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Funeral Meal and Anthropophagy in Gumelnița Chalcolithic Civilization in the North-western Black Sea area.

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Abstract : The Gumelnitsa chalcolithic civilization appeared at the beginning of V millennium BC in border of Black Sea between the Danube and the Dniepr, is known for the wealth of its domestic religious figurines. It is also characterized by a dispersal of numerous human, split up rests, with tracks of cuts, harvested as well in the domestic pits as between houses. The hypothesis of anthropophagic practices is the explanation most frequently reserved, but it missed proofs and especially a meaning. The discovery in 1999 of a parietal bone in a domestic pit in Bolgrad archaeological site, situated on the border of Yaplug lake in Ukraine, allows to confirm the hypothesis. Tracks of preparation with the usage of an awl, allow reconstituting the first stages of the rite, that of an anthropophagic funeral meal probably organized around the members of a family. The anatomical knowledge revealed by tracks also allows envisaging the existence of a social caste characterized by a double function of therapist and priest in relation with magic-religious practices.

Gumelnița East of the Danube

The culture of Gumelnița which appeared in the eastern Balkans at about 4500 years BC, marks an extensive agricultural colonization of regions northeast of the Black Sea (Fig.1). This culture is known by more than 200 sites in Romania and Bulgaria, generally situated either on the spurs of high terraces, or isolated hills. Typically these sites are tell-type settlements consisting of houses built of mud bricks on wooden frames and with ovens.

They featured developed stock-breeding and agriculture, and contained numerous metal objects, as well as works of portable art that included female figurines and house models. Recently available radiocarbon dates place the Gumelnitsa Culture into the time-range of 4,900 to 3,800 BCE cal. Based on the sequences of well-stratified sites three main phases are distinguishable: A1, A2 and B. The economy of Gumelnița culture was based on the cultivation of wheat and millet, combined with stock rearing, with the dominance of cattle, followed by sheep and goat and pigs.

The funeral rite of Gumelnița was characterized mostly by individual burials, with the corpses most commonly laid on their side with feet bent, and the funerary inventory including vases and items of jewellery. Typical Gumelnița burials (such as Varaşti) imply little evidence of social inequality, in marked contrast to Karanovo VI cemeteries, and, particularly, the Varna Necropolis (Higham et al, 2007).

A specific cultural entity which became known as Aldeni II, was identified in North-Eastern Romania (the Southern part of Moldova, North-Eastern Mutenia and Northern Dobrudgea). Its relationship with the Gumelnița remains not sufficiently clear. Comşa (1963), Passek (1965) and Chernysh (1982) consider it as an independent entity, while Dumetrescu (Dumetrescu 1924; Dumetrescu et al. 1983) views it as an interaction area between the Pre-Cucuteni/Cucuteni and the Boian- Gumelnița transitional stage (Izvoare II).

The problem of Gumelnița – Aldeni II relationships became still more complicated with the discovery of Gumelnitsa-related sites east of the Danube Delta. At present 31 sites of this type are known in the steppe area of the western part of the Odessa Province in Ukraine and in the South of the Republic of Moldavia. These sites are usually found on naturally fortified promontories and on higher terraces of fresh-water lakes and *limans* (Black Sea lagoons), in the immediate vicinity of arable soil of degraded-chernozem type. In contrast to the areas further south, no tell sites were found there. Usually these were settlements scattered over considerable areas; the largest sites (Vladychen VIII, Novonekrasovka I, Taraclia I and Utkonovka), exceeding 10 hectares, and medium-size sites (Bolgrad and Ozernoye), ca 2 hectares. The surface of smaller villages varies between 0,1 and 1 ha. The settlements comprised houses of two different types (Subbotin 1983): huts of irregular shape semi buried and raw brick-built houses of surface or

cooked. The big houses contained from two to seven rooms and were provided with hearths. Around thirty graves thirty human burials were found beneath house floors or in the immediate vicinity thereof. A child's burial with a body in a contracted position and accompanied with a small vase and with bones of animals was discovered at the site of Bolgrad.

