INTERACTIONS, **CHANGES** AND **MEANINGS.**

Essays in honour of Igor Manzura
on the occasion of his 60th birthday

Edited by
Stanislav Țerna and Blagoje Govedarica

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КУЛЬТУРНЫЕ ВЗАИМОДЕЙСТВИЯ. **ДИНАМИКА** И **СМЫСЛЫ.**

Сборник статей в честь 60-летия И. В. Манзуры

Под редакцией
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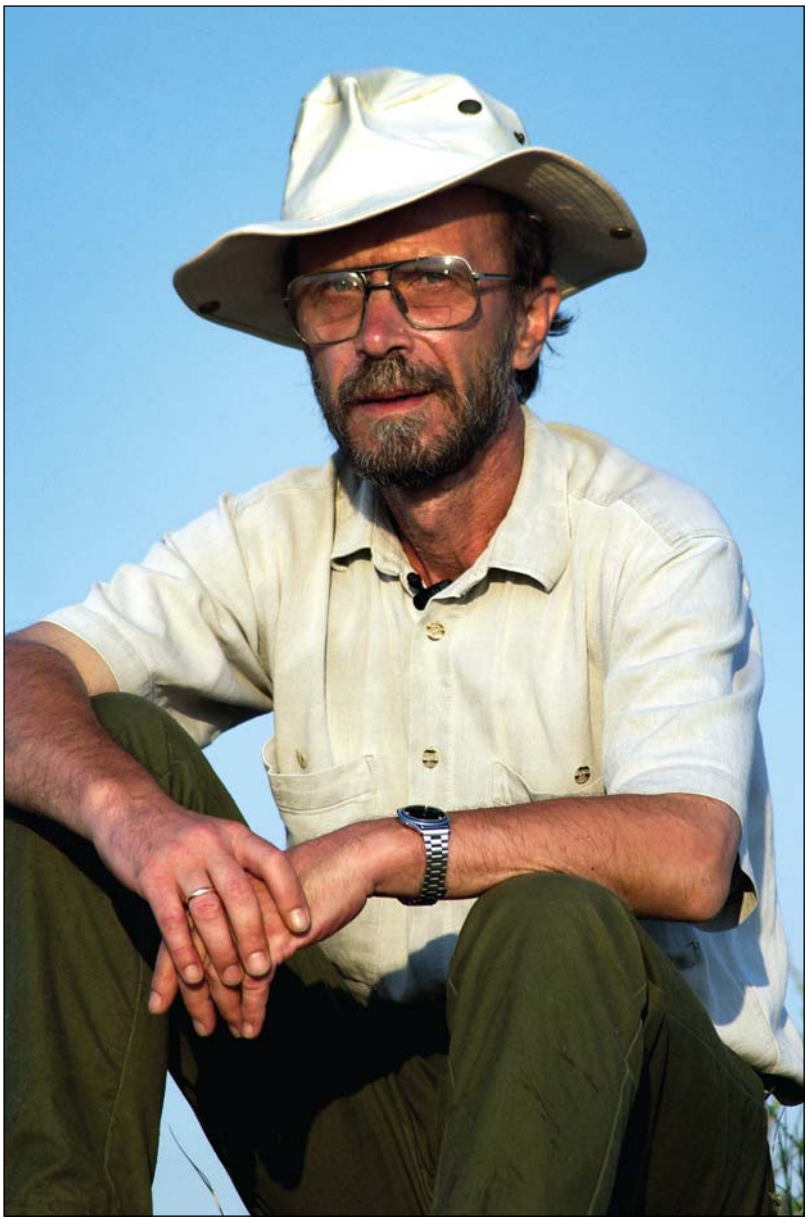
2016

60-летию

Игоря Васильевича Манзуры

посвящается

Dedicated to 60th anniversary of **Igor V. Manzura**



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Keywords: Chalcolithic, salt production, stone fortresses

