

NOVENSIA 25

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Studia i materiały
pod redakcją naukową

Piotra Dyczka

NOVENSIA 25



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JERZY KOLENDO IN MEMORIAM



(6 June 1933 – 28 February 2014)

Death may always strike us as an unbreachable barrier; we, archaeologists know, however, that this is an illusion. It is our profession to break out of chains of forgetfulness, to bring past cultures to life, to remember not just heroes, but ordinary people.

Yet from a human, personal perspective, death always hits us with the same force, the same ruthlessness, with debilitating sense of inevitability. It is the threshold between the known and the unknown.

For us, Professor Jerzy Kolendo's students, friends and colleagues, that threshold came on 28 February 2014, when we learnt of His passing away. How does one cope in the circumstances, when one's desk is littered with his notes, manuscripts, with material collected for future meetings, prominently marked in one's diary? The mind promptly recalls seemingly forgotten, disjointed images, moments, situations, events. In this way perhaps the way out of our predicament is suggested. Memory and recollection, our publications and our works testify to our existence and continuity.

I am not going to recount here Professor Jerzy Kolendo's biography or his extraordinary scholarly achievement and not only because both are well known in the academic circles.¹

¹ I mention them in Jerzy Kolendo's obituary, published (in Polish) in the latest issue of *Archeologia* (62–63, 2011–2012), pp. 121–125.

It is primarily because I wish to tell of my own impressions, recollections, loose images from over three decades of acquaintance, cooperation and finally friendship.

When I was a first-year student at what was back then still the Chair of Mediterranean Archaeology at the University of Warsaw, our older colleagues would tell me and my peers not to complain about an excessive number and difficulty of exams: this is nothing, they would say, just a little warm-up, wait till you have classes and exams with Jerzy Kolendo. No surprise then that we awaited our ancient Greek history classes in the second year with trepidation. Just a few lectures were enough to persuade us that “this man knows everything” — unlike us who had previously believed ourselves knowledgeable about the ancient cultures we were interested in. We had, of course, absorbed many facts and dates, but this knowledge soon turned out to be chaotic, naïve and really rather superficial. Jerzy steamrolled us with his erudition, forcing us to break sweat just to keep up. That is when I understood that scholarship is about more than learning “history” by heart. In a mere semester he crystallised our talents, infected us with his enthusiasm, sent our thinking on new paths.

The doomsday of the exam came. We knew already that each of us was facing at least a 90-minute grilling, in which no shortcoming would escape his notice. He was as demanding of us as he was of himself. He called for the same discipline in thinking that characterised him. As fate would have it, I was the first to go in and it all started... very badly. Just as we were saying hello, the map of Greece I had in my nervousness knocked over fell on top of us both. A bad omen, I was sure — but I was wrong. The situation amused him and, as was his want, he apologised to me. I don’t even remember how that hour and a half passed, it didn’t really feel like an exam. It was more of an intense discussion, in which he paid more attention to the understanding of a problem than he did to a detailed account of the facts, of dates, names, battles. Lightly and easily he plucked out any inconsistencies, probed the depths of my knowledge at the time. Where he felt I was getting lost in the labyrinth of my ignorance, the exam turned into a mini-lecture.



We met again at Novae. A small group of students looked forward to His first visit with impatience for we were assigned the job of finding and documenting inscriptions. I cannot help but smile as I recall Jerzy furiously hammering at paper spread over ancient stones with his estampage brush. Asked where this fury came from, he laughingly claimed that he thinks of his enemies and thus releases bad energy. The results were great, the estampages were marvellously executed: he could turn even anger to a good use.

The bigger problem for us was his curiosity, which led him to stand right at the edge of a trench to see a profile or an uncovered wall or to enter an excavation many metres deep. It was impossible to talk him out of it and we were worried about his health. We would therefore try to distract him. That didn't do much: he would disappear for an entire afternoon and the next day we'd find some soil had slipped into a trench and some vague footmarks, sometimes... Jerzy's spectacles.

While documenting inscriptions we had the opportunity to listen to his entire lectures. Not just in epigraphy but in history. He could bring dead stones and fossilised Latin phrases to life, give us a vivid image of antiquity.

In the evenings we'd sit together, Poles and Bulgarians, and often began amid laughter and joking he would begin to reminisce of past expeditions and adventures. These occasions gave us a chance to get to know a different side of the man who as a scholar seemed to us severe. Here we saw a jovial Professor Kolendo, prone to make jokes.

It was a rare moment when he was sad. That happened usually when for some reason he returned to his war memories or occasionally to the difficult beginnings of his academic career. But they were always brief moments, as if a shade briefly moved across his face...

During those excavations we found out about his interest in Roman agriculture, about the programme of excavations in Carthage, about the reasons for taking up the subject of amphitheatres, circuses, slavery. It then became clear how the logical progression of his scholarly career led to an interest in epigraphy. When we listened to him, it seemed his scholarly passions resembled a flooding river. Ranging ever further, they would penetrate every nook and corner of scholarship.



On occasion he would amaze us utterly. When the conversation turned to subjects we thought distant from his interests, it would turn out we were wrong about that. He could talk with equal ease and expertise of the Middle Ages in the lands of present-day Bulgaria, the Turkish-Russian war or wine production in that part of the Balkans.

It was wonderful to see him at work on an inscription. He took nothing for granted. He would pose plenty of questions to himself, check every detail. Like a detective he would concern himself not just with text itself, with lettering, ornamentation, the type of stone, but he would give us no quarter with endless questions about the context. If at all possible, he would insist on seeing the location of the find himself, even if it seemed to us banal and unimportant. Only later, when we read his publications of those inscriptions, would we understand his motives. He taught us the importance of detail. He really loved those inscriptions. It was difficult at first to comprehend his eruptions of joy at particularly beautiful lettering, some error made by the carver or characteristic decoration. With years, however, his ways infected us and we came to react in the same way.

It seemed nothing short of magic to see him recreate the complete text of an inscription, sometimes from a mere few letters. It was beyond us how a person could have the entire *CIL* in their head, alongside with all particular publications, and could connect all the dots at such a speed.

He had another rare quality. Irrespective of the age of his collaborator or aide, he would listen to any opinion with care, even if it happened to be one of doubtful scholarship. He would take people seriously, he would never reject or pooh-pooh anyone, he would start a dialogue, teach, patiently explain. He was great at teamwork, always giving his all, always amazing us with his modesty and humility in face of the facts.

It was not any different with our cooperation at the Centre. We would focus primarily on scholarly matters. Thanks to his determination it was possible to publish two volumes of *Novae* publications and go most of the way in preparing a third. We were always working on some issue or other. Sometimes it would seem minor and trivial, but would soon turn out to be of great interest and research potential.

Thus it was an unimpressive inscribed marble plate, cracked already in antiquity that led us to establish a significant historical fact, namely the *damnatio memoriae* of the *legio I Italica*. Similarly analyses of inscriptions and their contexts allowed us to precisely date the abandonment of the hospital at *Novae* by the legionnaires and of the reconstruction of *Novae* as a civilian town. A great many such issues accumulated over the years. He loved to analyse seemingly minor matters since he knew they could lead to important conclusions, occasionally to breakthroughs. It was his determination and insistent investigation that did so much to extend and deepen our knowledge not only of *Novae* but also of the ancient world in general.



For it was not just Novae that interested Him. Due to his studies of the classical world's relations with Barbaricum he followed our excavations at Tanais with great interest. When we launched excavations in the territories of ancient Illyria, at Risan (Montenegro) and Shkodra (Albania), he received the news with joy and approval. Of course we soon received a "compulsory reading list" to prepare for the new challenge. He had knowledge of that too!

Incidentally, when I listened to his Roman history lectures on Teuta and Illyria, it was beyond my wildest dreams that one day it would be my role to conduct excavations there and expand our knowledge, to add a new chapter to history books.

He attached particular importance to our find of a hoard of King Ballaios' coins. It was not just the numismatic aspect or the striking size of the find, but its historical significance. Over the past two years we spent much time trying to solve "the riddle of King Ballaios", who left behind thousands of coins, yet historical sources are silent about him. Some of the hypotheses born out of those discussions have been researched in depth and may one day bear fruit in the form of a solution to another important problem.

Sunday evening phone calls became a ritual. Knowing that my weeks were often chockfull of business to attend to, we chose Sunday evenings for regular chats. They would often take as long as an hour. We would discuss plans for the coming week, swap ideas and compare notes, tell each other about new matters. These days, on a Sunday evening I catch myself expecting a call...

These disjointed images capture Jerzy Kolendo's character: he was hard working, engaged, cooperative, open, he would take everyone seriously, was excellent at identifying new talent and guiding it through the labyrinths of scholarship, he was flexible in the face of new circumstances and tolerant; but he would also reject the path of least resistance, sensationalism, careless rush to new conclusions, imprecision. You could say he was an old-fashioned person, but that would fail to do him justice. He was a modern man through and through. Because that is what a scholar's work ought to look like. Without such an approach it is impossible to reach good, solid, lasting results. He was and will remain our yardstick of excellence and it is our duty to keep referring back to the standard he set, so that one day we can say we were up there with the best.

Jerzy, rest in peace. All is clear to you now in your heaven, and you can pass the days away in debating with "past heroes" the issues that never did become clear here on earth. For that, surely, is heaven for you.

Piotr Dyczek

Translated by Aleksander Nowacki

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Martin Lemke

NEW FACTS FROM OLD TEXTS DUSTING OFF WRITTEN SOURCES ON ANTIQUE AND MEDIEVAL RISAN

In memoriam
Jerzy Kolendo (1933–2014)*

*Die Brücke ist nicht römischer Bauart, und die Herren Antiquarier haben ja erklärt, dass alles, was nicht griechisch oder römisch sey, keine Altherthümer wären. Wie oft hat man aber nicht diese gelehrten Herren betrogen und ihnen sehr moderne P—stöpfe für antique Thon-Gefäße verkauft.*¹

Abstract: Four texts and two maps are presented, concerning the archaeology of Risan: the texts are descriptions of the town by Maximilian de Traux (1808), Benjamin von Bergmann (1826) and Franz Petter (1857), as well as a short note with a drawing published by Vincenzo Coronelli (1687). The first map was prepared by Giovanni Grimani, depicting the Bay of Kotor (*vulgo* the *Bocche* or *Boka*) after the Morean war, the second is a cadastral map made by Austrian geodesists as part of the Franciscan Cadaster.

This material is confronted with the knowledge on the archaeology of Risan so far. In the second part of this contribution, a number of features of the city are analyzed, in particular: Carine, a former village and current quarter of the town on the right bank of the local river, and Gradina, the local hilltop castle.

Key words: Risan, Risano, Bay of Kotor, Carine, Gradina, Venetian Republic, Morean war, Vincenzo Coronelli, Maximilian de Traux, Benjamin von Bergmann, Franz Petter, Giovanni Grimani

The layout of the small town Risan in Montenegro, which was an important city a long time ago, has changed significantly in modern times. Urban growth, warfare, the regulation of shore- and river lines and especially the construction of a large industrial sawmill in the 1920s, which did considerable damage to the archaeology of the site, have proven to be hindrances in the perception

* The idea for the present contribution came to me while contemplating an article professor Kolendo and myself wrote together, in a similar manner, albeit concerning a completely different region on the Balkan: KOLENDO, LEMKE 2006.

¹ Maximilian de Traux commenting on the bridge at Risan: DE TRAUX 1808, p. 90, n. 1 (see below). The project has been financed with resources provided by the National Science Center, Poland, allotted on the basis of decision DEC-2011/03/B/HS3/00371.

of the antique town and its limits.² On the other hand, the role Risan played in the region in medieval and early modern times has hardly been investigated at all. For this reason, historical sources describing or depicting Risan before major changes were made and often even mentioning the ancient ruins and finds have been welcome help for modern archaeologists excavating the area.³ The best known examples were written by archaeologists (or at least gifted amateurs) themselves: the texts by Henry Cons,⁴ Arthur Evans⁵ and Heinrich Richlý⁶ on Risan are rather well known and continue to be cited when approaching the description of the city, since they pre-date major changes in the landscape.⁷ A little less known are the contributions by Josip Jelčić⁸ and Jacques Louis Vialla de Sommières,⁹ which have been cited earlier, but never presented in their entirety in context.

The bulk of this contribution are four texts and two maps, which — to my knowledge — have never been analyzed with regard to the archaeology of Risan: descriptions of the town by Maximilian de Traux (1808), Benjamin von Bergmann (1826) and Franz Petter (1857), as well as a short note with a drawing published by Vincenzo Coronelli in his book on the Morean war of the Venetian Republic (1687).

The history of Risan in early modern times will be illustrated by two maps, the first prepared by Giovanni Grimani, depicting the Bay of Kotor (*vulgo* the *Bocche* or *Boka*) after the Morean war, the second — a cadastral map made by Austrian geodesists as part of the Franciscan Cadaster¹⁰ in 1838.

This material is then put into context and confronted with the knowledge we have on the archaeology of Risan so far. In the second part of this contribution, a number of features of the city will be looked at in particular, located at Carine (or Zarine), a former village and current quarter of the town on the right bank of the local river, and on the Gradina, the castle, a small hill rising 200 m above Risan, bearing the remains of a medieval fortress and a twentieth-century military outlook; furthermore any other detail regarding the local topography such as the Roman mosaics, which are mentioned as early as 1820.

Descriptions of the topography will necessarily result in many place names being mentioned and experience shows that such are easier to perceive when having an adequate map for reference. For this purpose a part of the 1:25,000 topographical map of Montenegro from 1979 has been prepared to facilitate understanding [Fig. 1].

In each of the four source texts, Risan is featured as a chapter or separate passage, and as such they are presented here in their entirety, not only the archaeologically relevant sentences, in the spirit defined by Jerzy Kolendo: “Naturally the descriptions of travelers are a valuable source not only with regard to archaeological remains, but also for studies on the modern history (...). These two aspects cannot be artificially separated from each other. The travelers were not only interested in the past, whose testament the preserved antiquities were, but also, maybe most of all, the quotidian life in the countries they visited and described”.¹¹

For the sake of this wider context, some biographic details on the authors of the quoted texts will also be presented.

² KOWAL 2013b.

³ DYCZEK *et alii* 2011–2012; DYCZEK 2009b; 2013, with older literature.

⁴ CONS 1882, on Risan: pp. 249–251.

⁵ EVANS 1883, on Risan: pp. 39–52.

⁶ RICHLÝ 1898.

⁷ CIOLEK, KOWAL 2010; KOWAL 2011; 2013a; KARPIŃSKI 2010. For the sawmill, see DROBNJAKOVIĆ 2003, pp. 169–170.

⁸ As GELCICH 1879; 1868.

⁹ VIALLA DE SOMMIÈRES 1820.

¹⁰ Named after Emperor Franz I, who initiated the cadastral mapping to create an objective basis for taxation (see below).

¹¹ KOLENDO, LEMKE 2006, p. 73 (translated by M. Lemke).

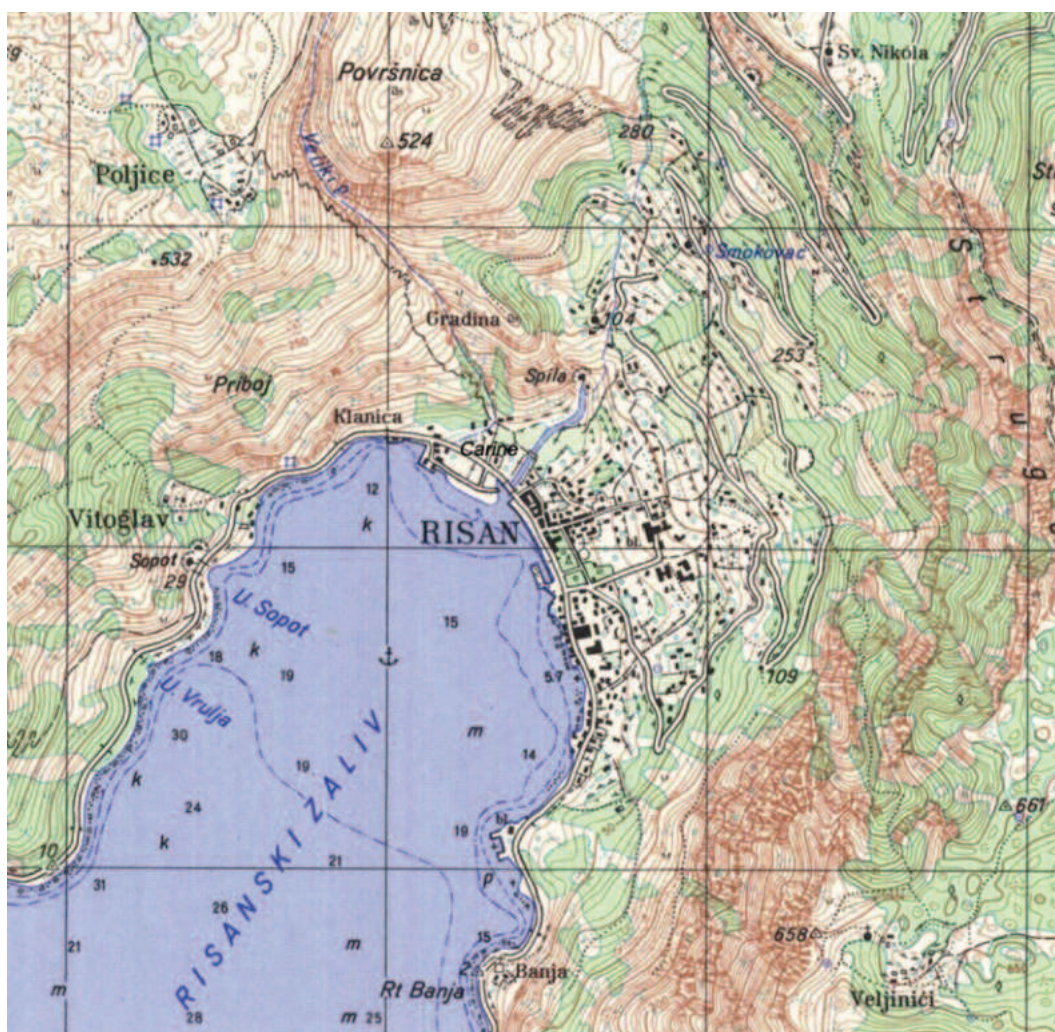


Fig. 1. Topography of Risan (excerpt from: *Topografska karta 1:25,000 "Risan 147-3-4"*, Vojnogeografski institut, Belgrade 1979)

History

The story of Risan is a tumultuous and bloody one.¹² According to ancient sources, the town was the last hideout of Illyrian queen Teuta, after the conflict with Rome she provoked had slipped out of her control.¹³ Legend has it that the queen threw herself into a deep chasm not far from her fortress in Risan to avoid captivity.¹⁴

¹² I justify this somewhat tabloid-like introductory sentence by pointing out that the town's past prompted a comment from no other than Friedrich Nietzsche, relating the story of a failed execution of a girl by lapidation in 1802 (F. Nietzsche, *Fragmente 1880–1882*, III, 4, [15]). De Traux also commented on this and various similar incidents from the Bay of Kotor with disgust ("one is convinced to witness scenes from the 10th or 11th century"), and stated categorically: "Der Bocchese überhaupt ist rach- und mord-süchtig" (DE TRAU 1808, pp. 40–46).

¹³ History of Teuta: KOWAL 2013c; cf. the description of Risan by L. Vialla below (annex).

¹⁴ For the legend: ČURČIJA-PRODANOVIĆ, RISTIĆ 1973; DROBNJAKOVIĆ 2002. The history of Risan in Antiquity — as far as it is known — has been described elsewhere (cf. footnote 3). This contribution will merely place the new (dusted off, that is) facts in the overall context, without recapitulating the entire material.

Apparently, the spirit of Teuta remained present in later times, which were no less bloody or tumultuous, even though during the Middle Ages Risan lost some of the significance it used to have in ancient times. By then it was a town on the border of the realm of Travunia (later Bosnia).¹⁵ From the early fifteenth century, the first Venetian influences could be noticed in Risan, after the *Serenissima* had taken control over Perast and Kotor in the vicinity.¹⁶ Soon, the Ottoman Empire also intensified its interests in the region.

From the mid-fifteenth century onwards, Risan was among the districts granted by King Alphonse V to Stjepan Vukčić Kosača (commonly known as Herceg Stjepan¹⁷). In 1466, the Venetian Republic offered to give the island Brač and a palace in Split to Stjepan, in exchange for his two towns Risan and Novi (Herceg Novi) in the Bay of Kotor,¹⁸ but the deal was never completed.¹⁹ In 1482, the Turks took Risan, together with Herceg Novi, from Herceg Stjepan's son Vlatko.²⁰ These two towns became the Turkish bridgeheads in the Bay of Kotor and Risan also developed into an important centre of trade, especially in salt.²¹ During the Morean war²² (1683–1699) the Venetians claimed Risan in 1687,²³ changing its name to Risano. The new possessions were confirmed in the treaty of Karlowitz in 1699.²⁴ The expansionist revival of the *Serenissima* would be short-lived however, as their gains were reversed by the Ottomans in 1715.²⁵

The situation in the Bay of Kotor after the treaty of Karlowitz with the significantly altered frontier was depicted by Giovanni Grimani on his map of the *Boccha* from 1701 [Fig. 2], one of the earliest cartographic works showing the new Venetian territories. Zooming in on Risan, we see a number of landmarks depicted in the map [Fig. 3]. Two rivers (*torrente*, abbreviated T^{te}), labelled “Norin” and “Soua”,²⁶ the “Spilla” and “Sopot” caves (F^a, probably from *fessura*), Gabella (possibly a village at that point, which would become a quarter of Risan around a cobbled street with the same name) and the Bagna (Banja) monastery on the way to Perast. The map covers an area of hitherto dispersed Venetian possessions around the Bay of Kotor, which include Turkish territory as well as parts of the Republic of Ragusa and the Principality of Montenegro. As explained in the legend, the red borderline and filling depicts the Venetian territory before Karlowitz (*Antico Dominio della Ser:ma Rep:ca di Venezia*). The areas gained through the treaty are encircled

¹⁵ Travunia was a medieval principality, which was part of Medieval Serbia (850–1371), and later the Bosnian Kingdom (1373–1482). The region came under Ottoman rule in 1482. The capital was Trebinje in the Herzegovina. Risan was a *župa*, i.e. an administrative district of Travunia, on the border to the realm of Doclea. The frontier between these territories ran through the Bay of Kotor, its southern part belonging to Doclea (later called Zeta), the northern to Travunia; cf. JIREČEK 1911–1918, I, pp. 116–117; JIREČEK 1879, pp. 22–25; BOROZAN, LJUBURIĆ 1967, pp. 332–335; II, 2, 31; DROBNJAKOVIĆ 2003, pp. 68–73.

¹⁶ DROBNJAKOVIĆ 2003, pp. 70–71.

¹⁷ The charter with this grant is commented on below. See also DROBNJAKOVIĆ 2003, pp. 70–71. It was Stjepan's ducal title, in German “Herzog” that in a slavicized form gave rise to the toponyms Herzegovina and Herceg Novi; cf. JIREČEK 1911–1918, I, p. 118.

¹⁸ BOROZAN, LJUBURIĆ 1970, 2, p. 290.

¹⁹ ČOROVIĆ 1989.

²⁰ THALLÓCZY 1914, p. 243; DROBNJAKOVIĆ 2003, pp. 74–90; BOROZAN, LJUBURIĆ 1970, 2, p. 320.

²¹ Hence the toponym Stara Slanica (“Old salt market”) in Risan (cf. Fig. 10); cf. BOROZAN, LJUBURIĆ 1975, p. 46; DROBNJAKOVIĆ 2003, pp. 103–108.

²² The Morean War was fought between 1684–1699, as part of a wider conflict between the Republic of Venice and the Ottoman Empire, which occurred in the same time as other wars on European soil against the invading Ottomans. Military operations ranged from Dalmatia to the Aegean Sea, but the major campaign was the Venetian conquest of the Morea (Peloponnese) Peninsula in southern Greece. The Venetian Republic sought compensation for the loss of Crete in the Cretan War (1645–1669), while the Ottomans were engaged in their campaign against the Habsburgs and couldn't concentrate their forces against the Republic. The Morean War holds the distinction of being the only Ottoman-Venetian conflict from which Venice emerged victorious, gaining significant territory.

²³ BOROZAN, LJUBURIĆ 1975, p. 189.

²⁴ DROBNJAKOVIĆ 2003, pp. 91–102.

²⁵ MAYHEW 2008, pp. 23–90.

²⁶ Probably the short stream called Spila (cf. footnote 49) and the Veliki Potok, a river flowing temporarily in the Poljice gorge. Apparently, the two streams have switched places in the map [cf. Fig. 1]. On a map by Marco Flangini from 1753 the two rivers have been reproduced in the same manner (contrary to geography), but named slightly differently: “Norta” and “Sova”.



Fig. 2. The Bay of Kotor after the treaty of Karlowitz (G. Grimani, 1701)



Fig. 3. The Bay of Kotor after the treaty of Karlowitz (G. Grimani, 1701), closeup

by a violet line²⁷ (*La Linea di Color Pavonazzo dimostra il Confine stabilito*), which starts at the Adriatic sea west of Herceg Novi (Castel-Novo) and then runs in a wide arc eastwards to the Montenegrin frontier, depicted by 38 border points.

After the fall of the Venetian Republic in 1797, Austria claimed the Bay of Kotor, only to lose it shortly after in the Napoleonic wars to the Russians (1806–1807) and then the French (1807–1813).²⁸ After the Congress of Vienna, the bay including Risan became part of the *k.(u.)k.* empire until World War I.²⁹ Although also the area of Krivošije, just northeast of Risan, had been under Austro-Hungarian control as part of the Illyrian Provinces since the Congress, in 1869 a first uprising of the local Orthodox population defeated an expedition force of the powerful Austro-Hungarian army attempting to enforce compulsory military service. Austria abandoned her efforts but returned in 1881, defeating the rebels and pacifying the region with heavy investment in tremendous fortifications, also around Risan, that would make the military harbor in the Bay of Kotor safe from Montenegrin and Russian aspirations.³⁰ After 1918 the town belonged to the Kingdom of Yugoslavia. For a few years during World War II it was in turn part of the Kingdom of Italy within the Italian Governorate of Dalmatia. After the war Risan belonged to Yugoslavia and currently it is part of independent Montenegro.

Written sources

We will now present the aforementioned sources in chronological order. Each text is reproduced in its original German version (in the case of Coronelli a contemporary German edition³¹) and then translated into English (by myself). Whenever events or terminology requiring or deserving a comment occur in the text, a footnote is used for explanation, unless the matter concerns the main issues of this contribution, in which case the commentary follows the presentation of all sources. Comments have been made only in the English translations (i.e. the working text), for clarity. The German texts have been transcribed, keeping the original (sometimes archaic) orthography, but dropping the gothic font.

1. Vincenzo Coronelli, description of Risan from *Memorie Istoriografiche Della Morea* (1687)

Vincenzo Coronelli (1650–1718) was a Franciscan monk, cosmographer to the Venetian republic, cartographer, publisher, and encyclopedist, known in particular for his atlases and globes. He spent most of his life in Venice, where he produced two books³² illustrating the towns and fortresses taken from the Ottoman Turks by the Venetians during the Morean war (1685–1690). These were issued in numerous different editions (under slightly differing titles) and translations in 1686–1687, and formed the basis for other cartographic works. There were many variants of each plate, and the engravings have increasingly become separated from the books in which they were published.³³ In addition to the text, we have here one of the two known artistic depictions of Risan with an intact fortress on top of the Gradina hill [Fig. 4].

²⁷ The *linea Grimani*; cf. FUERST-BJELIŠ, ZUPANC 2007, pp. 42–43; SCHIPPLER 2008, pp. 18–19.

²⁸ DROBNJAKOVIĆ 2003, pp. 121–125; for an overview on the recent history of the region, see also: PETERMANN 1899, pp. 530–536.

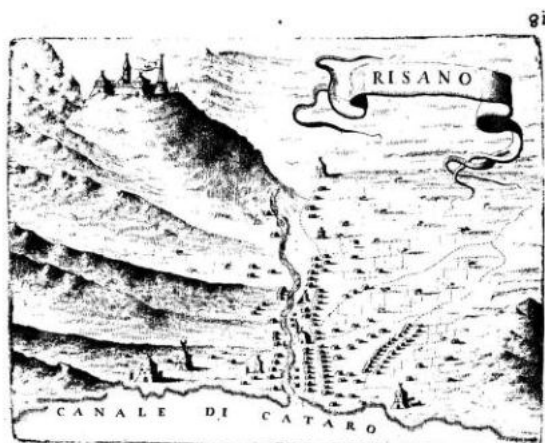
²⁹ DROBNJAKOVIĆ 2003, p. 128.

³⁰ FRANCIS 1883; PERLES (ed.) 1870.

³¹ CORONELLI 1687a.

³² CORONELLI 1686; 1687b.

³³ NAVARI 1995.



R I S A N O



On mai fatia di stragi la tirannia de Tracci, fu sempre assetata di vedere infanguinate le sue scimitare; mà con loro danno cercano le battaglie, perche viddero fuggire dal loro Impero molte Fortezze, trà le quali v'è *Risano* chiamato da Tolomeo *Rhizane*, da Polibio *Rhizon*, già Città Episcopale sotto l'Arcivescouo de Ragusi, il di cui Vescouo prese doppo la residenza in Castel nouo. Nelle parti più interne del Canale di Cattaro à mano siniftra in faccia di quello delle Catene è situato. Dall'acque del medemo Canale è bagnato il Borgo. Hà il Castello sopra vn sasso eminente, che lo rende inaccessibile. Nell'anno 1538 fù preso à Turchi dall'Armi della Republica, e l'anno susseguente per accordo gli fù restituito. Nel 1649 tiranneggiando i Turchi il Paese vicino, il Generale Foscolo per far argine alle violenze Ottomane, chiamati à se i Popoli di Perafio, e Pastrouichi, assaltò Risano, e doppo vndeci giorni d'assedio à patti n'uscirono i Difensori con priuilegio à soli Commandanti d'uscire col l'Armi. Morì nell'impresa il Governatore Crusa, e restò ferito il Colonello la Longa. Fù di nuouo restituito à Turchi nella diuisione de Confini doppo la Guerra di Candia; mà finalmente ritornò al Dominio della Republica, essendo Generale in Dalmazia il N. H. Lorenzo Donà.

DER.

Fig. 4. The entry on Risan from Coronelli's *Memorie Istoriografiche Della Morea* (1687)

Risano

Die Tyranny der unbarmherzigen Thracier / welche niemals durch Niederlagen und Verheerung zu ersättigen ist / suchet nichts mehrers als den Säbel im Blut zu baden: wiewoln mehrernteils diese Untreu ihren eigenen Herrn bisher geschlagen: Inmassen sie auch wegen besagter Grausamkeit viel Dalmatische Vestungen allbereit aus ihren Klauen gerissen sehen / und derselben Verlust beseuffzen muß. Unter diesen kann auch Risano gezehlet werden / so bei dem Ptolemaeo Rhizon heisset / und weiland ein uter das Erzstift Ragusen gehoeriges Bistum gewesen; derer Bischoff folgender Zeit seine Residenz zu Castel Nuovo genommen hat.

Risano

The Tyranny of the cruel Thracians³⁴ that cannot be quenched by defeat and mayhem seeks nothing more than to soak the sabre in blood: though oftentimes she unfaithfully defeated her own lord: In masses they have seen many Dalmatian fortresses torn from their claws by said cruelty and come to regret their loss. Among these also Risano can be counted which is called Rhizon by Ptolemy and was of yore a diocese belonging to the archbishopric of Ragusa; whose bishop would thereafter reside in Castel Nuovo.

It lies in the innermost part of the channel of Cattaro to the left hand beyond the channel of Cattene; it has a suburb built on the shore of

³⁴ i.e. the Turks.

Liegt in dem innersten Theil des Canals von Cattaro zur linken Hand / im Respect des Canals von Cattene; hat eine Vorstadt / so an dem Ufer des zu erst gedachten Canals angebaut ist / und auf einem hohen Felsen ein sehr vestes und unersteigliches Castell.

Anno 1538 ist sie durch die Venetianische Armee den Tuerken abgenommen / und das folgende Jahr darauf ihnen mit Accord wieder eingehaendigt worden. Anno 1649, da die Tuerken in den benachbarten Landschaften sehr uebel hauseten / hat Herr General Foscolo sothanen Gewalthaetigkeiten Einhalt zu thun / einige Mannschaft aus Perasto und Basanovochi zusammengezogen und diß Risano angefallen. Darauf es nach elftägiger Belagerung / mit Accord uebergangen / daher niemand von der Besatzung mit seinem Gewehr auszuziehen ausser denen Officien erlaubet gewesen. Während der Belagerung ist der Gouverneur Trutha tods verblichen und der Obrist Lotyza verwundet worden.

Es ist aber dieser Ort / als der Krieg in Candia zu Ende gelauffen / in der Grenz-Scheidung denen Tuerken wieder zugefallen / und endlich bey juengster Empeorung der Morlaken auf das neue unter die Herrschafft von Venedig gediehen.

the formerly mentioned channel and on a high mountain a strong and inaccessible castle.

Anno 1538 it [Risano] was taken by the Venetian army from the Turks and given back to them willingly in the next year.³⁵ Anno 1649, when the Turks behaved wickedly in the neighboring areas the general Foscolo in order to cease the violence raised a crew from Perasto and Basanovochi and attacked Risano.³⁶ After eleven days of occupation in accordance it [Risano] was passed over so nobody from the squad was allowed to leave with their rifles, save the officers only. During the siege governor Trutha passed away and colonel Lotyza was wounded.

However, this town fell once the war in Candia was over during the drawing of the borderline again to the Turks and finally during the recent uprising of the Morlachs³⁷ was again passed under the reign of Venice.

2. Maximilian de Taux, description of Risan from *Statistisch-Historisch-Militärische Darstellung der Bocche di Cattaro*, Cologne 1808, pp. 89–92

Maximilian (Max) de Taux (1766–1817) was an Austrian colonel, military writer and cartographer. Trained as a military engineer (and later teaching fortress building himself at the military academy in Vienna), campaigns of war brought him to Dalmatia in 1803, where he also supervised the improvement of town fortifications. He is mostly known for his beautiful and accurate colored drawings of major fortified cities in Dalmatia.³⁸ In the early nineteenth century, he participated in mapping Dalmatia, the Bay of Kotor and northern Montenegro. In spite of his apparent interest in history and archaeology, but in line with his military upbringing, he maintained a rather detached attitude towards the competences of archaeologists, as displayed in the witty comment quoted in original footnote.

³⁵ Apparently with the help of members of the Vukosalić family, who opened the gates of the “castle” Risan to the Venetians; cf. BOROZAN, LJUBURIĆ 1975, p. 48.

³⁶ On the offensive of Venetian general Foscolo, see BOROZAN, LJUBURIĆ 1975, p. 125.

³⁷ “Morlachs” was a term used for a rural community in the Dalmatian hinterlands. At the time of the Turkish wars of the 17th century, a large number of Morlachs settled

inland of the Dalmatian towns. Being familiar with local territory, they served as paid soldiers in both Venetian and Ottoman armies. The mentioned uprising took place in 1686–1688, during the Morean war; cf. JIREČEK 1879, p. 5; PETERMANN 1899, pp. 251–261.

³⁸ Drniš, Herceg-Novi, Hvar, Knin, Korčula, Kotor, Makarska, Osor, Paga, Perast, Sinj, Supetro, Sv. Stefan, Šibenik, Trogir, Zadar (DE TRAU 1805).

Risano

Eine griechische Communität am Canale, von welcher die Dörfer Crivosje, Ledenizze, Ubli und Morigne abhängen. Dieser Ort ist im Grunde eine Bucht des Canals, und gab einst als Hauptort dem ganzen Meerbusen, der von ihm Sinus Rizzonicus hieß, seinen Namen. Hier war es, wo die schöne Königin Teuta sich flüchtete, und lange Zeit ihren Hof hielt. Die Ruinen einer Brücke über den Gießbach zeigen an, daß es einmahl ein beträchtlicher Ort gewesen sein mag, aber Antiquitäten, noch andere Ruinen findet man nicht.* Das Thal und der Abhang, auf welchem es liegt, ist ziemlich gut angebaut und sehr malerisch. Der Ort hat mit den Türken einen ziemlichen Handel mit Schafen, Käse, Wolle und Wachs, und nur der schlechte Weg macht, daß dieser Handel nicht blühender wird. Über diesen nähnlichen Weg kommen auch alle Ochsen, welche zum Theil im Lande verzehrt, zum Theil eingesalzen, geräuchert und verführt werden. Die Einwohner geben sich auch mit der Schifffahrt sehr viel ab, und haben mehrere große Schiffe. Ehemals waren die Seeräuber, und es ist noch nicht lange, daß sie dieses löbliche Handwerk noch trieben, und es erforderte unter den Venezianern alle Strenge der Gesetze, um es einzustellen. Wegen diesen und wegen ihres unruhigen Charakters war stets eine Kanonier-Chaloupe mit geladenem Geschütze dort vor Anker. Die Einwohner rühmen sich, das alte römische Blut unvermischt erhalten zu haben. Das wahre an diesem ist ihre Raubsucht (bey den Römern ging es ins Große, und es galt Provinzen und Reiche, bey diesen nur einzelne Schiffe), und ihre Tracht; es soll noch das wahre römische Militär-Costüme seyn. Sie sehen auch wirklich so aus, wie man sie auf mehreren Statuen, und besonders an Basreliefs erblickt; und manches große Theater hat bey Aufführung römische Trauerspiele nicht so schön gekleidete Statisten, als diese bemittelten Einwohner.

* Die Brücke ist nicht römischer Bauart, und die Herren Antiquarier haben ja erklärt, dass alles, was nicht griechisch oder römisch sey, keine Altherthümer wären. Wie oft hat man aber nicht diese gelehrten Herren betrogen und ihnen sehr moderne P—stöpfe für antike Thon-Gefäße verkauft.

Risano

A Greek community on the Channel whose dependencies are the villages Crivosje, Ledenizze, Ubli and Morigne. This locality is basically a bay of the channel, and being the main town of the entire bay once gave its name to the *Sinus Rizzonicus*. It was here the beautiful queen Teuta fled to, and reigned there for a long time. The ruins of a bridge over the rain stream are proof that this once may have been a considerable town, but antiquities or other ruins are not to be found.* The valley and slopes, where the town lies, are rather well cultivated and very picturesque. The locality trades a lot sheep, cheese, wool and wax with the Turks and only the bad road hinders this trade from blooming even more. By the said road also the oxen are brought, which are partly consumed locally and partly are salted, smoked and exported. The inhabitants are also engaged in seafaring and possess a number of big ships. Once they were pirates, and they were involved in this honorable trade until not so long ago, and it required all strictness of law from the Venetians to shut it down. Because of this and because of their squirmy character, there was a canon boat with laden gun anchoring here all the time. The inhabitants pride themselves in having the old, unmingled Roman blood in their veins. The truth of it is their will to plunder (the Romans were playing for high stakes, provinces and kingdoms, these [the Risanians] prey only on single ships), and their wardrobe; it is supposed to be the true Roman military costume. They indeed do look in a way that can be seen on a number of statues, especially on bas-reliefs; and many a big theatre, when performing Roman tragedies, did not have as beautifully clad background artists, as these well off inhabitants are. The national costume of the women is not Roman, but that of the prosperous ones is very rich and beautiful all the same. Likewise, most of these women are very charming and especially

* The bridge is not of Roman making, and, as the honorable antiquarians have pointed out, things, which are not either Greek or Roman, are no antiquities. Yet how often have these enlightened gentlemen been cheated and sold very modern p[iss]pots for ancient pottery vessels.

Die Tracht der Frauenzimmer ist nicht römisch, jene der wohlhabenderen ist aber sehr reich, und zugleich sehr schön, auch sind die meisten dieser Weiber sehr reizend, und von einem besonders schlanken Körperbau, ohne die für Frauenzimmer so unangenehme Größe zu haben. Dafür sind auch ihre Männer in Superlativo eifersüchtig, und sie Slavinnen.

Die Männer genießen des Rufes der Herzhaftigkeit, welches ihnen auch bloß von den Pastrovichanern mit Recht abgestritten wird. Der Ort hat sich ohne fremdes Zuthun der türkischen Beherrschung entzogen, und sich freywillig den Venetianern ergeben. Ihre Brau-vour besteht aber mehr in einem heimtückischen, unruhigen, grausamen Gemüthe. Seine Bevölkerung besteht aus ungefähr 1800 Seelen, sein Territorium aber nicht mitgerechnet. Es hat den Russen einen Admiral und zwey Generale gegeben. Die Ivelliche, wovon der eine Generallieutenant, der andere Generalmajor in russischen Diensten ist, sind Söhne eines dortigen, wenig bemittelten Einwohners, und der jetzige Protopopa (Erzpriester) des Ortes ist ihr dritter Bruder. Der erste, der seit 3 Jahren sich dort aufhielt, trug viel dazu bey, Montenegro schwören zu lassen, und zur Besitznahme dieser Provinz durch die Russen.

Das zu Risano gehörige Crivoisze, welches nur 1000 Einwohner, darunter aber 280 wehrfähige Männer zählt, hat von den Türken die Ebene von Bersno ohne andere Hülfe, als die ihres Muthes, erobert und behalten, aber nur ihre Faulheit trieb sie dazu an; denn sie hatten überflüssige und gute Grundstücke, wenn sie nur selbe hätte bearbeiten wollen.

have a light body-frame, without the size so unpleasant for women. Accordingly, the men are jealous *in superlativo*, and they [the women] their slaves.

The men are said to be courageous, a virtue in which only the Pastrovichans can rightly compete with them. The locality has without foreign help removed itself from Turkish reign and voluntarily surrendered to the Venetians. However, their bravery consists more of a malicious, unstable, cruel temper. The population includes ca. 1800 souls, not counting its territory. Among these are an admiral and two generals. The brothers Ivellich,³⁹ one of them a lieutenant-general,⁴⁰ the other a general-major⁴¹ in Russian service, are the sons of a local, not very prosperous inhabitant, and the current *protopopa* (archpriest) of the town is their third brother. The formerly mentioned, who has been present there for the past three years, contributed a lot to Montenegro taking the pledge, and to the capturing of this province by the Russians.⁴²

Crivoisze, belonging to Risano, with only 1000 inhabitants, but among these 280 men fit to bear arms, has taken and kept from the Turks the plain of Bersno with no other help than their courage, but it was only their laziness that urged them to do this, as they already had superfluous and good parcels of land in their possession, if only they had wanted to cultivate these.

3. Benjamin von Bergmann, description of Risan from *Magazin für Russland's Geschichte, Länder- und Völkerkunde*, Band 2, Mitau 1826, pp. 76–79

Benjamin Fürchtegott Balthasar von Bergmann (1772–1856) was a Baltic German ethnographer, historian, linguist and also a clergyman. He wrote various accounts on Russian history, especially a monograph on Tsar Peter the Great.

³⁹ The Ivelić were the most famed family in Risan; cf. DROBNJAKOVIĆ 2003, pp. 132–145. The last member of their dynasty died in 1940. For 300 years they had shaped the history of the town like no other family.

⁴⁰ Savo Ivelić.

⁴¹ Petar Ivelić (1772–?); DROBNJAKOVIĆ 2003, p. 137, says he was already the fifth Russian general.

⁴² This pledge came to pass under the strong influence of the *vladika* of Montenegro, Petar I Petrović Njegoš (cf. footnote 43); cf. BRONAWSKIJ 1826; DE TRAUJ 1808, pp. 37–38.

Risano

Dieser alte Sitz, angelegt von einer vertriebenen serbischen Königin, Teoka, muß ehemals einen ziemlich bedeutenden Hafen gehabt haben, da der ganze Meerbusen danach Sinus Rissonicus genannt wurde: er liegt am Meere, und da der einzige Weg aus Herzegowinien in das katarische Gebiet durch diesen Ort führt, so treiben die Einwohner (deren Zahl in der Stadt allein auf 1800 geschätzt wird) bedeutenden Handel mit Hornvieh, Schafen, Wolle und Wachs.

Der risanische Kreis (einer der griechischgläubigen) gilt für den besten, und das Volk für das gebildetste, obgleich es an Reichtum den katholischen Kreisen nachsteht; dafür sind die Männer durch ihre Tapferkeit berühmt, so wie unter den Venetianern und Östreichern durch den muthigen Widerstand, den sie, verbunden mit den Pastrowitschen, stets gegen die Tschornogorier leisteten. Während unseres Aufenthaltes in Katarien, bewährten die Risaner, und überhaupt die Slawen der vier griechischgläubigen Kommunitäten, eihren Eifer und ihren Muth, indem sie bei Marmont's Angriff auf Kastelnovo, ohne Unterstützung unserer Truppen, die Vertheidigung der Engpässe und Wege durch ihren Kreis nach Kataro übernahmen: ihre Anhängigkeit an Rußland, das ihnen die Mutter ihres Vaterlandes zu sein scheint, brachte mehrere derselben in russische Dienste, und wir brauchen nur die gräfliche Familie Iwelitsch zu nennen, von welcher Graf Marko (jetzt Generallieutenant und Senator) durch diplomatische Aufträge in katarischen Angelegenheiten, und der zweite, Peter, als Generalmajor im letzten schwedischen, so wie im vaterländischen Kriege vom Jahre 1812, durch ausgezeichnete Militätdienste ihre Namen der Vergessenheit entzogen haben.

Risano

This old site, established by the exiled Serbian queen, Teoka, must have had a rather significant harbor once, since the entire bay was named after it *Sinus Rissonicus*: it lies at the sea, and because the only way from the Herzegovina in the area of Kotor leads through this locality, its inhabitants (whose number in the town alone is estimated at 1800) take part in substantial trade with cattle, sheep, wool and wax.

The district of Risan (a Greek Orthodox one) counts as the best and its people for the most educated, even though it lacks the prosperity of the Catholic districts; yet the men are known for their courage, among the Venetians and Austrians, for their bold resistance, which they offered, together with the Pastrowitschans, against the Tschornogorians.⁴³ During our stay in the area of Cattaro, the Risanians, and the Slavs of the four Greek communities in general, their fervor and courage, when, during the assault of Marmont on Kastel-Novo,⁴⁴ without support from our troops, they took upon them the defence of the passes and roads through their district towards Cattaro: their dependency on Russia, who appears to them like the mother of their homeland, brought a number of them into Russian service, and we only need to mention the family of count Iwelitsch, from which count Marko⁴⁵ (now lieutenant-general and senator) secured his place in history by means of excellent military service through diplomatic tasks in matters of Cattaro, and the second, Peter,⁴⁶ as general-major in the last Swedish as well as the patriotic war of 1812.

The Risanians claim to descend from the Romans, and a certain similarity in their national costume, some remains in the architecture make this seem not altogether unlikely.

⁴³ Bergmann probably refers to the actions of Petar I Petrović Njegoš, *vladika* of Montenegro, who attempted to claim the Bay of Kotor during the Napoleonic wars (cf. footnote 44).

⁴⁴ Napoleon's general Auguste de Marmont successfully attacked Castelnuevo (Herceg Novi) during the Dalmatian campaign in 1806.

⁴⁵ Count Marko Ivelić (1740–1825); cf. DROBNJAKOVIĆ 2003, pp. 135–136.

⁴⁶ DROBNJAKOVIĆ 2003, p. 137.

Die Risaner wollen von den Römern abstammen, und einige Ähnlichkeit der Tracht, einige Überbleibsel der Baukunst, machen dieß nicht ganz unwahrscheinlich.

Das Dorf Zarine unweit Risano verdankt seine Benennung dem Aufenthalte der Zariza Teoka, welches man durch einen verfallenen Pallast, durch 6 Pfeiler einer römischen Brücke, und durch einen Fußboden von Mosaik (3 Fuß unter der Erde) darzuthun glaubt.

Der an Zarine stoßende Berg enthält eine geräumige Grotte, oder vielmehr einen unterirdischen Keller, Namens Spila, und verdient die vorzügliche Aufmerksamkeit von Freunden wunderbarer Naturereignisse. Die Mündung hat einen Durchmesser von 20, eine Höhe von 8 Faden, und von dem weiten Gewölbe hängen ohne Unterstützung, wie angeklebt, schwere, eckige Felsstücke herab. Der unterirdische Gang durchläuft 400 Klafter, bis zu einer mit Wasser gefüllten Lagune von 4 Klaftern Tiefe am Rande, und von unbekannter Länge: denn da sich das Gewölbe senkt, so wird Niemand die Weite ausmessen mögen; aber vermuthlich füllt dieser Behälter die weite Höhlung des Berges. Die Einwohner von Zarine schöpfen hier Wasser bei Fackelschein, und finden es eiskalt im Sommer, und warm im Winter; der Boden aber ist von dem Eingange bis zur Lagune glatt und eben, als hätten ihn Menschenhände besorgt.