As show the palaeobotanic evidence (Yanushevich 1986), the sites's subsistence was based on agriculture, with the predominant cultivation of hulled wheat, mainly, emmer (*Triticum doccocum* Schrank) and hulled barley (*Hordeum vulgare* L.). Other identified cultigens included einkorn (*Tr. monococcum* L.), spelt (*Tr. spelta* L.), baked barley (*H. vulgare* var. *nudum*); oats (*Avena sativa* L.) and millet (*Panicum miliaceum* L.). At one site, the stones of Cornemian cherry were found.

Cattle dominated in the animal remains, closely followed by sheep and goat and pig. Remarkably the cows were significantly shorter than those at Romanian sites. The elevated rate of young animals strongly suggests the calving occurring at the site. There were virtually no wild animals (Tsalkin 1970).

Based on numerous similarities in the material culture, Chernysh (1964; 1965); Passek (1965); and Beilekchi (1978) considered these sites as a facies of Aldeni II. Subbotin (1983) views them as Bolgradian variant of Gumelnița Culture. The main distinctions between the Bolgradian and Gumelnița proper are seen in the absence in the former of tell sites and artificial fortifications and the character of domestic architecture. Minor differences are equally acknowledgeable in the pottery corpus as well as stone and antler tools.

Radiocarbon dates obtained for the site of Vulcaneşti suggest a chronological interval between 4 800 and 4 000 B.C.E. Bolgradian sites were the earliest manifestations of agricultural settlement of the steppe area east of the Danube Delta.

The Bolgrad Site

The prehistoric site is located on the upper terrace of the Yalpug Liman (Ozero Japlug), on the north-western outskirts of the town of Bolgrad. It lies on the promontory formed by

a deep ravine, at the altitude of 40 m, close to the abrasion cliff (Fig. 2). The excavated area reached 700 sq. m. Altogether, the remains of eight dwellings have been identified (six semi-subterranean huts and two surface houses). The semi-subterranean dwelling No 1 was comparatively well preserved. It formed a large trough-like hollow 7 by 6 m; which floor was found at the depth of 1.6-1.8 below the present-day surface. A circular hearth 1.5 m in diameter was found in the protruding northern part of the dwelling. Another hearth, filled in with potsherds and animal bones, was established in the central part of the dwelling; it formed a cylindrical hole widening at the bottom and reaching a diameter of 0.8 m. The lower part of its filling consisted of cemented ash covered with the layer of mud-bricks, 20 cm thick.

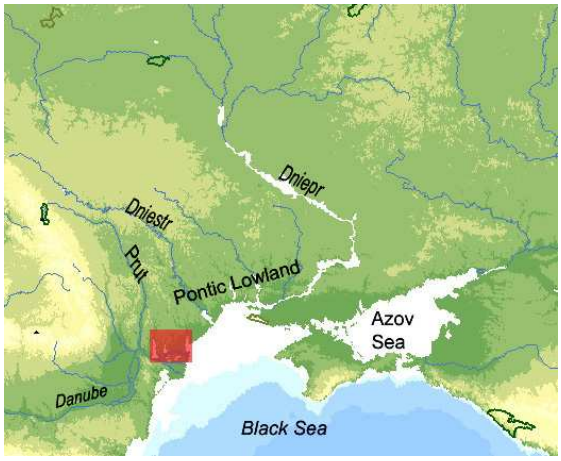


Figure 1: Investigation area.

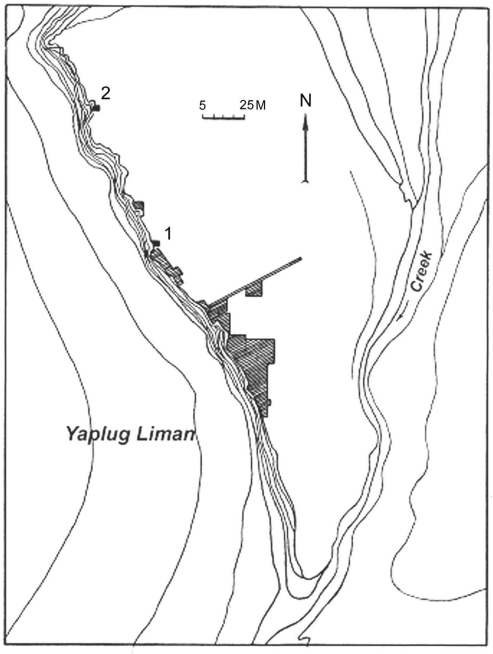


Figure 2: Bolgrad site: excavations of 1962-1984 and soundings (1, 2).