Ключевые слова: энеолит, производство соли, каменные крепости

V. Nikolov

The Chalcolithic Stone Fortress of Provadia-Solnitsata

The Middle and Late Chalcolithic settlement of Provadia-Solnitsata was exceptionally well fortified. Remains of three major, successively existing Chalcolithic fortification systems (4700—4200 BC) have been excavated. The massive and high stone walls enclosing it on all sides were the best protection for both the wealth gained as a result of salt production and trade, and for the lives of its residents. There has been no evidence so far of the existence of such a stone citadel during the fifth millennium BC in Europe which, apart from everything else, was an incredible achievement of the military theory and the building art. Its construction and reconstruction after several subsequent large earthquakes was an exclusively labor-consuming activity which involved the efforts of many people including highly specialized builders. That could have been done only for a sufficient amount of 'money', i.e. salt. The fortress of Provadia-Solnitsata could have been erected, maintained, rebuilt and extended only as a military center and a symbol of the power of the Middle and Late Chalcolithic community in the area of the Provadiyska River.

В. Николов

Энеолитическая каменная крепость Провадия-Солницата

Поселение среднего и позднего энеолита в Провадия-Солницата примечательно своими укреплениями. Удалось исследовать остатки трех последовательных энеолитических фортификационных систем (4700—4200 BC). Массивные и высокие каменные стены, окружающие поселение, служили хорошей защитой как для богатства, накопленного вследствие производства и торговли солью, так и для обитателей. До сих пор, на территории Европы не были обнаружены каменные цитадели которые бы датировались 5-м тысячелетием до н.э. Цитадель в Провадия-Солницата является исключительным достижением с точки зрения строительства и военной теории. Ее возведение и реконструкция после ряда мощных землетрясений представляли собой весьма трудоемкие процессы, подразумевающие концентрацию усилий большого количества людей включая высококачественных специалистов-строителей. Фортификационные работы могли быть сделаны только за достаточный объем «денег», т.е. соли. Крепость из Провадия-Солницата могла функционировать только в качестве военного центра и символа власти общин среднего и позднего энеолита в бассейне реки Провадия.

The prehistoric complex of Provadia-Solnitsata is situated near the modern town of Provadia in Northeast Bulgaria. These are the remains of the oldest salt production center in Europe (5500—4200 BC), which became the first prehistoric urban center on the continent (4700—4200 BC). It consists of a salt production site and ritual pits, an unfortified and subsequently stone-wall enclosed settlement (citadel), a ritual ground (pit sanctuary), cemeteries and a pottery production site, which has not yet been excavated (Nikolov 2012; Николов 2014). The complex occupies an area of c. 20 ha. Its appearance and development are closely related to the only rock salt deposit in the Eastern Balkans, the so-called Mirovo salt deposit, underlying that complex. This brief description of the archaeological monument has been formulated after eleven years of archaeological field work (2005—2015), which defines it as one of the most significant prehistoric sites in southeast Europe.

The formation of the large salt cone occurred when, under strata pressure, a huge amount of plastic salt mass was moved surfaceward. Its upper surface formed 'a salt mirror' (a thick salt solution c. 1 m deep) at a depth of 12—20 m below ground. Brine springs flowed out from it with a high salt concentration.

It would have been very unusual if such a rich deposit with the brine springs flowing out of it had

Fig. 1. Provadia-Solnitsata. Outer face of the fortified stone wall 2 in the north-western section (the beginning of the Late Chalcolithic, circa 4500 BC). Preserved height approx. 2.60 m.

Рис. 1. Провадия-Солницата. Внешняя сторона каменной стены № 2 на северо-западном участке (начало позднего халколита, около 4500 BC). Сохранившаяся высота — около 2,60 м.

Fig. 2. Provadia-Solnitsata. The citadel (Middle and Late Chalcolithic, 4700—4200 BC). A view from above.