In der heißen Zeit verweilen hier nicht bloß Einwohner aus Risano, sondern auch aus der Nachbarschaft, um Kühlung zu genießen, und eine Menge kleiner, ausgegrabener, mit Wasser gefüllter Höhlen, dienen dort statt der Keller.

Zur Linken der Lagune ist ein Theil der Mauer abgeschliffen, und die Reisenden schreiben darauf ihre Namen.

The village Zarine not far from Risano acquired its name thanks to the presence of the Zariza Teoka,⁴⁷ a fact that is sought to be confirmed by a ruined palace,⁴⁸ 6 pillars of a Roman bridge, and a mosaic floor (3 foot in the earth).

The mountain adjacent to Zarine has a spacious cavern, or rather a subterranean cellar, named Spila,⁴⁹ which deserves the special attention of connoisseurs of marvellous natural phenomena. The opening has a diameter of 20, and a height of 8 fathoms, and from the wide vault hang without support, as though glued to their spot, heavy, edgy pieces of rock. The subterranean corridor runs 400 *klafter*,⁵⁰ up to a lagoon filled with water, 4 *klafter* deep at the edge, and of unknown length: from the point where the vault drops [to water level] nobody can measure its extent; probably this reservoir fills the vast cave of the mountain. The inhabitants of Zarine scoop water here by torchlight, and find it to be ice cold in the summer and warm in the winter; the ground however is smooth and even from the entrance up to the lagoon, as though shaped by human hands.

During the hot days not only the inhabitants of Risano dwell here, but also people from the neighborhood, to seek the cool, and numerous small, dug out pits, filled with water, serve as cellars. To the left of the lagoon a part of the wall has been ground down and travellers write their names there.

This cave is filled in late autumn with damp air, and the water dripping from the vault denies entrance then. The time of rain also has a both terrifying and rare effect, in which the water comes flying, foaming and splashing through the entire width of the opening, until it finally falls into the sea one verst and a half from Spila with a force every anchoring vessel has to yield

⁴⁷ The name of Queen Teuta runs through several variants in this text, just like the name of Risan itself (see below). This is both an effect of imprecise notations of folklore as well as different transcriptions into western languages. It is noteworthy that the former name of the town Tivat on the same bay, Teodo, also derives from the notorious "Pirate-Queen"; cf. MUSIĆ, ULČAR 2011, p. 263.

⁴⁸ Probably the Cyclopean walls, visible in the riverbed.

⁴⁹ The name of the cave at some point also became the name of river flowing from there, which in Venetian times

was simply the *Risan fiumara*. Cf. footnotes 26 and 103; EVANS 1883, p. 48.

⁵⁰ Bergmann distinguishes between the units "Klafter" and "Faden", which both translate to "fathom" in English. This historic measuring unit is known to have had slightly different values in time, but usually oscillated around 2 yards or 1.8 m.

Diese Höhle wird am Ende des Herbstes von Ausdünstungen angefüllt, und das vom Gewölbe tröpfelnde Wasser verwehrt alsdann den Eintritt. Die Regenzeit erzeugt dort ein eben so furchtbares als seltenes Schauspiel, indem das Wasser dann durch die ganze Breite der Mündung nach beiden Seiten schäumend und spritzend dahin fliegt, bis es endlich anderthalb Werst von Spila ins Meer mit einer Heftigkeit stürzt, der jedes ankernde Fahrzeug weichen muß. Das alte zerfallene Schloß (über der Höhle) vollendet auf dem Berggipfel den malerischen Anblick. Die vom Wasser emporsteigenden Dämpfe umhüllen die Mauern mit einem leichten Nebel, welcher den Felsgipfel umschleiert. Die zur Regenzeit bis zu den Thurmsinnen gesenkten Wolken machen, daß dieses Schloß wie wankend in der Luft erscheint, und aus der Schlucht schallt der Wassersturz zurück mit einem Getöse, welcher die Grundlage des Berges bei Spila zu erschüttern droht.

Risano gegenüber bildet am Dorfe Witoglaw auf der anderen Seite des Meerbusens die Höhle Sopot ein furchtbares und noch prächtigeres Schauspiel, indem von einem senkrechten Felsen das Wasser ungefähr 400 Fuß hoch aus einer engen Öffnung hervordringt, und gleich einer Wasserhose fällt es in Gestalt einer ausgebreiteten Kristallkuppel von der entsetzlichen Höhe in Milchschaum gerade am Fuße des Felsen in's Meer, wo es von der Gewalt des Sturzes einen runden Kessel ausgehöhlt, und über den Rand hinaus schäumt und sprudelt, daß ringsumher der Abgrund mit furchtbarem Brausen erbebt.

from. The old ruined castle (above the cave) finalizes the scenic view.⁵¹ The vapours rising from the water surround the walls with a slight fog, which veils the hilltop. The clouds, which descend onto the battlements of the towers⁵² have the effect, that the castle appears as though floating in the air, and from the valley sounds the waterfall with a thunder, that impends to shake the base of the hill near Spila.

Across Risano, near the village Witoglaw on the other side of the bay the cave Sopot shows a terrifying and even more remarkable spectacle, when the water rushes from a vertical rock in a height of 400 foot from a narrow opening, and falls like a waterspout in the shape of an outstretched crystal dome from the terrible height in milkfoam right at the foot of the hill into the sea, where the force of the fall has caved a round cauldron, and over its edge foams and splashes, so that the abyss all around thunders with a terrible roar.⁵³

4. Franz Petter, description of Risan from *Dalmatien in seinen verschiedenen Beziehungen*, Gotha 1857, pp. 260–262

The Austrian geographer and ethnologist Franz Petter (1788–1853) was commissioned by the state to Dubrovnik as a German teacher (*k.u.k. Professor*) and moved three years later to Split. In contrast to many enthusiasts of Dalmatia, Petter was not happy with his duties there; he perceived them as a penalty.⁵⁴ In spite of his displeasure he used his scholarly skills to write a number of detailed works on Austrian Dalmatia, including a description of Risan.

⁵¹ The Gradina.

⁵² This may be a hint, that the towers mentioned by Evliya Çelebi (see below) were still preserved to some extent in the mid-19th century. Clouds hanging low over the Gradina hill can still be observed during heavy rainstorms [Fig. 6].

⁵³ Both Spila and Sopot are examples of karst phenomena. See DROBNJAKOVIĆ 2003, pp. 17–19; DYCZEK *et alii* 2004, p. 102.

⁵⁴ Apparently, the sending of state employees into the “colonial” territories of the Balkan was indeed a punitive

Distrikt Risano

Risano ist ein kleiner Flecken. 10 Miglien von Cattaro, mit beiläufig 1200 Einwohnern griechischen Ritus mit einem griechischen Mönchkloster, S. Basilio genannt. Risano liegt im Grunde einer von bewaldeten Bergen eingeschlossenen Bucht. Risano hieß bei den Römern Rhizinicum, und der Golf von Cattaro Sinus. Plinius nennt es ein *Oppidum civium romanorum*. Nach Livius und Polybius hatte sich die Römerfeindin Teuta nach der Niederlage ihres Heeres in diesen abgesonderten Winkel der Welt begeben. Und ihre letzten Lebensjahre da beschlossen. Nach der Meinung eines andern Skribenten soll es ein Rhizona (nach Ptolemäus) in der Herzegovina in der Gegend von Globuk oder bei Rudine unweit Trebinje gegeben haben, wohin sich Teuta zurückgezogen hatte. Man zeigte mir etwa 150 Schritte von der Hauptkirche ein Stück von verschiedenartiger Mosaikpflasterung. Die Arabesken sind der Zeichnung nach gut ausgeführt, und ganz der Musivhahn ähnlich, welche mein Begleiter, ein österreichischer Jägeroffizier in Pompeji gesehen hatte. Ein anderes Fragment von Musivbahn, welches aber nicht so vielfärbig ist und nur stückweise aus der Erde hervorsteht, findet sich an der Ausmündung der Bergschlucht, die nicht ferne von den Ruinen eines Kastells zu suchen ist, welches die Venezianer im Jahre 1649 zerstörten. Diese Ruine liegt etwa eine halbe Miglie von Flecken entfernt auf einer Anhöhe, von welcher man eine sehr schöne Ansicht der Bucht hat. Gross kann das römische Rhizinium auf keinen Fall gewesen sein, weil der Raum zwischen Meer und Berg sehr klein ist. Etwa eine halbe Miglie von Risano ist eine Höhle an einer Felsenwand am Meere, aus derer Ausmündung, die beiläufig 40' über dem Meere sein dürfte, nach jedesmaligem anhaltenden Regen ein Giessbach, von den Einwohnern Sopot genannt, ins Meer stürzt. Die Höhle ist zur Sommerszeit von der Landseite zugänglich und man kann bei 300 Schritte weit hineindringen, und zwar immer etwas abwärts schrei-

District Risano

Risano is a small hamlet, 10 miles from Cattaro, with approximately 1200 inhabitants of Greek confession and an orthodox monastery named St. Basilio. Risano lies by and large within a bay surrounded by tree-covered mountains. Risano was called Rhizinicum by the Romans, and the gulf of Cattaro the *Sinus*. Pliny calls the town *oppidum civium Romanorum*. According to Livy and Polybius, after the defeat of her army, the Roman enemy Teuta retreated to this remote corner of the world and spent her last years there. By the opinion of another scribe, there is supposed to be another Rhizona (after Ptolemy) in the Hercegovina around Globuk [Klobuk] or near Rudine not far from Trebinje, where Teuta could have withdrawn to.

Approximately 150 steps from the main church I was shown a piece of diverse mosaic plaster. The arabesques and drawings were skillfully executed, quite like the mosaics which my companion, an Austrian ranger officer had seen in Pompeii. Another piece of mosaic, but not as colorful and only partially showing from under the earth, is located near the mouth of the mountain valley, which is not far from the ruins of a castle, which the Venetians destroyed in 1649. The ruins lie about half a mile from the hamlet on a hilltop, from which there is a beautiful view on the bay. The roman Rhizinium certainly was no big town, because the space between sea and mountain is very small. About half a mile from Risano there is a cave in a rocky wall at the sea, from whose entrance, which is about 40 foot above the sea, after every prolonged rainfall a rain-stream, called Sopot by the inhabitants, falls into the sea. The cave is accessible from land during the summertime and it is possible to walk 300 steps inside it, always going slightly downwards, which is proof that the water comes from a great height. The inhabitants do not know from where. On a hill, about a mile from the hamlet there is a well. There the young Risanian women go nearly

measure by the central administration. In Petter's case, his exile was particularly ill-fated: he died in the aftermath of an accident while on a ship, upon returning to Kotor a last

time to finish his work; cf. PETTER 1857, p. VI (foreword); STANIČIĆ 2013, p. 138.

tend, was beweiset, dass das Wasser von einer grossen Höhe kommen müsse. Die Einwohner wissen nicht woher. Auf einer Anhöhe, etwa eine kleine Miglie vom Flecken ist ein Brunnen. Zu diesem wallen die jungen Risanotinen an den Sommerabenden fast täglich, jede einen landesüblichen, grossbanchigen, schmalhalsigen, kupferneu Wasserkrug, wie man sie bei der Hochzeit in Kana in Galiläa gebraucht haben mag, in der Hand, um dort mit ihren Freundinnen zusammenzutreffen und zu plaudern, da Trinkwasser kein kurrenter Artikel von Risano ist, obgleich nach meinem Dafür halten seine nie versiegende Quelle mit leichten Kosten in den Flecken geleitet werden könnte. Ein harmloseres Vergnügen kann es übrigens für Mädchen nicht geben, als sich bei einem Brunnen zu versammeln, und dort ihre Gedanken gegenseitig auszutauschen. Ein wenig Medisance mag wohl dabei auch unterlaufen.

Die Männer von Risano kleiden sich an grossen Festtagen sehr malerisch. Sie tragen lauge Überkleider und Westen von dunkelgrünem Tuche, reich mit Gold- und Silberborten besetzt und mit derlei Stickereien versehen. Dass dieses Kostüm das antike römische sei, wie de Traux und die Eingeborenen wollen, ist falsch, denn das römische Oberkleid hatte keine Ärmel wie jenes der Risanoten. Die römische Dalmatica wird jetzt nur mehr von Diakonen und Subdiakonen getragen. Die Risanoten leben vom Handel mit den benachbarten Moutenegrinern, vom Ackerbau und Fischfang. Im Allgemeinen sind sie arm zu nennen. Seit 10. April 1846 kommen die Karavanen dreimal im Monat, und zwar jedesmal am 10., 20. und 30. des Monats, nach Risano, dürfen aber nur unverfängliche Waren bringen.

every day on summer evenings, each with a regional, wide-bellied and narrow-necked, jug made of copper in hand, like the ones used during the wedding in Kana in Galilea, in order to meet their friends there and talk with them, because drinking water is not available in Risano, even though a stable source that could be inexpensively established in the hamlet itself in my opinion. There is hardly a more harmless joy for the girls, than to meet by a well, and exchange thoughts there. There may be some gossiping on that occasion also.

The men of Risano dress very impressively on big holydays. They wear long outer garments and vests of dark green cloth, richly set with golden and silver rims and similar embroidery. To assume this costume was Roman — as de Traux and the locals suggest — would be wrong, because the Roman outer garment had no sleeves like the ones of the Risanians have. Today, the Roman dalmatica⁵⁵ is being worn only by deacons and sub-deacons. The Risanians live from trade with the neighboring Montenegrins, as well as from agriculture and fishing. Overall, they are rather poor. Since April 10th 1846 also caravans arrive three times in a month, every 10th, 20th and 30th day of the month, in Risano, being allowed to bring only innocuous goods.

So — what do we learn? The key aspect is the information on the localities of Gradina and Carine. It is worthwhile to address both separately and add a few extra sources, especially regarding the Gradina fortress.

⁵⁵ A short tunic.

The Gradina of Risan

The Slavic word *gradina* essentially means “fortified town”. The term is widely used as a toponym by locals for the ruined castle on a hill in a given town or village in the former Yugoslav countries, much like the Turkish term *kale* is common in Bulgaria. Scientifically, the term is used to describe a certain type of fortified settlement in the Balkan area, much like a “hill fort”, *Burgwall* (German) or *gród/hrad* (Polish/Czech/Slovak) in northern Europe (albeit in a chronologically different context). In the western Balkan, the *gradina* is often associated with Illyrian fortifications made of huge stone blocks (known as “Cyclopean walls”).⁵⁶

On the Gradina in Risan [Fig. 5], traces dating back to Antiquity have been detected, but they hardly allow for a reconstruction of the initial fortification from Illyrian or Hellenistic times.⁵⁷ There is also a rather tentative theory proposing the existence of a shrine dedicated to Medauros on the hilltop, supported only by circumstantial evidence.⁵⁸



Fig. 5. View from Površnica on the Gradina and Carine (photo M. Lemke, 2013)

The question remains, when and by whom the small medieval castle was built. Risan is mentioned in the *De administrando imperio* of Byzantine emperor Constantine VII Porphyrogennetos, dated 948–952 AD. In the section on Travunia (Terbounia) it is written there, that

In the territory of Terbounia and Kanali are the inhabited cities of Terbounia, Ormos, Rhisena, Loukabetai, Zetlibi.⁵⁹

⁵⁶ PAVIĆ 2009, pp. 7–22.

⁵⁷ For such attempts, cf. DYCZEK *et alii* 2011–2012, pp. 107–109; FABER 1992.

⁵⁸ DYCZEK *et alii* 2010, p. 125.

⁵⁹ *De administrando imperio*, 34. Cf. Constantine VII Porphyrogennetos, *De administrando imperio*, ed. G. MORAVCSIK, R. J. H. JENKINS, Dumbarton Oaks 1967, pp. 162–163.

The term used for those cities is *κάστρα οικούμενα*, which might well imply a fortress, but not necessarily so. However, Constantine explains also:

Terbounia in the tongue of the Slavs means ‘strong place’ [*ισχυρὸς τόπος*]; for this country has many strong defences [*ὄχυράματα*].⁶⁰

The earliest direct evidence of the fortress in Risan we have courtesy of a charter by Alphonso V (1396–1458), king of Aragon and Naples from 1444, concerning the land partitioning from 1373 of the domain of Nikola Altomanović, a Serbian feudal lord, the old political core of the Serbian heartland was shattered and the feudal Bosnian state considerably extended to the east.⁶¹ The document written in Italian and dated Castelnuovo, February 19th 1444 is essentially a treaty agreement between King Alphonso and count (*Herzog/herceg*) Stjepan of Bosnia in which the guaranteed possessions of the count are stated by name and the conditions for a mutual support and compensation are noted.⁶² There, we read: *Rixā appresso de Cataro ala marina castello con lo contato sta la via de Albania appresso della dita terra de Cataro*. Slightly later, in 1448, the fortress is mentioned again in another charter, this time authorized by Friedrich III (1415–1493) as *castrum Rijssen*. And in a second charter by Alphonse V, this time from 1454 and in Latin, we read: *civitate Risan cum castris et pertinentiis suis*.⁶³

A slightly more detailed account on the castle was written by Marino Sanuto (also Sanudo) (1466–1536), a Venetian historian and son of the Venetian senator Leonardo Sanuto. In 1483 he accompanied his cousin on a tour through Istria and the mainland provinces, and wrote a detailed account of his experiences in his diary. He discusses the salt trade in Risan, but also mentions an event that took place years later, in 1510, when lightning struck a tower of the fortress, igniting the gunpowder within and resulting in the destruction of a tower and part of the walls:

Moreover, on one of these days, lightning struck one of the towers of the castle in Risan. Stored there were about 30 loads of gunpowder, and a part of the wall as well as two houses with inhabitants inside, were destroyed. From this, everything burned down, as well as 15 people [were killed].⁶⁴

There is an interesting interpretational sideline to this story, taking into account the famous Roman inscription from Lambaesis suggesting Risan as the seat of the god Medauros.⁶⁵ Due to the semi-hermetic nature of the Bay of Kotor, thunderstorms can be very intense in the area, when the clouds get stuck between sea and mountains. This concerns the entire Dalmatian coast to a degree, so numerous events of lightning and thunderstorms have been reported throughout history.⁶⁶ Whether or not there was a sanctuary for Medauros on the hilltop remains open to speculation, but — firmly remaining on hypothetical territory — perhaps the violent and persistent nature of these thunderstorms, along with the phenomena of the Sopot and Spila caves bursting with water and thick clouds engulfing the hilltop [Fig. 6], described so eloquently by Bergmann and Petter above, gave rise to the belief that the lightning wielding god Medauros indeed dwelt in Risan/Rhizinium. It appears as though the Turkish traveler and cartographer Piri Reis depicted the castle of Risan, albeit under a different name, on a map in his *Kitab-ı Bahriye* from 1521–1525.⁶⁷

⁶⁰ *De administrando imperio*, 163. I am thankful to professor Adam Lajtar for his input on this matter. K. Jireček here sees sufficient proof to call Risan a castle (Burg): JIREČEK 1879, pp. 22–23.

⁶¹ LUKOVIĆ 2004.

⁶² THALLÓCZY 1914, pp. 359–360.

⁶³ LUKOVIĆ 2004, pp. 116–117.

⁶⁴ M. Sanudo, *I diarii*, X, Venice 1883, p. 208.

⁶⁵ Probably the single most famous artifact about, but not from Risan. First published by T. Mommsen, it was commented on by Evans and Jelčić (see below). Recently, the text of the inscription has been edited anew, along with a commentary of considerable proportions: DYCZEK *et alii* 2010; 2014.

⁶⁶ KUŽIĆ 2012, on Risan: no. 19.

⁶⁷ SÖNMEZ *et alii*.



Fig. 6. The Gradina covered in clouds (photo M. Lemke, 2014)

Next in line, we have the note of Marco Guazzo from 1553, as part of his *Historie di tutte le cose degni di memoria: Cio fatto Barbarossa lascianfo in detto Castelnouo V lan Bassa con buona guardia & a gli undeci, & cio fatto Risano castello fortissimo sopra d'un monte posto*.⁶⁸ While the inhabitants of Risan probably were less than happy with the notorious corsair dropping by, such changes in the ownership of towns are lucky occurrences for the historian, as they were likely to be noted in the chronicles, as in this case.

Moving on, the next source chronologically is a quite detailed description of Turkish Risan by Piri Reis's fellow countryman Evliya Çelebi from 1661.⁶⁹ Evliya Çelebi (1611–1682) was a Turkish traveler who journeyed through the territory of the Ottoman Empire and neighboring lands over a period of forty years. The collection of notes from all of his travels formed a ten-volume work called the *Seyahatname* (“Book of Travels”). Although many of the descriptions in this book were written in an exaggerated manner or were plainly inventive fiction or third-source misinterpretation, his notes are widely accepted as a useful guide to the cultural aspects and lifestyle of seventeenth-century Ottoman Empire.⁷⁰ The description of the fortress is part of an overall note on Risan

⁶⁸ In the summer of 1539, Hayreddin Barbarossa, sailing the Adriatic, claimed the islands of Skiathos, Skyros, Andros and Serifos and captured Castelnouvo (Herceg Novi) from the Spanish, who in turn had taken the town from the Turks after the battle of Preveza. The admiral-pirate also claimed Risan and assaulted the Venetian fortress of Cattaro; cf. BOROZAN, LJUBURIĆ 1975, pp. 46–50.

⁶⁹ The translation presented here was done by Robert Dankoff, after ms. Revan 1457, fols. 158a–b; edition:

Evliya Çelebi *Seyahatnamesi* 6. Kitap, ed. S. A. KAHRAMAN, Y. DAĞLI, Istanbul 2002, pp. 275–276. I am very grateful to professor Dankoff for translating the passage on Risan from Çelebi's work and his valuable comments, as well as his permission to quote these here. I also express my gratitude to Dr. Robert Elsie for his input on Evliya Çelebi.

⁷⁰ Cf. TURKOVÁ 1965; DANKOFF, ELSIE 2000.

from Volume 6 of the *Seyahatname* at 158a [all comments in brackets by R. Dankoff]. There, Çelebi says:

Risna is six hours from the tower of Veriga Strait,⁷¹ which is just north of Kotor. Risna was founded by the kings of Hersek [Herzegovina] and was conquered from the Venetians by the ancestors of Risnalı Yusuf Bey during the reign of Mehmed the Conqueror⁷² and was then awarded to them as a possession (*temlik*).

Çelebi then describes the citadel on Gradina:

Inside the fortress are the Friday Mosque of Sultan Bayezid, also an armory, grain silos and water cisterns. During the time of the infidels [i.e., before the Ottoman conquest] it was a gunpowder fortress,⁷³ because fine white and sharp saltpeter⁷⁴ is found in the mountains. The fortress is rather far from the sea, built on the bare rocks. It is small but fiery [a playful allusion to the gunpowder], a lovely fortification, built of stone all around, and with no point on any side that looms over it. All four sides have sturdy towers, but there is no place for a moat, since every side is a rocky precipice. There is a single gate, facing north. Inside the fortification are 150 small houses, roofed with slate and without courtyards or gardens. It has a garrison of 200 ghazi soldiers, but no castle warden. In the lower suburb [*varoš* — the extramural settlement below the fortress] and in the fortress there are a total of 2000 men.

The original entrance to the citadel is not preserved, but Çelebi's remark that the only gate of the fortress faced north seems plausible, as there is a moderately steep path leading up to the hilltop from that side. Moreover, the remains of a number of (storage?) buildings outside the fortified walls, lying on the far side of the mountain ridge connecting the Gradina with the Površnica hill to the north could be accessed through this gate and a narrow path running past the saddle ridge. A cistern and the remains of further buildings can still be seen on the slopes. From the same time as Çelebi's remarks comes the first of two available drawings depicting Risan and the fortress, by an unknown author⁷⁵ [Fig. 7], as well as Coronelli's, mentioned above [Fig. 4]. Taking a closer look at the anonymous picture [Fig. 8], we can see several details confirming Çelebi's words: a mosque (the "Friday Mosque of Sultan Bayezid"?), towers on all sides and no entrance on the southern or eastern side, which makes an entrance from the north even more likely. The drawing also shows the Poljice gorge, to the west of the castle.

⁷¹ The Verige or *Le Catene* strait is the narrowest point of the *Bocche*, separating the bays of Kotor and Tivat. The name roots in a semi-legendary account, which has it that once chains was installed here in 1381 by King Louis I of Hungary during his war against the Venetian Republic, to block the entrance for enemy ships; cf. JACKSON 1887, pp. 31–32; MUSIĆ, ULČAR 2011, pp. 135–137.

⁷² The effective reign of Mehmed II lasted from 1451 to his death in 1481, while the Ottomans claimed Risan in 1482. The notion that Risan was taken from the Venetians is interesting, since the proposed exchange of possessions between Herceg Stjepan and the *Serenissima* never happened, due to Stjepan's death in 1466 (see above).

⁷³ Çelebi uses the term "gunpowder fortress" (*bârûthâne kal'ası* / *kal'a-i bârûdhâne*) a number of times in his vast work [R. Dankoff]. It appears as though he thus describes places, where gunpowder was produced and stored.

⁷⁴ I have found no other source mentioning the abundance of saltpeter in the vicinity of Risan. However, the event described by M. Sanuto seems to confirm the storage of large amounts of gunpowder in the fortress, albeit in Turkish times.

⁷⁵ The drawing is part of a set of maps and pictures (*Carte topografiche, piante di città e fortezze, disegni di battaglie della guerra di Candia [1645–1669]*, Ms.It.VII.200, tav. 36) concerning the Cretan war, stored in the Marciana library in Venice. The original comment merely says: "Risano, taken 1648 by the Venetians".



Fig. 7. Depiction of Risan from *Carte topografiche, piante di città e fortezze, disegni di battaglie della guerra di Candia (1645–1669)* (Biblioteca Nazionale Marciana, Ms.It.VII.200, tav. 36)



Fig. 8. Depiction of Risan from *Carte topografiche...*, closeup

Looking at the preserved masonry, it is obvious that the remaining walls represent a number of construction phases. Generally, a phase of very clean cut, ashlar masonry stands out, which was later modified or repaired by placing new, crude walls in between existing ones. It is far too early to give details about the dating or the function of the structures, maybe future fieldwork will shed some light on this matter,⁷⁶ even though it is conceivable, that the hill itself was damaged during one of the numerous earthquakes. Çelebi's description seems to be supported by the remains of rather small towers on each corner of a wall surrounding the topmost plateau, as well as a second defensive wall encircling the lower terrace of the fortress in the south [Fig. 9]. The total surface of the citadel *intra muros* does not exceed 1400 sqm. but there was abundant space available on the slopes of this hill, where a cistern can be seen to this day and on the far side of the ridge.⁷⁷



Fig. 9. Gradina, aerial photograph (photo M. Pisz, S. Rzeźnik, 2013)

The view of the general plan is hindered by the most prominent object standing, the base of a tower in the very middle of the highest platform. In 1941, the Italian army built an outlook on the hilltop⁷⁸ in the form of a round tower with an attached rectangular room, making use of the abundant scrap stone material, strengthened by concrete elements. It has yet to be investigated, if and to what extent the Italians incorporated any existing ruins in their plan. There couldn't have been very substantial foundations however, as there are no traces of this structure visible on photographs taken before World War II.⁷⁹ On the other hand, Bergmann observed some preserved walls with "battlements" in 1828. It is conceivable that the Italians themselves destroyed this look-out in 1943, when they also blew up their headquarters building at Stara Slanica in the town below, upon their retreat.⁸⁰

⁷⁶ Preliminary remarks on the structures and finds: KOWAL 2014.

⁷⁷ DYCZEK *et alii* 2007, p. 135.

⁷⁸ Pers. comm. Božidar Čučković, a local inhabitant, who remembers the events from World War II.

⁷⁹ Various postcards depicting Risan: MUSIĆ, ULČAR 2011, for Gradina: esp. p. 32.

⁸⁰ DROBNJAKOVIĆ 2003, pp. 229–230 & 293–307.

Thus, we also have established pieces of the chronological framework for the Gradina fortress, even though it is far from satisfying yet. The citadel was built before 1444, likely by the Serbs, maybe as early as in the tenth century, certainly before the time when Risan belonged to the Kingdom of Bosnia. It was taken over and adapted by the Turks in 1482, then shortly claimed by the Venetians in 1538, and again in 1648 and apparently finally destroyed by them in 1649,⁸¹ possibly not to be repaired again.

Much later, during the surge of Krivošije, the Austrians built a whole array of fortresses and roads in the mountains above Risan in 1881.⁸² The revolt had necessitated the mobilization of a whole army corps. The insurgents lived on the slopes of the inaccessible mountains (the area is appropriately dubbed Kameno More, “sea of stones”), and the troops had to make the mountain paths into roads practicable for artillery. To prevent a recurrence of the trouble, forts and block-houses were built.⁸³ Two fortified posts were built on the Površnica, directly above the Gradina hill. There are no indications, however, that Gradina itself was incorporated in any new fortifications before the Italian built their post described above.

The last significant historic events on Gradina took place in late 1944:

On October 30th, a firefight between Tito’s partisans and Wehrmacht soldiers ensued on the hilltop, after a group of 4 soldiers had been sent there.

According to eye witness B. Čučković, at least one soldier was killed then, a fact confirmed in July 2007, when the skeleton of a German soldier was discovered in a shallow pit close to the central tower. The remains were subsequently turned over to the German embassy in Montenegro, which ordered further investigations based on the identification tag found with the corpse. The soldier had been a senior corporal (*Obergefreiter*) of the *451. Infanterie Ersatzbataillon*; he had been 32 years old at the time of his death and was eventually buried at the German military cemetery in Split.

Carine

Summing up the “new” information on Carine, the area primarily investigated archaeologically in Risan, one last scholar of the nineteenth century deserves being mentioned: Josip Jelčić (also: Gelčić, Gjelčić, Gelcich, 1849–1925), was a Croatian historian. Born in Kotor, he became a professor at the nautical schools in Dubrovnik (1876–1903) and Trieste (1909); he also administered the historic archive of Dubrovnik. His research was focused on the history of Dubrovnik, Dalmatia and the Bay of Kotor. Together with L. Thallóczy he edited and published the *Diplomatarium relationum reipublicae Ragusinae cum regno Hungariae* (Budapest 1887). His main works were published in Italian: *Memorie storiche sulle Bocche di Cattaro* (1879), *Delle istituzioni marittime e sanitarie della repubblica Ragusa* (1882) and *La Zedda e la dinastia dei Balšidi: studi storici documentati* (1899).

Even though Jelčić visited Risan and Carine personally together with H. Cons,⁸⁴ he did not give a detailed description of the site. However it is to him that we owe the first elaborate comment

⁸¹ As suggested by F. Petter (above), for instance. In Coronelli’s text we read that the fortress was handed over without a fight, so the destruction would have been a deliberate obliteration by the Venetians and not collateral damage during warfare. As suggested by Drobnjaković (DROBNJAKOVIĆ 2003, p. 75), one should also consider earthquakes as a possible reason for the destruction.

⁸² DROBNJAKOVIĆ 2003, pp. 147–156; FRANCIS 1883; PERLES (ed.) 1870.

⁸³ HAMILTON JACKSON 1908, p. 376

⁸⁴ CONS 1882, p. 250.

on the famous Medaurus inscription, published by Mommsen⁸⁵ and mentioned *en passant* by Evans.⁸⁶ On this occasion Jelčić also mentions the remains of a temple found at Carine, which “soon disappeared by action of the shovel”.⁸⁷

Jelčić gives a few more details about discoveries at Carine in another contribution, focused mostly on coins. There he writes:

To the north of Risano (formerly Rhizinium and Rhizon) there is an area called Zarine. *Zar* is a Slavic word meaning emperor, whence comes *Tsarina* = property of the Emperor. Tradition has it that the land earned this name from Queen Teuta (*zariza*) of Illyria. In the first days of last May, the owner of the land, preparing his field agriculturally, came upon a lot of stones confirming the existence of some important building.⁸⁸

Jelčić goes on to describe numerous artifacts found at Carine and notices that the landowners removed stones from the site for construction purposes:

At the ground Zarine are seen the ruins of a building, the surface of two square fathoms, and the height of two fathoms, with two compartments, in the shape of an ancient tomb.⁸⁹

This object has been described on a different occasion also, but no traces can be seen today:

At Risano are the remains of a building vaulted in two compartments, like an ancient tomb, and a few stones. Some thirty sarcophagi found there in 1870 raised hopes of the discovery of a necropolis but these hopes were disappointed.⁹⁰

Interestingly, Jelčić also points out that the political authorities of Risan ignored the call for conservation of these archaeological objects, thus becoming the first to show the qualities and responsibility of heritage management regarding the site of Risan.

Concerning Carine, the cadastral map of Risan⁹¹ [Figs. 10 & 11], elaborated as part of the Franciscan Cadaster in 1838, gives us the big picture for the situation map drawn up by H. Richlý. This cadaster was the first complete Austrian *Liegenschaftskataster* (register of ground properties). Named after Emperor Franz I, it was established between 1810–1870 in order to create a basis for tax measures as opposed to the *Franzische Landesaufnahme*, a mapping campaign carried out at the same time, but for military reasons mostly. However, this was not the first attempt at measuring the lands of Dalmatia: in the short period of their control over the territory, the French elaborated some topographic maps of the region,⁹² while a century earlier the Venetians had created a cadaster-like register stating the properties and professions of the inhabitants of various towns in the *Bocche* region, including Risano.⁹³

Richlý's contribution includes certainly the most detailed description of Carine before the construction of the sawmill, but since it has been thoroughly analyzed elsewhere,⁹⁴ so we will not go into detail here. As for the development of the town, we can see the quarter Stara Slanica, as a remnant of the trade centre for salt from the sixteenth century, when the Venetians traded salt to Risan, paying tax to the Turks.⁹⁵

⁸⁵ T. MOMMSEN, [in:] *CIL* VIII (1881), 2581.

⁸⁶ EVANS 1883, pp. 40–42.

⁸⁷ GELCICH 1879, p. 12.

⁸⁸ GELCICH 1868, p. 191.

⁸⁹ GELCICH 1868, p. 192.

⁹⁰ HAMILTON JACKSON 1908, p. 371. For early excavations at Risan, see also EVANS 1883.

⁹¹ I wish to express my gratitude to Dr. Domagoj Tončinić for his help in acquiring this map.

⁹² ALTIĆ 2012.

⁹³ RADOJIČIĆ 2008.

⁹⁴ KOWAL 2011.

⁹⁵ BOROZAN, LJUBURIĆ 1975, p. 46; M. Sanudo, *Diarii*, V, p. 244.

It is certainly noteworthy, that the sources cited above differ categorically when it comes to the visibility of ancient ruins at Carine. De Traux states in 1808 that antiquities or other ruins are not to be found, while Bergmann noticed “a ruined palace, 6 pillars of a roman bridge and a mosaic floor” in 1826. Bergmann also mentions the picturesque old ruined castle, including the “battlements of the towers”. While this last detail might be some poetic exaggeration, we learn that the remains on Gradina were significantly better preserved in the early nineteenth century than today. It is conceivable, that — unlike Bergmann or Violla (in 1820, see annex 1) — de Traux did not see the Cyclopean walls in the riverbed (because the water level was too high), but he certainly would have noticed the mosaics, which are the most attractive remnants of Roman Risan.⁹⁶ We can therefore deduce that the mosaics at Carine were first brought to light between 1808 and 1820. Furthermore, we gain a very clear date for the discovery of the other location with mosaics, nowadays called the “Hypnos villa”, not far from the main church of the town. Petter contemplates their beauty in his description from 1857, but he actually mentions them in an earlier text,⁹⁷ where he says that the mosaic had been recently uncovered. Taking into account the usual delay in publishing, ca. 1840 seems an appropriate estimate.

The “old bridge” [Fig. 12] is another example of some discord in the sources. The foundations, possibly incorporating Cyclopean walls in the riverbed may have appeared antique to many, but the known facts about the layout of the ancient town do not support this theory. On the contrary, in Antiquity the existence of a different bridge some 40 m to the northeast, where a gate in the Cyclopean wall of the lower town opens up on the river, makes far more sense.⁹⁸ Nowadays, the old bridge seems almost displaced between two quite barren areas (Carine and Džamija). However, bearing in mind the fact that in Turkish times the centre of Risan lay around the town mosque (Serb. *džamija*, from Turk. *cami*) on the left bank of the river,⁹⁹ just like depicted in figure 6, it seems plausible that the bridge was built then, to be destroyed by an earthquake in 1667,¹⁰⁰ in which case Max de Traux was perfectly right with his spicy footnote remark. The bridge is described by both de Traux (1808) and von Bergmann (1826) as laying in ruins, while it is shown intact on the cadastral map from 1838 [Fig. 11] and as such it is mentioned by Richly in 1898,¹⁰¹ so it was apparently repaired in the meantime.



Fig. 12. The old bridge in Risan (photo M. Lemke, 2009)

⁹⁶ DYCZEK 2010; 2009a.

⁹⁷ PETTER 1841, IV, p. 16. He also mentions the mosaic floor at Carine, which seems to be aesthetically inferior to him.

⁹⁸ Cf. DYCZEK *et alii* 2007, p. 129.

⁹⁹ DROBNJAKOVIĆ 2003, p. 117.

¹⁰⁰ DROBNJAKOVIĆ 2003, pp. 87–89.

¹⁰¹ RICHLY 1898, p. 146.

We have also learned of the impressive amount of permutations the name of the town has gone through over the centuries. Arthur Evans suggested, bearing in mind the rivers Rižana in modern Slovenia and Erzen/Arzenta near Durrës, Albania, that the name derives from an Illyrian term meaning river.¹⁰² The ancient forms Rhizon, Risinium, Rhizinium can be completed with the following: Risano, Risna, Rijssen, Rhisena, Rixā — the list grows long. The same can be said about some topographical features of the area, whose alternative historic names we have noticed.

The reoccurring topic of the Roman “costume” of the Risanians in the above sources is rather an anecdotal oddity, begun when Max de Traux published his interpretation on some local folklore he was told. Contemporary images — Petter presents a beautiful picture in his work, there also exist historic photos — show that the Risanian national costumes in no way resemble ancient Roman garments.¹⁰³

Ultimately, our study of sources on Risan gives proof to a general rule, expressed by Kolendo years ago: “...the descriptions of travelers are very important, as they often saw the antiquities of the country in a far better state than they are today. This concerns all the former territories of European Turkey, where the local population hardly cared for its own history, while the access for scholars from Western Europe was very limited”.¹⁰⁴

Annex 1

Jacques Louis Vialla, description of Risan from *Voyage historique et politique au Monténégro*, Paris 1820

Jacques Louis Vialla (Vialla de Sommières), 1764–1849, was a French colonel under Napoleon.¹⁰⁵ He became commander of the French forces in Dalmatia, with a seat in Herceg Novi in 1808 and later interim commander in Kotor in 1810. He was in charge of defending the Bay of Kotor. He became governor of the province Cattaro in April 1811. Later, he was stationed as chief of staff of the 2nd division of the Illyrian army in Ragusa (Dubrovnik) in 1812, and received the task to defend the island of Korčula. His military career then lead him away from Dalmatian territory.

He published his *Voyage philosophique et politique au Monténégro*, in two volumes with a map and illustrations. This very vivid report on Montenegro includes an interesting and rather long passage on Risan.¹⁰⁶

Travels in Montenegro, 96–97

During the thunderstorms, a noted well at Cattaro, usually filled with stones thrown in by children, is at once cleared of its burden by the water, which springs up two or three feet above the brim. I have myself at those times thrown into the water stones from one gradually up to ten pounds in weight, but not one ever sunk three feet under the surface; at particular times, such is the force of

¹⁰² “The name Risano, applied to two similar torrents on the East Adriatic coast, one in Istria, near Trieste, the other near Durazzo, leads us to infer that Rhizon or Risinium was an aboriginal Illyrian river-name, which, in the present case, attached itself to the town past which the torrent ran” (EVANS 1883, p. 40).

¹⁰³ PETTER 1841, IV, pp. 14–15; MUSIĆ, ULČAR 2011, p. 164; PETERMANN 1899, p. 542.

¹⁰⁴ KOLENDO, LEMKE 2006, p. 73 (translated by M. Lemke).

¹⁰⁵ CORBET 1961.

¹⁰⁶ The following text stems from the abridged English edition of his work, *Travels in Montenegro*, published in London in 1820, i.e. the same year as the French original. Unfortunately, the name of the translator is not stated.

the spring that they never enter the water at all. These curious phenomena have led persons to imagine the ground on which Cattaro is built to be hollow, and that therefore the town is daily exposed to be swallowed up. To strengthen this opinion, the example of Risano, (a town fifteen miles to the northward of Cattaro) formerly Rhizinium, from which the bay was called Sinus Rhizinius, is adduced. Rhizinium, situated on the north-west of the present monastery of Our Lady, was many years ago overwhelmed by an earthquake. The surviving inhabitants withdrew to Teodo, a fertile tract, the Eden of the province of Cattaro, and there constructed a new city. Rhizinium was the residence of the celebrated Queen Teuta, widow of Argon [sic.], King of Illyricum, the same lady who, whilst to defend herself against attacks at sea, she extended a chain across one of the narrows of the gulf of Cattaro, still retaining the name delle catene, (pass of the chains), encouraged her own subjects to usher their piratical expeditions to an extraordinary extent. The same lady, in the year of Rome 523, caused the Roman ambassadors, Caius and Lucius Coruncanius, to be assassinated for the boldness with which Caius had discharged the duty of his mission, in warning the queen against her unlawful enterprises.

Of the ancient Rhizinium, considerable relics are still to be seen: vast remains of an antique fortress, on the side of the hill, seem to show that it was intended to protect a city of importance, or to the abode of some person of high distinction, perhaps of the sovereigns of Illyricum, of Teuta herself. The general opinion is that Rhizinium was engulfed by an earthquake; but had that been the case, some indenture of the shore would have indicated its position, which is not the fact: nor would the antiquities still discoverable on the ground have now been in existence. It is, therefore, most probable that the city was not overthrown by an earthquake, or by an eruption of the sea, but by some hostile attack, in which it was burnt and destroyed. In support of this notion, it may be mentioned that, among the ruins may be seen a portion of beautiful mosaic, about thirty-three feet in length, by ten feet in breadth; but the extremities are deeply covered with rubbish. The design is complicated, and the colours, when the pavement is wet are very distinguishable. It may have belonged to a gallery in the palace, of which one side has been built parallel to the course of the torrent of Risano.

Learning that vases, containing a very fine dust, had been found by a peasant labouring in his vineyard, I repaired thither with some friends acquainted with such matters. We saw many fragments of funerary urns, but none entire: nor were our own researches more successful. The urns were all of the form commonly termed Etruscan, of very coarse clay, incrustated with rough reddish grains of sand. The handles were pairs of serpents; the tails ending at a buffalo's head, having an elliptic ring in the muzzle. In the same spot were two funeral stones: a few Roman characters alone remain of the inscriptions, but unintelligible. Other evidences of Roman occupation of the country, are the vestiges of roads in various parts, in some places in tolerable preservation, but fast hastening to destruction, unobserved, unknown by men capable of tracing them for any useful purpose, to ascertain the positions of places once of importance, in a region now in the lowest station of rudeness and ignorance. In two spots on the shore of Risano are visible under the sea the remains of an antique monument, which, from their present position, must have been overthrown by an earthquake, or by the undermining of the sea. Such may doubtless have been the fate of Rhizinium; but to the present Cattaro nothing of the kind can possibly happen; for Cattaro is evidently founded on the solid rock, a portion of the grand range of mountains, of which the region of Montenegro is entirely composed.

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Streszczenie

Nowe wiadomości w starych tekstach. Odkurzanie źródeł pisanych na temat starożytnego i średniowiecznego Risan

W przedstawionym opracowaniu zawarta jest analiza czterech tekstów i dwóch map historycznych w odniesieniu do archeologii miasta Risan: są to opisy miasta autorstwa Maximiliana de Traux (1808), Benjamina von Bergmann (1826) i Franza Pettera (1857) oraz krótka notatka zaopatrzona w rysunek miasta, opublikowana przez Vincenzo Coronelliego (1687). Pierwszą z dwóch map sporządził Giovanni Grimani, przedstawia ona Zatokę Kotorską (zwaną też *Bocche* lub Boką) po wojnie peloponeskiej (*La guerra di Morea*, 1684–1699), autorem drugiej mapy byli zaś geodeci austriaccy, pracujący nad Katastrem Franciszkańskim.

W drugiej części opracowania źródła te zostały skonfrontowane z dotychczasowym stanem wiedzy o archeologii i historii miasta Risan. W szczególności omówiono dwa główne stanowiska archeologiczne wewnątrz miasta: Carine, na prawym brzegu lokalnej rzeki, gdzie leżała część dolnego miasta antycznego, oraz Gradina, czyli lokalny zamek na niewielkim wzgórzu nad miastem. Wykopaliska prowadzone przez polsko-czarnogórską ekipę od 2001 r. wydobyły na światło dzienne już wiele ciekawych obiektów i zabytków, jednak przedstawione źródła wzbogacają naszą wiedzę o informacje dotyczące historii badań w XIX w., kiedy zaczęto studiować po raz pierwszy ten obszar w sposób amatorski. Risański akropol, Gradina, stanowi w dalszym ciągu zagadkę historyczną, ponieważ zniszczenia i przebudowania dwudziestowieczne bardzo utrudniają rekonstrukcję pierwotnego wyglądu zamku oraz poznanie jego historii. I dla tego zagadnienia jednak przedstawione tutaj źródła okazały się bardzo użyteczne, gdyż pozwoliły ustalić ramową chronologię tej fortyfikacji oraz interesujące szczegóły jej funkcjonowania.

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GRAFFITI NA CERAMICE STOŁOWEJ Z RISAN (RHIZON, RISINIUM)*

Abstract: This contribution presents the epigraphic and ceramological analysis of thirteen fragments of black gloss pottery found during fieldwork at Risan. The vessels are dated from the fourth to the second century BC. They have been divided into three basic groups. The first includes Gnathia-style pottery from Apulia, the second pottery made in workshops on the eastern Adriatic (e.g. Epidamnus or Apollonia), and the third local vessels made in workshops around the Bay of Kotor. Graffiti on the pottery in question occupied relatively flat surfaces. Among the thirteen analyzed finds in eleven cases the inscription was etched on the bottom, in one case on the inside of a plate, and in another on the external wall of a bowl. Usually the graffiti consisted of a text, although in three cases it is hard to establish its character; it might be letters or graphic symbols. All graffiti should probably be interpreted as owner's marks. In the non-textual instances the "signature" was a graphic symbol perceived by the owner as his mark. All the textual graffiti are apparently abridged versions of the owners' names written down without the last letters.

Key words: Rhizon/Risinium, Greek inscriptions, graffiti, Gnathia, black gloss pottery

Od 2001 roku ekipa archeologów z Ośrodka Badań nad Antykiem Europy Południowo-Wschodniej Uniwersytetu Warszawskiego pod kierownictwem profesora Piotra Dyczka prowadzi badania wykopaliskowe w Risan (starożytne Rhizon, Risinium), w północno-wschodniej części Boki Kotor-skiej (Czarnogóra). Prace archeologiczne prowadzone są m. in. na obszarze Carine, leżącym na północnych obrzeżach współczesnego miasta. Badania koncentrują się w obrębie murów miejskich, gdzie odsłonięto szereg pomieszczeń zlokalizowanych po obu stronach głównej drogi wjazdowej do antycznego miasta.¹ Po jednej stronie były to ciągi prostokątnych magazynów, w których odkryto pozostałości po amforach i korkach do nich. W innej części osady znajdowały się m. in. wielo-pomieszczeniowe domy. Odkryto w nich szereg wnętrz różniących się funkcjami. Odsłonięto zarówno pomieszczenia gospodarcze, jak i prywatne. Pomieszczenia prywatne można było rozpoznąć po takich znaleziskach jak fragmenty luksusowej ceramiki stołowej i toaletowej. Pośród resztek naczyń znaleziono duże fragmenty pucharów, czarek, talerzy, misek, pojemników na perfumy i mazidła.

Zdecydowana większość tych naczyń należy do kategorii ceramiki czarnopokostowanej (*black gloss pottery*), datowanej na okres od IV do II w. p.n.e. Można je podzielić na trzy podstawowe grupy. Pierwszą grupę stanowią naczynia w stylu Gnathia, importowane z warsztatów apulijskich.

