intimately associated with the mineral phase and cannot be extracted, unless the mineral phase is dissolved. This has important ramifications with regard to diagenesis, where the mineral phase apparently affords such proteins relative protection from breakdown[15].

Bone diagenesis or bone decomposition is considered to consist in dissolution, precipitation, mineral replacement and recrystallization[16]. Bone diagenesis in soil is characterized by destruction of histological integrity, alteration in bone porosity and mineral crystallinity, and loss of protein content[17].

The analysis of the diagenetic processes was initiated as a consequence of the initial enthusiasm registered during the `80s for the use of trace elements content for paleodiet reconstruction[18]. Contamination of bone in the ground takes both physical and chemical forms. The infiltration by foreign materials of the bone tissue is caused by its highly porous structure. Mainly, the contaminants can occur because of precipitation from groundwater (calcium can be introduced through precipitation from groundwater) or as physical incorporation of materials into the bone structure (quartz can be added as solid grains but,

[13] KING *et alii* 2011, 2222.

[14] MELLO *et alii* 2017 with references therein.

[15] WEINER 2010, 105.

[16] KEENAN 2016, 1943–1944 with references therein.

[17] NIELSEN-MARSH, HEDGES 2000.

[18] Lately on, most of the authors agreed that dietary studies should be based on isotope analysis, since the trace element contents of prehistoric bones is highly variable and subject to diagenesis (For details see BURTON, DOUGLAS PRICE 2002, 159–167).

also, rootles or fragments of charcoal)[19]. Elemental distribution tends to vary in an unpredictable manner within individual sections and from one bone to another. These variations are recognized to be caused by the diagenetic alterations, but it is difficult to estimate accurately the potential influencing factors found within the soil composition. However, soil chemistry must to some degree control the floras present which makes essential the evaluation of as many aspects of soil chemistry[20].

Bones registering high values for the *diagenetic parameters* have reduced amounts of collagen and reduced histological index and increased crystallinity, which is caused by the transformation of bioapatite into the more thermodynamically stable apatite[21].

Different techniques have been applied to human osteological remains in order to characterize taphonomic alterations, evaluate preservation states and understand diagenetic alterations. Spatially worked out analyses of the molecular and structural composition of bones, which offers a glimpse into the wide heterogeneity of composition and complex hierarchical structure of bones were applied to ancient material[22]. The chemical composition, the degree of crystallinity and of organic content is widely estimated by using Fourier Transform Infrared Spectroscopy (FTIR) applied to bulk samples. Recently, Attenuated Total Reflection–Fourier Transform Infrared Spectroscopy (ATR-FTIR) mode has been used for assessing both qualitative and quantitative information on ancient human bones and for estimating the diagenetic transformations[23]. The main benefits of using FTIR spectroscopy in ATR mode resides in the minimal sample preparation ensuring faster analysis of the inner and outer side of the sample and reducing the influence of sample preparation on the results, although there are some constraints on the size and shape of the sample.

Due to the changes in bone structure after death (even after a very short period), including the secondary infiltrations of remineralization, microscopic study is essential to understand this wide range of transformations[24].

The groundwater and soil may introduce elements, which are included in different ways into the bone structure. They may reside in pores, voids or microcracks in the bone matrix, form complexes with the organic component, adsorb onto the surface of hydroxyapatite matrix and hence may be transported into the bone structure via diffusion processes by ionic

[19] DOUGLAS PRICE *et alii* 1992, 514.

[20] The ion exchange process registered in different soil types is an important aspect for understanding the whole diagenetic process starting from dissolution to recrystallization. For further details see BELL 1990, 86–87 with references therein.

[21] SMITH *et alii* 2005, 107.

[22] HOLLUND *et alii* 2012; LEBON *et alii* 2014; DAL SASSO *et alii* 2016.

[23] DAL SASSO *et alii* 2016, 169 with references therein.

[24] BELL 1990, 85–100.

exchange[25]. For an accurate estimation of elemental concentrations spot chemical analysis are necessary.

After describing the human bones sampled, the methods we have chosen to measure the selected parameters, we explain briefly the significance of the defied diagenetic parameters, and summarize the results obtained. The relationship between diagenetic parameters and the possibility to use them for extracting different types of historical information are then discussed.

Materials and methods

Archaeological human bones samples were selected from a larger database of material collected from a number of sites, which were selected for DNA analysis throughout the project *Genetic Evolution: New Evidences for the Study of Interconnected Structures. A Biomolecular Journey around the Carpathians from Ancient to Medieval Times* (GENESIS).

The samples were selected from a variety of different burial contexts from eastern Romania. The age of the human bones elected for this study ranges from c. 4100 BC to 10th century AD. The site location is presented in Figure 1 while the number of samples from each site and the archaeological contexts are given in Table 1.

Figure 1. The location of the archaeological sites from where the bone samples were selected.

[25] CARVALHO, MARQUES 2008, 32 with references therein.

Table 1. The identification, location and chronology of the analysed human bone samples.

No.	ID	Archaeological site	Archaeological context	Chronology
1	S22	Vorniceni (Botoșani)	A ritual pit (Pit 40) containing a disarticulated human bone identified in section S22 (▼1.10–▼3.10m)	4100–3800 BC
2	PM1	Popeni (Vaslui)	Half of a *tumulus* containing a woven structure (4.90 × 2.90m), the remnants of a wooden structure, a burial pit, two lumps of ochre and the anthropological remains of an adult (▼3 m)	2800–2500 BC
3	T72	Tarnița (Bacău)	Single flat grave containing a flexed human skeleton and two vessels identified in S IV (▼0.30–▼0.80m)	1400–1150 BC
4	M15	Isaiia (Iași)	Grave M15 of the Sarmatian *necropolis* was identified in 2003 in the southern part of L8 (▼1.80m)	1st–2nd century AD
5	M13	Isaiia (Iași)	Grave M13 of the Sarmatian *necropolis* was identified in 2003 in the southern part of L8 (▼1.75m)	1st–2nd century AD
6	M18	Isaiia (Iași)	Grave M18 of the Sarmatian *necropolis* was identified in 2004 in the southern part of L8	1st–2nd century AD
7	M1	Capidava (Constanța)	Grave M1 was identified in 2010 in section X *extramuros* (▼0.80m)	10th century AD
8	M3	Capidava (Constanța)	Grave M3 was identified in 2010 in section X *extramuros* (▼0.90m)	10th century AD
9	M4	Capidava (Constanța)	Grave M4 was identified in 2010 in section X *extramuros* (▼0.95m)	10th century AD

Sample S22 was selected from the archaeological site located at Vorniceni village (commune Vorniceni, Botoșani county) (Figure 1) which is situated on the terraces belonging to the Jijia river basins. The human remains discovered at Vorniceni (Botoșani county) are represented by 12 disarticulated bones that were identified in different ritual pits, which contains large amounts of richly decorated pottery, and animal bones[26]. The human bones were attributed based on the associated artefacts identified in the pits to the Cucuteni A-B communities. The human bone which was sampled for diagenetic and aDNA analysis was classified based on the anthropological analysis as being a long bone (femur) coming from an adult male, age 40[27].

[26] DIACONESCU 2012, 18–20.

[27] Identification done by G. Miu, according to DIACONESCU 2012, 19.

Sample PM1 comes from a skeleton identified in a western half of a tumulus partially explored in a recently rescue excavation in Popeni (Găgești commune, Vaslui county) (Figure 1) within the Elan basin[28]. The kept half of the tumulus covers a funerary structure, which contains a human skeleton in a left crunched position. The left hand was flexed with the palm at the skull level while the right hand was slightly lodged in the pelvis area and the legs were strongly bent on the left side[29]. The tumulus is located at the western extension of the Yamnaya burial barrow groups (Early Bronze Age) which are noticeable even nowadays in the area. The osteological remains were in a very poor state of preservation and the sample for diagenetic analysis was selected from the femur.

The osteological remains from where the T72 sample was selected belong to a funerary context located in the Tarnița village (Onceşti commune, Bacău county) (Figure 1) which consists in a pit containing a human skeleton in a left supine position. The left hand was flexed and sustains the skull while the right hand was slightly embedded on the pelvis and the legs were strongly flexed on the left side. Based on the associated grave goods (two pottery vessels) the funerary remains were attributed to the Late Bronze Age Noua culture from the eastern part of the Siret basin[30]. The osteological remains were in a poor state of preservation and the samples for the aDNA[31] and for diagenetic analysis were taken from the humerus.

Samples M13, M15 and M18 were taken from the Sarmatian necropolis identified in the Isaiia village (Răducăneni commune, Iași county) (Figure 1) located on the lower terraces of the Prut river[32]. The human bones from M13 belong to a young woman (age 25–30) being relatively well preserved. As grave goods, glass beads and a bone pendant are present[33]. M15 represents the richest grave, which includes the badly preserved remains of an old woman (age 60–65). The rich funerary inventory consists in glass beads, amber and lapis lazuli beads, a spindle whorl, an iron fibula and a bronze mirror[34]. M18 contains the remains of an adult woman (age 40–45) buried with no grave goods. The human remains buried in M18 are in a very poor state of preservation[35]. For M8, M13, M15 the bone sample for diagenetic analysis was taken from the humerus, while for M18 the femur bone was selected.

The human bone fragments M1, M3 and M4 come from the Middle Age necropolis identified at Capidava (Topalu commune, Constanța county) (Figure 1) which is situated on one of the Danube terraces (B terrace). The osteological remains identified in M1 were in a supine position with the hands assigned on the pelvis. Based on the anthropological analysis,

[28] BOLOHAN *et alii* 2014, 235.

[29] BOLOHAN *et alii* 2015, 348.

[30] ANTONESCU 1976, 39.

[31] GORGAN *et alii* 2016.

[32] URSULESCU, KOGĂLNICEANU 2002-2004, 27–59.

[33] URSULESCU, KOGĂLNICEANU 2002-2004, 33.

[34] URSULESCU, KOGĂLNICEANU 2002-2004, 34–35.

[35] cronica.cimec.ro/detaliu.asp?k=3148&d=Isaiia-Raducaneni-Iasi-Balta-Popii-2004.

the remains belong to a female (age 40–45) buried without any grave goods. M3 contains a skeleton in a supine position with his hands upon his chest attributed to a woman (age 40–45). As grave goods, a bronze ring decorated with a pentagram was found. The human remains discovered in M4 belong to a young male (age 30) and has a bronze hoop earring and two bronze button pendants as grave goods[36]. The human remains found in M1, M3 and M4 were in a good state of preservation and the samples for diagenetic analysis were taken from the femur.

All the human bones we have sampled were selected to represent as much as possible the same state of diagenesis for the selected bone. Each bone was rinsed in tap water and carefully brushed, to remove all possible contamination layer. After the cleaning procedure, all the samples were washed in distilled water and dried in a clean environment. From each bone, a small sample (1x1 cm) was sectioned using a low speed diamond saw. Prior to analysis, the samples were cleaned in an ultrasonic bath with ethanol for a few minutes and air dried overnight.

The spot chemical analysis of the inner and outer surfaces of all samples, in terms of major and minor elements, and the microscopic analysis for detailed structural analysis were determined by Environmental Scanning Electron Microscopy – Energy Dispersive X-ray (ESEM-EDX) analysis. The sectioned bone fragments were fixed on copper supports and their inner and outer surfaces were examined using an Environmental Scanning Electron Microscope (ESEM) type Quanta 200, operating at 20 kV with secondary electrons in Low vacuum mode. The Quanta 200 microscope is equipped with an Energy Dispersive X-ray (EDX) detector for qualitative and quantitative analysis and elemental mapping.

The same bone sample was analysed using a Bruker Vertex 70 FTIR Spectrometer equipped with a ATR Golden Gate diamond crystal. The distribution of the main components and structure of the mineral and organic content of the bone fragments were monitored from the absorbance ratios (4000–600cm^{-1}) in order to avoid variations of raw intensities due to the quality of the contact between ATR crystal and the sample.

Results and discussion

The classical indices that we have monitored by ATR-FTIR analysis consisted in the use of carbonate and phosphate vibration bands to evaluate the mineral composition and of the Amide I band to estimate the degree of collagen preservation in the human osteological remains selected from different archaeological sites from eastern Romania (Figure 1). The relative carbonate content was inferred from the peak intensity of the absorbance of band ν_3CO_3 band at 1415 cm^{-1} while for the phosphate content we have used the intensity of the

[36] PINTER *et alii* 2011, 388.

ν_3PO_4 band at 1035 cm^{-1}[37]. In addition to these, we have referred to the intense band extending between 900 and 1200 cm^{-1} that covers the $\nu_1\nu_3PO_4$ domain composed by the symmetric (ν_1) and anti-symmetric (ν_3) P-O stretching vibrations. Based on the sub-bands included in this large peak we can distinguish between the phosphate groups present in the apatite environment (1020–1100 cm^{-1} spectral area) and the non-apatite phosphate environments (1100–1200 cm^{-1} spectral domain)[38].

For the evaluation of the degree of crystallinity, the classical approach is to use the so-called splitting factor measured from the two anti-symmetric bands of phosphate (ν_4PO_4) at 565 and 603 cm^{-1}[39]. The type of detector we have used for ATR-FTIR analysis did not allowed us to estimate the ν_4 domain, the 600–400 cm^{-1} spectral domain being outside the detection range. For a rough estimation of the crystallinity, we have looked at the peaks from 1030 to 1020 cm^{-1} and 1060 to 1075 cm^{-1} in relation to the baseline between 900 and 1200 cm^{-1}[40].

In order to complement the results of the ATR-FTIR analysis of the composition of the inclusions in bone pores and of the remaining bone structure we have performed chemical spot investigations by using EDX analysis.

Towards distinguishing between the factors influencing the diagenetic parameters under evaluation in this study, we have grouped our samples in the graphical presentation of the results by chronology and geographical distribution.

In Figure 2 the mineralogical and collagen content of the oldest bone we have selected are presented. The peak intensity of the Amide I spectral area, which is representative for the collagen, has very low values, sample S22 has the highest intensity, while for sample T72 the Amide I band is almost non-visible. The spectral bands specific to the carbonates content show very similar aspects for all the samples listed in Figure 2. The main differences between the Chalcolithic (S22), Early Bronze Age (PM1) and Late Bronze Age samples (T72) consists in the intensity of the $\nu_1\nu_3PO_4$ spectral domain, sample PM1 having the highest intensity. Due to the burial conditions, flourine from the water-bearing soil and sediments substituted into the original structure of PM1 bone sample. A sharp peak present at 1096 cm^{-1} is characteristic of apatite in which fluorine is substituted in hydroxyl sites forming francolite.

Even if a small amount of fluorine occurs in the original hydroxylapatite and its low solubility contributes to the sharpening of the shoulder at 1096 cm^{-1}, the clear separation of this distinctive peak indicates significant diagenetic change of the hydroxylapatite structure[41]. If we look at the degree of crystallinity, we observe the same pattern as for

[37] WRIGHT, SCHWARCZ 1996, 935.

[38] LEBON *et alii* 2010, 2267.

[39] WEINER, BAR-YOSEF 1990, 191.

[40] LEBON *et alii* 2010, 2268 with references therein.

[41] WRIGHT, SCHWARCZ 1996, 939.

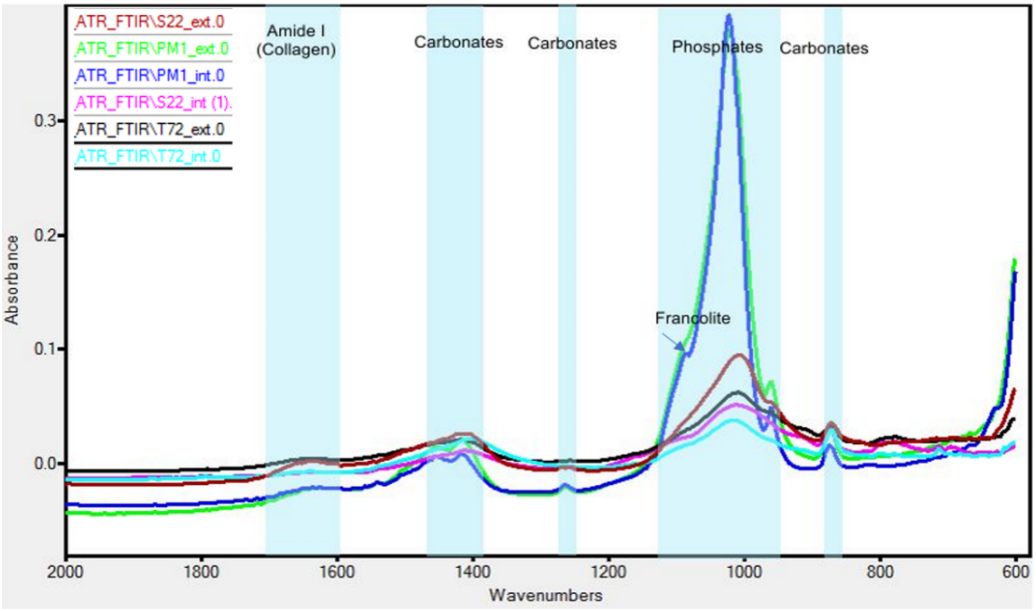

Figure 2. ATR-FTIR spectra of the outer (ext) and inner (int) surface of the bone samples from Vorniceni (S22), Popeni (PM1) and Tarnița (T72)

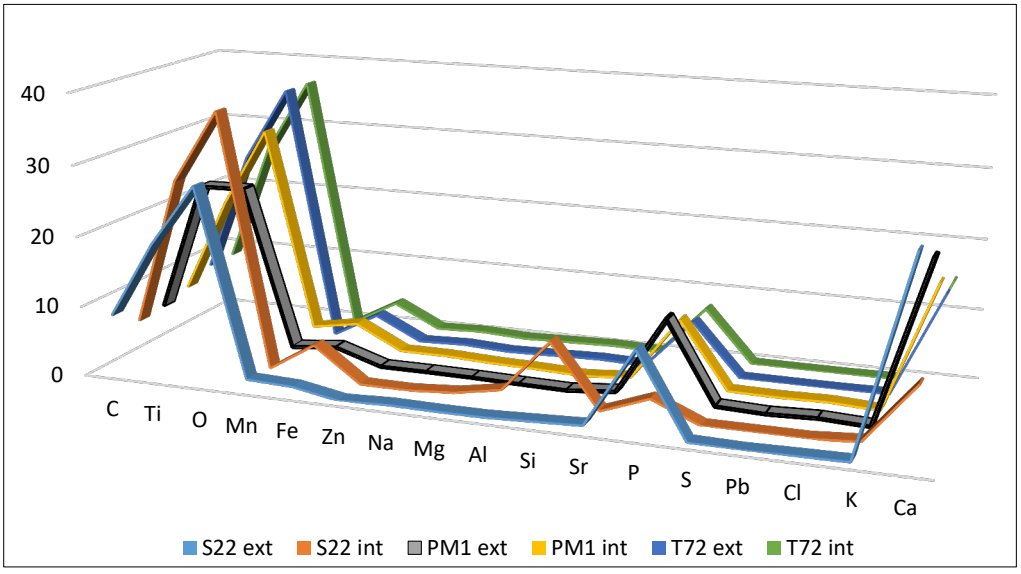

Figure 3. Chemical composition of the outer (ext) and inner (int) surface of the bone samples from Vorniceni (S22), Popeni (PM1) and Tarnița (T72).

$\nu_1\nu_3PO_4$ spectral domain, which shows an increase in the peak intensity for the PM1 sample reflecting the extension of the diagenetic transformations.

Based on ATR-FTIR analysis we could not see any major differences between the inner and outer part of the bone samples in terms of mineralogical transformation, collagen loss and the increase of crystallinity.

For understanding, the mechanisms of contamination, which operates from the surface in, we undertook spot elemental determinations of the inner and outer surfaces of the bones by EDX analysis (Figure 3). The chemical composition presented in Figure 3 shows the uptake of contaminative elements (Fe, Al, K, Mn, Si, S, Cl) into the bone structure. All these external elements present in the burial environment have moved into the bone matrix by several different mechanisms, including exchange with natural bone constituents, deposition in unfilled voids or defects, and adsorption on the surface. Strontium is considered to replace calcium in the hydroxyapatite matrix; Mn, Fe and Si normally fill voids without heteroionic exchange, while Ca and Na could leach out of the bone matrix[42]. In the samples presented in Figure 3, Sr has higher value for the outer surfaces of S22 (0.70%) and PM1 (0.88%) caused by the partial replacement of the Ca in the bone matrix. A higher content of Fe (5.03%) and Si (9.19%) was detected in the voids from the inner surface of S22. For samples S22 and PM1 we observed a significant depletion in the Ca content[43] in the inner bone surface (8.9%, 18.36%) in comparison with the outer surface (27.67%, 23.42%) which can be caused by the possible soil contamination.

Another proof for the environmental contamination can be the higher content of P for the outer surface (11.67%) of S22 in comparison with the inner surface (2.92%). The use of the spot chemical analysis allowed us to observe some differences between the inner and outer surface of the analysed human bone samples and to trace the environmental contribution to the diagenetic transformations.

SEM analysis was conducted for the complementary study of the composition and morphology of the inclusions present in human bone pores and of the remaining bone structure. According to the microphotographs presented in Figure 4, we can observe partial diagenetic transformations (a, c) and extensive diagenetic alterations (b) which had changed (d), removed (e) or obscured (f) the characteristic morphology and density associated with adult human bone.

The diagenetic alterations can be estimated based on the evaluation of the degree of mineralization, which relates to the destruction of the smaller crystallites and the appearance of the "demineralized zones" or to the re-crystallization and the appearance of the

[42] LAMBERT *et alii* 1985, 479 with references therein.

[43] EZZO (1994, 8) reports a value of 38% Ca content in modern adult human bone.

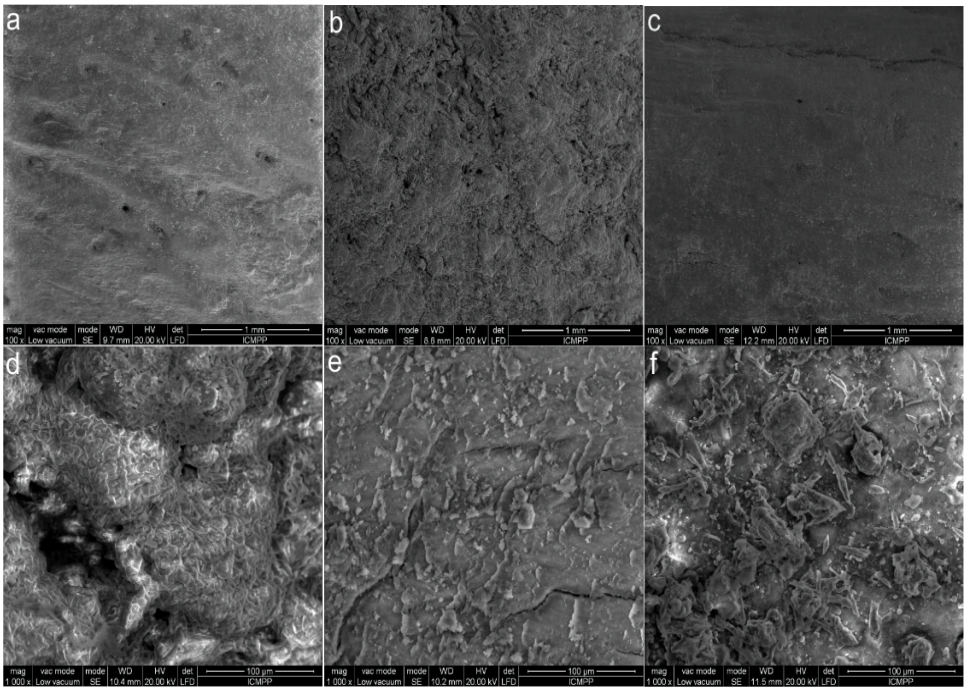

Figure 4. Low-magnification (a, b, c) and high-magnification (d, e, f) images of the bone samples from Vorniceni (S22) (a, d), Popeni (PM1) (b, e) and Tarnița (T72) (c, f)

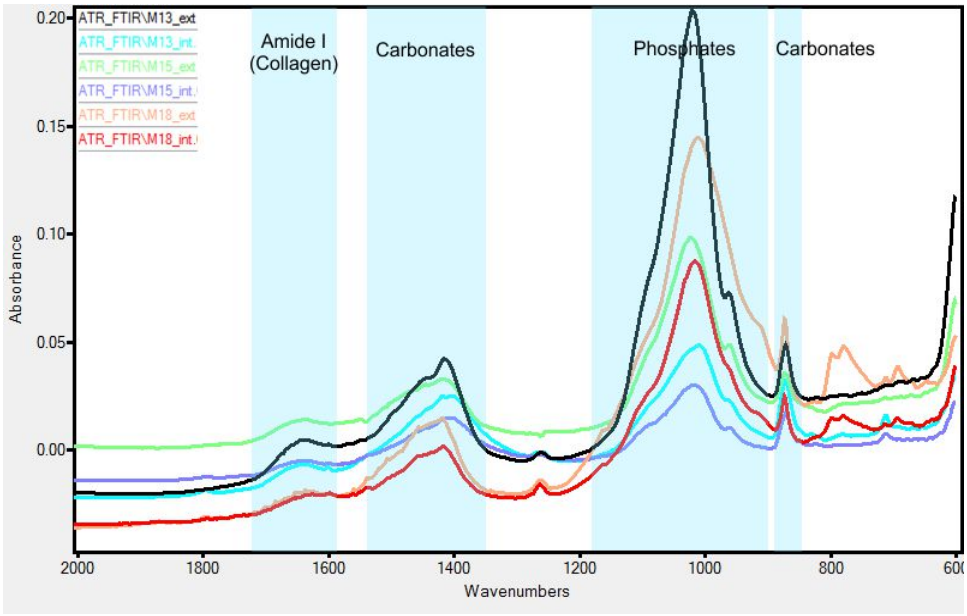

Figure 5. ATR-FTIR spectra of the outer (ext) and inner (int) surface of the bone samples from Isaiia (M13, M15, M18).

"hypermineralized zones"[44]. Based on the microscopical analysis we could identify in samples S22 (Figure 4/d) and PM1 (Figure 4/e) the presence of hypermineralized zones caused by the dissolution and reprecipitation of hydroxylapatite, while sample T72 (Figure 4/f) show the creation of demineralized zones[45].

The bone sample from Popeni (PM1) has a crumble texture (Figure 4/b) exhibiting extensive destruction of the organic matrix of bone (collagen), thus facilitating dissolution and remineralization which corresponds to *extensive diagenetic alterations* (Figure 4/e). Most of the bone surface of samples S22 and T72 shows islands of intact bone combined with obvious dissolution and re-precipitation of bone mineral *reflecting partial diagenetic change* caused, mainly, by bacterial attack (Figure 4/d, 4/f)[46].

Figure 5 presents the spectra obtained from the bone samples attributed to Sarmatian population from the necropolis identified at Isaiia (Iasi county). The Amide I spectral domain indicating the amount of collagen has a higher intensity in comparison with the samples presented in Figure 2 which indicates a better-preserved collagen content. The peaks reflecting the carbonates have a higher intensity while the peaks specific to $\nu_1\nu_3PO_4$ spectral domain show a decrease in intensity when compared to the samples listed in Figure 2. The environmental contamination is reflected by the presence of the narrow band at 712 cm^{-1} specific to the secondary calcite[47] suggesting a more intense circulation of water within the sediments since bone deposition. The precipitation of secondary calcite caused, also, an increase in the degree of crystallinity, especially for the outer surface of the M18 bone sample.

The incorporation of the contaminative elements into the bone matrix can be detected from the chemical composition presented in Figure 6. For the bone samples selected from the Sarmatian necropolis, we observed some differences between the uptakes of the different contaminative elements into the pores. For sample M15 we noticed some increased values of Mn (2.52%, 3.48%) and Fe (4.65%, 3.85%), and lower values for the Si (0.5%, 0.37%) content. P shows increased values for all samples on the outer surface due to the different sources of contamination present in the soil.

For the P values, we could observe a good correlation between the chemical composition and the ATR-FTIR phosphate peak intensity, which shows more intense peaks for the outer surface of the bone samples reflecting the environmental contributions.

The large voids visible in Figure 7/a (on the right side of the image) were created, mainly, by soil bacteria which appear dispersed and randomly distributed, independent of the

[44] HEDGES *et alii* 1995, 207.

[45] BELL 1995, 58.

[46] FERNANDEZ-JALVO *et alii* 2010, 65.

[47] SALESSE *et alii* 2014, 45.

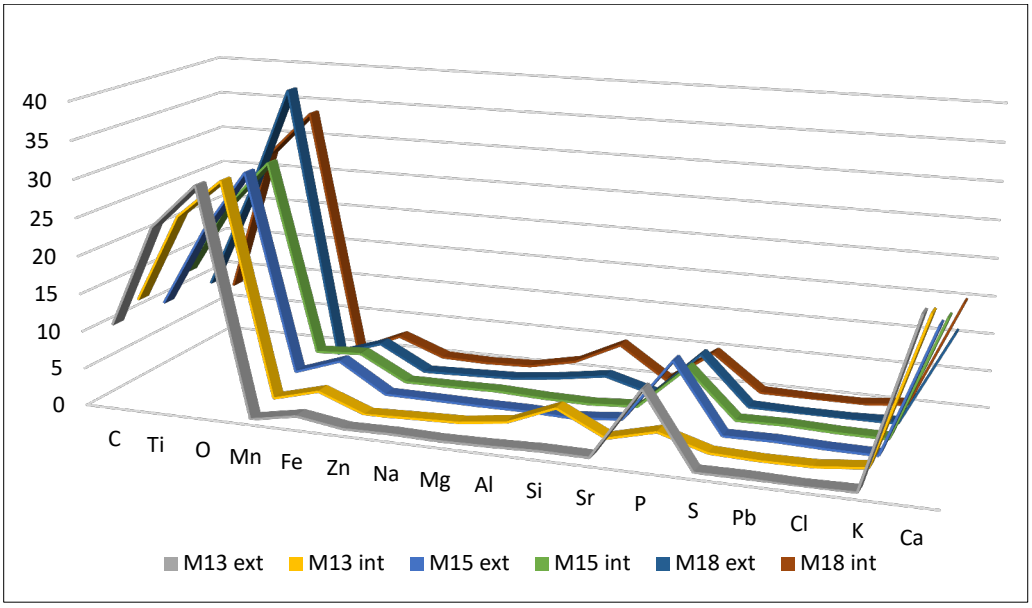

Figure 6. Chemical composition of the outer (ext) and inner (int) surface of the bone samples from Isaiia (M13, M15, M18).

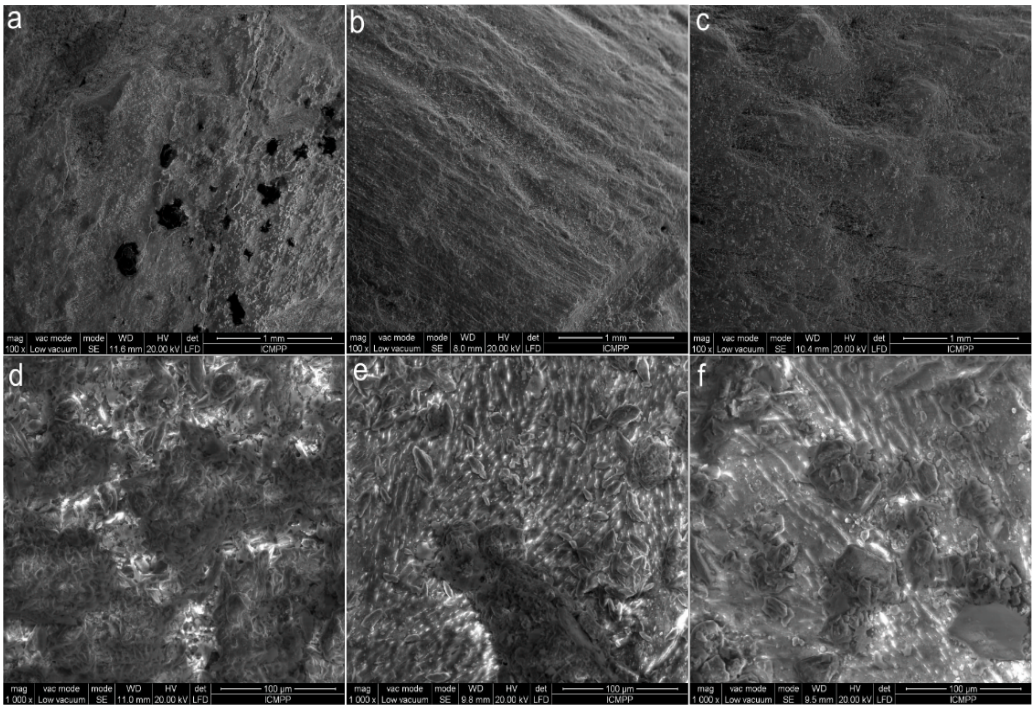

Figure 7. Low-magnification (a, b, c) and high-magnification (d, e, f) images of the bone samples from Isaiia (M13-a, d, M15-b, e, M18-c, f).

histological structure of the M13 bone sample[48]. The area affected by bacteria is bounded by a dense, reprecipitated hydroxylapatite (Figure 7/d). The low magnification microphotograph obtained for M15 (Figure 7/b) and M18 (Figure 7/c) show areas of intact bone, while at higher magnification we could identify some small areas of demineralized zones (Figure 7/e, 7/f) which are relatively depleted in the phosphorous content, according to the EDX analysis listed in Figure 6[49].

Based on the chemical spot analyses we could identify more variation in the demineralized zones than in the unaltered bone structure. Despite obvious demineralization of the bone structure, the integrity of the bone mineral content appears to be preserved. Furthermore, the movement of mineral must be a local phenomenon caused by incipient diagenetic alterations.

The degree of mineralization observed in the SEM images (Figure 7) correlates with the degree of crystallization identified based on the ATR-FTIR spectra and provides information about how physical changes to the bone tissues influence chemical changes and mineralogical transformation and survival.

The spectral domains registered for the human bone samples selected from the medieval necropolis identified at Capidava are presented in Figure 8. Samples M1, M3 and M4 show the highest peak intensity for the Amide I spectral region from all the samples we have analysed (Figure 2 and 5) reflecting a good preservation of the collagen content. Even if all the samples have the same age and very similar contexts, we could observe some differences in the carbonate area peak intensity.

Sample M1 has the most intense peak in the carbonate spectral domain and registers, also, the presence of the secondary calcite band identified 712 cm^{-1} that reflects some differences in the water circulation within the sediments. In the phosphate spectral region, we observed the existence of more intense peaks for the outer surfaces of the analysed samples, which could be caused by the enrichment in the P content due to the soil contamination. Due to the enhanced carbonate content, sample M1 registers, also, an increase of the degree of crystallinity in comparison with the other bone samples listed in Figure 8. Recent studies revealed that differences in crystallinity do not play a major role during the early stage of bone hydroxylapatite diagenesis and that carbon isotope exchange in bone might be controlled by collagen preservation[50].

[48] TURNER-WALKER 2008, 17 with references therein.

[49] TURNER-WALKER, SYVERSEN 2002, 466.

[50] A. Zazzo identified the existence of three different trends in the ^{14}C dating of enamel, dentine and bone apatite: enamel older than dentine or bone apatite; enamel younger than dentine or bone apatite and identical ages in three different fractions (ZAZZO 2014).

The elemental values obtained for bone fragments selected from the Capidava necropolis are shown in Figure 9. The contaminative elements have a different behaviour than in the previously presented samples (Figure 3, Figure 6).

Mn is the only element present mainly in the pores from the inner bone surface in different amounts ranging from 0.38% (M4) to 1.46% (M4). Si, Fe and S have higher values for the outer bone surfaces while Ca and P shows, also, significant higher contents for the outer bone surfaces reflecting a good preservation of the bone matrix and a minimum effect of the environmental contaminants.

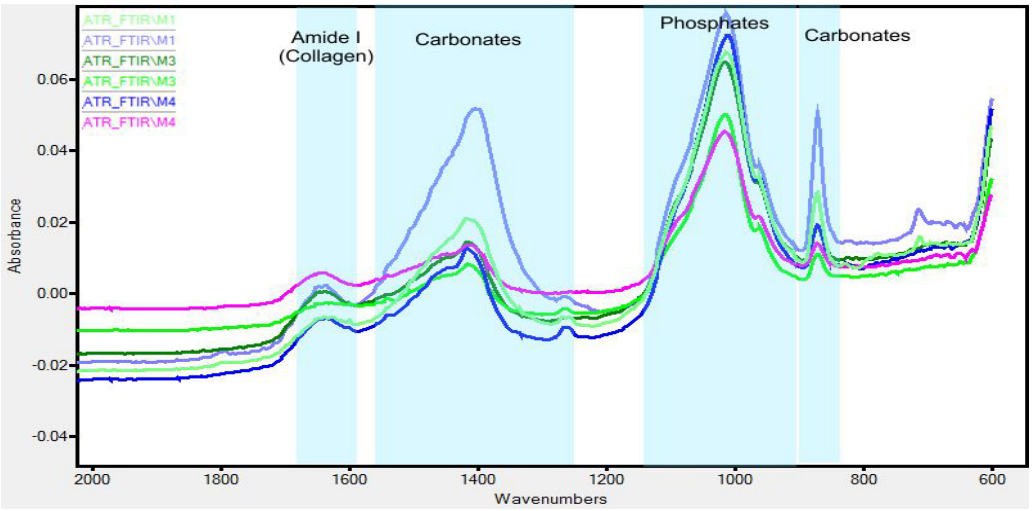

Figure 8. ATR-FTIR spectra of the outer (ext) and inner (int) surface of the bone samples from Capidava (M1, M3, M4).

