Eppur si vede: The Results of Remote Sensing and Field Survey of Dragojlov Brijeg (Croatia), Roman Military Site

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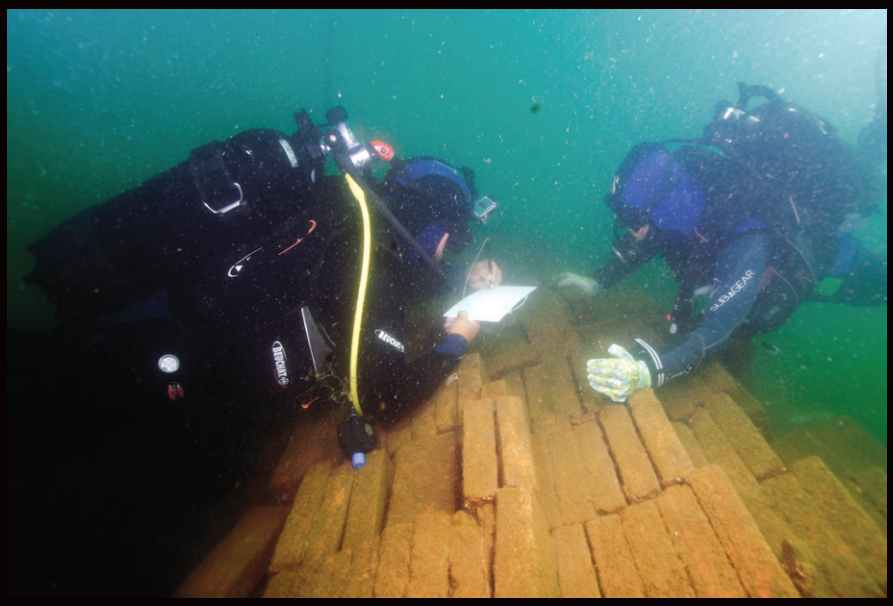
25 YEARS

ARCHAEOLOGIA BULGARICA



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Eppur si vede: The Results of Remote Sensing and Field Survey of Dragojlov Brijeg (Croatia), Roman Military Site

Archaeologia Bulgarica
XXV, 2 (2021), 1-17

Ivana OŽANIĆ ROGULJIĆ / Bartul ŠILJEG / Hrvoje KALAFATIĆ

Abstract: This paper presents the results of the field survey and remote sensing of the area around the well-known Roman fort with the Croatian part of the Danube limes, Dragojlov brijeg, in Baranja. Until now, Roman enclosures had not been detected through aerial surveys of this region. New surveillance has revealed a fort, road and several extramural enclosures in the surrounding area of the fort. The pottery found during the field survey of the extramural enclosure dates it to between 2nd and beginning 4th c. AD.

Key words: Roman Pannonia, Danube *limes*, Dragojlov Brijeg, military camp, road, temporary camp, aerial photography, Roman pottery, *terra sigillata*.

Introduction

Dragojlov Brijeg has long been known as an important Roman military site. Moreover, graves from Late Antiquity have been found, and test excavations, conducted in the 1980s, yielded traces of Roman architecture, including foundations of several rooms with partially preserved floors and brick-built sewers. In one of these foundations, a brick bearing the stamp *c(ohortis) I Ulp(iae) Pan(noniorum)* was discovered. A stone fragment with an inscription, of an earlier date, was also found and is possibly part of the base of a statue or an altar (Radman 2003, 113-134; 2012, 173).

The site lies on the route of a Roman road, which was diverted to the west on this stretch due to the alluvial areas along the Danube. This road connected *Ad Novas* (Zmajevac) with *Mursa*, i.e. with *Ad Labores* (Nemetin), through the probable junction near Kopačevo. From here a road led to a river crossing near Nemetin, the main road turned westwards to Bilje and then southwards to Osijek (**fig. 1**).

Previous Archaeological Researches at Dragojlov Brijeg Site

The Latin place-name of the site at Dragojlov Brijeg is uncertain. Katančić argues that the name of the military fort which was located there is *Donatianae,* mentioned in *Tabula Peutingeriana* (Katancius 1782, 60; Sršan 1989, 309, Haas 1845, 113). Whereas Kukuljević believes that *Donatianae* was located in Kozarac, Pichler suggests that it is around Branjin Vrh, and Graf cannot decide between Lug or Vardarac (Kukuljević 1873, 94; Pichler 1904, 141; Graf 1936, 113; Pinterović 1969, 57-59; Gračanin 2010, 29). Varady thinks that *Donatianae* is not a settlement on the *limes* (Varady 1897, 85). Gračanin discusses that the name of the settlement could also be *Ad Novas*, which would