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¹ Więcej o badaniach wykopaliskowych, zob. DYCZEK *et alii* 2004; DYCZEK *et alii* 2007; DYCZEK *et alii* 2011–2012.

Drugą grupę tworzą naczynia wyprodukowane w warsztatach wschodniego wybrzeża Adriatyku (głównie Apollonia i Epidamnos), będące naśladownictwami naczyń Gnathia. Do trzeciej grupy należą naczynia lokalne, wyprodukowane w warsztatach z terenów Boki Kotorskiej. Poszczególne grupy dają się wydzielić głównie na podstawie gliny. Dodatkowym wyróżnikiem może być *ware* (wyrób ceramiczny), rozmiar, kolor, jakość wykonania, obecność dekoracji lub jej brak; różne odcienie pokostu są elementem odróżniającym produkcję lokalną od importowanej — głównie z terenów Apulii.

Ceramika stołowa odnajdywana w Risan nosi często dekorację wykonaną techniką stemplowania, rycia lub malowania. Na dnach misek, talerzy i talerzy rybnych występują dekoracje w postaci stemplowanych palmet (grupy trzech lub czterech palmet umieszczonych promieniście wokół dna). Zdarzają się także odciski rozet umieszczone promieniście wokół dna naczynia, a także rzędy ukośnych kresek wokół den wykonanych ruletką. Na talerzach występują często różne kombinacje stempli: centralnie na dnie naczynia znajduje się rozeta, zaś wokół niej rozchodzą się promieniście palmety, pomiędzy którymi znajdują się wykonane ruletką promieniste rzędy dekorowane nacięciami. Natomiast skyfossy dekorowane są od zewnątrz gęstym wianuszkiem promieni rozchodzących się od podstawy czaszy ku górze, w kierunku wylewu, wykonanych techniką rycia. Część naczyń zdobiona jest motywami barwnymi (głównie odcienie czerwieni i czerni). Przykładowo można tutaj wymienić takie motywy jak: czerwona linia z dwoma rzędami czarnych punktów poniżej i powyżej występująca na szyjce dzbanka, horyzontalny wzór goniących się fal na brzuścach naczyń czy też szereg *ovuli* znajdujący się bezpośrednio pod krawędzią wylewu. Jedno z naczyń zdobią sploty winnej latorośli o trójdzielnym listkach namalowane czerwoną farbą na czarnym tle. Interesującym obiektem jest ozdobna patera, której wnętrze nosi delikatną dekorację reliefową uzupełnioną o malowane czerwoną i żółtą farbą kłosa zboża. Dodatkowo na brzegu naczynia wije się gałązka winnej latorośli o trójdzielnym listkach, rozdzielonych motywem szachownicy.

Szczególnie interesującą grupę zabytków stanowią te, które noszą na sobie wydrapane napisy lub symbole (*graffiti*). Grupa ta obejmuje trzynaście obiektów. Zostały one poddane wstępnie analizie formalnej a następnie badaniu makroskopowemu przy użyciu szkła powiększającego. Pozwoliło to na stwierdzenie, że jedenaście spośród omawianych obiektów (**47/09 W**, **208/10 W**, **216/10 W**, **1/11 W**, **38/11 W**, **81/11 W**, **108/12 W**, **266/12 W**, **390/12 W**, **127/13 W**, **131/13 W**) należy uznać za produkcję warsztatów wschodnioadriatyckich, jeden (**119/13 W**) nosi cechy oryginalnej ceramiki stylu Gnathia, jeden natomiast (**406/10 W**) jest produkcją lokalną.

Omawiane tutaj *graffiti* na naczyniach wykonywane były na powierzchniach relatywnie płaskich. Taką powierzchnię oferowały najczęściej dna naczyń. Wśród analizowanych trzynastu zabytków, w jedenastu przypadkach inskrypcja została wryta na dnie, w jednym przypadku — na ścianie wewnętrznej talerza, zaś w jednym — na brzuścu miski od strony zewnętrznej. Spośród zabytków noszących *graffiti* na dnie, w dziesięciu przypadkach jest to *graffito* na spodniej stronie, a tylko w jednym — wewnątrz naczynia. W większości przypadków *graffiti* mają charakter tekstowy, w trzech przypadkach (**406/10 W**, **1/11 W** i prawdopodobnie także **81/11 W**) określenie ich charakteru przysparza trudności (znaki pisma bądź symbole graficzne). Wszystkie *graffiti* należy najprawdopodobniej interpretować jako podpisy właścicieli. W przypadku *graffiti* nietekstowych rolę „podpisu” pełni jakiś symbol graficzny uznawany przez właściciela za jego indywidualny znak. Wszystkie *graffiti* tekstowe zawierają — jak się zdaje — imiona właścicieli zapisane w postaci skróconej przez odrzucenie liter z końca imienia. W skrajnej postaci odrzuceniu ulegają wszystkie litery poza pierwszą, co daje nam akronim imienia. W intencji piszących imiona stały bądź w mianowniku bądź w dopełniaczu rozumianym jako *genetivus possessoris*.

KATALOG

1. Inw. 47/09 W. Mały talerz. Według klasyfikacji Morela dotyczącej ceramiki kampańskiej, zabytek tego typu datowany jest na rok 290 p.n.e. $\pm$ 30 lat.²

Stan zachowania i opis: Prawie kompletnie zachowany talerz, ukruszenie w górnej partii ścianki i wylewu. Zachowane wszystkie elementy diagnostyczne takie jak dno, wylew i ścianka. Tylko gdzieśgdzie zachowany szorstki czarny firnis. W centralnej części naczynia nieznaczne zagłębienie. Nieznaczny rowek (kryza) pod krawędzią wylewu od strony wewnętrznej naczynia. Gлина tłusta, mażąca się, z dużą domieszką miki. Charakterystyka masy ceramicznej (*Adriatic fabric*) wskazuje, że jest to wyrób któregoś z centrów ceramicznych wschodniego wybrzeża Adriatyku. Kolor gliny wg Munnsell: kolor firnisu: 5 YR/2,5/1, kolor przełomu: 10 YR/8/4.

Kontekst znalezienia: Talerz znaleziono w narożniku pomieszczenia insuli wschodniej, przylegającego od strony północnej do kamiennego korytarza. Zabytek wydobyto z warstwy brunatnej z domieszką ceramiki budowlanej i naczyniowej. Należy go wiązać z przebudową miasta z przełomu III i II w. p.n.e.

Datowanie zabytku: III w. p.n.e.

Inskrypcja: Napis, umieszczony we wnętrzu naczynia, wykonany został za pomocą ostrego narzędzia, być może noża. Rycie jest głębokie, lecz niezbyt staranne. Litera Γ na początku inskrypcji jest nieco niezdarna, jej identyfikacja nie budzi jednak wątpliwości. Końcowe Y składa się z długiej ukośnej kreski biegnącej z góry na dół od lewej do prawej, do której dostawiona jest po prawej stronie u góry krótsza, również ukośna kreska. Taki kształt Y jest raczej niezwykle z punktu widzenia dynamiki pisma; bardziej naturalny otrzymalibyśmy odwracając istniejącą literę (w sposób lustrzany) względem pionowej osi symetrii.

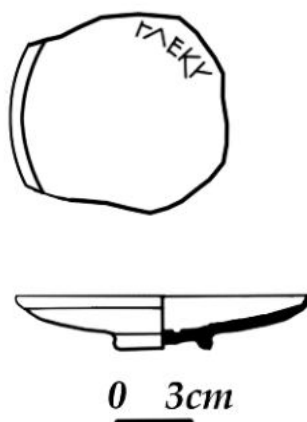
ΓΑΕΚΥ

Inskrypcja w tej postaci jest niezrozumiała: nie znamy żadnego imienia greckiego (ani też żadnego słowa greckiego) zaczynającego się w ten sposób. Powyższa konstatacja skłania nas do przypuszczenia, że inskrypcja została zapisana z błędem. Być może mamy tutaj do czynienia z jakimś imieniem utworzonym od słowa γλυκύς („słodki”), w którym Y uległo błędnej zamianie na E. Zamiana taka zaświadczona jest w pewnej inskrypcji nagrobnej z Aten datowanej na pierwszą połowę IV w. p.n.e. (*IG II² 11996*), w której imię Εὐθυμένης zostało zapisane jako ΕΥΘΕΜΕΝΗΣ.³ Zamiana Y na E (i odwrotnie) zaświadczona jest dość często w źródłach pochodzenia egipskiego datowanych na okres rzymski i późnorzymski, lecz jest tam raczej uprawnionym wariantem ortograficznym powstałym pod wpływem lokalnego substratu językowego a nie mechanicznym błędem.⁴

² MOREL 1981, s. 161, ryc. 44, 2283c1.

³ Por. THREATTE 1980, s. 267.

⁴ Por. GIGNAC 1975, s. 273–275.



Ryc. 1. Inw. 47/09 W — mały talerz (rys. Karolina Wójcik)

2. Inw. 208/10 W. Skyfos. Zabytki tego typu są masowo odnajdywane na wielu stanowiskach w rejonie bałkańskim. Na agorze ateńskiej odnaleziono analogiczny zabytek w tzw. depozycie A, który uformował się około 260 r. p.n.e.⁵ Jeśli idzie o basen Morza Adriatyckiego, należy wymienić bliźniacze do Risan stanowisko w Faros, gdzie znaleziono analogiczny skyfos datowany na IV w. p.n.e. Obecnie zabytek ten znajduje się w zbiorach Muzeum Archeologicznego w Splicie.⁶ Dwa inne skyfossy pochodzące z grobu w Belshi, miejscowości leżącej w okolicach Albanopolis (współczesne Elbasan), znajdują się w zbiorach Muzeum Archeologicznego w Tiranie. Uznawane są za produkcję lokalną i datowane na drugą połowę IV wieku p.n.e. Widniejąca na nich dekoracja malarska (portrety kobiet) sugeruje, że mogą być one imitacją apulijską.⁷ Identyczny w kształcie zabytek odnaleziono także w trakcie wykopalisk w Risan na stanowisku Carine VI w roku 1988. Dubravka Ujes uważa, że skyfos ten należy do grupy „presumbaly late and simplified eastern Adriatic Gnathia-inspired production” i datuje go na późny III i wczesny II w. p.n.e.⁸

Stan zachowania i opis: Zachowała się tylko stopka naczynia z niewielkim fragmentem ścianki brzuśca. Gлина wysokiej jakości, średnia ilość małych płatków miki i mało piroksenu. Firnis miejscami czarny, miejscami czerwony (przebarwienie, korozja). Kolor gliny wg Munnsell: kolor firnisu wierzchniego: 7,5 YR/2,5/1, kolor firnisu spodniego: 2,5 YR/6/6, kolor wypełnienia litery P: 7,5 YR/5/6, kolor kręgu: 7,5 YR/4/3, kolor przełomu: 7,5 YR/8/6.

Kontekst znalezienia: Zabytek znaleziono podczas doczyszczania pomieszczenia przylegającego do korytarza w insuli wschodniej. W pomieszczeniu tym odnaleziono zgrupowanie ciężarków ceramicznych oraz pozostałości amfor grecko-italskich.

Datowanie zabytku: III w. p.n.e.

⁵ THOMPSON 1934, s. 319, tabl. 5: A 26

⁶ MIŠE 2005, s. 32, ryc. 9.2

⁷ D'ANDRIA 1986, s. 50–51, ryc. 6.

⁸ UJES 1999, s. 208, ryc. IV, 9a.

Inskrypcja: Rycie płytkie, niezbyt staranne. Inskrypcja składa się z dwóch części. Część (a) znajduje się w wewnętrznym okręgu stopki, część (b) pomiędzy okręgiem centralnym a okręgiem zewnętrznym, prostopadle w stosunku do części (a). Litera A w części (b) ma kształt dość wąskiej krokiewki przekreślonej poziomą kreską, co jest raczej niespotykane w okresie hellenistycznym.

(a): P()

(b): Aλ()

Interpretacja inskrypcji przysparza trudności ze względu na jej wysoce skrótowy charakter. Hipotetycznie można przyjąć, że część (a) zawierała imię właściciela naczynia, zaś część (b) imię ojca tego człowieka, jednakże inne możliwości również wchodzą w rachubę.



Ryc. 2. Inw. 208/10 W — skyfos (rys. Marta Perlińska)

3. Inw. 216/10 W. Dno płaskiej miski (talerza⁹) czarnofirnisowanej. Analogiczną, kompletnie zachowaną miskę znaleziono w sanktuarium na obrzeżach antycznego Epidamnos. Datowanie materiału ceramicznego wydobytego na tym stanowisku, w tym interesującej nas miski czarnofirnisowanej, rozciąga się od IV w. p.n.e. do połowy III w. p.n.e.¹⁰ Podobną w kształcie miskę odnaleziono również na hellenistycznej nekropoli w Budvie w grobie nr XLII. Autor publikacji materiału z tej nekropoli nie zaproponował datowania zabytku.¹¹ Č. Marković na podstawie wydobytych zabytków datował ostrożnie całą nekropolę na IV–I w. p.n.e.¹²

Stan zachowania i opis: Zachowało się kompletne dno i fragment brzośca. Zewnętrzna powierzchnia żłobkowana. Gлина tłusta, mażąca się, wydłużone pory i pęcherze powietrza. Mało miki i wapienia. W centralnej części wnętrza naczynia nieznaczne zagłębienie. Zewnętrzna i wewnętrzna powierzchnia naczynia niedbale i nierównomiernie pokryta czarnym firnisem, który miejscami prześwituje, odsłaniając masę ceramiczną. Kolor gliny wg MunnSELL: kolor firnisu: 7,5 YR/2,5/1, kolor przełomu: 7,5 YR/8/4.

Kontekst znalezienia: Zabytek został odkryty podczas doczyszczania pomieszczenia przylegającego do korytarza w insuli wschodniej. W pomieszczeniu tym znaleziono również zgrupowanie ciężarków ceramicznych oraz pozostałości amfor grecko-italskich.

⁹ Tak forma ta określana jest w publikacjach albańskich.

¹⁰ MYRTO 1989, tabl. III, ryc. 7.

¹¹ MARKOVIĆ 2012, s. 52, nr 7, ryc. 40: 10.

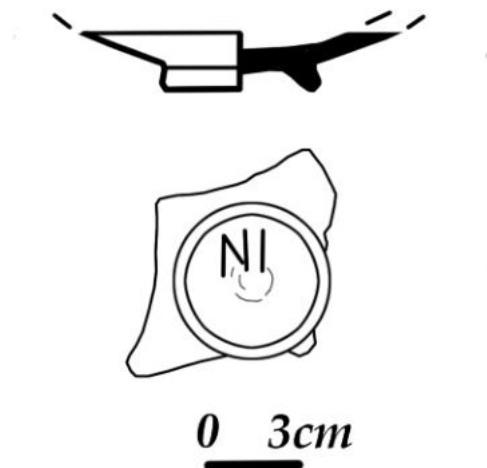
¹² MARKOVIĆ 2012, s. 13.

Datowanie zabytku: III w. p.n.e.

Inskrypcja: Napis wyryty na spodniej części dna, poprzecznie do obwodu stopki. Rycie głębokie lecz niezbyt staranne. Litery wydłużone.

Nt()

Imiona na Nt- są zbyt popularne, aby można było proponować jakiekolwiek rozwinięcie skrótu.



Ryc. 3. Inw. 216/10 W — dno miski (talerza) (rys. Joanna Cholińska)

4. Inw. **406/10 W**. Dno płytkiej miski. Bliźniaczo podobne w kształcie naczynie, datowane na koniec IV i początek III w. p.n.e., pochodzi z Apollonii Iliryjskiej.¹³ Paralełą może być także dno kantarosy odkrytego na nekropoli miasta Borsh i datowanego na drugą połowę III w. p.n.e.¹⁴

Stan zachowania i opis: Zachowało się kompletne dno i dolny fragment brzuśca. Niezbyt dobra jakość wykonania. Spodnia część naczynia przylegająca do podłoża różnej grubości i krzywa. Tylko powierzchnia wewnętrzna miski pokryta czarnym firnisem, dobrze przylegającym do masy ceramicznej. Polewa chropowata, niepołyskująca. Masa ceramiczna koloru jasnoszarego, glina lokalna (Boka Kotorska). Kolor gliny wg MunnSELL: kolor firnisu: 2,5 Y/2,5/1, kolor przełomu: 5 Y/6/1.

Kontekst znalezienia: Zabytek znaleziono w rumowisku amfor z dużą ilością resztek naczyń czarnofirnisowanych wraz z kośćmi zwierząt.

Datowanie zabytku: Połowa III w. p.n.e.

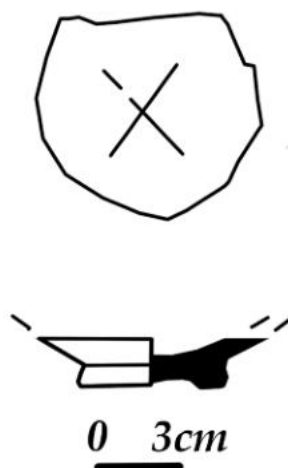
Inskrypcja: Rycie głębokie. Jedna z kresek jest nieciągła.

X

¹³ VREKA 1994, s. 184, tabl. XXI, ryc. 124.

¹⁴ KOČI 1987, s. 145, tabl. V, ryc. 9.

Nie jest jasne, czy mamy do czynienia z literą *chi* czy też ze znakiem nieliterowym, jako że dwie przecinające się ukośnie kreseczki są częstym substytutem podpisu we wszystkich kulturach świata. Jeśli znak występujący na omawianym tutaj zabytku jest grecką literą *chi*, inskrypcja powinna być zaprezentowana w następujący sposób: X().



Ryc. 4. Inw. 406/10 W — dno płytkiej miski (rys. Joanna Cholińska)

5. Inw. 1/11 W. Talerz z zawiniętym wylewem być może typu *rolled rim*. Analogiczne naczynie pochodzi z wykopalisk w Apollonii Iliryskiej i datowane jest na pierwszą połowę III w. p.n.e.¹⁵ Sparkes i Talcott naczynia tego typu datują na około 350 r. p.n.e.,¹⁶ Rotroff na lata 350–300 p.n.e.¹⁷ Identyczny w formie zabytek znaleziony został w sanktuarium na obrzeżach antycznego Epidamnos. Datowanie materiału ceramicznego wydobytego na tym stanowisku, w tym interesującego nas talerza czarnofirnisowanego, rozciąga się od IV w. p.n.e. do połowy III w. p.n.e.¹⁸

Stan zachowania i opis: Zachowało się całe dno wraz z częścią brzuśca i fragmentem wylewu. W części centralnej niewielkie zagłębienie a także jeden rowek wokół. Czarny firnis dobrej jakości, zachowany zarówno po stronie wewnętrznej, jak i zewnętrznej naczynia (lecz nie na spodniej części). Kolor gliny wg Munnsell: kolor firnisu: 7,5 YR/2.5/1, kolor przełomu: 7.5YR/7/6.

Kontekst znalezienia: Zabytek wydobyto z warstwy madów ponad murem konstrukcyjnym z okresu rzymskiego. Najprawdopodobniej należał on do jakiejś warstwy wcześniejszej, lecz przedostał się na wyższy poziom podczas kolejnej przebudowy miasta.

Datowanie: Połowa III w. p.n.e.

Inskrypcja: *Graffito* bardzo płytkie, dodatkowo mocno wytarte podczas mycia. Składa się ono ze znaku +, do którego, w prawej dolnej ćwiartce, dodana jest pionowa kreseczka dotykająca hasty poziomej. Według wszelkiego prawdopodobieństwa *graffito* to nie ma charakteru tekstowego.

¹⁵ VREKA 1994, s. 184, tabl. XXI, ryc. 120.

¹⁶ SPARKES, TALCOTT 1970, s. 147 i 310, tabl. 10, ryc. 1056 i 1057.

¹⁷ ROTROFF 1997, s. 142–145 i s. 309–310, ryc. 46.

¹⁸ MYRTO 1989, tabl. III, ryc. 12.



Ryc. 5. Inw. 1/11 W — talerz (rys. Emilia Przylepa)

6. Inw. 38/11 W. Talerz rybny z wyraźnie obwisłą krawędzią wylewu. Analogiczne *fish-plates* datowane są na przełom III i II w. p.n.e.¹⁹ lub nawet na początek II w. p.n.e. (około roku 175 p.n.e.).²⁰ Na hellenistycznej nekropoli w Budvie podobny kształtem, lecz mniejszy rozmiarami, talerz rybny znaleziono w grobie XXIV.²¹ Znajdźiska z hellenistycznej nekropoli w Budvie nie są szczegółowo opracowane; autor publikacji tego komentarzyska datuje je szeroko na okres pomiędzy IV a I w. p.n.e.²²

Stan zachowania i opis: Talerz zachował się w połowie, lecz obecne są wszystkie elementy diagnostyczne naczynia: dno, wylew, ścianka. Zagłębienie centralne ma prostokątny profil, stopka jest niska. Wyraźnie widoczne są dwa rowki wyżłobione po stronie wewnętrznej wylewu i dwa rowki na krawędzi zagłębienia centralnego. Firnis czarny, matowy dobrze przylega do masy ceramicznej. Kolor gliny wg Munnsell: kolor firnisu: 2 for gley/3/5PB, kolor przełomu: 7,5 YR/8/4.

Kontekst znalezienia: Zabytek znaleziono w kuchni tzw. Domu Aglaosa, w warstwie rumowiska dachu. W tej samej warstwie, w pobliżu znaleziono zgrupowanie kilkudziesięciu gwoździ z brązu zdeponowanych w garnku lokalnej produkcji, a także monety z wizerunkiem króla iliryskiego Ballaiososa.

Datowanie zabytku: 200–175 p.n.e.²³

Inskrypcja: Napis wryty na spodniej części dna, poprzecznie w stosunku do obwodu stopki. Litery wydrapane ostrym narzędziem (nożem?), niezbyt głęboko, ale wyraźnie. Litera A z lekko ukośną poprzeczką, opadającą od strony lewej do prawej.

Αγλ().

¹⁹ MOREL 1981, s. 86, ryc. 3, 1125b 1.

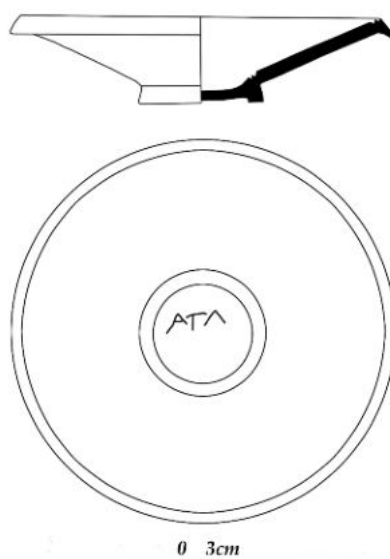
²⁰ ROTROFF 1997, s. 148 i 317, tabl. 65/730, ryc. 51/730.

²¹ MARKOVIĆ 2012, s. 31, nr 18, ryc. 18: 8.

²² MARKOVIĆ 2012, s. 13.

²³ KOWAL 2012, s. 201–202, ryc. 2 na s. 203.

Imiona na Ἀγλ- są dobrze zaświadczone, zaś ich nosicielami mogli być zarówno mężczyźni, jak i kobiety. *Lexicon of Greek Personal Names* odnotowuje 65 takich imion, z których najpopularniejsze to (w nawiasie liczba poświadczeń): Ἀγλαΐδης (6), Ἀγλαΐς (9), Ἀγλαος (24), Ἀγλαοφῶν (8), Ἀγλάων (12), Ἀγλούχορος (6), Ἀγλώδικος (5), Ἀγλώκριτος (6), Ἀγλώμαχος (5), Ἀγλών (6), Ἀγλώνικος (5), Ἀγλωσθένης (7), Ἀγλωφάνης (17), Ἀγλώχαρτος (16). Spośród imion na Ἀγλ- w materiale onomastycznym ze wschodnich wybrzeży Adriatyku występuje wyłącznie Ἀγλωτρόφος. Imię to poświadczone jest raz na wyspie Issa, trzykrotnie natomiast na terytorium plemienia *Hylleis* (*Hylloi*), usytuowanym mniej więcej pomiędzy rzekami Titius (Krka) i Nestus (Cetina).²⁴ Wszystkie cztery poświadczenia datowane są na IV–III w. p.n.e. Co interesujące, imię Ἀγλωτρόφος nie zostało dotychczas odnotowane poza Dalmacją. Powyższe obserwacje każą przypuszczać, że omawiane tutaj *graffito* również odnosi się do człowieka o imieniu Ἀγλωτρόφος. Lansowana przez odkrywców hipoteza, że mamy tutaj do czynienia z człowiekiem o imieniu Ἀγλαος, wydaje się w tej sytuacji mniej prawdopodobna, choć stoi za nią statystyka imion na Ἀγλ-.



Ryc. 6. Inw. 38/11 W — talerz rybny (rys. Magdalena Różycka)

7. Inw. 81/11 W. Talerz rybny. Analogiczne formy — o ile można sądzić na podstawie rysunków i zdjęć — występują w ceramice kampańskiej i datowane są bądź na koniec IV w. p.n.e.,²⁵ bądź na przełom III i II w. p.n.e.²⁶

Stan zachowania i opis: Zachowało się całe dno i fragment brzuśca. Zagłębienie centralne (lekko ukruszone) stosunkowo głębokie, krawędź zagłębienia łagodna, wyżłobiony rowek wokół zagłębienia centralnego, we wnętrzu zagłębienia drobne koncentryczne żłobki. Gлина tłusta, mażąca się, porowata, z dużą ilością miki, piroksenu, wapienia i tłuczni ceramicznego. Firnis nierównomiernie i niedbale rozprowadzony po całej powierzchni naczynia. Powierzchnia chropowata, słabo połyskująca. Zagłębienie centralne koloru ciemnobrązowego, także fragmenty ścianek nieregularnie pokryte firnisem tego samego koloru. Produkcja wschodnioadriatycka, masa ceramiczna podobna do tej, jakiej używano w centrum ceramicznym w Dyrrhachium-Epidamnus. Kolor gliny wg Munsell: kolory firnisu: 2,5 Y/5/8 i 5 YR/2,5/1, kolor przełomu: 10YR/8/3.

²⁴ Odnośnie do referencji, zob. *LGN IIIA*, s.vv.

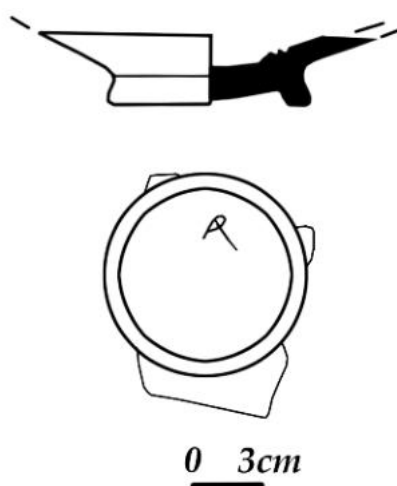
²⁶ MOREL 1981, s. 85, ryc. 2: 1122d: 3.

²⁵ MOREL 1981, s. 84, ryc. 2, 1121d: 2.

Kontekst znalezienia: Zabytek znaleziony w kuchni tzw. „domu Aglaosa”, w warstwie czarnej z węglami i kamieniami, poniżej rumowiska dachówek. W pobliżu odkryto dużą liczbę monet króla Ballaiososa (typ Risan).²⁷

Datowanie zabytku: Przełom III i II w. p.n.e.

Inskrypcja: *Graffito* wyryte na spodniej części dna. Rycie głębokie, lecz niestaranne. Kreska z prawej strony niejednolitej grubości. *Graffito* zawiera tylko jeden znak przypominający otwartą ku dołowi krowkę, w której kreska z lewej strony zakończona jest u góry czymś na kształt pętli. Interpretacja *graffito* nie jest oczywista; nie jest nawet jasne, czy mamy tutaj do czynienia ze znakiem (znakami) pisma, czy też nie. Jeśli ta pierwsza możliwość jest słuszna, to być może należy tutaj widzieć literę A, ewentualnie w ligaturze z P, co sugeruje lekturę: Ap().



Ryc. 7. Inw. 81/11 W — talerz rybny (rys. Emilia Przylepa)

8. Inw. 108/12 W. Miska należąca do grupy naczyń z masywną stopką, płytkim dnem i zaokrągloną krawędzią wylewu. Analogiczne miski pochodzą z Apollonii Iliryjskiej, gdzie datowane są na koniec IV i pierwszą połowę III w. p.n.e.²⁸ Nieznacznie odmiennie w formie egzemplarze z tego samego stanowiska datowane są na około 300 r. p.n.e.²⁹

Stan zachowania i opis: Dolna część (dno i fragment brzuśca) miski. Podstawa miski lekko ukruszona, zachowane tylko dolne partie ścianek naczynia. Na spodniej stronie stopki znajduje się kryza. Na wewnętrznej stronie dna dekoracja stemplowana w postaci czterech palmet umieszczonych wokół centralnego zagłębienia. W zagłębieniu centralnym oraz pomiędzy palmetami płytka kryza, powyżej palmet jeszcze dwa płytkie zagłębienia. Firnis bardzo dobrej jakości, zachowany na ściankach zewnętrznych i wewnątrz naczynia (lecz nie na spodniej części dna). Kolor gliny wg Munnsell: kolor firnisu: 7,5 YR/2,5/1, kolor przełomu: 7,5 YR/8/4.

Kontekst znalezienia: Zabytek znaleziony w warstwie spalenizny pod poziomem płytowania we wnętrzu jednego z pomieszczeń tzw. „domu Aristiona”, usytuowanego na zachód od tzw. „domu

²⁷ Na temat monet króla Ballaiososa, zob. CIOLEK 2011, s. 7–110.

²⁸ VREKA 1994, s. 179, tabl. XII: 81, 82.

²⁹ VREKA 1988, s. 122, 129–130, tabl. V: 42–44.

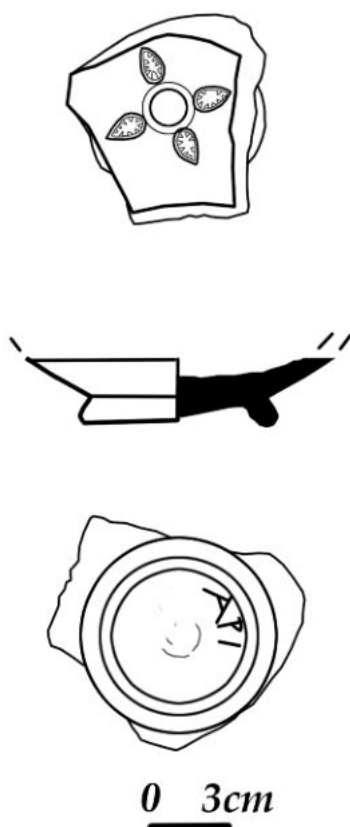
Aglaosa”. Każde z pomieszczeń tego domu miało osobne wejście od strony drogi. Układ pomieszczeń oraz znalezione w ich wnętrzu zabytki (zestawy serwisowe ceramiki czarnopokostowanej) sugerują, że były to sklepiki uszeregowane wzdłuż ulicy. Omawiany tutaj obiekt wchodził w skład tłucznia ceramicznego użytego do fundowania „domu Aristiona”.

Datowanie zabytku: 300–250 r. p.n.e.

Inskrypcja: Inskrypcja wyryta na spodniej części dna, wzdłuż obwodu stopki. Rycie głębokie, lecz niestaranne, co widoczne jest szczególnie w literze A, której lewa kreska wykonana została przez kilkakrotne, częściowo nienakładające się na siebie pociągnięcia narzędzia ryjącego. Litera ta jest szeroko rozwarta, z prawą kreską lekko przeciągniętą ku górze i poziomą poprzeczką. Brzuszek w literze P stosunkowo niewielki, o kształcie trójkątnym; kreska ograniczająca brzuszek u góry przeciągnięta w lewą stronę poza pionową hastę.

Αρι()

Imiona na Αρι- są zbyt popularne, aby można było zaproponować jakieś w miarę pewne rozwinięcie skrótu. Lansowana przez odkrywców hipoteza, że chodzi o Aristiona (Αριστίων), nie ma za sobą głębszego uzasadnienia. Na nekropoli w Budwie w grobie nr LIV odkryta została czarka megaryjska, z sygnaturą ΑΡΙΣΤΩΝ na spodniej stronie stopki.³⁰



Ryc. 8. Inw. 108/12 W — miska (rys. Karolina Michałowska)

³⁰ MARKOVIĆ 2012, s. 56, nr 3, ryc. 44: 9.

9. Inw. 266/12 W. Kubek do picia bądź mała miseczka do przechowania pożywienia. Naczynia tego typu były szczególnie popularne w IV w. p.n.e., a zmierzch ich rozwoju przypada na początek okresu hellenistycznego. Analogiczny *one-handed cup* typu apulijskiego znajduje się w zbiorach Royal Ontario Muzeum w Toronto. Zabytek ten został znaleziony w północnej Apulii, prawdopodobnie w miejscowości Ordona koło Foggii, i datowany jest na połowę IV w. p.n.e.³¹ Podobne naczynie datowane na lata 375–350 p.n.e. odkryte zostało na agorze ateńskiej.³² Charakteryzuje się ono wysoką stopką i kielichowatym wylewem, wykazuje też nieco większą wysokość niż inne egzemplarze tej kategorii. W swojej monografii ceramiki kampańskiej Morel określa analogiczne obiekty jako wytwór warsztatów italskich i datuje je na V oraz początek IV w. p.n.e., co jednak wydaje się zbyt wcześnie.³³ Analogiczny kubek znaleziony został też na hellenistycznej nekropoli w Budvie w grobie nr XXXII.³⁴

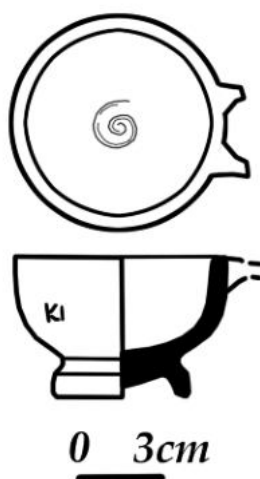
Stan zachowania i opis: Prawie kompletne naczynie. Uchwyt ułamany; zachowały się tylko jego fragmenty przy krawędzi wylewu. Kolor gliny wg Munnsell: kolor przełomu: 10YR/8/3.

Kontekst znalezienia: Zabytek znaleziono w fudze muru wzniesionego z dużych łamanych wapieni. Jest to tzw. mur iliryski, należący do najwcześniejszej fazy zabudowy odsłoniętej w Risan, wstępnie datowanej na przełom IV i III w. p.n.e. W najbliższej okolicy tego zabytku wydobyto kilka monet, w tym jedną wybitą w jakimś ośrodku adriatyckim, fragment krateru czarnofiguralowego, wylew askosa i kilka innych naczyń czarnofirnisowanych.

Datowanie zabytku: Przełom IV i III w. p.n.e.

Inskrypcja: Napis na zewnętrznej ścianie naczynia. Widoczna jest litera K oraz krótka pionowa kreska, dotykająca do dolnej ukośnej hasty K. Może to być ślad drugiej, niekompletnie zachowanej lub niewykończonej litery napisu względnie znak skrótu. Przeciwno tej drugiej możliwości przemawia fakt, że skróty tego rodzaju nie występują raczej przed okresem rzymskim.

K . ()



Ryc. 9. Inw. 266/12 W — kubek/mała miska (rys. Karolina Michałowska)

³¹ HAYES 1984, s. 61, ryc. 9: 101.

³² SPARKES, TALCOTT 1970, s. 127 i 291, tabl. 31: 775.

³³ MOREL 1981, s. 394 i 395, ryc. 194: 6241d 1 i 6231b 1.

³⁴ MARKOVIĆ 2012, s. 41, nr 6, ryc. 28: 16.

10. Inw. 390/12 W. Dno miski bądź unguentarium. Miskę tego samego typu, tylko większych rozmiarów, znaleziono na agorze ateńskiej, w warstwach datowanych na lata 250–170 p.n.e.³⁵ Miskę o takim samym kształcie wydobyto również w 1988 r. na Carine VI. Dubravka Ujes uważa, że naczynie to należy do grupy „presumbaly late and simplified eastern Adriatic Gnathia-inspired production” i datuje je na późny III i wczesny II w. p.n.e.³⁶

Stan zachowania i opis: Zachowana cała stopka z fragmentem brzuśca. Zabytek jest w znacznym stopniu skorodowany w rezultacie działania wód krasowych, w których został znaleziony. Na powierzchni wewnętrznej i zewnętrznej naczynia zachowały się częściowo ślady czarnej polewy. Gлина tłusta, mażąca się, z domieszką miki i niewielką zawartością piroksenu. Masa ceramiczna wskazuje, że jest to naczynie importowane z Apulii. Kolor gliny wg Munnsell: kolor firnisu: 10 YR/3/1, kolor przełomu: 10 YR/8/3.

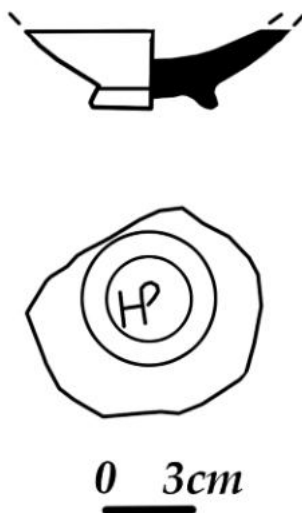
Kontekst znalezienia: Zabytek znaleziono we wnętrzu tawerny, poniżej rumowiska amfor, w warstwie madów. W najbliższej okolicy odnaleziono także pozostałości amfor grecko-italskich typów MGS VI³⁷ i egzemplarze należące do typów 6C³⁸ i 14B³⁹ według opracowania A. Toniolo.

Datowanie zabytku: Druga połowa III w. p.n.e.

Inskrypcja: Napis wyryty na spodniej stronie stopki, poprzecznie do jej obwodu. Rycie głębokie i staranne. Litery w ligaturze.

Ἡρ()

Imiona na Ἡρ- są zbyt popularne, aby można było proponować jakiejkolwiek rozwinięcie skrótu.



Ryc. 10. Inw. 390/12 W — miska/unguentarium (rys. Karolina Michałowska)

³⁵ ROTROFF 2006, s. 335, ryc. 96: 834, tabl. 89: 834.

³⁶ UJES 1999, s. 208, ryc. IV, 9b.

³⁷ VANDERMERSCH 1994, s. 81–87.

³⁸ TONIOLO 2000, s. 94, ryc. 220.

³⁹ TONIOLO 2000, s. 127–128, ryc. 294.

11. Inw. 119/13 W. Skyfos. Niska wystająca stopka wyraźnie oddzielona od czaszy naczynia. Dokładnie taki sam egzemplarz naczynia wydobyto w San Felice w Apulii.⁴⁰ Analogiczny do skyfosu z San Felice jest zabytek ze stanowiska Pantanello, będącego wiejskim zapleczem miasta Matapont, leżącego koło Tarentu w południowej Italii. Skyfos ten datowany jest na lata 460–440 p.n.e.⁴¹ Takie same dna skyfosów występują na stanowiskach na wybrzeżu Morza Adriatyckiego, na przykład w Apollonii Iliryskiej, skąd znany dwa egzemplarze, jeden, znaleziony na nekropoli, datowany na IV w. p.n.e.,⁴² drugi — na drugą połowę IV i początek III w. p.n.e.⁴³ Skyfos typu Gnathia, analogiczny na omawianego tutaj egzemplarza z Carine VII, znajduje się w zbiorach Royal Ontario Museum w Toronto. Zabytek ten, pochodzący najprawdopodobniej z północnej Apulii, wydany został na późny IV w. p.n.e.⁴⁴ W zbiorach Muzeum Archeologicznego w Zagrzebiu znajduje się cała seria analogicznych apulijskich skyfosów malowanych („Apulian vases of the Gnathia style”), będących prawdopodobnie produktami warsztatów w Konnakisa. Vikić i Damevski zaliczają te zabytki do grupy Early Gnathia Style i datują na lata 350–340 p.n.e.⁴⁵ Na nekropoli w Budvie w grobie nr XLIV wydobyto skyfos, który kształtem stopki przypomina egzemplarz znaleziony w Risan. Nie zaproponowano jednak datowania tego zabytku.⁴⁶

Stan zachowania i opis: Zachował się ukruszony fragment dna naczynia. Niska wystająca stopka wyraźnie oddzielona od czaszy. Wewnętrzna część stopki malowana czerwonym firnisem, zewnętrzna — czarnym. Firnis gładki i błyszczący, bardzo dobrej jakości. Spodnia część skyfosu malowana czerwonym firnisem. Na spodniej części czarny pas wokół dna, grubości od 2 do 3 mm. Firnis spodniej części skyfosu, przylegającej do podłoża, wytarty, co świadczy o długim użytkowaniu naczynia przez właściciela. Masa ceramiczna bardzo zwarta, glina bardzo dobrej jakości, prawie bez porów (*East Adriatic fabric*). Kolor gliny wg Munnsell: kolory firnisu: 2,5 Y/3/1, 5 YR/4/6 i 2,5 YR/6/6, kolor przełomu: 7,5 YR/8/4.

Kontekst znalezienia: Zabytek odnaleziono na poziomie płytowania we wnętrzu jednego z domów, wzniesionego z łamanych wapieni. Dom ten należy do najstarszej fazy budowlanej antycznego Rhizon. Na jego obszarze wydobyto monety miast greckich wschodniego wybrzeża Morza Adriatyckiego, a także monety z wizerunkiem króla Ballaios. W najbliższej okolicy zabytku wystąpiły także resztki amfor, w tym jednej rozpoznanej jako Typ 4A.⁴⁷

Datowanie zabytku: Przełom IV i III w. p.n.e.

Inskrypcja: Rycie głębokie. Pionowy element składa się z dwóch niepołączonych ze sobą kresek.

Φ()

⁴⁰ SMALL, SMALL 2010, s. 257, tabl. 3: 11. Charakterystyczna wystająca stopka określana jest przez autorów jako stopka typu korynckiego („skyphos base with projecting foot of ‘Corynthisan’ type”).

⁴¹ ELLIOTT 1998, s. 679, tabl. S31 (*non vidimus*).

⁴² DIMO 1991, s. 74, ryc. X: 184.

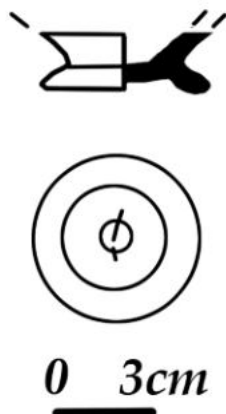
⁴³ VREKA 1994, s. 172–173, ryc. III: 17.

⁴⁴ HAYES 1984, s. 181, ryc. 16: 295.

⁴⁵ VIKIĆ, DAMEVSKI 1982, s. 100, 108–109, ryc. 2: 1–4, 3: 1–4.

⁴⁶ MARKOVIĆ 2012, s. 53, nr 6, ryc. 42: 3.

⁴⁷ TONIOLO 2000, s. 46–48, ryc. 87.



Ryc. 11. Inw. 119/13 W — skyfos (rys. Anna Bartol)

12. Inw. 127/13 W. Dno miseczki czarnopokostowanej (*black gloss*). Kształtem i morfologią obiekt z Risan przypomina miseczkę znalezioną w Atenach i datowaną w przedziale 275–250 p.n.e.⁴⁸ W Nea Paphos na Cyprze podobna w kształcie i rozmiarach miseczka datowana jest na III w. p.n.e.⁴⁹ Analogiczną miseczkę wydobyto także w Risan na stanowisku Carine VI w roku 1988. Zabytek ten według Dobravki Ujes należy do ceramiki typu Gnathia i powinien być datowany na późny IV i wczesny III w. p.n.e.⁵⁰ Omawiany tutaj zabytek może być także — choć to mniej prawdopodobne — dnem unguentarium. Podobne w kształcie zabytki wydobyto także w trakcie wykopalisk w Apollonii Iliryskiej; datowane są one na lata 325–300 p.n.e. (forma Ib)⁵¹ i 310–275 p.n.e. (forma II).⁵²

Stan zachowania i opis: Dno naczynia, z którego zachowała się tylko stopka. Gлина tłusta, mażąca się. Firnis czarny na całej powierzchni naczynia, słabo przylegający do czerepu. Polewa połyskująca, lecz chropowata. W zagłębieniach i rowkach polewa grubsza. Kolor gliny wg Munnsell: kolor firnisu 7,5 YR/2,5/1.

Kontekst znalezienia: Zabytek znaleziono we wnętrzu jednego z pomieszczeń mieszkalnych domu. Miskę znaleziono poniżej rumowiska amfor, w pobliżu innych naczyń czarnopokostowanych. Warstwę tę należy powiązać z przebudową miasta w okresie panowania króla Ballaios, tj. z połową III w. p.n.e.

Datowanie zabytku: Połowa III w. p.n.e.

Inskrypcja: Rycie staranne i głębokie. Zewnętrzne kreski ukośne i lekko zaokrąglone.

M()

⁴⁸ ROTROFF 1997, s. 167, 347, ryc. 65: 1088, tabl. 79: 1088. Autorka wskazuje następujące charakterystyczne cechy tego obiektu: „foot chipped, flaring foot, beveled resting surface, pointed underside”.

⁴⁹ PAPUCI-WŁADYKA 1995, s. 51–52, tabl. 27: 176.

⁵⁰ UJES 1999, s. 206, ryc. IV, 5a.

⁵¹ VREKAJ 2001–2002, s. 190, 200, ryc. 1: 5.

⁵² VREKAJ 2001–2002, s. 190, 201, ryc. 1: 6, 7.



Ryc. 12. Inw. 127/13 W — mała miska (rys. Anna Bartol)

13. Inw. 131/13 W. Solniczka. Identyczny obiekt przechowywany jest w zbiorach Royal Ontario Museum w Toronto. Zabytek ten, którego proveniencja nie jest znana, określany jest jako etruski i datowany na IV w. p.n.e.⁵³ Podobny kształt posiadają solniczki znalezione w San Felice w Apulii, datowane przez odkrywców na przełom IV i III w. p.n.e.⁵⁴ Solniczkę bliźniaczo podobną do egzemplarza z Risan znaleziono na nekropoli hellenistycznej w Budvie, w grobie nr XXXVII.⁵⁵ Autor publikacji nekropoli nie zaproponował datowania zabytków, a jedynie zasygnalizował, że zmarłych chowano na tym cmentarzysku od IV do I w. p.n.e.⁵⁶

Stan zachowania i opis: Zachowało się całe dno naczynia i fragment brzuśca. W dolnej części brzuśca znajdują się dwa równoległe rowki. Polewa na powierzchni zewnętrznej i wewnętrznej tej samej barwy. Polewa położona na formie bezpośrednio po wypale. Czarna polewa przywiera do masy ceramicznej, nie jest dobrej jakości, nie połyskuje, jest chropowata. Na powierzchni zewnętrznej najpierw nałożono czerwony firnis (podkład), a potem warstwę czarnego firnisu. Kolor gliny wg Munnsell: kolor firnisu: 2,5 Y/2,5/1, kolor przełomu: 7,5YR/8/4.

Kontekst znalezienia: Zabytek odnaleziono w warstwie madów, we wnętrzu budowli o nierozpoznanej funkcji z okresu panowania króla Ballaios, tj. z połowy III w. p.n.e. W najbliższej okolicy wydobyto resztki amfor grecko-italskich typu MGS VI według Vandermerscha⁵⁷ i typu 4A według Toniolo,⁵⁸ ceramikę czarnofirnisowaną, monety z wizerunkiem króla Ballaios oraz obiekty wykonane z brązu (gwoździe tapicerskie i szpile).

Datowanie zabytku: Pierwsza połowa III w. p.n.e.

Inskrypcja: Napis wyryty na spodniej stronie stopki, poprzecznie w stosunku do jej obwodu. Rycie głębokie. Każda kolejna litera jest większa od poprzedniej, być może dlatego, że piszący uświadomił sobie, że zapisując imię w postaci skróconej dysponuje dużą ilością miejsca.

Λευ()

Lexicon of Greek Personal Names wylicza 49 imion rozpoczynających się od Λευ-, w większości pochodnych przymiotnika λευκός („biały”). Wśród nich najpopularniejsze to: Λευκαῖος (11),

⁵³ HAYES 1984, s. 79, ryc. 12: 138.

⁵⁴ SMALL, SMALL 2010, s. 249 i 263, ryc. 5: 35 i 36.

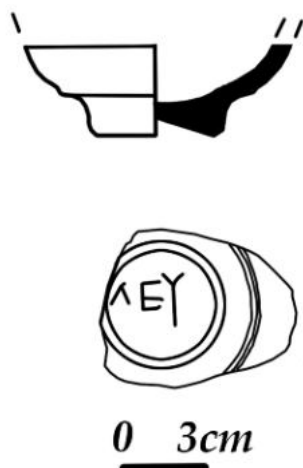
⁵⁵ MARKOVIĆ 2012, s. 48, nr 27, ryc. 34: 8.