This site included human skeletal remains which belonged to at least three individuals. In one case the skeleton a well preserved skeleton of a child, 5 - 7 years of age has been found with a purposively made burial: it lay in a contracted posture together with animal bones and a small polished vessel, with stone slabs both underlying and recovering the body. A large fragment of a skull of an adult individual has been found in the same area, 0.9 m below the previous find. Yet another human skull has been recovered from the same level, 3-4 m to the north-east from the former area.

In the course of 1999 field project two soundings, 2 by 2 m. each, were dug in the northern, previously unexplored part of the site.

Sondage 1. The micellar-carbonatic chernozem loam formed the upper soil level, beneath which, to the depth of 0.65 – 1.00 m, lies the moist sandy loam. At its bottom, sandstone slabs, animal bones and fragments of pottery formed the foundation of a semi-subterranean dwelling with the attributed to the Chernyakhovian Culture (Roman Iron Age, 1^{st}-2^{nd} centuries AD). Deeper, at 1.0– 1.35/1.40 m, were found the slabs, animal bones and pottery fragments filling the structure of the half-subterranean dwelling of the Gumelnița Culture. Two crushed vessels marked the bottom of this dwelling (1.35-1.40 m).

Sondage 2. At the depth of 0.70 – 0.85 m several sandstone slabs 5-20 cm in diameter have been found, with numerous Gumelnița potsherds and animal bones scattered among them. Within this surface, at the level of 0.80 m, a large fragment of a human skull has been found (Fig. 4)

The Bolgrad parietal bone

The bone consists in a right incomplete parietal, belonged to an adult individual with a lambdoid suture at the initial stage of the parietal sagittal suture (Fig. 3).



Figure 3. The parietal of Bolgrad projected on the modern skull, viewed from behind (with the lambdoid and sagittal sutures); the lateral view, and viewed from above (A. Dambricourt Malassé).

The endocranial surface was covered with a thin carbonate crust with no other apparent taphonomy-related changes.

The most interesting feature about this parietal bone consisted in traces of scraping clearly observable on its surface, as well as three small holes, elliptic in cross-section (Fig. 4). They suggest a sufficiently high technical perfection of cranial disarticulation which implied the special technique and the use of at least two types of instruments, an apparently flint end-scraper and an awl for the removal of bones trapped on both sides of symmetry at the suture level

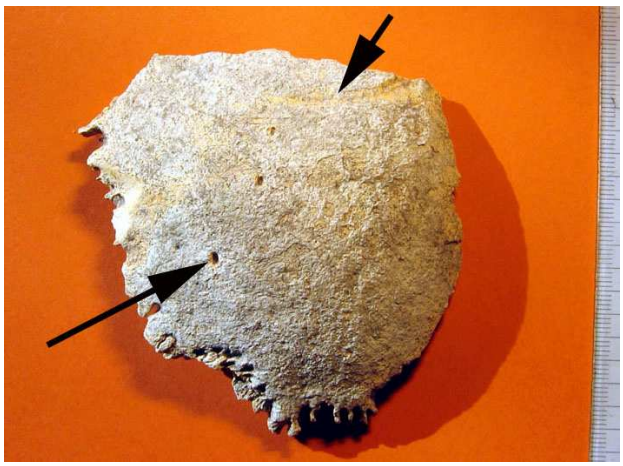


Figure 4. The parietal of Bolgrad, exocranial cortical surface. Arrows indicate the emplacement of disarticulation; the impact of pointed instruments and traces of scratching (A. Dambricourt Malassé).

The bone fragmentation was of a special character, with a lambdoid suture being well preserved. It displays deep dentations, which could signify an advanced stage of bone digitations of both parietal and occipital scales during the lifetime.