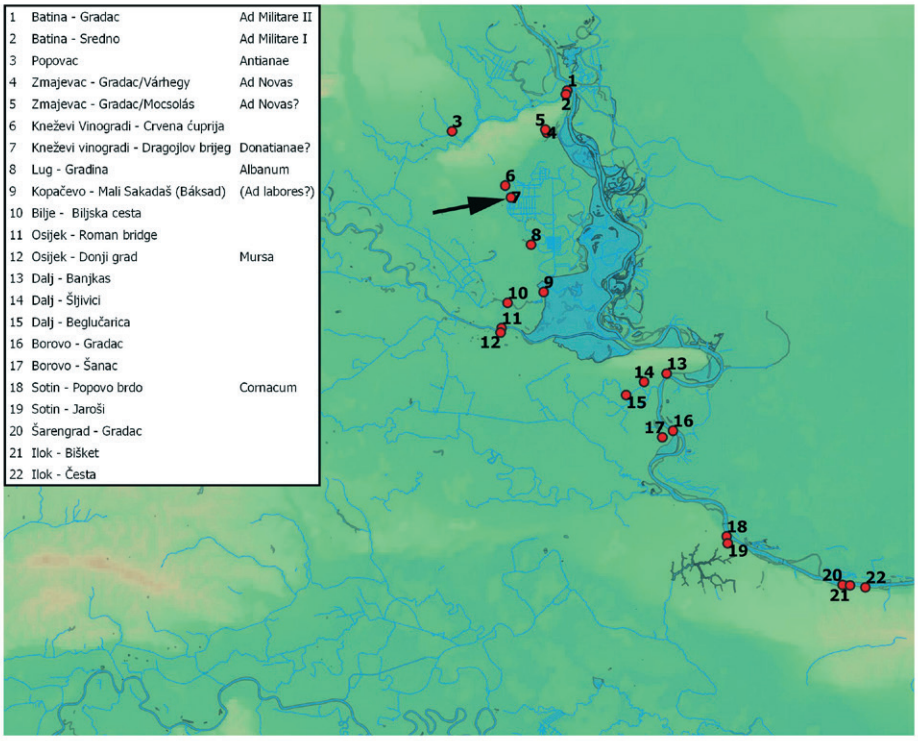

Fig. 1. A map of the Croatian UNESCO tentative list (made by N. Tojčić)

Fig. 2. The line of the road and extramural structures and a fort shown as crop marks (Google Earth March 29th, 2019)

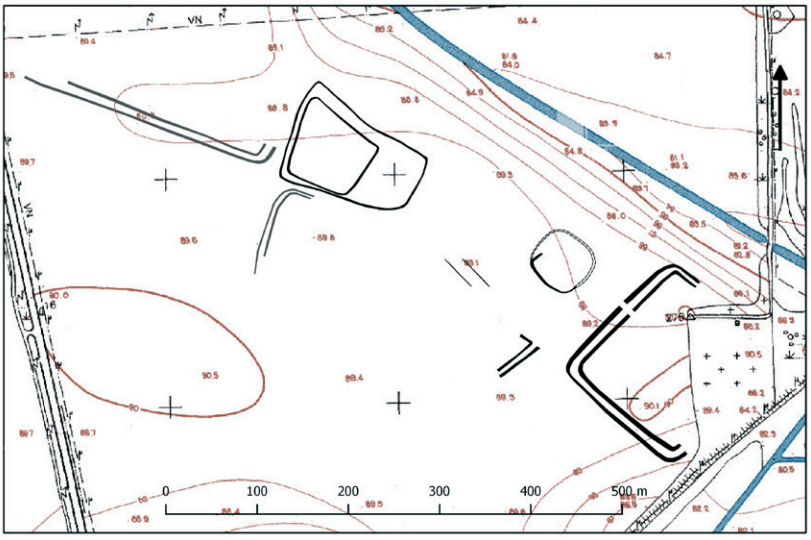

Fig. 3. An interpretation of the extramural enclosures (made by K. Turkalj)

Menander's *Achaioi* in *Ulpia Oescus*: A New Reading of an Old Mosaic

Mirena SLAVOVA

Archaeologia Bulgarica
XXV, 2 (2021), 19-33

Abstract: The article offers a new reading of the Roman mosaic from *Ulpia Oescus* in Moesia Inferior illustrating Menander's comedy *Achaeans*, which has so far been interpreted as a travesty of the quarrel between Achilles and Agamemnon. Combining arguments from iconographic (masks), epigraphic (inscription in ancient Greek), and philological (a papyrus fragment of the comedy) kind and reasons related to the origin and character of the Roman colony of *Ulpia Oescus*, the author attempts to restore and situate the mosaic and the plot of the comedy in the cultural-historical context of the Roman Balkan provinces in the time of the Severans.