⁵⁶ MARKOVIĆ 2012, s. 13.

⁵⁷ VANDERMERSCH 1994, s. 81–87.

⁵⁸ TONIOLO 2000, s. 46–48, ryc. 87.

Λεύκαρος (13), Λεύκασπις (8), Λευκίας (11), Λευκῖνος (10), Λεύκιος (251), Λεύκιππος (40), Λεῦκος (16), Λεύκων (40). W materiale onomastycznym ze wschodnich wybrzeży Adriatyku zaświadczone są tylko dwa imiona z tej grupy: Λεύκιος i Λεῦκος. Pierwsze z nich zaświadczone jest w Lychnidos (jedno poświadczenie, II–I w. p.n.e.), Epidamnos-Dyrrhachium (pięć poświadczeń, III–I w. p.n.e.) i w Issa (jedno poświadczenie, III–I w. p.n.e.), drugie tylko w Epidamnos-Dyrrhachium (jedno poświadczenie, okres hellenistyczny).⁵⁹ Statystyka sugeruje, że w omawianym tutaj *graffito* powinniśmy widzieć zapisane w skrócie imię Λεύκιος, lecz pewności co do tego mieć nie możemy.



Ryc. 13. Inw. 131/13 W — solniczka (rys. Emilia Przylepa)

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⁵⁹ Odnośnie do referencji, zob. *LGPN* IIIA, s. vv.

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Summary

Graffiti on table ware pottery from Risan (Rhizon, Risinium)*

Since 2001, archaeologists from the Center for Research on the Antiquity of Southeastern Europe of the University of Warsaw under the direction of Prof. Piotr Dyczek have been excavating at Risan (ancient Rhizon, Risinium). Fieldwork is carried out among other places in the area of Carine, in the northern outskirts of the modern town. The investigations are concentrated within the old city walls, where a number of rooms on both sides of the main access road to the ancient town have been unearthed. During fieldwork many fragments of luxury tableware and perfume containers have been discovered. Among the remains were large sherds of cups, bowls, plates, containers for perfumes and oils. The majority of these vessels belong to the category of “black gloss pottery”, dated from the fourth to the second century BC. They can be divided into three basic groups. The first includes imported Gnathia-style pottery from Apulia. The second group consists of pottery imitating Gnathia vessels, made in workshops on the eastern Adriatic (mainly Epidamnos and Apollonia). The third is made up of local vessels made in workshops around the Bay of Kotor. These groups can be established mostly on the basis of clay analysis. Tableware found at Risan often bears stamped, etched or painted decoration.

The subject of this study is a group of thirteen finds with etched texts or symbols (graffiti). An initial formal and subsequent macroscopic analysis with a magnifying glass led to identification of eleven of the objects in question as eastern Adriatic products (**47/09 W**, **208/10 W**, **216/10 W**, **1/11 W**, **38/11 W**, **81/11 W**, **108/12 W**, **266/12 W**, **390/12 W**, **127/13 W**, **131/13 W**); one (**119/13 W**) bears the characteristics of original Gnathia pottery, while another (**406/10 W**) is a local product. The graffiti in question were executed on relatively flat surfaces usually found on the bottom of a vessel. Among the thirteen analyzed finds, in eleven cases the inscription was etched on the bottom, in one case on the inside of a plate, and in another on the external surface of a sidewall of a bowl. Among the finds with graffiti on the bottom, in ten cases it was located on the outer surface and only in one case on the inside.

Usually the graffiti consisted of a text, in three cases (**406/10 W**, **1/11 W** and probably **81/11 W**) it is hard to establish its character; it might be either letters or graphic symbols. All graffiti should probably be interpreted as owners' marks. In the non-textual instances the “signature” was a graphic symbol perceived by the owner as his mark. All textual graffiti apparently contain an abbreviated version of the owners' names, written down without the last letters. In an extreme case all letters but for the first one were discarded, producing a first-name acronym. The writers signed their names either in nominative or genitive case, the latter as *genetivus possessoris*.

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Saimir Shpuza

IRON AGE FORTIFICATIONS AND THE ORIGIN OF THE CITY IN THE TERRITORY OF SCODRA¹

Abstract: The territory of Scodra is noted for a high concentration of fortified sites belonging to the Iron Age. These sites are considered examples of the origin of the fortified settlement in Illyria. The most characteristic feature of these fortification walls is their construction with two relatively regular façades filled in the middle with un-worked stones of different size. In most cases, the walls of this kind of fortification are built without any angles and towers are very rare. Gates are very simple; they are created just by leaving a gap in the wall. Adapted to the natural conditions of the terrain and occupying key positions on hills for the control of the surrounding territory, the fortifications represent a multitude of topographic choices. This article raises some questions related to their function and to the role they played in the origin of the city in Illyria. We deal also with the main Illyrian cities of the region such as Scodra, Lissos and Albanopolis, focusing on their general urban development and topography.

Key words: Illyria, Scodra, Iron Age, Hellenism, fortification, city, urbanisation

Introduction

Illyrian fortifications constitute one of the rare elements of that culture that we can know in entirety and represent the most monumental construction that the Illyrians have left to us. At the beginning of the nineteenth century a specific type of prehistoric fortification wall, with a high concentration in the territory of actual Shkodra, attracted the attention of archaeologists.² Afterwards, with the end of the Second World War, this type of fortification received a high degree of interest from Albanian archaeologists.³ During this period, a great number of these fortifications were identified and documented in many sites such as Gajtan, Marshej, Ganjollë, Beltojë, Akrolis and Kratul. Later on, similar fortifications were recognized also in Mokseti and Vorfa [Fig. 1]. Analogous sites have been recognized also in the region of Korça (Trajani, Bellovoda, Bilishti), Elbasan (Valshi,

¹ The idea for this article is the result of a survey conducted in May 2011 in the region of Shkodra. Apart from the author, it was carried out by Ilir Gjipali (Institute of Archaeology, Tirana) and Etleva Nallbani (Centre national de la recherche scientifique, CNRS, Paris). Special thanks go also to Zamir Tafilica (Museum of Shkodra) for the help and kind company in many of the sites visited. All the photos published here were taken by the author during this survey. The ongoing Albanian-Polish excavations in

Shkodra, financed with resources provided by the National Science Center, Poland, project no. 2011/09/M/HS3/01828, pushed me further to undertake such a publication in *Novensia*.

² PRASCHNIKER, SCHÖBER 1919, pp. 86–93.

³ CEKA, ISLAMI 1965, pp. 447–451; KORKUTI 1973; KARAISKAJ 1977; ZHEGU 1977–1978, pp. 117–118; KARAISKAJ 1977–1978, p. 263; ZHEGU 1980; CEKA 1983; CEKA 1984; BAÇE 1987.

Bodini, Lleshani), by the Ionian coast of Albania (Karos and Badhra), and around Tirana (Zgërdhesh and Dorzi).⁴ However, the territory of Scodra will be considered separately in this article because of the high concentration of these sites, and for the specific characteristics it represents concerning the foundation of the proper city in this region of Illyria.

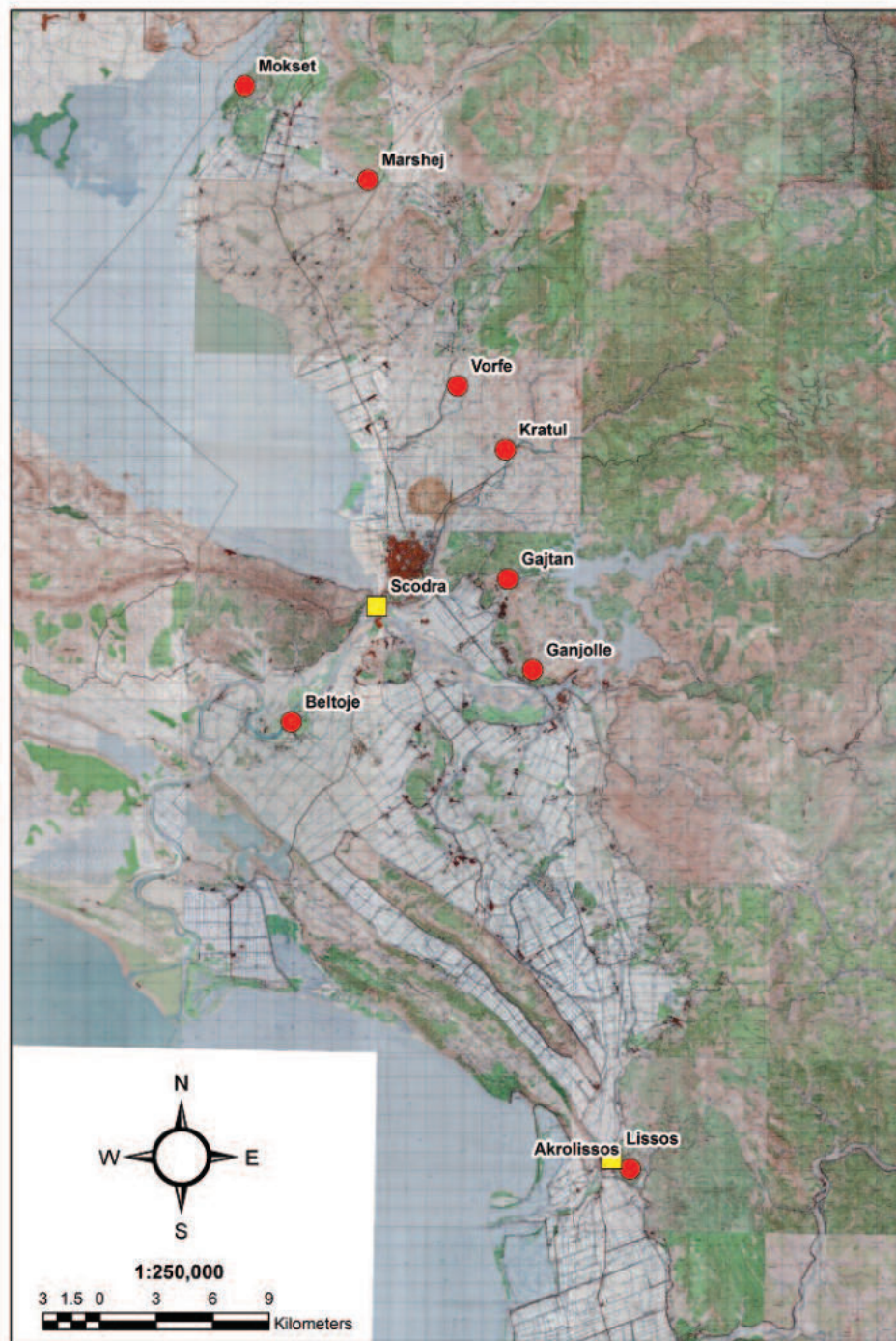


Fig. 1. General map with the localization of the Iron Age fortifications in the region of Scodra (S. Shpuza)

⁴ For a general discussion, see CEKA 1983.

Distribution and description of the Iron Age fortifications

Generally, these Iron Age fortifications have been constructed on upper hills dominating fertile planes, rich pastures and were naturally well protected. The most important of these sites, which has become also a reference site for all the others, is Gajtani [Fig. 2]. It stands on a rocky hill 193 m above sea level. The wall is preserved 90 m in length and it is 3.50 m wide [Fig. 3]. The maximum height of the current remains is 2.40 m. This wall surrounds a surface of 5 ha. The façade of the wall is built with big or medium size stones [Fig. 4]. Most of these stones are un-worked, only some of them underwent a little preparatory work in order to create a better junction between them. The gate is well preserved in a high of 1.60 m and it is wide 1.80 m [Fig. 5].

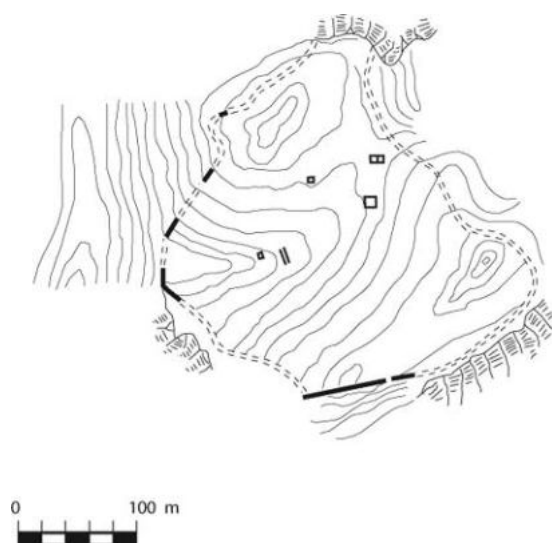


Fig. 2. Plan of Gajtani (after Gj. Karaiskaj 1981, p. 13, fig. 3)



Fig. 3. General view of the fortification wall at Gajtani (photo S. Shpuza)



Fig. 4. View of the external façade of the Gajtani wall (photo S. Shpuza)



Fig. 5. View of the gate of the Gajtani wall (photo S. Shpuza)

Another important Iron Age fortification is located in the village of Marshej [Fig. 6]. It is situated 100 m above sea level and dominates all the plane of Kopliku where several Bronze and Iron Age tumuli are situated [Fig. 7]. This site represents two fortification walls. One of the walls surrounds the top of the hill and it is constructed with small and medium size stones without creating a regular façade for the wall.⁵ We have the idea that stones were just piled up one on top of another [Fig. 8]. This wall seems to be discontinued as natural rock provides sufficient defence in some sections, so no wall was necessary.

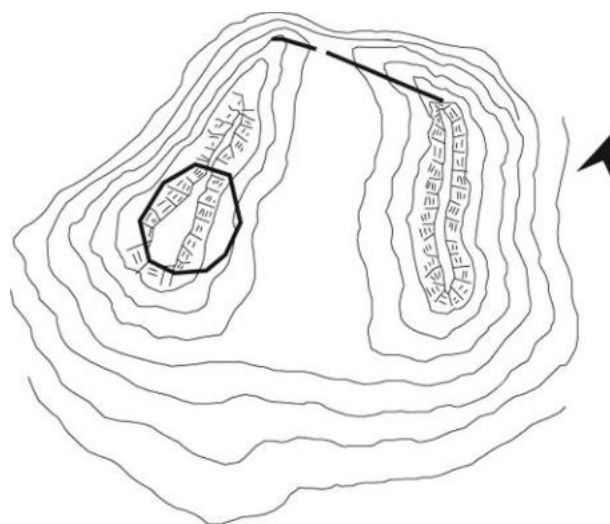


Fig. 6. Plan of Marshej (after Gj. Karaiskaj 1977–1978, p. 264)

⁵ KARAISKAJ 1977; KARAISKAJ 1977–1978, p. 263.



Fig. 7. View of the plane of Kopliku and the nearby tumuli seen from Marshej (photo S. Shpuza)



Fig. 8. View of the upper fortification wall at Marshej (photo S. Shpuza)

A second wall is situated in the plateau at the foot of the hill [Fig. 9]. This wall is better constructed than the first one. It is 2.70 m wide and it has a gate 1.60 m wide [Fig. 10]. Conserved altitude is of 1 m [Fig. 11]. The length of the wall is 125 m and it connects the foothills of two hills. It is very similar with the wall of Gajtani but its quality is lower. The stones used for its construction are of small and medium size while the exterior façade is well constructed.



Fig. 9. General view of the lower fortification at Marshej (photo S. Shpuza)

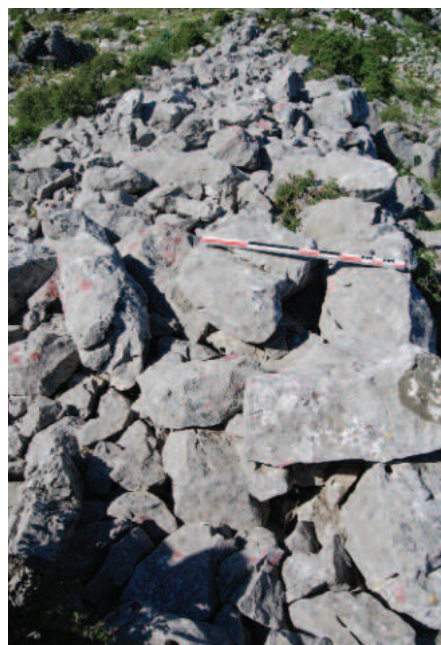


Fig. 10. View of the Marshej fortification from above (photo S. Shpuza)



Fig. 11. View of the external façade of the Marshej fortification (photo S. Shpuza)

Similar patterns have been recognized also at Ganjolla, situated 355 m above sea level [Fig. 12]. The western and southern part of the hill is well protected naturally while in the northern part a wall 110 m long was built. The wall was built with small un-worked or very little worked stones. Its wide is calculated around 4–5 m but it does not seem to have been a very high wall [Fig. 13]. At the same site are found the ruins of a Hellenistic wall dating probably by the time of king Gentios who created a series of fortifications and control points around the city of Scodra.⁶

⁶ LAHI 1993, pp. 202–203.



Fig. 12. View of the wall at Ganjolla
(photo S. Shpuza)



Fig. 13. View of the external façade
of the Iron Age wall at Ganjolla
(photo S. Shpuza)

Mokseti fortification is situated on a hill 252 m above sea level [Fig. 14]. On the hill there is a wall 80 m long, which represents two phases of construction.⁷ One of the phases belongs to the Iron Age and is more visible in the north-western part of the hill [Fig. 15], while the second phase dated to the Hellenistic period is more visible in the southern part. In front of Mokseti, on the other side of the Shkodra Lake, there is a similar fortification at Samobor (Montenegro). The wall constructed there surrounds a surface of 1.5 ha.

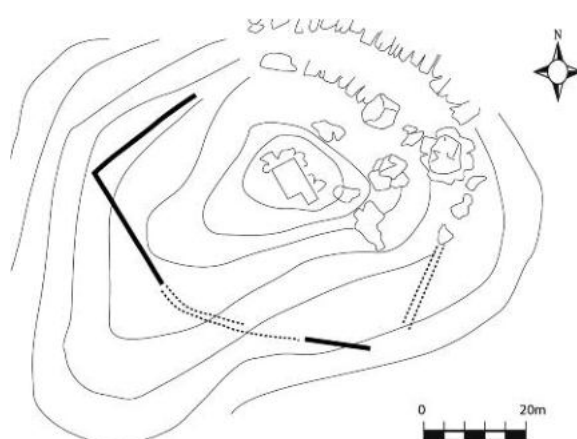


Fig. 14. Schematic plan of Mokseti (after G. Hoxha 2004, p. 247, fig. 2)

⁷ HOXHA 2004.



Fig. 15. General view of the wall at Mokseti (photo S. Shpuza)

Similar fortifications have been identified also at Beltoja and Vorfa. Unfortunately Beltoja is very poorly preserved and we can't give a clear description of it and of its construction technique.⁸ On the other hand at Vorfa we are dealing with fortifications belonging to different phases. The Iron Age wall is conserved on a height of a little bit more than 1 m [Fig. 16] and around 3 m large [Fig. 17]. Apart this wall, Late Antique and Medieval walls are visible on surface.



Fig. 16. Façade of the wall at Vorfa (photo S. Shpuza)



Fig. 17. General view of the Iron Age fortification at Vorfa (photo S. Shpuza)

⁸ LAHI 1988, p. 72.

Kratul is another site, which represents the same type of defensive wall. The fortification is situated on a hill 143 m above sea level and has an ellipsoidal shape [Fig. 18]. It covers a surface of 0.5 ha.⁹ The wall still stands around 2 m tall and it is more than 3 m thick. The presence of a rectangular tower situated on the eastern side [Fig. 19] and of three gates [Fig. 20] is characteristic for this site. The surface surrounded by this wall is completely rocky which means that the site was used only as a control point or a refuge place at time of danger.

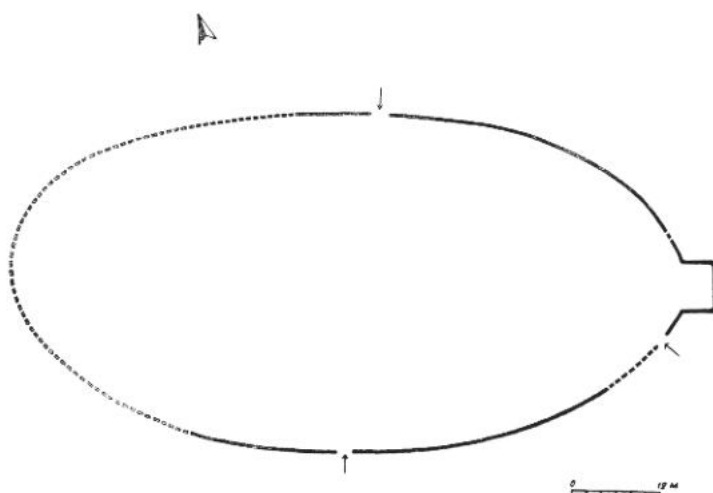


Fig. 18. Plan of Kratul (after F. Fistani 1983)



Fig. 19. View of the tower of the Kratul fortification (photo S. Shpuza)

⁹ FISTANI 1983, p. 109.



Fig. 20. View of the gate of the Kratul fortification (photo S. Shpuza)

All the sites described above are situated in the Lowlands of Shkodra, in small hills, which create a protection system of all the area. However, a similar fortification can be found also at Akrolissos, 410 m above sea level [Fig. 21]. The wall is not very well preserved but it can be followed in all of its length [Fig. 22]. It is 3.20 m wide and maximal height conserved is of 1.50 m. It covers a surface of 1.2 ha. As in Kratul here we have the presence of a tower.

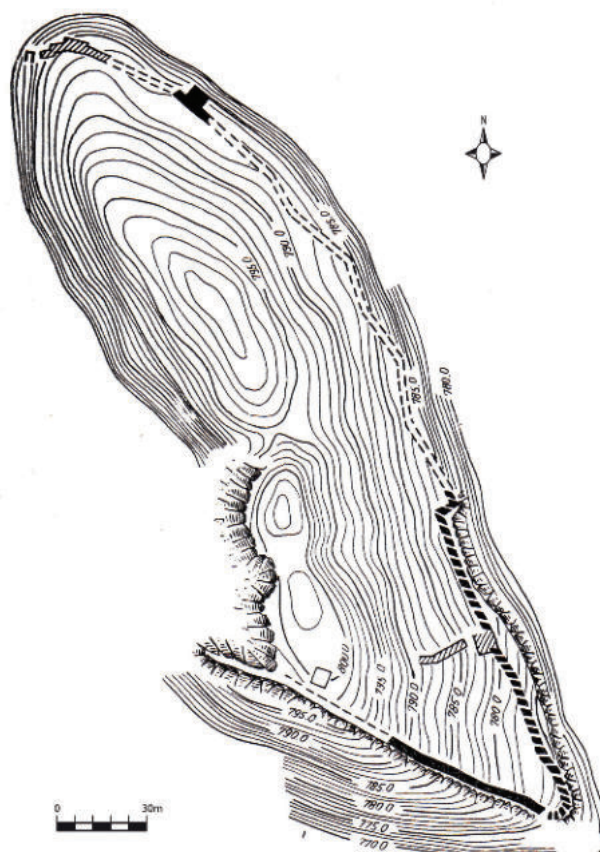


Fig. 21. Plan of Akrolissos (after F. Prendi, K. Zhegu 1972, p. 242, fig. 2)



Fig. 22. Aerial view of the Iron Age fortification at Akrolissos
(courtesy of E. Nallbani and the Medieval Lezha Project)

Further south, Dorzi is another Iron Age fortification equipped with a tower¹⁰ [Fig. 23]. The site represents another fortification phase of the Hellenistic period. The wall is 120 m long and covers a surface of 2 ha [Fig. 24].

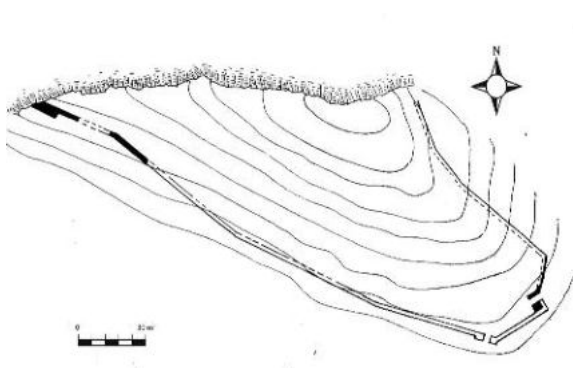


Fig. 23. Plan of Dorzi
(after N. Ceka 1983, p. 186, tab. VI A)



Fig. 24. View of the Iron Age fortification
at Dorzi (photo Gj. Gjura)

¹⁰ BAÇE 1987, p. 11.

Technical and topographical characteristics

The most characteristic feature of these walls is their construction with two relatively regular façades filled in the middle with un-worked stones of different size, mostly small and medium size. The façade stones are mostly un-worked or very little worked. These walls have no foundation and are installed immediately on the rock surface or other natural basement. The width of the walls fluctuates from 3 to 3.50 m and their conserved height varies from 1 to 2 m. In most cases, the walls of this kind of fortification are built without any angles and towers are very rare. Gates are very simple; they are created just by leaving a gap in the wall.

None of the sites represents signs of rock cut and all fortifications are exclusively constructed with stones. Stone construction is characteristic for all Illyria while in other areas of the ancient world, such as the Iberian Peninsula or Gaul, stones were used only to create a foundation level; the rest of the wall was constructed with mud bricks and wooden polls.¹¹

Dimensions of these fortifications cannot be considered a typological criterion as they would be determined by availability of building materials. Nor can distinctions be made according to the stones used in their construction. Also in this case the dimensions of the stones are mostly related to the lithic characteristics of the terrain. Nor can these elements be used to create the chronology of the walls, as the technology of the construction is the same.

It is difficult to say anything for certain about the original height of these walls. Their current height does not surpass 1–2 m but according to their width we can calculate that their height was at a maximum of 4–5 m.

According to the natural conditions of the terrain the construction of these fortifications represents a multitude of topographic choices; they are adapted to the relief of the hills on the higher or medium part of the hill occupying key positions for the control of the territory around. Probably, the topographic choice for the installation of these fortifications is more in relation with the dominating position in a specific area rather than with the roads of communication and commerce. It is for this reason that these sites were almost abandoned at the beginning of the Hellenistic era in favour of new sites situated near the main rivers and the road network.

Chronology

The chronological framework for the dating of such fortifications is the Final Bronze Age and the Early Iron Age. This period is characterised by some interior and exterior important events which influenced the total development of the area:

1. The creation of an aristocratic class and the formation of tribal elites. These elites have already distinguished themselves from the rest of the population through the costume objects found in their graves. The examples in this field are numerous from the Bronze and Iron Age tumuli necropolis excavated in the area of Scodra.¹² The appearance of these new military tribal elite is also testified by some military equipment found on some graves in the territory of Scodra dated to the eighth–seventh centuries BC.¹³
2. Another important element is considerable demographic growth seen in the Bronze Age period and a more intensive agriculture.¹⁴ These elements created the conditions for a social differentiation.

¹¹ MORET 1996.

¹² KOKA 2012, p. 213.

¹³ PRENDI 1958, p. 110.

¹⁴ PRENDI 1977–1978, p. 6.

Thus, chronologically these fortifications coincide with a period of economic growth for the Illyrian tribes inhabiting the area during the seventh–fifth centuries. In Illyria the late Bronze Age and the early Iron Age period is characterized by the existence of identifiable cultural and ethnic groups. Excavations of sites dated to this period, except for the tumulus burials, are limited but those carried out to date show that sedentary fortified sites had become common during this period.

Function

The great number of fortified sites and their density presuppose a dense habitation and a fortification system for all the Lowlands of the area of Scodra. The fortifications of the Gajtani type are considered examples of the origin of the fortified settlement in Illyria.

Most of the Albanian archaeologists agree that sites such as Gajtani were the starting point of economic and social developments that ultimately led to the emergence of the Illyrian city. Thus, such sites are often called protourban sites.¹⁵ Gajtani differs from the other fortifications because it is considered as the most appropriate for living. Excavations conducted in the site have found also traces of economic activity, mostly metallurgy confirming thus the idea of a continuous habitation. The site dates to the eighth–seventh century BC and it is located in the commercial road traversed by the Drin River and near the fertile plane of Guri i Zi.

For Gj. Karaiskaj, these fortified sites create a unique fortified system related to the appearance of tribal federations.¹⁶ On the other hand, for N. Ceka the concept of a regional fortification system is more related to an urban framework rather than a tribal one.¹⁷ Moreover, he agrees that most of the sites, except for Gajtani, were not suitable for living but only for refuge in case of danger. According to other authors fortified site of the Gajtani type are pastoral sites, which served to the shepherds to be protected with their animals.¹⁸

In our opinion, considering the fact that we are dealing with very important fortifications which demanded a large-scale work program and a central power to organise it, we think that all this was not just to protect animals. Maybe in some cases animals were integrated to the habitat but essentially we are dealing with fortified sites showing a certain structuring of the territory and they were probably chief sites of the local tribal elite.

Even so, is the Gajtani-type site the origin of the city in Illyria? According to current data this is very difficult to accept. At least, maybe we are dealing with the very embryonic phase of the city but basically these Iron Age fortifications were not urban sites because their context is tribal.

The end of Iron Age fortifications and the founding of the Illyrian city

The Hellenistic period marks, if not the end of this kind of settlement, then loss of importance. The excavation of a Hellenistic necropolis near Gajtani¹⁹ shows that probably the site was still inhabited but it had completely lost its importance as a fortified chief centre of a tribe. In the Hellenistic period the techniques of construction became more sophisticated, fortification walls were equipped with towers, and entrance gates were equipped with well protected corridors. This rise in quality of the fortifications coincides also with the increase and advancement of war techniques and with the appearance of good artillery to which a fortification wall should be faced.²⁰ As a consequence, it is clear that fortified sites of the Gajtani type were no longer useful and no longer

¹⁵ CEKA 1977–1978; CEKA 1983.

¹⁶ KARAIKAI, LERA 1974, p. 272.

¹⁷ CEKA 1986, p. 62.

¹⁸ See S. DAKARIS, discussion in ISLAMI 1987, p. 69.

¹⁹ KORKUTI 1967.

²⁰ HELLMANN 2010, pp. 317–319.

provided the protection needed. Thus, the end of these Iron Age settlements coincides with the founding of the proper Illyrian city. In the geographical area under consideration cities were founded at Scodra, Lissos and Zgërdhesh (Albanopolis?) further south, while in the north, Illyrian cities were found in Rhizon, Medeon and Ulcinj.

But how did this transition from Iron Age fortification to the proper Illyrian city happen? Signs of continuity can be noticed only in Lissos [Fig. 25] where it seems that the city was constructed on a lower hill near the Iron Age fortification of Akrolissos and also at Zgërdhesh [Fig. 26] where part of the Iron Age wall was integrated in the Hellenistic fortification. In Scodra, excavations in the castle have found Bronze Age material²¹ but there is no fortification wall of this period.

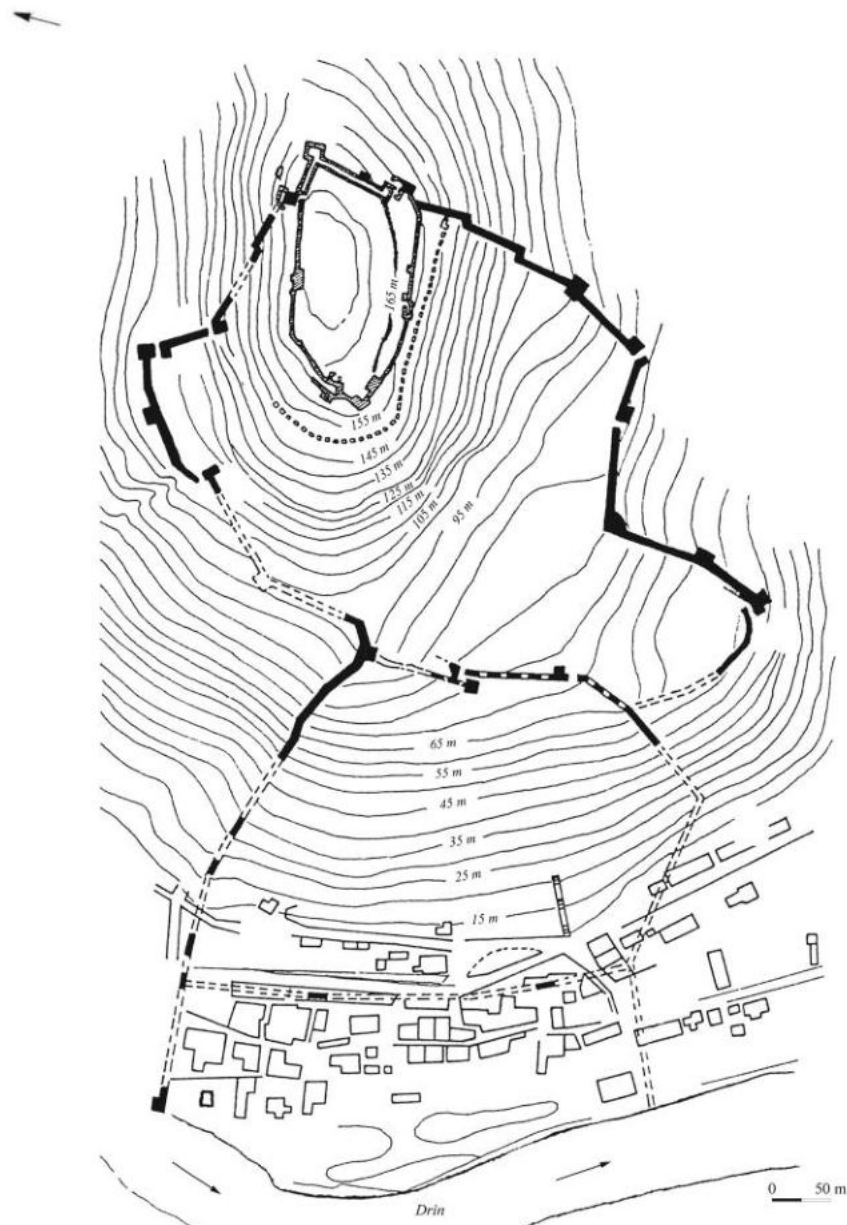


Fig. 25. Plan of Lissos (after F. Prendi, K. Zhegu 1972, p. 223, fig. 5)

²¹ HOXHA 1987.

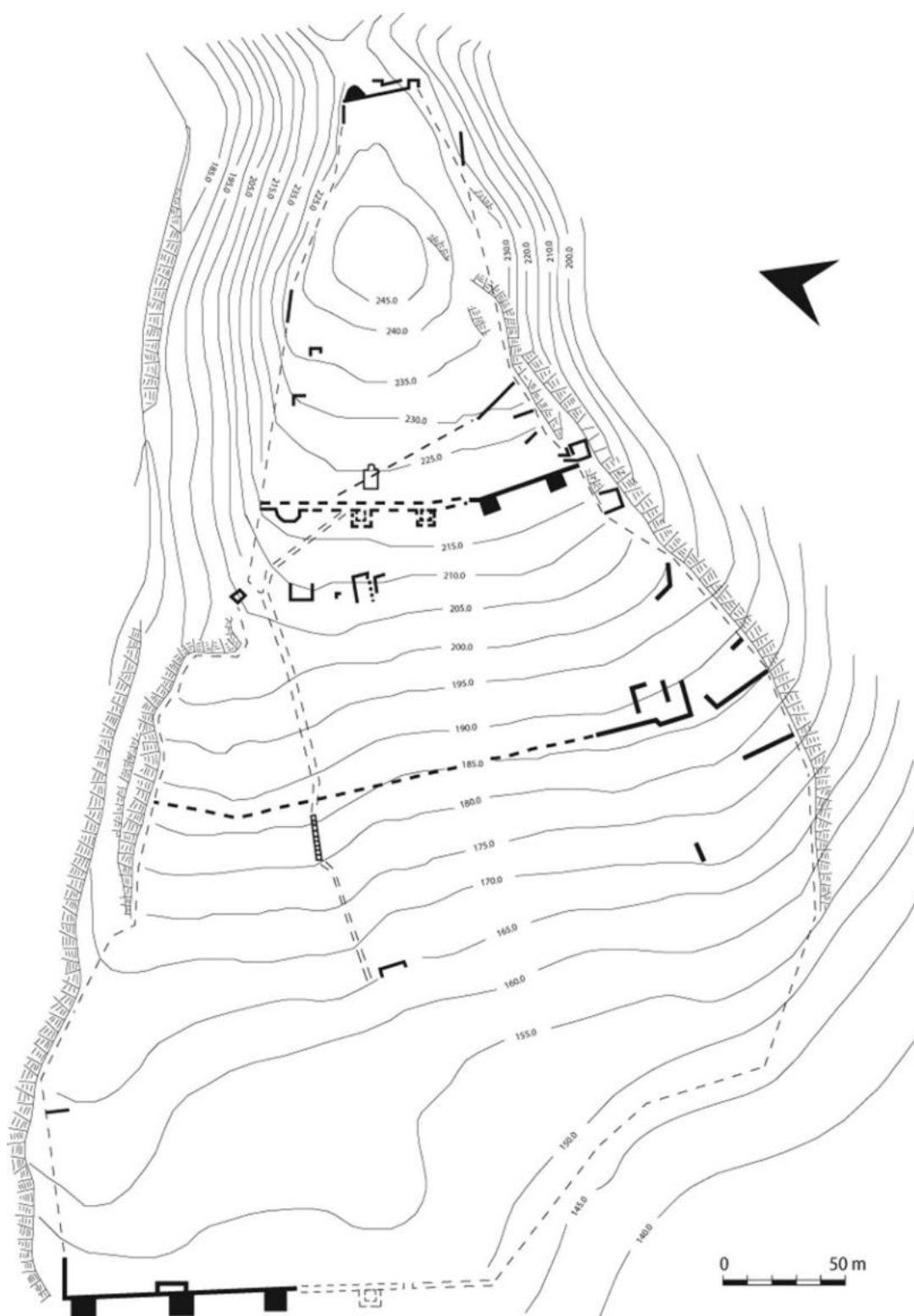


Fig. 26. Plan of Zgërdhesh (after S. Islami 1972b, tab. 2)

Until recently, the walls situated on the slopes of the Rozafa castle were dated to the Iron Age²² [Fig. 27]. Only current archaeological excavations proved that in fact Scodra walls, although showing similar construction techniques with Iron Age fortifications, were in fact built in the fifteenth century and they are probably related to the siege of Scodra in 1478/79 by the Ottomans.²³

However, generally speaking, we can presume a demographic shift towards these new fortified sites, but we should also take into consideration that we are dealing with the appearance of new tribal elites capable of large-scale undertakings, such as the foundation of a city.

According to historiography the cities north of the Mati River were founded later than in the southern part, namely around the end of the fourth century BC and beginning of the third.²⁴ A particular characteristic of these towns is their topographical organisation in two parts: lower and upper city. This typical topographical organisation has attracted the attention of researches for a long time. M. Garašanin has written in detail on this particular form of urban organisation among the Illyrians.²⁵ According to him Rhizon, Medeon, Ulcinj, Lissos and Akrolissos, Zgërdhesh (Albanopolis?) belong to this type of urban organization. The walls of these fortifications were mostly of a polygonal-trapezoidal type.

In the case of Zgërdhesh and Lissos the fortification wall has been adapted to the relief of the hill and it is continued from the upper part of the town to the lower part creating thus outstanding fortifications. On the other hand, the topography of Scodra and Rhizon do not permit such a realisation. In Shkodra the upper city is situated on very steep hill [Fig. 28]. As a consequence, we have two distinct parts of the same city. We are sure only for the presence of the fortification in the upper part of the town [Fig. 29], while there are no signs of Hellenistic walls in the lower part. In Scodra there are no signs of towers and considering the topography of the hill there was probably one gate, where the gate of the medieval fortress is situated.



Fig. 27. View of the medieval wall on the slopes of the Rozafa castle (photo S. Shpuza)

²² CEKA, ISLAMI 1965, p. 451; KORKUTI 1973, p. 112.

²³ DYCZEK, SHPUZA 2014, p. 395.

²⁴ ISLAMI 1972a, p. 12; CEKA 1985.

²⁵ GARAŠANIN 1967, pp. 29–31.



Fig. 28. General view of the Rozafa hill (photo S. Shpuza)



Fig. 29. Hellenistic fortification at the entrance of the Rozafa castle (photo S. Shpuza)

On the other hand, Lissos lies on a surface of 20 ha and its walls are 2200 m long. There are six gates and seventeen towers [Fig. 30]. These walls date to the end of the fourth century.²⁶ The upper town is divided from the lower one by a wall, which seems to have been constructed at a later stage, probably by the time of Caesar when the city becomes a Roman *municipium*.

Zgërdhesh (Albanopolis?) is smaller, around 10–15 ha. The lower wall is well preserved, 90 m long and equipped with three towers. At the top of the hill there are signs of two other towers, one circular and the other square. As in Lissos, the upper part of the town is divided with the lower one by a wall, which in this case is reinforced also with four rectangular towers and one circular. There were three city gates.²⁷

These cities reached the height of prosperity during the Hellenistic period. Especially for Scodra the first half of the second century BC, when the city became the centre of the Illyrian Kingdom of Genthios, must have been a very prosperous time. By this time, Scodra and Lissos also minted coinage for the king.²⁸ In this context it is important to notice that even though Scodra and the territory around are under the domination of the dynasty of Genthios, ancient sources of this period always refer to these cities as cities of the Labeates.²⁹ It is to this Illyrian ethnic that we owe the founding of the city in the region of Scodra. It is in fact common also for other regions of Illyria the coexistence of the tribal world with the civic one. It appears that also in Byllis, Olympia and



Fig. 30. Aerial view of the Hellenistic fortification of Lissos in the lower part of town (courtesy of E. Nallbani and the Medieval Lezha Project)

²⁶ PRENDI, ZHEGU 1972, p. 222; PRENDI, ZHEGU 1986.

²⁷ ISLAMI 1972b, p. 198.

²⁸ CEKA 1965, pp. 93–97.

²⁹ See Caesar, *BC*, III 25, 3: *sive ad litora Apolloniatum*

<*sive ad Labeatium*> *cursum dirigere* (*sive ad Labeatium* is an addition made by Hofmann); Livy, XLIII 19, 3; XLIV 23, 3; 31, 2; 32, 3; XLV 26, 15; Pliny, *NH*, III 144.

Amantia ancient sources and numismatic evidence refers sometimes to the city and sometimes to the population living in the area. Unfortunately, we know very little about the Labeates. All the ancient sources mention this tribe only during second–first centuries BC when the Illyrians were at war against Rome or when Illyria became the battlefield of the Roman civil war. The name of the tribe and of the region persisted also after the Roman dominion when the territory of the Illyrian Kingdom was divided into three principal areas, among which appears the region of the Labeates.³⁰ This *ethnikon* appears also on some coins minted after the Roman conquest and found mostly on the mountain region around Scodra.³¹

The urbanisation process in this geographic area was slower and meagre compared to other Illyrian regions further south. However, there are some other sites, which have not yet been discovered, especially those mentioned by Livy during the third Illyro-Roman war.³² Most of these sites lost their importance and were abandoned during the Roman period; only Scodra and the newly founded Doclea continued their prosperity because of the foundation of Roman colonies.

Conclusions

What was the origin of the Iron Age fortifications? Is this related only to the defensive scope or we are dealing with a more complex process than simply insecurity created during Iron Age? Bearing in mind that we are dealing with monumental constructions, considered protourban even in spite of their tribal context, our opinion is that this is related to a structuring of the territory in such a way to bestow prestige, not only on the specific site, but also on those who constructed it. The constructions of fortifications mean the existence of a local power which projects and engages people for such monumental constructions. This means that we are dealing with a relatively developed economic framework linked to the development not only of agriculture but also of handicraft, visible also in objects found on the tumuli necropolis around Scodra.³³

One of the questions that we can raise here is how contacts with the Mediterranean world, especially the colonies of Apollonia and Dyrrhachion, influenced the urbanisation of this area? Considering the architecture of Iron Age fortification we presume that we are dealing with an Illyrian tradition of construction, free of foreign influence. Also, archaeological finds show no close relations between this territory and the Greek world. There are only a few fragments of Greek archaic imports that have been found in the territory of Shkodra.³⁴ Thus, it is generally accepted that during the Late Bronze Age and Early Iron Age the territory of Scodra is more integrated with the Central interior-Adriatic regions rather than with the territories further south.³⁵ This situation changes mostly during the Hellenistic period when the proper Illyrian city appears. It is important to say that the founding of the city in this region, and generally in Illyria, is the result of the evolution of the tribal organisation. Differently from the neighbouring populations, such as the Macedonians and Thracians, none of the cities in Illyria was founded by an Illyrian king. When Scodra becomes the centre of the Genthios kingdom it had already existed as a city for at least a century. However, the full degree of urbanisation of this area remains very little known and only future excavations in the area will create a clear framework of the development of the Illyrian city.

³⁰ Livy, XLV 26.

³¹ JUBANI 1972, p. 70.

³² Livy, XLIV 30, 7. He mentions Bassania, Durnium and Caravandis, all situated in the territory around Scodra. This text of Livy is very important because it shows that the territory of the Kingdom of Genthios was not homogeneous as cities like Bassania appear on the Roman side rather than under his rule.

³³ JUBANI 1983.

³⁴ For a general consideration see KOKA 2012. One archaic figurine has been found at Guri i Zi and was published by A. Dumont, DUMONT 1872, p. 1, Tab. XV, and later reconsidered by L. M. Ugolini, see UGOLINI 1927, p. 15, fig. 14.

³⁵ PRENDI 1985.

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Streszczenie

Fortyfikacje z epoki żelaza i początki miast na terytorium Szkodry

Terytorium Szkodry znane jest z dużej koncentracji stanowisk z epoki żelaza. Stanowiska te uważa się za przykłady pierwszych ufortyfikowanych osad na terenie Ilirii. Ich specyficzną cechą jest to, że mury obronne mają dwie stosunkowo regularne fasady, a wypełnione są masą nieobrobionych kamieni różnej wielkości. W większości przypadków mury tego rodzaju fortyfikacji nie mają kątów, a wieże stanowią rzadkość. Bramy są niezwykle proste, powstają po prostu przez pozostawienie luki w murze. Dostosowane do ukształtowania terenu poprzez rozmieszczenie w kluczowych miejscach na wzgórzach, tak aby zapewnić kontrolę nad otaczającym terenem, fortyfikacje te odzwierciedlają wiele decyzji topograficznych swoich budowniczych. Artykuł niniejszy podnosi niektóre spośród kwestii związanych z ich funkcją i rolą, jaką odegrały w genezie miasta na terenie Ilirii. Poruszamy też kwestię głównych miast iliryjskich regionu, takich jak Scodra, Lissos czy Albanopolis, koncentrując się na ich ogólnym rozwoju urbanistycznym i topografii.

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NOWE INSKRYPCJE Z ANTYCZNEJ SZKODRY (ALBANIA) ZNALEZIONE PODCZAS POLSKO-ALBAŃSKICH BADAŃ ARCHEOLOGICZNYCH*

Abstract: In the course of 2011 Polish-Albanian excavations at Shkodra (Albania), new inscriptions were found at the Rozafa hill, increasing the modest collection of inscriptions known from this important ancient city. The find comes from a cistern in the grounds of the fortress, built probably in the fifteenth century by the Venetians and functional as late as the twentieth century. One of the pillars of the cistern was built of reused ancient stone blocks, including a limestone statue base, which contained an almost entirely preserved Latin honorific inscription at its front. Moreover, the sidewalls of the base contain brief augural inscriptions Latin and Greek of matching contents.