Elongated scratching traces are noticeable on the exocranial surface, in the upper part of the parietal bone, in an area of the fronto-occipital aponevrosis. The scratch marks were interrupted by a bone fracture in an area of bone widening. The scratches are found in the horizontal plan of the cranial vault, apparently denoting circular centripetal movements of a solid instrument. Three small holes, 1-2 mm in diameter were observable on the exocranial surface, their internal surface being calcite coated. Striations are visible on the scale's upper portion immediately above one of the holes. If the striations are clearly indicative of the scalp with the use of a cutting tool, the perforation of holes imply the use of an awl.

Three small conic holes apparently resulted from three consecutive and rapid impacts of the same pointed instrument. They followed a trajectory from the back to the fore of the skull, forming a semi-circle, with the decreasing depth and becoming less vertical from the sagittal median towards the periphery. The deepest and vertical contact was located close to the lambdoid suture. The second one, further away was less profound and slightly inclined. The third one, still further away was most shallow and curbed (Fig. 5). These

holes apparently denote postero-lateral movements, thrice rapidly repeated, not sufficiently deviating from the symmetry plan. These movements imply those necessary for parietal deviation, the gesture which needs the use of both forearms.

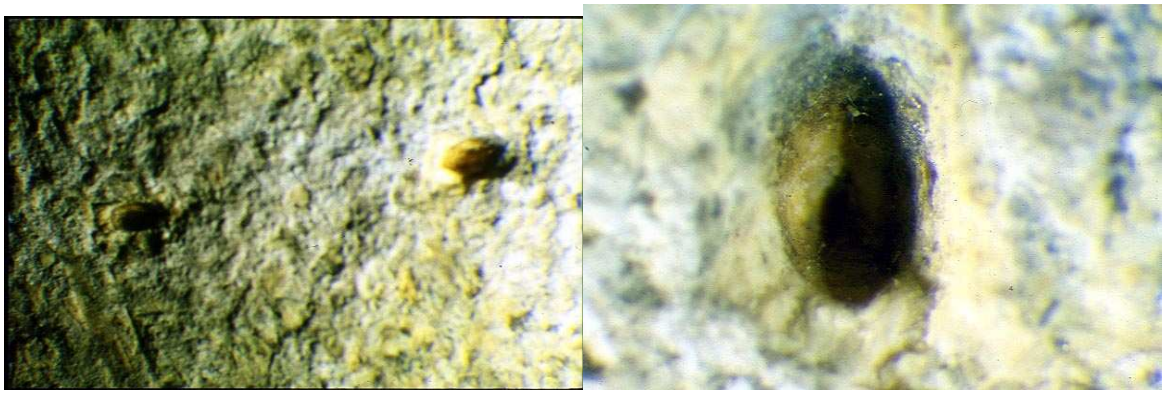


Figure 5 Holes at the greater magnification (A. Dambricourt Malassé)

Interpretation of the gestures

The available evidence suggests the skull not being fractured but being subject to a prolonged treatment, aimed at reaching the brain without damaging it. For the section of aponevrosis the use of a pointed instrument was not necessary, while, by contrast, the disarticulation of bones, and, particularly, the dismembering at the level of sutures, necessitated a special technique, being unfeasible without the use of instruments. Bone scale is covered with smooth membranes. Their periostic, external and internal planes being, at the sutures' level, where the fibres intersect, are solidly tied. On the periostic plane, the parietals are solidly clutched with the occipital scale forming an arc vault, the head maintaining an equilibrium on the spinal column due to the aponevrotic and muscular cerclage (Fig. 6).



Figue 6: Location of the holes and traces of scraping on the skull.

The exocranial surface of the vault forms the basis of dura mater in three forms: one recovering the lobes, particularly the parietal and occipital ones, and the falx cerebri; then the sagittal and median which correspond to the doubling of the dura mater (both the right and left), and the tentorium cerebelli which forms the connection between the dura mater of the two occipital lobes with that of cerebellum (Fig.7).