Рис. 2. Провадия-Солницата. Цитадель (средний и поздний халколит, 4700—4200 BC). Вид сверху.

not been used as early as prehistoric times. The events that happened followed the natural course of things. The remains of human life and activities in that place throughout the sixth and fifth millennium BC also turned out to be rich. Eleven seasons of archaeological research at Provadia-Solnitsata changed our ideas of the later prehistory of the Eastern Balkans. The major results of the field work carried out so far are presented in brief or in detail in a number of publications (Nikolov 2010; Nikolov 2011a; Nikolov 2011b; Nikolov 2012). In this paper I will briefly consider one of the results of the specialized salt production and long-distance trade in that vital product: the accumulation of substantial wealth for the time, the need for it to be safely stored and protected and the appearance of the first stone fortress on the European continent, respectively.

The tell site occupied by the salt producers now has a cultural layer of c. 9 m thickness and is 105 m in diameter. It includes deposits from the Late Neolithic (c. 1 m) and the Middle and Late Chalcolithic (a total of 8 m!). A tumulus was erected over these layers during the Thracian and Roman periods and thus the total height of the monument reached 22 m.

The Middle and Late Chalcolithic settlement of Provadia-Solnitsata was exclusively well fortified. The remains of three major successively existing Chalcolithic fortification systems (4700—4200 BC) have been excavated which were built up of stone. The massive and high stone walls completely enclosing the settlement served as excellent protection of both the wealth gathered as the result of salt production and trade and of the lives of its residents. There has been no evidence so far of the existence of such a stone citadel during the fifth millennium BC in Europe which, apart from everything else, was an incredible achievement of the military theory and the building art. Its construction and reconstruction after several subsequent large earthquakes (Николов 2012) was an exclusively labor-consuming activity which involved the efforts of many people including highly specialized builders. That could have been done only for a sufficient amount of 'money', i.e. salt. The fortress of Provadia-Solnitsata could have been erected, maintained, rebuilt and extended only as a military center and a symbol of the power of the Middle and Late Chalcolithic community in the area of the Provadiyska River.

Part of the earliest fortification system has been excavated in the Southeast area (Nikolov 2012). It consisted of an arc-shaped moat and

Fig. 3. Provadia-Solnitsata. Fortified stone wall 2 in the south-eastern and south-western section (the beginning of the Late Chalcolithic, circa 4500 BC). A view from above.

Рис. 3. Провадия-Солницата. Каменная стена №2 на юго-восточном и юго-западном участке (начало позднего халколита, около 4500 BC). Вид сверху.

a gated wall rising at a small distance behind it, and was made at the beginning of the Middle Chalcolithic period. The fortification wall consisted of two connected parts built by different techniques: a palisade of wood and clay and bastions of large stones which flank the southeastern gate of the fortress. Around 4600 BC, the fortification system (labeled as 1a) was severely damaged by an earthquake. Two L-shaped bastions of smaller stones were built immediately behind the ruined ones; their height exceeded 3 m. They were now part of a wall following the same route, probably entirely built up of stone (1b); it has partially been revealed in the eastern periphery of the tell site. Most probably part of that fortress was the arc-shaped stone foundation, a 16 m stretch of which was revealed in the Northwest area. It is 2.10—2.30 m thick and was built by a kind of *opus emplectum* technique (larger face stones on both sides and smaller ones within). Clay was used as binder. The wall has been preserved at a height of up to 60 cm (one or two stone courses) and the interior side of the northern end of the unearthed section reaches a height of 1.50 m; eight horizontal stone courses can be seen there. This fortress also did not have a long period of use; it was ruined during the following earthquake at the end of the Middle Chalcolithic, c. 4500 BC.