Key words: Dalmatia, Scodra, honorific inscriptions, augural inscriptions, military *cursus honorum*

W 2011 r. polsko-albańskie badania archeologiczne na wzgórzu Rozafa — akropolu i cytadeli antycznego i nowożytnego miasta Szkodra w północnej Albanii — doprowadziły do odkrycia nowych inskrypcji, zwiększających skromny zestaw¹ znanych napisów z tej ważnej stolicy iliryskiego władcy Gentiosa, a potem rzymskiej kolonii i stolicy późnoantycznej prowincji Praevalitana.² Na szczycie wzgórza zachowały się pozostałości fortecy funkcjonującej do początków XX wieku, której zabudowania (tzw. *capitanato*) zwykle uważa się — idąc za sugestiami A. Ducelliera — za pochodzące z czasów władania miastem przez Wenecjan (1396–1479).³ Z tego okresu pochodzi zapewne także cysterna [Ryc. 1], w której po wypompowaniu wody archeolodzy odkryli filar nośny, zbudowany z wtórnie wykorzystanych antycznych bloków

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¹ *LIA*, nr 12, s. 44–45 (HD065626); *LIA*, nr 13, s. 46–47 = *CILA*, nr 7, s. 28 (HD065627); *LIA*, nr 14, s. 48–49 = *CILA*, nr 11, s. 30–31 (HD031032); *LIA*, nr 15, s. 50–53 = *CILA*, nr. 9–10, s. 29–30 (HD016325; por. *AE* 2009, 998); *LIA*, nr 16, s. 54–55 = *CILA*, nr 8, s. 28–29

(HD035330); *CILA*, nr 13, s. 31–32 (*AE* 2009, 999); *CILA*, nr 16, s. 32–33 (*AE* 2009, 1000); *CILA*, nr 18, s. 34–35 (*AE* 2009, 1001); *Carte* 2008, s. 265–267; EHMIG, HAENSCH 2011, s. 279–280.

² CEKA 2005, s. 89, 210, 290–291; WILKES 1969, s. 257–258, 417; WILKES 1977, s. 742–743, 763–764; *RE* II A (1921), kol. 828–829, s.v. „Scodra (Fluss)”.

³ MARTIN 1992, s. 69.

kamiennych [Ryc. 2a]. Okazało się, że jeden z nich to prostopadłościenna wapienna baza posągu [Ryc. 2b], na której przedniej stronie w obrębie profilowania zachowała się niemal w całości łacińska inskrypcja honoryfikacyjna [Ryc. 3],⁴ a dodatkowo — na bocznych stronach — krótkie napisy o tej samej treści w języku greckim [Ryc. 4] i łacińskim [Ryc. 5].



Ryc. 1. Wnętrze cysterny na wzgórzu Rozafa
w Szkodrze (fot. S. Rzeźnik)

⁴ LEMKE 2011a; 2011b; 2013 ze zdjęciami inskrypcji.



Ryc. 2 a, b. Baza z inskrypcjami w filarze cysterny (fot. S. Rzeźnik)

Na podstawie dokumentacji fotograficznej napis na przedniej stronie bazy można przeczytać w następujący sposób:⁵

C · C · F · MEMMIO IVLIO		C(aio) C(ai) f(ilio) Memmio Iulio
MAIORIARIO CALI		Maioriario, cali-
GA PRIMA OPTIONI ·		ga prima, optioni
PRIMIPILARIORVM		primipilariorum,
SVBCOMMENTARENSI ·	5	subcommentar(i)ensi,
COMMENT[...]ENSI COR		comment[ar](i)ensi, cor-
NICVLARIO PREFE ·		niculario pr(a)ef(ectorum)
PRAETORIO PRIMIP		praetorio, primipi-
LARI · VE · DVCENARIO		lari, v(iro) e(gregio), ducenario,
PATRONO · ORDO	10	patrono, ordo
SPLENDIDISSIMVS ·		splendidissimus
COLONIAE · SCODR		coloniae Scodr-
ANORVM · FELI		anorum. Feli(citer).

Ligatury: **1.** ME; **3.** MA; **5.** MME, NT; **6.** MME, NT, OR; **7.** VL; **8.** AE, OR; **11.** END; **12.** DR; **13.** AN
4. ostatnia M mniejsza

Tłumaczenie: Caiusowi Memmiusowi Iuliusowi Maioriariusowi, synowi Caiusa, najpierw w służbie wojskowej, w tym pełniącego funkcje: *optio primipilariorum*, *subcommentariensis*, *commentariensis*, *cornicularius praefectorum praetorio*, *primipilaris*, z tytułami *vir egregius*, *ducenarius*, patronowi, najwspanialsza rada miejska kolonii Szkodryjczyków [posąg wystawiła]. Niech się szczęści.

⁵ Wymiary bazy: 90 × 60 × 60 cm; szerokość profilowania: 12 cm; pole epigraficzne: 64 × 35 cm; wysokość liter: 3,3 cm; interlinia: 1 cm.



Ryc. 3. Strona przednia bazy z inskrypcją honoryfikacyjną (fot. S. Rzeźnik)

Chociaż inskrypcja wykonana jest bardzo starannie i jest w pełni czytelna, to jednak jej interpretacja może budzić szereg wątpliwości. Już samo ustalenie imienia oficera, którego karierę wojskową przedstawiono w napisie, nastrocza pewnych problemów. Zwraca uwagę, że w imieniu bardzo nietypowe miejsce zajmuje filiacja, zwykle przecież umieszczana po imieniu rodowym.⁶ Podane są także dwa *nomina* Memmius i Iulius,⁷ sugerujące, że mamy tutaj do czynienia z polionimią. W rezultacie należałoby się następnie spodziewać przynajmniej jednego *cognomen*.⁸ Gdyby uznać, że jest nim Maiorarius, upamiętniony oficer nazywałby się C. Memmius Iulius Maiorarius. Niewątpliwie jest to lektura najprostsza i najbardziej prawdopodobna. Tego typu *cognomina* — choć niezbyt częste — są poświadczone głównie w Afryce i — jak zauważył I. Kajanto — „the suffix *-arius* formed occupational terms”.⁹ Wprawdzie *cognomen* pochodzący od *maior* mógłby być związany również z urodzeniem,¹⁰ to jednak warto zauważyć, że określenie *maiorarius* jest nazwą słabo znanej funkcji „à l’ombre du prétoire”, pełnionej czasami przez *evocati* i — zdaniem A. von Domaszewskiego — być może związanej z zarządzaniem posiadłościami cesarskimi.¹¹ W konsekwencji, przyjmując lekturę imienia C. Memmius Iulius Maiorarius mielibyśmy do czynienia z sytuacją, w której określenie funkcji *maiorarius* uzyskało znaczenie *cognomen*, co czasami się zdarzało, jak pokazuje chociażby przykład tytułu *ducenarius*.¹²

Można by jednak próbować zakwestionować taką interpretację, zakładając, że określenie *maiorarius* nie jest częścią imienia oficera, ale sprawowaną przez niego funkcją, wymienioną na pierwszym miejscu w jego karierze. W konsekwencji oficer w inskrypcji ze Szkodry mógł nazywać się C. Memmius Iulius. Mielibyśmy wtedy do czynienia z sytuacją, w której drugie imię rodowe występowałoby w charakterze *cognomen*, co się zdarzało w rzymskiej onomastyce¹³ i nawet nie musiało oznaczać — jak sugerował swego czasu M. Durry — procesu barbaryzacji środowisk wojskowych w III w. n.e.¹⁴ Warto odnotować w tym okresie obecność C. Memmiosa Fidusa Iuliusa Albusa ze stanu senatorskiego,¹⁵ chociaż podobieństwo imion nie powinno sugerować ewentualnego pokrewieństwa.

Przyjmując hipotetycznie lekturę imienia C. Memmius Iulius,¹⁶ mielibyśmy w inskrypcji do czynienia z sytuacją, w której w wojskowym *cursus* — jak się wydaje, wstępującym, wymienianym funkcje od niższych do wyższych — na pierwszym miejscu wymieniona byłaby funkcja *maiorarius*, i to przed ogólnym określeniem *caliga prima*, wskazującym, że oficer ten zaczął karierę wojskową jako prosty żołnierz. Zwraca jednak uwagę, że w dotychczasowych dyskusjach

⁶ Por. *Publius P. f. Plancius* w greckiej inskrypcji z Metropolis (DREYER, ENGELMANN 2009, s. 164, nr 5); *Publius Publi f. Claudia Savaria Aculeiensis Opponi(us) Iustus, archit(ectus) leg. XXII P(rimigeniae) p(iae) f(idelis)* z Bonn (*AE* 1953, nr 93 = *AE* 1960, nr 160).

⁷ ALFÖLDY 1969, s. 31–36, 99.

⁸ SALOMIES 1992, s. 4, 26–30 (typ F: Pad + Nad + Norig + Corig + Corig, jako wariant typu E z jednym *cognomen*), 61–74, 87–88.

⁹ KAJANTO 1965, s. 110–111 (Agnarius, Favillarius, Hortarius, Lucustarius, Montanarius, Recentarius, Siliquarius), 82–84.

¹⁰ KAJANTO 1965, s. 294 (Maorianus, Maioricus, Maiorinus).

¹¹ VON DOMASZEWSKI 1903, s. 218–220; VON DOMASZEWSKI, DOBSON 1967, s. 27; DURRY 1938, s. 98, 124; por. FORCELLINI, CORRADINI 1940, s. 156 („majorarius, scilicet conductor vectigalium”); LEWIS, SHORT, s. 1102 („a great farmer of the revenue”); *TLL* VIII 1 (1936), kol. 158, s.v. „maiorarius”; *CIL* III 6775 = *ILS* 2148 (Tyana Cappadociae); *CIL* III 12489; *CIL* VI 1611 (Th. MOMMSEN: „for-

tasse sic appellabantur principales praetorianorum”); *CIL* VI 3445; *CIL* VIII 14691 (Thuburnica); *CIL* IX 1095 = *ILS* 3444 (Aeclanum); *CIL* IX 3350 (Pinna Vestina).

¹² LE BOHEC 2008, s. 116, przyp. 97.

¹³ KAJANTO 1965, s. 31; SALOMIES 1992, s. 84.

¹⁴ DURRY 1938, s. 26–27, 254; por. imię cesarza Claudius II Gothicus.

¹⁵ CHRISTOL 1986, s. 328.

¹⁶ Najmniej prawdopodobna, chociaż teoretycznie możliwa, wydaje się lektura imienia C. Memmius Iulius Maior Ar(r)ius, którą może sugerować dość częste występowanie imienia Iulius z przydomkiem Maior. Idąc tą drogą otrzymalibyśmy złożone imię, a biorąc pod uwagę, że zwykle na pierwszym miejscu występowało imię adopcyjne, moglibyśmy spekulować o adopcji C. Iuliusa Maiora, i to nawet nie testamentowej, do szacownej *gens Memmia*, chociaż oczywiście nie sposób byłoby tego dowiedzieć, skoro równie dobrze jedno z imion, i to raczej to drugie w kolejności, mogło pochodzić od matki, por. SALOMIES 1992, s. 53–54, 63–67.

funkcja *maiorarius*, chociaż sprawowana czasami przez *evocati*, postrzegana była dosyć nisko w hierarchii wojskowej jako przeznaczona dla *immunes*. Oczywiście można by przyjąć, że w karierze C. Memmiosa Iuliusa była to pierwsza i najniższa funkcja, wydaje się jednak, że nie na tyle niska, aby znaleźć się przed zwrotem *caliga prima*. Można by też posunąć się w tych spekulacjach dalej i przyjąć, że funkcja *maiorarius* nie wyznaczałaby początku kariery oficera, ale jej ukoronowanie i jako najważniejsza i zapewne sprawowana w momencie dedykacji posągu wskazana byłaby na pierwszym miejscu, co teoretycznie nie jest niemożliwe. Tym niemniej na obecnym etapie badań zbyt mało wiemy o funkcji *maiorarius*, aby móc uwiarygodnić tego typu spekulacje, dlatego lepiej jest pozostać przy interpretacji najprostszej i najbardziej prawdopodobnej i przyjąć ostatecznie, że wymieniony w inskrypcji oficer nazywał się C. Memmius Iulius Maiorarius.

Początek jego kariery wojskowej określony jest jako *caliga prima*,¹⁷ co oznacza, że na początku swojej służby pełnił on pewne niższe funkcje, z których szczegółowego wymieniania zrezygnowano w inskrypcji. Zwykle przyjmuje się, że *caligatus* to ogólne określenie żołnierza poniżej stopnia *evocatus*,¹⁸ chociaż dyskutowano, czy obejmujące także funkcję centuriona, przynajmniej w III w. n.e.¹⁹ Naturalnie można by argumentować, że wymieniona w inskrypcji kolejna funkcja *optio* nie była już pełniona *in caliga*, ale z drugiej strony możliwe jest, że po ogólnym zwrocie *caliga prima* następują w tekście przykłady *officia* godnych wspomnienia, a wtedy *prima* nabiera trochę znaczenia wartościującego.²⁰

Wymieniona w kolejności funkcja *optio* — zastępcy i adiutanta — *primipilariorum* nie do końca jest jasna i to nie tylko dlatego, że brakuje informacji, w jakiej jednostce wojskowej była ona pełniona, co przecież czasami zdarza się w inskrypcjach. Gdyby przyjąć, że chodzi tutaj o legionowych *primipili*, określonych z jakiś powodów tytułem *primipilares*, przysługującym tym oficerom po upływie kadencji, to należałoby zapytać, dlaczego w tytule *optio* wymienieni są oni w liczbie mnogiej, i w konsekwencji wrócić do dyskusji o liczbie *primipili* w pierwszej kohorcie, czy też szerzej o liczbie centurionów w legionie — dyskusji, która toczyła się głównie wokół inskrypcji z Lambaesis z początku lat sześćdziesiątych II w. n.e.²¹ Dlatego też, nie chcąc przyjąć istnienia od czasów Hadriana dwóch *primipili* w pierwszej kohorcie, abstrahując oczywiście od *primipili iterum*, podobnie jak w przypadku napisów afrykańskich można by argumentować, że chodzi o szybko zmieniających się oficerów, ale sprawujących pojedynczo funkcję pierwszego centuriona, mających do pomocy *optio*, który zapewne nie zmieniał się co roku.

Wydaje się jednak, że możliwe jest inne wyjaśnienie i to bez konieczności zakładania braku precyzji w oficjalnej inskrypcji ze Szkodry. Należałoby przyjąć, że chodzi o funkcję związaną z obecnością *numerus primipilarium* w Rzymie, czyli oddziału *primipilares* bez przydziału legionowego, oczekujących na specjalne, indywidualne zadania, których rola wzrastała w III w. n.e.²² Niewiele wiadomo o funkcjonowaniu i organizacji tej jednostki „à l'ombre du prétoire” i zapewne podległej prefektom *praetorio*, ale możemy wyobrażać sobie, że *optio primipilariorum* mógłby pełnić w niej funkcje zarządzające — na wzór *optio peregrinorum*, administrującego żołnierzami przybyłymi z różnych powodów do Rzymu i stacjonujących w *castra peregrina*.²³

¹⁷ Por. IGLN 25: [c]aliga prima (Novae, dedykacja dla Jowisza Depulsora od *p(rimus) p(ilus)* legionu I Italskiego z 227 r. n.e.).

¹⁸ VON DOMASZEWSKI, DOBSON 1967, s. 2, przyp. 5: „*Caligatus* ist die allgemeine Bezeichnung des *miles*, der an Rang unter dem *Evocatus* steht”; DE II (1910, ed. anast. Roma 1961), s. 30–31, s.v. „caliga” (E. DE RUGGIERO).

¹⁹ GILLIAM 1946; SANDER 1954.

²⁰ Por. CIL IX 5839, 5840 = ILS 2084, 2085 (Auximum); GILLIAM 1946, s. 187–188.

²¹ CIL VIII 18065 = ILS 2452; CIL VIII 18072 = ILS 2446; VON DOMASZEWSKI, DOBSON 1967, s. XXIII–XXV, 90–93; DOBSON 1979, s. 64–65; LE BOHEC 1992, s. 58.

²² DURRY 1938, s. 21–22; DOBSON 1979, s. 65–67; por. Ps.-Hyg., *De metatione castrorum*, 6: *Cohortes praetoriae lateribus praetorii tendere debent et duplam pedaturam recipere, quod tentoriis maioribus utantur. Primipilares etiam et evocati in eadem pedatura locum accipiunt* (ed. I. ŁUĆ, K. KRÓLCZYK, Poznań 2010, s. 18–19).

²³ DURRY 1938, s. 26–27.

Taki tok rozumowania prowadzi do wniosku, że C. Memmius Iulius Maiorarius — bez względu na pochodzenie, o którym trudno coś powiedzieć na podstawie imienia, podobnie jak i o miejscu służby *in caliga* — dla jakichś powodów i zasług został oddelegowany do Rzymu, gdzie kontynuował swoją karierę, co oczywiście od początku III w. n.e. było zjawiskiem coraz częstszym. Za administracyjnym rozumieniem funkcji *optio primipilariorum* przemawiają także kolejne funkcje *subcommentariensis* i *commentariensis*, które byłyby dosyć nietypowe w tym punkcie kariery legionowego podoficera, posiadającego już wysoką „taktyczną” rangę *optio* — chyba że chodziłoby o służbę w *officium* dowódcy legionu czy też namiestnika prowincji.²⁴ Warto zauważyć, że *commentarii*, różnego rodzaju sprawozdania, niekiedy utożsamiane z *acta*, towarzyszyły działalności bardzo wielu rzymskich urzędników wojskowych i cywilnych, w Rzymie i w prowincjach, dlatego do nazwy *commentariensis* zwykle dodawano określenie precyzujące, nad jakimi lub czymi *commentarii* miał on pieczę. W konsekwencji podane w inskrypcji funkcje *subcommentariensis* i *commentariensis* bez określenia charakteru urzędu jawią się jako nieprecyzyjne, chociaż taki zapis poświadczony jest w środowisku wojskowym.²⁵

Dawno już zauważono, że w inskrypcjach legionowych, wymieniających różne kategorie żołnierzy, *commentarienses* występują zwykle po *cornicularii*, ale przed *speculatores*,²⁶ i w tym kontekście — z punktu widzenia *Rangordnung* — rozumiały wydaje się awans C. Memmiosa Iuliusa Maiorariususa na funkcję *cornicularius praefectorum praetorio*, niewątpliwie bardziej zaszczytną niż *cornicularius consularis* czy też *cornicularius legati*.²⁷ Jeżeli przyjmiemy, że podany w inskrypcji *cursus* koncentruje się przede wszystkim na służbie w Rzymie, to być może i funkcje *subcommentariensis* i *commentariensis* pełnił on w stołecznym mieście, a może nawet należały one do *officium* prefektów *praetorio*.

Co prawda *praefecti praetorio* w III w. n.e. mieli już do pomocy cywilnych, ekwickich prokuratorów *a commentariis*,²⁸ ale ich działalność nie musiała przecież spowodować likwidacji niższej rangi wojskowej funkcji *subcommentariensis* i *commentariensis* w *officium* prefektów, które istnienia dopatrywał się zresztą już Th. Mommsen i która jest całkowicie zrozumiała przez analogię do organizacji biura *praefectus vigilum* czy też *praefectus urbi*.²⁹ Niewątpliwie przy takiej hipotezie zapis kariery C. Memmiosa Iuliusa Maiorariususa w inskrypcji ze Szkodry zyskuje na precyzji.

Wojskowa funkcja *cornicularius* występuje w otoczeniu różnych namiestników prowincji, dowódców, wyższych oficerów legionów i innych oddziałów, a także w odniesieniu do całych jednostek wojskowych.³⁰ Naturalnie jej znaczenie było uwarunkowane rangą *officium*, ale generalnie ci „sekretarze” postrzegani byli dosyć wysoko w hierarchii, powyżej funkcji „taktycznych”, skoro w logice *Rangordnung* zasługiwali oni następnie na szybki awans na „stopień” legionowego centuriona. Dotyczyło to także, a może przede wszystkim *cornicularii praefectorum praetorio*, szczególnie w III w. n.e.,³¹ i w konsekwencji nie dziwi, że C. Memmius Iulius Maiorarius uzyskał następnie tytuł *primipilaris*³² i związany z nim bezpośrednio lub nie³³ awans do stanu ekwickiego z tytułem *vir egregius*. Nawet B. Dobson, zwolennik ekwickiego statusu *primipilares* przyznał,

²⁴ DURRY 1938, s. 103; VON DOMASZEWSKI, DOBSON 1967, s. 20–21.

²⁵ DE II (1910), s. 537–546, s.v. „commentarii” (E. DE RUGGIERO).

²⁶ DS I 2 (1873), s. 1402–1403, s.v. „commentariensis” (H. THÉDENAT).

²⁷ LE BOHEC 1992, s. 61–76 i szczególnie tabl. na s. 75.

²⁸ DURRY 1938, s. 146, 173; VON DOMASZEWSKI, DOBSON 1967, s. XLV; PFLAUM 1960–1961, s. 1030; PFLAUM 1974, s. 62; PFLAUM 1982, s. 113.

²⁹ RE IV (1900), kol. 759–768, s.v. „a commentariis” (A. V. PREMIERSTEIN); VON DOMASZEWSKI, DOBSON 1967,

s. 8, 17; SABLAYROLLES 1996, s. 210, 238, 242, 311, 382, 672 (appendix V, nr 286 — CIL VI 37295 = AE 1902, 198).

³⁰ DE II (1910), s. 1216–1224, s.v. „cornicularius” (E. BRECCIA); DS I 2 (1873), s. 1509, s.v. „cornicularius” (E. POTTIER).

³¹ DURRY 1938, s. 110–114, 134; DOBSON 1979, s. 264–265, nr 148, s. 304–305, nr 212.

³² DOBSON 1979, s. 41–44 i tabl. 4 z przykładami *p. p. ex corn. pr. pr.*

³³ DURRY 1938, s. 139–143; VON DOMASZEWSKI, DOBSON 1967, s. XXI, 171.

że „wir brauchen jedoch weiteres Beweismaterial, bevor der Gebrauch dieses Titels durch die primipilares voll verständlich wird”.³⁴ Naturalnie w III w. n.e. dynamika różnorodnych zmian była na tyle duża, że łatwiej od reguł i zasad dostrzegać można zjawiska historyczne, w tym także ogromny rozwój stanu ekwickiego, zasysającego coraz to nowych ludzi potrzebnych na wyższych szczeblach administracji i wojska państwa rzymskiego.³⁵

Podobnie jak w przypadku *optio primipilariorum* można stanąć w obronie precyzji zapisu kariery w inskrypcji ze Szkodry i nie doszukiwać się jakiegoś pominiętego przydziału legionowego, a po prostu przyjąć, że C. Memmius Iulius Maiorarius zasilił w Rzymie szeregi uprzywilejowanych *primipilares*, którym powierzano specjalne zadania w charakterze *praepositus*, *curator*, *praefectus legionis*, *dux*.³⁶ W tym kontekście należałoby rozpatrzyć kolejny termin *ducenarius*, zapisany pełnym słowem,³⁷ który sugerowałby, że C. Memmius Iulius Maiorarius kontynuował karierę jako ekwita, zgodnie zresztą z praktyką w III w. n.e., pozwalającą *primipili* awansować, nawet bezpośrednio na stanowiska prokuratorskie w randze *centenarii*, i kontynuować karierę jako *ducenarii*.³⁸ Trzeba by jednak założyć, że w inskrypcji ze Szkodry dokonano ogromnego skrótu, kwitując najważniejsze etapy kariery C. Memmiosa Iuliusa Maiorariusza jednym słowem, co jest możliwe,³⁹ ale wydaje się mało prawdopodobne. W konsekwencji należy uznać, że w tym przypadku — jak to wykazał na innych przykładach H.-G. Pflaum — termin *ducenarius* nie kryje w sobie jakiś ekwickich prokuratur, czy nawet innych funkcji wojskowych, jak sugeruje Vegetius,⁴⁰ ale jest kolejnym honorowym tytułem ekwickim, usytuowanym w hierarchii między *vir egregius* a *vir perfectissimus*.⁴¹ Znane poświadczenia tego tytułu sugerują, że pojawił się on w drugiej części panowania Galiena i przetrwał w tym znaczeniu do czasów pierwszej tetrarchii,⁴² co oczywiście jest ważną wskazówką dla datowania inskrypcji ze Szkodry. W tym czasie — jak wykazał M. Christol⁴³ na przykładzie analogicznego tytułu *vir centenarius* — rosnąca rola stanu ekwickiego w państwie rzymskim znajdowała wyraz w rozwoju zhierarchizowanej tytulatury, w której być może pobrzmiewały jeszcze echa zróżnicowania majątkowego ekwitów, przez długi czas związanej przecież z terminami *ducenarius*, *centenarius*.

W każdym razie C. Memmius Iulius Maiorarius mógł być dumny, że zaczynając karierę jako *caligatus miles* trafił do elity społecznej, stanowiąc tym samym kolejny i efektowny przykład szerszego zjawiska „nowych” ścieżek kariery wojskowej, stopniowo tworzonych od czasów Septymiusza Sewera, i to nawet niezależnie od jego „iliryjskiego” pochodzenia.

Należy również odnotować, że C. Memmius Iulius Maiorarius został patronem w Szkodrze, co było już od I w. n.e.⁴⁴ coraz częstszym zjawiskiem w przypadku *primipilares* — wracających do rodzinnych miast po służbie — których zamożność i pozycja społeczna predestynowała do

³⁴ DOBSON 1979, s. 120 i tabl. 23, s. 323–324, nr. 237–238; por. LE BOHEC 1992, s. 59.

³⁵ CARRIÉ, ROUSSELLE 1999, s. 133–134 (J.-M. CARRIÉ); DAVENPORT 2012.

³⁶ DOBSON 1979, s. 140.

³⁷ Zamiast tradycyjnego skrótu CC lub *duc(enarius)*, czasami myłonego z *duc(is, -i, -e, -em)* — CHRISTOL 1977; LE BOHEC 2008, s. 113, co niekiedy jest wskazówką chronologiczną; por. np. DOBSON 1979, s. 273, nr 159: „das Wort *ducenarius* ist voll ausgeschrieben; daraus kann eine Datierung spätestens in das Ende des zweiten Jahrhunderts abgeleitet werden”; PFLAUM 1960–1961, s. 950, przyp. 12.

³⁸ RE V 10 (1905), kol. 1752–1754, s.v. „ducenarius” (SEECK); TLL V 1 (1910), kol. 2131–2133, s.v. „ducenarius”; PFLAUM 1950, s. 186–194; PFLAUM 1974, s. 56; VON DOMASZEWSKI, DOBSON 1967, s. XLII; DOBSON 1979, s. 102–109, 289–290, nr 185.

³⁹ Por. np. DOBSON 1979, s. 265–266, nr 149.

⁴⁰ Veg., *Epit. rei milit.*, II 8: *Item primus hastatus duas centurias, id est CC homines, ducebat in acie secunda, quem nunc ducenarium vocant* (ed. M. FORMISANO, Milano 2010, s. 144–145).

⁴¹ PFLAUM 1960–1961, s. 950–951, przyp. 15; PFLAUM 1970, s. 178–180; PFLAUM 1974, s. 48; por. CIL III 99 = ILS 2771 (Iulius Iulianus, v.e., *ducenarius, praef. leg. I Parth.* z czasów Filipa Araba) — DOBSON 1979, s. 120; CIL III 11036 (Brigetio).

⁴² Por. CIL III 6155 (Tomis): *D(is) M(anibus) Ulpiae Aureliae Valeriae... filiae Aureli Herculani v(iri) e(gregii) ducenari(i)...* — POULTER 1978; CHRISTOL 2006, s. 247–248.

⁴³ CHRISTOL 2006.

⁴⁴ DOBSON 1979, s. 187, nr 5.

zajmowania czołowych miejsc w lokalnych elitach.⁴⁵ W konsekwencji nie można wykluczyć pochodzenia C. Memmiana Iuliusa Maioriana ze Szkodry, co tłumaczyłoby też wystawienie mu posągu w tym mieście. W każdym razie wojskowy urzędnik, który od wielu lat znajdował się w Rzymie w otoczeniu prefektów *praetorio*, bardzo dobrze nadawał się do roli reprezentanta interesów miasta wobec administracji cesarskiej.

C. Memmius Iulius Maiorianus za rzeczywiste lub oczekiwane zasługi został uhonorowany posągiem — sądząc po rozmiarach bazy, typu *statua pedestris* — ufundowanym przez radę miejską (*splendidissimus ordo*) Szkodry, co naturalnie było dosyć rutynowym zabiegiem, nawet w III w. n.e. Warto jednak odnotować, że jest to dedykacja z oficjalną nazwą miasta *colonia Scodranorum*, który to status poświadczony jest także w jednej inskrypcji z niedalekiej Doclei z końca I w. n.e.⁴⁶ Wydaje się, że ostatnie litery napisu *feli-* nie mają związku z przymiotnikiem *felix* jako elementem oficjalnej nazwy miasta, a stanowią uroczystą aklamację szczęścia *feli(citer)*,⁴⁷ nawiązującą do tradycji greckich napisów honoryfikacyjnych (εὐτυχῶς).⁴⁸

W powyższych rozważaniach milcząco zakładano, że inskrypcja ze Szkodry pochodzi z III w. n.e., co sugeruje w pewnym stopniu paleografia, ale głównie łączna obecność tytułów *primipilaris* i *vir egregius*, a przede wszystkim *ducenarius*, wskazująca — zgodnie z ustaleniami H.-G. Pflauma — na drugą połowę III w. n.e. Co prawda, wszystkie funkcje i tytuły w karierze C. Memmiana Iuliusa Maioriana miały swoją kontynuację w IV w. n.e., chociaż czasami tylko w nazwie, ale podjęta przez nas próba ich analizy w realiach późnego cesarstwa dała wynik negatywny.⁴⁹ Wydaje się zatem, że inskrypcja ze Szkodry odzwierciedla rzeczywistość sprzed bitwy przy Moście Mulwijskim. Co więcej, kariera C. Memmiana Iuliusa Maioriana mieści się jeszcze dobrze w logice tradycyjnej *Rangordnung*, modyfikowanej, ale ciągle obecnej w III w. n.e., tak jak i długoletnia służba tego żołnierza-urzędnika w otoczeniu prefektów *praetorio* w Rzymie i awans do stanu ekwického stanowią ważny przykład funkcjonowania państwa rzymskiego *en mutation*.⁵⁰

Trzeba jednak podkreślić, że nagromadzenie honorowych tytułów w karierze C. Memmiana Iuliusa Maioriana może sugerować ich pewną inflację — jak pokazuje chociażby przykład Bryonianusa Lollianusa⁵¹ — znamionującą już czasy tetrarchii, kiedy tytuł *primipilaris* przestał oznaczać byłego *primipilus*, a charakteryzował różnych cywilnych urzędników prowincjonalnych *officia*, stając się „l’indicateur de rang socio-professionel, par une extension de sens naturelle”.⁵² Ci urzędnicy — bez względu na wykonywane zadania — przynajmniej od czasów Konstantyna i Licyniusza mogli liczyć na dodatkowe wyróżnienia, określające ich pozycję społeczną, w tym także *ducenta dignitas*, czyli „un ducenariat honorifique”.⁵³ Tym niemniej, C. Memmius Iulius Maiorianus miał za sobą długą karierę wojskową, chociaż nie w sensie typowym dla IV w. n.e.,⁵⁴ która doprowadziła go do rangi *primipilaris* i do tytułu *ducenarius*, czyli do „l’appartenance de l’intéressé à un degré plus élevé de la hiérarchie équestre que ne l’implique le simple égrégat”.⁵⁵

⁴⁵ DOBSON 1979, s. 121–127 i tabl. 24.

⁴⁶ CIL III 12695 = ILS 7159; PAVAN 1958, s. 90; *ILJug*, s. 138.

⁴⁷ Por. np. CIL III 3126 (wyspa Krka, Dalmatia): [...trib(uni) coh(ortis)] XI urb(anae), trib(uni) coh(ortis) VI praet(oriae) et protector(is) Aug(ustorum trium) n(ostrorum) patroni splendidissimae civitatis Curictarum ob insignem benevolentiam statum poni sanxerunt. Fel(iciter) — CHRISTOL 1977, s. 395.

⁴⁸ RAC I (1950), kol. 229, s.v. „Akklamation (15)” (Th. KLAUSER); PFLAUM 1960–1961, s. 948, przyp. 4 (również εὐτυχῶς).

⁴⁹ GROSSE 1920; NICASIE 1997; LE BOHEC 2008, s. 109–129.

⁵⁰ CARRIÉ, ROUSSELLE 1999, s. 125–144 (J.-M. CARRIÉ).

⁵¹ PFLAUM 1960–1961, s. 947–948, 1001, nr 356; FOSS 1977; CARRIÉ 1979.

⁵² CARRIÉ 1979, s. 219; CARRIÉ, ROUSSELLE 1999, s. 175 (J.-M. CARRIÉ).

⁵³ C. Th. VIII 4, 3: *primipilaribus post emeritam militiam perfectissimatus vel ducenae vel centenae egregiatus dari dignitas potest*; por. PFLAUM 1960–1961, s. 951, przyp. 17; CARRIÉ 1979, s. 219; CHRISTOL 2006, s. 246, przyp. 17, s. 249, przyp. 39.

⁵⁴ DREW-BEAR 1977; NICASIE 1997.

⁵⁵ PFLAUM 1960–1961, s. 950; por. CARRIÉ 1979, s. 217; FOSS 1979; CARRIÉ, ROUSSELLE 1999, s. 538 (J.-M. CARRIÉ); CHRISTOL 2006, s. 249–250.

Na bocznych ścianach bazy znajdują się inskrypcje zawierające tę samą treść, lecz zredagowane w dwóch różnych językach: na lewo (patrząc od przodu) — po grecku, na prawo — po łacinie. Obie inskrypcje zajmują górną część powierzchni bocznych, których dół jest w obu przypadkach nieinskrybowany. Wymiary inskrypcji greckiej: szerokość: 43 cm; wysokość: 22 cm; wysokość liter w linii 1: 11–12 cm, w linii 2: 6–7 cm; wymiary inskrypcji łacińskiej: szerokość: 47 cm; wysokość liter: 11 cm. Litery z szeryfami, nieznacznie przechylone w prawo. A ma identyczny kształt w obu inskrypcjach: krokiewka z przełamaną poprzeczką, a właściwie z łuczkiem skierowanym ku dołowi, umieszczonym powyżej środka litery. M w inskrypcji łacińskiej ma kształt majuskułowy (zewnętrzne kreski są proste i prawie równoległe względem siebie), natomiast *mu* w inskrypcji greckiej — kształt kursywny, z zewnętrznymi kreskami silnie zaokrąglonymi u dołu. *Sigma* w inskrypcji greckiej jest lunarne. W inskrypcji łacińskiej kamieniarz rozróżnia Y i V; ta pierwsza litera jest identyczna jak *upsilon* w inskrypcji greckiej. Mimo różnicy w kształcie M i *mu* wydaje się, że obie inskrypcje zostały wykute przez tego samego kamieniarza. Używając dwóch różnych kształtów tej litery kamieniarz chciał podkreślić różnicę języków.

Δύναμι,
ζήσαις.

Dynami, · vivas.



Ryc. 4. Lewy bok bazy z inskrypcją grecką
(fot. S. Rzeźnik)



Ryc. 5. Prawy bok bazy z inskrypcją łacińską
(fot. S. Rzeźnik)

Mamy tutaj do czynienia z inskrypcjami auguralnymi, czy raczej dwiema wersjami językowymi jednej inskrypcji auguralnej, którą można przetłumaczyć: „Dynamis, obyś żyła”. Według wszelkiego prawdopodobieństwa Δύναμις/*Dynamis* jest tutaj imieniem kobiecym (stąd pisownia dużą literą). Imię Δύναμις jest dobrze poświadczane w świecie greckim. Poświadczenia, w większości datowane na czasy cesarstwa rzymskiego, pochodzą z Aten,⁵⁶ Sparty,⁵⁷ Tesalii,⁵⁸ Macedonii,⁵⁹ rejonu Hellespontu,⁶⁰ północnych wybrzeży Morza Czarnego,⁶¹ Samos,⁶² Krety,⁶³ Efezu,⁶⁴

⁵⁶ IG II² 10191.

⁵⁷ IG V 1, 742.

⁵⁸ IG IX 2, 538.

⁵⁹ IG X 2, 1, 418 oraz 812 (oba poświadczenia z Thessalonike).

⁶⁰ I.Byzantion 277.

⁶¹ CIRB 38; 978; 979; 1046; SEG XLV 1018 i 1022

(wszystkie te poświadczenia odnoszą się do tej samej osoby, królowej Królestwa Bosporańskiego).

⁶² IG XII 6, 2, 693.

⁶³ SEG XIX 603 (inskrypcja pochodzi z Tarrha).

⁶⁴ IG XII 1, 415 (epitafium upamiętniające mieszkankę Efezu znalezione na Rodos).

Miletu⁶⁵ (włączając Didyma⁶⁶), Lidii,⁶⁷ Licji,⁶⁸ Pamfilii,⁶⁹ Cylicji,⁷⁰ Cyrenajki,⁷¹ i Rzymu.⁷² Znane nam są również liczne poświadczenia omawianego imienia w łacińskiej transkrypcji *Dynamis*. Znajdujemy je w inskrypcjach pochodzących z Samnium,⁷³ Hispania Citerior,⁷⁴ Eubei,⁷⁵ Transpadana,⁷⁶ ponownie Rzymu,⁷⁷ Kampanii,⁷⁸ i Apulii.⁷⁹

Teoretycznie można założyć, że Δύναμις/*Dynamis* z omawianych tutaj inskrypcji odnosi się nie do jakiejś kobiety, lecz do personifikacji siły, potęgi. Rzeczywiście δύναμις, obok ἀρετή, μεγαλοψυχία, κτίσις, σωτηρία, ἀπόλαυσις, δικαιοσύνη, ἀνανέοσις, etc., należy do tych pojęć, które były chętnie personifikowane w okresie późnego antyku.⁸⁰ Sądzymy, że założenie to należy jednak odrzucić. Dałoby się ono utrzymać, gdybyśmy mieli do czynienia tylko z inskrypcją grecką. W inskrypcji łacińskiej personifikowana „siła, potęga” byłaby raczej nazywana *potestas*. Za interpretacją Δύναμις/*Dynamis* jako imienia kobiecego przemawia również fakt, że inskrypcje „NN, ζήσας/vivas” zawsze dotyczą osób.

Omawiane tutaj inskrypcje należą do grupy napisów auguralnych zbudowanych według wzorca: „NN (imię w wołacz), ζήσας (ζήσης)⁸¹/vivas”. Inskrypcje tej grupy występują zasadniczo na trojakiego rodzaju nośnikach:

1) na naczyniach do picia, bardzo często szklanych, ale także ceramicznych, zwykle jako element formuły: „NN, πῖε ζήσας”;⁸²

2) na najróżniejszego rodzaju przedmiotach zdobniczych i użytkowych: gemmach,⁸³ elementach biżuterii,⁸⁴ pieczęciach,⁸⁵ przyborach toaletowych,⁸⁶ naczyniach,⁸⁷ sztucach,⁸⁸ etc.;

⁶⁵ SEG XXX 1349.

⁶⁶ I. Didyma 351.

⁶⁷ SEG XXXV 1257 (z Silandos); SEG XLIX 1712 (z Thyateira).

⁶⁸ HEBERDEY, KALINKA 1896, nr. 52, 73.

⁶⁹ I. Anazarbos 460.

⁷⁰ I. Anazarbos 335.

⁷¹ LLOYD (ed.) 1977, s. 250, nr 28 (z Euesperides/Berenike).

⁷² IGUR I 160; II 809.

⁷³ CIL I 3217 (z Sulmo).

⁷⁴ CIL II 3938 (z Saguntum).

⁷⁵ CIL III 12289 (z Eretrii).

⁷⁶ CIL V 6369 (z Laus Pompeia).

⁷⁷ Na temat imienia *Dynamis* w inskrypcjach z Rzymu, zob. SOLIN 1982, III, s. 1203. Solin odnotowuje 25 poświadczeń tego imienia w stolicy Imperium w obu wersjach językowych (greckiej i łacińskiej).

⁷⁸ CIL X 2963 (z Puteoli); 4157 (z Capua); AE 2005, 357 (z Puteoli); CIL XIV 2444 (z Castrimoenum).

⁷⁹ AE 1978, 204 (z Brundisium).

⁸⁰ Na temat późnoantycznych personifikacji pojęć abstrakcyjnych, zob. LEADER-NEWBY 2005.

⁸¹ Na temat formy czasownika (*optativus versus coniunctivus*), zob. FERRUA 1974.

⁸² Na temat naczyni do picia z inskrypcjami πῖε ζήσας, zob. DACL XIV (1939), kol. 1023–1031, s.v. „Pie zesēs” (H. LECLERCQ); AUTH 1996.

⁸³ CIL III 10188, 17: *Gregori, vivas* (Dalmacja); CIL IX 6084, 8: *Paule, vivas*; CIL X 8061, 11: *Cromati, vivas* (złoty pierścień z gemmą; Formi).

⁸⁴ Przykłady są bardzo liczne, tutaj tylko wybór: IG XIV 2573, 11: Ὀλύμπει (Ὀλύμπι vel Ὀλύμπιε), ζήσας (złoty pierścień; Britannia, Stonham Aspal [Suffolk], niedatowany); IG XIV 2573, 13: *Pulveri, ζήσας* (złoty pier-

ścień z gemmą; Germania Superior, Heidenberg, niedatowany); SEG XXXV 1070: Πουφείνα, ζήσας (złota zawieszka; Hispania, Asturica Augusta [Astorga], późny II–IV w.); SEG XLVII 1547 = IG Pannonia 124: Ἀρίων, ζήσας (złoty pierścień; Cibale [Vinkovci], IV w.); SEG XLIV 646, 1: Εὐτύχι, ζήσας (pierścień; Moesia Superior, Viminacium [Kostolac], ok. 250–300; wydawcy czytają εὐτύχι, co jest — naszym zdaniem — błędne); AE 1979, 480: *Leonti, vivas* (pierścień ze złota; Brigetio); CIL III 1639: *Iuliane, vivas* (złota fibula; Dacia); CIL 6016, 5: *Costanti, vivas* (złota fibula; z terenu Węgier); CIL III 6019, 3: *Desideri, vivas* (złoty pierścień; obecnie w zbiorach wiedeńskich); CIL III 6288: *Quartine, vivas* (fibula ze srebra; Illyricum); CIL VII 1300: *Aemilia, zesēs* (złoty pierścień; Britannia, Corbridge).

⁸⁵ IG XIV 2412, 13: Εὐβούλι, ζήσας (Sardynia, Uselis [Usellus]); AE 1994, 706c: *Victor, vivas* (pieczęć z brązu; Venetia, Altinum).

⁸⁶ CIL III 14338: *Eracli, vivas* (lustro z brązu; Salona); CIL VII 1297: *Aeternus, vivas* (*cochlear* z brązu; Britannia, Camulodunum); AE 1994, 1100: *Datiane, vivas* (*cochlear* z brązu); AE 1994, 1101: *Euheri, vivas* (*ligula* z brązu); AE 1994, 1102: *Faustine, vivas* (*ligula* z brązu); AE 1994, 1109: *Silvicola, vivas* (*cochlear* z brązu; te ostatnie cztery obiekty ze skarbu znalezione w Hoxne, Suffolk).

⁸⁷ CIL XV 7022: *Avianon, vivas* (szklana patera z przedstawieniem dwóch mężczyzn, stojącego i siedzącego; Rzym); AE 1987, 469a = 1988, 657a: *Bonifatia, vivas* (*dolium*; Sardinia, Tharros).

⁸⁸ AE 1996, 1178: *Eroti, vivas* (ostrze noża z żelaza; Raetia, Phyn [Ad Fines], IV w.); AE 1982, 670h: *Agreste, vivas*; 670i: *Auspici, vivas*; 670j: *Ingenuae, vivas*; 670k: *Pr(i)migenia, vivas*; 670l: *Silviola, vivas* (zestaw łyżek srebrnych; Britannia, Thetford).

3) na innych obiektach wykonanych zarówno z kamienia, jak i z innych materiałów: *cippi* i stelach z przedstawieniami figuralnymi lub bez,⁸⁹ elementach budowli,⁹⁰ plakietskach,⁹¹ ceglach,⁹² dachówkach,⁹³ etc. Do tej grupy należą też inskrypcje na mozaikach⁹⁴ oraz *graffiti* na ścianach budowli.⁹⁵ W inskrypcjach tej grupy formuła „NN, ζήσας/vivas” jest często uzupełniona o jakieś dodatkowe elementy wypowiedzi.

Jak się zdaje, inskrypcje auguralne omawianego tutaj typu pojawiają się w okresie cesarstwa i są szczególnie charakterystyczne dla czasów późnego antyku (IV–V w.). Występują one w kontekście zarówno pogańskim, jak i żydowskim oraz chrześcijańskim. W zależności od nośnika można im przypisać kilka znaczeń (funkcji):

- Napisy na naczyniach do picia są życzeniem zdrowia i radości płynących z konsumpcji wina.
- Napisy na ozdobach i przedmiotach użytkowych są życzeniem szczęścia i powodzenia dla właścicieli tych przedmiotów i, ewentualnie, osób ich używających.
- Napisy na innych obiektach stanowią grupę heterogeniczną pod względem funkcji (przeznaczenia). Mamy tutaj życzenia dla właścicieli i mieszkańców domów, życzenia dla wybitnych postaci życia publicznego, okazjonalne napisy pozostawiane przez różne osoby w miejscach publicznych, a wreszcie inskrypcje nagrobne. Te ostatnie pojawiają się najczęściej w kontekście chrześcijańskim. Życzenie „oby NN żył(a)” występuje w tych inskrypcjach w znaczeniu eschatologicznym: „oby żył(a) wiecznie”, „oby żył(a) w Bogu” lub podobnie.⁹⁶

W tym miejscu należy zadać pytanie, jak w świetle inskrypcji typu „NN, ζήσας/vivas” powinniśmy interpretować inskrypcje ze Szkodry? Należą one bez wątpienia do trzeciej z wyróżnionych powyżej grup, lecz jaką konkretnie funkcję można im przypisać? Odpowiedź na to pytanie zależy w dużej mierze od stwierdzenia, czy inskrypcje auguralne dla Dynamis powstały w tym samym czasie co inskrypcja honoryfikacyjna dla C. Memmiosa Iuliusa Maioriarusa, czy też są od niej późniejsze.⁹⁷ Możliwość wykucia wszystkich trzech inskrypcji jednocześnie nie jest wcale tak nieprawdopodobna, jak mogłoby się nam wydawać na pierwszy rzut oka.⁹⁸ Świadczą o tym paralele, w których inskrypcja auguralna dla jednej osoby towarzyszy inskrypcji honoryfikacyjnej dla jakiejś innej osoby. Dobrym przykładem jest inskrypcja z Rzymu, datowana na późny II – wczesny III wiek, ustanawiająca honory dla pewnego M. Aureliusa Saturninusa, obdarzonego tytułem *clarissimus*, ze strony jego wychowanka Septimiusa Trepsasa, której towarzyszy inskrypcja

⁸⁹ Np. RIZAKIS 1998, 186b: ζήσας, Εὐάγρι (Patrai, IV w.); IG IV 678: ζήσις (= ζήσις), Μαρκιανή (Kynouria, Thyreatis, okres rzymski); CIL III 3986 = IG Pannonia 70: *Ianuaria, zaesis* (= ζήσις) (na fragmencie z kamienia z resztkami rzeźby; Pannonia Superior, Siscia, IV w.).

⁹⁰ CIL XIII 4326: *Paterni, vivas* (zwornik; muzeum w Metz).

⁹¹ Por. np. IG XIV 2423, 2: *Limēni, vika* | [Λι]μῆνι, ζ<ή>σ[αις] | Λιμῆνι, ζ[ή]σας (Rzym, data nieznana); IG XIV 2493: Εὐστόχι, ζήσας (bliżej nieokreślony fragment marmurowy; Gallia Narbonensis, Alba Helvorum [Alba-la-Romaine], data nieznana).

⁹² AE 1998, 741: *Amazoni, vivas*, pomiędzy słowami chrysmon (płytką terakotową; Ostippo, VI–VII wiek). Z terenów Półwyspu Iberyjskiego znane są liczne przykłady analogicznych inskrypcji na ceglach. Wzmiankowany w tych inskrypcjach Amazonis był prawdopodobnie biskupem Ecija; por. CASTELO RUANO 1996, szczególnie s. 490–491.

⁹³ CIL X 8046, 15: [E]use[b]i, vivas, na początku inskrypcji chrysmon (Sardynia).

⁹⁴ HÜBNER 1871, s. 12, nr 39; VIVES 1969, s. 143, nr 425;

GÓMEZ PALLARÉS 2002, s. 32, nr BA1; SEG LI 1475; AE 1992, 181: inskrypcja w języku greckim zapisana literami łacińskimi: *Erythri*, | *zesaes*, | *zesaes* | *meta tes* | *cyrias su*, tj. Ἐρυθρί, | ζήσας, | ζήσας | μετὰ τῆς | κυρίας σου (Emerita Augusta [Mérida], prawdopodobnie III/IV w. n.e.; należy zauważyć, że nic nie wskazuje na to, aby inskrypcja była chrześcijańska, jak chcą jej wydawcy).