Figure 7. Falx cerebri and tentorium cerebrelli viewed from inside the skull

Hence, due to the intricate sutural structure, dismembering aimed at reaching the brain needs a logical sequence of dismantling of its architectonic constrains. It would be totally

impossible to detach the two parietal scale from the occipital one without having previously softened the cervical attachment (atlas, axis). The dismembering of the occipital implies the head having been detached from the body. Yet the dissection was most probably done when the body had reached the state of rigor mortis. This must have caused at least the indentation fracture, and the destruction of brain while removing the membranes. Yet this is in an obvious contradiction with the excellent state of preservation of the lambdoid suture, which would have been impossible had it been in a solid state, the supporting tissues should have been necessarily softened. A part of that, the separation of the scales automatically involves the dura mater attached to arachnida, as well as the pia mater which is in a close contact with the neocerebellum.

Nonetheless, all evidence suggests that the manual work was intended to avoid damage to the brain. The present-day practice of the preparation of animal skeletons for zoological collection may provide a plausible explanation. The preparation of the skull starts with the dissection of junctions between occipital condyles (located on the both sides of foramen magnum) and the first cervical vertebra (atlas). Thereafter the head is placed for several hours into boiling water.

The normal practice for disentangling the two parietals consists in the traction from the both sides of the skull's symmetry while applying on the bones. The small number of observable impacts, the absence of any other traces of attachment on cervical vertebra, as well as the shallowness of he impacts, all this indicate a weak resistance to traction on the part of the tissues.

Hence the dismembering of the three scales has been achieved in a rational manner, apparently with a good knowledge of human anatomy. The body was first decapitated, and then placed into a container with boiling water. The removal of tissues was carried out with the use of appropriate instruments. An experienced operator used sharp, most probably copper awls held in both wrists, gradually separating the both parietals, slowly moving towards from the back towards the fore of the skull. This technique enabled him to cut the fibres of the membranes and to detach the softened dents. Once dismembered the parietal bone was broken and no longer conserved.

The likelihood of the decapitation and the boiling of the head are substantiated by the frequent finds of isolated skulls either below or in the close proximity of hearths in the dwellings at Bolgrad site and elsewhere.

In the absence of the three holes, the outlook of a broken bone with the traces of scratching might suggest an improvised and irregular behaviour. Yet the apparent use of specialised instruments and the extraordinary state of the suture's preservation leaves one in no doubt that in this case we are dealing with a technically perfect and skilled practice.

The brain is apparently the desired organ, the behaviour is sharply animated by the desire to reach the only part of the head deserving of interest. He thus had to involve a common rite, circumstances of which remain to evade, because as underlines it Sirbu (on 1993, 2003), Lazar (2002) and Pandrea (2006), the imbalance between the importance of the proto-urban cities and the number of burials supposes that we wonder about the fate of certain number of deceased, even if there are underestimated necropolises.

Discussion

There exist numerous evidences of special treatment of human bodies and especially skulls documented at prehistoric sites, yet with no direct analogies to the Bolgrad case.
The earliest evidence came from Late Natufian sites of Levant (Hayonim Cave, Nahal Oren and Ain Mallaha) which included the removal, decoration and secondary reburial of human skulls (Belfer-Cohen 1991). This practice became even wider spread in the Levant during later periods. At the Pre-Pottery Neolithic B (7200-6000 BCE) the skulls (crania without mandible) were removed from allegedly decomposed bodies, and reburied after painting or plastering them (Goren et al. 2001).Skull removal and modelling of facial features on dry human skulls has been documented at Late Neolithic site Kosk Hoyuk in Anatolia. Significantly, in one case a "perimortem cut on the right mandibular ramus" and "imprinted striations" on the paster of the left side of another skull have been documented (Bonogofsky 2005). Possible interpretations of the special cult treatment vary from 'veneration of elders' (Silistreli 1984) to the 'negotiating equality through ritual' (Kuiijt 1996).

The case of Bolgrad is not an isolated phenomenon for Gulmenița Culture. As Sîrbu (1993, 200) and Pandrea (2006) remark, amongst more than 30 skeletal finds known at Gulmenița settlements there are those suggestive of practices not consistent with common funerary rites, such as burials beneath or in the immediate vicinity of the houses, or the deposition of skulls and other human bones in pits in the habitation areas.