Key words: mosaic of the *Achaeans of Menander* in *Ulpia Oescus*, Menander's comedy *Achaeans*, the Severans.

I. THE MOSAIC

A. History of research

The polychrome mosaic of *Achaeans* was discovered in 1948 on the floor of a large unidentified building located south of the Temple of Fortuna in *Ulpia Oescus* (Moesia Inferior). The discoverer Teofil Ivanov published it in 1954 as the second volume of the series "Artistic Monuments from Bulgaria" (*И*ванов 1954) with 22 plates: I-VIIa (black and white), VIII-XXI (in color), and XXII (containing a reconstruction of the mosaic)[1]. The mosaic consists of a rectangular field in the center (2.95 m x 1.63 m) and a two-color geometric decoration around it, with a total area of 80 m^2. In turn, this rectangular field is divided into three other rectangular sections. An octagon is inscribed in the central section (1.78 m x 1.63 m), depicting a theater stage and an inscription in ancient Greek ΜΕΝΑΝΔΡΟΥ ΑΧΑΙΟΙ (**fig. 1**).

The sides of the octagon are not equal, but each of the two opposite sides is identical: east and west – 0.40 m, north and south – 0.55 m, the rest – 0.66 m (*И*ванов 1954, 1-2). Based on the preserved inscription and the images of the actors with masks on the mosaic, Ivanov (*И*ванов 1954, 4-5) interprets it as a scene from Menander's travesty comedy with a plot from the Trojan cycle – the quarrel between Achilles and Agamemnon about Briseis (Hom. *Il.* 1.121-303). He draws parallels with a fresco from the temple of Apollo in Pompeii and *Tabulae Iliacae*, which he believes support his idea.

After the discovery of the mosaic, a special protective building was erected, which, however, did not stop its destruction due to atmospheric changes, underground water, and most significantly, freeze/thaw processes. This necessitated its separation and transfer in 1969-1970 on a new foundation, which was carried out by a team of the National Institute for Cultural Monuments (Barov 1970, 10-12). Today the mosaic is exhibited in the Regional Historical Museum of Pleven, but regrettably, it is very damaged (**fig. 2**).

[1] Toynbee rightly notes in her review that the plates in the publication lack scale and the colors of the same *tesserae* are presented in different shades in different boards (Toynbee 1955, 204). Indeed, the contours of the mask and eyebrows of the central figure for instance, are reddish-brown on Tab. XII and dark brown to black on Tab. XIII. In the same way, all folds of its chiton are equally represented by strokes in yellow on Tab. VIII, while those of the chiton are gray, and of the belt yellow in Tab. XII.

Fig. 1. The mosaic of *Achaeans* (after Иванов 1954, Tab. VIII)

Within two years after the publication of T. Ivanov, five positive reviews were published (Smith 1954; Szilágyi 1954; Toynbee 1955; Picard 1956; and Bieber 1956). Reviewers, including Margarete Bieber, an authoritative connoisseur of ancient mosaic art[2], endorsed the proposed interpretation. Only Toynbee was skeptical about the travesty nature of the represented comedy (Toynbee 1955, 204-205). In 1958, the inscription on the mosaic was included under # 597 *bis* in the second volume of *IGBulg*. It has enjoyed relatively little interest afterwards and is mentioned either only in catalogues of the mosaic illustrations of Menander's comedies, or as a *comparandum*. An example of the first is Arnott's article, in which he inaccurately describes the mosaic as originating from a villa dating back to the 4th century AD (Arnott 1970, 66). The author accepts Ivanov's opinion that the central damaged figure is of a seated old man situated between a soldier and a young man, but believes that *Achaeans* should have a plot of the New Comedy, not of a mythological travesty. The mosaic *Achaeans* is also mentioned by Gutzwiller and Çelik in their publication of the mosaics from Daphne (Antioch) with bibliography including the papyrus comedy fragments (Gutzwiller / Çelik 2012, 580 with note 41). The authors refer to it thrice because of the instructive parallels with the Antiochian mosaics – the gesture of the young man's right hand (Gutzwiller / Çelik 2012, 584, note 52), his sandals (Gutzwiller / Çelik 2012, 586), and the decoration of the garment of the central figure (Gutzwiller / Çelik 2012, 593, note 104). Nervegna uses it likewise to draw a parallel for the so-called *hourglass-shaped ornament*, stylistically displacing its dating to the 4th–5th centuries (Nervegna 2010, 52 with note 68). However, none of the mentioned authors discusses the plot of the mosaic.