⁹⁵ AE 1998, 205: *Achillis, vivas* (*graffito* w części *Domus Aurea* przerobionej na oratorium świętej Felicity, II–V w.).

⁹⁶ Na temat formuły „Oby NN żył(a)” w inskrypcjach nagrobnych, por. FERRUA 1975; zob. także JANSSENS 1981, s. 324–326; DIFFENBACH 2007, s. 47–49.

⁹⁷ Należy raczej wykluczyć możliwość, aby inskrypcje auguralne dla Dynamis były wcześniejsze niż inskrypcja honoryfikacyjna dla Caiusa Memmiosa Iuliusa. Ta ostatnia jest z pewnością pierwotnym elementem bazy.

⁹⁸ Należałoby jedynie przyjąć założenie, że nad inskrypcjami honoryfikacyjną dla Caiusa Memmiosa Iuliusa i inskrypcjami auguralnymi dla Dynamis pracowało dwóch różnych kamieniarzy.

auguralna Εὐμέλι, ζήσας.⁹⁹ Inny przykład pochodzi z Lilybaeum (Marsala) na Sycylii i brzmi:¹⁰⁰ *Eumeni, | vivas. | Ἀλπείνιον Μάγνον | τὸν λαμπρότατον ὑπατ(ικὸν) | καὶ ἀγνότατον δικαστὴν | βουλή καὶ δῆμος | Λιλυβαειτῶν διὰ τὰς | περὶ τὴν πατρίδα | εὐεργεσίας τὸν | πάτρωνα ἡμίψατο.* Uhonorowany Alpinus Magnus, według tekstu pochodzący z Lilybaeum namiestnik Sycylii, jest prawdopodobnie tą samą osobą co *corrector* Lucanii i Bruttium w latach 323–326.¹⁰¹ Kim był Eumenis, nie sposób powiedzieć. Przypuszczenie wysunięte przy okazji *editio princeps* inskrypcji, że mamy tutaj do czynienia z synem uhonorowanego, jest pociągające lecz niczym nieuzasadnione. Jeśli inskrypcja honoryfikacyjna dla C. Memmiosa Iuliusa Maioriarusa i inskrypcje auguralne dla Dynamis są sobie współczesne, te ostatnie należałoby prawdopodobnie interpretować jako życzenia skierowane do kobiety żyjącej, związanej zapewne w jakiś sposób z C. Memmusem Iuliussem Maioriarusem. Więzy te mogły, choć nie musiały, mieć charakter rodzinny.

Jeśli inskrypcje auguralne dla Dynamis są późniejsze niż inskrypcja honoryfikacyjna, to możliwość interpretacji tych pierwszych nieco się rozszerza. W dalszym ciągu możemy w nich widzieć życzenia dla kobiety żyjącej lub też, choć z mniejszym prawdopodobieństwem, życzenia na życie pozagrobowe. W przypadku tej drugiej interpretacji trzeba by chyba założyć, że Dynamis była chrześcijanką, choć żadne inne elementy inskrypcji na to nie wskazują. Poza imieniem nie da się niczego powiedzieć o odbiorczyni życzeń. Inskrypcje należałoby prawdopodobnie datować na IV w. n.e.

Teoretycznie inskrypcje auguralne na bazie ze Szkodry można interpretować jeszcze w inny sposób, uznając, że odnoszą się one nie do kobiety o imieniu Dynamis, lecz do C. Memmiosa Iuliusa Maioriarusa uhonorowanego posagiem i inskrypcją na frontowej stronie bazy. W takiej sytuacji należałoby je czytać odpowiednio: δυνάμι ζήσας oraz *dynami vivas* i tłumaczyć: „żyj w sile”. Przy takim odczytaniu δυνάμι byłoby fonetycznym zapisem celownika od słowa δυνάμις (δυνάμει), natomiast *dynami* łacińskim ablativem tego samego słowa. Interpretacja taka, jakkolwiek pociągająca, ma co najmniej trzy słabe strony: (1) jak wspomniano powyżej, inskrypcje auguralne z *vivas* mają na pierwszym miejscu zawsze lub prawie zawsze imię osobowe w wołaczu; (2) użycie w inskrypcji łacińskiej słowa greckiego a nie jego łacińskiego odpowiednika byłoby trochę dziwne; (3) w powiązaniu z *vivas* spodziewalibyśmy się raczej przysłówka lub przymiotnika a nie rzeczownika w datiwie/ablatiwie. Ze względu na te słabości pozostajemy przy pierwszym odczytaniu i pierwszej interpretacji.

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⁹⁹ *IG* XIV 1477; *IGUR* II 420.

¹⁰⁰ *AE* 1966, 167.

¹⁰¹ *PLRE* I, s. 534–535, s.v. „Magnus”.

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Summary

New inscriptions from ancient Shkodra (Albania) found during Polish-Albanian excavations

In the course of 2011 Polish-Albanian excavations at Shkodra (Albania), new inscriptions were found at the Rozafa hill, increasing the modest collection of inscriptions known from this important ancient city. The find comes from a cistern in the grounds of the fortress, built probably in the fifteenth century by the Venetians and functional as late as the twentieth century. After water was pumped out of the cistern one of the supporting pillars turned out to be built of reused ancient stone blocks, including a limestone statue base, which contained an almost entirely preserved Latin honorific inscription at its front. The sidewalls of the base contain brief augural inscriptions Latin and Greek of matching contents.

The statue was dedicated by the Shkodra council of decurions to C. Memmius Iulius Maiorarius, an army officer and patron of the city. His *cursus honorum* suggests a date for the inscription in the last decade of the third century. The honorific inscription thus turns out to be very significant

for understanding the transformation of the traditional *Rangordnung* in the third century AD and the career of C. Memmius Iulius Maiorarius, his many years of service among the prefects *praetorio* in Rome and his promotion to the equite order constitute an impressive example of the transformations in the functioning of the Roman state and the creation of new social elites at the higher levels of administration and the military.

It is interesting that the statue base was also inscribed on the sides with wishes for a woman named Dynamis written in Greek on one side and Latin on the other. Her connection to C. Memmius Iulius Maiorarius remains obscure and it cannot be ruled out that the side inscriptions were added later, in the fourth century AD.

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EARLY ROMAN COINS FROM NOVAE. PATTERNS AND OBSERVATIONS*

Abstract: This article is the first systematic attempt for collection and arrangement of the early Roman coin finds from Novae — a large legionary fortress on the Lower Danube excavated without interruption since 1960. It contains a complete identification of all published coins from the site excavations as well as a thorough check of inventory books in Svištov Museum. No fewer than 252 coins (or a total 407 including the *suburbia* finds) of the Early Principate period (Augustus to Trajan) are catalogued and further analysed. A small hoard of six Claudian and Neronian *aes*-coins (*t.p.q.* AD 64/5) found in the street sewage by the legion's *principia* is also discussed. A comparative analysis of coin denominations which occur at Novae is applied. Of particular value for the current analysis is the chronological overlapping of small finds (*terra sigillata* from North Italy and Gaul, imported glass, amphorae, etc.) associated with the Julio-Claudian and Flavian coins excavated in sectors X, XI and XVIII. Paper provides insight for the early phases of habitation and emphasizes on the purely military character of Novae until Hadrian.

Key words: coins, coinage, monetisation, site finds, Roman numismatics, Early Principate, Moesia, Thracia, Novae, *legio VIII Augusta*, *legio I Italica*, Gepaepyris, Caligula, countermarks

1. Introduction

Novae is one of the earliest Roman army camps on the Lower Danube.¹ Therefore its evidence is vital for getting a systematic overview on the historical and numismatic developments in the region. It has been assumed that around AD 45/6² Novae became the base of *legio VIII Augusta*³ which arrived from Poetovio⁴ and built an earth-and-timber camp.⁵ Twenty-four years later — in

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¹ On early Novae and its studies, see: ŠKORPIL 1905, pp. 456–457, pls. 99.c and 102.1; PRESS, SARNOWSKI 1990, pp. 225–243; FERJANČIĆ 2002, pp. 166–169; GENČEVA 2002; WILKES 2005, pp. 132, 136, 148, 150–151, no. Mi.

18; DYCZEK, KOLENDO, SARNOWSKI 2001; DERDA, DYCZEK, KOLENDO (eds.) 2008; SARNOWSKI *et alii* 2012, *passim*.

² Most probably as a consequence after the annexation of the Thracian kingdom, see FILOW 1906, p. 19; RITTERLING 1924–1925, col. 1647; KOLENDO 1998, pp. 321–326; GENČEVA 2002, pp. 7–11.

³ On *legio VIII Augusta*, see FILOW 1906, pp. 7–8, 19–25; RITTERLING 1924–1925, cols. 1642–1649; REDDÉ 2000, pp. 121–122.

⁴ FILOW 1906, p. 10–11, RITTERLING 1924–1925, cols. 1647–1648; SARNOWSKI 1988, p. 26; FERJANČIĆ 2002, p. 166.

⁵ SARNOWSKI 1988, p. 29; DYCZEK, KOLENDO, SARNOWSKI 2001, p. 7; GENČEVA 2002, pp. 11–12, 13–23, 59–60, 67; TOMAS 2007, p. 32; CIOLEK, DYCZEK 2011, p. 9. The earliest epigraphic documents attesting the 8th legion at

March/April 69 — this unit left Novae for northern Italy and took active part in the battle of Bedriacum near Cremona.⁶ After the end of the Civil War⁷ (most probably in AD 71/2) *legio I Italica* arrived at Novae on its place.⁸ In AD 70 some discharged veterans of *legio VIII Augusta* were settled in nearby Thrace — in a newly established Colonia Deultensium / Deultum near the Black Sea (Plin., *NH*, IV 45).⁹

As a result of an earliest attempt to overview the Imperial coins from Moesia and Thrace, in 1977 Richard Reece stated: “there is little Roman coinage before 69 and what there is is mainly Imperial bronze”.¹⁰ Data currently available also leads to a similar conclusion.¹¹ However, there are a good number of objective reasons for this *status quo*. The rarity of Early Principate coins could be result of the following:

1. The mainstream coinage in the entire Julio-Claudian period (except under early Augustus and late Nero) was irregular, sometimes with intervals of several to ten years of inactivity.¹² Hence the output of coinage was rather small, right until Domitian and Trajan.
2. The majority of coins derive from multi-layer archaeological sites, inhabited for millennia, where the early Roman *strata* were not always reached and excavated.¹³ Thus, the coin issues of the Early Principate period are not abundant before Trajan in principle (usually not exceeding 5–10%).
3. Almost without exception, the coins of this period are in poor physical condition — much worn and corroded, sometimes absolutely illegible and hard to identify.
4. The low level of publication of coin site finds in Bulgaria, especially during the 1960s to 1980s, together with incomplete inventory records at museums and sites, greatly influenced the amount and quality of available numismatic data.¹⁴

A recent attempt to fill this gap in the numismatic research has been made by the author.¹⁵ At present Novae provides the most comprehensive coin record for Moesia, as this article demonstrate.

Being the site of archaeological excavations carried out regularly by Polish and Bulgarian teams since 1960, Novae [Fig. 1] produced a substantial coin assemblage — indeed 252 coins, or 407 when the *suburbia* finds are included (see catalogue, sections 1–7), from the period under study. Unfortunately, these coins remain largely disregarded and barely used in the current numismatic research.¹⁶

The brief historical overview outlined above is well supported by the existing coin evidence.¹⁷

Novae are dated to ca. AD 50, see *ILBulg.* 300 = *IGLNov.* 81 (gravestone of a legion's *cornicen* from Fanum Fortunae near Ancona on the Adriatics) and *AE* 1999, 1331 (gravestone of a legionary from Colonia Agrippinensis in Germania).

⁶ For further historical details of the events, see RITTERLING 1924–1925, col. 1771; GEROV 1949, pp. 9–10; recently PAUNOV, DONCHEVA 2013, pp. 43–48.

⁷ Most probably *legio I Italica* was posted to Moesia by Vespasian for having sided with the eventual loser Vitellius during the Civil War. His former commander, Rubrius Gallus (*PIR*² R 127), was appointed as the first Vespasianic governor of Moesia (ca. AD 70–73), see GENČEVA 2002, pp. 12; recently PAUNOV, DONCHEVA 2013, pp. 47–49.

⁸ FILOW 1906, pp. 27–28, 33–35; RITTERLING 1924–1925, cols. 1407–1416; WILKES 2005, p. 157; CIOLEK, DYCZEK 2011, p. 10; SARNOWSKI *et alii* 2012, pp. 18, 27.

⁹ On Deultum, see recently DRAGANOV 2007, pp. 24–35.

¹⁰ REECE 1977, p. 169 and Table 1.

¹¹ See for details PAUNOV 2013 (PhD thesis — in preparation for publication).

¹² VON KAENEL 1994, pp. 45–68; WOLTERS 1999a, pp. 234–253; most recently WOLTERS 2012, pp. 336 and 346–347.

¹³ Such as in Ratiaria and Oescus (cf. KABAKČIEVA 1996, pp. 95–117; IVANOV, KOVAČEVA 2002, pp. 42–54), where the Early Principate layers are barely reached and unexplored. About the new finds from pre-Trajanic Serdica, see note 81 below.

¹⁴ Overview of research in this period can be found in KUNISZ 1992a, pp. 17–21.

¹⁵ Complete re-assessment of the period in PAUNOV 2013.

¹⁶ Except two short lists in KUNISZ 1992a and a lost inventory of all coins found in Novae and its vicinity, compiled by the late Professor Andrzej Kunisz, cited as “in print” (KUNISZ 1992a, pp. 39–40). This work was never published. Recently see DIMITROV 2008; 2011; 2013, pp. 712–765.

¹⁷ See both lists in KUNISZ 1992a, pp. 134–135 and 161–162.

Consequently, the aim of this article is to present an updated overall view of the existing first-century AD site finds from Novae as well as to perform a numismatic analysis and preliminary interpretation.¹⁸ The analysis to follow is based primarily on the published or previously discussed numismatic material from Novae, excluding physical examination of coins. It includes the coin evidence known from the following working sectors:

- IV (army hospital / *valetudinarium*),¹⁹
- V (western gate / *porta principalis sinistra*),²⁰
- X (houses of the legion's tribunes / *scamnum tribunorum*),²¹
- XI (headquarters building / *principia*),²²
- VIII-A (residential peristyle-complex / *villa extra muros*),²³

as well as from summary lists of site finds until 1986 prepared by A. Kunisz.

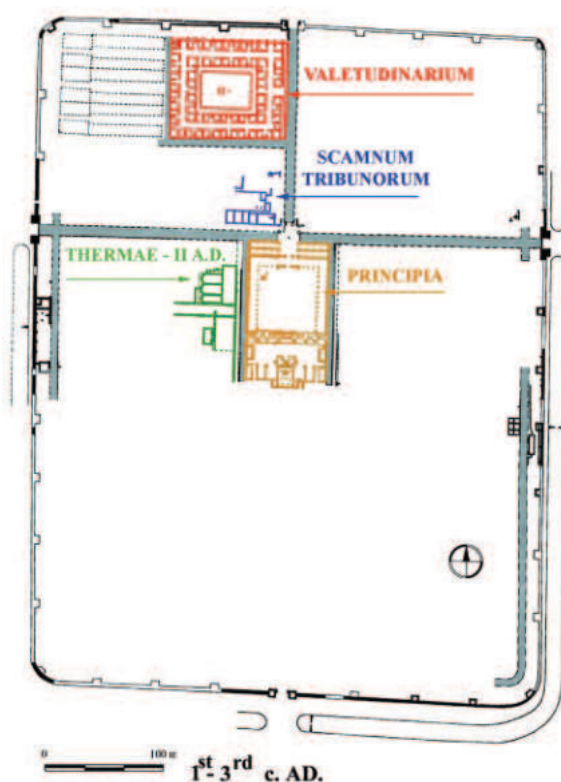


Fig. 1. Novae ground plan (after Dyczek 2008)

¹⁸ On the principles of documentation, analysis and dating of coin finds from excavations, see LOCKYEAR 2007, pp. 211–224; LOCKYEAR 2012, pp. 191–211.

¹⁹ On *valetudinarium*, see DYCZEK 2008, pp. 44–70; CIOLEK, DYCZEK 2011, pp. 2–43; SARNOWSKI *et alii* 2012, pp. 59–67. Coins are now completely published in CIOLEK, DYCZEK 2011.

²⁰ On the western gate / *porta principalis sinistra*, see PARNICKI-PUDELKO 1973, pp. 297–314; PARNICKI-PUDELKO 1990; SARNOWSKI *et alii* 2012, pp. 40–44; coin finds are not published.

²¹ On *scamnum tribunorum*, see MILČEVA, GENČEVA 1991, pp. 24–35; GENČEVA 2002, *passim*. Some coins from this sector are published in BOŽKOVA 2002, pp. 111–116, with numerous errors.

²² On *principia* excavations, see SARNOWSKI 1991, pp. 303–307; SARNOWSKI *et alii* 2012, pp. 50–59. Coins from this sector remained for long unpublished; see now DIMITROV 2011, pp. 140–216, on early coins — see esp. pp. 140, 144–145, 155–156, 174, 177–179; pers. comm. from Professor T. Sarnowski, November 2009 and November 2013; cf. KUNISZ (unpublished).

²³ On the residential complex *extra muros*, see VLADKOVA 2003, pp. 221–230; SARNOWSKI *et alii* 2012, pp. 80–53. Coins found until 2005 are now published in DIMITROV 2008, pp. 429–450. A limited information about coins found after 2005 was provided by Dr. P. Vladkova, pers. comm., January 2010.

The data available may be summarized as follows:

Table 1

	sector IV (<i>valetudinarium</i>)	sector V (<i>western gate</i>)	sector X (<i>scamnum tribunorum</i>)	sector XI (<i>principia</i>)	sector VIIIA (<i>villa extra muros</i>)	Novae pre-1986	Novae suburbia	totals
total coins	766	unknown	unknown	593 ²⁴	195	unknown	?	unknown, perhaps over 10,000 ²⁵
Augustus to Trajan	50	4	22	19	16	141 ²⁶	155	407
percentage of total	6.5%	?	?	3.2%	8.2%	?	?	?

2. Main patterns observed

Currently, the Early Principate site finds from Novae present the following statistical record, arranged per issuer and reign:

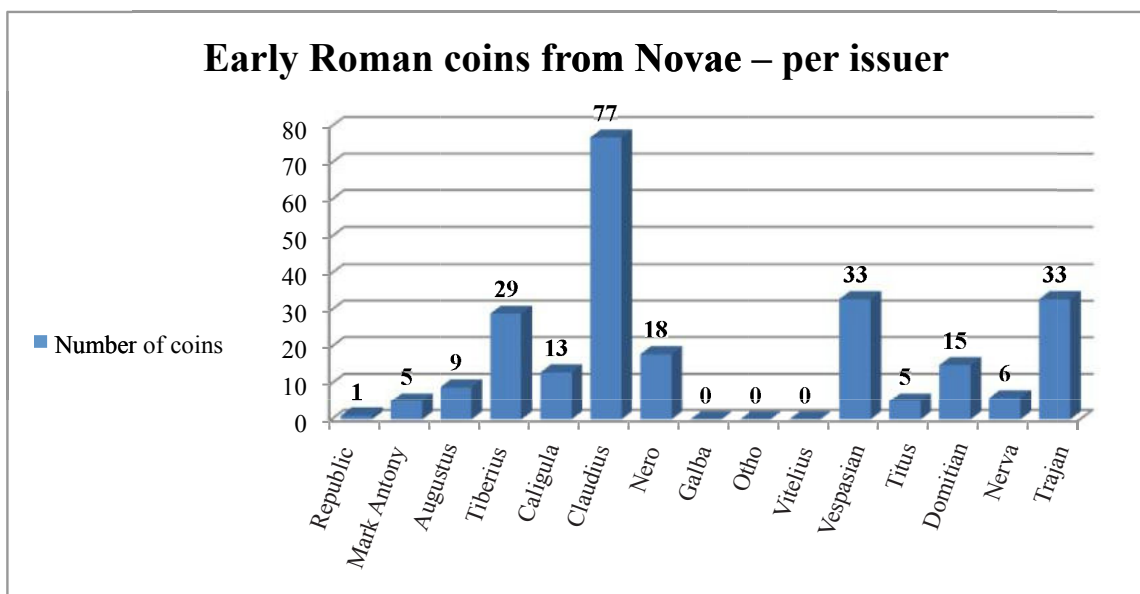


Fig. 2. Site finds from Novae: from Late Republic to Trajan, coins per issuer

²⁴ Coins found between 1975 and 2009 are published in DIMITROV 2011, pp. 140–216. 456 out of total belong to a large mixed hoard found in *aerarium* (premise Fw) of *principia* (DIMITROV 2011, pp. 140–142, 144, 156–175).

²⁵ Average estimate by the author, the accurate number is not known, no reliable data. For comparison, the similar legionary fortress of Carnuntum yielded more than 36,000 coins.

²⁶ This figure must be used with caution. In fact it is very possible that some of these coins are also present in the previous columns, because KUNISZ 1992a did not give exact provenance by sectors of this round number.

Further, the standard *per mille* method is used to calculate the annual coin loss from the site finds at Novae. It was originally designed by Alison Ravetz for the fourth century AD sites in Roman Britain,²⁷ using the formula:

$$\frac{\text{Coins per period}}{\text{Length of period}} \times \frac{1000}{\text{Total for site}}$$

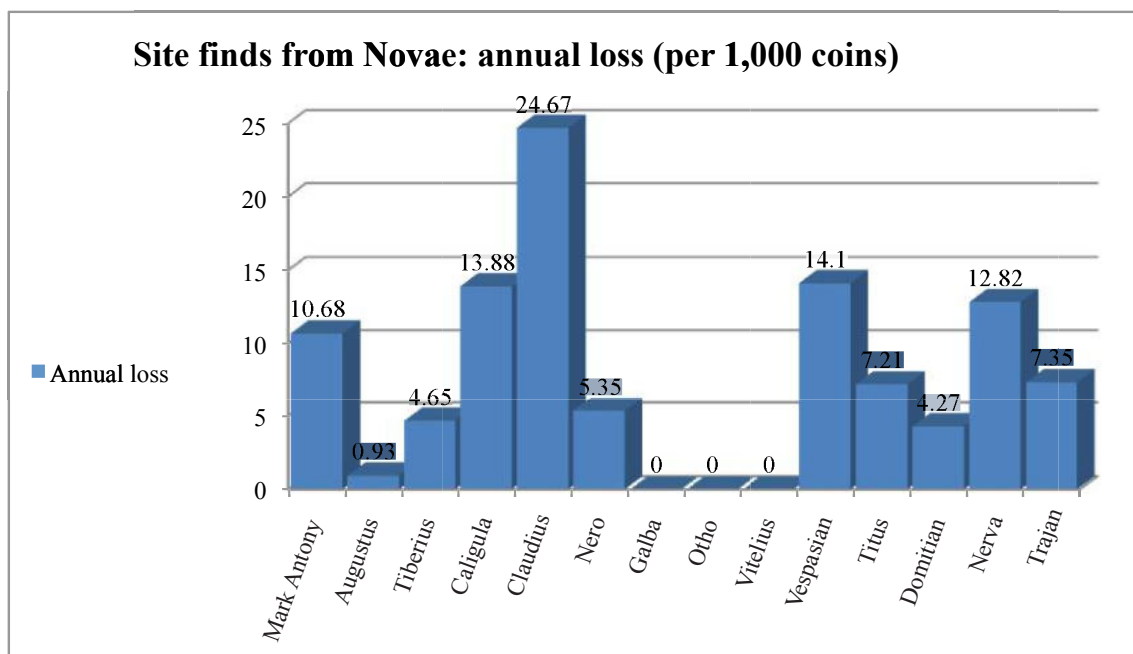


Fig. 3. Site finds from Novae: annual loss (*per mille* coins)

The following tendencies are observed from the above graph:

1. Following a very small number of Augustan issues (9 $\text{\AA}$ = 0.93‰), there is an increase in coin numbers under Tiberius (29 $\text{\AA}$ = 4.65‰) and Caligula (13 $\text{\AA}$ = 13.88‰). Both charts above are overwhelmingly dominated by the issues of Claudius (77 coins but only $\text{\AA}$ = 24.67‰), which perfectly fits the aforementioned historical situation. After Claudius, coin supply at Novae sharply decreased during the reign of Nero (only 18 coins = 5.35‰).

2. A Claudian imitation from the excavations of *scamnum tribunorum* (sector X) deserves in my view a special comment (cat. no. 58 [Fig. 4]).²⁸ It is a barbarian sestertius imitating a type



Fig. 4. Imitation sestertius (30 mm) from Novae, sector X. Svištov, no. 2405 (after Božkova 2002, fig. 15)

²⁷ RAVETZ 1963; 1964, pp. 201–231.

²⁸ Published in BOŽKOVA 2002, p. 114, no. 17, fig. 15, but not recognized as imitation. See recently DIMITROV 2013, p. 741, no. 165, and pl. 9 on p. 763.

of Tiberius for Livia: a pair of mules pulling *carpentum* to the left, above illegible legend / large retrograde S – C, legend around, obviously copying *RIC* I² 50–51 (original series struck AD 22–23), or less likely — a Titus' sestertius for his mother Domitilla (*RIC* II/1², 262–264, struck AD 80–81). As far as I am aware, the only parallel to the Novae coin is a nearly identical imitation (Æ31 mm, from Northern Bulgaria, no exact provenance known), published long ago by V. Penchev.²⁹

3. Another foreign coin from the time of Caligula that is very unusual for Moesia was reported from sector IV.³⁰ It is a Bosporan issue of 12 *nummi* for Gepaepyris,³¹ the Thracian princess and queen of Bosporus, struck in AD 37/8–38/9 at Panticapaeum (cat. no. 48 [Fig. 5]).³² The presence of this coin at Novae is most likely related to the Claudian expedition and military involvement (*bellum Mithridaticum*) in Crimea in 45–49 (Tac., *Ann.*, XII 15–21),³³ headed by Aulus Didius Gallus (*cos.* AD 36), the imperial legate of Moesia.³⁴ It is assumed that *legio VIII Augusta* was directly involved in the Crimean campaign.³⁵



Fig. 5. Bosporan issue of 12 *nummi* (Æ 21mm) for queen Gepaepyris, Novae IV (photo after Dimitrov 2013, no. 70)

4. Interestingly, both dupondii of Claudius struck for his mother Antonia Minor (*RIC* 92) from *principia* (sector XI, cat. nos. 78–79) are connected with a group of similar finds in the neighbour region of Novae — two pieces from the excavations in Russe / Sexaginta Prista³⁶ and one from Rjahovo / Appiaria.³⁷ They all must be part of the coin supply to Moesia around the arrival of *legio VIII Augusta*. Neronian issues at Novae are represented with no more than 17 coins (3.96‰). This is no surprise when one bears in mind that Nero's coinage in base metal was irregular and limited in volume.³⁸ As may be expected, no denarii were found at Novae³⁹ before Nero (two post-reform issues recorded: one from sector XI and one from the *extra muros*-site in sector VIIa). As elsewhere,⁴⁰ the earlier denarii simply disappear from circulation with Nero's reform in AD 64,⁴¹

²⁹ PENČEV 1973, pp. 5–7, fig. 5.

³⁰ A surface find, campaign 1969, Svištov Museum, inv. no. 1603; see now CIOLEK, DYCZEK 2011, p. 51, no. 8, assigned to AD 42–46.

³¹ Gepaepyris was the first daughter of Antonia Tryphaena and the Thracian king Cotys IV [VIII], reigned AD 12–17/18. She married the Bosporan king Aspurgos in the AD 30s and she first inscribed her name in full on coins: BACIAICCHC ΓΗΠΙΑΠΠΥΡΕΩC. Her sons Mithridates III and Cotys I became the next rulers of Kingdom of Bosporus; for genealogic details, see SULLIVAN 1979, pp. 209–211.

³² Type *RPC* I, no. 1907 = MACDONALD 2005, no. 306.

³³ WEBSTER 1969, p. 45, and FROLOVA, IRELAND 2002, pp. 9–10. The campaign in Crimea lasted until AD 49 for which Gallus received triumphal honours as an inscription from Olympia attests (*ILS* 970; *CIL* V 7247).

³⁴ See brief account in WILKES 1996, p. 556.

³⁵ FILOW 1906, p. 12; SARNOWSKI 1988, p. 67; REDDÉ 2000, p. 121; GENČEVA 2002, pp. 7–8.

³⁶ RHM Russe, field nos. 28/2007 and 53/2010; published in VARBANOV 2012, pp. 219–220, nos. 4–5.

³⁷ RHM Russe, inv. no. 80, acquired 1942, unpublished.

³⁸ VON KAENEL 1986, p. 258; WOLTERS 1999a, p. 80; WOLTERS 2012, p. 346.

³⁹ This fact is also observed by Ciolek, see CIOLEK, DYCZEK 2011, p. 236.

⁴⁰ BOLIN 1958, pp. 191–193, table 16.

⁴¹ TONDO 1976, pp. 127–137; MACDOWALL 1979, pp. 133–149; KUNISZ 1992a, pp. 24–25, 68.

following the so-called ‘Gresham law’.⁴² Not surprisingly, a number of debased ‘legionary’ denarii of Mark Antony struck in 32–31 BC (type *RRC 544/varia*)⁴³ occurred at Novae — five specimens⁴⁴ from three different sectors, but they are used only for statistical purposes since have no chronological value.⁴⁵

5. An unusual for the region billon tetradrachm of Nero struck in Alexandria in Egypt⁴⁶ found on site also points to external affairs. Its presence at Novae might have been seen as a result of the passing of foreign units and army forces such as the movement of *legio VI Ferrata* from Syria to Italy in October/November 69, on its way to fight for Vespasian’s cause (Tac., *Hist.*, III 46, 4–5).⁴⁷

6. As a matter of fact, the only known Julio-Claudian stratified contexts at Novae are in sector XI (legion’s headquarters / *principia*).⁴⁸ In September 1981 a hoard of six *aes* coins⁴⁹ (five Claudian issues [two dupondii and three asses] and one Nero’s DECVRSIO sestertius [Fig. 6])⁵⁰ was found bonded in oxidation together in the oldest street sewer running along the east side of *principia* (square XVIII/362, depth 3.80–3.90 m).⁵¹ They were discovered in the fill deposits, corroded together and bonded. Most probably this was a soldier’s⁵² sum of money dropped accidentally and lost in the sewer shortly after AD 64/65.



Fig. 6. Sestertius of Nero, Rome, AD 64/5 (*RIC* I² 168) from a hoard in sector XI, Novae. Svištov, no. 2344 (photo after Dimitrov 2011)

⁴² “Bad money drives out good”; for its effect on the Roman imperial currency, see BOLIN 1958, pp. 59–64, 77–78 and 86.

⁴³ CRAWFORD, in *RRC*, I, pp. 102, 247, 699–671; WOYTEK 2007, pp. 503–517. Compare Cassius Dio’s information (LXVIII, 15, 3) that Antonian denarii were withdrawn and melt down under Trajan in AD 106/107.

⁴⁴ Four coins are mentioned in KUNISZ 1992b, p. 113 and Table 1. See below, cat. nos. 50, 51, 72–73, 108.

⁴⁵ For instance, a bulk of legionary denarii of Mark Antony arrived in Britain under Claudius with the Roman army, when Britannia was conquered after AD 43.

⁴⁶ Mentioned by KUNISZ 1992a, pp. 74 and 135.

⁴⁷ For the events, see FILOW 1906, pp. 26–27; recently in PAUNOV, DONCHEVA 2013, pp. 44–47.

⁴⁸ See SARNOWSKI 2001; SARNOWSKI *et alii* 2012, pp. 50–58.

⁴⁹ Hoard consists of only six coins, not seven as claimed by DIMITROV 2011, pp. 144 and 155; his no. 1 (Mark Antony’s denarius) was found in 1984, not in 1981. In-

formation provided from Professor T. Sarnowski (see SARNOWSKI 1991, p. 304), confirmed in the inventory books of Svištov Museum.

⁵⁰ See cat. nos. 79–83, 87.

⁵¹ KUNISZ (unpublished), information courtesy of Professor T. Sarnowski, Warsaw University, *per litteras* (November 2009). See now DIMITROV 2011, pp. 144 and 155 (= ‘hoard I’).

⁵² On the military pay, see WOLTERS 2000–2001, pp. 579–588.

Furthermore, a single worn as of Nero (cat. no. **88**) was found in the clay bonding the stones in the foundation of the western wall of *principia*, thus according to Sarnowski: “providing a *terminus post quem* [AD 64–68] for the laying of the floor and the construction of the building”.⁵³

7. Surprisingly, only four Julio-Claudian coins with countermarks have been recorded so far from the site of Novae.⁵⁴ These are:

- A. Claudian as, AD 41/2 (RIC P² 97), unlisted countermark on obverse (*principia*, sector XI = cat. no. **83**);⁵⁵
- B. Claudian dupondius (RIC P² 94 or 110?; diam. 28 mm), on the obverse countermark **C•A** in rectangular frame⁵⁶ (at the back of the head), on the reverse another illegible countermark (sector IV = cat. no. **13**);⁵⁷
- C. Claudian imitation sestertius (mis-identified as Nero),⁵⁸ after AD 50–54, type *Spes Augusta*?, obverse countermark **DV** (dupondius) on emperor’s neck, Moesian limes type⁵⁹ (cat. no. **20**);
- D. Another sestertius of Claudius: SPES AVGVSTA (type RIC 115), with square countermark ‘capricorn to r. / globe’⁶⁰ on obverse (from *villa extra muros* / sector VIIIa = cat. no. **92**).⁶¹ This countermark was regularly applied on mainstream Claudian coinage along Moesia limes. Such a limited number of countermarked coins reported from Novae comes as a surprise. On the other hand it has been already suggested that the distribution of the countermarked Julio-Claudian *aes*-coins in Moesia was limited to the east and did not extend beyond the Iatrus / Jantra river valley.⁶² The absence of earlier countermarked coins at Novae (especially applied on Augustan issues, otherwise numerous⁶³) should be explained by the fact that these did circulate in Moesia earlier — namely before AD 45/6, and before the twenty-five-year post of *legio VIII Augusta* at Novae.

8. Not a single coin from the period 68–69 is attested to, which has a reasonable historical explanation. During that time the legionary camp at Novae was empty when *legio VIII Augusta* headed for Cremona.⁶⁴ The coin supply at Novae was quickly restored under the Flavians, immediately after AD 71.⁶⁵ Vespasian is presented by 33 coins (equal to 14.34%), Titus — 5 coins (7.21%) and Domitian — 15 (equal to 4.32%). The vast majority of them are small senatorial ‘bronzes’, in particular asses (16 – 3 – 5), rarely dupondii (8 – 0 – 1), much rarer sestertii (3 – 1 – 1) or quadrans (0 – 0 – 1). Besides the limited number of identified coins, the following trends of annual coin supply can be observed under the Flavians, with high peaks of coins struck in AD 71 and 76:

⁵³ Found personally by Professor T. Sarnowski, *per litteras*. See SARNOWSKI 1991, p. 306.

⁵⁴ See CIOLEK, DYCZEK 2011, p. 237.

⁵⁵ Information from Professor T. Sarnowski, November 2009, *per litteras*.

⁵⁶ Uncertain Moesian type, either **T•C•A** or **TI•C•A**, see MARTINI 2002, no. 25 or 26 = MARTINI, PAUNOV 2004, p. 161, fig. 5 or 7.

⁵⁷ CIOLEK, DYCZEK 2011, p. 52, cat. no. 10.

⁵⁸ CIOLEK, DYCZEK 2011, p. 55, cat. no. 21, and p. 237.

⁵⁹ For the type, see MARTINI, PAUNOV 2004, p. 162, fig. 12 = MARTINI 2003a, pp. 82–84, nos. 2.1370–2.1422; MARTINI 2003b, pp. 151, 156, no. 85.

⁶⁰ For the type, cf. MARTINI 2003a, pp. 86, 110–111 = MARTINI 2003b, pp. 163–164, no. 94 or 95.

⁶¹ DIMITROV 2008, pp. 429 and 435–436.

⁶² MARTINI, PAUNOV 2004, p. 169, n. 44 — with Sexaginta Prista (today Russe) and Appiaria (Rjahovo) being the only exceptions to the east of this zone.

⁶³ MARTINI, PAUNOV 2004, pp. 159–174; BANOV 2012, pp. 489–506.

⁶⁴ For the historical events, see FILOW 1906, pp. 24–26; SARNOWSKI 1988, pp. 31–39; recently: PAUNOV, DONCHEVA 2013, pp. 44–46.

⁶⁵ See below — cat. nos. **28, 31–32, 63, 68, 90** (all issued in AD 71) were brought on arrival of *legio I Italica*.

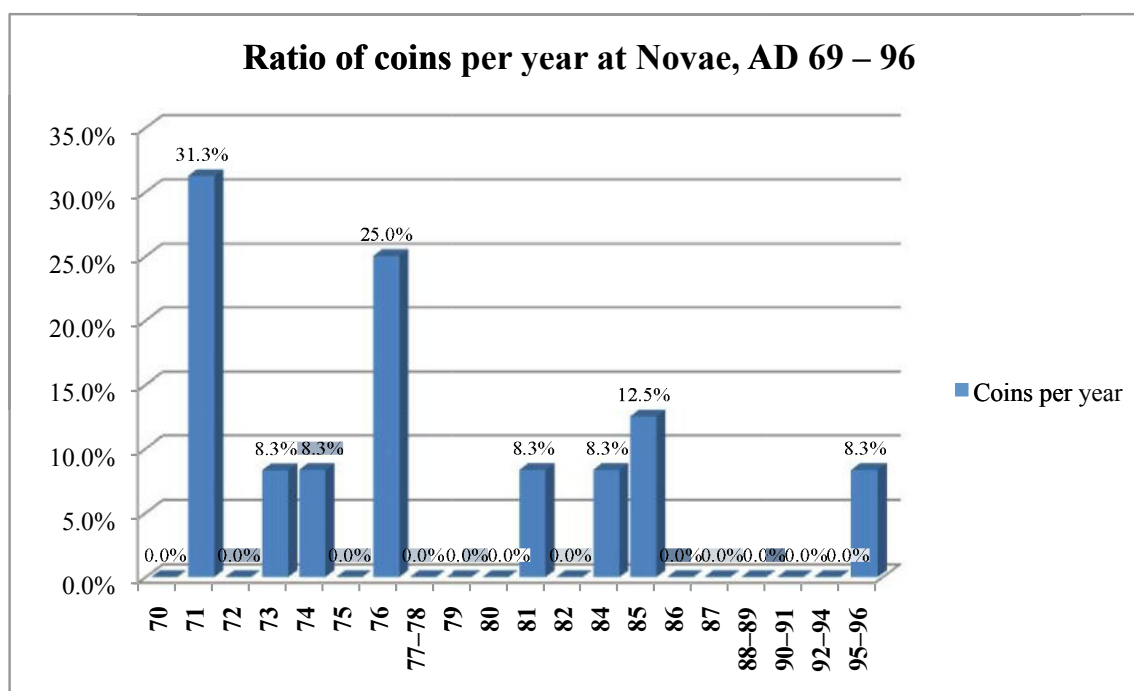


Fig. 7. Ratio of coins per year at Novae under the Flavians

9. The noticeable appearance of Flavian denarii is illustrated by: five of Vespasian (four from Rome, one from Ephesus mint), one of Titus, and six of Domitian (one of them plated). Interestingly, coins of such short-lived emperors as Nerva appear in relatively high number in comparison to others — at least six coins (equal to 12.82%). The increase of Trajanic finds comes as no surprise, and so far is recorded by 33 coins (7.35%). Under Trajan the large *aes*-denominations did start to dominate (17 S, 13 Dp) against the small ones (only 2 As).

10. The early legionary bath (*thermae legionis*) in sector IV provided further stratified coins of the Flavian period.⁶⁶ More specifically, this is an *as* of Vespasian (illegible type) found on the floor of the *basilica thermarum*.⁶⁷ Similarly, another Flavian issue — *as* of Domitian (struck ca. AD 84–86)⁶⁸ — was found stuck in the mortar layer under the threshold of *sacellum Aesculapi* (the sanctuary of the healing gods).⁶⁹ After two consecutive construction periods, the bath was dismantled in the early years of Trajan's reign.⁷⁰ A number of earlier coins (4 Claudian issues and 1 Domitian) were lost during the dismantling and levelling along with a dupondius of Trajan.⁷¹ A new building was erected on the spot — an army hospital (*valetudinarium*)⁷² which is well dated by another dupondius of Trajan struck between January 101 and December 102 AD (type *RIC* II 428 = Woytek 2010, no. 96).⁷³

⁶⁶ CIOLEK, DYCZEK 2011, pp. 11–12, 247–249, Table 4.

⁶⁷ CIOLEK, DYCZEK 2011, pp. 11 and 59, cat. no. 36 (= cat. no. 34).

⁶⁸ CIOLEK, DYCZEK 2011, p. 60, cat. no. 40 (= cat. no. 38).

⁶⁹ DYCZEK 2008, p. 60.

⁷⁰ CIOLEK, DYCZEK 2011, pp. 15–16.

⁷¹ CIOLEK, DYCZEK 2011, p. 62, cat. no. 49 (= cat. no. 46).

⁷² CIOLEK, DYCZEK 2011, pp. 16–19.

⁷³ CIOLEK, DYCZEK 2011, p. 62, cat. no. 46 (= cat. no. 45).

4. Coin denominations at Novae

From the very beginning of its existence, Novae adopted the mainstream currency system of Rome — based on the reformed Augustan *aes*.⁷⁴ Naturally, a bronze *as* had much shorter circulation life than the silver denarius, for instance.⁷⁵ Because of their faster process of ‘wear and tear’, bronze coins usually did not exceed the rule of the next two — three emperors (estimated to 30–40 years). And because of its low value, not too much care was given to recovery of a lost coin of base metal.⁷⁶ The site finds thus give a more precise chronological value, if found in controlled archaeological context.⁷⁷ On the other hand, for the western provinces (Rhine limes) it has been emphasized that “in the early Julio-Claudian period there was an extremely rapid turnover of bronze coin at military sites”.⁷⁸

While analysing the available coin site finds from Novae, the following structure of denominations occurs:

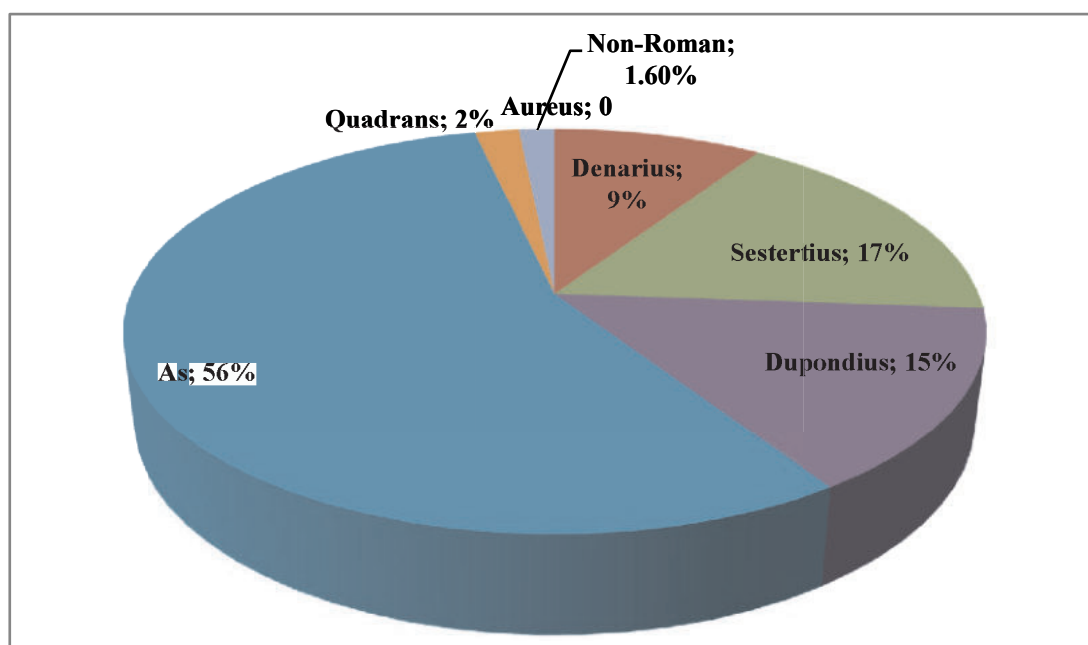


Fig. 8. Site finds from Novae — diagram of denominations (ratio), period from Augustus to Trajan

⁷⁴ See SUTHERLAND, in *RIC* I², pp. 23–25; HARL 1996, pp. 61–74; WOLTERS 2012, pp. 335–351.

⁷⁵ SUTHERLAND, in *RIC* I², p. 10; KUNISZ 1990, p. 129 and *passim*.

⁷⁶ On the various reasons of accidental coin loss, cf. REECE 1996, pp. 141–142.

⁷⁷ About the dating of archaeological sites with coins, see recently LOCKYEAR 2012, pp. 191–211, esp. at pp. 195 ff.

⁷⁸ WIGG 1997, p. 282.

If we compare the volume of early Roman site finds from Novae and the picture known from the nearby Ratiaria and Oescus (Moesia) and Serdica (Thrace), the following trends emerge.⁷⁹

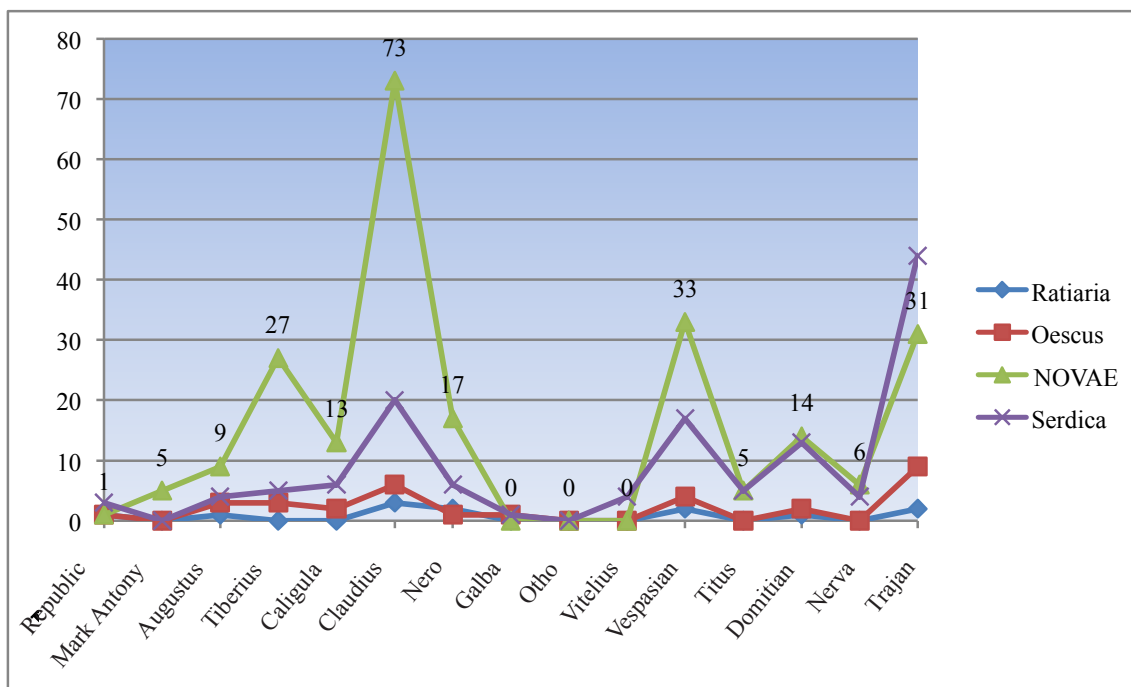


Fig. 9. Amount of early Roman site finds from Novae (green line) compared with Ratiaria, Oescus and Serdica

It appears that besides some minor differences, the curve of coin finds per issuer at Novae and Serdica is nearly identical, regardless of the figures. No doubt, this would be indicative for a similar development and a similar profile of coin supply, with both sites being of military nature during this period.

It is further recommendable to compare the profile of coin denominations at Novae with some similar Roman sites in Western Europe of the period under study. For this purpose five different Roman sites (one civic, four military) were selected: one in Italy, one in Britain, one in The Netherlands, one in Germany and one in Pannonia:

⁷⁹ Combined data for each of the compared sites, for complete details see PAUNOV 2013.