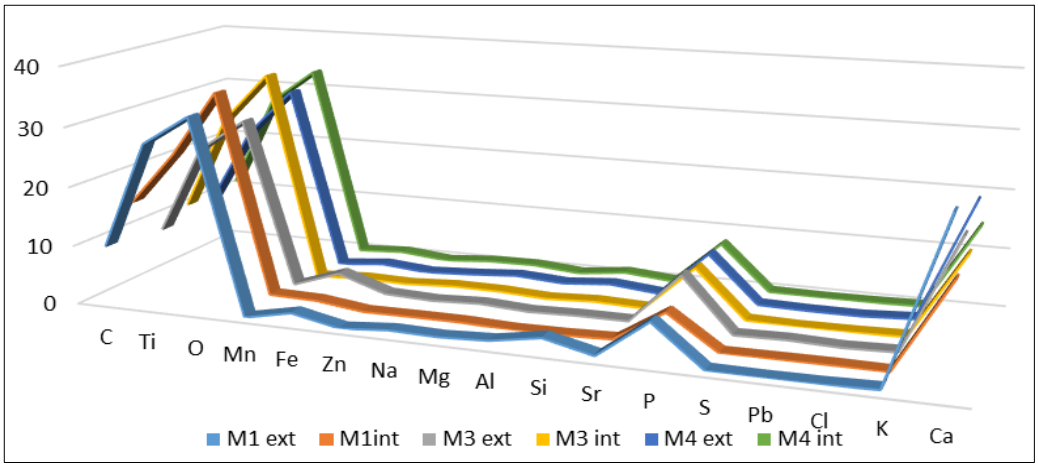

Figure 9. Chemical composition of the outer (ext) and inner (int) surface of the bone samples from Capidava (M1, M3, M4).

The elemental values obtained for Ca and P are in agreement with the results obtained by ATR-FTIR analysis, which revealed different mechanism of calcite absorption for the investigated samples. The presence of the contaminative elements in different amounts on the outer and inner bone surface complemented the ATR-FTIR detection of collagen content and helped us to understand the limited extension of the diagenetic alterations.

The SEM microphotographs presented in Figure 10 exhibits typical field of good bone preservation. However, there are gradations of preservations within the analysed bone samples from Capidava such as the very fine cracks (Figure 10/a–c) resulting from microfractures lines originated by soil pressure and products of the diagenetic crystallization process (e.g., calcite crystals revealed by the ATR-FTIR spectra and spot EDX analysis)[51]. Thus, newly crystallized structures can sometimes aggregate and partly break up the internal structure of the bone causing the appearance of the hypermineralized zones (Figure 10/d).

It is therefore not surprising that the microscopically well preserved medieval specimens (Figure 10) produced much better Amide I (collagen) values evidenced on the ATR-FTIR vibration bands (Figure 8) than the sample relatively less well preserved EBA bone sample from Popeni (Figure 4/b, e).

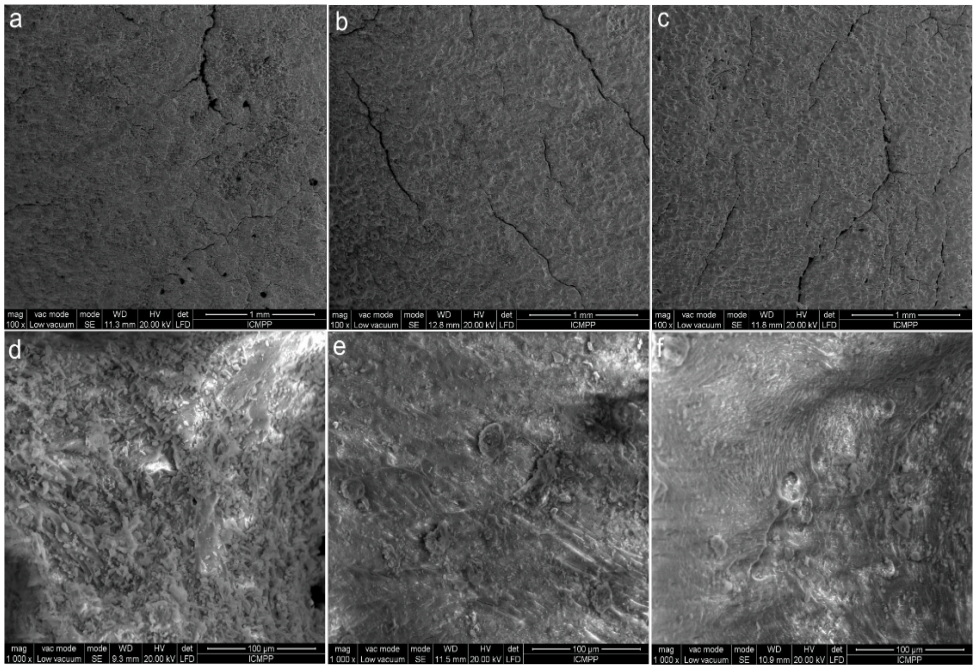

Figure 10. Low-magnification (a, b, c) and high-magnification (d, e, f) images of the bone samples from Capidava (M1-a, d, M3-b, e, M4-c, f).

[51] More details on the microenvironmental contributions to diagenesis can be found in SCHULTZ, SCHMIDT-SCHULTZ 2015.

Conclusions

In this study, we have identified the extent and variation of the main diagenetic parameters of human bones from five archaeological sites from eastern Romania such as the change in protein content, crystallinity and microstructural preservation. In particular, we have shown that measurements of the mineralogical preservation and transformation correlated with the microstructural and chemical analysis give a clear and direct indication for the degree of diagenetic transformations. Also, we could identify that the diagenetic changes are largely independent of the age of the material. This may suggest a different timescale for the protein loss, the destruction of microstructure and the mineral recrystallization. Therefore, diagenetic parameters express different types of information about the interaction of the human bones with the burial environment.

In this study, bone chemistry, mineralogy and microstructure were investigated at the intra-individual scale in order to understand the effects of diagenesis on skeletons buried in different environments from Eastern Romania. Bone Ca/P, degree of mineralization and microstructural transformations revealed that the skeletons selected from five archaeological sites suffered from different diagenetic processes generated by specific environmental conditions prevailing within the immediate surroundings of the skeletons.

Such studies show that if you do not consider diagenesis, the embedded information you obtain can be misleading. If the aDNA was damaged, then erroneous information could be obtained. In addition, diagenesis can seriously alter the accuracy of the isotopic results. The process through which strontium substitutes easily calcium in the inorganic fraction of bone during life continues to apply post-depositional. The same rule applies to carbon isotopes ratio in the bone apatite, often used in conjunction with collagen carbon can be modified by the addition/removal of carbon after burial. Sometimes the carbon/nitrogen analysis in collagen is not possible due to the breakdown of the collagen molecules during diagenesis.

Bone diagenesis is, also, important, when evaluating the reliability of ^{14}C dates due to the exchange of carbonate between bioapatite and burial environment. The carbon isotopes exchange appears immediately after burial and always causes higher levels of ^{14}C in the carbonate phase.

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participated in the excavation of the EBA *tumulus* from Popeni (Vaslui County) conducted by Neculai Bolohan. In addition, we express our gratitude to Researcher Dr Beatrice Kelemen (Molecular Biology Center, Institute of Interdisciplinary Research on Bio-Nano-Sciences, Babeș-Bolyai University of Cluj-Napoca) for providing the bone samples from Capidava and for all her scientific and moral support throughout the GENESIS project. The financial support for Florica Mățău, Ioana Rusu, Dragoș Lucian Gorgan and Neculai Bolohan was provided by the PCCA 1153/2011 No. 227/01.10.2012 *Genetic Evolution: New Evidences for the Study of Interconnected Structures. A Biomolecular Journey around the Carpathians from Ancient to Medieval Times* (GENESIS).

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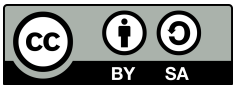

Studia Antiqua et Archaeologica 23(2): 249–255

The mysterious expedition of Thrasybulus of Miletus

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Abstract. *A cursory mention of a mysterious expedition against Sicyon, mounted by Thrasybulus, the tyrant of Miletus, can be found in Frontinus' "Strategemata". The author of the present article is of the opinion that in this way Thrasybulus was helping his ally Periander, the tyrant of Corinth. The probable aim of Periander's military campaign was to reinstate the exiled Isodemus as tyrant of Sicyon and to include the Sicyonians' territory in Corinth' sphere of influence.*

Rezumat. *O mențiune superficială a expediției misterioase împotriva cetății Sicyon, dusă de Thrasybulus, tiranul Miletului, este întâlnită în „Strategemata" lui Frontinus. Autorul acestui articol este de părere că în acest mod Thrasybulus îl ajuta pe aliatul său Periander, tiranul Corintului. Scopul probabil al campaniei militare a lui Periander era acela de a-l reinstala pe exilatul Isodemos ca tiran al Sicyon-ului și de a include cetatea în sfera de influență a Corintului.*

Keywords: Greece, Corinth, Sicyon, Archaic age, tyranny.

In his treatise "Strategemata", Sextus Julius Frontinus makes a reference to a rather mysterious expedition against Sicyon, led by Thrasybulus, the tyrant of Miletus in the 7th century BC: *Thrasybulus, dux Milesiorum, ut portum Sicyoniorum occuparet, a terra subinde oppidanos temptavit et illo, quo lacessebantur, conversis hostibus classe in /ex/ spectata portum cepit.* (Thrasybulus, leader of the Milesians, in his efforts to seize the harbour of the Sicyonians, made repeated attacks upon the inhabitants from the land side. Then, when the enemy directed their attention to the point where they were attacked, he suddenly seized the harbour with his fleet) (III, 9, 7).

Upon reading this fragment it seems logical to surmise that Thrasybulus was unlikely to pursue his own interests in Sicyon, far from his native Ionia. Most probably the expedition was mounted to support one of the allies of Milesians, which ally wished to extend his influence in this area. We consider Periander, the tyrant of Corinth, the most likely candidate for the role of such an ally[2].

Amicable relations between the above-mentioned rulers are fairly well-documented in classical historiography. Herodotus, for one, gives a rather detailed description of an embassy

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[2] ZHESTOKANOV 2010, 25 ff.; cf. WADE-GERY 1925, 535; LAPTEVA 2009, 349; LOLOS 2011, 62.

sent by Periander to Miletus in order to obtain advice on the methods of controlling his populace:

Periander accordingly, at first, shewed himself of a milder disposition than his father; but after he had communicated, by means of ambassadors, with Thrasybulus, tyrant of Miletus, he became far more bloody and murderous even than Cypselus; for sending a herald to Thrasybulus, he enquired what was the surest policy he could adopt in order to govern most securely. Thrasybulus took the person who came to him from Periander out of the capital; and coming to some arable land which was sown, passed with him through the corn, examining and cross-examining the herald on his coming from Corinth, and meanwhile cut off any of the ears that he happened to see rising above the others; and when he had cut them off, cast them aside, till at last he had in this manner destroyed the finest and tallest of the corn: having passed through the field, he sent back the herald without giving him any answer. When the herald was returned to Corinth, Periander was anxious to know the advice of Thrasybulus; but the messenger declared, that Thrasybulus had made him no answer; and said, that he was astonished at the sort of man Periander had sent him to, since he was mad, and wasted his own property, describing, at the same time, what he had seen done by Thrasybulus. Periander, understanding the meaning of the action, and concluding that Thrasybulus counselled him to put to death the most eminent of the citizens, forthwith exercised all sorts of cruelties toward the inhabitants; for all that Cypselus had left undone in the way of slaughter and exile, Periander completed (V, 92).

Aristotle's "Politics" contain reference to this same embassy, although according to the version of the philosopher from Stagira, it was Thrasybulus who had caused the mission to be sent:

The story is that Periander, when a herald was sent to ask counsel of him, said nothing, but cut off the tallest ears of corn till he had brought the field to a level. The herald did not know the meaning of the action, but came and reported what he had seen to Thrasybulus, who understood that he was to cut off the principal men in the state (III, 8, 3, p. 1284a).

Another account provided by the Father of History states that Periander knew the oracles given to the rulers of Lydia at Delphi (with Periander acting as an intermediary); consequently, the tyrant of Corinth informed Thrasybulus of their content, so that he could make preparations for the Lydians' actions:

Periander son of Cypselus, a close friend of the Thrasybulus who then was sovereign of Miletus, learned what reply the oracle had given to Alyattes, and sent a messenger to Thrasybulus so that his friend, forewarned, could make his plans accordingly (I, 20).

Herodotus, and Diogenes Laertius citing him in his "Lives of Eminent Philosophers", explicitly call Periander a 'xenos' — a guest-friend of Thrasybulus, tyrant of Miletus (Herod., I, 20; Diog. Laert., I, 95–96).

The reasons behind this alliance between the two tyrants were probably of both economic and political nature. Unlike his father, whose interests were mostly centered on the West[3], Periander, while maintaining relations with Magna Graecia, directed his attention to the East as well[4]. The tyrant of Corinth could have been motivated to establish strong ties with eastern states in order to enter their profitable markets[5]. It is conceivable that western colonies which had achieved considerable success in developing their own handicraft production by the end of the 7th century B.C. no longer needed Corinthian imports on the scale these imports had grown to under the Cypselids. In order to partly redirect exports to eastern states it was essential to forge friendly relations with the key players in that region, and most importantly with Miletus[6]. An alliance with Miletus would give Corinthian traders access not only to the interior regions of Asia Minor, but to the Pontus which had been colonized mainly by the Milesians, and to Egypt in the relationship with which Miletus enjoyed a special status[7]. The Ionian city was one of the few allowed to have its own sanctuary in Egypt's territory (Herod., II, 178). Another example testifying to the benevolent attitude Egyptian rulers had towards Miletus is the offering of body armour that pharaoh Amasis made at the temple of Apollo at Didyma after his victory in Syria (Herod., II, 159).

The rapprochement between Corinth and the once hostile Ionic polis was facilitated by the entrenchment of power in the person of the tyrant Thrasybulus. The alliance between the two poleis having the same political structure became not only possible but necessary to the rulers for extending their influence in Greece and withstanding the onslaught of internal and external enemies of tyranny[8].

Both Miletus and Corinth profited from the alliance. Milesian traders gained access to the colonies of Magna Graecia — the wide spread of Milesian pottery in the West at the end of the 7th century B.C. corroborates the assertion[9]. According to written sources, Sybaris became one of Miletus' main trading partners (Herod., VI, 21)[10]. Corinthian imports dated to the end of the 7th century B.C. appeared in the Pontus region, in Egypt and Lydia[11]. Another indication of the ties between Corinth and Egypt is the name of Periander's nephew Psammetichus, which is

[3] NOVIKOVA 1965, 117, 122; BERVE 1967, 20; SALMON 1984, 222.

[4] BURY 1900, 151–152; URE 1922, 191; BERVE 1967, 20–21; SALMON 1984, 222; ZHESTOKANOV 1996, 90 ff.

[5] BURN 1929, 23–25; BLAKEWAY 1932/1933, 207; MURRAY 1980, 145; ZHESTOKANOV 1996, 90 ff.; cf. ROEBUCK 1959, 73

[6] BURN 1929, 21–23; MURRAY 1980,145; SALMON 1984, 225–226

[7] KOLOBOVA 1951, 210, 218; SALMON 1984, 225–226

[8] ZHESTOKANOV 2010, 25 ff.; cf. BURY 1900, 151; BURN 1929, 23.

[9] BLAKEWAY 1932/1933, 207; BOARDMAN 1964, 179, 185 ff., 200, 211, 224 ff.

[10] Cf. GARDNER 1920, 90.

[11] *Northern Black Sea coast:* PAYNE 1931, 271, n. 30a; COOK 1946, 76, n. 91, 82; SCHMIDT 1952, 223–248; ROEBUCK 1959, 118, 125; 1972, 117; BOARDMAN 1964, 249, 252, 255–260, 266; *Egypt:* GARDNER 1918, 60–61; BURN 1929, 24; BLAKEWAY 1932/1933, 205, 207; ROEBUCK 1972, 117–118; MURRAY 1980, 145 *Lydia:* BUTLER 1922, 119; ROEBUCK 1959, 58, 78; BOARDMAN 1964, 109–110.

the Hellenized form of the name of the pharaohs ruling Egypt at that time, Psamtik I (664–610 B.C.) and Psamtik II (595–589 B.C.)[12].

The final question arising after reading Frontinus' story is which undertaking of the ruler of Corinth was supported by his Milesian ally. J.B. Salmon, the author of one of the few works on the history of Corinth, associates this expedition with the First Sacred War and believes it to be aid that Thrasybulus gave to the tyrant of Corinth who was supporting Krisa against the Greek coalition headed by Cleisthenes of Sicyon[13]. In our opinion the assumption made by the British scholar is questionable. There is not even indirect evidence of the Corinthians participating in the First Sacred War in the extant sources.

Besides, we know about friendly relations between the tyrants of Corinth and the Delphic sanctuary: just before the seizure of power Cypselus received an encouraging oracle from the priests of Pythian Apollo predicting success of his coup and subsequent transfer of power to his son (Herod., V, 92). Cypselus was the first Greek to build a treasury filled with rich gifts to the Pythian deity at Delphi (Plut. De Pyth. or., 13, p. 400d–e; Paus., X, 13, 5). This treasury also had in its keeping the offerings of the kings of Lydia who fostered amicable relations with the tyrants of Corinth (Herod., I, 14; 50–51; Paus., X, 13, 5). Moreover, the Cypselids acted as intermediaries when the Mermnads of Lydia sought advice from the oracle at Delphi (Herod., I, 19)[14]. A change in the attitude of the servants of Pythian Apollo towards the Cypselids happened only after the overthrow of tyranny in Corinth, when by popular demand the priests removed the name of Cypselus from the dedicatory inscription on the treasury, replacing it with a dedication from all the Corinthians (Plut. De Pyth. or., 13, p. 400d–e). It is worth mentioning that the priests of Zeus at Olympia, unlike their colleagues at Delphi, refused to condemn the memory of the Cypselids to oblivion and declined a similar request from the Corinthians for the removal of the dedication of the tyrants from the statue of Zeus. According to Plutarchus, that was the reason the Eleans were banned from participating in the Isthmian Games administered by Corinth (loc. cit.).

It appears more likely that the expedition of Thrasybulus was connected with the events that had accompanied Cleisthenes' ascent to power, as they are described in the account given by Nicolaus of Damascus:

The Sicyonian tyrant Myron, who was descended from Orthagoras, was a man dissolute in everything, including his behaviour with women. He defiled them, assaulting them both in secret and in open view. Finally, he involved the spouse of his brother Isodemus in adultery. Upon learning about it Isodemus remained calm at first, but later he confessed everything in anguish to his second brother who had returned from Libya. Now Isodemus was said to be ingenuous and honest by nature, while his brother Cleisthenes was devious. When asked how

[12] WADE-GERY 1925, 553; HAMMOND 1959, 147; BERVE 1967, 21; FORREST 1966, 119; JEFFERY 1976, 149.

[13] SALMON 1984, 219, 227–229.

[14] KULISHOVA 2001, 161, 164.

he would act under the circumstances, Cleisthenes answered that he would not put up with it for a single day, but would kill the adulterer with his own hands. Thus he was pitting Isodemus against Myron, hoping to obtain the throne if the latter perished and the former, stained with his brother's blood, would be barred from making the sacrifices. And so everything came to pass as he hoped. In the eighth year of his reign Myron was killed by Isodemus upon catching him in the act of adultery with Isodemus' wife. Then, weeping and wailing, Isodemus told everything to Cleisthenes who said that he pitied both of them — the dead one, for he had been killed by his brother, and Isodemus, for a fratricide could not make the offerings to the gods so it was necessary for somebody else to do it. Isodemus, convinced of his brother's veracity and unwilling to lose the throne, made Cleisthenes a joint king for a year. Thus Cleisthenes accomplished his purpose through his brother's credulity, and they began to jointly rule Sicyon. But the citizens were more drawn to Cleisthenes since he was resourceful and awe-inspiring; even Isodemus' friends changed sides. Finally, Cleisthenes deposed Isodemus by the following trick. Among the citizens there was one Chaeredemus, a friend of Isodemus. Seeing that Cleisthenes was the more enterprising brother, Chaeredemus visited him and offered his friendship. Since Chaeredemus made numerous pledges, Cleisthenes ordered him, in keeping with his words, to see Isodemus and persuade him to go into voluntary exile, as custom dictated, in order to purge his pollution so that he could again make the offerings and his sons could rule. Otherwise he, being guilty of fratricide, would find it difficult to keep the tyranny and bequeath it to his children. Chaeredemus approved of the stratagem and set about convincing Isodemus to go into exile for a year. Isodemus, gullible as he was, believed the sincerity of his words, and went to Corinth leaving the throne to Cleisthenes. No sooner had he left than his brother started to slander him saying Isodemus together with the Cypselids was conspiring against him in order to become sole ruler. Arming the soldiers under this pretext Cleisthenes prevented Isodemus from returning and became sole king himself, the most tyrannical and cruel of all his predecessors (FGrHist 90 F 61, 1–5).

The above-cited extract illustrates how Isodemus, removed from office under false pretences, took refuge in Corinth. Moreover, according to Cleisthenes, he secured the support of the ruler of Corinth. The information on Cleisthenes arming the troops, given by Nicolaus of Damascus, implies that Isodemus attempted to regain power in his native polis. If so, Periander was likely to assist him in this venture. The military aid provided by the Cypselids was of paramount importance to Isodemus, since in Sicyon itself the supporters whose help he could have enlisted had changed sides, according to Nicolaus of Damascus.

Attempting to reinstate Isodemus as tyrant, or possibly using the intra-dynastic struggles of the Orthagorids to seize control over Sicyon, Periander obviously sought the help of his Milesian ally. Though we do not know the outcome of Periander's Sicyonian campaign, it is logical to assume that the attempt to wrestle control over the neighbouring city from its ruler

failed. In any case, there is no information on Cleisthenes' being even temporary unseated in the extant sources.

Nevertheless, we can assume that eventually the conflict between Corinth and Sicyon was resolved. In particular, the account given by Herodotus seems to corroborate the assumption. It is said that among his daughter's suitors Cleisthenes particularly favoured Hippocleides son of Tisandrus because he was related to the Cypselids of Corinth (VI, 128).

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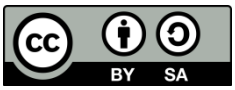

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Chasing Hygassos (Anatolia): Settlement under epigraphic evidence

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Abstract. *Although the epigraphic records do not attest an exact toponomy to confirm where exactly Hygassos is but rather announce an ethnic, this paper aims to suggest further by chasing the inter-relatability of some selected inscriptions. The supplementary data is also presented to find out and assess the question of settlement and chronology in a variety of contexts. The data repository attained from the close catchment of the Acropolis (in Kızılköy) give a lucid picture of a densely occupied "urban" zone and represents a flashback to the Hellenistic links of the deme, however it is quite a painful job to trace the earlier features that are highly disturbed or misrepresented in the khorai. Even though land use seems to be quite determined by the interplay of environmental and habitational dynamics (the settlement patterns hardly appear to be forcefully driven) in both, the inland deme of Hygassos and coastal/quasi-coastal Phoinix were the two diverse implantations in the Rhodian Peraia, in respect of attraction in the Hellenistic period. Changes within the spatio-temporal context are not that easy to explore, however, when architectural data and micro-plans are reviewed, mobility and/or seasonality could have been there, beyond the smooth layouts, particularly near the coastal hilly terrains of Hygassos. Still, crumbles of ceramic evidence which hint at Hygassos' potential to offer links with the late Bronze Age and; cultic figures or linguistic rules that manifest her tendency toward a stronger Anatolian, hence Karian character in the Peraia, make her a lot more distinguished than the neighbouring demoi.*

Rezumat. *Izvoarele epigrafice nu atestă o toponimie exactă pentru a confirma exact unde este situată cetatea Hygassos, ci sugerează mai degrabă o etnie. Autorii își propun să ofere și alte ipoteze, urmărind relațiile dintre unele texte analizate. Datele arheologice sunt de asemenea prezentate pentru a evalua și cronologia așezării. Vestigiile de pe Acropole (în Kızılköy) oferă o imagine a unei zone „urbane" intens ocupate.*

Keywords: Karian Hygassos, Hellenistic Rhodes, Kızılköy, settlement, inscriptions.

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1. Introduction

Despite many gaps that still await to be filled, particularly in the pre-Hellenistic origins of the region, much has been written about the historical trajectory of the Rhodian Peraia/ Peraia.[3] Here is a fragmented peninsula (modern Bozburun Peninsula) where many high hills form the backbone of definitely not a small size territory. It soon lies on the opposite coast of the Island of Rhodes. Considering the physical extensions on the northern mainland, toward the Island of Kedreai and the territories reaching Daedala[4] in the southeast, it gets bigger than a normally expected large size territory.[5]

We shall neither try to fill in the blanks concerning the Classical era or earlier than that, nor establish an overall silhouette of the mainland of the Hellenistic epoch. This paper aims to peer into an unnoticeable piece of the mainland about which not very much has been transmitted. It is an endeavor to plunge into the backyards of one of the rural entities of the Rhodian Peraia, literally known as Hygassos (Figure 1) and often confined to a broad span of time between the Classical and Roman periods.[6] It was a moderate size land and administrative unit (almost physically equivalent to the other *demoi* on the mainland territory of Hellenistic Rhodes[7]), operating under the governance of the Island. Presumably, the Classical village of Hygassos survived under the same name (owing to her Karian origins) in the upcoming Hellenistic period. Over and above this, we intend to seek an inter-relatability, if any and although difficult to explore, of the fragmentary evidence with the settlement and livelihood patterns which mostly come from the inner *khora* character suburbs of the *deme*. Hygassos, from our viewpoint, appears to have the requisite qualifications to be treated as one of the hotspots of a terracewise economy and caravan routes of trade[8] in the Rhodian Peraia. Economy centric matters, demographic estimates or a potentiality of self-sufficiency shall be raised in a future paper, however we hereby and pre-emptively introduce a selection of coordinates (including the newly documented ones) which are supposed to hide economically valuable archaeological sites in the region. The illustration of the incoming on-site data is the reselected, refined and re-evaluated versions of the yet unpublished parts of the recent surveys[9] in the questioned Peraia.

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[3] Referable to BEAN's (2000) expositions on the Subject and Incorporated Peraia which relate to the physical and political framework of the land articulated herein.

[4] Strabo 14.2.

[5] See HANSEN 2004, 71–72 for the categorization of ancient estates.

[6] OĞUZ-KIRCA 2014c *passim*; OĞUZ-KIRCA, LIRITZIS 2017.

[7] OĞUZ-KIRCA 2015a, 37, 41–42, 62.

[8] For the sea routes and maritime traffic in the Classical world, see TALBERT 1985: 53.

[9] Selective data has been retrieved and refined from the 2012 surveys carried out in the region. We take this opportunity to offer sincere thanks and gratitude to the Republic of Turkey, General Directorate of Antiquities and Museums of the Ministry of Culture and Tourism. Many thanks are also offered to the Rhodes Archaeology Museum

2. Search into the epigraphical *corpus*

The inscriptions matter. Asia Minor, especially in the Roman period, was prone to reserve the tomb of the deceased with her/his descendants. The phraseology appears as μνήμης χάριν or ένεκα. In the *tituli sepulcrales* category, epitaphs vary to a considerable scale in the Hellenistic age while verse epitaphs were common at earlier times. A most common monument used to be "small cylindrical markers (*columella*) not more than two feet high; the rectangular *cippus* or the plain stele with little or no ornaments".[10]

The testimony of inscriptions is often a great way of interpreting the topography and ownership as well as the burial practices of a community, in many instances. Hygassos is not the kind of site that reveals itself at once, thereby an instant connection to its commemoration in literature, material record or elsewhere yet unveiled, is not an easy touch. The situation might be owed to the relative insignificance of the rural character Peraia in the aggregate, vis-a-vis urban settings that flourished along with the working out of elegant edifices or precincts that melted within the sophisticated layouts, in the Aegean world. Another causation may be sought in the unrecognized or passivated status, of the site itself, perhaps down to and during the Hellenistic-Roman epoch. Notwithstanding, we are to be contented with few readable fragments, although being scanty, and mostly mirroring the site's toponomical expression and rarely holding the porch to the residents' social realm.

2.1. Hygassos in the inscriptions

Despite its Karian origins, the bulk of onomastic evidence attained through the *corpus* of inscriptions (which were collected within the borders of modern Selimiye) is highly attributable to the Hellenistic and Roman periods.[11] Aside from the earlier relations provoked or self-containment for any other reason in the back stage, before or even short after the synoecism of the Island in 408 BC,[12] the Rhodians became powerful to subdue the indigenous populations on the mainland for more than two centuries. That few epigraphical material dated to the late Classical era takes the *deme* back to the Maoussolian rule at the same time, hence leaves little room for doubt with regard to her Karian attachments in the political framework.[13] Regardless of chronologywise evidence and periodwise discussions from this

for the cordial welcoming during the visits. This work is an output of the postdoctoral research program, at the University of the Aegean, Department of Mediterranean Studies, Rhodes.

[10] WOODHEAD 1967, 43–45.

[11] See the compilations of the Peraian inscriptions by BRESSON 1991.

[12] FRASER, BEAN 1954.

[13] We take it for granted that 323 BC is the "official" *terminus ad quem* for Hygassos' being an integral part of the Karian Khersonesos, hence a shareholder of the entire Karian territory within the political and administrative system. However, Hellenization movements which began much before and acculturation of the indigenous

point onwards, there is a need to also mention that the Hellenistic *corpus*, in particular, leads us the way to pinpoint a "catchment" area of a community which presumably related to the Hygassians. The matter in question and the rationale behind identifying the subject territory as Hygassos and designing the borders in the ways illustrated in the previous works[14] shall not be reawakened to avoid some recurring debates. However, it is deemed beneficial to remake a mark to how Meyer's notes and display of the ethnic divisions on his map[15] could have inspired some colleagues to include the environs of modern Selimiye to the *territorium* of the neighbouring *deme* of Tymnos (modern Bozburun District).[16] The ethnic of Hygassians is also found in the work of Papachristodoulou, however no attachment to either *polis* is given.[17] Carter thought on it but his ideas prove little for our arguments.[18]

Therefore, a controversial case to tackle in respect of both the interrelation of the provenance and owners of the inscriptions and their association with the immediate *territoria* has been a no less important preoccupation under the research.

A way to start from the scratch involves the recognition of the dearth of a toponym on the epitaphs which were overwhelmingly reported from the coastal band of Selimiye, with the exceptions[19] where a possible relation with Tymnos is subject to question. It is equally possible that the occurrence of similar names on the inscriptions reported from Tymnos may be attributable to the genealogical links between the ancient residents of Selimiye and Bozburun. Designing the western/southwestern territories of "our" Hygassos to Tymnos is not a slender chance, though. But, what if some of the inscriptions mentioning Tymnos, any Tymnians, associated motto, etc. were also found in Gemecit location which falls into the borders of Selimiye (neighboring the northern/northeastern frontiers of Tymnos), at the same time? We would possibly tackle a surmountable situation in respect of our problematic proposition.

The exceptions stressed above, bear the names with patronyms and place of origin which is a normal way of expressing oneself on the funerary stones. It is highly possible that some scholars dwell on these exceptions and take them as the reference material in order to over-

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population all around the Rhodian Peraia and other Karian lands thereafter does not apply to the date mentioned, hence is off the table.

[14] OĞUZ-KIRCA 2014c; OĞUZ-KIRCA, LIRITZIS 2017.

[15] MEYER 1925, 50–51, Blatt I.

[16] FRASER, BEAN 1954, 62; BRESSON 1991, nos 66–83 (pp.94–101). The reason of the authors' assignment of the inscriptions to Tymnos must be the commemoration of some Tymnians and some similar occurrences of the names reported from Tymnos (especially see BRESSON 1991, nos 73,81). Note that the funerary inscription (no 81) is dated to the Roman period in which the social habitat and definition of space could have intermingled under the new administrative system.

[17] PAPACHRİSTODOULOU 1989, 69, 70, 194.

[18] CARTER 1982, 192–193.

[19] Refer to BRESSON 1991, nos 73 (I.3), 77 (I.5), 78 (I.5), 81 (I.3).

identify the deceased with the toponomy spelled, here in favor of Tymnos.[20] We choose to avoid adopting similar approaches insofar as possible, however also admit that we could have been apt to fall into errancy while chasing further about the *territoria* based on the recent, "open to dispute" postulates.[21] We, anyway, take it for granted that the social and physical borders of Hygassos[22] complement each other. Notwithstanding, the inscriptions concerning Hygassos or the ethnic all rest outside the region, today.

Another means for ransacking involves the off-site reportings. The commemoration of the ethnicon of Hygassians in the neighboring areas/regions[23] (none of these address a precise location of the *deme*) does not back up a definite localization, either. Inferably; an endeavor for an expected correlation may remain misleading for a decision in favor of one of the *demoi*.

Turning to the main body of evidence, quite a handful of inscriptions[24], which corroborate the presence of a public (whether they actually belonged to this or that), have been reported from Selimiye.

Anyone who makes a cross-border check (in the northward Peraia) for the verse epitaphs may find that Syrna (modern Bayırköy)[25] and Kastabos (modern Pazarlık)[26] housed the inscribed material on which the name of Hygassians were evidently spelled. The former one appears to be Roman (ca. 101/300 BC) while the latter is safely dated to ca. 320/280 BC.

The epitaph, commemorating a Hygassian couple (Menandros and his wife Artemis- date is subject to question)[27] found in Syrna and possibly not being a phenomenon of any kind of appraisal within the social context, was quoted above.[28] Although this was not the fair sample to make an allegation about the indigenousness or social profile of the inhabitant(s), it is the one of the few specimens about which we are acquainted with the presence of the ethnic.

[20] Especially see how BRESSON (1991, nos 66–84) groups the inscriptions and toponomies upon place of finding.

[21] See footnote 14.

[22] OĞUZ-KIRCA, LIRITZIS 2017. The social *territorium* is more likely explainable with the *loci* of inscriptions and archaeological remains.

[23] Footnotes 25–26.

[24] BRESSON 1991, nos 66–83 (94–101).

[25] BRESSON 1991, no 61 (I.2, I.3) (101/300 BC).

[26] Modern Pazarlık. Philion Philonda of Hygassos was one of the contributors involved in the dedication of a *naos* to the goddess Hemithea on a limestone block. (COOK, PLOMMER 1966, no 1; BRESSON 199, no 38 (I.1–2); *Rhodian Peraia*.18; *IK Rhod.Peraia* 451). Donations to the public edifices or euergetism was not confined to the Rhodian citizens residing or taking interests in the Peraia. An *ex-voto* (2nd century BC) of the benefactor, Ktesiphon, presumably a Khersonessian/ Peraian, was commemorated amongst many others, by the *koinon*, for his contributions to purchase a plot for the burial of the members of this society (SEG 39: 737).

[27] HULA, SZANTO 1895: 33; *Rhodian Peraia*.199 (no date); *IK Rhod.Peraia* 305 (Roman Imperial period). Footnote 25.

[28] See footnote 25.

There are also those uncovered outside the Peraia. The base of a cylindrical funerary altar (of Stasion, with his patronym)[29], which was found in the *necropolis* of Rhodes, is on display in the Island's Archaeology Museum. This piece of evidence made of Lartian stone (richly ornamented with a bull head and garland with flowers and ribbons[30]) dates back to the 2nd/ 1st century BC. Many other fragments were found on the island and the mainland, with the readings e.g. Ὑγασσέως[31], Ὑγασέως[32], Ὑγασὶς[33]/Ὑγασίς[34], Ὑγασεῦς[35]/Ὑγασσεύς[36], Ὑγασίδος[37], Ὑγασῆ[38], Ὑγασέ[ων].[39] There is one example (bearing the "Ὑγασ" abbreviation) of a grave marker[40] with aperture (*cippi*) (label no 86) showing the type of a mortuary practice in the same museum (Figure 2/A).[41] Another one found in Rhodes but undated quotes a Hygassian man who was married to a woman of Erine origin.[42]

The information incised on these stones basically contribute to our knowledge about the Hellenized groups in the region or the Rhodian citizens, however, we are sometimes left with new questions along with these evidences. For instance, one of them appears to bear an interesting name "Χαρμωκλέους".[43] We have no idea whether it could have had any implication for a Karian appellation in the root. Another way of interrogation relates to the usage of "s" (e.g. geminate spellings) in the names of Anatolian origin.[44] In view of the phonological and orthographic rules, it seems that at least part of the sample inscriptions

[29] IG XII,1: Rhodos, *Maiuri, NSER* 89 (2nd/1st century BC).

[30] A similar altar (IG XII,1: Rhodos, *Maiuri, NSER* 88) in footnote 35) , also readable with the name of Hygassos at the base, is visible in an interior chamber housing the Roman period sculptures, in the Rhodes Archaeology Museum.