B. Composition of the mosaic

An octagonal panel with a white background, made in *opus tessellatum* by *tesserae* with a side of 0.01 m, depicts a group of four men seen from

[2] The reviewer incorrectly states that the two figures – the left one and the centered one – are seated. One of the author's suggestions is that it is more than natural to identify *Achaeans* as the Achilles' Myrmidons, for whom the memory is alive in the northern parts of the Balkan Peninsula, the homeland of Achilles (Bieber 1956, 81).

Cease, You Womb! A Uterine Magic Amulet from *Durostorum*

Dan-Augustin DEAC

Archaeologia Bulgarica
XXV, 2 (2021), 35-43

Abstract: The paper examines a previously published so-called 'magic' gem mounted in a twisted gold frame medallion, discovered in a burial site in 1973 at *Durostorum*, modern-day Silistra, Bulgaria. The author reappraises the reading of the text after a personal autopsy of the artifact, concluding that the gem was intended for protection against uterine pain, implying thus usage by a woman and assuming that the owner possessed to a certain degree some kind of 'magic know-how'.

Key words: Amulets, magical practices, *Durostorum*, Moesia.

INTRODUCTION

The paper reassesses a magic gem discovered at *Durostorum*, with a particular focus on the reinterpretation of the text written on both sides of the gem[1]. The dark-blue hematite gem[2] is mounted on a twisted gold medallion frame which allows both sides of the gem to be visible. It was found in 1973 in a burial site alongside a bronze coin which seemed to depict the emperor Probus (?)[3]. The amulet was most probably worn on a necklace[4]. It is now kept in the Regional Historical Museum of Silistra (Bulgaria) – inv. # II 2081 – and has the following dimensions: height = 2.5 cm; width = 1.9; thickness = 0.4 cm; weight = 5.04 g; height of letters = approximately 0.15 cm (Popović / Donevski 1999, 29).

THE OBVERSE (FIG. 1A)

Initially, the central image of the obverse was interpreted by Ivana Popović and Peti Donevski as a schematic rendering of the Anguipes, and they described it as '*hybrid being abrasax with the head of a hen and a snake body which holds shield in the left hand and whip in the right [...]*'[5]. In reality, the image depicts a uterus, which is fairly commonly depicted on magical gems, as already observed by A. Dimitrova-Milčeva[6]. Moreover, on the left side of the uterus one can distinguish ΠΑ-Υ-CE – with a lunar *sigma* – placed on three lines and representing the imperative form of παύω 'to stop', i.e. παῦσε (!), while on the right side the letters clearly read as μήτρα, i.e. uterus[7]. Accordingly, the entire sequence reads παῦσε (!) μήτρα – "Cease, you Womb!" A close parallel is found in a hematite gem in the Staatliche Kunstsammlungen, Dresden, where the text placed next to the uterus reads as παῦσε μήτρα (CbD 2553). Just like in the Dresden amulet, a *vox magica* reads εδε, although it is arranged slightly differently on the *Durostorum* gem, above the uterus, while in the Dresden example it is located to the left of it. The presence of the letters σωε above the uterus on the Dresden gem is another difference when compared with the gem from *Durostorum* where the sequence is positioned under the uterus[8].

[1] It is not my intention in this paper to discuss the methodological framework or theoretical approaches to what is generally encompassed nowadays in terms such as 'magic', 'magic gems' or 'magic practices'. See Deac 2018, 103, note 2 for the most illustrative bibliography on the matter and more recently Dasen / Nagy 2019. On methodological issues regarding the study on ancient magic gems see latest Quack 2019 and Gordon 2019.

[2] Faraone 2018, 94-97 argues that hematite gems were used for preventing bleeding. Previously, the author mentioned that hematite gems were "*designed to combat the movement of the womb*" (Faraone 2011, 19, with previous bibliographic references).

[3] It was published as late as 1999 and it now seems that the coin is lost; see Popović / Donevski 1999, 29-30, V. 1 (photo) who consider the material as carnelian; see also Donevski 2006, pl. VIII/5 (photo obverse) or Ivanov 2012, 78, fig. 35, with further references. The gem is broken in two pieces but they remain together in the gold medallion. On its reverse, opposite to the loophole, one is able to distinguish two lines which were cut at a later date, partially affecting the written lines.