Table 2. Structure of denominations from selected site finds

	Novae	Oescus ⁸⁰	Serdica ⁸¹	Pompeii ⁸²	Camulodunum	Nijmegen ⁸³	Haltern ⁸⁴	Carnuntum ⁸⁵
<i>AV aureus</i>	0	0	1.1%	4%	0	<1%	<1%	<1%
<i>AR denarius</i>	9.4%	21%	20%	48%	3%	6.5%	5%	5.2%
<i>AE sestertius</i>	16.9%	15.6%	12.7%	9%	10%	5.8%	3%	6.3%
<i>AE dupondius</i>	14.7%	12.1%	13.9%	0%	20%	19%	6%	6.6%
<i>AE as</i>	56%	24.5%	37.2%	27%	65%	47.3%	85%	72.1%
<i>AE quadrans</i>	2%	12.1%	1.1%	11%	1%	13.5%	<1%	6.8%
<i>non-Roman</i>	1.6%	n/d	20.9%	1%	1%	3%	<1%	n/d

The absolute domination of *as* — as a key element of Roman mainstream coinage — seems empire-valid — from Britain and Germany to the Lower Danube. The *as*-ratio at Novae reaches 56%,⁸⁶ comparable only with Camulodunum and Haltern. Similarly, the Moesian sites provided more sestertii (ca. 13–17%) from the period than the western sites (3–10%); the same being valid for the dupondius (12–15% in the Balkans against 9–10%). The percentage of denarii from Moesian/Thracian sites is higher too, with Serdica being an example (but many coins there are actually plated). As attested to numerous sites, gold is equally scarce at the site finds in the west as well as in the east.⁸⁷

5. Early coins and archaeology at Novae: correlation of data

The excavations of sectors X (*scamnum tribunorum*), XI (*principia*) and XVIII in the 1980s provided a rare opportunity for a chronological correlation of archaeological and numismatic data. The first who saw this chance was T. Sarnowski,⁸⁸ followed quickly by A. Milčeva⁸⁹ and E. Genčeva.⁹⁰ Because the coin finds remained badly published or unexplored as a whole assemblage, no further progress or conclusions were made. Sadly the available numismatic data from ‘closed complexes’ remained of limited use, only for dating purposes of the archaeological structures.

⁸⁰ Compare the short listing of coins from Oescus in IVANOV, KOVAČEVA 2002, pp. 42–54.

⁸¹ Coins from 2010–2012 rescue excavations in central Sofia (site ‘Metrostation 8-II’) are unpublished; see preliminary reports in IVANOV 2011, pp. 316–319; IVANOV 2012, pp. 315–317; IVANOV 2013, pp. 290–292. All coins were identified and catalogued by the present author with kind permission of Dr. Mario Ivanov (National Archaeological Institute with Museum, Sofia).

⁸² Data from Pompeii are based on DUNCAN-JONES 2003, pp. 161–180; see now HOBBS 2013 (*non vidi*).

⁸³ Data from Nijmegen / Hunerberg are based on KEMMERS 2006, pp. 74–110.

⁸⁴ The fort near Haltern am See was evacuated in AD 9 after Varus’ disaster, see KRAFT 1951–1952, pp. 28 ff.

WOLTERS 2000, pp. 81–117, opted for AD 16. Data are based on *FMRD* VI.4 (Münster).

⁸⁵ Data extracted from VONDROVEC 2007, pp. 105–106, fig. 2.16, p. 112, fig. 2.17, and p. 114, fig. 2.19.

⁸⁶ Kunisz claimed that *As* in Novae took up to as far as 75% of the total, but his data includes the entire 2nd century AD (cf. KUNISZ 1993, p. 334); for the same fact see also DIMITROV 2011, p. 144.

⁸⁷ Briefly in GÄZDAC 2010, pp. 94–95; on early aurei from Moesia, see now PAUNOV 2012, pp. 145–158.

⁸⁸ SARNOWSKI, in DYCZEK *et alii* 1983, pp. 150–153, as well as in other field reports of the 1980s.

⁸⁹ DIMITROVA-MILČEVA 2000, p. 2 ff.

⁹⁰ GENČEVA 2002, pp. 16–17, 66–67.

A number of closely-dated finds from earliest Novae are well published,⁹¹ so some inter-relations between the archaeological situation and the provenance of coins can be drawn out of this. In the 1980s a large group of rubbish pits belonging to the earliest clay-and-timber army barracks were excavated in sectors X and XI of Novae.⁹² Along with coins, numerous associated finds were discovered in these pits: *terra sigillata* (Arretine and Samian ware) imported from Arretium/Arezzo,⁹³ Padana,⁹⁴ Aquileia, Puteoli, Banassac,⁹⁵ La Graufesenque and other ceramic centres in southern Gaul,⁹⁶ as well as from Hofheim⁹⁷ and Rheinzabern on Rhine, amphorae,⁹⁸ lamps, and imported glass vessels,⁹⁹ firmly dated¹⁰⁰ to the period from Tiberius/Claudius to the end of the Flavians. Genčeva argued that the luxury kitchen ware was imported via Pannonia¹⁰¹ and Milčeva even suggested that Arretine merchants had opened their own pottery shops on the Lower Danube.¹⁰²

6. Case study: the coins of Caius

A substantial number of coins of Caligula¹⁰³ derives from Novae (2 S, 1 Dp, 10 As) and its *suburbia* (5 Dp, 13 As, 1 Quad) — 33 pieces in total. This fact was neglected or underestimated in the current numismatic research.¹⁰⁴ Therefore, it needs further investigation and comparative analysis of the reasons for this Moesian phenomenon.¹⁰⁵

Besides the Caius' issues for Mark Agrippa (his maternal grandfather) and for Germanicus (his father), the Vesta-asses of AD 37–38 (*RIC* P 38) are most numerous in the site finds from the Balkan provinces. Excluding the Novae group, so far more than 24 *aes* coins of Caligula are represented in finds from Moesia and 64 more from Thrace.¹⁰⁶ The vast majority of Caligula's issues are of the type with Mark Agrippa on the obverse and Neptune on the reverse (*RIC* 58).¹⁰⁷ The rare undated sestertii of Gaius depicting the funeral of his mother Agrippina Maior (*RIC* 55) were also frequent in Moesia. To be more precise, one specimen has been published from Montana, one registered from Novae sector X (and one imitation of the same site), and many others allegedly derive the Ratiaria.¹⁰⁸

⁹¹ DIMITROVA-MILČEVA 1987, pp. 108–152; MILČEVA, GENČEVA 1991, pp. 26–30; DIMITROVA-MILČEVA 2000; GENČEVA 2002.

⁹² A review of the early rubbish pits in MILČEVA, GENČEVA 1991, pp. 24–26, fig. 3; GENČEVA 2002, pp. 21–23, 62–64.

⁹³ Forms *Conspectus* 20–21, 34, 52; DIMITROVA-MILČEVA 2000, cat. nos. 6, 7, 9–10, 12–17, 22–24, 28–29, 31, 36, 39.

⁹⁴ Forms *Conspectus* 3, 20.4, 43.1, 44.1; DIMITROVA-MILČEVA 2000, cat. nos. 41–58, 64–67, 74–75, 77–86, 87–89.

⁹⁵ Form *Dragendorff* 37; DIMITROVA-MILČEVA 2000, cat. nos. 223–224.

⁹⁶ Forms *Dragendorff* 18; DIMITROVA-MILČEVA 2000, cat. nos. 95–96, 98–99, 101–102, 105–113; *Dragendorff* 24–25: *ibidem*, cat. nos. 115–119; *Dragendorff* 27: *ibidem*, cat. nos. 120–121, 123–126; *Dragendorff* 33: *ibidem*, cat. no. 129; *Dragendorff* 35–36: *ibidem*, cat. nos. 131, 134, 136, 139–140; *Ritterling* 12: *ibidem*, cat. nos. 141–161, 163–165; *Curle* 11: *ibidem*, cat. nos. 168–170, 172; *Dragendorff* 29: *ibidem*, cat. nos. 188–191; *Dragendorff* 37: *ibidem*, cat. nos. 192–193, 195, 197–199, 206, 210, 212, 214–217; *Dragendorff* 30: *ibidem*, cat. nos. 196, 211, 220; *Knorr* 78: *ibidem*, cat. no. 205.

⁹⁷ Form *Hofheim* 1; DIMITROVA-MILČEVA 2000, cat. no. 92.

⁹⁸ On imported amphorae, see DYCZEK 2001; GENČEVA 2002, pp. 38–40.

⁹⁹ On imported glass at Novae, see BELIVANOVA 1999, pp. 35–40; GENČEVA 2002, pp. 45–51.

¹⁰⁰ However, one has to bear in mind that all these dates are those when the imported luxury ware was discarded — deposit dates / *terminus ante quem*, not production dates. On this important observation, see KEMMERS 2006, pp. 121–122, nn. 443–445.

¹⁰¹ GENČEVA 2002, pp. 64–65.

¹⁰² DIMITROVA-MILČEVA 2000, p. 28.

¹⁰³ On the coinage of Caligula, see *RIC* P 2, pp. 102–107, and WOLTERS 1999b, pp. 85 ff.

¹⁰⁴ See KUNISZ 1992a, p. 86; CIOLEK, DYCZEK 2011, p. 236, n. 8.

¹⁰⁵ I owe the idea for such a case-study to Dr. Rodolfo Martini with whom we shared profound interests in Julio-Claudian coinage in the early 2000s.

¹⁰⁶ For example, Gaius coinage appears also at regular inland sites in Moesia — the ceramic kilns at Pavlikeni (3 As) and Butovo (1 As). The case is similar into Thrace — 67 asses in Aquae Calidae (most of Mark Agrippa type), Anchialus (1 As), Cabyle area (1 As), Philippopolis and its area (1 S, 4 As), Serdica (1 D, 3 As), Augusta Traiana area (3 As), Haskovo region (1 As), etc.; full details in PAUNOV 2013.

¹⁰⁷ See the comments of SUTHERLAND, in *RIC* P 2, p. 105.

¹⁰⁸ A couple of Gaius' sestertii struck for Agrippina Senior

As known, according to Cassius Dio (LX 23, 3) a decree of the Senate was issued to destroy Caligula's portraits and erase his name from inscriptions and coins. However, his uncle Claudius refused to permit formal sanctions (official *damnatio*) on this decision (Suet., *Div. Claud.*, 11, 3). In fact, it is far from certain how this action was carried out on practice.¹⁰⁹ On the contrary, there is a high proportion of Caligula *aes* coins that were not withdrawn, as proved by the case of Lower Germania¹¹⁰ and in this case — in Moesia itself. Therefore, the existing theory in Roman Imperial numismatics for a withdrawal and melting down of Caligula *aes*-coinage¹¹¹ should be reconsidered and revised. Nevertheless, it remains unclear if this phenomenon suggests the loyalty of Moesian armies to the memory of Gaius, or it had much simpler monetary reasons — the deficiency of small change along the Lower Danubian limes. Whatever the reasons, the *aes*-coinage of Caligula continued to circulate freely during the Claudian and Neronian period, as Novae attests.

7. Conclusions

It may be argued that coin evidence from Novae holds the key to understanding the Roman financial policy and monetary economy in Moesia along the entire Lower Danube. That is why the collection and arrangement of all extant data and the beginning of a systematic study is long-awaited and much needed. Correlation of archaeological with numismatic evidence in some sectors of Novae has demonstrated a remarkable overlapping in chronology. It is of particular value for the study of early Novae.

Being located far away from Rome and from the main imperial mints, in the first century AD Novae received occasional and irregular supply of coins from the neighbouring provinces — most likely via Pannonia. Due to the purely military nature of Novae, mainstream Roman coins accounted for virtually all the coinage in circulation (only three provincial coins are recorded before Trajan).¹¹² In this light, the resulting picture of early coin evidence from Novae (and of Moesia in a wider perspective) favours the model of regional money circulation based on a largely self-contained principle, as formulated by Christopher Howgego,¹¹³ Richard Duncan-Jones¹¹⁴ and Reinhard Wolters,¹¹⁵ and rejects the theoretical 'integration model' of the Roman imperial economy of Keith Hopkins.¹¹⁶

Finally, it still remains uncertain whether all the pre-46 AD coins at Novae were brought by the soldiers of *legio VIII Augusta* when they arrived,¹¹⁷ or they were already residual.¹¹⁸ What is certain from the current numismatic analysis is that Roman mainstream coinage began to appear on the site during the late reign of Tiberius and under Caligula, ca. AD 26/30–41.¹¹⁹

It is the author's sincere hope that the publication and preliminary analysis of available coin evidence from Novae eventually would lead to further impetus of numismatic research on Roman Moesia.¹²⁰

(*RIC* 55) were examined in Vidin Historical Museum in 2005, supposedly from Ratiaria.

¹⁰⁹ Compare the doubts of SUTHERLAND, in *RIC* I², pp. 106–107.

¹¹⁰ See KEMMERS 2004, pp. 15–49; 2006, pp. 88–89.

¹¹¹ BURNETT 1977, p. 55; DUNCAN-JONES 1994, p. 98, n. 9, and p. 221.

¹¹² This fact was pointed out by the editors of *RPC* I (1992, p. 22) for the Julio-Claudian coin pool in Moesia.

¹¹³ HOWGEGO 1994, pp. 5–21.

¹¹⁴ DUNCAN-JONES 1996, pp. 139–144.

¹¹⁵ Recently in WOLTERS 2012, pp. 349–351, figs. 18.23–18.24.

¹¹⁶ HOPKINS 1980, pp. 112–113.

¹¹⁷ Exactly the same problem occurs in Carnuntum in Pannonia where the first fortress was built about AD 40–50 by *legio XV Apollinaris*, but coins started to appear from ca. AD 35/40: see VONDROVEC 2007, pp. 85–87; WOYTEK 2007, p. 500.

¹¹⁸ On the residuality of coins on archaeological sites, see LOCKYEAR 2012, pp. 195–198.

¹¹⁹ In fact it was the late Prof. Boris Gerov who first suggested that Novae existed as a Roman fort before AD 45/46, see GEROV 1980, pp. 113, 147–148.

¹²⁰ See a rather minute analysis in KATSARI 2008, pp. 250–252, fig. 12.4; see now PAUNOV 2013 (prepared for publication).

CATALOGUE OF COINS

1. Novae I — *thermae legionis* / *valetudinarium* (sector IV)

Quantity: 50+ out of 770 coins total from the sector, campaigns 1960–2007.

No.	Issuer	Denomination	Date of issue	Mint	Reference (<i>RIC</i> I ² , <i>RIC</i> II/I ²)	Wear / other features	Location / publication	Totals
1.	Augustus (27 BC – 14 AD)	As	7 BC	Rome	<i>RIC</i> I ² 435	pierced, LW	Field no. 12/09-1 = Ciołek, no. 2	3 Æ
2.		As	11–12	Rome	<i>RIC</i> I ² 471	MW	Svištov, 2786 = Ciołek, no. 3	
3.		As	?	uncertain	unspecified	VW	Field no. 54/71 = Ciołek, no. 473	
4.	Tiberius (14–37)	As	15–16	Lugdunum	<i>RIC</i> I ² 34	MW	Field no. 215/81; Svištov, 2331 = Ciołek, no. 4	4 Æ
5.		As	15–16	Rome	<i>RIC</i> I ² 34 or 36?	VW	Field no. 10/67; Svištov, 1549 = Ciołek, no. 5	
6.		As – for Drusus Minor	22–23	Rome	<i>RIC</i> I ² 45	HW	Field no. 153/85; Svištov, HCΦ 320 = Ciołek, no. 6	
7.		As – for Augustus Pater	22/3–26?	Rome	<i>RIC</i> I ² 81	MW	Field no. 40/07 = Ciołek, no. 7	
8.	Caligula (37–41)	As – for Mark Agrippa	37–41	Rome	<i>RIC</i> I ² 58	VW	Field no. 248/93; Svištov, 2746 = Ciołek, no. 9	2 Æ
9.		As – for Mark Agrippa	37–41?	Rome	<i>RIC</i> I ² 58?	VW	Field no. 49/10 = Ciołek, no. 28	
10	Claudius (41–54)	Sest – for Drusus	41–50	Rome	<i>RIC</i> I ² 93	MW	Field no. 65/1965; Svištov, 1538 = Ciołek, no. 19	12 Æ
11		Sest	41–54?	Rome	<i>RIC</i> I ² 98 or 114?	MW	Svištov, 106/1967 = Ciołek, no. 13	
12		Sest	50–54	Rome	<i>RIC</i> I ² 112		Svištov, 22/2008 = Ciołek, no. 11	
13		Dp	41–54	Rome	<i>RIC</i> 94 or 110	obv. cmk CA; illegible cmk on rev., HW	Svištov, 2747 = Ciołek, no. 10	
14		As	41–54	Rome	<i>RIC</i> I ² 100 or 116	HW	Svištov, 2750 = Ciołek, no. 14	
15		As – for Germanicus	50–54	Rome	<i>RIC</i> I ² 106	MW	Field no. 79/1981 = Ciołek, no. 20	

16		As	41–54?	Rome	unspecified	HW	Field no. 162/93 = Ciołek, no. 15	
17		As	41–54?	Rome	unspecified	HW	Field no. 116/93 = Ciołek, no. 16	
18		As	41–54?	Rome	unspecified	HW	Field no. 179/79 = Ciołek, no. 17	
19		As	41–54?	Rome	unspecified	HW	Field no. 11/09-1 = Ciołek, no. 18	
20		Imitation Sest	after 50–54	Danubian limes	Type of <i>RIC</i> I ² 115	obv. cmk DV on neck, HW	Field no. 32/07 = Ciołek, no. 21 (mis-identified as Nero)	
21	Uncertain Julio-Claudian (~37–68)	1 Dp; 5 Asses	ca. 37/41–68	Rome?	unspecified	HW	Ciołek, nos. 22–27	6 Æ
26								
27	Vespasian (69–79)	Den	74	Rome	<i>RIC</i> II/1 ² 703	MW	Field no. 205/87 = Ciołek, no. 29	9 1 AR / 8 Æ
28		Dp	71	Rome	<i>RIC</i> II/1 ² 266	LW	Svištov, 2830 = Ciołek, no. 30	
29		Dp	73	Rome	<i>RIC</i> II/1 ² 581	LW	Field no. 48/87; Svištov, 2506 = Ciołek, no. 32	
30		Dp	76	Rome	<i>RIC</i> II/1 ² 887	MW	Field no. 8/85; Svištov, 2488 = Ciołek, no. 33	
31		As	71	Rome	<i>RIC</i> II/1 ² 286	LW	Field no. 55/93; Svištov, 2789 = Ciołek, no. 31	
32		As	71–73?	Rome	unspecified	VW	Svištov, HCΦ 390 = Ciołek, no. 34	
33		As	70–79	Rome	unspecified	MW	Field no. 37/83 = Ciołek, no. 35 (from the Eastern villa, room 4)	
34		As	70–79	Rome	unspecified	VW	Svištov, HCΦ 426 = Ciołek, no. 36	
35		As	70–79	Rome	unspecified	VW	Svištov, 16/09 = Ciołek, no. 37	
36	Domitian (81–96)	Den plated	95–96	Rome?	<i>RIC</i> II/1 ² 787	MW, plated	Field no. 2/87; Svištov, 2508 = Ciołek, no. 38, plate 1	4 Æ
37		As	85	Rome	<i>RIC</i> II/1 ² 385	LW	Field no. 28/10 = Ciołek, no. 39	
38		As	84–86?	Rome	<i>RIC</i> II/1 ² 210 or 480	HW	Field no. 137/85; Svištov, HCΦ 321 = Ciołek, no. 40	
39		Provincial, 30 mm	ca. 85–96	Perinthus	<i>RPC</i> II 362	MW	Field no. 92/94; Svištov, 2793 = Ciołek, no. 41, plate 1	

40	Uncertain Flavian (69–96)	As	ca. 70–96	Rome	unspecified	HW	Field no. 256/00; Svištov, 3457 = Ciołek, no. 42	1 Æ
41	Nerva (96–98)	Sest	97	Rome	<i>RIC</i> II ¹ 86	LW	Field no. 97/94; Svištov, 2794 = Ciołek, no. 43	2 Æ
42		As	96–97	Rome	<i>RIC</i> II ¹ 51 or 60ff.	LW	Svištov, 2266 = Ciołek, no. 44	
43	Trajan (98–117)	Sest	98–117?	Rome	illegible	VW	Svištov, 2862 = Ciołek, no. 48	5 1 AR / 4 Æ
44		Dp	101–102	Rome	<i>RIC</i> II 471 = Woytek 96	LW	Svištov, 2509 = Ciołek, no. 46	
45		Dp	104/5–107	Rome	<i>RIC</i> II 505 = Woytek 206	LW	Svištov, 2268 = Ciołek, no. 47	
46		Dp	98–117?	Rome	illegible	MW	Field no. 34/2008 = Ciołek, no. 49	
47		Den plated, imitation	? after 117	? limes imitation	<i>RIC</i> II 361 = Woytek 580	MW	Svištov, 3571 = Ciołek, no. 45, plate 1	
48	Bosporus, Gepaepyris (37/8–38/9)	12 <i>nummi</i> Æ 21mm	37/8–38/9	Pantica-paeum	<i>RPC</i> I, 1907 = <i>SNG Cop.</i> 26	MW	Svištov, 1603 = Ciołek, no. 8, pl. 1 = Dimitrov 2013, 70	1 Æ

Reference: Preliminary information from Professor P. Dyczek, pers. comm. August 2010, now fully published in CIOŁEK, DYCZEK 2011, pp. 49–61, with short analysis on pp. 235–238.

In addition, a revision of the inventory books in Svištov museum has surfaced two more coins from the sector IV, not included in CIOŁEK, DYCZEK 2011, as listed below.

	Issuer	Denomination	Date of issue	Mint	Reference	Wear	Location / publication	Totals
49.	Republic, C. Minucius Augurinus	Quad	135 BC	Rome	<i>RRC</i> 242/4	VW	Field no. 96/69 w; Svištov, 1599 = Dimitrov 2013, 97	1 Æ
50.	Mark Antony	Den	32–31 BC	Patrae	<i>RRC</i> 544/? LEG number illegible	VW	Field no. 160/1996 w; Svištov, 2863	1 AR

Reference: Unpublished. Information from Mr. M. Marinov, Svištov Museum.

2. Novae II — *scamnum tribunorum* (sector X)

Find spot: from the Bulgarian excavations in 1972–2000 of *scamnum tribunorum* building (sector X), only 16 coins were published (3 not identified).¹²¹

	Issuer	Denomination	Date of issue	Mint	Reference (<i>RIC</i> I ² , <i>RIC</i> II/1 ²)	Wear / other features	Location / publication	Totals
51.	Mark Antony	Den	32–31 BC	Patrae	<i>RRC</i> 544/? LEG number illegible	obv. banker's mark, VW	Svištov, 2391 = Božkova, no. 1, pl. 1.1	1 AR
52.	Tiberius (14–37)	As – for Divus Augustus	22/3–30	Rome	<i>RIC</i> I ² 31	HW, corrosion	Svištov, 1069 / 1972 = Božkova, no. 2	2 Æ
53.		As – for Divus Augustus	31–37	Rome	<i>RIC</i> I ² 82	VW	Svištov, 2384 = Božkova, no. 3	
54.	Caligula (37–41)	Sest – for Agrippina	37–41	Rome	<i>RIC</i> I ² 55	VW, corrosion	Svištov, 2389 = Božkova, no. 4	1 Æ
55.	Claudius (41–54)	As	41/2–54	Rome	<i>RIC</i> I ² 116	MW	Svištov, 1259 = Božkova, no. 5	4 Æ
56.		As	41/2–54	Rome	<i>RIC</i> I ² 116		Svištov, 2383 = Božkova, no. 7	
57.		As	50–54	Rome	<i>RIC</i> 113	MW, corrosion	Svištov, 2382 = Božkova, no. 6	
58.		Sest – imitation, 30 mm	after 45/50	limes imitation	<i>RIC</i> I ² 50–51 (Tiberius)	LW	Svištov, 2405 = Božkova, no. 17, pl. 1.15	
59.	Nero (54–68)	Sest	64–65	Rome	<i>RIC</i> I ² 168	LW, corrosion	Svištov, 2387 = Božkova, no. 10	4 Æ
60.		Dp	65–67	Lugdunum	<i>RIC</i> I ² 412	LW	Svištov, 2967 = Božkova, no. 11	
61.		As	66–68	Lugdunum	<i>RIC</i> I ² 543	MW	Svištov, 2385 = Božkova, no. 8	
62.		As	66–68	Lugdunum	<i>RIC</i> I ² 605	MW	Svištov, 2386 = Božkova, no. 9	
63.	Vespasian (69–79)	Sest	71	Rome	<i>RIC</i> I ² 230	MW, corrosion	Svištov, 2388 = Božkova, no. 12	2 Æ
64.		As	76	Rome	<i>RIC</i> I ² 890	MW	Svištov, 2414 = Božkova, no. 13	
65.	Trajan (98–117)	Sest	112–114	Rome	<i>RIC</i> 625 = Woytek 482	VW	Svištov, 2423 = Božkova, no. 14, p. 1.14	1 Æ

¹²¹ Published in BOŽKOVA 2002 with numerous errors and listed with outdated references, such as *RIC* I² (edition of 1923). For the needs of this study all coins were meticu-

lously re-checked and identified according to the up-to-date standard references such as *RIC* I², *RIC* II/1², *RPC* I–II and WOYTEK 2010.

Reference: Mentioned in MILČEVA, GENČEVA 1991, p. 31; GENČEVA 2000, p. 66; published in BOŽKOVA 2002, pp. 111–116. In addition, the complete revision of the inventory books of Svištov museum has surfaced six more coins from the excavations in sector X, inexplicably not included in BOŽKOVA 2002, as listed below.

	Issuer	Denomination	Date of issue	Mint	Reference (<i>RIC</i> I ² ; <i>RIC</i> II/1 ²)	Wear / other features	Location / publication	Totals
66.	Tiberius (14–37)	Den	14–37	Lugdunum	<i>RIC</i> I ² 26–30	HW	Svištov, 3513 = Dimitrov 2013, 113	1 AR
67.	Augustus or Tiberius, Philippi	AE	1–37	Philippi, Macedonia	<i>RPC</i> I, 1656–1659?	VW, two countermarks – Howgego 1985, 657	Svištov, HCΦ 284 = Dimitrov 2013, 70a	1 Æ
68.	Vespasian (69–79)	Den	71	Rome	<i>RIC</i> II/1 ² 46	MW	Svištov, 2392	2 1 AR 1 Æ
69.		Dp	76	Rome	<i>RIC</i> II/1 ² 887	LW	Svištov, 2413	
70.	Domitian (81–96)	Den	85	Rome	<i>RIC</i> II/1 ² 327 or 329?	VW, corrosion	Svištov, 2932	1 AR
71.	Trajan (98–117)	Den	ca. 98–100	Rome	illegible	HW	Svištov, 3475	1 AR

Reference: Unpublished, information from Mr. M. Marinov, Svištov Museum.

3. Novae III — *principia* (sector XI)

Find spot: legion's headquarters (*principia*), campaigns from 1975 to 2009 — 19 early coins out of 593 in total:

	Issuer	Denomination	Date of issue	Mint	Reference (<i>RIC</i> I ² ; <i>RIC</i> II/1 ²)	Wear / other features	Location / publication	Totals
72.	Mark Antony	Den	32–31 BC	Patrae	<i>RRC</i> 544/? LEG illegible	MW	Svištov, 2330 /1984 = Dimitrov 2011, no. 1	2 AR
73.		Den	32–31 BC	Patrae	<i>RRC</i> 544/14	VW	Svištov, 2582 /1991 = Dimitrov 2011, no. 7	
74.	Tiberius (14–37)	As	15–16	Rome	<i>RIC</i> I ² 37 or 44?	VW	Field no. 218/81 w; Svištov, 2332 = Dimitrov 2011, no. 8	3 Æ
75.		Dp – for Drusus and Livia	22–23	Rome	<i>RIC</i> I ² 43	VW	Field no. 13/95 w; Svištov 2839 = Dimitrov 2011, no. 9	
76.		Dp – for Divus Augustus	31–37	Rome	<i>RIC</i> II ² 79?	LW	Field no. 53/2006 w; Svištov, 3656 = Dimitrov 2011, no. 9a	

77.	Claudius (41–54)	Sest – for Drusus	42–43	Rome	<i>RIC</i> I ² 109	VW	Field no. 18/97 w; Svištov, 2915 = Dimitrov 2011, no. 11	9 Æ
78.		Dp – for Antonia	41–42	Rome	<i>RIC</i> I ² 92	MW, corrosion	Field no. 220 /2002 w; Svištov ? = Dimitrov 2011, no. 10	
79.		Dp – for Antonia	41–42	Rome	<i>RIC</i> I ² 92	corrosion	Field no. 214/81 w-e; Svištov, 2334 = Dimitrov 2011, no. 2	
80.		Dp	41–43	Rome	<i>RIC</i> I ² 94	MW, corrosion	Field no. 214/81 w-d; Svištov, 2336 = Dimitrov 2011, no. 3	
81.		As	41–43	Rome	<i>RIC</i> I ² 97	MW	Field no. 214/81 w-b; Svištov, 2335 = Dimitrov 2011, no. 4	
82.		As	41–50	Rome	<i>RIC</i> I ² 116	corrosion	Field no. 214/81 w-c; Svištov, 2337 = Dimitrov 2011, no. 6	
83.		As	41–50	Rome	<i>RIC</i> I ² 97 or 113?	VW, obv. cmk, not identified?	Field no. 214/81 w-f; Svištov ? = Dimitrov 2011, no. 5	
84.		As	41–54	Rome	<i>RIC</i> I ² 95, 97, 100 or 116?	HW	Field no. 194/98 w = Dimitrov 2011, no. 12	
85.		As	41–54	Rome	illegible	VW	Svištov, HCΦ 816 = Dimitrov 2011, no. 13	
86.	Nero (54–68)	Den	64–65	Rome	<i>RIC</i> I ² 47	MW	Field no. 221/91 w; Svištov, 2583 = Dimitrov 2011, 156, no. 1 ¹²²	4 1 AR 3 Æ
87.		Sest	64–65	Rome	<i>RIC</i> I ² 168	LW, light corrosion	Field no. 214/81 w-a; Svištov, 2344 = Dimitrov 2011, no. 7	
88.		As	64–68?	Rome / Lugdunum?	illegible	LW, corrosion	Field no. 122/87 w; Svištov, 2505 = Dimitrov 2011, no. 14	
89.		As	64–66	Lugdunum	<i>RIC</i> I ² 534	MW	Field no. 27/ 95 w; Svištov, 2480 = Dimitrov 2011, no. 460	
90.	Vespasian (69–79)	Dp	71	Rome	<i>RIC</i> II/1 ² 277–279	LW	Field no. 157/85 w; Svištov, 2473 = Dimitrov 2011, no. 15	1 Æ

A hoard of six of the above bronzes (nos. 77–81 and 85) was discovered in 1981 in the earliest street sewage canal, running south-north, east of *principia* in fill deposits, corroded together and bonded. Reference: The assemblage remained for long not published, see now DIMITROV 2011, pp. 140–216, esp. pp. 140, 144–145, 155–156, 174, 177–179. Personal communications from Professor T. Sarnowski, Warsaw (November 2009 and November 2013); see also KUNISZ (unpublished).

¹²² K. Dimitrov attributed this denarius to ‘hoard II’ (*terminus post quem* AD 316/317), found in *aerarium* premise of *principia*, which cannot be taken seriously.

4. Novae IV — *villa extra muros* (sector VIIIA)

Find spot: a residential complex (*villa extra muros*), some 80 m west of *castrum*, excavated between 1979 and 2010.

Quantity: 195 coins in total (162 plus 33 found in campaigns 2005–2010), only 16 of them belong to the period under study.

	Issuer	Denomination	Date of issue	Mint	Reference (<i>RIC</i> I ² ; <i>RIC</i> II/I ²)	Wear / other features	Location / publication	Totals
91.	Caligula (37–41)	As	37–41	Rome	<i>RIC</i> I ² 58	VW	Svištov, 1405 = Dimitrov 2008, no. 33	1 Æ
92.	Claudius (41–54)	Sest	41–50	Rome	<i>RIC</i> I ² 115	HW, obv. cmk ‘capricorn r.’ ¹²³	Svištov, HCΦ 289 = Dimitrov 2008, no. 36	7 Æ
93.		As	41–50	Rome	<i>RIC</i> I ² 95	VW	Svištov, HCΦ 281 = Dimitrov 2008, no. 34	
94.		As – for Germanicus	50–54	Rome	<i>RIC</i> I ² 106	VW	Svištov, 2615 = Dimitrov 2008, no. 35	
95.		As	41–50	Rome	illegible type	HW	Svištov, HCΦ 277 = Dimitrov 2008, no. 37	
96.		As	41–50	Rome	illegible type	VW, corrosion	Svištov, HCΦ 358 = Dimitrov 2008, no. 39	
97.		As	41–50	Rome	illegible type	HW, corrosion	Svištov, HCΦ 886 = Dimitrov 2008, no. 38	
98.		As	41–50	Rome	illegible type	HW, corrosion	Svištov, HCΦ 888 = Dimitrov 2008, no. 40	
99.	Nero (54–68)	Den	64–65	Rome	<i>RIC</i> I ² 53	MW	Svištov, 2398 (from a burial) = Dimitrov 2008, no. 41	1 AR
100.	Vespasian (69–79)	Den	76	Ephesus	<i>RIC</i> II/I ² 1477	MW	Svištov, 2372 = Dimitrov 2008, no. 42	3 1 AR 2 Æ
101.		Sest	70–79?	Rome?	illegible type	VW	Svištov, HCΦ 887 = Dimitrov 2008, no. 44	
102.		As	70–79?	Rome?	illegible type	HW	Svištov, 3587 = Dimitrov 2008, no. 43	
103.	Nerva (96–98)	As	96–97	Rome	illegible type	VW, corrosion	Field no. 337 / 2007; Svištov, 3704 = Dimitrov —	1 Æ

¹²³ Countermark is described by K. Dimitrov as a ‘horse’(?), see DIMITROV 2008, no. 36 at p. 436.

104.	Trajan (98–117)	Sest	107–108	Rome	<i>RIC</i> II 483b? = Woytek 299	VW	Svištov, 1356 = Dimitrov 2008, no. 45	4 Æ
105.		Sest	109–110	Rome	<i>RIC</i> II 515 ¹²⁴ = Woytek 335	MW	Svištov, 3583 = Dimitrov 2008, no. 46	
106.		Sest	98–117?	Rome	illegible	MW	Svištov, 3585 = Dimitrov 2008, no. 47	
107.		Dp	98–117?	Rome	illegible	HW	Svištov, HCΦ 889 = Dimitrov 2008, no. 48	

Comments: Some unpublished, information from Dr. P. Vladkova, Veliko Tŕrnovo, and Mr. M. Marinov, Svištov Museum; see DIMITROV 2008, pp. 429, 435–436.

5. Novae V — western gate (sector V)

Find spot: western camp gate (*porta principalis sinistra*), excavated 1971–1977.

	Issuer	Denomi- nation	Date of issue	Mint	Reference (<i>RIC</i> I²; <i>RIC</i> II/1²)	Wear / other features	Location / publication	Totals
108.	Mark Antony	Den	32–31 BC	Patrae	<i>RRC</i> 544/? LEG illegible	HW	Field no. P206/72 w; Svištov, 1619 = Dimitrov 2013, 95	1 AR
109.	Caligula (37–41)	As	37–41	Rome	<i>RIC</i> I ² 58	VW	Svištov, 1199 / 1974	1 Æ
110.	Domitian (81–96)	Den	81, 13 September – 31 December	Rome	<i>RIC</i> II/1 ² 5	NW	Svištov, 1197 / 1974	1 AR
111.	Trajan (98–117)	Sest	114	Rome	<i>RIC</i> II, 651 = Woytek 505	MW	Svištov, 1091 / 1973	1 Æ

Comments: unpublished, information from Mr. M. Marinov, Svištov Museum.

¹²⁴ This coin was identified by K. Dimitrov as *RIC* II 496, a non-existing type.

6. Novae VI — excavation coins, 1960–1986

Find spot: site find coins of the archaeological excavation in 1960–1986 campaigns, short-listed as given in KUNISZ 1992a, pp. 135 and 162. Personal *de visu* examination was not possible at this point.

	Issuer	Reign	Denomination	Number	Mint	Reference	Totals
112–117.	Augustus	27 BC – 14 AD	Den	–	Rome / Lugdunum?		6
			Dp	1	Rome	?	
			As	5	Rome	?	
118–137.	Tiberius	14–37	Den	1	Rome	RIC I, 26–30	19
			Dp	1	Rome		
			As	17	Rome		
138–145.	Caligula	37–41	Den	–			8
			Sest	1			
			Dp	1			
			As	6			
146–190.	Claudius	41–54	Den	–			45
			Sest	4			
			Dp	5			
			As	35			
			Provincial	1	Thessalonica	RPC I, 1587	
191–199.	Nero	54–68	Den	–			9
			Sest	4			
			Dp	2			
			As	3			
200–215.	Vespasian	69–79	Den	3			16
			Sest	1			
			Dp	3			
			As	9			
216–220.	Titus	79–81	Den	1			5
			Sest	1			
			Dp	–			
			As	3			
221–230.	Domitian	81–96	Den	3			9
			Sest	1			
			Dp	1			
			As	3			
			Quad	1			

231–233.	Nerva	96–98	Den	–			3
			Sest	–			
			Dp	–			
			As	3			
234–253.	Trajan	98–117	Den	1			21
			Sest	10			
			Dp	8			
			As	2			
			Quad	–			
					TOTAL for period		141

Disposition: Municipal History Museum of Svištov.

Comments: Unpublished in details.

Reference: KUNISZ 1992a, pp. 135 and 161–162.

7. Novae, *suburbia* — stray coins, before 1960

Findspot: Novae and its adjacent area, found before 1960 and kept in Svištov Museum.

	Issuer	Reign	Denomination	Number	Mint	Reference	Totals
254–255.	Augustus	27 BC – 14 AD	Den	1	Rome?		2
			As	1	Rome		
256–259.	Tiberius	14–37	As	4	Rome	<i>RIC</i> I, 81	4
260–278.	Caligula	37–41	Den	–			19
			Sest	–			
			Dp	5			
			As	13			
			Quad	1			
279–295.	Claudius	41–54	Den	–			17
			Sest	3			
			Dp	4			
			As	10			
296–307.	Nero	54–68	Den	1			13
			Sest	6			
			Dp	1			
			As	4			
			Tetradr.	1	Alexandria		

308–340.	Vespasian	69–79	Den	13			33
			Sest	6			
			Dp	6			
			As	8			
341–352.	Titus	79–81	Den	6			11
			Sest	1			
			Dp	–			
			As	4			
353–365.	Domitian	81–96	Den	7			13
			Sest	2			
			Dp	–			
			As	3			
			Quad	1			
366–370.	Nerva	96–98	Den	1			5
			Sest	–			
			Dp	1			
			As	3			
371–407.	Trajan	98–117	Den	7			38
			Sest	9			
			Dp	15			
			As	3			
			Sem	1			
			Quad	3			
					TOTAL for period		155

Reference: KUNISZ 1992a, pp. 134–135 and 161–162. Now compare in DIMITROV 2013, pp. 712–765 (*non vidi*).

Abbreviations

Æ	<i>aes</i> , bronze
AR	<i>argentum</i> , silver
cmk/s	countermark/s
Den	denarius
diam.	diameter
Dp	dupondius
g	grams
mm	millimeters
obv.	obverse

Quad	quadrans
rev.	reverse
Sest	sestertius
Sem	semis
MW	mid-worn
NW	no wear
HW	highly worn
VW	very worn
<i>AE</i>	<i>L'Année épigraphique</i> , Paris.
<i>CIL</i>	<i>Corpus Inscriptionum Latinarum</i> , Berlin, 1902–.
<i>FMRD</i>	<i>Fundmünzen der Römischen Zeit in Deutschland</i> , Frankfurt.
<i>IGLNov.</i>	<i>Inscriptions grecques et latines de Novae (Mésie inférieure)</i> , ed. J. KOLENDO, V. BOŽILOVA, Paris – Bordeaux 1997.
<i>ILBulg.</i>	B. GEROV, <i>Inscriptiones Latinae in Bulgaria repertae (Inscriptiones inter Oescum et Iatrum repertae)</i> , Sofia 1989.
<i>ILS</i>	<i>Inscriptiones Latinae selectae</i> , ed. H. DESSAU, Berlin 1892–1916.
<i>PIR</i> ²	<i>Prosopographia imperii Romani saec. I. II. III. Editio altera</i> , ed. E. GROAG, A. STEIN, L. PETERSEN, K. WACHTEL, M. HEIL, I–VI, Berlin 1933–2006.
<i>RIC</i> ¹	C. V. H. SUTHERLAND, <i>The Roman Imperial Coinage</i> , I: <i>From 32 B.C. to A.D. 69</i> , London (second revised edition).
<i>RIC</i> II/1 ²	I. A. CARRADICE, T. V. BUTTREY, <i>The Roman Imperial Coinage</i> , II.1: <i>From AD 69–96, Vespasian to Domitian</i> , London (second fully revised edition).
RHM Russe	Regional Historical Museum — Russe.
<i>RPC</i> I	A. BURNETT, M. AMANDRY, P. P. RIPOLLÈS, <i>The Roman Provincial Coinage</i> , I.1: <i>From the Death of Caesar to the Death of Vitellius (44 BC – AD 69)</i> , London – Paris 1992.
<i>RPC</i> II	A. BURNETT, M. AMANDRY, I. CARRADICE, <i>The Roman Provincial Coinage</i> , II: <i>From Vespasian to Domitian (AD 69–96)</i> , London – Paris 1999.
<i>RRC</i>	M. H. CRAWFORD, <i>Roman Republican Coinage</i> , I–II, Cambridge 1974.
<i>SNG Cop.</i>	<i>Sylloge Nummorum Graecorum. The Royal Collection of Coins and Medals, Danish National Museum</i> , XVIII: <i>Bosporus and Bithynia</i> , Copenhagen 1944.
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Streszczenie

Wczesnorzymskie monety z Novae. Zaobserwowane prawidłowości

Artykuł niniejszy stanowi pierwszą systematyczną próbę zebrania i opracowania wczesnorzymskich znalezisk monetarnych z Novae — dużego legionowego fortu nad dolnym Dunajem, który podlega badaniom wykopaliskowym nieprzerwanie od 1960 roku. Zawiera on pełną identyfikację wszystkich opublikowanych monet z tego stanowiska, a także gruntowną analizę zasobów muzeum w Svištovie. Zostały w nim skatalogowane i przeanalizowane co najmniej 252 monety (a 407, biorąc pod uwagę znaleziska z *suburbia*), pochodzące z okresu wczesnego pryncypatu (od Augusta do Trajana). Dyskusji poddano także niewielki skarb sześciu monet brązowych z czasów Klaudiusza i Nerona (*t.p.q.* 64/5 n.e.), znaleziony w ścieku ulicznym przy legionowych *principia*. Przeprowadzono też analizę porównawczą wartości nominalnej monet występujących w Novae. Szczególnie ważne jest współwystępowanie niewielkich obiektów ozdobnych (*terra sigillata* z północnej Italii i Galii, importowane szkło, amfory etc.) z julio-klaudyjskimi i flawijskimi monetami z sektorów X, XI i XVIII. Artykuł rzuca światło na wczesne fazy osadnictwa i podkreśla czysto militarny charakter Novae aż do czasów Hadriana.

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ANCIENT POTTERY IN THE LABORATORY — PRINCIPLES OF ARCHAEOCERAMOLOGICAL INVESTIGATIONS OF PROVENANCE AND TECHNOLOGY

Abstract: This article presents the fundamental principles of comprehensive archaeoceramological analysis aimed at determining the provenance of ancient pottery sherds, the technology used in their manufacture and their functional properties. Options for analysis of bulk ceramic finds are also outlined. The issue of selecting an appropriate methodology is discussed, taking into account constraints such as the size of samples and the fact that irreversible destruction of sherds during analysis should be kept to a bare minimum.

Key words: archaeometry, ancient pottery, analysis, technology, ceramic properties, provenance

The aim of this article is to summarise the author's experience in archaeoceramological research, gained whilst conducting projects in collaboration with Ewa Bobryk¹ and Gerwulf Schneider² (known collectively as the DBS research team). This work has focused primarily on the analysis of pottery, dated from the Mesolithic to the late medieval period, recovered from excavation sites in both the Old and New Worlds. Analysis has also been carried out on oil lamps, ceramic building materials (bricks and roof tiles) and technical ceramics (potter's tools, kiln furniture, crucibles, furnace grates, collars and furnace pipes). This research has involved the use of conventional methods as well as the development and application of new analytical procedures based on model analyses.

Introduction

Archaeometry is a scientific discipline dealing with the development and application of physical and chemical methods, as well as mathematical and environmental approaches, in order to answer cultural and historical questions posed by archaeologists and historians.³ Archaeoceramology is a narrowly defined branch of archaeometry, dealing with the comprehensive analysis of ceramic artefacts — this includes analysis of their chemical composition and their mineralogical and petrographic composition, as well as technological and functional analyses. Archaeoceramology is a discipline practised by few research centres and few researchers. Ceramic fragments are usually

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³ Archaeologists define archaeometry as an auxiliary discipline of archaeology.

submitted for archaeometric analysis solely in order to determine their chemical composition. This analysis is often carried out by physicists or chemists, who treat the sherds as if they were a combination of chemical elements, rather than a substance incorporating a diverse range of mineral phases. In 1931 A. Levi⁴ became the first person to ever undertake chemical analysis of ceramic artefacts. He examined the differences in chemical composition of imported and locally produced Greek pottery found in Apulia (Italy). In the late 1950s, E. Sayre (Brookhaven by New York, USA),⁵ I. Perlman and F. Asaro (Berkeley, USA)⁶ initiated the use of NAA (Neutron Activation Analysis) to analyse the chemical composition of ancient pottery. At the same time, M. Picon (Lyon, France)⁷ began carrying out chemical analysis using the technique of WD-XRF (wavelength-dispersive X-ray fluorescence). During this period analysis was also being conducted in Oxford (England) using OES (Optical Emission Spectroscopy),⁸ which was replaced (changes being introduced by H. Hatcher) in later years by AAS (Atomic Absorption Spectrometry) and ICP-OES (Inductively-Coupled Plasma Emission Spectrometry).⁹ As part of the Arbeitsgruppe Archäometrie, set up in 1975 in Berlin, G. Schneider and others¹⁰ began analysing ancient pottery using WD-XRF, creating one of the largest databases of ceramic artefacts in Europe.¹¹

It must be remembered that analysis of ancient pottery often requires the application of methods different to those used in the analysis of modern-day ceramics. Archaeoceramology often concerns raw materials that would be completely disregarded in contemporary ceramic production, even being deemed unsuitable for any sort of ceramic production. Moreover, when ceramic artefacts lie buried, or on the ground surface, for several hundred or several thousand years, this often results in changes in their chemical composition, caused by the absorption and/or leaching of various substances during burial of the sherds in the soil.

The chemical composition of ceramic fragments can differ significantly from their original composition because of the secondary deposition of phosphorus, which is frequently accompanied by the secondary deposition of strontium and barium, although how this penetration process works remains a mystery despite years of research carried out by various teams.¹² This effect is often linked to chemical elements such as rubidium, potassium, sodium, calcium, magnesium, manganese and silicon leaching from the sherds. In consequence, there is an elevated content of those elements which occur in more stable compounds; this includes elements such as titanium, aluminium, iron and chromium. In addition, secondary deposits of calcium carbonate, gypsum and iron compounds are often observed within pores inside the ceramic fragments, resulting in elevated levels of calcium, sulphur, iron and manganese, as well as changes in the content (and element ratios) of geochemically correlated trace elements (e.g. Sr is a geochemical correlate of Ca). Ceramic fragments that have been exposed to seawater (recovered from underwater excavations or shipwrecks) have elevated levels of magnesium. Changes in lead, copper and tin content are also observed as a result of leaching from metal objects deposited near pottery. Furthermore, in the case of thick-walled pottery made from a non-homogeneous ceramic body tempered, for example, with coarse-grained calcite or crushed rock, the chemical composition of individual vessels may differ significantly. Thus, when analysing the chemical composition of ceramic artefacts, attention must be paid not only to selecting an appropriate analytical method, but also to the way that results are interpreted, mindful of the fact that the analysed ceramic fragments can be erroneously classified because of changes in their chemical composition dictated by their depositional environment.¹³

⁴ LEVI 1931.

⁵ SAYRE, DODSON 1957.

⁶ PERLMAN, ASARO 1969.

⁷ PICON, VERTET 1979.

⁸ CATLING, MILLETT 1965.