[31] See IG XII,1: Rhodos, *IK Rhod.Peraia*.305 (interchangeably given as Ὑγασέως in *Rhodian Peraia*.199); *MDAI(A)* 30 (1905) 149,8 (fragment undated); *AD* 23 B2 (1968) 447,1 (undated); 448,2 (undated); *Maiuri, NSER* 91 (undated); 300 (undated)

[32] IG XII,1: Rhodos, *Rhodian Peraia*.199; *Maiuri, NSER* 89 (2nd/1st centıry BC); 197 (undated); 297 (undated).

[33] *MDAI(A)* 30 (1905) 148,3 (2nd century BC); *Maiuri, NSER* 90 (undated)

[34] IG XII,1: Rhodos, *ASAA* 2 (1916) 162,90 (undated); 295 (undated); 296 (undated, this fragment seems highly related with no 295 on which the spouse of the Hygassian could be of Tymnos origin); 298 (undated).

[35] IG XII,1: Rhodos, *Maiuri, NSER* 88 (2nd/1st century BC). Some conveyed as Ὑγασεὺς (*Rhodian Peraia*.18; *IK Rhod.Peraia* 451).

[36] IG XII,1: Rhodos, 294 (undated).

[37] IG XII,1: Rhodos, 297 (undated); 299 (undated, any relation to the same family of Stasionos/Ygasidos given in footnote 29 (*NSER* 89) is questionable).

*Some conveyed as Ὑγα(σσίδος) (*IK Rhod.Peraia*.305).

[38] IG XII,1: Rhodos, *JÖAI* 9 (1906) 85–88 ("provenance unknown [İzmir]" , 2nd/early 1st century BC).

[39] IG XII,1: Rhodos-Lindos, 950 (undated).

[40] SEG 43:530.

[41] These were common in the Roman period (1st BC–3rd AD) and were often placed in subterranean tombs and used for pouring libations through perforated covers.

[42] VON GAERTRİNGEN 1926, 63–66; IG.XII.1.197.

[43] Footnote 40 (continued with Ὑγασ[σέως](?)).

[44] See the foreword of Erhat and Kadir in Homer (ERHAT, KADİR, transl., 2007, 26); KLOEKHORST 2008, 127. Also refer to MELCHERT 1993, on the phonology of Anatolian.

addressing/implying Hygassos or associated ethnic (e.g. Stasion of Hygassos origin[45], Figure 2/B; the Hygassian couple on the funerary block, in Syrna[46]) reveal or at least hide a possible Karian character. As to be normally anticipated, we definitely leave the space to the connoisseurs.

The provenience as wells as the characteristics of an inscription or a monument takes the reader to many aspects. Secure dating from the ancient sources or through any other material may prove a connection with a known historical theme, figure, event or prosopographic indication. The frequent commemoration of spouses comes from the Rhodian Peraia. The vast majority of the inscribed stones uncovered in Selimiye, as mentioned, involves many funerary stelae (from the LC, H and R era[47]). A few of them reported from the inland coordinates articulate cultic figures, as well. Two pieces (attributable to the H-R periods) found in Kızılköy mention Lato and Aphrodite, separately.[48] The votive block mentioning Aphrodite[49] was found in the Hellenistic terrace located in the skirts of the *Acropolis* which has been postulated to be the *deme* center of Hygassos.[50] Seemingly, the funerary block of the Deinokles heros (on an altar)[51] found near the ramparts on the *Acropolis* had relation to the stele dedicated to Lato, regarding the locational context. A block of the early 2nd century BC, although difficult to judge whether it was dedicated to Artemis[52], was found in Selimiye where the presence of her mother, Lato cult, in the environs is not surprising. Artemis, on this fragment, was probably not a person's name, hence we can barely establish a link with onomastic data, e.g. the Hygassian Artemis (wife of Menandros) reported from Bayır.[53] If correct for a moment, then the chronology given for both, by Bresson, are in contradiction, except for the date stated as unknown in PHI.[54] Also, there is a possible reading of the cult of Artemis on a rather early (440/420 BC) Lindian decree found in Selimiye.[55]

[45] See footnote 29.

[46] See footnote 27.

[47] BRESSON 199, nos 63–83 (94–101).

[48] *IK Rhod.Peraia. 2*91 (250/1 BC); *Rhodian Peraia*.63; IK *Rhod.Peraia*.292; *Rhodian Peraia*.36; BRESSON 1991, nos 62–65.

[49] FRASER, BEAN 1954, no 39 (43); ROBERT, ROBERT 1955, no 211 (265); OĞUZ-KIRCA 2014c, 38, fig. 9B. The block mentions Aphrodite, on the twentieth of the month Karneios a sheep or a goat, inter *alia* on the sixth of month Agrianios a cattle and two goats (BRESSON 1991, no 65 (94)).

[50] OĞUZ-KIRCA 2014c, 37–39, figs. 7–9, map 2.

[51] *Rhodian Peraia*.168; IK Rhod.Peraia.293; BRESSON 1991, no 64 (possibly Hellenistic). Similar names are known from Rhodes-Lindos (referable to *Rhodes and S. Dodecanese* (IG XII,1)).

[52] *IK Rhod.Peraia*.254 (Hellenistic?); BRESSON 1991, no 76 (190/180 BC).

[53] See Footnote 27; BRESSON 1991, no 61.

[54] *Rhodian Peraia*.199.

[55] *Rhodian Peraia*.1; *IK Rhod*.Peraia.251

The votive inscription mentioning the cult of Aphrodite gives a clue that the *Acropolis* (embodying a *damos*[56]) was inhabited during the successive periods, in all likelihood. As Bean pins out, both the terrace where an ancient structure was located and the possible temenos wall reveal strong Hellenistic traces in respect of the construction technique whereas the letters inscribed on the votive block over the same terrace were Roman.[57] The sherds documented from the site highly affirm the case. Further to that, the styles of masonry appear to be earlier, in patches while boulder walls are also traceable.[58]

2.2. Selective approach taken on other fragmentary material: An attempt to seek interrelatability

The inscribed material might be tantalizing in the case of burdening the risk of bumping into the social profile of a community. In this short part, we choose to take a few steps, directly or indirectly, toward acquainting ourselves with the general composition of a selection of inscriptions of e.g. pasturage, grazing, agriculture and cult.

Apart from some well-known inscriptions uncovered in Amos to the north, we hold a view (in light of the fragments documented in Rhodes) about regulating the way in which people did agriculture or were involved in grazing or both, in the neighborhoods. An informative evidence is the small rectangular plaque (Lartian stone, 2nd/1st century BC.) now resting in the Rhodes Archaeological Museum; it prohibits grazing cattle and sheep, possibly in the temenos space of a tomb [59]:

"βόεα μηδὲ
βοτέα
μὴ ποτάγειν".[60]

Not being in the same category, however, the enforcement of decrees are known to the Peraia; e.g. "Lex Sacra of Tymnos".[61]

Three fragments, describing the specifications for land leasing in Amos[62], are still among the best enlightening evidence for agricultural practice in the Peraia. Despite the lack of supplementary material for our area in question, we implicitly admit that similar decrees must have prevailed for Hygassos as well as her neighbors.

[56] The presence of a d*amos* is also emphzised in BRESSON 1991, no 63.

[57] FRASER, BEAN 1954, no 39 (43).

[58] OĞUZ-KIRCA 2014c, 37–38, fig. 3; 2015a, 43.

[59] Label no 53.

[60] IG XII,1: Rhodos, *Maiuri, NSER* 17.

[61] *Rhodian Peraia*.9; *IK Rhod.*Peraia.201; SOKOLOWSKİ 1956, 47–50; BRESSON 1991, no 102; OĞUZ-KIRCA 2016, 233, 238–241.

[62] FRASER, BEAN 1954, 6–20.

A gray limestone stele (220/200 BC) found in Amos (Hisarburnu-Turunç) and dedicated in the name of a temple (in monetary amounts) brings forward the issue of inventory holding of the public.[63] It is one of the venerable pieces directly addressing the possession rule of a temple-inventory, possibly operated under the imposed principles of Rhodes. Another group (of fragments of three stelae; all are contemporaneous, ca. 220/200 BC.) announces the strict regulations and procedures for leasing and cultivating the land by the tenants.[64] The inscribed stones stipulating the terms and conditions of leasing are well known from Attica[65]. Those emphasizing the leased property that were at the ownership of the temples also survived in Amorgos, in the 4th century BC.[66] What may be of interest from our point of view is that many issues were handled within the Amian texts; e.g. about the leasing terms (reaching 50 years), sheds and buildings to be installed/banned or graves (where) to be dug/not dug, status of guarantee, fines for delay, commencement of the lease date in the month of Karneios, etc. We are unsure whether the month of Karneios was enforced normatively in Amos but there is also the likelihood that land leasing practices were peculiar to the Peraia (the deterministic role of Rhodes and right of initiative on the agrarian practices is argumentative[67]) and that this may not have been an incidental situation. There seems no reason why we should not pose a question at this point: In view of the votive block (dedicated to Aphrodite[68]; see previous part) on which the month of Karneios was articulated, could this month, in certain circumstances, be a temporal reference for Hygassos or surroundings? A milestone for the commencement or date of successful fulfilment of a lease? The possibility that, the Hellenistic terrace housed a public structure/*naos* and the said votive block, provokes us to raise, although hard to prove, ideas on the status of the potential leasing authorities within a *territorium*. The property could have been publicly owned, as in the case of Amos. Should this alternative be correct (even associable with the Roman era), an inferential approach can lean on a possibility that the block was a kind of dedication or offering (in the months of Karneios and Agrianios, with the sacrificial cattle/sheep and goat)[69] for the land which was perhaps a property of the *naos* of Aphrodite and run by a magistrate. If not, then solely comes the valuable presence of the city cults of a community. Actually, the votive's relation to the sacrificial act of a magistrate sounds much more convincing to us (given in the following part) although we deem there are reasons to also step on the possibilities on the matter of leasing and agrarian activities in the ancient world.

[63] Found at the terrace in Hisarburnu. FRASER, BEAN 1954, no 11 (20–22); *Rhodian Peraia*.16; BRESSON 1991, no 48.

[64] FRASER, BEAN 1954, 8–10 (6–20); *IK Rhod. Peraia*.352, 354; *Rhodian Peraia*.24; BRESSON 1991, nos 49–51.

[65] IG ii^2.2492. More on the land leases, also refer to MORENO 2007.

[66] IG XII,7 62.

[67] FRASER, BEAN 1954, 20.

[68] See footnote 49.

[69] FRASER, BEAN 1954, 39; *Rhodian Peraia*.36; *IK Rhod.Peraia*.292 (toponym given as Hydas?); BRESSON 1991, no 65; J.PAUL GETTY MUSEUM 2004, 69.

Traditionally, as early as the Mycenaean times, Karneios and Agrianios were common in the Doric world. In parallel to how Larson conveys for a standard worshipping process, a commemoration could also have been performed collectively and started with a procession route from over the gate, perhaps climbed up the *Acropolis* and ended at the sanctuary of a deity.[70] If so, it is equally possible that the harvest and vintage corresponded to the month, hence the festival of Karneios, associable with an epithet of Apollo. Perhaps the situation was completely different and an unproductive harvest was taking place.

Karneios approximates the month of November while Agrianios matches (if not June) July-August in the Rhodian calendar.[71] Although the sequence of these months change from place to place and time to time,[72] even for Rhodes, the mighty Rhodian-Roman effect (along with the masonry workings) is arguable, on this wise.

An interesting piece of evidence has recently been reported through a small pediment-like stone[73] but probably the lid of a cinerary casket (osteotheque), found at the backyard of the mentioned *naos*. It was detected near a well which is still in-use by the herdsmen. This looks like a ligature where the oblique "P" (form is aslope) is attached to "A". Both were inscribed in majuscule. (Figure 2/C).[74] The exact date is obscure, however the lettering also addresses the Roman era just like the case of the votive block lying a few minutes' walk from this second one. Although, it is difficult to interpret its relation to a building, perhaps to the *naos*, we may further ask whether the ligature connotated the epithet of (Karneios) Apollo[75], presumably characterizing the deity's role in the agrarian background, at the same time. We have reasons to deliberate that this can hardly be coincidental, hence consider another possibility relating it to the *naos*' spiritual owner, being Apollo. Rightfully, no scholar has identified a structure with Aphrodite or any other deity before.

Should our suggestions prove null and void for Apollo, a second alternative, in view of the Latin abbreviations used on the inscriptions, could be to give an eye to "*a(edilicia) p(otestate)*[76]". In this case, we would be ruminating about an authority, often indicating the presence of an official/religious post, magistracy, etc. at the place where the *naos* stood. Noted short above, considerations about a magistrate are already given in the next part.

[70] LARSON 2007, 6.

[71] STODDARt 1847, 38, 40, 43; PRİTTCHETT 1946, 358. For Kos, these correspond to February and January, respectively (*ibid*.).

[72] See SAMUEL 1972. Also referable to BADOUD 2015.

[73] The full names were usually inscribed on the lids of cinerary caskets or repeated on one side of the ossuary. In this case, we only have a ligature. The lid was partly destroyed from the middle of the long side, probably by the looters.

[74] OĞUZ-KIRCA 2014c, 38 (fig. 9c). Reading of only the "A" sign-Alpha (*ibid*.) is corrected with this opportunity.

[75] Sometimes depicted with a ramshorn. For the title of Karneios, see Herodotus 7, 206, Thucydides 5, 75. For the discussions on etymology ("karnos" meaning "ram"), see HALL 1997, 39.

[76] Referable to www.asgle.org, for the abbreviations in Latin inscriptions.

Continuing with Aphrodite helps seek possible interrelations within the Peraia where this deity was also welcome in Physcus.[77] Also, the presence of Aphrodite priestesshood was deciphered in the *deme* of Phoinix.[78] The occurrence of Lato and Aphrodite (through the list of priests thereof) catches the eye in Kedreai (near modern Akyaka), a Karian origin *damos*.[79] Both of these cultic figures were found on the inscriptions, within the borders of Hygassos. But they were probably amongst the other deities about which we have limited knowledge and were honored at different kinds of occasions. All of the views above remain open-ended unless we are challenged with new evidence.

Our final endeavor relates to the potential connectivity of the Hygassian ethnic and the Karian code, regarding the same period shared by two inscriptions found in the same site. The first one bears the name of a Hygassian with the patronym (Philion Philonda), along with a dedication (last quarter of 4th/early 3rd century BC) made to the sanctuary of Hemithea in Kastabos, in the north Peraia.[80] Another stone, reported from the same *locus*, unveiled the two architects of the sanctuary. The reading indicates that they came from the same origin-Halicarnassus; one was inscribed as Letodoros of Halicarnassus while the other name (Ph....) is unreadable[81] (probably not Pythius of Priene). What may require attention here involves the provenance of the architects and the concomitant time periods (320/280 BC), which motivates us to mull over the patriarchal links of the real Peraian/Hygassian citizens with the Karian recognizance and operations in the "suburbs" of Halicarnassus.

We are not in a position to state further, concerning the degree of acculturation around those dates, however, consider the possibility that it was different than to be normally expected or more or less the same as it happened in Lycia.[82] As a matter of course, the pace of acculturations differed in antiquity. Peraia was obviously closer to Rhodes than Halicarnassus, at least in the physical extent.

3. On-site data

Apart from the previously reported epigraphical material, the main character of the surveyed data is clear; we are oriented with architectural and ceramic evidence. An overall

[77] For Aphrodite see *IK Rhod.Peraia*.504 (Hellenistic?); *Rhodian Peraia*.35; BRESSON 1991, no 19 (5th century BC/3rd century AD). For Leto in Physcus, *IK Rhod.Peraia*.502 (350–300 BC); *Rhodian Peraia*.62; BRESSON 1991, no 20 (mid 4th–mid-3rd century BC).

[78] *IK Rhod.Peraia*.104 (3rd–2nd century BC); *Rhodian Peraia*.34; Bresson 1991, no 147 (I.2); *IK Rhod.Peraia*.103 (mid-3rd century BC), BRESSON 1991, no 148 (I.8).

[79] *Rhodian Peraia*.77, 78.

[80] See footnote 26.

[81] COOK, PLOMMER 1966, no 2; *Rhodian Peraia*. 17; BRESSON 1991, no 37 (I.1–2).

[82] See AKŞİT 1971, 49.

view of the settlement maps was already provided in the previous works[83]; this section concentrates on a selection of images from the sites of occupation (regardless of size and pattern of (nucleated or isolated) settlements). Expectedly, the structures scattered over the countryside and *deme* center of Hygassos may not present similar profiles, mostly arising from the discrepancies of period. All we can say is that the *khora* which is interrupted in the stream (Çaykuyudere) front, is a lot more interwoven with the ruins of a settlement situated around the hillslopes of the *Acropolis*. The western side, on the contrary, seems quite comparable with some of the earlier looking dispersed settlements approaching the deme *center* of Tymnos. Such a view is totally dependent on the morphological appearance of the archaeological ruins (with the exception of copiously found Roman artifact profiles over the certain *loci*) but a final review leads us to take an action to incorporate this zone to the ruling domain of immediate Losta which greatly revealed evidence for the late Hellenistic/Roman era. This is completely a separate topic of discussion, and also has value from the point of territorial designation.[84] We shall not turn back to the issue, hence let it be left here.

3.1. Settlement and components under graphoscope

The funerary inscriptions reported from Selimiye address a long interval of habitation in the environs of coastal Losta but the fragments dated to a time span between 5th–3rd centuries BC. are the most affinitative evidence for substantiating a pre-Roman occupation within the *territorium* of Hygassos. Almost nothing (particularly the stelae and fragmentary pieces found in the vicinity of a Byzantine church, modern school building, private domiciles and courtyards[85] and; a podest type? tomb[86] looking rather early in Kızılköy, Figure 3/A) has remained today but some of them still appear in the form of reused blocks on the facades of the ancient chapel and houses (Figure 3/B–C) or boulder blocks which possibly demarcated the terraces of dwellings or were used for the αλώνι (Figure 3/D). Equivalents of many later works in terms of architecture and masonry prove parallels with the ruins known from the Gulf of Mandalya[87] and especially those of Fenaket, *khora* of Syrna and Tymnos in the Peraia.

Approximately 3 km far from the downtown of Selimiye is Kızılköy which is accessible by a road running parallel to the streambed of Çaykuyu. Çaykuyudere stretches across an alluvial terrain in the east, where it also enables access to highly small and fragmented inland topographies. The density of the isolated pocket plains increases around the foothills and back side of Karatepe which rises in the north-northeast of the said streambed.

[83] OĞUZ-KIRCA 2014c; OĞUZ-KIRCA, LIRITZIS 2017.

[84] *Ibid*. Already stressed in Part 2.1.

[85] BRESSON 1991. E.g. nos 67, 69.

[86] OĞUZ-KIRCA 2014c, 37 (refer to footnote 13 on the same page).

[87] SERİN 2013, 197 (fig. 6).

The ancient site scattered over the hillslopes of Asarcık in the NE of Kızılköy has already been identified with an *Acropolis*[88] lying at the top and localized with the *deme center* of Hygassos.[89] The *Acropolis* (situated in the west of Güncebaşı hill) is hardly accessible from the seaward direction. The ramparts (Figure 4/A–C), mostly worked in coursed, irregular ashlar masonry, are quite untouched.[90] They are reminiscent of late Classical walls of Neandria.[91] The mixed character of the stone works is conspicuous, as well (Figure 4/D–F). The development of the site probably occurred in the Roman period but the heydays could be before that; during which the *deme* probably became an agricultural nexus between the *khorai* and "urbanized" areas. We have no idea about the level of its participation in the economy of the Peraia but a research is on the way to explore the potential of the *deme*'s terraces through a retrograde extrapolation.

Of the earliest reference (if not any more other) confined to the modern area of Kızılköy is a funerary inscription, datable to as back as the 4th century BC[92] while various attributes of the architectural features and building remains and the masonry types (Figure 5/C) address a broad chronology around the *Acropolis*. At the foot of the eastern slope of the *Acropolis* lie numerous structures, now mostly collapsed. Hence, nothing has remained intact except a few fragments (e.g. the votive inscription dedicated to Aphrodite, noted above). A general framework on the archaeological evidence relating to the *Acropolis* was drawn before.[93] What is intended here also applies to some additional primary data (Figure 5) and the contextual relation to the former evidence.

Recognizable in the north is the growing number of dwelling ruins which are densely occupied by the vegetation cover, on both sides of a clearing. This kind of positioning backs up the view that they formed the core of the lower city. Many stone slabs and elegant blocks also give the impression that they were part of some distinguished quarters of the settlement. To the north, a highly ruined cylindrical altar with a garlanded bucrania? relief (Figure 2/D) (as well as another which is a plain roundish work) near the natural gateway to the *Acropolis* evidences the Hellenistic texture of the site. The public character structure (associated with Aphrodite, Figure 5/D)) lies at the end of the clearing, in the south.

Although evidence is never strong to understand the definite function of the building, we contemplate that a religious ritual in the honour of Aphrodite could have been performed here. Therefore, it might have represented the "codification of architecture" as a symbol

[88] FRASER, BEAN 1954, 43.

[89] OĞUZ-KIRCA 2014c.

[90] More particularly, we checked for the usage of a swallow-tale technique at the *Acropolis*, however came up empty-handed. For the swallow tail applied in Beçin, referable to BARAN 2010, Plate 125.

[91] AKARCA 1977, 32–35, plate 39.

[92] BRESSON 1991, no 62.

[93] OĞUZ-KIRCA 2014c.

(traceable as back as the Archaic period[94]) at the lower city. Another possibility relates to the erection of the votive (on its terrace) upon the fulfilment of a certain occasion. It might well be a *naos* (marked with low *peribolos* walls), right below the fortress/*phrourion* at the hilltop, perhaps the residence of a magistrate where the act of sacrificing cattle/sheep or oxen and rams could have taken place, as the genus was attested on the same inscription. There is knowledge that Aphrodite could be the "guardian of Greek magistrates[95]" so the magistrates could make a dedication to her. Also, similar regulatory texts pertinent to sacrificial acts were, without doubt, religious character documents well known from 3rd century BC. Kamiros.[96] Preserved on a rocky surface nearby a niche is a row of grooves in which nail holes were perhaps set, to be used for holding the retaining walls or tethering (Figure 5/E) e.g. the rams, other sacrificable beasts (though this may sound a bit fictious, for the moment) or for any other function.

To the backside of the *naos*, carved in the rock, is a square socket for an altar object, possibly a statue (Figure 5/G). Near the osteotheque, on a pedestal, is another statue base[97] , similar to those visible in e.g. Cnidus and Lindos (Figure 2/E). A few feet away lies a stepped pyramidal block, pretty similar to the samples reported from Losta and the southern Peraia.[98] Being amongst the typical architectural components of the Peraia, these monolithic blocks/ pedestals? could have relevancy to sepulchral architecture as Bean once suggested[99] (Figure 2/F–G). We can hardly put forward that all of them were used for the same purpose; they could have served the differently employed material. There is evidence that rather plain looking ones (not cut sharply) were installed as supporting blocks in the corner lines of the *naos* dedicated to Aphrodite,[100] above.

No relic of another documentable public space is traceable in this part of the lower settlement. The center is adorned with some other remains, too. Preserved in few numbers are the water works, mainly the cisterns. A small size oblong basin (Figure 5/F), now earthed with thin soil appears to have been used for consecration (presumptively for baptism[101]). Up on the *Acropolis* lie the largest size cisterns.

Hardly can anyone assert a grid plan due to the contextual disturbance of this nucleated site but all of the ruins scattered around the clearing appear to be orderly arranged along a sloping skirt, engirdling the plain area. Although nothing has remained unaltered, the initial

[94] On the matter of architecture and symbolism, see LANG 2005, 32.

[95] SOKOLOWSKİ 1964; ROBERT, ROBERT 1964, no 82 (p.144). Also see CROISSANT, SALVIAT 1966, 460–471.

[96] BLINKENBERG 1939, no 251; ROBERT, ROBERT 1955, no 211 (265). See *Tit.Cam*.148–156.

[97] See OĞUZ-KIRCA 2015a, 60, fig. 5.

[98] For the stepped pyramidal blocks, see BENT 1888: 82–83; KUBAN, SANER 2001, 164; CARTER 1982, 184–195; OĞUZ-KIRCA 2015a, 50, 60 (see fig. 5).

[99] BEAN 2000, 168; ATAUZ 1997, Illustration 2.

[100] OĞUZ-KIRCA 2014c, 38 (see fig. 9A).

[101] Similar to the large basin used for baptism in Alahan Monastery.

founding of the *deme* (with the *Acropolis*) probably matched here. Takable as a further indicator for the pervasion of the lower town in a larger domain, there lie the scant remains dispersed around another archaeological space down below the lower town (Figure 5/I).[102] The space prompts us to generate an idea of an *agora*. This part, as was priorly expressed by Oğuz-Kırca[103], is accessible via an ancient trackway from lower town (Figure 5/H). The general impression is that the site reached maturity during the late Hellenistic/early Roman period when the Rhodians were still allowed for their landholdings on the mainland. We have no exact idea about the date of abandonment of the whole site but a possible *terminus ante quem* is the end of the late Roman period. The inhabitants could have installed themselves in a neighboring area through a natural runaway corridor running from the N/NE and turning to immediate SE until Kayalı Bay, at times they felt insecure. A vital communication between the coast and the interior via the ancient routes also entails physical connectivity.

A general mention of the evidence from the findspots associable with the *khora* was also made[104], except for some recent pictures, e. g. of the natural corridor between Tülütepe and Kayalı Bay. What has not been mentioned in the previous works (and relevant to the settlement data)[105] is given hereby as the supportive evidence, also to concretize the ideas about the manner of settlement and its relation to the agricultural context. A common aspect for all of the new data is that they highly address the interwoven character of the terrace and settlement formations whereas cases like Kaletepe and Karatepe may still need further questioning on the earlier textures.

Before continuing with additional assessments in some of the major sites given below, there is a need to restress the significance of Kaletepe (Figure 6) which rises like a coastal and terrestrial guardian with a stellate layout[106], in the borderline of Hygassos–Tymnos–Thyssanos (Figure 7/A).[107] As piracy was a hazard on land as well as the sea,[108] this robust fortification could be one of the bases of the Peraian pirates.[109] Kaletepe, on the other hand, appears to share many aspects with those reported from northern Caria.[110] The masonry style in particular, the stronghold's high elevation and visibility values (when compared to many

[102] The lower part of the *Acropolis* in the N appears to be delimited by a gateway (visible on the ground is part of an epistyle) where the natural stairs climbing from the lowest area to the lower city terminate. Some colonnaded structures were probably standing in this part of the city. Without this part, it is hard to guess the original size of the residential areas. All we can say is that a level area that fits to the size of a small *agora* can be accessed by following the sloping grounds toward the lowest code.

[103] OĞUZ-KIRCA 2014c, 39.

[104] OĞUZ-KIRCA 2014c, *passim.*

[105] *Ibid.*; OĞUZ-KIRCA, LIRITZIS 2017, fig. 6.

[106] Visible on the black-white aerial photographs, dated 1971.

[107] OĞUZ-KIRCA 2015b, 131, 133.

[108] ABULAFIA 2003, 57.

[109] For Karian piracy, Herodotus 2, 152; Thucydides 1, 8, 1.

[110] Especially see BEAN 2000; MARCHESE 1989; ROCCA 1992; OĞUZ-KIRCA 2016a, 133–134.

other fortresses in the Peraia), occasional usage of ashlar, the dearth of any tower and few sheds signal an early workmanship (Figure 7/B). In light of such morphological traits, we designate it to a pre-Hellenistic date, perhaps as far back as the Geometric period. Although some of the boulder works in the Cyclopean workmanship recall some Mycenaean traits, this does not seem likely.

The total length of the ramparts reach ca. 400 m; the possible space of usage was about 2 ha. A future study shall assess many more aspects of this fortified area, hence we choose to bring it to an end here.

a. Environs of Tülütepe

The valley running from the south of Tülütepe to Kayalı Bay is rich with small scale rural households and, enclosures possibly used as simple barns. Here is quite a steep terrace system built in the skirts of a deep valley running toward the end of Kayalı Bay (Figure 8/A–B).

The steepest terraces fall to the west of Tülütepe (Sakızlıtepe), where the modern highway makes a sharp turn. Down the same terraces lie the recognizable terrace walls and private boundaries of an ancient structure which is squeezed amongst numerous olive trees forming another band of inactive terraces. Although a pathway heads down to this spot (densely occupied with maquis and olive trees), it seems that the terraces at the opposite side (Karapınartepe N) were preferably exploited till the modern times. Two more structures, possibly farmsteads, are recognizable toward the valley floor (Tülütepe S). An open-structure at the foothill of Tülütepe (Figure 8/C) is recognizable via aerial views but the other, closed one, is hardly accessible due to the very harsh and rugged nature of the terrain. The open type farmstead appears to be a controlling base or similar, which was missioned to collect the products coming from the deployed nearby terraces.

The terraces (designed in steep parallel strips) scattered along the northern skirts of Karapınartepe (facing Tülütepe) can be reached from Hayıtlık location, by traversing an ancient trackway. Many small scale ruins are clustered around the spot called Sürtekçeşme (Figure 8/D). This is a watering hole, a pasture spring and fountain which is still in use for the livestock. The structures (used for grazing in the upcoming periods) echo back to the post-Hellenistic architecture, at the same time. Although rarely found in the vicinity, two highly disturbed press beds were documented. Besides, a cistern network (as well as few wells) can be observed at the beginning point of the valley (Figure 8/E–F).

b. Karatepe

The close environs of Karatepe in the immediate N, NE and E hide small rural agricultural enclaves (Figure 9/A–C) where the abundance of sherds (mostly downslopes) and

overexploited terraces also support an active *khora*. The morphology of the agricultural character terraces, mainly the masonry technique in respect of the arrangement of stones (also revealing high abrasion) hint at ancient cultivation practices, perhaps since the Classical era. We can never be sure without a deep search into the ceramic assemblages.

Regarding the pocket plains which fall to the rugged terrain between Karatape and Büyüktepe[111], there is a need to mention a wide appeal to the inland terrace agriculture. Some ruins are squeezed into a series of modern fields. An ancient installation appears with the traces of a double-chambered and *in-situ* rock-cut pressing bed (Roman or later?) at the point where the boundaries of the modern fields begin. In front of it lies the remains of a barn or a simple plan shed/dwelling that looks like a late work. The press stone could have had relation with a clearly identifiable farmstead/housing unit whose natural boundaries and base walls (at the back, S) address a lavish landholding. Not that far, a late well is observable with reused ashlar blocks on the exterior surface. Presumably, they were transported from the close surroundings. Also worth stressing is an enclave, falling slightly to the north. The ruins of a cluster of simple plan *domūs* integrated with terraces are conspicuous, at the foot of a shallow rocky hill. The spot deserves a mention with possible threshing floors around and that it, together with the sherd scatters, makes this part of land of attraction within the archaeological context. The enclave also evidences the level of agricultural practice around the area.

By looking at the positioning of the enclaves and a structure at the peak point, we can note, the hillslopes of Karatepe could have been used in the earlier periods. It was priorly accentuated that the structure, whose terrace walls are clearly visible, highlights the Karian way of settling, however we do not necessarily confine it to a single era. It is also because some solid Hellenistic/Roman ruins (circled in red) (Figure 9/D–F) at the foot of Karatepe, situated near the streambed of Çaykuyudere, address the effective utilization of the *terra-rosa* groundcovers all around this hill, with more distinguished farmsteads and architectural works, probably of the ruling elites in the agricultural-commercial background. If we turn back to the structure at the peak of Karatepe, it is also a man's work where the remnants of a water complex[112]/part of a supporting installation for a pressing activity/perhaps a sacred pool/sort of an altar segment, attract attention. Moving downwards, a group of broken vessels mostly including mushroom rim amphorae, probably some olpe fragments and numerous Hellenistic/late Hellenistic sherds, which were illegally unearthed by the looters, were documented.

[111] Embraced with two small depression areas, supposedly suitable for cereal products.

[112] OĞUZ-KIRCA 2014c, 37 (fig. 6).

c. Gemecitdüzü

A recent study suggests that an arc of enclaves, also encompassing the physical and social environs of Gemecitdüzü maintained the status of an inner *khora* in the Peninsula.[113] Although some modern constructions and fields are active on this hilltop setting (Figure 10/A–C), this area (ca. 50 hectares) used to be a rural cluster of households with densely deployed terraces in antiquity. The two main sub-sectors of Gemecitdüzü attract attention in this respect. The area in the SW (facing Kelmusa hill on which a long range of walls[114] (Figure 7/C–D) seem to form a demarcation line? between Tymnos and this part of Hygassos) is fruitful with ancient settlement units (Figures 10/E; 11/A–D). Visible in the ground is part of the stone basements of dwellings, arguably of an early date (as well as some post-Roman works) if we disregard the co-presence of post-Classical sherds. Some of the closed or ovoid plans (which can be traced over the small site in the NE sector of Gemecitdüzü (Figure 10/F), at the same time) remind the *tyrokomi* (Figure 9/C) widespread in Yalı (the island between Cos and Nisyros).[115] These type structures could be multi-purpose (sometimes tri-partite) buildings or one-chambered vaulted storage spaces or could burden the function of a small farmstead, pen, cheese making platform, etc.[116] Ethnoarchaeologically, the style of architecture (typical lentos and vaulted masonry) encourages us to establish, at least, the minimum links with some Nisyrian houses most of which are definable as seasonal structures/farmsteads.[117] Anyone can find similar, late bodies of constructions in Fenaket (Phoinix) and coastal Losta (e.g. the chapel in Figure 3/B).

In addition to the Hellenistic and Roman structures, another group having half open, sometimes imperfect rectangular or ovoid plans (S,SW) partly evoke the masonry and building design given by Sampson from the *khora* of Nisyros[118] but the plans and contexts of the dwellings are so disturbed that substantive suggestions cannot be posed.

Rather early looking walls under the earth fills, stone basements, quite a different type masonry applied with strip form stones on the facades of some dwellings (echoing Lelegian masonry?), irregular-polygonal wall series; some perforated rocky surfaces (aperture on the left is a perfect hole (Figure 10/D), at the foot of Kepezdağ) reminding the menhirs?[119] make this level enclave of interest than ever thought.

[113] OĞUZ-KIRCA *et al.* 2017.

[114] We take the long wall range in the north of Xanthos (see COURTİLS, MARKSTEİNER 1999, fig. 5, 99–100) as a good comparative criterion in terms of its strategic importance but regardless of the type of masonry.

[115] For the *tyrokomi* and Yalı see SAMPSON 1997, 158 (τυροκόμι VIII 1).

[116] SAMPSON 1997, 267–269.

[117] *Ibid.* 208.

[118] SAMPSON 1997, 144 (see κτήριο VII 29).

[119] See the sample given by GIOVANOPULOS, SAKELI 2006, 226. No scale is given.

3.2. Sherds cast light on chronology

The artefacts are miscellaneous, from Hellenistic *pithoi* to the Roman plates. The real problem is rooted in the poorly represented profiles and highly disturbed contexts of the ceramic assemblages. The situation gets blurred arising from the severe effects of erosion which could have accelerated downslope displacements of the surface material, and also due to the lack of systematic excavations or reports in the subject *territorium*. Numerous too are the vessels of everyday use and amphorae scatters, particularly for transport or exchange. Lids, body fragments of the utensils (especially the cooking ware) as well as transport amphorae handles and bases are widely found, both in the *deme* centre and the countryside.

Our interpretations demand strong feet on the ground. Hence, we initially attempted to attach priority to the amphora samples which were well presented from the Hellenistic city of Rhodes. They still make up the most inspiring group of ceramics for many scholars operating within the Hellenistic context. The evidence from Hygassos (Figure 12) proves many parallels, especially in respect of the base forms[120] which also are attributable to the Cnidian products.[121] The bases of daily ware/assemblages, especially the comvio (*κομβίο*) form[122] and the banded rim[123] are quite comparable with the samples photographed in the *khora* of Hygassos (Figure 12/A–B); e.g. the comvio forms as well as the cylindrical necks[124] observed in Karatepe draw attention in this respect. Also commonly found and almost identical to those reported from the Cnidian Peninsula is the base style (of the amphorae) which is a precursor of the end of 4th–beginning of 3rd century BC[125] (Figure 12/C). In Gemecitdüzü, numerous Hellenistic sherds (overwhelmingly toward the first quarter of/mid-3rd century BC) show persistence; revealing canonical amphorae bases, tapering bodies, embossed red paste body pieces, yellowish pale-brown uneven surfaces to a high degree.[126] Many of them were documented on a debris cone, in the southwestern part (Figure 12/D). Some of those appearing in stone tempered fabric in the near environs of Tülütepe probably address a place of local manufacture. A button type stamped handle (bearing a central dot)

[120] STODDART, 1847, 7 (see the bottom of the page for the leading forms of pointed *diotae*); FILIMONOS-TSOPOTOU 2004, ΠΙΝΑΕΣ 20–21, 24–25, 60 (η).

[121] GRACE 1934, 202. Many of the early Hellenistic amphorae assemblages found in Ephesos are attributable to the Rhodian, Peraian and Koan origins (LAWALL 2007, 29).

[122] Traceable in FİLİMONOS-TSOPOTOU 2004, ΠΙΝΑΕΣ 64 (ε).

[123] FİLİMONOS-TSOPOTOU 2004, ΠΙΝΑΕΣ 59 (γ).

[124] The variants are almost identical to the long-necked Rhodian amphorae (Type 1 that emerged at the close of the 4th century BC and became widespread toward the end of the first quarter of 3rd century BC) documented at the Black Sea deposits (MONACHOV 2005, 71–86), on a broad scale.