[4] Popović / Donevski 1999, 47-48. The same twisted frame technique is also used for earrings as evidenced by the authors.

[5] Popović / Donevski 1999, 29. The text reads according to the authors as: ΘΕΟ.(?) S / MS / RSOST.(?)S / SOTH(?).(?) and was translated as *God/ Ms/ Rsost(?)s/ Saviour*. As it will be apparent later on, the text has to be read in a totally different way. The gem was also previously mentioned by A. Dimitrova (Dimitrova 1975, 126, note 29).

[6] Dimitrova-Milčeva 2007, 170-171, fig. 7 (photo). In footnote 3 the author thanks N. Sharankov for the reading of the text but nevertheless the interpretation or the text were never published in her contribution. One can also observe that the drawing published is not accurate, thus the hypothetical reading and interpretation remain doubtful. For the uterus magic gems see Michel 2004, 334-341, # 54. See also latest for example: Dasen 2018, 132-133; Dasen / Nagy 2018, 159-161; Dasen

Fig. 1a. The obverse of the uterine amulet from *Durostorum* – photo (author: Kristian Mihaylov, Regional Historical Museum in Silistra, Bulgaria)

Fig. 1b. The reverse of the uterine amulet from *Durostorum* – photo (author: Kristian Mihaylov, Regional Historical Museum in Silistra)