The second defense wall was built at the beginning of the Late Chalcolithic (c. 4500 BC) and was a considerably more solid structure which also enclosed the then settlement though it passed along a route displaced several meters to the north. During the latest excavation seasons, its front part was revealed almost completely except for two comparatively small unexcavated sections to the west and northeast though the tentatively outlined route there is beyond any doubt. In some places the wall face has been preserved at a height of 2.60 m (fig. 1) and in a small section up to 3.10 m. The fortress has an irregular rounded shape and encloses an area of 0.4 ha (fig. 2). The western route is almost straight. The wall describes a wide irregular arch to the northwest, north and northeast. The curtain wall has an almost regular shape to the east and southeast (fig. 3). To the south and southwest the fortress includes two almost straight stretches. It should be noted that the wall was built following an important principle of defense tactics: despite being generally rounded, on the outside the fortress' shape is in fact an irregular polygon and its front part is outlined by a large number of shorter or longer straight stretches. This was required to provide its more efficient defense. The total length of the second stone defense wall, measured along its outer face, is c. 234 m. The inner face was revealed at about half its length which has been preserved at a height between 0.80 and 1.50 m (fig. 4) and in one section, at c. 1.80 m. The thickness of the fortified

Fig. 4. Provadia-Solnitsata. Inner face of the fortified stone wall 2 in the south-eastern section (the beginning of the Late Chalcolithic, circa 4500 BC). Preserved height approx. 1.50 m.

Рис. 4. Провадия-Солницата. Внутренняя сторона каменной стены № 2 на юго-восточном участке (начало позднего халколита, около 4500 BC). Сохранившаяся высота — около 1,50 м.

wall foundation varies between 2.40 and 4.20 m but is most often between 3.00 and 3.40 m; this presupposes a wall height between 5 and 6 m. The fortress was built up of rough stones, mostly sandstone, by a technique resembling the *opus emplectum*. Yellow or grayish-brown clay was used as binder. The two sides of the wall were slightly inclined inward, i. e. in its upper part it was narrower than the foundation. In its lower part, at least in some places, it was plastered with yellow clay. A wide horizontal layer of small stones was built in front of the curtain wall which probably served to strengthen the terrain against erosion. For the time being the fortress gate has not been revealed though it may turn out to be to the northeast in the uninvestigated area; from that point, the distance to the salt production site is the minimum possible so that its location would be logical. That fortress was also ruined, probably during an earthquake. A large amount of the stones on the eastern and western side fell inside along the tell's slope. That occurred during the middle phases of the Late Chalcolithic. Remains of houses of that time, overlaying the wall remains, have been identified to the southwest.

The third, outermost fortification system has been revealed in the Northwest area; it was built during a later phase of the Late Chalcolithic (probably c. 4300 BC) as a complex of stone structures. It consists of stone facing of the steep slope of the tell site, 8 or 9 m high at that time, radial walls upon it and a solid stone wall rising along the upper periphery of the tell above the cover.

The facing of the steep slope of the tell was made of small and medium-sized quarried rocks. The first purpose of that structure was apparently strengthening the peripheral part of the tell's layer and protecting it from weathering thus providing a solid foundation for the uprising heavy stone wall. The foundation of that wall was built of very large stones but obviously smaller ones were used upwards; now they are all scattered (probably by an earthquake) on the uppermost surface of the prehistoric layer which testifies to the defense structure being used until the end of the settlement's existence. A system of closely laid radial walls was built on the stone cover starting from the foot of the fortified wall and climbing down to the lower end of the cover; their height and foundation's thickness increases downslope. The radial walls, combined with the sloping cover, were an innovation in the military fortifications, introduced much earlier than their appearance in the Early Bronze Age of the Eastern Mediterranean and were constructed in order to create additional obstacles for possible attackers to the citadel.

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Vassil Nikolov (Sofia, Bulgaria). Ph.D., Sc.D., Prof., Corresponding Member of the Bulgarian Academy of Sciences. National Institute and Museum of Archaeology of BAS[1].

Николов Васил (София, Болгария). PhD, профессор, член-корреспондент Болгарской академии наук. Национальный археологический институт с музеем, Болгарская академия наук.

E-mail: vassil.nikolov@abv.bg

Address: [1] Saborna St., 2, Sofia, BG-1000, Bulgaria