[125] See the styles from Muhaltepe workshop given by TUNA , EMPEREUR 1988, 345, Fig 4 (g–h).

[126] The base forms (plaster banded ring additions) are quite reminiscent of the discards reported from Karaca-Naltaş DOĞER 1994; DOĞER, ŞENOL 1996, 69–71; TUNA, EMPEREUR 1988, 345 (fig. 4g).

was perhaps a product of the potter, Hieroteles (3rd century BC) or his successors[127] (Figure 12/E). We are not sure.

Some sherds also show parallels with the specimen reported from Karpathos by Melas.[128] Of the widely encountered are the Roman ones, especially the *terra-sigillata*, some pseudo double-handles[129], twisted forms (occasionally appearing as the *lagynoi*)[130], round decorations on the rims, combed ware[131] and the Hellenistic pieces that rarely have black glaze.[132] That Tuna and Empereur point at the similar forms of the Rhodian/its mainland type amphorae in Hisarönü and of Nisyros and Karpathos[133] make us reconsider the specimen encountered in Hygassos.

Rhodes and Cyprus were in the active orbit of the Mycenaeans. Mycenaeans implanted a settlement in Rhodes as is much evident from the pottery finds in the tombs.[134] We have no systematic evidence to come up with a possibility that Hygassos was vulnerable to regular intrusions and habitational attempts of the Minoan or Mycenaean culture, except the *terra-cota* profile which could have belonged to a scuttle[135] of which we are also informed through the reports on Iasos.[136] The piece, found in the *khora*, in the lowlands of Tülütepe (Figure 12/F), urges us to fictionalize the late Bronze Age Peraia and question a possible link therewith.

A positive report would certainly enlighten us about the distant trajectory of the *deme*, however nothing (apart from the Geometric and Archaic finds of e.g. nearby Hydas and Bybassos),[137] has been uncovered in favor of the Aegean Late Bronze Age in this part of the Peraia. Hygassos might be a challenge in this respect.

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[127] TUNA, EMPEREUR 1989, 286–287, 293–298; DOĞER 1994, 201–202. For the typical button form stamps of Hieroteles and successive fabricants, also see CANKARDAŞ-ŞENOL, CANOĞLU 2009.

[128] See the samples presented by MELAS 2006, 6–7.

[129] The dating of the double-handles sometimes reveal nuances, e.g. see the handle found in Labraunda and dated to the Hellenistic era [HENRY *et al.* 2013, 283 (fig. 45)].

[130] The sharply twisted handles are also much like the Hellenistic character one-handled *lagynoi* (also paralleling the Cypriot samples) that are occasionally dated to the 3rd –mid-1st centuries BC [see THOMPSON 1934, 450; also referable to ATAUZ 1997, 30–33 (fig. 23)].

[131] MELAS 2006, 33–36, figs. 44–48.

[132] *Ibid*. 32–33, figs. 41-43.

[133] TUNA, EMPEREUR 1989, 290. For the Rhodian effect in Nisyros, also see FRASER, BEAN 1954; THOMPSON 1971, 616.

[134] TAYLOUR 1995, 148.

[135] OĞUZ-KIRCA *et al.* 2017.

[136] MOMIGLIANO 2009, 133, fig. 20.

[137] For the sites orderly mentioned, see BENTER 2010, 669 (We certainly take it into consideration that Hydas revealed the late Bronze and early Iron Age evidence (2010, 667–670), however also await for testification and verification by the author and those involved in the background); ÖZER 2015, 198–203.

4. Discussion and conclusion

Any archaeological endeavour to explore and chase rurality requires both fine and coarse screening of the available evidence. It may even become a drudgery while tackling the data that remain in the air, particularly within the scope of regional searches. The unexplored sites (mostly physically) of the modern Bozburun region encourages us to go far off the distant *khora*, as well as referring to the comparative evidence through an ethno/archaeological glance in the coastal Asia Minor-Dodecanese arc.

Although Hygassos is poor of surface water or permanent streams, the availability of (also modern use) cisterns and wells which were documented all over the site (Figure 13/A–B) could have dismantled the barriers to settlement. They were mostly constructed in the eastern sector (and partly northeast) of the *deme*; a higher density of distribution in quantity applies to the isolated enclaves lying in the pocket plains. Except the near catchment area encircling the *Acropolis* and Çaykuyudere; the desolate and highly fragmented small zone between Kumatepe and the scarps neighboring Bayırköy, the small area falling to the west of Hayıtlık location and the adjacent plain in the immediate east of Tülütepe near the main road (Figure 13/D), etc. reveal a concentration of the water features. For the western sector, where the elevation values are comparatively lower, one can argue for the availability of the water spouts (although being small). These springs or ponds (Figure 13/C, E–F) have proximity to the ruins of buildings, insomuch that the ponds they formed in the background host mini ecosystems because there is a good chance to see turtles and mud crabs in and around these wetlands. It seems that the underground waters spout from the natural cracks in a fault zone that still await to be studied, in this middle part of the Peraia.[138]

The SE sector, a marginal area between Tülütepe and Kayalı Bay, is affluent with household economies positioned on both sides of a natural corridor.

Seasonal movements are postulated in the Aegean Islands since Neolithic times so it was a common thought to have existed in the Peraia with nearby islands[139]. When we attempt to seek certain parallels with the alternative regions, the island of Yalı, lying between Kos and Nisyros, might be a comparative case. The two sectors of Yalı were exploited in different ways. The SW is fruitful with the Neolithic remains while the NE was extensively occupied throughout history.[140] Obviously, we are not interested in the directions but rather in the dispersals in our sample. Hence, sharp discrepancies and preferential settlements arising

[138] For the vicinity of the Peraia, see DSI. The research for the ground water activity map shows 9×10.6m^3 ground water reserves in the northern part of the Peraia (approximately falling to the direct west of Marmaris (between Hisarönü-Marmaris; marked as Selimiye–Tekfuran Barajı, Karaova–Varvil), dated to 1970) (DSI, Böl 12, 42).

[139] TARTARON 2013; NOWICKI 2014.

[140] SAMPSON 1997, 267–268. The SW was exposed to volcanic eruptions and turned green with pine trees whereas the NE is characterizable with perlite, obsidian and rare vegetation.

from e.g. pedology, availability of permanent water, advantages or disadvantages created by the fault zones could have prevailed in Hygassos, as well. Also, the agricultural regime and practice and the plants raised could have changed accordingly. An analogous picture is attributable to Nisyros; what Sampson introduces highly involves an ethnoarchaeological prospect. Many structures on the island are in accord with those of the Asia Minor and Dodecanesian island zone. As understood, the seasonal round trips made for providing the livestock with pasture, fresh grass and water (especially in winter time) between Nisyros and Yalı, must have developed out of the historical practices. The cisterns were probably active during the seasonal movements.[141] Although Hygassos has a non-insular identity, we might argue for (even for pasturage activity) an appeal of a community to the seasonal summer houses.

Furthermore, the nuances in the masonry technique and architectural design might occasionally remain as the perplexing evidence. However, the pre-Maoussolian plans and construction techniques introduced by Diler from e.g. Karadağ, Oyuklutepe, in the Halicarnassian Peninsula[142] seem to match up or share similarity with some of our samples particularly recorded around Gemecitdüzü and Karatepe, in patches. Still, there are many objectionable aspects of the site in question. New research is awaited to unveil the mysteries behind.

Harpasa Fortress (an integral part of the Hecatomnid policy) and its perfect visibility[143] was amongst the *sine qua non* in the northern Karian world. Kaletepe possesses some comparable attributes with the said stronghold and the *peripolion* in Kelbessos.[144] Its usage since the 4th century BC. is quite likely. About the security phenomena, it could also have (along with some others, e. g. Kuletepe)[145] functioned to audit those who were banned for encroaching on the public or private possessions across the frontiers.

Rural landmarks of the *khora* are quite determined by the topographical constraints. Hence, the multi-*khorai* make the way for highly fragmented settlements all over the *deme*, especially in the eastern half. In this manner, we can safely note, that the inland type *deme* of Hygassos hosts numerous, perhaps the majority of the inner *khorai* in the Rhodian Peraia, also taking into account her smallest territorial size (27,23 km^2)[146] amongst the counterparts. The highly dispersed pattern of the whole *khora* and the inner *khorai* do not seem to have created significant barriers to maritime commerce or access to the harbors or inlets.[147]

[141] SAMPSON 1997, 269–270 (see the hardcover with the photograph of the livestock transported via boats).

[142] MV-KAUM 2013, 1009, 1011. Also see DİLER *et al.* 2012, 191.

[143] ÇÖRTÜK 2010, 94.

[144] ÇEVİK, PİMOUGUET-PEDARROS 2005, 445.

[145] OĞUZ-KIRCA, LIRITZIS 2017.

[146] OĞUZ-KIRCA, LIRITZIS 2017.

[147] Maps showing the position of this ancient *deme* are miscellaneous. Delikyol Bay in the northern frontiers of Losta is marked as Hygassos (coded 2169, DE GRAAUW 2016: 304).

Many small scale structures evoke the *tyrokomi* (prevails for Sürtekçeşme, SE of Hayıtlık, Gemecit and Karatepe), hinting at the co-existence of pasturage and agriculture in the inner *khorai*. The parcels lying at the peaks or the critical spots of a valley could have been owned by a controlling authority. On the other hand, the potentiality of the subterranean structures in the close and distant surroundings of the *Acropolis* lights the way to further research in the area.

In conclusion

To our knowledge, the name of Hygassos highly pinpoints her Karian origin on account of the orthographic rules. The onomastic material does not provide any clues for the exact *locus* of the *deme*. But the characteristic Karian/Anatolian roots in the reading, even recognized during the Hellenistic era and; the occurrence of some cultic figures on the 5th century BC inscriptions help change our impression of the *deme*. The sources and evidence do not fully allow us to reconstruct the historical development of Hygassos, however the strong presence of small settlements around an *Acropolis* (as far as the distant *khorai*) and a lively occupational *territorium* can be corroborated through supplementary evidence. The *Acropolis* that identifies a possible *centrum* appears to have survived into the post-Hellenistic period. The settlement grew at the foot of the *Acropolis* and expanded far as the coastal plains and inner *khorai* in dispersed forms, similar to the dendritic pattern that Phoinix[148] developed in the south of the Peraia. Apart from the Rhodian expansionism which admittedly must have ruled the territories of Hygassos without waging war against a community, an acceptable idea involves the continuity of the *deme*'s specialization in the agrarian activity over the ages. On the other hand, although we need solid evidence, there is no reason why we should not put forward, for the first time, an idea about her possible attachment to the *polis* of Kamiros[149] in the Hellenistic era (as nothing has been indicated so far), reconsidering some common exercises on sacred laws, Aphrodite cult, etc.

With the current data, we are never in a position to exhibit, a rigid, even a possible conclusive attempt about the persistence of settlements over the same sites as back as the Bronze Age or earlier, as is the case with e.g. a remarkable number of Parthian sites that are mostly positioned in the plain agricultural areas to benefit from the natural sources.[150] The settlement patterns suggestible for Hygassos basically attest to the sites' resilience to any type terrain (hardly appears to have been forcefully driven but purposely designed at the outset) as long as the needs for constructing agrarian units, mostly in the form of terraces, are satisfied. The formation of patterns also seem to have been dependent on the cultivation

[148] See OĞUZ-KIRCA 2014b.

[149] See OĞUZ-KIRCA 2014a, 274.

[150] MOHAMMADIFAR, NIKNAMI 2013, 11.

capability of the inhabitants. What is almost certain is that it was in the Hellenistic and Roman periods that Hygassos, along with her multi-*khorai*, experienced a perceptible florescence just like Phoinix. We can, at the same time, expect a link with the Mycenaean world in light of some rare but solid utensils of the late Bronze Age which could also be found in the distant *khora*. If so, any priority attached to settling in the close environs of a *centrum* would not make a great sense to an archaeologist, similar to the sporadic habitat patterns dependent on agriculture and pasturage. Also, the dispersed clusterings in the *khorai* and the stellate nucleations around the *Acropolis* appear to have left enough space for caravan routes between two main coastal areas in the north and southeast of the *deme*, respectively. Something that makes this inland type *deme* a lot more distinguished from the other *demoi* appears to be that Hygassos might have been more apt to seasonal movements, in reconsideration of the neighbouring regions (e.g. Nisyrian landscapes and *khorai*) and owing to the changing conditions (e. g. foreign intrusions) despite her much sheltered position in the midst of the Peraia.

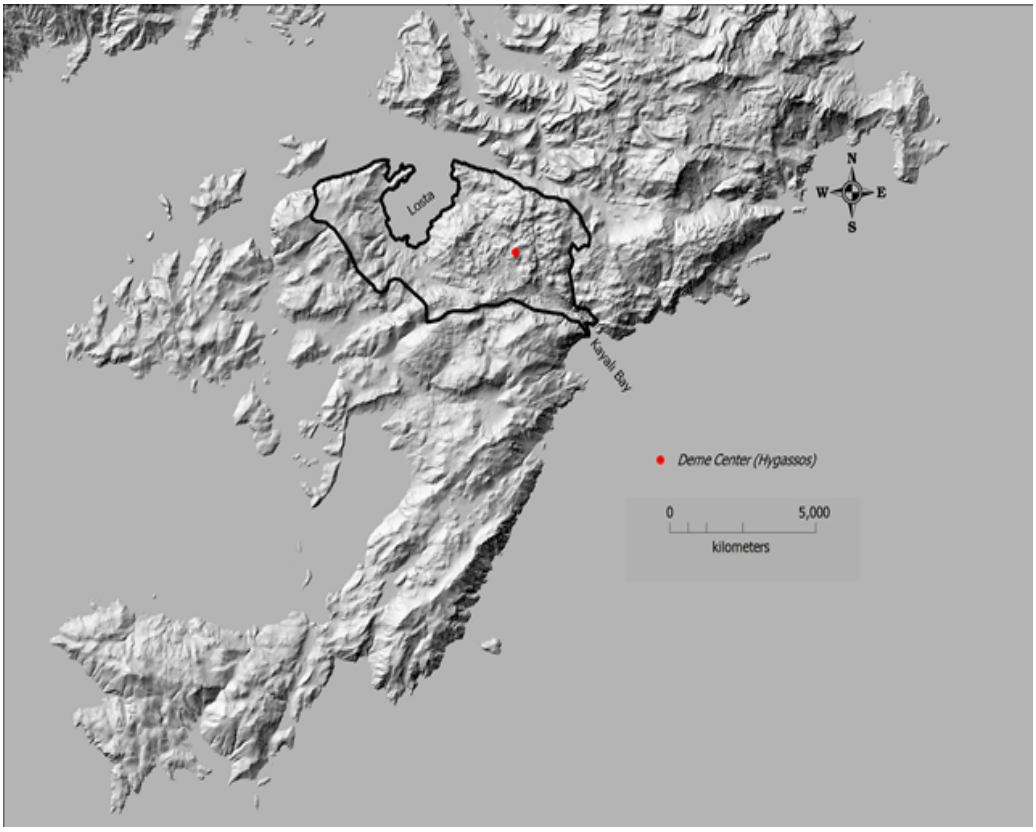

Figure 1. *Territorium* and *centrum* of the Karian Hygassos in the Rhodian Peraia on the shaded relief map of Bozburun Peninsula (E.D. Oğuz-Kırca and I. Liritzis).

Figure 2. Group of photographs from Rhodes Town and Kızılköy (*Cippus* with reading ΄Υγασ in part (A) and funerary altar dedicated to "Stasion of Hygassesis" (B) (Rhodes Archaeology Museum); "AP" ligature inscribed in majuscule on the lid of an osteotheque (C); cylindrical altar with a garlanded bucrania (D); socket for a statue base on a pedestal (E); stepped monolithic blocks (F–G)) (E.D. Oğuz-Kırca and I. Liritzis).

Figure 3. Group of photographs from Kızılköy and Selimiye (Podest tomb (A); reused ashlar on the chapel and a dwelling (B–C); terrace walls of a dwelling or αλώνι (D)) (E.D. Oğuz-Kırca).

Figure 4. Group of photographs from the *Acropolis* and lower settlement (Ramparts (A–C) and mixed stonework (D–F) at the *Acropolis* and lower settlement) (E.D. Oğuz-Kırca).

Figure 5. Group of photographs from the lower settlement (Architectural elements (A–B); late roundish building (C); public structure associated with Aphrodite cult (D); row of grooves on a rocky facade (E); basin for consecration? (F); rock-cut socket for a statue (G); view of the ancient trackway running through the lower town (H); pervasion of the lower settlement to an adjacent domain (I) (E.D. Oğuz-Kırca).

Figure 6. The ramparts (above, E.D.Oğuz-Kırca) and stellate layout (below) of Kaletepe on black-white aerial photographs (dated 1971) (The Rep. of Turkey, General Command of Mapping).

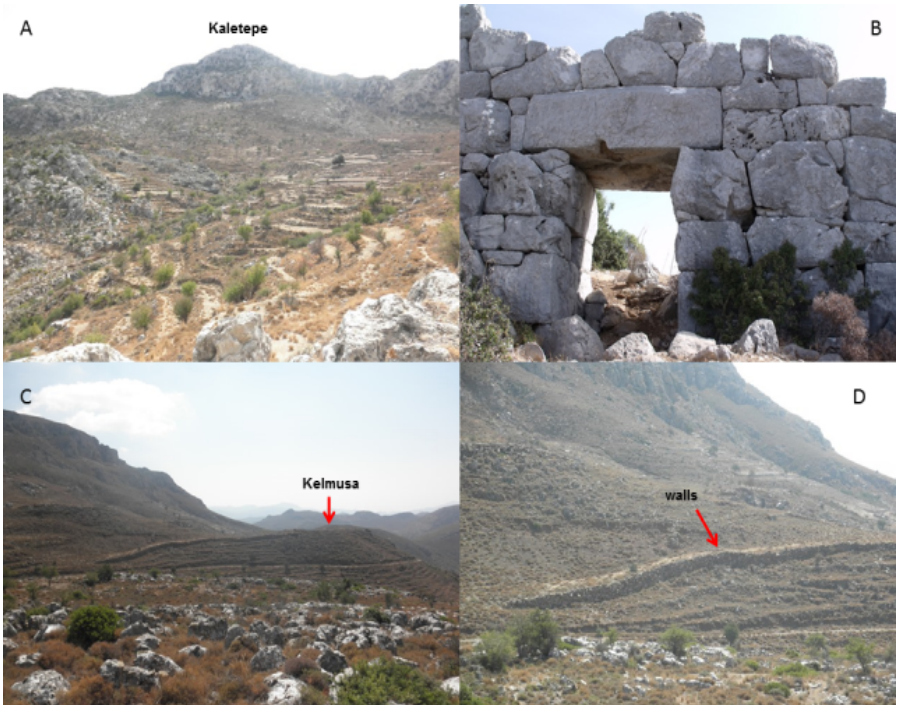

Figure 7. Group of photographs from Kaletepe and Kelmusa (General view of Kaletepe (A); an image of the masonry style (B); wall range (demarcating line?) on Kelmusa Hill situated between Tymnos and Hygassos (C–D)) (E.D. Oğuz-Kırca).

Figure 8. Group of photographs from the vicinity of Hayıtlık and Tülütepe (Network of terraces facing Tülütepe (A); small scale ruin (B); aerial view of an open structure (C); Sürtekçeşme (D); press bed and cistern (E–F)) (E.D. Oğuz-Kırca, (C) excluded).

Figure 9. Group of photographs from Karatepe and environs (Small enclaves, housing borders and dwellings/*tyrokomi*? (A–C); Hellenistic/Roman ruins (site encircled on the left, single elements on the bottom right/right) (D–F)) (E.D. Oğuz-Kırca).

Figure 10. Group of photographs from Gemecitdüzü and environs (Enclaves revealing evidence of ancient and modern constructions (A–C); perforated structure? (D); part of an inner wall of a dwelling (E); small scale settlement (F) (E.D. Oğuz-Kırca).

Figure 11. Group of photographs from Gemecitdüzü SW
(Ancient settlement with details of the basements (A–D)) (E.D. Oğuz-Kırca).

Figure 12. Group of photographs on on ceramic (mostly early Hellenistic and Roman) evidence (*κομβίο* form sherd (A); banded rim (B); amphora bases (C–D); button type handle with a central dot (E); profile of a scuttle? (late Bronze/early Iron?) (F) (E.D. Oğuz-Kırca).

Figure 13. Group of photographs addressing hydraulic features (A cistern, well and spring (A–C); a pocket plain abundant in water features (D); natural pond (E) and mud crab on the western hills (F) (E.D. Oğuz-Kırca).

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Abbreviations in Latin inscriptions. Online: www.asgle.org

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The Greek culture of dialogue and of political decision-making process at Hellenistic Kings' court

Oleg KLIMOV [1]

Abstract. *The article deals with the problem of the political decision-making process at the court of the Hellenistic Kings. The Hellenistic Kings possessed a strong power and vast material and human resources. They took the administrative, legislative, juridical, military and other branches of power in their hands. Nevertheless in many cases when we have the possibility to follow the decision-making process one can notice that many kings preferred the collective forms of searching for the best solution of the state problems. The Hellenistic Kings involved courtiers who were their advisers and consultants in the decision-making process and in many cases were open for dialogue and for free discussions, for the alternative opinions of the advisers. The phenomenon of collective discussion could be easily explained as a political pragmatism, when dialogue, discussion or a brain-storm give much better result to find the right solution and to avoid mistakes. At the same time dialogue and discussion were the immanence of the Greek culture, the Greek cultural "code". The culture of dialogue and discussion was highly developed in a Greek world. It influenced the education, the cultural and political life, etc. The Hellenistic Kings were educated according to the Greek tradition and they transferred the culture of dialogue and discussion into the political life of the state. Thus political pragmatism was combined with the features of Greek culture.*

Rezumat. *Autorul tratează în acest articol problema procesului decizional la curtea regilor elenistici. Deținând o putere absolută și resurse umane vaste, aceștia dețin practic toate pârghiile puterii: juridice, militare și politice. Se observă că ei preferă formulele colective de a căuta soluționarea optimă a problemelor statului. Regii elenistici își implicau curtenii în luarea deciziilor, aceștia fiind și consultanți în același timp. Fenomenul discuțiilor colective poate fi lesne explicat ca o formă de pragmatism politic. În același timp dialogul era o imanență a culturii grecești, un „cod" cultural grecesc.*

Keywords: Hellenistic monarchy; the court of the Hellenistic king; Greek culture of dialogue and discussion; friends of the king; the council of friends; political decision-making process.

1. Introduction

The Hellenistic King's power was rather a contradictory political phenomenon. Numerous facts show the concentration of all kinds of power (legislative, administrative, judicial,

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military, economic and financial power, etc.) in the hands of the monarchs. The idea of the very considerable power of kings became a part of the political consciousness of the population of the Hellenistic states. The very power of monarchs, their right to make any decisions concerning the fate of the cities, of peoples or individuals, including the execution of a people wasn't disputed and not been questioned either by the court or by the army, or by the subjects. Of course, the despotic manner of kings to rule, violent reprisals against relatives or opponents were condemned, but rather from the moral positions, not on the base of law. The unlimited power of the kings was not been a matter of dispute. Moreover, in the ancient political thought and in the public mind the comprehensive nature of the king's power was supported by an ideological justification of the idea that the king represents the law and that he was its living embodiment (νόμος ἔμψυχος), because "everything that will be decided by the king, is fair" (Plut., Dem., 24; also: App., Syr., 61). In the eyes of the subjects the king personally united different parts of the country[2].

Against this background, our sources give numerous facts of ongoing consultations of Hellenistic kings with their relatives (οἱ ἀναγκαῖοι, συγγενεῖς), "friends" (οἱ φίλοι) and approximate (οἱ σύντροφοι) on various issues of public life[3]. Thus we have evidences of a collective practice of making important political decisions, taken after the discussions. In many cases when the modern reader gets the possibility to follow the procedure of decision-making process, it is clear that kings often preferred to implement them not alone, but jointly — with the help of relatives and "friends", engaging them in discussion, in exchanging of the views. We emphasize that approximate of the king, his "friends" and other courtiers did not act as mute extras, but, on the contrary, often quite openly and independently expressed their opinions, offered advice and even addressed criticism and reproaches to the kings.

2. Discussion and dialogue at the court of Hellenistic kings

Ancient sources offer many examples of political discussions and dialogues on the political issues in the history of the Hellenistic kingdoms, from the era of the Diadochi and until the very end of the Hellenistic World. Thus, when Antigonus Monophtalmos captured Eumenes, he was thinking about the future of his captive for several days and was listening to the different advises and proposals from his entourage and also from his son Demetrios and Cretan Nearchos (Plut., Eum., 18). Before the fateful battle with the Celts in 279 BC "friends" of Ptolemy Keraunus tried to persuade him to wait for reinforcements. Ptolemy did not listen to their advice, perished in the battle himself and destroyed the army, putting Macedonia on the brink of disaster (Diod., XXII, 3, 1). In the history of the Seleucid kingdom, in particular,

[2] WALBANK 1984, 66–67, 71, 80–84, etc.; MUSTI 1984, 178–181; BICKERMAN 1985, 13–14, 16–19.

[3] CORRADI 1929, 231–255, 269–290; ALLEN 1983, 133–135; WALBANK 1984, 68–71; BICKERMAN 1985, 41–49; HATZOPOULOS 1996, 323–330, 334–336; CAPDETREY 2007, 278–279.

during the reign of Antiochus III, the practice of the king's meetings with "friends" and relatively free debate in decision-making on major issues of life of the state is often referred to. For example, in connection with the revolt of Molon, Antiochus III was repeatedly summoned the council, giving the right to speak to various members of it (Polyb., V, 41, 6–9; 42: 1–5; 49: 1–7). In 219 BC at the council of Antiochus III, the last word belonged to the doctor Apollophanus who strongly promoted his point of view and persuaded the king and the council members to go to war for the reconquest of Seleucia (Polyb., V, 58). Even earlier—in the period of domination of Hermias—the same Apollophanes played an important role organizing the coup against the influential favorite and persuaded the king to take the necessary steps to destroy him (Polyb., V, 56). Polybius points out that the question of the fate of a captured rebel Achaios under Antiochus III was decided by the Council (Polyb., VI, 23, 2). During the eastern campaign "friends" did not recommend Antiochus III to free the young ruler of Armosata Xerxes, despite the fact that this opinion does not coincide with the mood of the king. When the final decision was taken, Antiochus III did not heed the advice of his "friends" (Polyb., VIII, 25, 3–4). Before the war with Rome, Antiochus III again repeatedly summoned the council, including Hannibal as a member of the board. It is known that the "friends" of the king opposed the strategic plan proposed by Hannibal; King took the side of his advisers (Just., XXXI, 4, 9; 5: 1–9; 6: 1–2) [4]. This information shows at least that there was a free opinion exchange at the meetings. Livy, describing one of the meetings of the king's council concerning the war with Rome, emphasized that Acarnanian Alexander, who had once been a "friend" of Philip V and ran to Antiochus III, rather insistently promoted the idea of a war with Rome (Liv., XXXV, 18, 3)[5]. Later, after the defeat of Antiochus III army at Magnesia, "friends", according to Appian, accused the king for his quarrel with Rome, and for inept planning of the military campaign, and for leaving Chersonese and Lysimacheia, and for the lost final battle (App., Syr., 37).

The series of striking facts of that kind could be added by a well-known case in the history of the Antiochus IV. When in 168 BC Syrian king marched to war against Egypt and came with his army to Alexandria, Roman embassy attempted to stop him. The head of the embassy G. Popilius Laenas in tough and undiplomatic manner demanded to stop the offensive. Antiochus IV, according to the information of some ancient authors, did not want to give an answer right away, but made a very characteristic statement that he must first discuss the decision with his friends. Only the offensive behavior of the Roman envoy made Antiochus IV decide immediately (Polyb., XXIX, 27. 1–8; Just., XXXIV, 3; somewhat different account of the situation: Diod., XXXI, 2; App., Syr., 66; 12; Plut., Apophtegm. reg. et imp., 86; Valer Max., VI, 4,

[4] According to Livy, a major role in making this decision has played the Aetolian strategos Phoant, an ambassador between Antiochus III and the Aetolian League who was not a courtier of the king (Liv., XXXV, 12, 4–5; 32, 2–11; 42, 4–14; 43, 1–2).

[5] See also another examples of consultations with "friends": Diod., XXXIV, 16; I Macch., 6; Jos. Antiq., XII, 3, 4.

about the harsh disposition of the Roman politician: Liv., XLV, 10, 8). In 162 BC after consultation with approximate, Demetrius, the future king Demetrius I Soter, who lived in the "Eternal City" as a hostage, decided to flee from Rome. The advice was given by the teacher of the future king Diodorus, who also helped to organize the escape. In addition, Demetrius consulted about his intentions with the historian Polybius and with one of his "friends", Apollonius (Polyb., XXXI, 19, 4–9; 20, 3).

In the history of the Ptolemaic kingdom, we also mention a number of such examples. Ptolemy IV Philopatoros took a decision concerning the request of the Spartan king Cleomenes III, who was in Egypt at the head of his army, with the participant of the "friends" (Polyb., V, 35, 6–8, 12). After the invasion of Antiochus IV in Egypt when the threat arose for the country, it was decided at the king's board to form a special council of the most experienced people (Polyb., XXVIII, 19). In another situation, the influential Tlepolemos was condemned also at the meeting of the royal council in Alexandria. Tlepolemos, in turn, in anger called a council to accuse openly his opponents (Polyb., XVI, 22, 9). Another of Ptolemy V Epiphanes's influential courtiers, Aetolian Scopas, was likewise sentenced by the board where its members took speeches (Polyb., XVIII, 54, 1–3). Some more vivid examples of collective decision-making process are given by the final events in the history of the state of the Ptolemies. The fate of Pompey the Great, who fled after the defeat at Pharsalus in 48 BC in Egypt, was discussed at the royal council. Eunuch Pothinus who held the position of "ὁ ἐπὶ τῶν πραγμάτων", the teacher of young Ptolemy Theodotus from Chios and the Egyptian Achilles were the main persons who decided the tragic fate of Pompey (Plut., Pomp., 77).

The regular consultations and meetings with the "friends" were commonplace in the ruling practice of the Macedonian kings Philip V and Perseus[6]. In 218 BC Philip V conferred with "friends" concerning the sea war against the Aetolians (Polyb., V, 2, 1). During the trip to Sparta the king again consulted with "friends" on the further plan of military actions (Polyb., V, 22, 8). In 217 BC Philip V collected "friends" to discuss the termination of the war with the Aetolians (Polyb., V, 102, 2). In 197 BC, according to Polybius, at the meeting with T. Quinctius Flamininus Philip V expressed the same position as Antiochus IV: he cannot make a decision immediately, because he has no advisers (XVIII, 7, 4). After the massacre against the residents of Maronea, the Macedonian king had consulted with "friends" Apella and Philokles about how to answer to Rome's inquiry (Polyb., XXII, 18, 7).

Polybius tells us a joke of Titus Quinctius Flamininus towards the Macedonian king indicating the role of the "friends" at the court of Philip V: "It is clear why you are alone now as you killed all the friends who could teach you excellent advice" (Polyb., XVIII, 7, 5–6; see also: Plut., Apophtegm. reg. et imp., 76). During the rule of Perseus the same significant role of

[6] On the role of the king's council in a decision-making process in the state of Antigonids see: HATZOPOULOS 1996, 337–339, 341 f.

"friends" in the government remained. Before the beginning of the Third Macedonian War and at the beginning of the war Perseus repeatedly held meetings with the "friends" who are often expressed different opinions about the relationship with the Romans (Liv., XLII, 50; 51; 1; 57; 1–2; 62, 3 , 8). In 171 BC after the cavalry battle against C. Licinius Crassus, the "friends"—members of the military council in Pella—persuaded Perseus to send envoys to the Roman consul, to see if the Romans are willing to the peace agreement (Polyb., XXVII, 8, 1–5; App., Mac., XII;. Liv., XLII, 57–62). The negotiations were unsuccessful, Perseus achieving nothing, wrongly behaved himself. Polybius says that in this situation Perseus was criticized by the majority of "friends" for the fact that, winning the first encounter, he offers peace as if he was a loser (XXVII, 8, 14). In this context it is important, that after the defeat at Pydna Perseus was looking for a reason to put the blame for the defeat on any of the approximate (Plut., Aemil. Paul., 23). This style of his behavior is possible only in one case — if the decision was taken collectively or according to an advice of his courtiers. After the battle at Pydna upon arrival to Pella the treasurers Euktos and Euleus began to express their regret and reproach to the king; they also gave belated advice, for which he immediately killed them both (Ibid.). In this situation, the most surprising is not so much the fact of the massacre of the courtiers by the king, as their confidence that they have the right to reproach the king and advise him, even in such an unsuitable situation.

In the history of the Attalid kingdom there is a very impressive example of decision-making process at the meeting of the king's council given by the letter written by the king Attalos II to the priest of the temple of Cybele in Pessinus. This letter is one of the whole correspondence group, dating back to 164–156 BC, regarding the relationship with the Galatians (RC., 55–61) [7]. One of these documents (RC., 61) seems to be the a sort of the protocol of the king's council.

> ἐλθόντων ἡμῶν εἰς Πέργαμον και συναγαγόντος μου οὐ μόνον Ἀθήναιον καὶ Σώσανδρον και Μηνογένην, ἀλλὰ καὶ ἑτέρους πλείονας τῶν ἀναγκαίων καὶ προτιθέντος περὶ ὧν ἐν Ἀπαμείαι βουλευόμεθα, λέγοντός τε περὶ ὧν ἔδοξεν ἡμῖν πολλοὶ μὲν ὑπεραγόντως ἐγίνοντο λόγοι, καὶ τὸ πρῶτον πάντες κατέρρεπον ἐπὶ τὴν αὐτὴν ἡμῖν γνώμην (ll. 2–8)
>
> "When we came to Pergamum and I assembled not only Athenaeus and Sosander and Menogenes but many others also of my "relatives", and when I laid before them what we discussed in Apamea and told them our decision, there was a very long discussion, and at first all inclined to the same opinion with us" (transl. Ch. B. Welles).

The next lines of the letter of Attalus II fixed the discussion of the members of the council of "relatives" concerning the problem of relations with the Galatians. One of the courtiers, a

[7] On the documents see: WELLES 1934, 241–253; HANSEN 1971, 126, 131–132; ALLEN 1983, 142–144. Chr. Mileta dates the first letter to the end of 3rd c. BC – after 207, but right before the sacred stone of Magna Mater was transported to Rome (MILETA 2010, 116–119).

certain Chlorus, expressed the suggestion that does not coincide with the opinion of the king and of all the members of the board. The courtier mentioned in the letter could after a while reverse the general mood and urge the king to make the decision, opposite the original one (ll.8, ff.).

In connection with all these facts, it is important to pay attention to the judgment of the historian Polybius who was well-informed in the realities of the Hellenistic epoch and who knew the political "kitchen" of the time. He wrote about the meaning of "friends" and the king's companions, that they either destroy his power or enhance it (Polyb., VI, 4, 6). Of course, this is true only on the base of one crucial condition: "friends" give recommendations to the king, and actively influence the decision-making and the political behavior of the monarch.

At this point I have to make a very important caveat: one shouldn't absolutize the practice of debate and dialogue in the process of making responsible decisions, as well as to idealize the court relationships of the Hellenistic era. The court atmosphere was full of intrigue, flattery, fighting of the court cliques, betrayal, the bloody massacre of opponents, the desire of favor with the king, readiness to serve to the kings with all the means even dishonorable and unmoral and other negative traits. In this regard, it is worth remembering that at feasts of Demetrius I sounded toast in honor of king Demetrius, of Ptolemy the chief of navy, of Seleucus the chief of elephants, of Lysimachus the keeper of the treasury, of the ruler of Sicily Agathocles. These speeches Demetrius himself listened with favor: the flattering words about his royal dignity combined with the insult of other Diadochs, also declared themselves kings (Plut., Dem., 25). Livy also draws attention to the fact that when discussing the war with Rome, Antiochus III courtiers strongly demonstrated martial ardor, hoping thereby to gain the king's favor (Liv., XXXV, 17, 3–4). However, these examples of flattery and sycophancy of "friends" and courtiers to the kings did not change the overall impression, expressed above, in principle. Numerous examples of frank discussion and dialogue on political issues in the royal council suggest that this was precisely the rule of management.

The proposed selection of the facts relating to the discussions and dialogue in making political decisions by the kings is very revealing. The kings discussed with their approximate a variety of topics — military strategy and tactics, diplomatic actions, internal policies, and finally, judged individuals. The facts we have at our disposal belong to different periods of Hellenistic history—from the era of the Diadochs to the Roman conquest—and represent the history of all the Hellenistic states. Thus, we have reason to believe that this is a universal phenomenon, typical characteristic of the very nature of the Hellenistic state. Researchers who wrote about the royal court and about the highest level of power in the Hellenistic states had marked the above-mentioned phenomenon[8]. The fact that ongoing consultation of kings

[8] BICKERMAN 1985, 47–48. Not. 175, 176; CORRADI 1929, 331–342; HAMMOND 1992, 391–392.

with their friends and other members of the inner circle of power and decision-making with their active participation shows that the king's power was not a completely unlimited one. The king's power was limited by the influential courtiers, by the supreme administrative and military elite. Hellenistic kings had to take elite's interests and position into consideration and to consult with its highest representatives concerning the policy of the state.