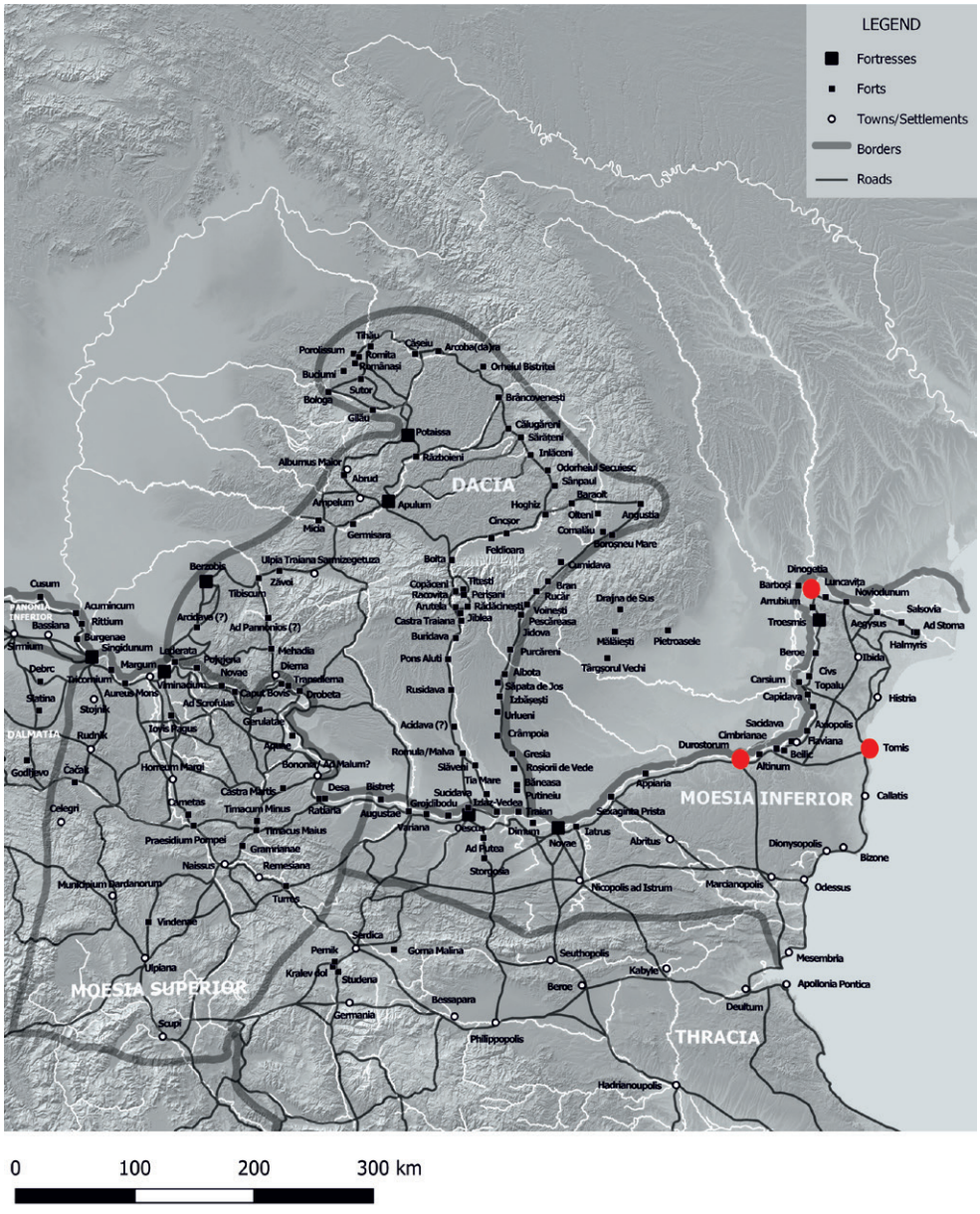

Fig. 2. A map of the Lower Danubian Roman provinces with the settlements from north-eastern Moesia inferior where 'magic' gems were discovered (after Matei-Popescu / Țentea 2018, 157, pl. III, courtesy of Ovidiu Țentea; modified by the author)

Basilica # 1 with a Newly Discovered Crypt from the Roman / Early Byzantine City of Zaldapa. *Addenda et corrigenda*

Archaeologia Bulgarica
XXV, 2 (2021), 45-80

Georgi ATANASOV / Yoto VALERIEV

Abstract: Basilica # 1, in Zaldapa (NE Bulgaria), was excavated and documented by K. Škorpil in 1906 and the results are stored in the archives of the Bulgarian Academy of Sciences in Sofia. In 2014-2018, we conducted systematic archaeological studies in Zaldapa, including Basilica # 1, which are presented in this publication. Besides, additional plans, photographs and drawings from the excavations of 1906 were recently discovered in the archive of K. Škorpil, which helped us to refine the plan of Basilica # 1 and the mosaic panel in the preapsid space.

Several adjustments and additions can be made based on these new archaeological and pictorial data. This is undoubtedly a three-aisled single-apse basilica with a tripartite *narthex* and exterior dimensions of 27.75 x 16.5 m. According to K. Škorpil's plans, the exterior of the apse is five-walled, but during the 2018 excavations it was discovered that the substructure was semicircular in interior and exterior. K. Škorpil's documentation lacked information on the foundations of the basilica, so in 2016 drill-holes were made in the outer south wall and in the stylobate of the southern colonnade.

We found that the foundation beneath the outer walls was approximately 1.90 m deep, 0.98-1.00 m wide, and made of rubble and roughly hewn stones concreted with red mortar. After correlating the documentation and the plans of K. Škorpil with the plans of modern researchers, we conclude that the entrance from the west (which means from the street to the south-west gate located nearby) towards the *narthex* is the only one with a width of about 2.20 m. The *narthex* is tripartite, with the *naos* connected through three entrances – the lateral about 1.60 m wide and the central one again 2.20 m.

There are two entrances in the eastern half of the north and south outer walls, 1.20 m wide, approaching the temple *bema* where the liturgical theater is concentrated. There were also two narrow entrances about 0.80 m wide on the eastern walls of the temple on both sides of the apse, but at a later stage they were walled up. There is certainly a documented ambo of Constantinopolitan type, but there is no *synthronon* registered. The altar partition was an openwork of Prokonnesian marble, similar to that of the Bishop's Basilica in Istria and the Cathedral of Zaldapa (Basilica # 3), located about 350 m in a northwestern direction.

Particularly noteworthy is the mosaic panel, 4.80 x 3.90 m, which covers the whole *bema* of Basilica # 1. The new addition is the previously unknown plan of Škorpil with a more detailed drawing of the mosaic and the newly discovered color panel, which provides additional information for the mosaic colors. The total number of quadrates, according to the black and white drawing in the archive of Škorpil in Varna, is 30 – 6 in the north-south direction and 5 in the west-east direction. The filling of the first central pair is a complex X-shape, reminiscent of the St. Andrew's Cross. Solomon knots are placed in the next, equally filled pair of quadrates flanking the central one. The outermost two quadrates (north and south) have a fish flake motif.

During the excavations in 2016, in the center of the *bema*, just where the mosaic was, we registered a 1.95 m long pit dug into the solid loess. It was carefully carved into the solid loess with vertical walls, and the floor was covered with red mortar, on which there are documented 2 bricks stuck *in situ*.