The practice of anthropophagy seems to be a plausible interpretation, yet in the absence of hard evidence it is treated with caution (Lazar 2002). Both reach and poor Gulmenița graves include the funerary inventory, strongly suggestive of belief in afterlife (Vulcanescu on 1987 in Lazar on 2002, Eliade on 1989).

Human sacrifices by definition seem hardly compatible with the concept of afterlife. Yet evidence of such sacrifices is apparent at Bordusani-Popina (Vasile, 2003) and particularly at the tell of Hârsova (Rumania), where a 5-6-year-old child with cranial congenital deformations had been found attached at the level of feet and hands, with the evidence of being put to death at the spot.

Significantly one has to distinguish between the sacrifice which supposes the murder of an individual, and ritual post-mortem practices. One may further suggest that since the brain is universally recognised as an embodiment of thought, experience and individuality, its extraction aimed at ingestion and incorporation may be deemed as part of rituals implying the appropriation of virtues of the deceased in a domestic context. A scenario of the ritual could include an invitation of the family of the deceased to a community meal which includes consumption of the substance embodying the soul, with cultural around a moment crowned table, an authentic communion. It would be interesting to find out whether this event had be a festive or despondent character and included cereals and fruits as well as beverages. The latter hypothesis is strongly supported by the occurrence of similar tradition amongst the Scythians in the first millennium BC as reported by Herodotus (Book XX).

Considering the evidence of the Bolgrad parietal bone, one may suggest hypotheses concerning the social background of an individual who performed the operation. This might be either an officiating priest, or a member of the family already having a long experience of this kind. At any rate this individual pre-treated the skin of the deceased, dismembered the body, separated the head, collected the blood, started the fire and boiled water, and then carefully extracted the brain. A question remains whether this activity

was reserved to females, or males, who in that case combined it with butchering. Remarkably, the refuse pit near the dwelling at Novoselskoye I site was filled with cattle bones.

The perpetration of sophisticated post-mortem skull treatment, as evidenced in the Bolgrad case, necessitated a considerable knowledge of the anatomy human body and particularly, the brain, which is hardly achievable without regular practice in autopsy. It is hardly possible that an advanced agricultural civilisation with indices of social hierarchy had no social caste focused on the care of body and spirit with a special therapeutic knowledge. Considering the ritual character of the perpetrated surgery, one is inclined to view the operator as a person endowed with a religious status, rather than a family member.

One might further suggest occurrence of therapists with an experience of surgical practices and making up medicines. One should remind that in traditional societies medicines made on the base of human bodies are often used for treatment ailments, and cerebral mass mixed with some powder of dried out skull is used for treatment epilepsy.

If our suggestion regarding the Bolgrad parietal bone is correct, this opens up a new aspect of the Gumelnița Culture: the occurrence of social institutions in its frame focused on human soul and public health. The frequency of dislocated human bones scattered in certain domestic areas implies the common occurrence of anthropophagy, as an established funeral practice perpetrated in a domestic, family context. The human remains, being reduced in that case to culinary waste subsequently lost any symbolic value. Yet the disposal of human remains, often scavenged by pigs and dogs, did not necessarily mean the lack of respect for the diseased. The body being treated by a personality endowed with anatomical knowledge and magic power, resulted in the soul of the diseased finding an eternal abode in the living bodies of family members.

References

BELFER COHEN, A. 1991. The Natufian in the Levant. *Annual Review of Anthropology* 20: 167-186.

BONOGOFSKY, M. 2005. A bioarchaeological study of plastered skulls from Anatolia: new discoveries and interpretations. *International Journal of Osteoarchaeology*. 15, 124-135.

CAUWE N, P. DOLUKHANOV, J. KOZLOWSKI,. VAN BERG, J.-P *Le Néolithique en Europe*. Paris, Armand Colin, 2007.