3. Why the practice of discussion and dialogue was implemented?

It's time to discuss a question as to why there was such a practice in the decision-making process at the court of Hellenistic kings? The first explanation is that the collective nature of the discussion of the state problems and collective decision-making process allows to find the best way out of difficult situations and to avoid voluntarism, ill-considered, impulsive and therefore harmful and dangerous for the state and for the ruling class decisions.

However, in addition to the above, it can be assumed that the collective decision-making procedure on the basis of the dialogue and discussion was an integral element of the Greek culture, it was a basis of the Greek "cultural code" that kings assimilated in the process of training and education, and that inevitably reproduced in their state activity. In Roman history this phenomenon was described by Georgy Knabe. Noting the large role of collective forms of discussion and decision by the Roman emperors of the Principate era, G. Knabe linked it to an interactive form of communication and with the idea that the bearer of true wisdom and experience was a community, a group of people not the individual; therefore, the adoption of individual decisions seemed to the Greeks and Romans inadmissible[9].

The idea, proposed by G. Knabe, is highly productive, and may explain many facts that were presented in the first part of the article. It is important to stress that the verbal forms of communication, the dialogue and discussion played the significant role in the Greek culture. Among Greeks, not only the monologue speech or the personal decision but interactive, discussion form of communication, as well as the appropriate form of learning and decision-making played very important role.

4. Greek culture of dialogue

It is well known that in the ancient practice of teaching one of the most advanced training methods was dialogue, which involves the formulation and awareness of the problem, the collective—by the teacher and the students—nomination of arguments, their inspection and final decision. This method is called Socratic, has also been used by philosophers and teachers of other schools of philosophy (Diog. Laert., II, 22, 29). Discussion

[9] KNABE 1981, 49–50.

with an imaginary opponent was an essential part of training in the rhetorical schools. In this connection, we should also pay attention to the wide dissemination of such kind of genre, as a philosophical and polemical dialogue. It was used by Plato, Xenophon, philosophers of Aristotle's school[10]. In the Hellenistic times, the philosophical dialogue was cultivated very efficiently in the schools of Aristotle and by the Cynics. Cynics, referring their speeches to the different segments of society, tried to find clear forms of presenting their ideas for the ordinary people. They widely used the form of diatribe, which was a presentation not only of the philosophical, but also of the everyday and moral themes in a lively, imaginative style. Statements of philosophers supplemented with quotations from the works of famous poets, proverbs, anecdotes; the monologue often transformed into a dialogue with an imaginary opponent. Master of the genre was Bion of Borysphenes who not only led the verbal conversation, but also published his works (Diog. Laert., II, 77; IV, 52). Among the cynics of the Hellenistic epoch Teles of Megara and Menippus were especially famous for their diatribes[11]. Thus, the dialogue, the discussion form of communication, of training, of presentation of knowledge and the search for truth has been one of the very important characteristics of ancient Greek culture throughout its history, a kind of cultural constant, which has had an impact on other spheres of life, including—inevitably—and policy. Hellenistic kings received education according to the Greek tradition[12]. It means that they were trained and educated in the framework of the dialogue culture and inevitably transferred this culture to their management practices, including the practice of discussion and adoption of important government decisions.

In connection with the tradition of the decision-making on the basis of the discussion it becomes clearer the emergence of informal institution of royal advisors and consultants from among scientists, philosophers, doctors or teachers[13]. They acted informally, in a manner of private communication with the king and participated in the discussion of complex public policy issues and helped in decision-making. A good example of that kind is the situation with the prince Attalus, the brother of king Eumenes, who was sent as an ambassador to Rome and whom Roman politicians persuaded to ask for the part of the Pergamon kingdom. His elder brother, the king Eumenes II was very prudent and foresighted, that is why he sent doctor Stratios as a member of the embassy. Stratios managed to dissuade the prince from this rash step via discussions (Polyb., XXX, 2; Liv., XLV, 19, 20, 1–3). It is important to note that, unlike the members of the council of "friends", this category of courtiers—informal advisers and

[10] On the method of dialogue and discussion in the spheres of education and philosophy in Ancient Greece: ZHURAKOVSKY 1940, 135, 149 f.; AKHMANOV 1955, 174, 177; NERSESIANTS 1977, 58–65, 76–77; KESSIDI 1999, 104–106, 139–152, etc.; MARROU 1998, 95–96, 282–285; MORRISON 2006, 108–110, 114–116; GILL 2006, 140–147.

[11] RADZIG 1969, 414; NAKHOV 1981, 46–52, 129–130, etc.; 1982, 195, 196.

[12] On the education of the Hellenistic kings according to the Greek tradition: KLIMOV 2013, 239–242.

[13] KLIMOV 2011, 141–160.

consultants from among the intellectuals, who lived at the court—used to help developing solutions behind the scenes, in the process of informal communication with the kings. It is clear that the presence of this category of persons at the court also confirms the need for the interactive, collective form of decision of the state problems.

5. Conclusion

To summarize, we note that the institution of "friends" of the king and the council of "friends" were not decorative bodies or private meetings of the king's friends and companions, but a real political institution that influenced the adoption of responsible government decisions. To some extent, the "friends" of the kings and the board of the "friends" determined the policy of the king and limited the Hellenistic monarch power[14]. Thus one of the distinctive features of governance in the Hellenistic world is a contradictory combination of the strong imperial power with the collective forms of decision-making, it is assumed with respect to freedom of expression and conduct discussions for the group of courtiers. At the heart of this decision-making practice laid down not only the managerial pragmatism, which demanded the collective forms to find optimal solutions to the problems, but also long-term Greek cultural and educational tradition — the tradition of dialogue and debate, in which Hellenistic kings were formed as a persons and that they implemented in their public activity.

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[14] BICKERMANN 1985, 46–48; KLIMOV 2010, 172–173; CORRADI 1929, 240–255, 269–290, 318–340; WALBANK 1984, 68–71; MUSTI 1984, 179–180; HATZOPOULOS 1996, 328, 330, 334–336, 338–343; STROOTMAN 2007, 119–123, 155–158; CAPDETREY 2007, 278–279.

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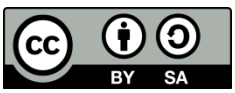

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Cicero on the gods and Roman religious practices

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Abstract. *The article analyses Cicero's attitude to gods, religion, divination, and superstition. Cicero follows tradition in acknowledging the existence of the gods, considering them immortal, blissful, animate, and anthropomorphic. He is ambivalent about the interaction between the gods and people. Cicero considers religion important for the Roman people because this was the popular belief — it was not his own viewpoint. Cicero thinks that people obtain divination from the gods. According to Cicero, there are two types of divination: artificial (auspices, haruspices, divination by lightning, stars, and other signs of nature) and natural (predictions in a dream, in a state of ecstasy, before death). In relation to divination, we see how multi-dimensional Cicero's beliefs were: as a philosopher, he can accept or deny divination; as a Roman politician, he regards divination as an important instrument of the Roman religious rituals. Cicero opposes superstition to religion in his theological works, but in his secular works, he uses superstition and religion as synonyms.*

Rezumat. *În articolul de față este analizată atitudinea lui Cicero față de zei, religie, divinație și superstiție. Cicero urmează tradiția recunoscând existența zeilor și considerându-i nemuritori, cu suflet și antropomorfi. El este ambivalent în ceea ce privește interacțiunea divinitate-oameni. Cicero consideră că religia este importantă pentru romani ca o consecință a unei tradiții populare — nu era propriul său punct de vedre. Divinația, în viziunea lui, se putea obține de la zei. După Cicero, există două tipuri de divinație: artificială (auspicii, haruspicii, divinație prin fulger, stele, alte semne ale naturii) și naturală (preziceri într-un vis, într-o stare de extaz, înainte de moarte). În legătură cu divinația, gândirea lui Cicero este multidimensională: ca filosof, poate accepta sau nega divinația; ca politician roman, privește divinația ca pe un instrument important al ritualurilor religioase romane. Cicero opune superstiția religiei în lucrările sale teologice, dar în cele seculare utilizează religia și superstiția drept sinonime.*

Keywords: Cicero, Rome, god, religion, divination, superstition.

In this article, I investigate Cicero's attitude to gods, religion, divination, and superstition. The matter of the gods and religion in Cicero's interpretation has been considered in some research.[2] However, it needs reconsideration because there are continuous debates about the issues of Cicero's belief or disbelief in the existence of the gods and his characterisation of the gods' relation

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[2] PEASE 1913, 25–37; HOOPER 1917, 88–95; HAMMOND 1966, 195; GOAR 1969, 314–316; COLISH 1990, 109–121; CHAMPION 1992, 185; BEDIAKO 1999, 21–23; TARAN 2001, 455–477; COOK 2010, 235; BLITS 2015, 64–65.

to human affairs. As Colish [3] has put it, "some scholars have dealt with this dilemma by considering that Cicero was simply inconsistent or even hypocritical in the sphere of religion, ignobly avoiding the responsibility of reconciling his adherence to the traditional rites with his philosophical objections to them". In this paper, we are trying to look at the matter from different angles of view. The dialogue *De natura deorum* is the main work related to the question. The *Tusculanae disputationes,* the *De legibus* and other works are also under analysis as they contain sporadically scattered ideas about the gods and religion. We used the method of content analysis for a system information retrieval from Cicero's sources. Besides, we exploited the comparative-historical method, which allowed us to judge about Cicero's religious views. When working with historiography, we used systemic generalization and the method of scientific objectivity in assessing the conflicting views of researchers.

The question of Cicero's belief or disbelief in the gods can be answered in two ways. On the one hand, Cicero realizes a possibility of nothingness of the gods. On the other hand, he understands that worshipping of the gods is important for the Roman people, therefore he does not speak out against it directly. In defence of the first thesis, Cicero mentions the opinions of Protagoras, Diagoras of Milos, Theodore of Cyrene, and Democritus, who did not believe in the gods. He also comments on Epicurus whose attitude to the gods is controversial.[4] There is an interesting observation: Cicero does not explain why the philosophers show disbelief in the gods. Perhaps one of the possible reasons for simply mentioning the issue is that he thinks it unwise to speak about nothingness of the gods (he was *ipse pontifex*[5]). As he writes in the *De natura deorum*, some philosophers paid the big price for it: for example, Protagoras was sentenced by a decree of the Athenian assembly to be banished from the city and from the country, and to have his books burnt in the marketplace.[6] Cicero is not so direct in his disbelief. He only allows himself some cautious remarks. He writes that for many disturbing reflections occur to his mind, which sometimes make him think there are no gods at all.[7] He acknowledges the existence of the gods because almost all men believe that the gods exist,[8] but in the same passage he doubts it because there are many nations so uncivilized and barbarous as to have no notion of any gods at all.[9] Some scholars have also noticed the duality of Cicero's interpretation of the gods. Hooper proves it by analysing

[3] COLISH 1990, 110.

[4] Cic. *nat. deor*. 1.1.2, 1.23.63, 1.31.87, 1.44.123, 2.30.76.

[5] Cic. *nat. deor*. 1.22.61.

[6] Cic. *nat. deor*. 1.23.63: *Nam Abderites quidem Protagoras ... sophistes temporibus illis vel maximus, cum in principio libri sic posuisset 'De divis neque, ut sint neque ut non sint, habeo dicere', Atheniensium iussu urbe atque agro est exterminatus librique eius in contione combusti ...* Cf. 1.30.85. Hereinafter the work *De natura deorum* is translated by H. Rackham.

[7] Cic. *nat. deor*. 1.22.61: *Multa enim occurrunt, quae conturbent, ut interdum nulli [dei] esse videantur.*

[8] Cic. *nat. deor*. 1.22.62.

[9] Cic. *nat. deor*. 1.23.62: *Quod enim omnium gentium generumque hominibus ita videretur, id satis magnum argumentum esse dixisti, cur esse deos confiteremur. Quod cum leve per se, tum etiam falsum est. Primum enim unde tibi notae sunt opiniones nationum? Equidem arbitror multas esse gentes sic inmanitate efferatas, ut apud eas nulla suspicio deorum sit.*

Cicero's correspondence.[10] Pease states that "Cicero could really have felt little fear from charges of atheism or of disturbing the established religion. For, in the first place, had these fears been very serious, he would hardly have published the work at all." [11]

Following the traditional postulate that the gods really exist, Cicero consequently proves their existence. Firstly, he enumerates the views about the gods of the Ancient Greek philosophers — Plato, Thales, Anaximenes.[12] He concludes that their discourse on the gods is more like the dreams of madmen than the considered opinions of philosophers because those opinions are little less absurd than the outpourings of the poets, who have represented the gods inflamed by anger and maddened by lust, and have displayed to our gaze their wars and battles, their fights and wounds, their hatreds, enmities and quarrels.[13] Secondly, with reference to Epicurus Cicero connects the gods with nature: the gods exist, because nature herself has imprinted the conception of them on the minds of all mankind.[14] This thought echoes with another Cicero's statement: there is no wild tribe or beast-like man, who would not have the idea of gods in their consciousness.[15] Thirdly, Cicero tries to determine what is "higher"—nature or the gods—then assuming that nature is primary, then believing that the gods are hierarchically superior to nature. He thus writes that the nature of the gods is not superior to all else in power, inasmuch as it is subject to a necessity or nature that rules the sky, sea and land. But as a matter of fact nothing exists that is superior to god, it follows therefore that the world is ruled by him, therefore god is not obedient or subject to any form of nature, and therefore he himself rules all nature.[16] Somewhere later, in the same work, Cicero expresses the opinion in favour of the primacy of nature, though. He remarks that all things are under the sway of nature and are carried on by her in the most excellent manner.[17] The fourth thesis is connected with the image of the gods. In this question Cicero is quite consistent, considering the gods to be animate[18] and anthropomorphic,[19] providing that people *are* like the gods, not vice versa.[20] As for the gods' character and lifestyle, Cicero thinks they are immortal and

[10] Cic. *att*. 4.10.1, 6.3, 6.4, 7.1, 16.3; *fam*.14.5, 16.12. See also HOOPER 1917, 89.

[11] PEASE 1913, 29.

[12] Cic. *nat. deor*. 1.8.18–1.15.41. Cf. 3.3.7–3.7.19.

[13] Cic. *nat. deor*. 1.16.42: *Eui fere non philosophorum iudicia, sed delirantium somnia ... qui et ira inflammatos et libidine furentis induxerunt deos feceruntque, ut eorum bella, proelia, pugnas, vulnera videremus, odia, praeterea discidia, discordias.*

[14] Cic. *nat. deor*. 1.16.43: *Solus enim vidit primum esse deos, quod in omnium animis eorum notionem inpressisset ipsa natura.* Cf. 2.4.12, 2.23.60.

[15] Cic. *tusc. disp*. 1.13.30: *... nulla gens tam fera, nemo omnium tam sit inmanis, cuius mentem non imbuerit deorum opinio.* Cf. 1.27.65–66, 1.28.70. The translation is mine.

[16] Cic. *nat. deor*. 2.30.77: *... non est igitur natura deorum praepotens neque excellens, si quidem ea subiecta est ei vel necessitati vel naturae, qua caelum maria terrae regantur, nihil est autem praestantius deo; ab eo igitur mundum necesse est regi; nulli igitur est naturae oboediens aut subiectus deus; omnem ergo regit ipse naturam.*

[17] Cic. *nat. deor*. 2.32.81: *Sequitur, ut doceam omnia subiecta esse naturae, eaque ab ea pulcherrime geri.* Cf. 2.33.85, 3.11.28.

[18] Cic. *nat. deor*. 2.17.45, 2.31.78–79, 3.8.20.

[19] Cic. *nat. deor*. 1.18.46, 1.27.76–1.30.84, 1.37.103, 2.23.60, 3.8.20–3.25.64.

[20] Cic. *nat. deor*. 1.35.90.

blissful.[21] In the end, he does not make any definite conclusions about immortality or blissfulness, though. Fifthly, Cicero clarifies the question about whether the gods rule the world; if yes, do they help or harm people? We can read in the *De natura deorum* that the world is governed by divine providence.[22] At the same time, the gods have cared for none.[23] If the gods gave man reason, they gave him malice.[24] Indeed the gods ought to have made all men good, if they really cared for the human race, or failing that, they certainly ought at all events to have cared about the good.[25] There is no such thing at all as the divine governance of the world if that governance makes no distinction between the good and the wicked.[26] The sixth and the last thesis is the most important: in connection with the ambiguous gods' management of the world Cicero offers the idea of importance of the human conscience, saying that you would be justified in so thinking, were not an innocent or guilty conscience so powerful a force in itself, without the assumption of any divine reason.[27] One more evidence to support the above idea can be found in the following passage: virtue no one ever imputed to a god's bounty.[28] These two last statements show that Cicero actually denies the existence of the gods and their concern for the human race.

The last question, which is significant in connection with Cicero's attitude to the gods, is the question of piously worshipping the gods, i.e. religion.[29] Cicero repeatedly points out that the Roman people are religious. He writes that in our nation reverence for the gods and respect for religion grow continually stronger and more profound.[30] In all other respects we are only the equals or even the inferiors of others, yet in the sense of religion, that is, in reverence for the gods, we are far superior.[31] Cicero remarks that people have a duty most solemnly to maintain the rights and doctrines of the established religion.[32] He connects the power of the state with the grace of the immortal gods.[33] We can agree with Bediako that "religion, therefore, was a matter not of personal belief and devotion, but of social duty and ancestral practice."[34] Colish states that Cicero "believes

[21] Cic. *nat. deor*. 1.17.44, 1.19.50–51, 1.37.105–1.41.114.

[22] Cic. *nat. deor*. 2.30.77: *... deorum providentia mundum administrari...* Cf. *nat. deor*. 1.2.4, 2.30.76, 2.31.80, 2.64.162–2.66.166, 3.27.70–3.39.93; *leg*. 1.21.

[23] Cic. *nat. deor*. 3.27.70.

[24] Cic. *nat. deor*. 3.30.75: *Si enim rationem hominibus di dederunt, malitiam dederunt.*

[25] Cic. *nat. deor*. 3.32.79–80: *Debebant illi quidem omnis bonos efficere, siquidem hominum generi consulebant; sin id minus, bonis quidem certe consulere debebant.*

[26] Cic. *nat. deor*. 3.35.85: *sic mundi divina in homines moderatio profecto nulla est, si in ea discrimen nullum est bonorum et malorum.*

[27] Cic. *nat. deor*. 3.35.85: *... recte videretur, nisi et virtutis et vitiorum sine ulla divina ratione grave ipsius conscientiae pondus esset ...*

[28] Cic. *nat. deor*. 3.36.86:*... virtutem autem nemo umquam acceptam deo rettulit ...*

[29] Cic. *nat. deor*. 1.42.117:*... religionem, quae deorum cultu pio continetur.*

[30] Cic. *nat. deor*. 2.2.5: *Itaque et in nostro populo ... deorum cultus religionumque sanctitates existunt in dies maiores atque meliores ...*

[31] Cic. *nat. deor*. 2.3.8: *... ceteris rebus aut pares aut etiam inferiores reperiemur, religione, id est cultu deorum, multo superiores.* Cf. 2.3.10–2.4.11, 3.2.5, 3.40.94.

[32] Cic. *nat. deor*. 1.22.61: *... caerimonias religionesque publicas sanctissime tuendas arbitror...*

[33] Cic. *nat. deor*. 3.2.5: *... nostrae civitatis, quae numquam profecto sine summa placatione deorum inmortalium tanta esse potuisset ...* Cf. *leg*. 2.15–16.

[34] Cf. COOK 2010, 235.

in the traditional religion of Rome and that the foundation of his belief, which he finds perfectly satisfactory, is the authority of the ancients." [35]

The question of Cicero's attitude to divination is close to that to the gods and religion. The ambiguities in relation to the question of divination have inspired debate on the part of scholars.[36] We will shortly outline the essence of his views about *divinatio*, which are mainly represented in the work *De divinatione*. Analysing the context, in which Cicero uses the term in the mentioned and other works, we can conclude that *divinatio* means prediction, foresight, the ability to foresee and know the future.[37] Another idea is that divination is associated with the divine, not the human mind.[38] Cicero is convinced that all nations believe in the possibility of foreshadowing the future.[39] To explain the term, he gives examples of the possibility or impossibility of divination, selected by such Greek philosophers as Xenophanes of Colophon, Socrates, Zeno, Pythagoras, Democritus, Dicaearchus, Cratippus, and others.[40] Providing that divination is possible, Cicero identifies two of its types: artificial and natural.[41] The artificial type is associated with the art of a soothsayer, while the natural with nature. The latter is perceived by Cicero as darker and therefore incomprehensible.[42] The artificial divinations are auspices (divination by the flight of birds),[43] haruspices (divination by the insides of sacrificial animals),[44] astrology (divination by lightning and stars),[45] divination by other phenomena or signs of nature[46] and spells.[47] The natural divinations are divinations in a dream,[48] in a state of frenzy or mental excitement,[49] or before death.[50] Cicero derives the concept of *divinatio* from the thesis of the existence of the gods, namely: since the gods exist, they care about people, and if they care about people, then they send them signals in the form of divinations that help people in their lives.[51] For this reason, signs cannot be neglected —

[35] COLISH 1990, 117–118.

[36] HAMMOND 1966, 195; GOAR 1969, 316; SCHÄUBLIN 1985, 157–167; BEARD 1986, 33–46; SCHOFIELD 1986, 47–65; SCHÄUBLIN 1989, 42–51; COLISH 1990, 121; FERGUSON 2003, 220–221; RASMUSSEN 2003, 122–123, 149–150, 161, 184–185, 189–197; SANTANGELO 2013, 12–13, 22–23, 32–33, 68–69.

[37] Cic. *div*. 1.1.1: *... id est praesensionem et scientiam rerum futurarum ...*

[38] Cic. *div*. 1.49.111–1.50.112, 1.52.118–1.55.125.

[39] Cic. *div*. 1.1.2–1.2.4.

[40] Cic. *div*. 1.3.5–6. See also SCHÄUBLIN 1985, 157.

[41] Cic. *div*. 1.6.11. Cf. 1.18.34, 1.32.72, 1.44.100, 1.44.109. See also FERGUSON 2003, 220–221; SCHÄUBLIN 1989, 42.

[42] Cic. *div*. 1.44.109.

[43] Cic. *div*. 1.15.25–1.17.33, 1.18.36, 1.33.72–1.34.74, 1.35.77, 1.39.87–1.41.90, 1.41.92, 1.42.94, 1.43.95–1.47.105, 1.48.108.

[44] Cic. *div*. 1.12.19, 1.14.24, 1.17.33, 1.36.79, 1.41.91, 1.42.93, 1.43.95, 1.43.97–98, 1.44.99.

[45] Cic. *div*. 1.10.16, 1.34.75, 1.41.92, 1.42.93.

[46] Cic. *div*. 1.8.14, 1.9.15–16.

[47] Cic. *div*. 1.45.102–1.46.104.

[48] Cic. *div*. 1.20.39–1.23.46, 1.24.48–1.30.63, 1.43.96, 1.44.99, 1.51.115.

[49] Cic. *div*. 1.18.34, 1.19.37, 1.31.66–1.32.69, 1.37.80–1.37.81, 1.50.114–115.

[50] Cic. *div*. 1.30.63–1.31.65.

[51] Cic. *div*. 1.49.110, 1.52.118–1.55.125. Cf. Cic. *leg*. 2.32. The translation is mine.

such negligence is dangerous for life.[52] Cicero does not call divinations those predictions, which are related to the human (not divine) mind,[53] or signs, which are connected with fate or with nature, not with gods.[54]

In the second book of the work *De divinatione* Cicero follows the example of the academics and expresses the directly opposite viewpoint of the one that is set forth in the first book. In our opinion, he does it in order to better and deeper examine the subject matter.[55] Cicero points out that divination is not applicable in any case where knowledge is gained through the senses. Nor is there any need of divination even in matters within the domain of science and of art.[56] Thus, the author refuses to recognize the existence of both natural and artificial divinations. Further, he generally denies the existence of divination, writing that if there is no place for divination in things perceived by the senses, or in those included among the arts, or in those discussed by philosophers, or in those which have to do with government, I see absolutely no need for it anywhere.[57] If in the first book Cicero denies the connection between divination and randomness,[58] in the second one he expresses quite an opposite opinion: divination of things that happen by chance is possible only of things which cannot be foreseen by means of skill or wisdom; divination is the foreknowledge of such things as depending upon chance.[59] Further, Cicero consistently "unmasks" the artificial divinations (haruspices,[60] divination by lightning,[61] miracles,[62] signs,[63] auspices, and lots[64]) and the natural ones (prophesies in a state of frenzy and in a dream[65]). Interestingly, putting divination in dependence on the existence of the gods, in the second book Cicero should deny the existence of the gods, since he denies divination, but he does not, noting that yet we must hold on to the gods.[66] At the end of the work it remains unclear whether Cicero himself believes in divination or not.

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[52] Cic. div. 1.35.77, 1.45.101. The translation is mine.

[53] Cic. *div*. 1.49.111–1.50.112. The translation is mine.

[54] Cic. *div*. 1.55.125–1.58.132.

[55] SCHOFIELD 1986, 47; SANTANGELO 2013, 12.

[56] Cic. *div*. 2.3.9: *Ad nullam igitur earum rerum quae sensu accipiuntur divinatio adhibetur. Atqui ne in iis quidem rebus quae arte tractantur divinatione opus est.* Hereinafter the work *De divinatione* is translated by W. A. Falconer.

[57] Cic. *div*. 2.4.12: *Quodsi nec earum rerum, quae subiectae sensibus sunt, una divinatio est nec earum quae artibus continentur, nec earum, quae in philosophia disseruntur, nec earum, quae in re publica versantur, quarum rerum sit nihil prorsus intellego … Vide igitur, ne nulla sit divinatio*. Cf. 2.10.25, 2.17.41; Cic. *nat. deor*. 1.20.55.

[58] Cic. *div*. 1.12.23.

[59] Cic. *div*. 2.5.14: *Ita relinquitur ut ea fortuita divinari possint quae nulla nec arte nec sapientia provideri possunt … Talium ergo rerum, quae in fortuna positae sunt, praesensio divinatio est.*

[60] Cic. *div*. 2.12.28–2.17.39, 2.18.42.

[61] Cic. *div*. 2.18.42–2.21.49.

[62] Cic *div*. 2.22.49–2.24.53, 2.28.61–62.

[63] Cic. *div*. 2.25.54–2.28.60.

[64] Cic. *div*. 2.33.70–2.47. 99.

[65] Cic. *div*. 2.48.100–2.72.150.

[66]Cic. *div*. 2.17.41.

The ambiguity of Cicero's interpretation of divination has given rise to some assumptions of researchers, regarding his concept of *divinatio*. As Schofield puts it, "Cicero found himself freshly attracted to the sceptical philosophy of the new Academy at the time he composed his philosophical encyclopedia precisely because it gave him as encyclopedist the great rhetorical and expository advantage of *argumentum in utramque partem.*"[67] Beard claims that "the Roman èlite in the last century BC were sceptical about divination, augury, prodigies, and haruspicy; or, at least, that has been the view of most modern scholars."[68] The same scholar remarks that "other works of Cicero appear to contradict their author's scepticism on the validity of divination"[69], while Schofield[70] explains the absence of skepticism in his own way: "... when Cicero wrote *de Republica* and *de Legibus* a little less than ten years before, there was no sign of allegiance to the sceptical Academy".[71] Santangelo draws a conclusion about Cicero's negative attitude to divinations.[72] Colish, on the contrary, believes that Cicero's "defense of divination is based on an argument from *consensus omnium*, an argument from historical experience, and an argument from reason."[73] Rasmussen analyses Cicero's views about religion and divination in the same vein, writing about "the most crucial religio-political aspect, which is the public nature of the Senate's and the priesthoods' treatment of portents as collective religious matters, subject to firmly established procedures and ritual expiations."[74] The scholar also argues about the ambiguity of Cicero's attitude to divination, mentioning some researchers (W. Süss and E. Rawson), who perceived the change of Cicero's attitude to divination from the positive one in the first book of the *De divinatione* to the negative one in the second book as the evolution of his views — from the traditional (primitive) views to the more complex Greek philosophical approach.[75] Rasmussen herself believes that the reason for writing this work was not Cicero's desire to express his ideas, but the need to present various ideas of the Greek philosophers, so that the Roman reader can read about them in Latin.[76] Thus, it is not the duplicity of Cicero or the evolution of his views. "The point is that he treats portents from two different angles: one a religio-political view rooted in *mos maiorum*, and the other a philosophical view that springs from the Graeco-Roman acculturation process and Cicero's wish to make Greek philosophical ideas accessible to Latin readers".[77] This opinion seems to us scientifically sound and quite acceptable.

[67] SCHOFIELD 19876, 47.

[68] BEARD 1986, 33.

[69] BEARD 1986, 33.

[70] SCHOLFIELD 1986, 47.

[71] Cf. RAMUSSEN 2003, 191.

[72] SANTANGELO 2013, 23.

[73] Cic. *div*. 1.6.12–1.48.132. See COLISH 1990, 121.

[74] RASMUSSEN 2003, 185.

[75] RASMUSSEN 2003, 185.

[76] RASMUSSEN 2003, 193–197.

[77] Cf. SANTANGELO 2013, 12.

The issues of Cicero's interpretation of the gods, religion and divination are adjoined by the question of his reasoning about *superstitio*. There is some research about it.[78] We will try to analyse Cicero's views ourselves, bearing in mind the ideas suggested by the scholars.

In all Cicero's works, the concept of *superstitio* is used 36 times, while its derivatives, *superstitiosus* and *superstitiose*, are written 13 times and twice, respectively. The *De divinatione* is the main work dedicated to *superstitio* (the term is used 21 times there). In the dialogue *De natura deorum* Cicero defines *superstitio* as piously worshipping the gods.[79] He opposes *superstitio* to *religio.*[80] However, in a number of cases (in secular works) he uses these concepts synonymously.[81] Thus, Cicero mentions superstition and religion synonymously in his discourse on some ethical categories in the *De inventione.*[82] In his religious discourse the terms are opposed: Cicero declares superstition "out of the law", considering it a prejudice, whereas he treats religion with respect: the destruction of superstition does not mean the destruction of religion.[83] About delimiting the concepts, Champion remarks that although both were forms of religious worship, "*superstitio* was the formalistic worship premised upon the 'vain fear of the Gods', *religio* was devotion which resulted from a pious adoration of God."[84] Goar thinks that the question of opposing *religio* and *superstitio* is the main idea of the *De divinatione*.[85] The aim of the work is "to destroy superstition without discarding belief." To support Goar's idea, we can cite Cicero who writes that just as it is a duty to extend the influence of true religion, which is closely associated with the knowledge of nature, so it is a duty to weed out every root of superstition.[86] In regard to these words of Cicero about superstition, which must be torn from the roots, Fott ironically notes that "Cicero attacks superstition at its 'roots', but he preserves its branches, that is, the practices of divination, for their political advantage."[87] The same author is surprised with "Cicero's amazing ability to pull off this simultaneous defense of religion and attack on superstition".[88] Fishwick notices Cicero's ambivalence toward *superstitio*, since the ancient thinker connects the Stoics' views about religious predictions with the notion of *superstitio.*[89] The same author observes the interchangeability of these concepts in Cicero's works: for example, in the speech *Pro Cluentio* (194)

[78] MAYOR 1881, 189, 229–230; RIESS 1895, 41; SOLMSEN 1944, 159–160; GOAR 1968, 246–248; GOAR 1969, 314–316; SCHOFIELD 1986, 47; WOOD 1988, 61; CHAMPION 1992, 185; FOTT 2012, 172–173; FISHWICK 2013, 27, 28, 30, 128; SANTANGELO 2013, 12–13, 23.

[79] Cic. *nat. deor*. 1.42.117*: timor inanis deorum*.

[80] Cic. *div*. 2.72.148–149; *nat. deor*. 1.42.117, 2.28.71–72; *part. orat*. 81; *Cluent*. 194.

[81] Cic. *invent*. 2.165; *Verr*. 2.4.113.

[82] Cic. *invent*. 2.165: *superstitio, quae religioni propinqua est*.

[83] Cic. *div*. 2.72.148.

[84] CHAMPION 1992, 185.

[85] GOAR 1968, 248.

[86] Cic. *div*. 2.72.149: *... ut religio propaganda etiam est quae est iuncta cum cognitione naturae, sic superstitionis stirpes omnes eligendae.*

[87] FOTT 2012, 173.

[88] FOTT 2012, 173. Cf. FISHWICK 2013, 30.

[89] FISHWICK 2013, 128.

Cicero uses *superstitio* in relation to ordinary religious rites, such as sacrifices and prayers.[90] Wood writes about the blurring of the border between superstition and religion, remarking that "Cicero seemingly is not making the sharp distinction between religion and superstition to which we have been accustomed in the Christian era."[91] We cannot agree with the last statement because Cicero writes in the *De natura deorum* that religion has been distinguished from superstition not only by philosophers but by our ancestors.[92] Thus, the Romans knew the difference between reverent worship of the gods and superstitious fears.

In connection with the consideration of the dichotomy *superstitio–religio* it is important to clarify one more point: in the first book of the dialogue *De divinatione*, Cicero praises religion and religious rites (auspices, haruspices, the interpretation of various signs, dreams, etc.), considering them part of religion,[93] while in the second book he puts blame on them, considering them superstitions.[94] This discrepancy can be explained by the fact that Cicero here follows the tradition of the Academics, offering a multidirectional interpretation of religion and religious rites, and proceeds from the tradition of the Academics to consider the subject from different sides.[95] There is one more opinion on the matter: Goar writes that in the second book of the *De divinatione*, "Cicero exposes augury, haruspices, and Sibylline Oracles as a politically useful fraud"; "Cicero's 'religion' was a moral, political, philosophical, and intellectual position, and was not based on deeply held, emotive beliefs. Cicero had religious convictions, but not a religious mentality." [96] We can side with Goar's assertion, since Cicero, being an augur, respected the Roman religious institutions; at the same time, being an erudite philosopher, he was aware of other points of view on religion, even of the idea of the non-existence of the gods and disbelief in them.

We would like now to dwell on one more opposition that Cicero offers us: distinction of *superstitio* from reason and rational cognition of nature.[97] Cicero asks the question, "Which is more consonant with philosophy: to explain these apparitions by the superstitious theories of fortune-telling hags, or by an explanation based on natural causes?"[98] In another passage, he objects to the Stoics: the gods' power can mould and move and alter all things. Nor do you say this as some superstitious fable or old wives' tale, but you give a scientific and systematic account of it.[99] This opposition can be interpreted in the following vein: some philosophers believe in the gods and

[90] FISHWICK 2013, 128.

[91] WOOD 1969, 61.

[92] Cic. *nat. deor*. 2.28.71: *... non enim philosophi solum verum etiam maiores nostri superstitionem a religione separaverunt.*

[93] Cic. *div*. 1.2.3–4, 1.6.12, 1.14.25, 1.15.27, 1.36.79, 1.38.82–83, 1.47.105, 1.55.125.

[94] Cic. *div*. 2.36.76, 2.39.83, 2.40.83, 2.41.85, 2.60.125, 2.72.148.

[95] SCHOFIELD 1986, 47; SANTANGELO 2013, 12.

[96] GOAR 1969, 316.

[97] Cic. *div*. 1.55.126; 2.40.83, 2.63.129, 2.67.136, 2.72.149; *fin*. 1.63; *nat. deor*. 2.28.70, 3.39.92.

[98] Cic. *div*. 2.63.129. Cf. 2.67.136.

[99] Cic. *nat. deor*. 3.39.92: *... numine deorum omnia fingi, moveri mutarique posse. Neque id dicitis superstitiose atque aniliter, sed physica constantique ratione ...*

therefore it makes sense to talk about such concepts as religion and superstition. For those who do not believe in the existence of the gods, there are no such concepts, so they should look for the reasons for being in a rational cognition of nature. In connection with the specified opposition, we want to recall Frazer's idea that the humanity, in its development, passes through three stages: magic, religion and science. The stages are consistently characterised by the belief in the existence of spirits as the root causes of all earthly troubles, then comes the belief in the gods as masters of all things, and finally takes hold the scientific knowledge that transforms the world. Each new stage does not destroy the previous one, but only pushes it into the background. [100] In our opinion, Cicero, being a man of his time, realizes that magic, of which superstition is a part, has already given way to religion. At the same time, thanks to the ancient Greek philosophers, Cicero knows about the idea of a rational cognition of nature beyond the postulate that the gods exist: such knowledge can be considered as the beginnings of science. Thus, Cicero negatively views superstition as a manifestation of magic, but he respects the Roman official religion and makes attempts to view nature from the standpoint of reason and science.

To sum up, Cicero recognizes the existence of the gods due to the tradition adopted in the Roman society, not due to his own convictions. He considers the gods immortal, blissful, animate, and anthropomorphic. He also examines in detail the question of the interaction between the gods and the Roman people, accepting such, but not claiming that it always happens in a positive way. He is undoubtedly convinced of the importance of religion for the Roman people. He does not base the discourse on his convictions, but on the prevailing opinion adopted in the Roman society. Regarding divination as a part of the religious practices, one can speak of Cicero's dual interpretation of it. It happens due to the multifaceted nature of his views: as a philosopher, he can recognize or deny the truth of the interpretations of various signs; as a Roman citizen and politician, he advocates divination as an important tool of the Roman religious rites. Cicero opposes religion, i.e. reverent worship of the gods, to superstition, i.e. senseless fear of the gods. He claims that superstition should be suppressed, while religion, which is combined with knowledge of nature, should be maintained. In the second book of the work *De divinatione* Cicero equates the Roman religious rites with superstitions, which can be perceived as his attempt to consider the question of religion from the opposite side. In his secular works, Cicero sometimes uses superstition and religion as synonyms: such use can be perceived as an exception rather than a rule.