It is located in the center of the pre-altar space respectively, exactly where, according to the canon, the altar table was located, and was completely covered by the mosaic panel. These undoubtedly are arguments which suggest that the crypt was used for the preservation of holy relics. The arrangement and dimensions are large enough to the lay out a complete skeleton of a martyr, similar to those of the crypt under the altar table of Basilica # 3 (Cathedral) in the center of Zaldapa.

Key words: Zaldapa, basilica, crypt, martyr, mosaic, K. Škorpil, Scythia.

Fig. 35. Hypothetical three-dimensional elevation of Basilica # 1. View from the southeast (after G. Atanasov and S. Rusev)

Fig. 36. Hypothetical three-dimensional elevation of the Basilica # 1. View from the southwest (after G. Atanasov and S. Rusev)

dence for an "entrance" from the south – as in a few other examples in Scythia. These are the small crypts beneath the altars of the Basilica of Istria (Achim 2005, 85-97) and the Basilica C and D in Tropaeum Traiani (only 35 km north of Zaldapa) (Barnea 1981, 163, fig. 55; Achim 2004, 278, fig. 9-11), which are however too small to allow the rest of a complete skeleton. We are giving these parallels as comparison because they are the only ones not only in Scythia, but, with one only exception, generally in the Balkans. Similarly to the crypt in Zaldapa, they have one entrance from the south and a staircase respectively with three and five steps. The staircase of the crypt of the neighbouring Basilica # 3 in Zaldapa is also from the south, however, the crypt is oriented north-south. The placement of the stairs and the orientation of the recently discovered large crypt of Basilica # 4 in Zaldapa are also similar. It dates from the second half of the 4th century and is situated under the Episcopal Basilica # 3. According to the classification of J. P. Sodini, the crypts known to him with access from the south in Tropaeum Traiani and Istria belong to the so-called group IV, and the crypt under the altar of the "St. Demetrius" Basilica in Thessaloniki is

Unravelling the Saint Nicholas Bay Shipwreck: A Multidisciplinary Approach

Dragomir GARBOV / Zdravka GEORGIEVA / Tom LEVANIČ / Orlene MCILFATRICK / Momchil PANAYOTOV / Evgeni TSAVKOV / Nickolay TSVETANOV / Kiril VELKOVSKY[1]

Archaeologia Bulgarica
XXV, 2 (2021), 81-104

Abstract: We report on procedures and analyses undertaken in relation to the initial discovery, and the post-processing of data on the Saint Nicholas Bay Shipwreck, Chernomorets, Bulgaria. The methods applied include geophysical remote sensing, dendrochronological and anatomical analysis of ship's timbers, RTI imagery for deciphering a series of illegible production stamps, and X-ray fluorescence analysis on non-ferrous fastenings. The above were crucial to the investigation, contributing to the discovery of the archaeological site, the establishing of its chronology and principal materials, and revealing of its association with the private Austro-Hungarian shipyard *Stabilimento Tecnico Triestino*. Thus a rare opportunity was created for further archival research to identify the Saint Nicholas Bay ship and unravel the history of her career and wrecking.

Key words: underwater archaeology, shipwreck, Black Sea, Bulgaria, geophysics, dendrochronology, dendro-anatomy, XRF, RTI.

Introduction

The Saint Nicholas Bay Shipwreck (SNBS) is the second underwater archaeological site containing the remains of a wooden sailing ship to be excavated in Bulgarian waters (Garbov 2021). The site was discovered in 2014 (Ангелова et al. 2015) and investigated by the Bulgarian Centre for Underwater Archaeology in Sozopol (CUA; Ministry of Culture of Bulgaria) in a one-season rescue campaign between July and September 2015 (Гърбов et al. 2016). The archaeological campaign was undertaken 12 years after the completion of the Kitten shipwreck excavations (Porozhanov 2000; Batchvarov 2009; 2011; 2014a; 2014b). Due to the nature of the investigation, as part of the underwater cultural heritage assessments ahead of a marine infrastructural development, the scope of the SNBS excavations was limited and determined by time- and budget constraints. An investigation strategy was therefore adopted, aimed at maximising data acquisition at minimum impact cost. Works were aligned with the principles of the UNESCO *Convention for the Protection of the Underwater Cultural Heritage* (2001) and *Annex*. A multidisciplinary approach was adopted that determined the successful outcomes of the archaeological campaign.

In the current article we report on the results of the interdisciplinary investigations on the SNBS. The methods include geophysical remote sensing, dendrochronological and anatomical analysis of ship's timbers, RTI imagery for deciphering a series of production stamps illegible to the naked eye, and X-ray fluorescence analysis on a representative sample of non-ferrous fastenings including those on which the stamps were identified.