COMŞA, E. 1960. Considérations sur le rite funéraires de la civilisation de Gumelnitsa. Dacia, Revue d'Archéologie et d'Histoire Ancienne, N.S. IV: 5-30.

DEBOIS, S., OTTE, M. 2005. Approche de comportements religieux du néolithique récent: l'exemple des pratiques funéraires. In Spinei, V., Lazarovici, C.-M., Monah, D. (ed.), *Scripta praehistorica. Miscellanea in honorem nonagenari magistri Mircea Petrescu-Dîmboviţa* : 113-138. Iaşi: Trinitas.

DRAGOMIR, I.T. 1996 Contribuţii privind ritul funerar şi credinţele magico-religioase la comunităţile Aspectului Stoicani-Aldeni. *Danubius* XVI : 187-220.

DUMITRESCU, V. 1924 Découvertes de Gumelniţa. *Dacia, Revue d'Archéologie et d'Histoire Ancienne* 1 : 325-342.

DUMITRESCU, V., A. BARTOLOMEY, F. MOGOSANU, 1983. *Esquisse d'une Préhistoire de la Roumanie, jusqu'à la fin de l'Âge du Bronze.* Bucarest: Editura Štiinfica si Enciclopedic.

ELIADE M. 1989 *Traité d'Histoire des Religions*. Bibliothèque scientifique. Payot, 464 pages.

GOREN, Y., A. N. GORING-MORRIS, SEGAL, I.. 2001 The technology of skull modelling in the Pre-Pottery Neolithic B (PPNB): Regional variability, the relation of technology and iconography and their archaeological implications. *Journal of Archaeological Science* 28:671-690.

HIGHAM, T., J. CHAPMAN, B. V. SLAVCHEV, B. GAYDARSKA, N. HONCH, Y. YORDANOV, DIMITROVA. B. 2007. New perspectives on the Varna cemetery (Bulgaria)--AMS dates and social implications (Research). *Antiquity*, 81, 313: 640-654.

KUIJT, I. 1996. Negotiating Equality through Ritual: A Consideration of Late Natufian and Prepottery Neolithic A Period Mortuary Practices. *Journal of Anthropological Archaeology*, 313-336.

LAZĂR, C. A. 2002. Gumelniţa Culture Funerary Finds on Romania's Territory. In: *I. Oberländer-Târnoveanu/C. Borş (Hrsg.), O civilizaţie „necunoscută": Gumelniţa Monografie archeologică.*

PANDREA, S. 2006. Découvertes d'ossements humains dans des établissements Gumelnitsa situés au nord-est de la Plaine Roumaine In : The Society of the Living – the

Community of the Dead (from Neolithic to the Christian Era) Acta Terrae, septemcastrensis. V, 1: 29-42.

SILISTRELI, U. 1984. Kosk Hoyuk. *Anatolian Studies*, 24, 223-224

SÎRBU, V. 1993. *Credinţe şi practici funerare, religioase şi magice în lumea geto-dacilor*. (Croyances et pratiques funéraires, religieuses et magiques dans le monde des Geto-Daces). Brăila – Galaţi: Porto-Franco, 255p.

SÎRBU, V. 2003. *Funerary archaeology and sacrifices: an unifying terminology* (dictionary, lexis, branching). Brăila: Istros.

SUBBOTIN, L.V. 1983. *Pamjatniki kul'turi Gumel'nitsa Jugo-Zapada Ukrayni*, Naukova Dumka, Kiev.

TSALKIN, V.I. 1970. *Drevbeishie domashnie zhivotnye Vostochnoi Evropy*. Moscow, Nauka.

VASILE, G. 2003. Anthropologic study of the osteologic remnants discovered on the Borduşani-Popină archaeological digging site (Ialomiţa county) during the field campaigns between 1997-2002. In Popovici, D.N. (ed.), *Archaeological pluridisciplinary researches at Borduşani-Popină*: 95-102.

VULCĂNESCU, R. 1987. *Dicţionar de etnologie*, Bucureşti.

YANUSHEVICH, Z.V., 1986. Kul'turnye resteniya Severnogo Pricernomor'ya paleobotanicheskie issledovaniya. Kishinev: Shtiinca.