[100] FRAZER 1998, 26–59.

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Jewish society and family tradition in funerary inscriptions

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Abstract. *The aim of this article is to present the Jewish social and family values in Antiquity, as they can be perceived mostly through a reading of the funerary inscriptions. Details regarding the care and feelings towards the deceased, as well as wishes for the potential violators of the tombs are also envisaged. The content of the epitaphs also provides precious information on the names, titles and the age of the deceased, on the causes of death, and the epithets denoting close relationships between the members of the family.*

Rezumat. *Articolul prezintă valorile sociale și familiale ale evreilor în Antichitate, așa cum se percep prin intermediul inscripțiilor funerare. Detalii privind grija și sentimentele față de cei decedați, precum și ceea ce le doresc cei rămași în viață potențialilor violatori de morminte sunt luate în discuție. Conținutul epitafurilor furnizează informații despre nume și titluri ale defuncților, despre cauzele morții, iar epitetele indică relații foarte strânse între membrii familiei.*

Keywords: Jewish family, tradition, grave epitaphs, social values, memory.

Philo of Alexandria and Josephus Flavius highlight the effort made by parents to familiarize children, from a young age, with the wisdom and the word of Torah.[2] According to Josephus, "(...) [o]ur principal care of all is this, to educate our children well: and we think it to be the most necessary business of our whole life to observe the laws that have been given us."[3] Private tutors emerge only starting with the 2nd century; they live in the family home and teach the children pursuant to the wisdom of Torah, although this custom was not generalized in the 1st century, when children were sent to school.

According to the Tannaitic law, a father was the main person in charge with conveying to his children the Law of Yahwe,[4] as not only a paternal duty, but also as stated by the Deuteronomy, and as a condition for enjoying a longer life and the gift of the earth.[5] A father also had to provide

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[2] Josephus, *Against Apion* II, 178: "But for our people, if anybody do but ask any one of them about our laws, he will more readily tell them all, than he will tell his own name. And this in consequence of our having learned them immediately, as soon as ever we became sensible of any thing; and of our having them, as it were, engraven on our souls. Our transgressors of them are but few: and 'tis impossible when any do offend, to escape punishment"; Philon, *Legatio ad Gaium* 210.

[3] Josephus, *Against Apion* I, 60.

[4] T. Kiddushin 1, 11: "A father's obligation.... to teach his son Torah."

[5] Deuteronomy 32, 46–47; 6, 7, 11.

children with information regarding certain events, Jewish institutions or commemoration days. Often, these teachings took the shape of catechetical passages, consisting in questions and answers. There are five such passages in the Jewish Tanakh[6] comprising the repeated formula "*when your son asks you... tell him...*" These catechetical passages bring into discussion the events related to the Exodus, to the conquest of the Earth and to the reception of the Law, all of them representing central topics of the historical faith and of the relationship with Yahweh. Most often, such catechetical passages were recited during the celebration of the newborn. First, the ritual equated with a statement of Israel as belonging to Yahweh. The first born of the Israel nation was spared when the first born of Egypt was killed. In conclusion, all those that God spared from death belong to Yahweh. Secondly, the newborn ritual represented the permanence of the relationship between Yahweh and the Jewish people: by receiving the first born, Yahweh claimed his successors implicitly, thus becoming the God of Israel "from one generation to another." This sign of remembrance was perpetuated within the family.

It was a father's duty to handle the circumcision of his son, to redeem him if he was the firstborn, to teach him the Torah, to find him a wife and to teach him a trade. Through circumcision and redemption, a father made his son part of Abraham's Covenant with God and initiated him in the historical memory of the Jewish people, which began when they left from Egypt. For a child, the father must be the teacher ensuring the conveying of Jewish values and a model of moral behaviour. The duty of teaching a trade to the son has the purpose of ensuring economic independence. The daughters' education was a mother's task and it comprised teaching the Jewish life rules and the household chores for which Jewish women were responsible. In addition, there was much praise for a woman who used her influence in order to encourage her husband and sons to get better insight into the Torah, which she did not have to study herself, given her many duties.

In his capacity as the main person in charge with children's education, a father was entitled to use disciplinary measures that were considered necessary: "*He who spares his rod hates his son, but he who loves him disciplines him promptly.*"[7] However, literature indicates a much greater number of cases when a parent's attitude towards the children is caring and loving.[8] Children had the duty of honouring their parents and respect them. The Talmud defines "honouring" as the obligation of ensuring parents have food, drink, clothes and locomotion means, mostly when parents grow old and need these services. The commandment addresses especially to adults, although young people are by no means exempted, and those who observe it will live a long life. In exchange, respect is a duty for children of all ages. As concluded, Talmud gives great importance to honouring the parents: "*There are three partners in every person, the Holy One Blessed be He, the father and the mother.*

[6] Exodus 12, 26 ; 13, 14; Joshua 4, 6 ; 4, 21–23; Deuteronomy 6, 20 –24

[7] *Wise Saying of Solomon* 13, 24.

[8] T.Yoma 5, 2; T.B.Yoma 30b.

When a person honours his father and his mother, the Holy One Blessed be He says, 'I view them as though I had dwelt among them and they had honoured Me'."[9]

Extended family represents a distinct entity that comprises one or several generations of genetically related individuals, who live under the same roof, share the same morale and religious values and are subjected to the sole authority of the family head. In case of the Jewish family, especially, it represents not only a socializing framework for the new generation of individuals, but also one for promoting traditional values and specific cultural identity.[10] In a diasporic setting, where the danger of assimilation—even through mixed marriages—was real and omnipresent, Jewish family had to assert its specificity and to promote its religious traditions and purity rules. The feeling of difference and of belonging to the chosen people was cultivated since early childhood.[11] Concerning the relationship between children and parents, especially children and the father, the often accepted perspective is that the father had absolute power over them (*patria potestas*), including the power to decide over their life or death; however, there is only one case when the family head pronounced a sentence concerning the death of his daughter-in-law.[12] On the contrary, the Deuteronomy law limits explicitly such an interpretation of the *patria potestas* concept, by placing the power of executing a disobeying son in the hands of the Elders, after a rigorous investigation.[13] Also, the formulas used by daughter to address their fathers may provide a clue concerning the relationships between children and the father: he was called *baal* (master) or *adon* (Sir).[14] However, there are provisions attesting that, from a legal perspective, children were considered the property of the father; they even had economic values ascribed to them.

Family represented the starting point concerning socialization for each generation; such generation had to raise in its turn another generation of Jews. It is no coincidence that the main text of the Jewish Shema prayer[15] reminds the Jews of the only covenant they made with the unique God and of the commandments they have to observe: "Love the Lord your God with all your heart and with all your soul and with all your strength. These commandments that I give you today are to be on your hearts. Impress them on your children. Talk about them when you sit at home and when you walk along the road, when you lie down and when you get up."[16]

Funerary epitaphs represent par excellence the means used for expressing the best feelings for the deceased members of the family, but also the harshest invocations for punishing wrongdoers, either tomb profaners or outlaws who committed a crime against someone dear when they were still alive. In some cases, we see the husband express his most profound feelings of gratitude for the

[9] Kiddushin 30b.

[10] BARCLAY 1997, 66–67.

[11] BARCLAY 1996, 402–413.

[12] Facerea, 38, 24.

[13] Deuteronomy 21, 18–21.

[14] DE BOER 1974, 6.

[15] GUGENHEIM 1998, 726–727.

[16] Deuteronomy, 6, 4–9; 11, 13–21; Numbers, 15, 37–41. GOLDENBERG 2007, 151–152.

deceased wife: "*Be brave, Julia Aemilia, aged 40. You lived a faultless life with your husband. I give thanks for your forethought and your soul.*"[17] Another equally touching epitaph is dedicated to a person called Regina: "*Here is buried Regina, covered by such a tomb, which her husband set up in accordance to his love for her. After twice ten (years), she spent with him a year and four months minus eight days. She will live again and she will return to the light again. For she can hope therefore that she will rise into the age promised for the worthy and the pious, she, a true treasure, the one who deserves to have a shelter in the venerable country. Your piety has achieved this for you, your chaste life, your love for your family (?), but also the fact that you observed the Law, that you valued your marriage, whose honour was your concern. For these deeds, there is hope for you in the future, and your grieving husband finds comfort in that.*"[18]

The care and affection for spouses or for other family members is also suggested by other situations. First, when they were alive, through prayers and acts of charity; on such occasions, people prayed to divinity for their family members: "*Ilasios, son of Isaac, archisynagogos of Antioch, for the salvation of Photion, of his wife and his children, and for the wellbeing of Eustathia, his mother-in-law and in the memory of Isaac, of Aidesios and of Hesychion, his ancestors, he made the mosaic of the entrance. Peace and mercy on all your blessed community*"[19]. When they died, the others took care of the tomb belonging to the deceased: "*Flavius Iulianus, the servant. Flavia Iuliana, the daughter, for her father. Rest in peace!*"[20]. Thirdly, the feelings of those alive could also be manifested by addressing epitaphs demonstrating appreciation and compassion. A frequent epithet in Jewish epitaphs is *benemerentus* ("the well-deserving"): "*For Plotius Fortunatus, the archisynagogos. Plotius Ampliatus, Secundinus (and) Secunda made (this monument)..., and Ofilia Basilia for her well-deserving husband*"[21]. An equally frequent epithet is *benememorius/benememoria*: "*This is the commemorative monument where Meliosa rests, the one of eternal memory, daughter of Juda and of Lady Maria*"[22]. Other types of epithets include "*the all shiny*"[23]; "*the most respectable*"[24], "*the respected*"[25]. There were also appraisals concerning the quality of life of the deceased: "*Here lies Euphrasios, archisynagogos, the one who led a good life (?)*"[26].

From among the second category, the one of funerary epitaphs, we can describe several very interesting situations. Two inscriptions with a similar content, but which refer to different persons, come from the necropolis of Delos, Rheneia. Only the names of the persons were replaced, namely

[17] JIWE II, 326 = CIJ I, 123 (III–IV c. (?); Greek; Vigna Randanini, Rome). ZABIN 1996, 275–276.

[18] JIWE II, 103 = CIJ I, 476 (III–IV C. (?); Latin; Monteverde, Rome).

[19] IJO III, Syr54; RAJAK, NOY 1993, 91, no. 22; HORSLEY IV, 1979, 216, nr. 30; LIFSHITZ 1967, 40–41, nr. 39; CIJ I, 804.

[20] JIWE II, 290; CIJ I, 172.

[21] JIWE I, 14 (Pl. VII); RAJAK, NOY 1993, 89, no. 5; HORSLEY 1979, 214, nr. 12.

[22] JIWE I, 183 (Pl. XXVII); CIJ I, 661.

[23] IJO III, Syr26; RAJAK, NOY 1993, 90, nr. 13; HORSLEY 1979, 216, nr. 37.

[24] IJO II, 46; RAJAK, NOY 1993, 90, nr. 18; HORSLEY 1979, 216, nr. 24; LITSHITZ 1967, 23–24, nr. 16; CIJ I, 744.

[25] JIWE I, 22.

[26] JIWE II, 13; RAJAK, NOY 1993, 89, nr. 3; HORSLEY 1979, 214, nr. 3; *CIJ*, I, 336.

Heraclea[27] and Martina[28], and the end is slightly different. They comprise an invocation addressed to God Most High from a Jewish perspective, and to the angelical celestial powers, in order to revenge the coward act of murdering the two persons at a very young age, most probably by poisoning: "*I invoke and I pray incessantly to the God Most High, the master of spirits and of all bodies, for those who have treacherously murdered or poisoned the wretched Heraclea, who died untimely, who have unjustly shed her innocent blood, that the same may happen to them, to those who have treacherously murdered or poisoned her and to their children. O, Lord, you who see everything and the angels of God, for whom every soul humbles itself on the present day with supplication, avenge the innocent blood, follow (them) without delay!*"[29].

Another funerary epitaph contains a provision addressed to a potential tomb profaner, but which does not refer to a curse or threatens with a punishment the wrongdoer and his family for entire generations, as featured within similar inscriptions found in Asia Minor (especially in Phrygia and in Lydia), but it only contains an amount to be paid by the person who would move the bones to another place. "*Peace upon Israel. Amen, amen, peace. Samuel. I, Aurelius Samuel, bought a memorial for myself and for my wife, Lassia Irene, whose end occurred on the 21st of October, on a Friday, in the eighth month, when Merobaudes for the second time and Saturninus were consuls. She lived 23 years, in peace. I adjure you by the victories (of those?) who rule you, I adjure you by the honours of the patriarchs, and I adjure you by the law which the Lord gave to the Jews: let no one open the memorial and put someone else's body on top of our bones. But if anyone should open it, let him or her pay ten pounds of silver to the treasury*"[30]. Similarly, a pound of gold should have been paid by those who would have profaned the tomb of Flavia Optata, who was buried at the end of the 4th century and the beginning of the 5th century at Concordia, in the Iberian Peninsula[31]. However, there are epitaphs that contain harsher punishments, similar to the ones of the Anatolian area: "*...Catilia Eutychi... I have made in advance (?)... In this tomb lies Hermione, the dear foster child (?) of Hermias, aged 4. I, Publius Catilius Hermias, the trader, lie here, aged 35. If anyone opens this tomb and buries someone else, he or she will pay 5,000 denarii to the treasury. And if someone either buys this tomb or erases the inscription, the wrath of God will destroy his or her whole family*"[32].

The role of Jewish women in the public life became increasingly important starting with the Roman period, a fact proven by numerous inscriptions. I have made here several comparisons to the epigraphic material found in the area of Asia Minor. Some of the women actually had

[27] IJO I, Ach70; MITCHELL 1999, 135, no. 110; WHITE 1997, 338–339, no. 3; TREBILCO 1991, 133–134, no. 4.2; VAN DER HORST 1991, 148–149, no. 6; WHITE 1987, 139–140, n. 27 and 147, n. 60; SCHÜRER 1986², 70; CIJ I, 725a; PIPPIDI 1974, 260–261; GOODENOUGH II, 1953, 61; ROBERT 1937, 81.

[28] IJO I, Ach71; WHITE 1997, 338–339, no. 3; TREBILCO 1991, 133–134, no. 4.2; WHITE 1987, 147, n. 60; SCHÜRER 1986², 70; CIJ I, 725b; PIPPIDI 1974, 260–261; GOODENOUGH 1953, 61; ROBERT 1937, 81.

[29] IJO I, Ach70.

[30] JIWE I, 145; HORSLEY 1979, 223, no. 114; GOODENOUGH 1953, 56; CIJ I, 594.

[31] JIWE I, 6; CIJ I, 640.

[32] JIWE II, 360; STRUBBE 1994, 126–127, no. 14; VAN DER HORST 1991, 58.

important roles within either the community or the extended urban society. Hence, during the Principate, some of the Jewish women had the title of *prostates*, "president" or "patron" of the community, for instance at Aphrodisias or of *archisynagogos*, meaning "the head of the synagogue" at Myndos and Smyrna. It was no coincidence that the number of female God fearers and proselytes also became ever more important. Some of them came from rich and influential families. Iulia Severa, the one who eventually donated an entire building for the use of the Akmonia community – probably a synagogue, given that the term used was *oikos* – or Claudia Capitolina, daughter or sister of Claudius Capitolinus Bassus, the proconsul of Asia, and the wife of a Roman senator, demonstrate the impact of Judaism in certain local social settings. In the same line, we see that the female God fearers in Pisidian Antioch were called *euschemonai*, namely "of noble descent." However, the cases when women are mentioned explicitly on inscriptions as proselytes are scarce. At least two of them – both from Rome, in the 3rd and 4th centuries AD – made the object of my analysis because, on one hand, they reflect a practice related to the moment of reception by the community, marked by the addition of an *agnomen*, and on the other, because here the attestation of ascribing honorary titles is present, such as the one of "mother of the synagogue" (*meter synagoges*), in exchange for services brought to the community. The first example is the one of Veturia Paula (*JIWE*, II, 577 = *CIJ*, I, 523), who lived 86 years and 6 months and who was "a proselyte for 16 years under the name of Sara" and "mother of the synagogues of Campus and Volumnis," while the second refers to "Felicitas, a proselyte for six years" (*JIWE*, II, 62 = *CIJ*, I, 462), also called Peregrina (according to Noy) or Nuemi (according to Frey). In one of the rare studies approaching the issue of matrilineal descent in ancient Judaism, (*The Origins of the Matrilineal Principle in Rabbinic Law*) after analyzing the main pagan, Christian and Rabbinic literary and legal sources regarding the status of the Jewish women, Shaye D. Cohen concludes that the passage to matrilineality in case of mixed families occurred in the 2nd century AD. According to the author, this was a result of the adaptation to the new legal conditions of Roman society, but she does not make any further observations. My point of view in this regard is that the respective measure was determined by the legislative measures adopted mainly by Hadrian, Antoninus Pius and Septimius Severus concerning two main aspects. (1) The first was the interdiction of circumcising those who were not Jews. (2) The second was the limiting of proselyte actions by the Jews. By such proselytizing actions, Jews actually promoted their own socio-institutional and religious image among peoples. The fact that the interdiction of proselytizing actions would have hit hard the Judaic environment actually explains the decision of adopting the matrilineal descent principle. Furthermore, a role was also played by the influence of women on Judaism. Thus, the most plausible explanation is that women were especially targeted by the conversion to Judaism, an action that occurred without risks and without the need of circumcision, which some peoples considered self-mutilation. Moreover, ethnic belonging was most of the times hard to prove in their case. In addition, the son of a proselyte was automatically acknowledged as a Jew, reason for which he did not have to observe the rule of circumcision applied to peoples.

Abbreviations

CIJ I = *Corpus Inscriptionum Iudaicarum*, I, *Corpus of Jewish Inscriptions. Jewish Inscriptions from the IIIrd Century B.C. to the VIIth Century A.D. – Europe*, published by P. J-B. Frey, Prolegomenon by B. Lifshitz. New York, 1975[2].

CIJ II = *Corpus Inscriptionum Iudaicarum*, II, *Corpus Inscriptionum Iudaicarum. Recueil des Inscriptions Juives qui vont du IIIe siècle avant J.-C. au VIIe siècle de notre ère – Asie-Afrique*, Città del Vaticano/Roma, 1952.

IJO I = *Inscriptiones Judaicae Orientis*, I, *Eastern Europe*, edited by David Noy, Alexander Panayotov, and Hanswulf Bloedhorn. Tübingen, 2004.

IJO II = *Inscriptiones Judaicae Orientis*, II, *Kleinasien*, herausgegeben von Walter Ameling. Tübingen, 2004.

IJO III = *Inscriptiones Judaicae Orientis*, III, *Syria and Cyprus*, edited by David Noy and Hanswulf Bloedhorn. Tübingen, 2004.

JIWE I = *Jewish Inscriptions of Western Europe*; I, *Italy (excluding the City of Rome), Spain and Gaul*, edited by D. Noy. Cambridge. 1993.

JIWE II = *Jewish Inscriptions of Western Europe*; II *The City of Rome*, edited by D. Noy. Cambridge. 1995.

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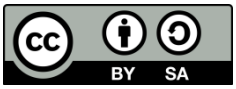

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La population dans les villages situés entre Sacidava et Axiopolis

Lucrețiu MIHAILESCU-BÎRLIBA[1]

Abstract. *The author presents the epigraphic record of the countryside in the region Sacidava–Axiopolis (Lower Moesia). The population is not attested as living in organized structure like uici. However, the presence of military forces indicates a civilian population living in the proximity of military camps. The mention of Thracians recruited in the Roman army demonstrates that there was an indigenous organization before the Roman conquest. The veterans are also installed in the region, like Roman citizens inhabitants of Durostorum and Tomis, who had bought rural properties. Axiopolis was a harbour, and the existence of an association of nautae implies a quite cosmopolite population in the rural milieu of this town.*

Résumé. *La population du milieu rural dans la zone Sacidava–Axiopolis n'est pas attestée comme étant organisée dans de structures villageoises de type uici. Pourtant, la présence des troupes indique une habitation civile à côté des camps militaires. La mention de la population d'origine thrace recrutée dans ces corps d'armée prouve qu'il y avait avant la conquête romaine une organisation indigène dans des communautés rurales. Sauf les familles de militaires, on constate que les vétérans se sont installés dans la région, tout comme d'autres citoyens romains résidant Durostorum ou Tomi, qui ont acheté des propriétés dans la zone. Le statut du port d'Axiopolis et l'existence présence d'un collège des nautae qui transportaient leurs marchandises sur le Danube suppose une présence assez cosmopolite dans le milieu rural de la proximité.*

Rezumat. *Populația din mediul rural al zonei Sacidava–Axiopolis nu este atestată ca fiind organizată în structuri de tip uici. Totuși, prezența militarilor în zonă indică o locuire civilă pe lângă castre. Menționarea tracilor recrutați în armata romană arată că exista deja o o organizare rurală indigenă înainte de cucerirea romană. Veteranii și cetățenii romani din Durostorum sau Tomis, proprietari de pământuri, sunt și ei menționați în texte. Axiopolis a fost un port și existența unui colegiu de nautae presupune o prezență cosmopolită în mediul rural din vecinătate.*

Keywords: Sacidava, Axiopolis, Moesia Inferior, countryside, Thracians, burgarii.

La région située entre Sacidava et Axiopolis, au long du *limes* danubien, est difficile d'être attribuée au territoire d'une cité quelconque, puisqu'elle se trouvait assez éloignée de Tomi, Tropaeum Traiani et de Durostorum (voir Figure 1, la carte de la Mésie Inférieure). En plus, la

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zone a été contrôlée par l'armée romaine, comme il résultera du petit exposé présenté en bas. Il est possible que les établissements ruraux civils aient été sous l'autorité militaire, s'il n'y avait pas des propriétés rurales qui n'étaient pas regroupées dans des villages. La zone Sucidava–Sacidava–Axiopolis, si elle n'appartenait pas au territoire rural du municipe de Durostorum (ou de Tropaeum), englobait des villages qui se trouvaient sous l'autorité des unités militaires stationnés ici (vexillations de la V^e^ légion Macedonica[2], *cohors II Chalcidenorum*[3], *cohors I Cilicum*[4]).

À Sacidava, le camp découvert a abrité des unités militaires comme la *cohors IIII Gallorum*[5], *cohors I Cilicum*[6] et probablement vexillations des légions: V^e^ légion Macedonica[7], I^ère^ Italica[8] et XI^e^ Claudia[9]. Non loin de Sacidava il y avait une *statio* de *beneficiarii*[10]. Les inscriptions attestent aussi des *burgarii*[11], ce qui suggère aussi le statut de *burgus* de la forteresse de Sacidava[12].

Figure 1. Carte de la Mésie Inférieure.

[2] ISM IV, 159, 175.

[3] ISM IV, 161

[4] ISM IV, 172, 184.

[5] ISM IV, 169, 191; voir aussi MATEI-POPESCU 2010, 210–212.

[6] ISM IV, 170, 172, 184, 202.

[7] ISM IV, 175.

[8] ISM IV, 200.

[9] ISM IV, 186, 201.

[10] ISM IV, 194.

[11] ISM IV, 179, 180.

[12] Sur les *burgi*, voir VISY 2009, 989.

Revenons à la population civile qui habite cette zone. Les soldats des unités stationnées ici sont parfois accompagnés par les membres de leurs familles. Ainsi, un soldat de la *legio V Macedonica*, C. Veturius Verus, décédé à 19 ans, est commémoré par son père[13] (Figure 2). On peut prétendre que le père n'a pas effectivement érigé la pierre, mais n'oublions pas que les Veturii sont attestés à Capidava et un d'eux est vétéran[14]. Il s'agit donc d'une famille de citoyens qui a une tradition militaire et dont les membres sont en Mésie Inférieure. Iulius Iulianus, *summus curator* de la I[ère] cohorte des Ciliciens, fait ériger une épitaphe pour sa femme[15]. Iulianus était chargé du ravitaillement de la cohorte[16]. Aurelius Ditusanus, *strator* du tribun de la même cohorte, est commémoré par sa femme Claudia Cocceia[17] (Figure 3). Son surnom thrace, le gentilice d'Aurelius et le manque du prénom date cette inscription après l'édit de Caracalla. E. Popescu, en interprétant sa cause de décès (*disperitus est in Barbarico)*, pense qu'il est mort probablement dans une expédition des Romains au nord de la Mer Noire et il propose une telle expédition comme étant celle de Caracalla en 214[18]. Si l'emplacement géographique me semble correct, je suis enclin à dater le texte plus tard, non deux ans après que Ditusanus a eu sa citoyenneté et est devenu *strator* (qui avait en charge les chevaux du tribun de la cohorte). Ditusanus était alors un indigène qui a eu son droit de cité et a été promu *strator* de la cohorte stationnée probablement dans la proximité de son domicile. Un *cornicularius* de la même unité est commémoré par sa femme et son fils[19]. Il y avait aussi les esclaves habitant le milieu civil. Une épitaphe évoque Saturninus, *seruus* du tribun Iulius Faustinus[20], mais dans ce cas-là il est possible que l'esclave ait accompagné le maître dans le camp. D'autres militaires se sont établis dans le milieu civil après avoir pris leur retraite. C'est le cas de Valerius Septimius, commémoré par sa femme et par ses trois fils[21]. Pour M. Aurelius Saturninus, vétéran de la XI[e] légion Claudia, est érigé un monument funéraire, très probablement de la part de la famille[22]. Un autre vétéran, Aurelius Marcus, ancien prétorien, est commémoré par sa femme, Aurelia Sispiris, et par sa fille, Aurelia Marcia[23]. Le surnom de sa femme[24] et la forme de son surnom (Marcus, utilisé normalement comme prénom) me font

[13] ISM IV, 175.

[14] ISM V, 34–35.

[15] ISM IV, 184.

[16] Voir surtout SPEIDEL 1973, 53–56; 1992, 137–139; ROTH 1999, 274; STOLL 2015, 78.

[17] ISM V, 187.

[18] ISM IV, 187, *sub numero*.

[19] ISM IV, 190.

[20] ISM IV, 184.

[21] ISM IV, 181.

[22] ISM IV, 186.

[23] ISM IV, 188.

[24] Voir Dana 2014a, 407. Voir aussi une autre forme du nom chez DANA, MATEI-POPESCU 2009, 231.

Figure 2. Épitaphe d'un soldat
de la V^e^ légion Macedonica (Sacidava)
(ubi-erat-lupa.org/monument 21008).

Figure 3. Épitaphe d'Aurelius Ditusanus,
mort en Barbaricum (Sacidava)
(ubi-erat-lupa.org/monument 15317).

croire qu'il s'agit d'un indigène. Cela est confirmé par le fort recrutement des Thraces dans les cohortes prétoriennes[25]. Un autre vétéran, cette fois-ci d'une unité auxiliaire, est Diurdanus, fils de Décébale, qui a une origine dace[26]. Il est commémoré par son fils Priscus (qui porte un nom latin) et par son affranchi Felix. Marcus Valerius [---], vétéran de la IV[e] cohorte des Gaulois, est évoqué dans une épitaphe par son affranchi[27]. Enfin, C. Antonius, ancien militaire d'une unité dont le nom n'est pas précisé, fait ériger une pierre funéraire à sa fille[28].

Il y a encore deux inscriptions qui attestent des *burgarii*. Les *burgarii* avaient la mission de défendre les *burgi* (sur la frontière) des attaques des Barbares. Ils étaient recrutés en plupart de la population locale[29]. En effet, les inscriptions de Sacidava prouvent cette chose. Piasus, fils de Pius, est décédé à 50 ans[30] (Figure 4). L'autre personnage est Diozenus, fils de Rigozus, *subtesserarius burgariorum*[31]. Il s'agit d'un rang qui n'est pas connu jusqu'à présent, mais en tenant compte du statut à moitié militaire des *burgarii*, une telle chose est possible.

On remarque aussi deux vœux pour Jupiter Dolichenus, accomplis par ses prêtres, Aelius Flavius et Aelius Marinus[32], dans un cas, Iulius Alexander et Germanus Baronas, dans le deuxième cas[33]. Ce sancturaire était situé dans le milieu rural, comme on a vu dans le *uicus Quintionis*[34], à Cerna[35] ou à Niculițel[36]. En ce qui concerne Aelius Marinus, il semble que ce surnom était fréquent parmi les personnes d'origine orientale venues en Mésie Inférieure. Par exemple, le prêtre de Jupiter Dolichenus de Cerna s'appelle Aurelius Marinus Romanus[37]; un autre *sacerdos* du même dieu, attesté à Tropaeum Traiani, est Antonius Marinus[38].

Parmi les autres civils mentionnés à Sacidava, il faut rappeler M. Corienius Colonus, qui fait élever une inscription à sa femme défunte, Ulpia Respecta[39]. Un autre citoyen romain est L. Titius Marcianus, qui commémore son épouse[40]. E. Popescu, en partant d'un texte de Tomi, attestant une certaine Antonia Severa qui fait ériger l'épitaphe à son mari avec les enfants

[25] Voir FERJANCIC. S. 2009, 107–121; TOPALILOV 2013, 287–299; HAYNES 2013, 376; BINGHAM 2013, 44–50.
[26] ISM IV, 189.
[27] ISM IV, 191.
[28] ISM IV, 193.
[29] Voir BEHRENS 1931, 81–83; LABROUSSE 1939, 151–167; GRÜNEWALD 2004, 21–22.
[30] ISM IV, 179.
[31] ISM IV, 180.
[32] ISM IV, 173.
[33] ISM IV, 174.
[34] ISM I, 340.
[35] ISM V, 219.
[36] ISM V, 249.
[37] ISM V, 219.
[38] ISM IV, 43.
[39] ISM IV, 176.
[40] ISM IV, 178.

communs (Titius Marcianus et Titia Marciola)[41], avance l'hypothèse que l'époux défunt d'Antonia Severa est Titius Marcianus de Sacidava, qui a eu deux mariages: le premier, avec la femme de Sacidava, le deuxième, avec Antonia Severa, et les deux enfants sont nés de ces deux mariages[42]. Plus encore, Popescu croit que Marcianus était un vétéran qui s'est établi d'abord dans le milieu rural, puis à Tomi[43]. Si, en ce qui concerne les deux mariages de Marcianus, je pense qu'E. Popescu a raison, je préfère de rester prudent à propos du statut de vétéran de ce personnage, même si l'idée n'est pas rejetable.

Figure 4. Épitaphe d'un *burgarius* (Sacidava) (ubi-erat-lupa.org/monument 21011).

[41] ISM II, 349.

[42] ISM IV, 178, *sub numero*.

[43] ISM IV, 178, *sub numero*.

Un dernier texte trouvé à Sacidava parle d'une *statio Saltensis*, où agissait Ulpius Victor, cavalier de l'*ala II Arauacorum*, en tant que *explorator* de cet office[44]. Sa mission coïncide avec l'activité des *burgarii* dans les environs de Sacidava. Il semble que de côté de la rive danubienne les attaques des tribus d'au-delà du Danube étaient plus intenses et la défense devait être renforcée. C'est pourquoi Ulpius Victor a été détaché de l'*ala Arauacorum* (stationné à Carsium) et chargé d'actions d'éclaireur dans cette *statio*. En faisant appel à un texte plus tardif de Procope[45], E. Popescu identifie *statio Saltensis* avec la fortification Saltoupyrgos mentionnée par l'auteur byzantin comme étant restaurée par Justinien[46]. L'approche toponymique me semble correcte et il est fort probable que les deux toponymes désignent la même fortification. E. Popescu essaye de localiser cet endroit et il le place „sur la rive droite du Danube, dans la région de Durostorum"[47]. Le lieu de découverte et la situation imposée par la construction des *burgi* (*pyrgoi*) me font penser que la *statio* doit être localisée plus précisement dans les environs de Sucidava.

Le petit corpus d'inscriptions de Sacidava fait preuve d'une communauté rurale vivant près du camp militaire. Cette communauté englobait, d'un côté, la population indigène habitant la région et de l'autre côté, les familles des soldats appartenant aux unités stationnées ici. En plus, beaucoup de vétérans ont acheté des propriétés dans la zone. Il est difficile de parler des villages organisés selon le modèle romain, car de telles mentions mangent. Pourtant, les colons citoyens romains sont présents et les propriétés rurales existent certainement.

À Altinum (Otima, Roumanie, sud de Sacidava), un diplôme militaire du 14 août 99 atteste un ancien soldat de l'*ala II Gallorum*, M. Antonius Rufus, originaire d'Abrettene en Asie Mineure[48]. Le soldat n'est pas rentré chez lui, en préférant s'établir à la campagne en Mésie Inférieure. La cohorte est supposé d'avoir été stationnée à Durostorum jusqu'à l'arrivée de la XI[e] légion Claudia[49].

Axiopolis (aujourd'hui Cernavoda, dép. de Constanţa, Roumanie) a été un port important qui a favorisé la présence des marchands. L'activité économique intense a déterminé la création d'une *statio* de *benficiarii*[50], ainsi comme l'emplacement du siège de *nautae uniuersi Danuuii*[51]. L'opinion d'A. Suceveanu, selon laquelle Axiopolis serait devenu municipe au III[e] siècle[52] n'est pas soutenable jusqu'à une confirmation épigraphique.

[44] ISM IV, 194.
[45] Procope, De aedificiis 4, 7, 10.
[46] ISM IV, 194, *sub numero*.
[47] ISM IV, 194, *sub numero*.
[48] CIL XVI 44; ISM IV, 2.
[49] Voir MATEI-POPESCU 2010, 208–209.
[50] ISM IV, 224.
[51] ISM IV, 217.
[52] SUCEVEANU 2009, 161–163.

L'inscription attestant le siège de *nautae uniuersi Danuuii* fait preuve de la présence des marchands qui circulaient sur le Danube. Il semble qu'il s'agit d'un collège professionnel. A. Aricescu pensait que ce type d'association englobait non seulement les marchands, mais aussi les militaires de la flotte mésique[53]. Les *nautae* sont attestés surtout dans les Gaules et les provinces germaniques, sur les cours de la Moselle[54] ou du Rhin[55]. Revenant à notre texte et à son caractère officiel, la dédicace pour Iulia Domna et la présence dans le texte du gouverneur L. Iulius Faustinianus peut suggérer que les marchands assuraient également une partie du ravitaillement de la flotte[56].

D'autres textes attestent des civils ou des vétérans, mais il est très difficile d'avoir une opinion sur leur origine ou même sur leur statut ou leur nom[57]. Il reste le texte consacré par C. Valerius Valens, bénéficiaire du légat de la XI[e] légion Claudia, pour son père, C. Valerius Germanus, mort à un âge avancé (78 ans)[58] (Figure 5). La *statio* des *beneficiarii* se justifiait par la position économique d'Axiopolis, ainsi que de l'emplacement de cette cité sur une route qui liait Durostorum avec Carsium et d'où dérivait une autre route vers Tomi[59]. Valerius était un nom commun parmi les militaires, surtout en Mésie Inférieure, par conséquent il est impossible d'attribuer une origine à ce bénéficiaire.

Figure 5. Épitaphe du père d'un bénéficiaire à Axiopolis
(http://db.edcs.eu/epigr/bilder.php?bild=$CBI_00617_1.jpg;$CBI_00617_2.jpg&nr=1).

[53] ARICESCU 1977, 71.

[54] CIL XIII 4335. Voir aussi TRAN 2006, 350.

[55] CIL XIII 7067. Voir aussi BROEKAERT 2013, 182, 198–199; MIHAILESCU-BIRLIBA 2015a, 185–186, 192.

[56] Voir aussi MUNTEANU 2015, 45.

[57] ISM IV, 226, 228–33, 235, 237.

[58] ISM IV, 224.

[59] FODOREAN 2014, 140 sqq.; PANAITE 2015, 598. Voir AUSSI CAMPBELL 2012, 174, carte 6.

Une dernière inscription de cette zone a été trouvée à Seimeni (dép. de Constanța, Roumanie), où une certaine Valeria, fille de Castor, voue un texte pour Junon, appelée Domna Regina[60]. Le lapicide était un certain P. Iulius; même s'il avait un nom latin, son latin a une erreur: *ponet* au lieu de *ponit*. La femme porte un nom de facture pérégrine, qui trahit une origine hellénophone. Les vœux pour le couple Jupiter et Junon sont fréquents dans le milieu rural de Mésie Inférieure[61].

La population du milieu rural dans la zone Sacidava–Axiopolis n'est pas attestée comme étant organisée dans de structures villageoises de type *uici*. Pourtant, la présence des troupes indique une habitation civile à côté des camps militaires. La mention de la population d'origine thrace recrutée dans ces corps d'armée prouve qu'il y avait avant la conquête romaine une organisation indigène dans des communautés rurales. Sauf les familles des militaires, on constate que les vétérans se sont installés dans la région, tout comme d'autres citoyens romains résidant Durostorum ou Tomi, qui ont acheté des propriétés dans la zone. Le statut du port d'Axiopolis et l'existence présence d'un collège des *nautae* qui transportaient leurs marchandises sur le Danube suppose une présence assez cosmopolite dans le milieu rural de la proximité.