[1] The authors are listed in alphabetical order, please refer to the *Credits* section below.

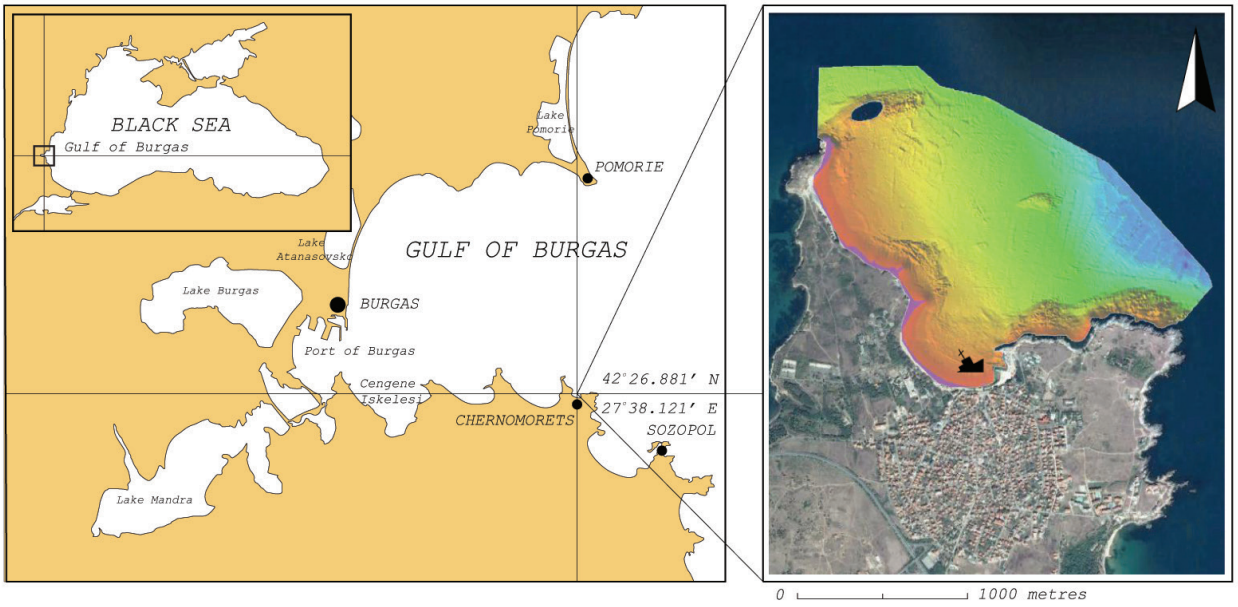

Fig. 1. Site location (after Garbov 2021)

The multidisciplinary approach was crucial to the investigation of the SNBS, contributing to the discovery of the archaeological site, the establishing of its principal materials and absolute dating, and the revealing of the shipwreck's association with the prominent shipyard *Stabilimento Tecnico Triestino*. Thus favourable conditions were created for further archival research to be undertaken with the aim to identify the Saint Nicholas Bay ship and unravel her story – an all too rare opportunity in nautical archaeological practice.

Archaeological Profile of the SNBS[2]

The SNBS archaeological site lies in 4 – 4.5 m of water in the south-eastern part of Saint Nicholas Bay (N 42° 26.881'; E 27° 38.121'), approximately 100 m north of the township's main beach and 120 m west of the new fishing port's administration building (**fig. 1**). The principal dimensions of the archaeological site (hull remains and debris scatter) amount to approximately 50 x 30 m with a total seabed area of ca. 1,500 m^2. The ship's remains comprise coherent timber hull structure divided in two portions as follows:

Area A: Starboard bow and midship section to the turn of the bilge (30 m x 7.2 m), and

Area B: Port side aft quarter preserved to the top timbers at the stern (19.5 m x 8 m).

The portions are aligned and mark the extent of a wooden sailing ship with an overall preservation status of ca. 15-20% (**fig. 2**). The wreck is oriented SW – NE, bow pointing to SW, with a bearing along the centre line of approximately 220° – 40°. The hull is robustly built using sizeable scantlings. It is characterised by a dense hardwood frame and a combination of hard- and softwood planking. It is fastened with yellow-metal (brass) beneath the water line and mostly iron-fastened above it. It was tarred, felted and sheathed with yellow-metal beneath the wales. The ship was carrying refractory bricks as useful ballast. Evidence for anthracite coal was identified in the bow area. As, according to the archaeological evidence, the SNBS was clearly a sailing

[2] For a detailed discussion on the archaeology of the SNBS see Garbov 2021.