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Abréviations

CIL = *Corpus Inscriptionum Latinarum*. Berlin.
ISM = *Inscriptiones Scythiae Minoris*. Bucarest.

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[60] ISM V, 3.

[61] MIHAILESCU-BIRLIBA 2015b, 439–445.

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Neoplatonic Asclepius: Science and religion at the crossroads of Aristotelian biology, Hippocratic medicine and Platonic theurgy

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Abstract. *In the first part of the paper, I will briefly discuss certain peculiarities of the medical profession in antiquity. In his Philosophical History (fr. 80–84 Athanassiadi) Damascius narrates about a philosopher, named Asclepiodotus, whose interests ranged from Platonic philosophy to Aristotelian natural sciences. Asclepiodotus' instructor in medical matters, a son of a doctor from the island of Rhodos, Iacobus, is pictured by Damascius as an exemplary figure (fr. 84), who, unlike many of his contemporaries, always tested the opinions of others and gained a reputation of an extremely successful physician, although the methods of treatment, ascribed to him by Damascius, are highly reminiscent of those presented as the Pythagorean by Iamblichus (On the Pythagorean way of life 244). In this respect both Iacobus and Asclepiodotus are conformed to the best standards of medical ethics, and pass the test set by Galen in his "On examination by which the best physicians are recognized", except perhaps by the fact that they preferred to base their activities on such authorities as Aristotle and the Methodist Soranus rather than on a list of the "dogmatists" proposed by Galen. In the second part of the paper, dedicated to the cult of Asclepius in Late Antiquity, I will look at various kinds of evidence taken from the Neoplatonic philosophers. Having discussed first the principal philosophical interpretations of Asclepius found in Apuleius, Aelianus, Macrobius, Julian, Porphyry, Iamblichus, Proclus, Damascius, etc., we turn to Proclus' attitude to Athena and Asclepius as reflected in Marinus' Vita Procli and finally discuss the cult of Eshmun as found in Damascius. The textual data are supported by archaeological evidence from the "House of Proclus" in Athens.*

Rezumat. *Prima parte a lucrării prezintă o serie de lucruri mai puțin obișnuite legate de profesia de medic în Antichitate. În Istoria filosofică, Damascius narează despre un filosof, Asclepiodotus, ale cărui interese mergeau de la filosofia platonică la științele naturii ale lui Aristotel. Iacobus, instructorul lui Asclepiodotus, este zugrăvit de Damascius ca o figură exemplară. Acesta și-a câștigat o reputație de foarte bun medic, deși metodele sale de tratament sunt reminiscențe ale celor prezentate de Iamblichus ca fiind pitagoreice. Astfel, atât Iacobus, cât și Asclepiodotus se conformează celor mai bune standarde ale eticii medicale. În a doua parte a lucrării, dedicată cultului lui Asclepius în Antichitatea târzie, autorul vorbește despre diferitele tipuri de mărturii preluate de la filosofii neoplatonici. După ce discută principalele interpretări filosofice ale lui Asclepius la Apuleius, Aelianus, Macrobius, Iulian, Porphyrius, Iamblichus, Proclus, Damascius, se revine la atitudinea către Atena și Asclepius reflectată în Vita Procli a lui Marinus.*

Keywords: the Aristotelian tradition; medicine in Late Antiquity; medical ethics Academy at Athens; Proclus; Damascius; Neoplatonism; classical archaeology.

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Phoebus gave to the mortals
Asclepius and Plato,
the one to save their souls,
the other to save their bodies

Diogenes Laert. 3.45;
Olympiodorus, *Vita Platonis* 4.39 (Eldeistein, T. 322).

I

In his Philosophical History (PhH), Damascius narrates about a philosopher, named (after Asclepius) Asclepiodotus, whose interests ranged from Platonic philosophy to natural sciences and medicine.[2] Unfortunately, nothing of his hand came down to us. From his childhood, Asclepiodotus was interested in various arts and crafts (*tekhnai*), such as mixing colors; he studied the properties of stones and herbs, and reached some advance in various areas of Aristotelian science, such as the natural history of plants and animals:

"...he examined closely those [animals and plants] that he could cast his eyes on, and those which he could not find he investigated at great length through hearsay, also collecting whatever the Ancients had written about them" (PhH, fr. 80, transl. P. Athanassiadi).[3]

It is possible that a still extant sundial in Aphrodisia is his creation.[4]

Asclepiodotus' instructor in medical matters, a son of a doctor from the island of Rhodos, Iacobus, is pictured by Damascius as an exemplary figure (PhH, fr. 84). He learnt the art of medicine from his father Hesychius, who traveled for many years across the Mediterranean from Italy to Constantinople, practicing medicine and acquiring new knowledge. Having finally arrived back to Constantinople Iacobus' father discovered that the majority of local doctors possessed no first-hand medical experience and based their treatments on various books and summaries, never testing the opinions of others (fr. 84A–C).[5] Hesychius considered

[2] A student of Proclus and a teacher of Damascius' predecessor Isidorus, Asclepiodotus fled from Alexandria to Aphrodisia to avoid a fierce Christian prosecution. On his way from Alexandria to Athens, Damascius enjoyed his hospitality in his home in Aphrodisia and later defined him as a philosopher of "uneven intelligence, especially when it comes to the divine matters," "extremely sharp in raising questions," "the best among his contemporaries in the natural sciences," who tends to "pack everything together and bring it down to the level of the physical world" (PhH, fr. 85A). Details of his career concern us only partially. For a fuller account, cf. ATHANASSIADI 1999, 37 f. and 348–349.

[3] For text and translation, see ATHANASSIADI 1999; I use her translation of the *Philosophical History* with occasional adaptations, unless otherwise indicated.

[4] ATHANASSIADI 1999, 203 n. 205, with a reference to P. Pattenden.

[5] This definitely corresponds with the real situation in late antiquity: a doctor in the fifth-sixth centuries Constantinople in the best case possessed the encyclopedic medical outlines of such scholars as Caelius Aurelianus,

this inappropriate and taught his son real practical techniques. Apparently both the father and the son were acclaimed by the contemporaries as skillful practitioners, although the methods of treatment, scribed to them by Damascius, are highly reminiscent of these presented as the Pythagorean by Iamblichus (*On the Pythagorean way of life* 244). Our physicians rejected surgery ("the operations with flame and knife") and bloodletting (cautery), having prescribed instead a diet, purgatives and cold baths. Because of the latter Iacobus was nicknamed Psychristus ("The Chillest"). The methods were allegedly effective enough to deal with the most severe ulcers (fr. 84D). In Athens, Iacobus prescribed Proclus to abstain from cabbage and use instead mallow as a laxative. The remedy, however natural for a doctor, had proven to be impossible for the philosopher, who did not obey the physician's advice because of the Pythagorean dietary prohibition.[6] One may also note that following the lead of his teacher, whom he placed next to Hippocrates and Soranus (fr. 85E),[7] Asclepiodotus "re-established the long-lost use of the white hellebore, which even Iacobus had not been able to recover, and through it he remedied incurable diseases against all expectations" (fr. 85D).

Iacobus' conduct conformed to the best standards of medical ethics: he was quite content with his municipal salary (δημοσία)[8] and never charged money for his service (fr. 84G), "more than any of his contemporaries he had a soft and tender heart towards those in need" (fr. 84H), "he used to say that the perfect doctor must either give up hope of curing the disease or, having taken on the patient, improve his condition forthwith and leave him only once he is in a more tolerable state; otherwise he should not abandon him" (fr. 84E), the patients loved him and trusted his words, calling him the saviour ("as Asclepius was called in the past", fr. 84E), and even erected statues of the doctor in Athens and Constantinople (fr. 84I).[9]

Finally, he was a devotee of ancient religious rites and, as Proclus (below), enjoyed personal relations with the deity:

"He had such confidence in himself and in his own methods of cure that if, upon visiting a patient and diagnosing the disease from its symptoms he declared that the man would live, everybody was filled with the hope that recovery would follow, but if not, they expected death... However doctors never stopped discrediting and abusing him for being not a doctor

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Oribasius of Pergamon, Aetius of Amida or Paul of Aegina. For a concise description of the situation cf., for instance, NUTTON 1984 and 2004, 293 ff., esp. 304–305. Clearly, Iacobus' father was an exception to the rule.

[6] The Pythagoreans were not allowed to eat mallow, "because it is the first sign of the sympathy between heavenly and earthly beings" (Iamblichus, *On the Pythagorean way of life* 109, transl. G. Clark; cf. the *Chaldaean Oracles* 210a).

[7] One perhaps would expect Hippocrates and some ancient names from Galen's list (such as Diocles, Praxagoras, Herophilus, etc.), but for some reason a Methodist doctor of the first century AD is chosen instead. Probably, this has something to do with the obvious empirical inclinations of Asclepiodotus, who wanted to try everything himself. This can also reflect a reaction to all-consuming "Galenism" of late antiquity (TEMKIN 1962 and, in greater details, TEMKIN 1973).

[8] In Constantinople, he was an *archiatrus* (Malalas 14.38, 292 Thurn; ATHANASSIADI 1999, 207 n. 210).

[9] Clearly, our physicians are conformed to the best standards of medical ethics and pass the test set by Galen in his "On examination by which the best physicians are recognized" (ISKANDAR 1988; NUTTON 1990).

but a holy man and a favorite of gods. And what they say was true... the soul of Iacobus was Asclepeian, endowed by nature with healing powers (κατὰ φύσιν Παιώνειον, cf. Proclus, *In RP* II 118 and *In Tim*. I 49A, below). Moreover he had that passionate attachment to his calling which is particularly apt to draw the craftsman nearer to the patron god of his art, creating a true intimacy between the two" (fr. 84E).

Similarly, an eminent physician and a student of the Neoplatonic philosopher Ammonius, active in Alexandria in the early sixth century, Gessius[10] is reported not only to "achieve a greater degree of precision than any of his contemporary doctors and iatrosophists', but also to possess a sort of Asclepeian wisdom (PhH, fr. 128).

But probably it will not be an exaggeration to say that Proclus surpassed all of them in his devotion to the cult of Asclepius. Although the greatest *scholarchus* of the Academy had intimate relations with many gods,[11] Asclepius seemed to assist our philosopher all his life: the young Proclus miraculously recovered when the son of Asclepius, Telesphorus, appeared to him in a dream; in a more advanced age the patron of medicine ("who came from Epidaurus") saved him again, this time from arthritis; and it was Asclepius who appeared to him as a serpent "in his final illness" (*Vita Procli* 7 and 31); the philosopher speaks about a vision of Asclepius in his *Commentary to Alcibiades* 166 (II 228–229 Segons); Marinus tells the story about Proclus' successful prayer to Asclepius, which resulted in a miraculous recovery of one Asclepigeneia (*Vita Procli* 29, to be discussed later). Besides, he was probably involved in the process of establishing an Asclepeian cult while travelling abroad, and apparently his heir attached some importance to the episode (*Vita Procli* 16). It is against this background that one may look at the Neoplatonic attitude to medicine.

II

"...[as in mantics], so, too, in the medical art the Paeonian power itself must be assigned to the gods, while the function of serving and helping belongs to the demigods ... for just as there are many divinities associated with Eros, so, too, many are associated with Asclepius, some taking their place behind the god, others in front of him. But to mortals must be assigned the medical art resulting from theory and experience by means of which some

[10] For a fuller account, cf. ATHANASSIADI 1999, 291 n. 342.

[11] According to Marinus (*Vita Procli* 16), the young Proclus, just arrived from Alexandria to Athens, surprised his future teacher Syrianus by his devotion to the cult of Selene. Actually, as John Dillon convincingly shows, his prayer to the moon-goddess went far beyond a traditional religious observance, since the Moon for the Neoplatonists represented the celestial level of the highest female principle of the Chaldean theology, Hecate. Besides, "if one turns to the Emperor Julian's *Hymn to the Mother of the Gods*, one finds another deity also, Cybele, the Mother of the Gods, identified as the highest member of the chain of which the Moon is the lowest (*Oratio* 5.166 AB)... So when the Neoplatonic philosophers saluted the moon, they were in fact doing reverence to the whole chain of generative female principles descending from Hecate or Cybele" (DILLON 2007, 118–119).

master the divine art of healing to a greater, others to a lesser, degree" (Proclus, *In Tim* I 49A, Asclepius T 312 Edelstein).[12]

In this way, according to Proclus' imagination, the art of medicine originated among men. The Paeonian power, penetrating the whole world, pours in great abundance on the lower levels of being, having finally materialized in the form of healing crafts, so vital for good living of the mortals.

Gods rule the universe as a whole. The demigods and heroes, who follow their lead, do some sort of 'mechanical' work and indissolubly bind everything in the world with a continuous "chain" (Iamblichus, *De mysteriis* 1.5.15–17; 17.8 ff.). The purest souls (ἄχραντοι, Iamblichus, *De anima* fr. 27 Dillon–Finamore)—the ones who came to the world willingly in order to help people—follow them. This was the fate of Asclepius, who was born to Appollo by a mortal woman Coronis,[13] devoted his live to practicing the art of medicine, and killed by Zeus, whose wrath was provoked, as they say, by the physician's attempts to fool death and heal incurable illnesses. Subsequently, he revived as a god (*in deum surgat*; Minucius Felix, *Octavius* 23.7), but willingly "returned from the underworld with the permission of Parcae" (Hyginus, *Fabulae* 251.2) to help people.[14]

Asclepius is a relative newcomer in Greek pantheon. In the time of Homer, Paeon, not Asclepius, cured the wounds of the Olympic gods, while the mortals relied on the skills of Machaon, the son of Asclepius, and other heroes-healers (Homer, *Iliad* 5.401 and 899; 11.518, etc.). This obvious fact allowed Theodoretus (*Grac. aff. cur.* 8.23) to say that Asclepius had not yet been deified in antiquity and was introduced as a god of medicine much later. Quite on the contrary, Pausanius (2.26.10) took it for granted that Asclepius is not a historical figure at all, being a deity already from the time of Homer, while Galen preferred to suspend the judgment:

"Asclepius at least, and also Dionysus, whether they were men formerly or whether they were gods from the outset, are deemed deserving of the highest honors, the one by reason of his medical art, the other because he taught us the art of the vine" (Galen, *Protrepticus* 9.22, T 245 E.).

The majority of ancient writers, however, accepted the humanity of Asclepius and appreciated his difficult way to deification:

"Asclepius raised dead and cured sick—says Xenophon—, and for these things being a god he has everlasting fame among men" (*Cynegeticus* 1.6, T. 243 E.).

[12] A classical collection of literary and archaeological evidences about the cult of Asclepius is, doubtlessly, the one published by Emma and Ludwig Edelstein (EDELSTEIN, EDELSTEIN 1945). I utilize their translation, unless otherwise noted.

[13] Apollodorus 3.10.3; Pindar, *Pyth.* 3.25; Ovidius, *Met.* 2.543; Pausanius 2.11 and 26, etc.

[14] On Asclepius' deification see, particularly, T 232–336 E. The list of deified heroes is reproduced with occasional variants by numerous Greek and Latin authors and usually contains the names of Heracles, Dionysus, Asclepius, Dioscuri as well as the Latin Liber and Quirinus (Cicero, *De leg.* 2.8.19; Porphyry, *To Marcella* 7; Galen, *Prot.* 9.22, etc.).

He is an uncontested founder of rational medicine, on the one hand:

"Hence Asclepius (Aesculapius), since he is celebrated as its most ancient founder and because he cultivated this science as yet rude and vulgar, with a little more exactness, was numbered among the gods" (Celsus, *De medicina*, proem. 2, T 244 E.).

On the other hand, he is a healing deity, indeed the most famous one:

"Naturally of daemons they deem gods only those who, having guided the chariot of their lives (*curriculo vitae gubernato*) wisely and justly, and having been endowed afterward by men as divinities with shrines and religious ceremonies, are commonly worshipped as Amphiaraus in Beothia, Mopsus in Africa, Osiris in Egypt, one in one part of the world and another in another part, **Asclepius everywhere** (Aesculapius ubique)" (Apuleius, *De deo Socratis* 15.153, T 254 E.).

Now, the emperor Julian perceived the providential sense of these events as follows:

"I had almost forgotten the greatest of the gifts of the Sun (Helius) and Zeus... I mean to say that Zeus engendered Asclepius from himself among the intelligible (νοητοῖς) gods, and through the life of generative Sun (Helius) he revealed him to the earth. Asclepius, having made his visitation to earth from the sky, appeared at Epidaurus singly, in the shape of man; but afterwards he multiplied himself; and by his visitation stretched out over the whole earth his saving right hand. He came to Pergamum, to Ionia, to Tarentum afterwards; and later he came to Rome. And he travelled to Kos, and thence to Aegae. Next he is present everywhere on land and sea. He visits no one of us separately, and yet he raises up souls that are sinful and bodies that are sick» (Julianus, *Contra Galilaeos* 200 A–B, T 307 E.).

The divine powers, received from the highest deities, Asclepius extends to peoples. Sufferers from the entire ancient world flock around such famous centers of healing, as the shrines in Epidaurus, Kos, Pergamum, Lebena, somewhat later Athens and Rome, asking the god for assistance. They receive divine orders in dreams, esp. in the process of incubation in the temples, and all this is given to them as a gift, free of charge (Julianus, *Epist*. 78, 419B).

Asclepius' wife Epione and his children, such as Hygieia, Panakeia, Iaso, Aceso, Aglaea, Podaleirios, Machaon and Telesphorus and others assist him, thus locally contributing to his divine completeness:

"Though inferior to Asclepius, Telesphorus, because he supplies the missing element which is not previously present in the Paeonian wholeness of Asclepius, is invoked in addition to Asclepius, and Telesphorus perfects the health of one who admits him properly (συμμέτρως)" (Damascius, *Dubitationes et Solutiones* 245; cp. Marinus, *Vita Procli* 7; T 313 E.).

Handing down some of his powers to his assistants, the "Neoplatonic" Asclepius keeps his status of a solar deity and ascends to a still higher level of the "Paeonian" hierarchy.[15]

[15] According to Julian, "since the Sun (Helius) fills the whole of our life with fair order, he begets Asclepius in the world, though he has him by his side even before the beginning of the world... The Sun (Helius) took thought for the health and safety of all begetting Asclepius to be the savior of the whole world...» (Julianus, *In Helium Regem* 144B and

Interpreting Plato (*Symposium* 186d), who says that a good physician, following the example of the patron of medicine, knows "how to make the most hostile elements in the body friendly and amiable towards each other," Aelius Aristides (*Oratio* 42.4; T 303 L.) is sure that Asclepius "guides and rules the universe, the savior of the whole and the guardian of the immortals, or if you wish to put it in the words of a tragic poet, 'the steerer of government' (ἔφορος οἰάκων), he who saves that which always exists and that which is in the state of becoming». In another place (*Oratio* 50.56) he explicitly identifies him with the Platonic world soul (*Timaeus* 34b).

Macrobius (*Saturnalia* 1.20.1–4; T 301 E.) says, that Asclepius is the 'power of health' which comes from the solar essence; while Health (Salus=Hygieia) is essentially responsible for a lunar influence.

"For this reason, therefore, images of serpents are attached to the statues of these gods, because they symbolize that human bodies, shedding the skin of infirmity, as it were, return to their original vigor, just as serpents grow young again every year by shedding the skin of old age" (ibid.).

Therefore, concludes Macrobius, Asclepius is Apollo, "not only because he is supposed to have originated from him, but because the power of divination is also attributed to him".

Criticizing Porphyry, who, contrary to the common opinion, identifies Asclepius with Lunar Mind and Apollo with Solar Mind, and ascribes the art of healing to Athena (also a Lunar deity), Proclus, after Iamblichus and in the context of interpreting of the Atlantis myth (*Timaeus* 49cd), restores the traditional scheme: the demiurgic role of the world soul is returned to Athena, Apollo rules the Sun in the capacity of its Mind, while Asclepius descends from him:

"Porphyry says plausibly that medicine also comes from **Athena**, because Asclepius is Lunar Mind, even as Apollo is Solar Mind. But the divine Iamblichus attacks these

153B, T 305–306 E.). Similarly Sallustius the Neoplatonist says that "Gods contain the world in themselves in a primarily (πρώτως) sense, while the rest of divinities are considered to be contained in them, as Dionysus in Zeus, Asclepius in Apollo, and Graces in Aphrodite» (*On Gods* 6). According to Iamblichus, Asclepius emanated from Apollo (*In Tim*. fr. 19 Dillon; the text is quoted below); cf. also descending procession of Zeus, Hera, Poseidon and Hades in Iamblichus, *In Tim*. fr. 78 Dillon. In the same way, Proclus, following his teacher Syrianus, speaks about a multiplication of Apollo (*In Rep*. 147.6 ff.), three manifestation of Zeus (*Platonic Theology* I.lxv–lxvii praep.) and, on their levels of being, about a multiplication of Asclepius and other secondary divinities: «Or whence have the Asclepii and the Dionysii and the Dioscuri received their names? Just as in the case of the heavenly deities, then, so we must proceed in the case of those who are concerned with generation, that is, we must investigate in regard to each of them the number of messengers, demigods, heroes attached to them...» (Proclus, *In Tim*. V 290C, T 311 E). See as well his *In Crat*. 81, where it is said that Dionysii, Asclepii and also Hermes and Heracles arrived in specific countries in order to benefit them. It is clear that speaking about a descending of gods on the subsequent levels of being the Neoplatonsts (at least Iamblichus and Proclus) do not speak about an actual "visitation" of gods natural for unsophisticated religion. Much rather they mean an advent of pure spirits, demigods and heroes, who serve as messengers of the gods. For details, see FINAMORE 1999.

(identifications)... since Asclepius also is to be located in the Sun and proceeds from him all about the realm of creation in order that, even as the Heaven, so the sphere of Becoming, may be held together by this divinity in accordance with a secondary participation (μετοχήν), being filled from it with symmetry and good temperament [or, maybe, mild climate?] (εὐκρασία)" (Proclus, *In Tim.* I 49C; 159.25, Asclepius T 304 E.; Iamblichus, *In Tim.* fr. 19 Dillon; Dillon's transl.).

Proclus repeatedly affirms that, of the cosmic forces, Asclepius is mostly responsible for preservation of a natural balance. He does not allow the world to "grow old and get ill" (*Timaeus* 33a), and its elements to "slacken indissoluble bonds" (Proclus, *In Rep.* I 69.7). He cures everything, which, for any reason, has temporarly lost its natural condition (*In Tim.* III 159e; 63.29–64.2). Still, this type of health (according to the 'theologians', that is to say the Orphics) is secondary in relation to the primarily "demiurgic" health, present from the beginning of the world and associated with the goddess of persuasion, Peitho [Aphrodite] and Eros. Any disproportion and the lack of balance (say, an excess or a deficiency of the humors in an organism) leads to degradation. Ageing is the result of weakening of our nature developed in the process of its struggle with the hostile external conditions. This is what Plato says in the dialogue (*Timaeus* 81d). Apparently, according to Proclus, this presupposes that Demiurge possesses unceasing source of the Paeonian power, which helps him to keep the world in good shape (ibid. 63.10–17), and durability of the world, provided by Demiurge,

Left: Athena grants the title of *proxenus* (consul) and benefactor to a citizen of Croton. The relief represents the Goddess Athena and, possibly, Asclepius, c. 330 BC. Right: Athena and Asclepius receive a suppliant in the temple. Votive relief, found in the Asklepieion in Athens, c. 350 BCE. Acropolis Museum, Athens. Author's photographs.

depends on two kinds of health — "creative" and "restorative". On the one hand, Demiurge supports "indissoluble bonds" which preserve the integrity of the world; on the other hand, he must constantly find resources for their renovation ("since their powers are limited"). In the commented passage (*Timaeus* 33a) Plato speaks of the first kind of health, sustained by the Demiurge's providential care about the world. The second kind is illustrated by the image drawn in *Politicus* 273e, where the "divine skipper" takes in his hands the rudder of the world and saves gradually degrading cosmos from sinking in the abyss of "primordial disorder" (ibid. 63.19–27). This second kind of health is Asclepiadic, although Demiurge is the source of both this and the highest demiurgic health (ibid. 64.6–10).[16]

III

Leaving the acropolis under rather obscure circumstances,[17] Athena personally requested Proclus to supply her with a new housing. Namely, according to Marinus (*Vita Procli* 30), her messenger ("a woman of fair aspect") appeared to the philosopher in a dream, saying that he "must have his house ready as soon as possible", since "the mistress of Athens" desires to dwell with him. This story told by the biographer seems to be substantiated by the archaeological data, and in a very remarkable way. But let us first look at another story, which appears in Marinus just before this passage. Summoned by his benefactor Theagenes, Proclus came to the Athenian Asklepieion in order to ask Asclepius to save Asclepigeneia, the daughter of Archiadas:

"Taken with him the great Pericles of Lydia, a man who was himself no mean philosopher, Proclus visited the shrine of the god to pray on behalf of the invalid. For at that time the city still enjoyed the use of this and retained intact the temple of the Savior. And while he was praying in the ancient manner, a sudden change was seen in the maiden and a sudden recovery occurred, for the Savior, being a god, healed her easily... Such was the act he performed, yet in this as in every other case he evaded the notice of the mob, and offered no pretext to those who wished to plot against him.

The house in which he dwelt was in this respect of great assistance to him. For in addition to the rest of his good fortune, his dwelling too was extremely congenial to him, being also

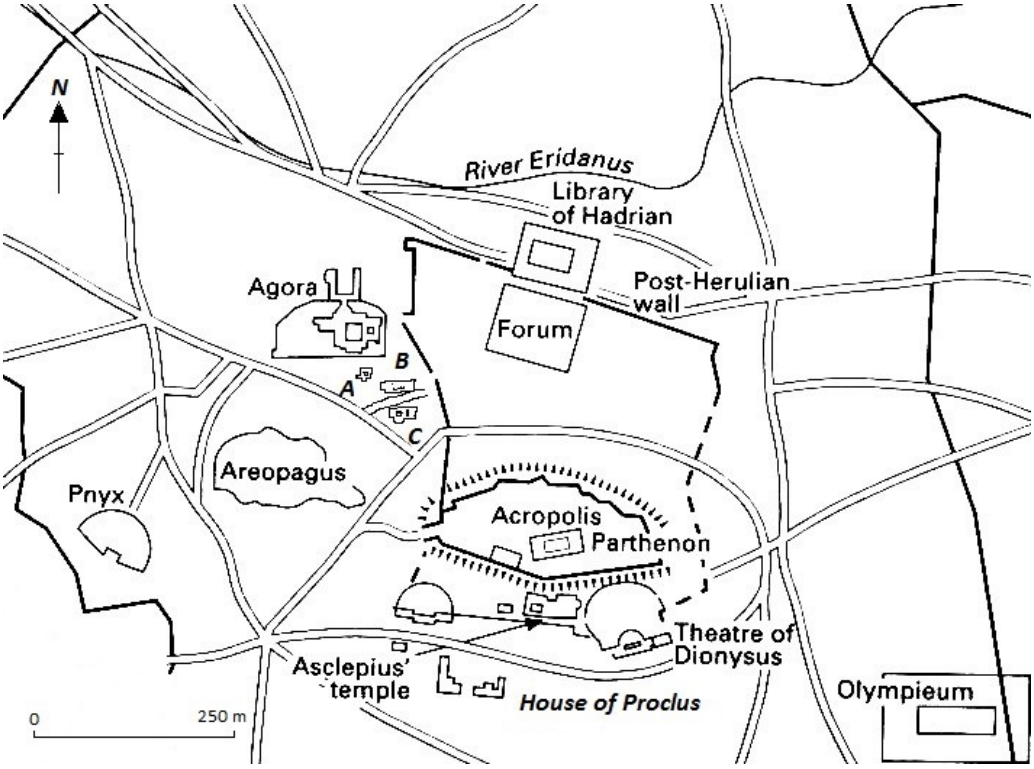
[16] "... wherefore the theologians ascribe to Asclepius the one kind of health, namely that which results from the whole process of healing whatever is contrary to nature, checking whatever is contrary to nature either always or at times; the other kind of health they assume to have been created before Asclepius and to be coexistent with the creation of things; this health they derive from Peitho and Eros because everything comes from reason and necessity... The Demiurge, as it is clear from this, is the source of health, of the Asclepiadic as well as of the Demiurgic" (Proclus, *In Tim*. III 158E, T 314 E.). See also a new commented translation of this passage by BALTZLY 2007, 119.

[17] Probably the event coincides with a transfer of the bronze statue of Athena from the Parthenon to the Oval Forum in Constantinople c. 465–470.

the one inhabited by his 'father' Syrianus and by Plutarch, whom he himself styled his 'forefather'" (Marinus, *Vita Procli* 29, transl. by M. Edwards).

Then he briefly describes the location of the house as follows: "it was a neighbor to the shrine of Asclepius celebrated by Sophocles, and [the shrine] of Dionysius by the theatre (...γείτονα μὲν οὖσαν τοῦ ἀπὸ Σοφοκλέους ἐπιφανοῦς Ἀσκληπιείου καὶ τοῦ πρὸς τῷ θεάτρῳ Διονυσίου), enigmatically concluding that "...someone standing on the Acropolis could see the house with some difficulty (...ὁρωμένην δὲ ἢ καὶ ἄλλως αἰσθητὴν γιγνομένην τῇ ἀκροπόλει τῆς Ἀθηνᾶς...".[18]

M. Edwards (2000, 104 n. 329) suggests it to mean that the house became visible from the acropolis only when the shrine of Asclepius was destroyed ("seen, or if not it became visible, from the acropolis of Athena"). The idea seems attractive because it offers an indirect dating of the temple's destruction. But this provokes a further question: why Marinus, having mentioned the demolishing of the temple in the same passage, did not simply state this?



A plan of Athens in the 5th century CE.

[18] This phrase is difficult to grasp. For details, cf. ROSÁN 1949, 30; FRANTZ, TOMPSON, TRAVLOS 1988, 43; CASTRÉN 1991, 475; KARIVIERI 1994, 116–117 n. 11; SAFFREY, SEGONDS 2001, 34.

Interestingly, a large building complex on the southern slope of the Acropolis, located between the Odeum of Herodes Atticus and the Theatre of Dionysus, excavated in 1955, perfectly matches this description.[19]

The excavators were the first to identify this house, which was continuously inhabited until the fifth century, but abandoned in the sixth century CE, with the one owned by Plutarch's family and associated with the names of the founder of the Athenian school of Neoplatonism and his closest associates, Syrianus and Proclus. Indeed, in addition to the fact that it perfectly matches Marinus' description, it clearly belongs to the type of buildings used in Antiquity, as Frantz writes, "for the gathering of audiences and accommodating lectures and called generally 'philosophical schools'."[20]

The identification is also confirmed by the reach finds (artistic works and an inscription), illustrating religious and intellectual interests of its inhabitants. Apart of the shrine of Cybele and various religious objects, numerous objects of everyday use have been excavated in the building itself. Within a close vicinity, the archeologists also discovered numerous statues of the gods (including a statue of Isis); a portrait, tentatively identified as this of a philosopher; and an inscription with the words σοφίης and βίοτον. The head of a philosopher (some speculate of Plutarch, the teacher of Proclus) dated to the fifth century is also said to come from the vicinity.[21]

A grave of a year-old piglet, found in the 'House of Proclus', is a truly remarkable discovery. For an unidentified reason the sacrificial knife was left in the neck of the victim and the grave was filled with other offerings, including a jug with one handle, seven ceramic cups, and an oil lamp decorated with an image of Running Eros. The find admits various interpretations. For instance, it could be related to the Roman ceremony of *Terminalia,* a ritualized setting boundary to the building. Also in the Roman context, it could be an offering to the local *genii* on the occasion of, say, an important event or a safe return from a long journey. But it could well be a part of a rite dedicated to the Mother of the Gods, performed privately (or even secretly!), since an appropriate shrine is found in the house and, according to Marinus, the Neoplatonists worshipped the Mother of the Gods in her various hypostases (cf. *Vita Procli* 19). The blood of an animal was also a proper offering to the moon-goddess

[19] Unfortunately, the work was accomplished only partially and under extreme time pressure, before the Dionysiou Areopagiou Street was constructed over the site. For details, see: MELIADES 1955; FRANTZ, TOMPSON, TRAVLOS 1988, BROUSKARI 2004; and CARUSO 2013.

[20] "The house in question fits all the topographical specifications in the *VP*, and furthermore, its site, as far as it could be estimated from its scattered known parts, precludes the existence of anything comparable in the area..." (FRANTZ, TOMPSON, TRAVLOS 1988, 43).

[21] The objects are mostly kept in the Agora and Acropolis Museums; numerous illustrations are readily found in: FRANTZ, TOMPSON, TRAVLOS 1988; CAMP 1994; BRUSKARI 2004; and ELEFTHERATOU 2015.

«House of Proclus». Near the entrance of the house, there was a small room, converted into a shrine. The wall of the room was decorated with a *naïskos* with the statue of the Mother of the Gods (cf. an example, middle row, right, Cybele with a lion, Athens, c. 4 cent. BC) and a badly damaged relief plaque with a depiction of a partially preserved figure of a bearded man, a woman and a boy, leading a sheep as an offering to the temple (KARIVIERI 1994, 119; ELEFTHERATOU 2015, 47). This resembles numerous votive offerings, found in the Asklepieions (cf. above a plaque in the form of the temple from the Athenian Asklepieion, c. 350–300 BC). Funeral sacrificial table (mensa), dated to 350–325 BC, was reused as an altar or a statue base. The reliefs represent lamentation, farewell and posthumous meet of the deceased with philosophers. The room was too small to accommodate such a big altar, therefore only the last relief was visible. Acropolis museum, Athens. Authors' photographs.

or Hecate,[22] while according to Julian's *Oratio* 5.177B–C a pig could be an appropriate offering for the gods of the underworld.

Our narrative source will perhaps elucidate this last point. Although no instance of a piglet (or any other animal) sacrifice is recorded in Neoplatonic literature, Marinus inform us that Proclus personally experienced "the fiery apparitions of Hecate" (having learned the rituals from Plutarch's daughter Asclepigeneia) and

"...actually caused rains by an apposite use of an iunx (ἴυγγά τινα), releasing Attica from a baneful drought. He also laid down defenses against earthquakes, and tested the power of the prophetic tripod, and produced verses on its decline" (Marinus, *Vita Procli* 28**,** transl. by M. Edwards).

The *iunx* (ἴυγξ, *junx torquilla*, wryneck) is a bird (in mythology, a daughter of Pan and Echo) which has long been associated with love-spells in magic. In order to influence an unfaithful lover the sorcerer would catch a wryneck, fix her to a wheel and rotate it.[23] Later the term *iunx* and the magical procedures associated with it underwent some evolution. In the domain of love-magic it started to designate an appropriate instrument—the wheel—itself, while in the Platonic tradition it was understood symbolically as an Erotic binding force which links men to the gods.[24]

Rotating the wheel in the process of a theurgic rite, the sorcerer receives certain magical 'names' (fr. 87 Des Places), also called *iunges* (the divine messengers therefore are symbolically identified with the messages they brought from above). An *Oracle* states that the names, pronounced by those who understand the divine utterance, reveal to the theurgist their extraordinary powers (cf. fr. 150 Des Places).

According to Marinus, Proclus from time to time busied himself with practical religion, usually upon the request of others. His prayer "in the ancient manner" to Asclepius helped a woman to recover, and certain rites saved Attica from a drought and earthquake (*Vita Procli*

[22] For details, cf. KARIVIERI 1994, 135f. See also our study AFONASIN, AFONASINA 2014.

[23] In *Pindar, Pythian* 4.213–220 (transl. Steven J. Willett) the rite is described as introduced by Aphrodite and the wryneck is poetically called "the maddening bird": *But the sovereign of swiftest darts, / Cyprogeneia, binding / the dappled wryneck / four-spoked upon an indissoluble wheel / first brought the maddening bird / to human kind and thus taught Aeson's son / skill in invocations and incantations, / that he might strip Medea of all reverence / for her parents and that Hellas, fiercely desired, / might set her whirling, as she blazed in spirit, / with the scourge of Persuasion.*

[24] This interpretation is most famously found in the *Chaldean Oracles*, where the *iunges* ('the magic wheels of Hecate,' fr. 206 Des Places) are identified with the ideas (or thoughts) of the highest divine entity, the Father, while Eros ('the first to leap from the Paternal Intellect,' fr. 42 Des Places) is understood as a cosmic force which binds the worlds together and harmonizes the universe with the soul. The *iunges*, the lowest entities in the chain of being, acting as messengers and constantly moving from the Father to the material world, help the theurgist to connect the Primordial Triad of the Chaldeans with the rest of beings. Besides, the *iunges* are associated with some planetary forces, the 'Intellectual pillars' which support an ordered movement of the planets. They thought that the *iunges*, invoked by a theurgist, moved physically to an appropriate planetary sphere and provided a contact with the material world (fr. 77–79 Des Places). For more details, cf. MAJERCIK 1989, 9–10, 16, 29, 171–172.

28–29, quoted above; cf. 17). We cannot be sure from the text whether Proclus performed the rites in a physical or a symbolic manner, but the instance of the piglet's sacrifice definitely suggests that the real animal sacrifices were normal for the period and could be a part of the religious practice of the Neoplatonic school. Marinus seems to confirm this, saying that Proclus, otherwise a strict vegetarian,[25] ate meat 'for the sake of a rite' (*Vita Procli* 12 and 19). It is quite possible therefore that in order to influence weather the Neoplatonic philosopher "in the ancient manner" had used a real bird rather than a clever planetary device of a sort described by Psellus as "a sphere embedded with sapphire and swung around by means of a leather strap" (PG 122.1133 A 8–9; Majercik 1989, 30).

But what if the philosopher was indeed waiting for Athena to arrive in his house (*Vita Procli* 30)? One would expect that, in the course of preparation for this event, he could wish to establish a new shrine and offer some sort of sacrifices to the goddess. This idea was recently proposed by Ch. Wildberg[26], who rightly notices that this sort of purification is indeed attested in literature, for instance, in Aeschylus' *Eumenides* (276 f.), where Orestes, before approaching Athena, purifies himself with the blood of a pig.[27] One may observe however that this sort of purification is generally appropriate in the case of homicide (see, for instance, Apollonius, *Argonautica* 4.700–716, where Circe in a similar manner purifies Jason and Medea of their crime), and more typical for Phoebus (for instance, in this way once a month the priests used to purify the temple of Apollo in Delphi).

If not a coincidence, seven cups, no more and no less, used for this ritual also indicate the presence of Athena, since in a symbolic manner, motherless and ever-virgin Athena has long been associated with "number seven, which neither generated any number, nor is generated from any" (Alexander, *in Meth.* 38.8–41.2 = Aristotle, fr. 13 Ross; 203 Rose). This Pythagorean idea is verbally repeated by Proclus in his *Commentary in Timaeus* (1.151), and it is hardly a coincidence that he devoted to Athena his seventh hymn, in which he asks the goddess to grant "perfect health" (ἀπήμον' ὑγείην) to his enfeebled limbs (*Hymns* 7.43–46).[28]

Besides, it is interesting to observe that, although in their hymns and prayers people almost universally ask gods for good health,[29] in the *Hymns* of Proclus health is mentioned only twice: in the *Hymn to Athena* and, quite predictably, in the *Hymn to Helius* 1.21–23, where it is related that Paeonian power, which is health, fills the entire world with its healing harmony (πλήσας ἁρμονίης παναπήμονος εὐρέα κόσμον; cf. Proclus, *In Tim* I 49A, Asclepius T 312 Edelstein, quoted above).

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[25] Cf. *PhH*, fr. 84D (about mallow), referred above.

[26] Cf. WILDBERG 2017.

[27] "For the blood is slumbering and fading from my hand, the pollution of matricide is washed away; while it was still fresh, it was driven away at the hearth of the god Phoebus by purifying sacrifices of swine" (transl. by H. W. Smyth).

[28] Has this something to do with a known fact that he suffered from arthritis (see above)?

[29] See, for instance the *Orphic hymns* to Zeus, Poseidon, Nereus, Demeter, Persephone, the nymphs and even Nature. An *Orphic hymn* to Athena also ends with a request for a happy life and a good piece of health.

IV

Let us return to the initial passage (*Vita Procli* 29). Marinus pictures Proclus visiting the temple of Asclepius in Athens because of an unspecified illness of Asclepigeneia. All hope had already been lost, and Asclepigeneas' father Archiadas asked the philosopher ('who was his final anchor or rather his benevolent savior') to ask the god on behalf of his only offspring.[30] The god answered the prayer of Proclus and the girl quickly recovered. Clearly, Marinus sees this truly miraculous act as a sign of providence. And indeed, the episode is central in the history of the Athenian school of Neoplatonic philosophy: the girl, miraculously recovered with the help of Asclepius, married the archon Theagenes and later become the mother of the future Neoplatonic philosopher and the scholarch of the Academy Hegias.[31] Should the girl die the Golden chain of Platonic succession would break. On the other hand, the grand-mother of the saved girl, also Asclepigeneia, is known to introduce Proclus to special rites, in the manner Dyotima in Plato's *Symposium* introduced Socrates to the 'knowledge' of Eros. Some sort of secret (theurgic) knowledge, which she passed to him, she learned from her father and Proclus' spiritual 'forefather' (προπάτωρ) Plutarch, who, in his turn, acquired it from his father Nestorius. The name Asclepigeneia hints at some ties which existed between the family and the cult of Asclepius, and it is not altogether trivial that Plutarch had chosen to pass his knowledge of religious rituals not to his son, but to his daughter.[32] At any rate, with this successful act of theurgy Proclus repaid his debt, and demonstrated that he was a gifted student.

We have seen that Proclus and other Neoplatonic philosophers radically rethought the place of Asclepius in the divine order and, consequently, gave the concept of health a very distinct meaning:

"People are inclined to make health the analogue to justice in the soul, saying that the former too is a kind of justice in the body as the latter is in the soul. For the habit of exercising the parts of the soul with the least of discord is nothing else than justice, while the sons of Asclepius also give the name of health to that which produces orderly and agreeable co-operation in the disorderly elements of the body" (Marinus, *Vita Procli* 3, transl. by M. Edwards).

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[30] Apparently, Proclus' abilities were already well known to his friends: "And if any of his associates was afflicted by illness, first he strenuously appealed to the gods on his behalf with words and hymns, then he attended the invalid solicitously, calling the doctors together and pressing them to exercise their skills without delay. And in these circumstances he himself did something extra, and thus rescued many from the greatest perils" (*Vita Procli* 17, transl. M. Edwards).

[31] Cf. ATHANASSIADI 1999, *The Philosophical History,* 63B.

[32] Probably, as suggests J. DILLON (2007, 123 n. 16), because his son, Hierius, although a philosopher and a student of Proclus, was not, for some reason, a very satisfactory person for this purpose.

The Neoplatonic philosopher visits the shrine of Asclepius to pray the god on behalf of the others rather than for personal reasons, while Asclepius visits him in person and, as it seems, without an explicit request from the man; and sometimes gods ask the philosopher for help and protection.

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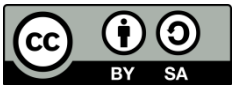

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A new exploratory project: The ethnoarchaeology of salt in the Inner Carpathian area of Romania

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Abstract. *This new ethnoarchaeological research project focuses on the inner-Carpathian area of Romania. The archaeological and ethnographic vestiges of salt exploitation in this area are among the most consistent in Europe. They are closely interconnected and reveal the continuity of salt exploitation in the same locations from prehistory to the present. From the methodological point of view, the project avail itself of the experience gained and validated by the projects carried out under the aegis of the "Al. I. Cuza" University of Iași and of the National Museum of the Eastern Carpathians in collaboration with prominent research centres from France, UK, US, and Germany. The new project will tackle a number of new issues, including the reconstruction of the prehistoric salt-exploitation techniques that employed wooden installations such as those unearthed in a number of archaeological sites from northern Transylvania and Maramureș, the transport of salt along streams with limited discharges, and others. New research methods will also be tested, such as the virtual simulation of certain salt-exploitation technological processes.*

Rezumat. *Noul proiect de cercetare etnoarheologică a sării vizează spațiul intracarpatic al României. Vestigiile arheologice și etnografice din acest areal sunt printre cele mai consistente din Europa, sunt strâns interconectate între ele și relevă continuitatea exploatării sării în aceleași spații începând din preistorie până în zilele noastre. Din punct de vedere metodologic, proiectul beneficiază de experiența acumulată și validată în cadrul proiectelor anterioare realizare sub egida Universității „Alexandru Ioan Cuza" și Muzeului Național al Carpaților Răsăriteni în colaborare cu centre de cercetare de prestigiu internațional din Franța, Marea Britanie, SUA și Germania. Totodată, în cadrul noului proiect vor fi abordate o serie de teme noi, printre care menționăm reconstituirea tehnologiilor de exploatare a sării cu ajutorul instalațiilor preistorice de lemn descoperite în situri arheologice din nordul Transilvaniei și în Maramureș, transportul sării pe pâraie cu debit mic și altele. Vor fi experimentate și unele metode noi de cercetare, printre care menționăm simularea virtuală a unor procese tehnologice de exploatare a sării.*

Keywords: salt, ethnoarchaeology, experimental archaeology, Romania.

Romania is now rich both in archaeological and ethnographical evidence for preindustrial salt production, processing and use. In this situation, the ethnoarchaeology of salt in Romania provides a unique advantage, that of **spatial unity and temporal continuity**.

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This unique situation in Europe was valued ever since the beginning of the last decade of the past century by a study that emphasized the enormous potential of salt ethno-archaeology in Romania[3]. The embodiment of the research was carried out within the project *Ethnosal*[4] (2007–2010), which mainly concerned the Subcarpathian area of Moldavia. The impressive results obtained within this project and the finding of the many new situations in almost every research microzone led to its extension to the entire extra-Carpathian area of Romania, through the project *EthnosalRo*[5] (2011–2016). On this occasion there were also a lot of situations which were not reported in the research of the first project (Figure 1).

It is worth mentioning that the ethnoarchaeological potential of Romania[6] has increased even more after the country joined in 2007 the EU, when, as an unforeseen effect of an increase in the number of private enterprises, some resilient areas witnessed the reactivation of traditional economical behaviours of valorising natural resources, including salt, at an unexpected intensity.

In 2016, at the suggestion of the archaeologist Valerii Kavruk, a new project was drown up, *EthnosalRo3 — The Ethnoarchaeology of Salt in the Inner Carpathian area of Romania*[7], a winner of the 2016 UEFISCDI competition, focused on the inner-Carpathian area of Romania (Figure 2). This project is the result of the collaboration between the manager of the two aforementioned projects (M. Alexianu), and Valerii Kavruk, the manager of the Museum of the Eastern Carpathians from Sfântu-Gheorghe, who led several archaeological projects focused on the archaeology of salt in Transylvania.

The inner-Carpathian area of Romania has **the highest potential** in Europe for ethnoarchaeological research on the preindustrial civilisation of salt. Foremost, this area harbours and are currently in research some of the most representative and well preserved archaeological sites related to the *continuous exploitation of rock salt and brine* from ca. 3500 BC until the present day. Due to the publication of the results of the archaeological researches carried out in Transylvania and Maramureș in 2000–2013 in the framework of Romanian-British projects the ancient salt production evidence from this region has become well known in the scholarly world. Among others, the recent archaeological investigations revealed a technology of salt exploitation unique in the world — the so-called "trough technique"[8].

[3] ALEXIANU, DUMITROAIA, MONAH 1992.

[4] CNCS-UEFISCDI project 414/2007, no 167/2007, *The salt springs of Moldova. The ethno-archaeology of a polyvalent natural resource — Ethnosal*. Online: ethnosal.uaic.ro. For a presentation of the project, see ALEXIANU, WELLER 2009.

[5] CNCS-UEFISCDI project PN-II-ID-PCE-2011-3-0825, no 219/5.10.2011, *The ethnoarchaeology of salt springs and salt mountains from the extra-Carpathian areas of Romania — EthnosalRo*. For a presentation of the project, see ALEXIANU, WELLER, BRIGAND 2012. Online: ethnosalro.uaic.ro/ethnosalro

[6] NANDRIS 1985.

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[8] HARDING 2013, 63–66.

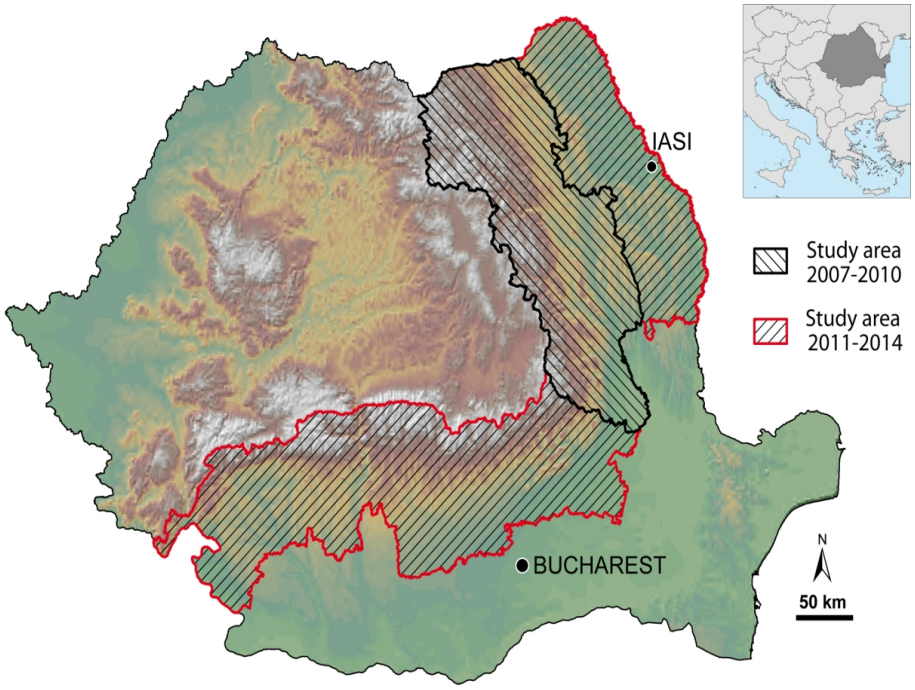

Figure 1. Study area of the *Ethnosal* (2007–2010) and *EthnosalRo* (2011–2016) projects (map by R. Brigand).

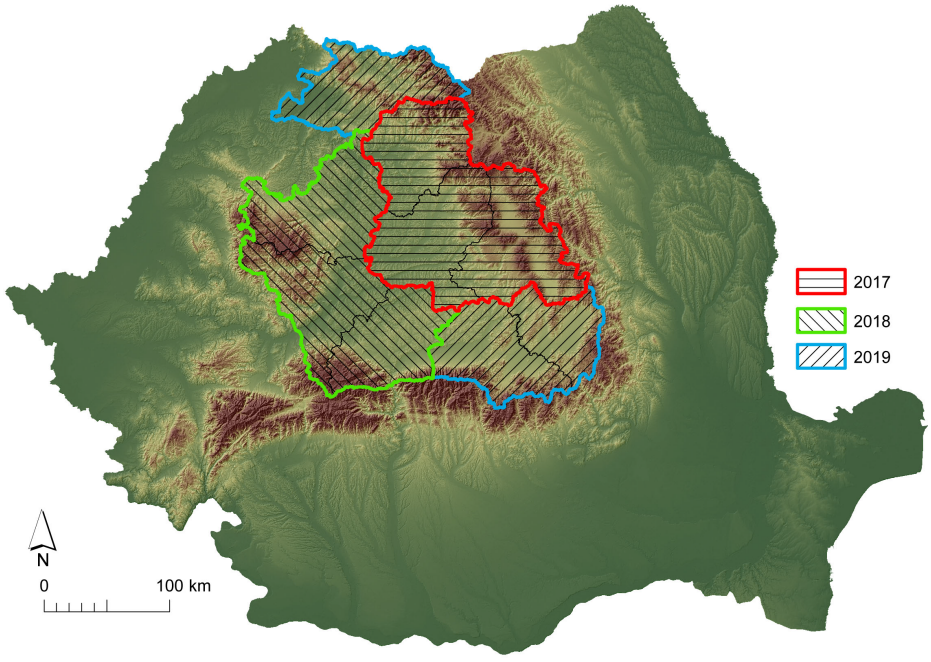

Figure 2. Study area of the *EthnosalRo3* (2017–2019) project (map by R. Brigand).

Figure 3. The brine well from Caila (Bistrița-Năsăud County),
located at the centre of a salt-exploitation site (ca. 1300–900 BC and ca. 1600–1800 AD).

Figure 4. Băile Figa 2016: well and trough from ca. 1000 BC.

If Romania is the only country in Europe in which preindustrial exploitation of salt is still being carried out on a wide scale, *Transylvania and Maramureș are at the forefront in Romania in this regard.* Furthermore, in the inner-Carpathian area there are known practices and customs that are unknown in the rest of Romania, from which we mention the supply from the salt wells with house, ritual consumption of salt, preindustrial mining, etc.

The ethnographic researches on the traditional exploitation of salt carried out in Transylvania in 2005–2012 have revealed a particularly rich heritage that constitutes an important starting point for an ethnoarchaeological research.

Thus, the possibility was given to contribute in a substantial manner to the development and articulation in the ethnoarchaeological sense of the results of the researches in the inner-Carpathian area.

The inner-Carpathian area of Romania presents a huge potential for conducting ethnoarchaeological research, on the one hand on account of the density of archaeological sites in saliferous areas, and on the other, the practice even today in some resilient areas of traditional behaviours of exploiting brine springs and rock salt shallow deposits and outcrops. Ten archaeological salt production sites are known in the Inner Carpathian space of Romania. All of them are exploited nowadays in the frame of the traditional and resilient economy. Notable archaeological sites related to the exploitation of salt, dated to various time periods—ca. 3500–2000 BC, 1600–800 BC, 400–200 BC, 500–700 AD, 1400–1800 AD—are found in Băile Figa, Săsarm, Caila (Bistrița-Năsăud County; Figure 3), Orșova (Mureș County), Sânpaul (Harghita County), Turda-Salina (Cluj County), and Ocnișoara (Alba County). Special mention should be made of the archaeological site from Băile Figa, where researches have revealed a novel technique of exploiting the salt outcrops in prehistory, namely the so-called "trough technique"[9] (Figure 4). From the archaeological point of view, the relations between the human settlements and the salt resources in the inner-Carpathian area of Romania have been treated exhaustively in an interdisciplinary holistic vision[10].

The recent ethnographical field research has shown that in the inner-Carpathian area the most relevant are the activities developed around the so-called "salt wells with houses" (Figures 5 and 6). They are concentrated mainly in the Subcarpathian areas of Transylvania, along the western range of the Eastern Carpathians and in Maramureș: the Homoroadelor Depression, the Odorheiu-Secuiesc–Praid–Corund–Sovata area, the Upper Mureș Valley (Reghin–Ideciu de Jos–Brâncovenești), the Șomeșul Mare basin (most of Bistrița-Năsăud County and the eastern part of Cluj County, up to Ocna Dej), and the Maramureș Depression. We mention that Eastern Transylvania benefits from an ample ethnographic research[11], but

[9] HARDING, CAVRUC 2012; HARDING 2013, 63–66.

[10] HARDING, KAVRUK 2013.

[11] CHIRICESCU 2013.

research should be recommenced, considering the fact that ethnoarchaeology considers other parameters besides those specific to classical ethnography.

Like in the two previous projects, this project aims to apply the spatial method in the field of ethnoarchaeological researches on brine springs, rock salt shallow deposits and outcrops. This top orientation in the field of ethnoarchaeology will be extended systematically to the entire inner-Carpathian area. Thus, this pattern of scientific behaviour will establish itself decisively in international academia.

Carrying out archaeological experiments, some of which the first of their kind in the entire world, constitutes another novel objective of this project. Establishing from the ethnoarchaeological point of view the different parameters of salt transport on a multiscalar level represents an innovative objective in relation to previous research in Romania.

Compared to the two previous projects, this project has a number of new objectives, most notably concerned with reconstructing the prehistoric and proto-historic exploitation of salt, in the inner-Carpathian area, by means of experimental archaeology). These experiments will focus on: (a) producing on site structures, installations and tools related to the exploitation of salt, similar to those discovered in archaeological deposits; (b) testing their functionality for extracting rock salt, increasing the salinity of brine, evaporating brine; (c) the transport of salt along creeks using the damming system (raising successive dams in order to raise the level of water on short distances and their successive breaking for ensuring a discharge sufficient for the movement of rafts/ships; (d) manufacturing pottery with brushed surfaces (known in salt production sites in Transylvania as well as in Asia and the Americas) involved in the exploitation of salt, in order to establish their functionality. Another novel objective aims to establish the practical ways in which small-distance transportation of rock salt on land or waterways could have been connected to the major salt routes, by land or water. Yet another novel objective involves conducting interdisciplinary researches concerning the

Figure 4. The “salt well with house” from Cepari (Bistrița-Năsăud County).

Figure 5. The “salt well with house” from Bunești (Cluj County).

supplying with salt of areas in eastern Transylvania lacking salt, from the saliferous areas of Moldavia and Wallachia. Finally, another new objective aims to ascertain the human behavioural constants on the diachronic level in selecting the points of exploitation of salt, on the backdrop of an abundance of salt in certain microzones.

The present project presents some elements of originality in relation to the previous two projects: (a) reconstructing the pre- and proto-historical methods of salt exploitation by means of archaeological experiments; (b) applying the original models resulted from the *EthnosalRo* project to the inner-Carpathian area of Romania; (c) approaching from the ethnoarchaeological perspective of the problematics of transportation of salt and of salt roads in the study area; (d) establishing the human behavioural constants in selecting the locations of salt exploitation; (e) using computer simulations in the case of archaeological experiments related to the exploitation of salt.

From a methodological point of view, just like the previous projects (*Ethnosal* and *EthnosalRo*), this project proposes a multiscalar approach: (1) Multiproxy approach: distribution area of the salt coming from a salt spring or a salt outcrops; (2) Distribution area of the salt for the entire Romanian inner-Carpathian area.

The project aims to extend the field researches until reaching the parameters of a saturated model[12]. The research methodology valorises the methods specific to each discipline involved within the project. Specific methods: complex ethnographic inquiries (on the basis of original questionnaires[13]) and of new questionnaires centred on rock salt deposits and outcrops, at the seasonal animal breeding settlements, and at exploiting localities; the questionnaires approach a complex themes: localization of the exploitable salt sources, identification of the exploiting localities, transport, utilizations, frequency, (re)distribution network, trade, barter transactions, gift, hunting, extracting methods, symbolism, ethno-science, behaviours, salt-related toponymy and anthroponomy; geo-referential localization of the salt springs and salt outcrops through GPS; spatial analysis method applied to the salt springs and salt outcrops – habitat implementation relationship; archaeological surveys in the surrounding areas of the salt springs and on a range of 500 m around; employment of the chorographic method related to the concentration of the human habitation areas around the salt springs and salt outcrops in the archaeological and ethnographical time; first-ever testing for the Inner Carpathian area of Romania of the validity of the radial salt supplying model created on the basis of ethnoarchaeological researches in the extra-Carpathian area of Romania[14].

We stress that by employing this holistic methodology used for the extra-Carpathian area in the case of the inner Carpathian area will undoubtedly enhance the systematic character,

[12] ALEXIANU 2013.

[13] Cf. ALEXIANU, WELLER, BRIGAND 2007, 41–57.

[14] ALEXIANU 2015.

coherence, solidity and also credibility of our undertaking. The methodology novelty refers to consolidating the non-mechanic application of certain current models to prehistoric archaeological situations, starting from observing the continuity over the last half millennium of the non-industrial economic patterns and social contexts generated by the existence of salt springs and salt outcrops, despite the great changes in the social, political, administrative organization of the communities within the Romanian Outer and Inner Carpathian space, including the moment when Romania joined the EU.

The research team is composed of members of the *Ethnosal* and *EthnosalRo* projects, to which specialists from the intra-Carpathian area of Romania were added. We also mention that the *EthnosalRo3* project team includes reputed specialists from Europe (A. Harding, O. Weller). The multi- and inter-disciplinary character of the project is provided by the represented (sub)disciplines: ethnoarchaeology, archaeology, experimental archaeology, geospatial archaeology, geophysical research, archaeometry, history, philology, ethnography, cultural anthropology, chemistry, geology, hydrology.

The research undertaken within the project creates the premises to fully substantiate interpretative models impossible to achieve anywhere else in Europe. It is obvious that the modelling based on such a consistent database maximizes the credibility of using the ethnographical analogy to understand the various contexts on the archaeological time. Therefore, the different sub-models provided by this project will undoubtedly be used as reference for the areas—anywhere in the world—with evidences of salt exploitation in the archaeological, but not in the ethnographic time. We also mention that the tendency to build potentially universal models will not exclude the emphasis on the idiographic aspects illustrating the intelligence of human behaviours in particular situations.

The central scope of the project is to produce a complete ethnoarchaeological referential based on complex researches in areas with salt resources from the inner-Carpathian area of Romania. By corroborating the previous results obtained for the extra-Carpathian area of Romania, it will be possible to produce the world's first ethnoarchaeological research, unitary from all points of view, of a major saliferous region of the world.

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Victor Sava, *Neolithic and Eneolithic in the Lower Mureș Basin*,
Mega Publishing House, Cluj-Napoca, 2015,
ISBN 978-606-543-661-9, 596 pages, 162 figures, 246 plates

For the Neolithic and Eneolithic in the Lower Mureș Basin there are several contributions[1] with general and particular character. The present book combines already existing information in published literature with new archaeological data, the result providing a new research model for the investigation of a geographical and chronological area.

The book begins with a page of *Acknowledgments*, followed by a short *Introduction* in which the author makes some methodological explanations related to the terminology used during the work. For example, the terms "culture", "cultural group", "cultural aspect" are substituted with the term "pottery style". Also, syntagmas such as "discoveries associated to the Tisa pottery, Coțofeni pottery" etc. are used, and the concept of "archaeological culture" is avoided, all these because the author intends to reduce the idea that an "archaeological culture" is to be identified with an ethnic group.

Chapter 1 (pp. 12–15) presents the geographic framework of the study area. The author starts by presenting the boundaries of the researched area which is not restricted to a single geographic unit. The limits are conventional and the cultural realities of the region are taken into consideration, thus are analysed the discoveries made between the current settlements of Deva and Szeged. The northern limit is the valley of Crișul Alb and the southern one is the Vinga–Beba Veche sector. The studied geographic context includes the entire Arad County, parts of the Hunedoara and Timiș counties (Romania), the counties of Csongrád and Békés (Hungary) and a small portion of the province Vojvodina (Serbia). There are also presented the relief, hydrography and soils and concludes with data on the geographic area considered.

In the second chapter (pp. 16–63) are presented the archaeological researches that have been made in the area of interest, these being divided into four chronological stages. Each of these stages corresponds to a subchapter: *Nineteenth century — 1978, 1919–1946, 1947–1989 and 1990–2015*.

In chapter 3 (pp. 64–69) is described the evolution of terminology in the Romanian historiography for the period under consideration. The different views that have been expressed over time regarding the *Eneolithic/Copper Age/Transition period* terms are presented in graphs and tables. In the end the author shows his preference for using the term Eneolithic based on Wolfram Schier opinion, which in his absolute chronology studies demonstrate that

[1] Gheorghe Lazarovici, *Neoliticul Banatului*. Cluj-Napoca, 1979; Florin Drașovean, *Studii privind așezările preistorice în arealul Tisa-Mureșul Inferior. Cultura Petrești în Banat*. Timișoara, 1999.

Copper Age as a different historical era cannot be supported and the terms Eneolithic and Chalcolithic are more appropriate as a terminological convention.

Chapter 4 (pp. 70–79) begins with the presentation of the proposed relative chronology systems from Antiquity to the 20th century, followed by the proposals concerning the Neolithic and Eneolithic on the territory of Romania.

The fifth chapter (pp. 80–273) is divided in two subchapters called *Neolithic* and *Eneolithic*, which are divided in three subchapters: early, middle and late. For the analysis of these subdivisions, the author develops a model that follows the next aspects: discoveries associated with a particular culture, the repertoire of discoveries, their settlements and features, funerary discoveries, artefacts, and the chronology of the culture in question. For the Early Neolithic, the Starčevo-Criș-Körös pottery is highlighted, Middle Neolithic refers to "Banatului Culture", Vinča A, Szakálhát and the discoveries without a stylistic determination, and for the Late Neolithic Tisa, Vinča C, Turdaș and Foeni pottery. Early Eneolithic is associated with Tiszapolgár pottery, Middle Eneolithic with Bodrogkeresztúr and *Toarte pastilate*–Hunyadihalom, and the Late Eneolithic is represented by Cernavodă III-Boleráz, Baden, Coțofeni. These subchapters end with a repertoire of Neolithic and Eneolithic discoveries that do not have a precise timeline. The subchapters contain excavation plans, drawings of archaeological contexts and references to plates, all of this supporting the statements made in the text.

Also, for the Coțofeni pottery, the author does a ceramic analysis based on eleven fields: vessel part, preservation, shape, type of decor, decorative pattern, fabric, tamper material, surface treatment, type of firing, firing quality and colour. The results obtained are presented in graphs, each one with explanations.

Chapter 6 (pp. 274–289) is divided in three subchapters, the first one presents the development of copper metallurgy, the second consists of a repertoire of the discoveries of copper pieces in the area of interest, and in the last subchapter the author proposes a discussion on these artefacts based on graphs. Also, this chapter discusses the beginning of copper metallurgy, and in this direction the radiocarbon data is presented.

In the *Conclusions* chapter, the author resumes the research history before and after the Second World War presenting the most important archaeological excavations, but also the way in which the working methods and techniques evolved and helped to improve the quality of the obtained results. Also, are presented tables which show where the settlements were discovered, their type and cultural framing. There are explained the results obtained from the research of the spatial arrangement of the Neolithic and Eneolithic settlements in the Lower Mureș Basin and how they complete the information already existing in the literature. At the end of the conclusions, the author come into notice about the deficiency of chronology, the small number of multi-disciplinary analyses, but also the fact that many of

the monographs for the sites in the researched area have not been published which makes such a study to be difficult to achieve and to have some gaps.

The work contains a list of *Abbreviations*, one of *Ancient and Medieval Written Sources* and a consistent and well-organized *Bibliography*.

The book represents a unitary approach of the Neolithic and Eneolithic discoveries in the Lower Mureș Basin, systematizing the information existing in the specialized literature. Also, it has a clear structure, tables, charts, plates and maps that facilitate the understanding of the whole study.

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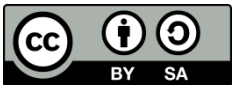

Blas Román Castellón Huerta, *Cuando la sal era una joya. Antropología, arqueología y tecnología de la sal durante el Posclásico en Zapotitlán Salinas, Puebla.* Con un prologo de Marius Alexianu. Secretaría de Cultura. Instituto Nacional de Antropología e Historia, México, D.F., 2016, 294 pp.

The role of salt in the development of communities in Pre-hispanic Mexico, one of the major areas of human civilization, began to be studied relatively late compared to the archaeological research carried out in other areas, primarily Europe. Although a historiographical assessment indicates, after periods of absence or feeble concerns, a relative increase in specialized studies in the last two to three decades, such works are still insufficient for the huge potential of Mexico. That is why a work like this one arouses *ab initio* the largest interest in the international community, where, likewise, in recent decades, a notable revival of archaeological and anthropological research focused on salt has been observed.

First of all, I want to underline the title of this book. Along with the metaphor contained in the main title which draws attention to the value of salt in traditional communities (*joya* – 'jewel'), the subtitle (*anthropology, archaeology and technology of salt...*) marks by itself the aspiration towards a more comprehensive analysis able to overcome the strictly disciplinary approaches, which are obviously very useful but insufficient for understanding the complexity of the subject at hand.

This position illustrates, of course, the university education, research activity and position of the author within the Mexican academic life. That is why I consider it necessary to present some bio-bibliographical references. Blas Román Castellón Huerta obtained a Bachelor Degree in Archaeology from the Escuela National de Antropologia e Historia in 1985 (with honours), a Master Degree in Arts (Archaeology) from the Arizona State University (1992) and a PhD in Anthropology (Archaeology) from the National Autonomous University of Mexico (with honours). Since 1985 he has been Associate Professor at the National School of Anthropology and History (ENAH), Mexico, and since 1996 a Senior Researcher at the Direction of Archaeological Studies in the National Institute of Anthropology and History. Since 1987 he has carried out archaeological research in nine areas of Mexico and one in Salvador. He is the author of three specialized books, has edited two studies volumes and published several reference studies.

The introduction (pp. 19–30) presents the general framework of research carried out mainly between 2002 and 2008 in the surroundings of the present-day municipality of Zapotitlán Salinas, situated in southern centre of the Central Plateau of Mexico: "This work studies ancient salt production, technology, social, cultural and symbolic implications and its place within a wider political system of trade relations, trade interchange and taxation in the

post-classical period". The main objective of the paper is to "define and explain the existence in this place and during this period of a sudden change in salt production scale" in order to obtain the so-called salt cakes, for barter and tax purposes. The introduction has the merit of raising a strong interest in many aspects of research, from the first contact of the author with an important archaeological salt production site, to the epistemic dilemmas that preceded the archaeological excavations and which continued afterwards. The reading is passionate and it is not by chance/accident that the most numerous pages of the introduction (pp. 22–29) are incorporated into a perfectly justified subtitle: *A fascination for the unknown* (in Esp. *Una fascinacion por lo desconocido*).

Given the high complexity of the work, the author had the propitious idea, in the *Introduction*, to present the *The general scheme of this book* (*Esquema general de este libro*) (pp. 22–30). Thus, given the limited information on salt production in Pre-hispanic periods, the author points out that he sought to define as accurately as possible the historical and archaeological context of saltworks, the physical and geographic environment of salt and artefacts in relation to the technological processes. Starting from this basis, the most important social aspects generated by technology have been interpreted, as well as the consequences of salt production here for neighbouring regions. All of these great research milestones are structured into the eight chapters of the book, the essence of which is presented below.

The first chapter, *Production and specialization in the Postclassical*, deals with the issue of artisanal specialization in salt production, as it results from archaeological research, through critical recourse to the conceptual problems specific to the economics of ancient societies. The following chapter, *Ancient history and salt production in Zapotitlán*, presents the historical and archaeological context of the Zapotitlán region. The third chapter, *Salt production sites*, provides a detailed description of the salt production areas, archaeological research and their results. The reconstruction of each stage of technical operations necessary for the production of salt is done in the *Production process* chapter, in which the author adopts a less known theoretical perspective that considers technology as a communication system with important symbolic implications. The historical implications, internal and external consequences of the sudden increase in salt production are analysed in the *Production scale* chapter. The next chapter, *The social organization of production* presents the social consequences of salt production, but also the implications at the level of social representations, including social imagery. The chapter *Destinations of salt* presents the distribution of salt and its social mechanisms, the context of political forces involved, perceptions of different receivers who participated in the interchange system. The last chapter, *Technological change in the 16th century*, analyses the historical circumstances that put an end to this technology, namely the appearance of mining and cattle breading, specific features of the new Hispanic society.

The *Conclusions* synthesize, at a high level of generality the personal research outcomes, as they appear in each chapter of this book, also being experienced or incorporated into the previous researches. Following are some of the most important conclusions. Thus, it is highlighted that the water control systems and the salt production are the two decisive elements for understanding the origin of the domestication of plants and all the cultural manifestations generated by it, as reflected in the archaeological finds. The author considers that both the quantitative aspect of salt consumption and the symbolic dimensions should be taken into account, arguing that the agricultural populations identified salt with the state of being human, in contrast to the non-human (p. 257). The author shares the idea that technology is a historical-cultural expression with symbolic dimensions, while distancing himself from the simplistic vision that salt production is simply an economic or functional activity that responds to a material (biological or agricultural) need. In support of this come ethnographic arguments, namely that among the current populations "the Zapotitlán salt has a special role to play in eating food and in other medical, social and religious uses" (p. 258). The techniques of producing consumer goods are "a true religious experience" because "the masters of these waters and lands are not human, but divine beings, with a different essence to which they must be offered" (p. 259). It is also emphasized that "crystallized salt cakes or blocks must be literally designed as parts of the body of the (salt *n.n.*) goddess" (p. 261). Techniques and associated beliefs should not be conceived as two distinct elements, but as a unitary whole (p. 261). Regarding the intensification of production in post-classic period, the author concludes that it is "generated by an increased demand for the diversification and prestige of saline products (salt cakes) and not only food, nutritional or economic demands" (p. 263). The use and exchange strategies with other products were not based on a common appraisal (*tasación común*), but "depending on the social value, but also on the magical and ritual of this salt" (p. 264).

Special mention must justly be made with respect to the illustration (drawings, some redesigned, and photographs, made, with some exceptions, by the author) accompanying the text of the volume.

In the light of the above, I believe that this publication is unquestionably a valuable reference book for anyone interested in salt in general, and Mexican salt production in particular. This work decidedly demonstrates that on the issue of the role of salt in the archaeological past, the strictly archaeological approach is insufficient and must be replaced by a broad anthropological one. Considering that research is disseminated with important details and, in an accessible and pleasant language, simultaneously rigorous and very lean, the work is of interest to both the academics specialised in this field, as well as the general public, but especially for the young generation of researchers from the field. Through a multi-faceted discourse that is markedly clear, logical, penetrating and (self-)critical, the work provides the reader with a comprehensive, complex and complete overview of Zapotitlán

Salinas, Puebla in the post-classical period. These is why I fully agree with the main conclusion of the *Foreword* (*Prologo*, p. 17), namely that the qualities of this book, representative of the high level of humanities in Mexico, place it in the highest position among the world reference books on the anthropology and archaeology of salt. Furthermore, I am sure that the systematic archaeological and anthropological research featured in this work will be an inspiration for other scholars, especially if the book will also benefit from an English version, which will enable reaching a diverse audience more directly.

One more remark: after reading the entire book, I realised that the main tile is not simply a metaphor, since to produce salt in grain is not the same as producing a salt cake. Both processes are related but the production of a salt cake is much more complex and the result is certainly a prestigious good, and this outcome makes the waste of broken ceramics (millions of ceramic fragments; p. 25) a futile issue since what the get finally is a very valuable product: a real jewel.

In the end, I am very pleased to mention that the conclusions of this review have been confirmed by the honouring of the author with the prestigious award *Premios Nacionales INAH. Premio "Alfonso Caso" a la mejor investigacion en Arqueologia 2017* (INAH National Awards, "Alfonso Caso" Award to the Best Research in Archaeology 2017). This very prestigious award, conferred since 1985, recognises the major works concerning Mexico, including those by foreign scholars, published in the fields of Anthropology, Archaeology, History, Museology, and Restoration.

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