⁹ HATCHER, TITE, WALSH 1995

¹⁰ SCHNEIDER, HOFFMANN 1976

¹¹ This is currently the joint Schneider-Daszkiwicz database, detailing analysis results for 30,000 ceramic fragments.

¹² For a summary of the alteration effects, see SCHNEIDER 2015.

¹³ This situation is illustrated by *terra sigillata* made at workshops in Arezzo (Italy) and discovered at Dangstetten (Germany). The chemical composition of these ceramic

Basic principles of the DBS analytical package for provenance studies

Ceramic products are made by shaping a body, which becomes hard when subsequently fired.¹⁴ Ceramic products are currently made from various materials. However, ancient ceramics were made for thousands of years using aluminosilicates and silicates as well as clay-carbonate raw materials. Only a small percentage of ancient pottery was not made from these raw materials — quartz ceramics being the variety in question (e.g. Egyptian faience and Islamic quartz pottery). Thus, various types of clays were the principal ingredients used in ceramic bodies by ancient potters. Those ceramics made using a clay (marly-clay or clayey-marl) body¹⁵ are known as pottery. The shaping of a clay body and the later setting of this shape is possible thanks to the properties of the clay, which becomes plastic when wet, leather-hard when dried, and on firing is transformed into a permanent, rock-like mass. During the processes of drying and firing, when the water which gives the clay its plasticity evaporates, the clay shrinks, which may cause scars and cracks to appear if a non-plastic component is not added to it. Thus, the pottery formation process results in the plastic parts of the body being distinguishable from the non-plastic parts. In addition to clay minerals, the plastic components may also contain very fine minerals such as quartz. The plastic part is considered to consist of all minerals of less than 10 µm fraction (i.e. grains of clay fraction and fine silt fraction). Ceramic components of more than 10 µm fraction (medium and coarse silt fraction, sand fraction and fine gravel fraction) constitute the non-plastic part of the body [Fig. 1].

Geological classification after Uden-Wentworth		Archaeoceramological classification		
Description of grain fraction	Grain size [mm]	Description of grain fraction		
boulders	256	GRAVEL	NON-PLASTIC PART OF BODY (natural or intentional temper)	
cobbles	64			
pebbles	4			
granules	2			
very coarse sand	1	SAND		
coarse sand	0.5			
medium sand	0.25			
fine sand	0.125			
very fine sand	0.0625			
coarse silt	0.0600	SILT		
medium silt	0.0312			
fine silt	0.0156			
very fine silt	0.0100	CLAY	MATRIX (hardened plastic part of body)	
	0.0078			
	0.0039			
clay				

Fig. 1. Correlation of geological grain size classification after Uden-Wentworth with archaeoceramological classification

sherds differs so markedly from their original composition that multivariate grouping analysis did not attribute most of the Arretine pottery from Dangstetten to the Arezzo reference group (SCHNEIDER, DASZKIEWICZ 2006).

¹⁴ Definition of ceramics = inorganic non-metallic material, formed from a powder and by firing converted to a permanent solid mass.

¹⁵ Some authors refer to the body using the term paste;

Non-plastic components (clastic material) can be either autogenic in the raw material or allogenic in relation to the deposit (deliberate inclusions added as a requirement of the technological process). During the course of firing, the plastic part of the body hardens as a result of the formation of new phases produced by thermal change in the clay minerals. The end result is a product (pottery) consisting of a matrix (the hardened plastic part) and non-plastic components within the matrix.

Mindful of the facts outlined above, a study of archaeological pottery ought to encompass analysis of both the composition of the body and its individual plastic and non-plastic components. This means that a minimum of three analytical methods should be employed:

- chemical analysis, which reveals the geochemical characteristics of sherds;
- a method for defining the matrix composition;
- a method for analysing the mineralogical and petrographic content of non-plastic components.

Chemical composition analysis

Chemical analysis of a sherd reveals the geochemical characteristics of the mixture of the plastic and non-plastic components of a pottery fabric. It enables the quantity of major and trace elements in the body to be established, although the phases in which individual elements occur cannot be ascertained (giving the major elements as oxides is standard procedure in geochemistry when presenting the results of chemical analysis).¹⁶

Matrix analysis

Certain problems are encountered when analysing the matrix due to the fact that its composition includes phases that stem from the thermal decomposition of clay minerals. Analysis of clay minerals which have not been subjected to thermal processes takes place using methods such as electron microscopy, X-ray diffraction and thermal analyses (TG, DTA, DTG). Where ancient pottery is concerned, these methods are usually of little use in determining matrix types due to the most commonly used range of firing temperatures. In this situation analysis of the matrix is made easier by MGR-analysis (Matrix Group by Refiring¹⁷). This enables the matrix type to be identified based on the fact that the thermal behaviour of plastic components during firing is governed by their chemical and phase composition. MGR-analysis also enables the range of original firing temperatures to be estimated.

It must be emphasized that ceramic vessels made from the same clay with no extra non-plastic components added by the potter will have the same chemical composition and will belong to the same MGR-group. In contrast, vessels made from the same clay with various intentionally added non-plastic components will belong to the same MGR-group, but will yield different chemical analysis results and will differ from one another when examined in thin-section.

Figure 2 shows examples of pottery fragments from Novae (samples provided for analysis by P. Dyczek) which differ in terms of thermal behaviour of the matrix and also differ in chemical composition, and samples in which the thermal behaviour of the matrix is the same and the same non-plastic inclusions have been added.

however in this instance this is not the correct term. Paste, in contrast to body, is a mass in which the content of clay raw materials is less than 20–40%. Quartz ceramics, for example, are made using a paste.

¹⁶ For a detailed description of chemical analysis carried out for the purposes of analysing archaeological pottery, see DASZKIEWICZ, SCHNEIDER 2014 (in this volume).

¹⁷ MGR = Matrix Group by Refiring, see DASZKIEWICZ, SCHNEIDER 2001; for a detailed description of MGR-analysis, DASZKIEWICZ 2015, in press.

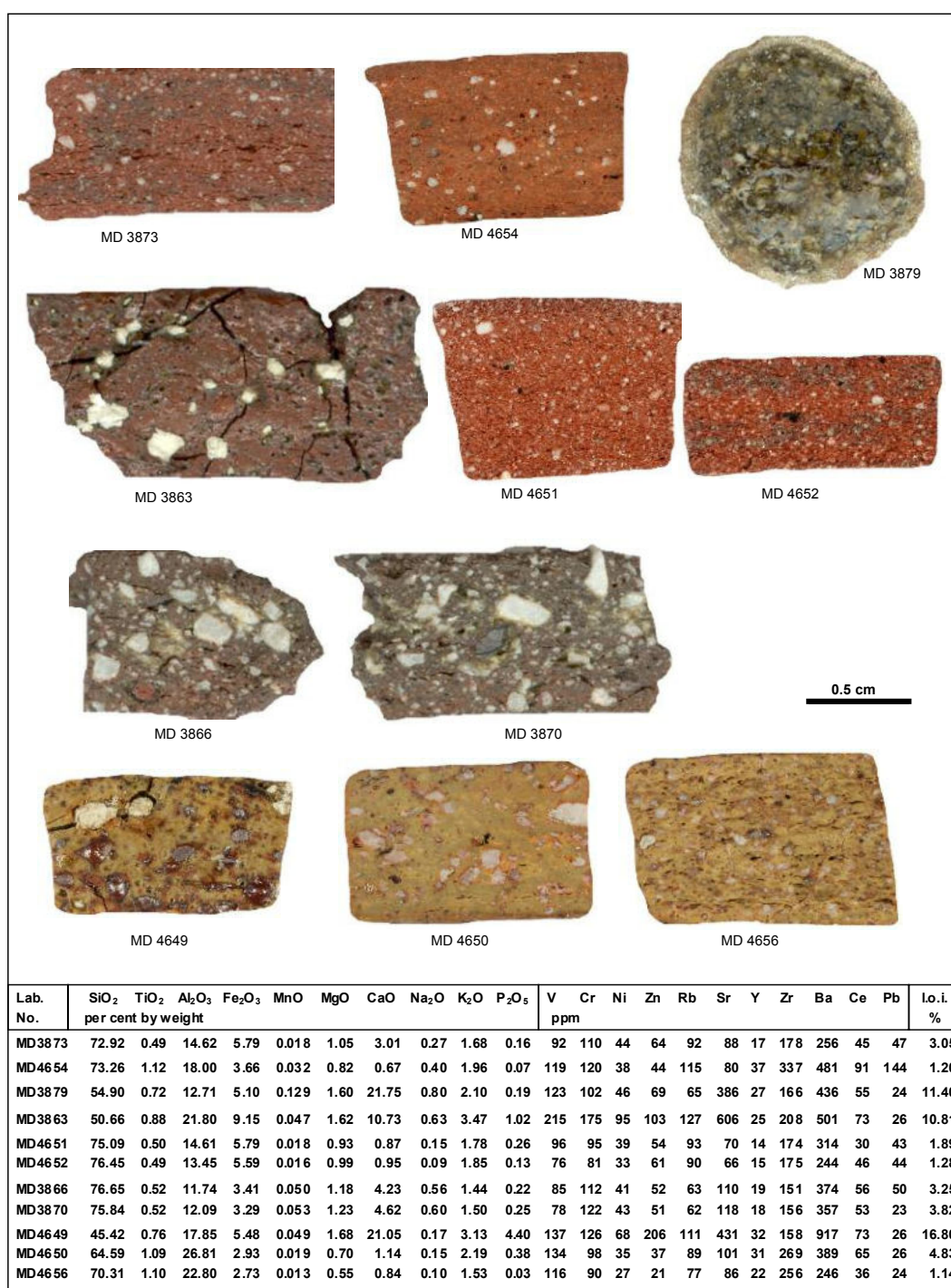


Fig. 2. Samples made of iron-rich non-calcareous clays (MD3873, MD4654, MD3863, MD4651, MD4652, MD3866 and MD3870), iron-pure non-calcareous clays (MD4649, MD4650 and MD4656). The high CaO content in the chemical composition of these samples is linked to their non-plastic components — coarse grains of carbonate temper are visible; however, in sample (MD3879) the CaO content evident in the results of chemical analysis is linked to the type of plastic components in the body (calcareous clay). Samples in which the thermal behaviour of the matrix is the same and to which the same non-plastic inclusions have been added have the same chemical composition, e.g. two examples of fine ware (MD4651 and MD4652) and two examples of coarse wares (MD3866 and MD3870). Examples of Roman pottery fragments from Novae provided for analysis by P. Dyczek; samples after refiring in air at 1200°C; chemical analysis by WD-XRF; photos with macro lens by M. Baranowski

Analysis of non-plastic inclusions

Thin-section studies under a polarising microscope are used in order to specify the content of non-plastic inclusions and grain size distribution of the non-plastic components of the body. Thin-section analysis can also provide information about the matrix, but only very general information due to the resolution of the microscope, the size of the clay minerals making up the plastic part of the body and the fact that they undergo transformation when fired. Observation of matrix properties yields some information on the original firing temperatures (anisotropic vs. isotropic).

Thin-section analysis, which often provides vital evidence for provenance studies (e.g. the presence of natural volcanic glass inclusions which are diagnostic of provenance), is equally important for technological studies (determining the type of intentional temper or the recipe¹⁸). Figure 3 shows examples of two ceramic fragments with natural temper and two examples with intentional temper — in one case the intentional temper consists of crushed coarse crystalline calcite, and in the other it consists of grog.

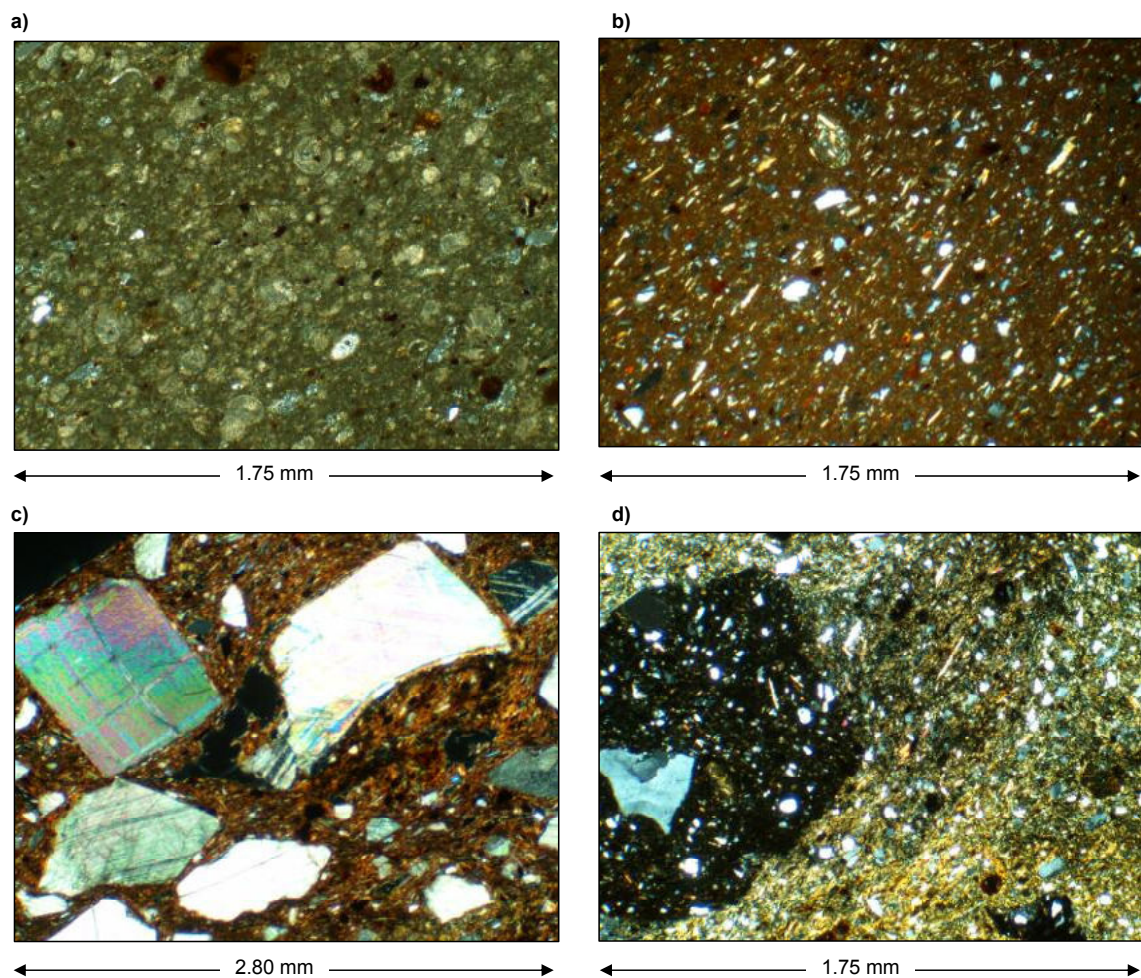


Fig. 3. Examples of two ceramic fragments with natural temper (a = calcareous clay; b = non-calcareous clay) and two examples with intentional temper (c = intentional temper consisting of crushed coarse crystalline calcite; d = intentional temper consisting of grog).

Images taken under a polarising microscope, XPL

¹⁸ Recipe = proportion of non-plastic components in relation to the plastic part of the ceramic body.

Integrated approach

Where three analytical methods are employed, pottery groups are determined independently using MGR-analysis, chemical analysis and thin-section studies [Fig. 4]. Each of these groups represents a different type of classification (matrix groups, geochemical groups, clastic material groups). In combination, these three types of classification make it possible to establish provenance groups, which not only highlight differences in chemical composition (so called fingerprinting for provenance studies), but can also demonstrate what these differences are associated with: for example, ceramic vessels belonging to two different groups, such as tableware and kitchenware, may be locally produced using the same clay raw material with different tempers added depending on the vessel's function. The combination of methods helps to avoid misinterpretation of chemical data.¹⁹

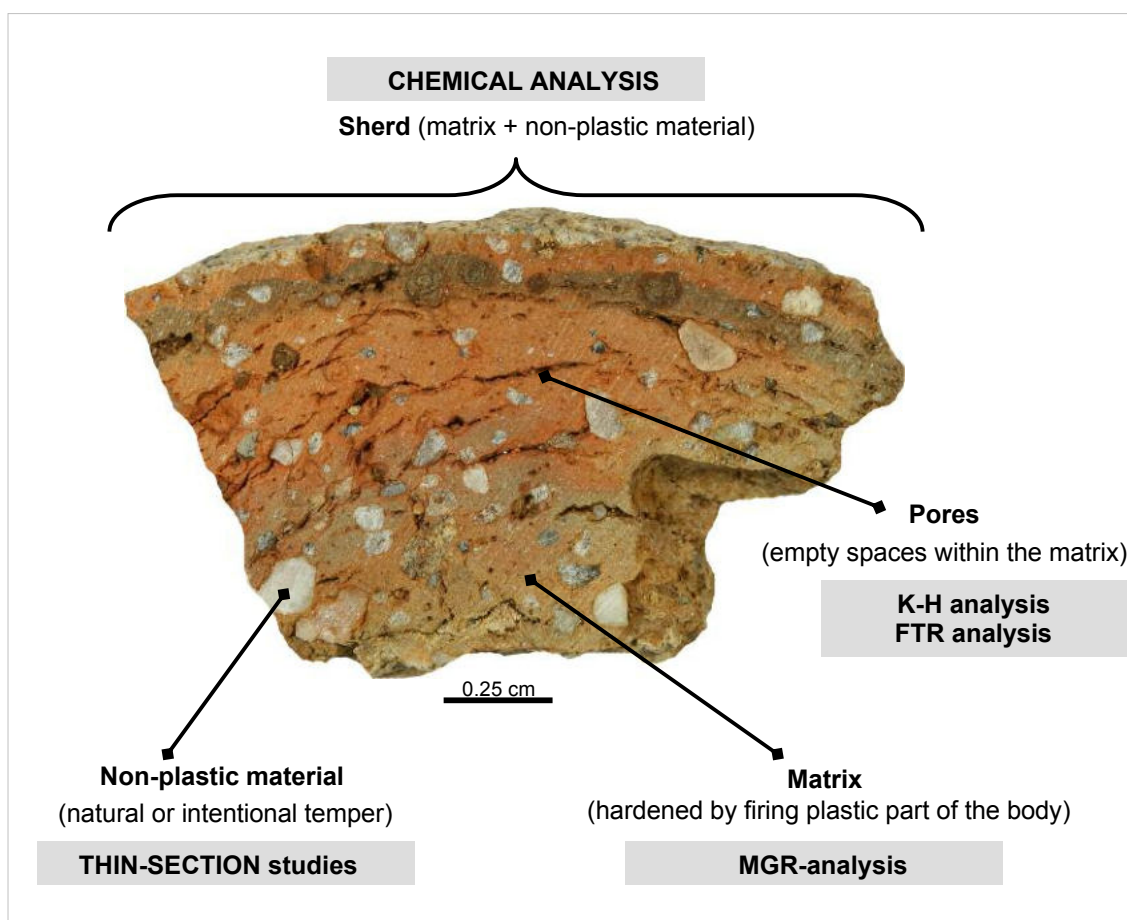


Fig. 4. Schematic image showing a ceramic object as a material whose composition should be examined using a suite of analyses in order to extract information on the bulk chemical composition of the sherd, information on the non-plastic inclusions and information on the matrix.

Pores are an important feature, as their analysis has the potential to provide a range of information about the technological process

¹⁹ See e.g. DASZKIEWICZ, SCHNEIDER, BOBRYK 2012.

Provenance studies

When analysing pottery provenance it has to be remembered that the term ‘provenance’ can mean several things. It can refer to the provenance of clay used in the preparation of the ceramic body, or it can be used in the sense of pottery provenance from the same production area, or provenance from the same production centre (a single provenance area may feature one or many production centres), or even provenance from the same workshop²⁰ or the same production run. Thus, provenance can have various connotations, on the one hand relating to clay types, on the other denoting the very rarely encountered opportunity of determining that several potsherds came from the same production run. However, in most instances, assessment of provenance is usually restricted to using chemical analysis to attribute the analysed sherd to a specific reference group (production centre), with identification and groupings based on clay type being referred to as classification. One clay type may have been used at several production areas and production centres, whilst a number of workshops may have operated within each production centre [Fig. 5]. It has to be borne in mind that the term workshop (as well as the term production centre) can be interpreted

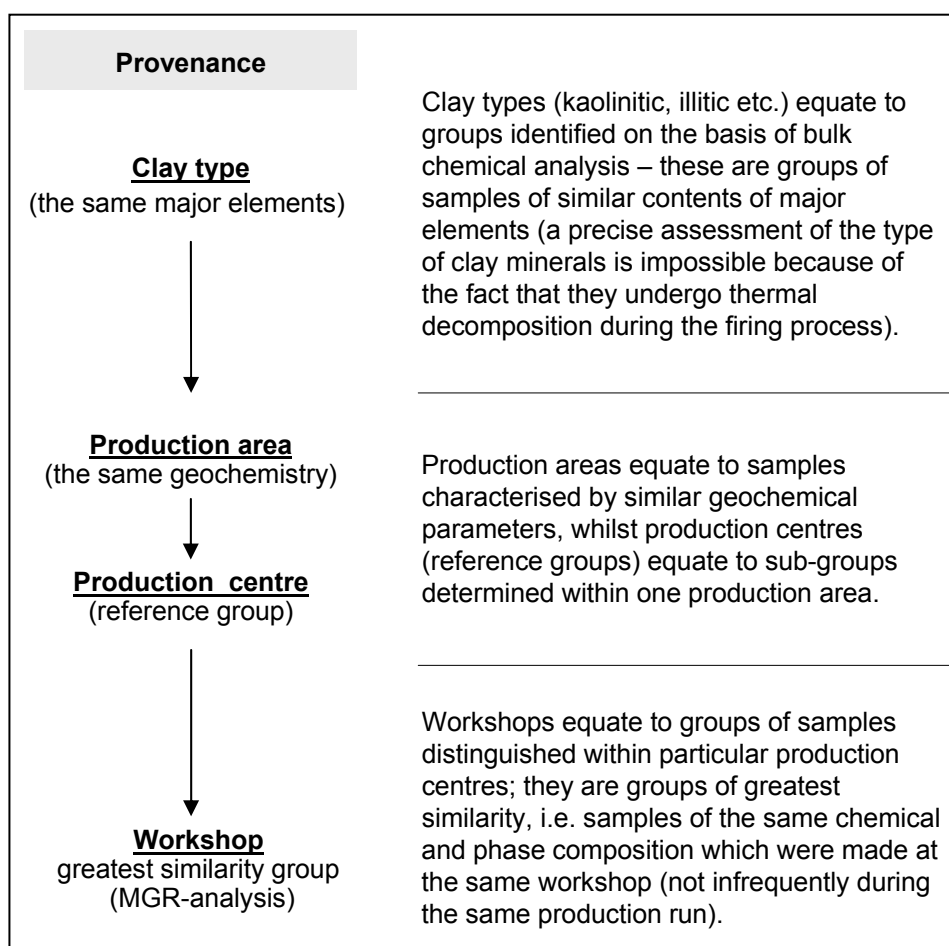


Fig. 5. Four-level provenance classification based on chemical composition and analysis of the thermal behaviour of the matrix (MGR-analysis)

²⁰ The term workshop is used to refer to any place where ceramic products were made, regardless of how basic or sophisticated the production site was.

both in their territorial and chronological sense. Various raw materials may have been in use at several contemporaneous workshops (or even a single workshop), as well as at workshops dating from various periods (correlation: raw material — dating).

Geological factors may have dictated that different pottery production centres used plastic raw material of the same composition and the same non-plastic inclusions. When trying to establish the classification of ancient pottery, it is worth bearing in mind that:

- Pottery of the same shape and style was produced using the same technology but from geochemically different raw materials, thus, very probably in different workshops or geographical regions.
- Pottery of the same shape and style was made from raw materials which are geochemically the same, thus, probably in the same workshop area, but using different techniques, indicating different traditions.²¹
- Pottery was made in a given workshop area using one kind of raw clay (determining the matrix of the body) but with differing, local, non-plastic additions, depending on the intended function of the vessel.
- Pottery was made in a given workshop area using local raw clay (determining the matrix of the body) but with imported, non-plastic temper.

Based on the above postulates, the author proposes the following four-level provenance classification system [Fig. 5]:

- Clay types equate to groups identified on the basis of bulk chemical analysis (these are groups of samples with similar major chemical composition) and categories of matrix identified by MGR-analysis (codes: abbreviations, e.g. NC Fe = non-calcareous iron-rich clay, Cal = calcareous clay, MC = marly clay). A precise assessment of the type of clay minerals is usually impossible because of the fact that they undergo thermal decomposition during the firing process.
- Production areas (= chemical groups) equate to samples characterised by similar geochemical parameters.
- Production centres (= reference groups) equate to sub-groups determined within one production area.
- Workshops equate to groups of samples distinguished within particular production centres; they are groups of greatest similarity, i.e. samples of the same chemical and phase composition which were made from the same ceramic body, most probably at the same workshop — this category equates to samples belonging to the same MGR-group. There is a very high degree of probability that samples belonging to the same MGR-group and the same clastic material group, and which have the same chemical composition, were made from the same production run.

An example of four-level provenance classification carried out on pottery from Roman Rheinzabern is shown in figure 6. The provenance system outlined above applies to all periods, and not just to Roman pottery. It must be stressed that the definition of a workshop as a group of samples of greatest similarity refers to every group of ceramic vessels, regardless of whether these vessels were made in a domestic backyard or in a high-tech pottery workshop.

Reference groups determined by provenance analysis fall into two categories:

- Reference groups with a known production location — these are pottery groups for which the location of production has been identified thanks to comparative analysis – for example, kiln wasters, potter's tools or sources of raw materials were found.
- Reference groups without a known production location — these are compositional groups which do not correspond to any group of known provenance.

²¹ In cases where individual workshops used the same clay and the same non-plastics, individual workshops can only be identified by technological analysis (e.g. DASZKIEWICZ, SCHNEIDER, BOBRYK 2001).

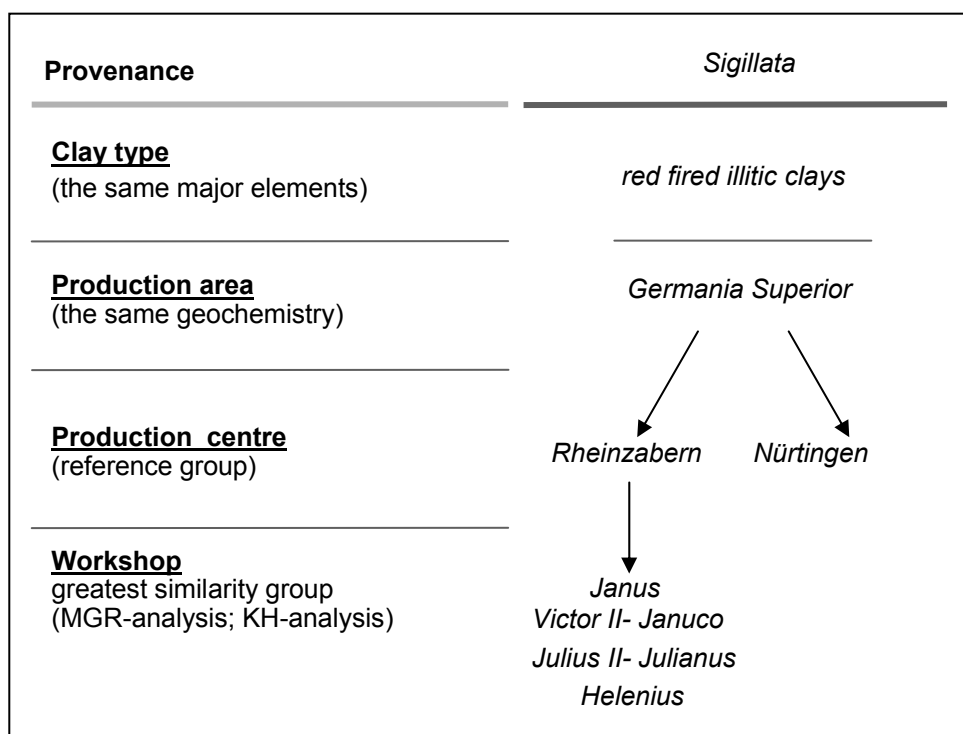


Fig. 6. An example of four-level provenance classification carried out on two sigillata groups.

In the laboratory, vessels from Rheinzabern bearing the stamps of individual potters can only be ascribed to a specific workshop using K-H analysis (in view of the fact that their chemical composition will be the same)

Technological analysis

Research aimed at recreating the technology used to make ancient ceramic products is most frequently based on analyses carried out in order to determine original firing temperature and firing atmosphere. However, technological studies should not be restricted to establishing the original firing temperature of ceramic artefacts. Even information relating to the type of make-up water used is of relevance. The addition of salt to make-up water (by using seawater or water from brackish lakes) results in pottery made from marly clay changing colour from red to white [Fig. 7]. This means that potters achieved very different colours using the same raw materials with make-up water of varying salt content. This type of situation is typical of ancient pottery from the Near East or North Africa.²² This effect is most pronounced on the surface of the vessels (efflorescence) making the surface looking as if it is coated with a white slip. Chemical analysis of surfaces in other cases may give some indication of whether gypsum moulds were used.²³

²² In present-day pottery workshops in Djerba (Tunisia) both freshwater and saltwater (seawater) is used. Which type of water is chosen depends on the desired colour for the vessel being produced.

²³ E.g. Nabataean pottery from Petra in Jordan (DASZKIEWICZ, BOBRYK 2013).

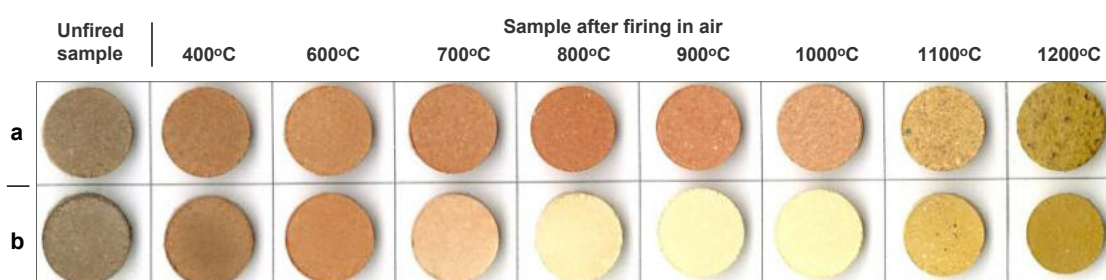


Fig. 7. The effect of make-up water on fabric appearance. Examples of laboratory-made specimens produced using marly clay from the region of Tell Brak (Syria): a = specimens made with distilled make-up water; b = specimens made with the addition of salt to the make-up water

Determining original firing temperature

The firing temperature of historical pottery can be determined using static and dynamic methods.²⁴ Static methods are used to analyse sherds in order to assess their physical properties or phase composition, and the results obtained serve to draw conclusions about the temperature at which the vessels were originally fired. For example, the degree of vitrification can be gauged or the firing temperature can be estimated based on the presence or absence of clay and other minerals, such as calcite, gehlenite or diopside.²⁵ Dynamic methods involve refiring ceramic sherds and assessing at which temperatures any changes occur. When refiring is carried out at a lower temperature than the original firing temperature, no significant changes should be observable in the analysed sherd; however, when refiring is conducted at a higher temperature than the original firing, changes occur both in the physical properties and in the phase composition of the sherd. In those ceramic objects where organic substances did not fully combust during the original firing process, or which were subject to fumigation when fired, or were fired in a reducing atmosphere, the first changes in colour observed during the course of refiring in air are linked to the refiring being carried out in a different atmosphere to that of the original firing process. Since the temperature at which changes take place is linked to the conditions of refiring, the result of this analysis should be referred to as the 'equivalent original firing temperature' (Teq).²⁶ The term 'original firing temperature' is reserved for the temperature at which the ceramic product was fired by the potter who made it, whilst the term 'refiring' refers to laboratory firing in controlled conditions. As model analyses have shown, it is optimal to carry out refiring in an electric laboratory furnace in air, static, with a heating rate of 200C/h and a soaking time of 1h at the peak temperature.

The use of dynamic methods is decidedly preferable because of the ambiguity of interpretations based on static methods. Looking at the presence of particular phases in X-ray diffraction analysis, one should remember that during the firing process the clay-temper mixture is not within a thermodynamic phase equilibrium, and the temperatures at which particular phases occur depends on kinetic and other factors. The occurrence of specific phases as well as, for example, the degree of vitrification, not only depend on the original firing temperature, but also on the chemical and mineralogical composition of the ceramic body, grain sizes and firing process (atmosphere, firing rate, soaking time at the peak temperature). Furthermore, changes in phase composition often take place

²⁴ DASZKIEWICZ, RAABE 1989.

²⁵ TITE 1972.

²⁶ All effects used to evaluate the original firing temperature also depend on the original atmosphere and on the time at each stage of the original firing. If these conditions

are not taken into consideration, only the equivalent firing temperature can be determined. This corresponds to the original firing temperature when the firing was carried out under the same conditions as in the laboratory firing.

during the time when the sherd stays buried in an archaeological context, which may, for example, cause secondary deposition of carbonates, rehydroxylation of clay minerals, recarbonatisation or decomposition of calcium silicates (e.g. gehlenite). In dynamic analyses, various parameters can be taken into consideration — for example, thermal expansion (dilatometric analysis)²⁷ or changes in open porosity, water absorption and apparent density (K-H analysis).²⁸ At present the most commonly applied method is MGR-analysis, which simultaneously provides a range of information about the technological process. MGR-analysis examines the thermal behaviour (surface appearance, colour and shade) of samples before and after refiring in controlled conditions, thus allowing not only the original firing temperature to be determined, but also the firing atmosphere and the method used for maintaining kiln temperature.²⁹ It also provides information on the raw material used for making a given ceramic sherd and facilitates raw material classification of bulk pottery finds. In contrast, structural/textural MGR-analysis involves examining changes in the structure of the ceramic sherd after refiring which are visible under an optical microscope. This is particularly useful in the analysis of fragments of over-fired pottery wasters [Fig. 8].

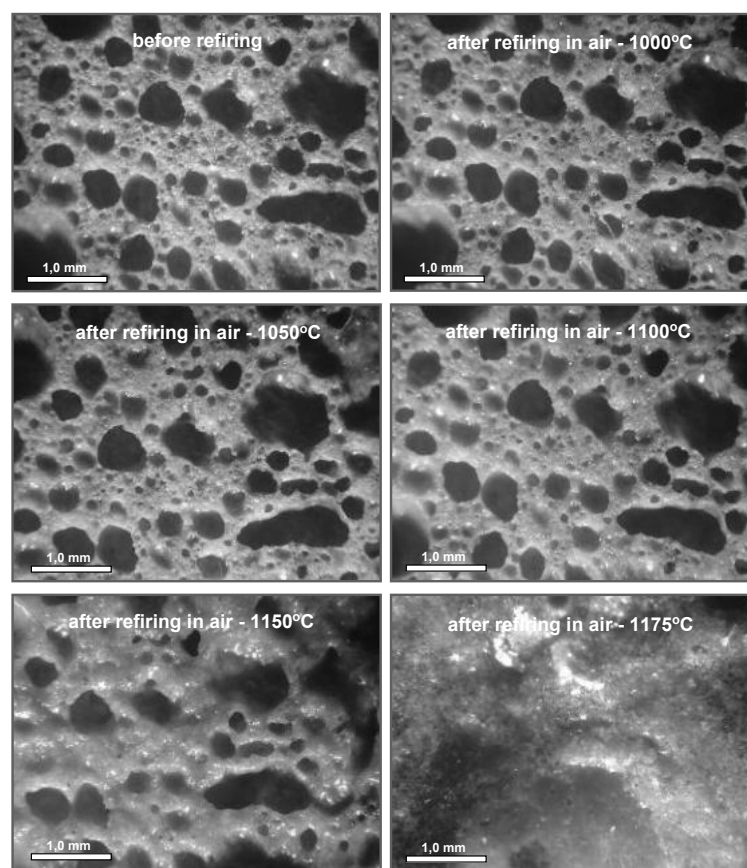


Fig. 8. Structural/textural MGR-analysis carried out on an over-fired ceramic fragment. The same fragment undergoes multiple refiring and the appearance of the sample is recorded after each refiring. The first changes in structure/texture are observed after refiring at a temperature which is higher than the temperature at which the entire ceramic object was over-fired. In this case the temperature in question is 1150°C. Reflected light microscope images

²⁷ TITE 1969.

²⁸ The name of this technique and its use in the systematic analysis of ancient pottery (to define equivalent original firing temperature and methods used for de-airing the ce-

ramic body) was presented at the archaeometric conference held in Cologne (DASZKIEWICZ, BOBRYK 2001).

²⁹ As an example see DASZKIEWICZ, SCHNEIDER, BOBRYK 2008; DASZKIEWICZ, BOBRYK 2011.

Other technological analyses

It is possible to determine the techniques used for forming ancient pottery vessels by analysing the distribution and shape of pores in planes perpendicular and parallel to a vessel's principal axis – FTR analysis (Forming Techniques Reconstruction analysis). Experiments for using pore texture have been applied to Imperial Period wheel-thrown pottery from Olbia and Brandenburg as well as to hand-made, wheel-shaped and wheel-thrown Roman pottery from Aguntum.³⁰

Physical ceramic properties (apparent density, open porosity, water absorption) gauged by hydrostatic weighing can be carried out on original pottery fragments or using one piece of the sherd before and after refiring. These analyses provide information about the preparation of the body [Fig. 9] and the original firing temperature respectively [Fig. 10].

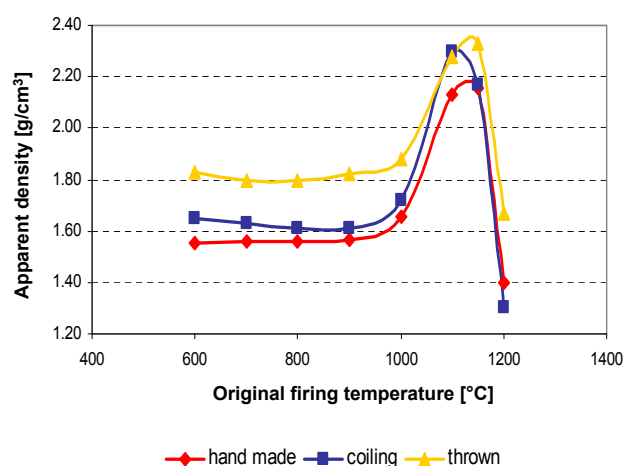


Fig. 9. Apparent density values determined for ceramic samples formed by three different methods, made from the same ceramic body and fired at the same temperatures (laboratory-made ceramic specimens produced from Yockgrim clay — the raw material used in the manufacture of Rheinzebern sigillata)

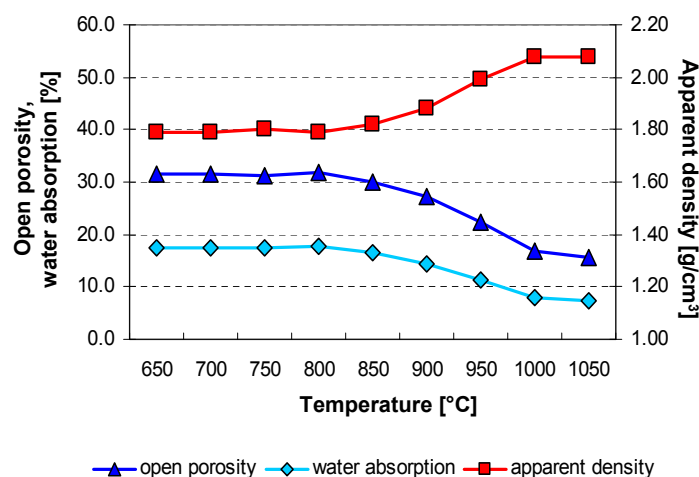


Fig. 10. Open porosity, water absorption and apparent density values determined for the same sample after each refiring. After refiring at a temperature higher than the original firing temperature the sherd continues to become more compact, its apparent density increases whilst at the same time its open porosity and water absorption values decrease. The refiring temperature at which the first changes are observed is higher than the original firing temperature of this sample. In this case, the sample was originally fired at 800–850°C (example: Lusatian potsherd)

³⁰ DASZKIEWICZ, BOBRYK, SCHNEIDER 2010b.

MGR-analysis can be applied in order to determine the technology used to obtain a black surface layer on ancient ceramic vessels. Hellenistic pottery assemblages from Risan, Montenegro, were among those on which this method was tested.³¹ The temperature at which the black colour (and gloss) fades during the refiring process is closely correlated with the technique (black-gloss, slip, fumigation) used by the ancient potter.

Functional properties analysis

Several methods are used to analyse various properties of ceramic vessels such as mechanical properties or functional properties. But, most of the methods used in the analysis of contemporary ceramics cannot be used for analysing ancient pottery due to the size of the sample required and to the high sensitivity of these methods.³²

When looking at ancient vessel functions, water permeability [Fig. 11] is the most important parameter when attempting to ascertain whether vessels were suitable for cooling water, for storing liquids (e.g. water, wine, beer) or only for storing solids. Defining certain vessels as cooking pots, we need to evaluate the water permeability and thermal shock resistance of an ancient pot in order to establish whether it was suitable for that purpose. There are a number of methods which can

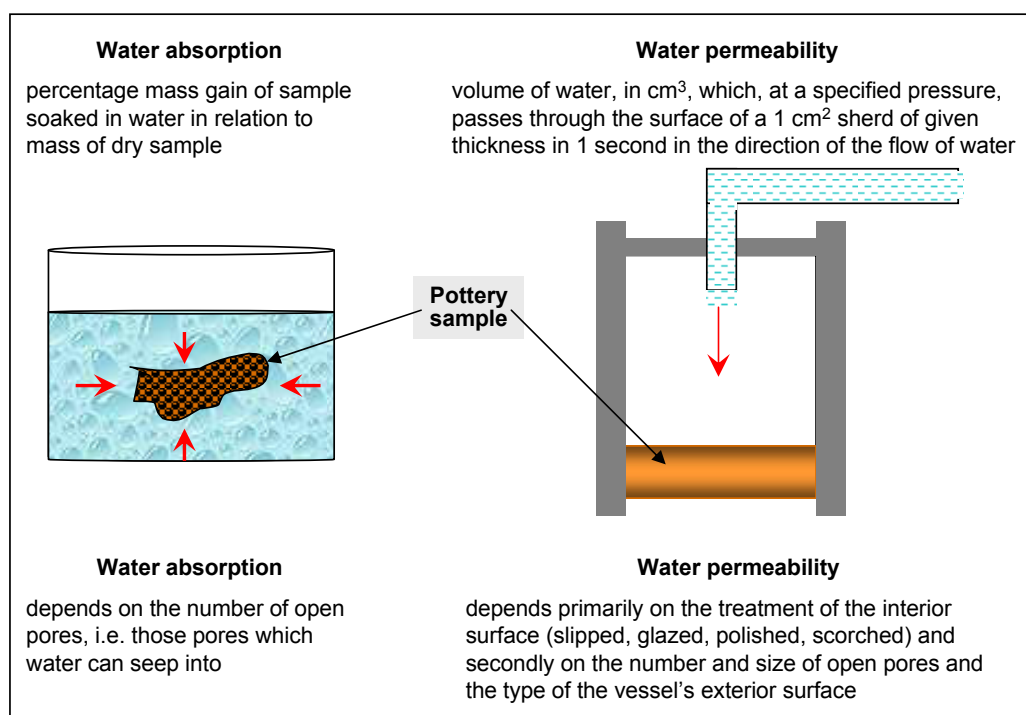


Fig. 11. Schematic illustration demonstrating the difference between water absorption and water permeability. Determining the water absorption value by hydrostatic weighing requires the entire sample to be immersed in water — water penetrates all of the open pores. When determining water permeability, water only penetrates the sample from one side — the interior side — as it would in practical use

³¹ BARANOWSKI, BOBRYK, DASZKIEWICZ 2009.

³² DASZKIEWICZ, RAABE 1996.

determine the degree to which a material has been damaged by thermal shock.³³ One way to test a vessel for thermal shock resistance is to measure changes in the velocity of propagation of longitudinal ultrasonic waves before and after thermal shock (ultrasonic analysis). This highly sophisticated method enables the slightest changes in microporosity as a result of thermal shock to be recorded.³⁴ This, however, does not mean that the vessel in question immediately cracks or becomes permeable. In consequence, based on the results of this analysis a vessel can be classified as not being resistant to thermal shock, when in point of fact it may have been used by our ancestors for cooking. Thus the criterion applied to assess a vessel's functionality is water permeability, as the vessel used for this task has to be watertight, regardless of what is actually being cooked. The fact that thermal shock has, for example, affected the vessel's mechanical properties does not disqualify it as a suitable cooking pot until these changes become manifest in the form of permeability. At present, in order to assess the functional properties of ancient pottery water permeability before and after thermal shock is measured in standardized form [Fig. 12].³⁵

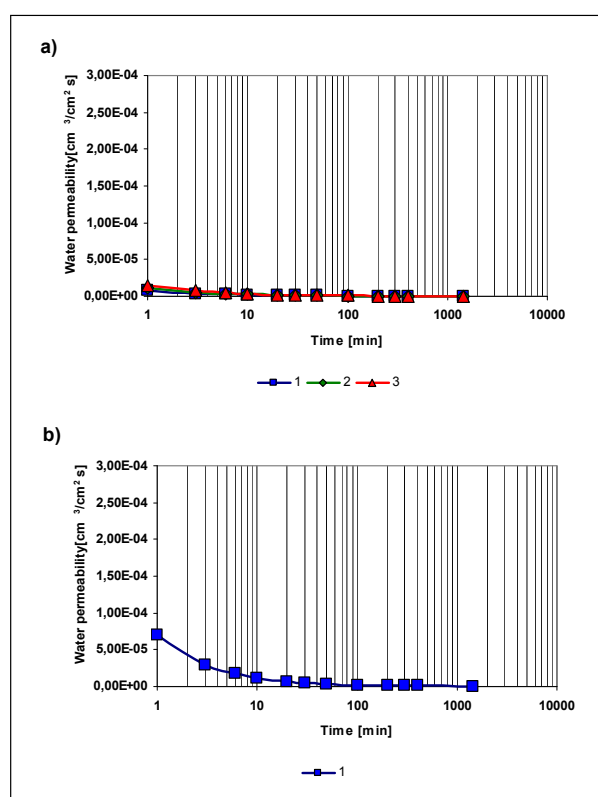


Fig. 12. Water permeability versus time (logarithmic scale) readings are taken three times: for the original sample (after prior boiling in distilled water), heated sample and sample after thermal shock. a = Lower Danubian Kaolinitic Ware (LDKW 7): this vessel is water impermeable and resistant to thermal shock. The sample exhibited a change in permeability after heating at 400°C, indicating blockage of the flow by organic matter accumulated in the open pores. This vessel would have been suitable as a kitchenware vessel intended both for storing liquids and for cooking. b = legionary pottery fragment: this vessel is water permeable and fell apart after the first reading, indicating that it could only have been used for storing dry goods. 1 = curve showing results for original sample; 2 = sample heated at 400°C; 3 = sample after tenfold thermal shock in water at room temperature ($\Delta T=400^\circ\text{C}$)

³³ One such procedure gauges flexural strength (for a review of these methods, see, e.g., TITE, KILIKOGLU, VEKINIS 2001).

³⁴ DASZKIEWICZ, RANACHOWSKI, BOBRYK 1998.

³⁵ E.g. DASZKIEWICZ, RAABE 1999; DASZKIEWICZ, BOBRYK, SCHNEIDER 2000; DASZKIEWICZ, KROGULSKA, BOBRYK 2000; DASZKIEWICZ, BOBRYK, SCHNEIDER 2006; 2010a; SCHNEIDER, DASZKIEWICZ 2001.

Principles of classifying bulk ceramic finds

When classifying bulk ceramic artefacts, in order to minimize analysis costs a *down-up sampling classification* strategy is used.³⁶ This procedure involves individual analyses being carried out consecutively and the number of samples selected for subsequent analyses being limited based on the results of the preceding analysis (*down*). To date, the first method which is usually applied is MGR-analysis [Fig. 13]. MGR-analysis is carried out on all samples, after which only samples representing individual MGR-groups are selected for chemical analysis. On completion of chemical analysis, the samples are reclassified and subsequent selection of fragments for thin-section studies and technological studies is based on this new classification. Subsequently, it is possible to identify all of the analysed potsherds (*up*) based on the correlation between macroscopically described fabrics, MGR-groups and the results of chemical analysis, thin-section studies and technological analyses.

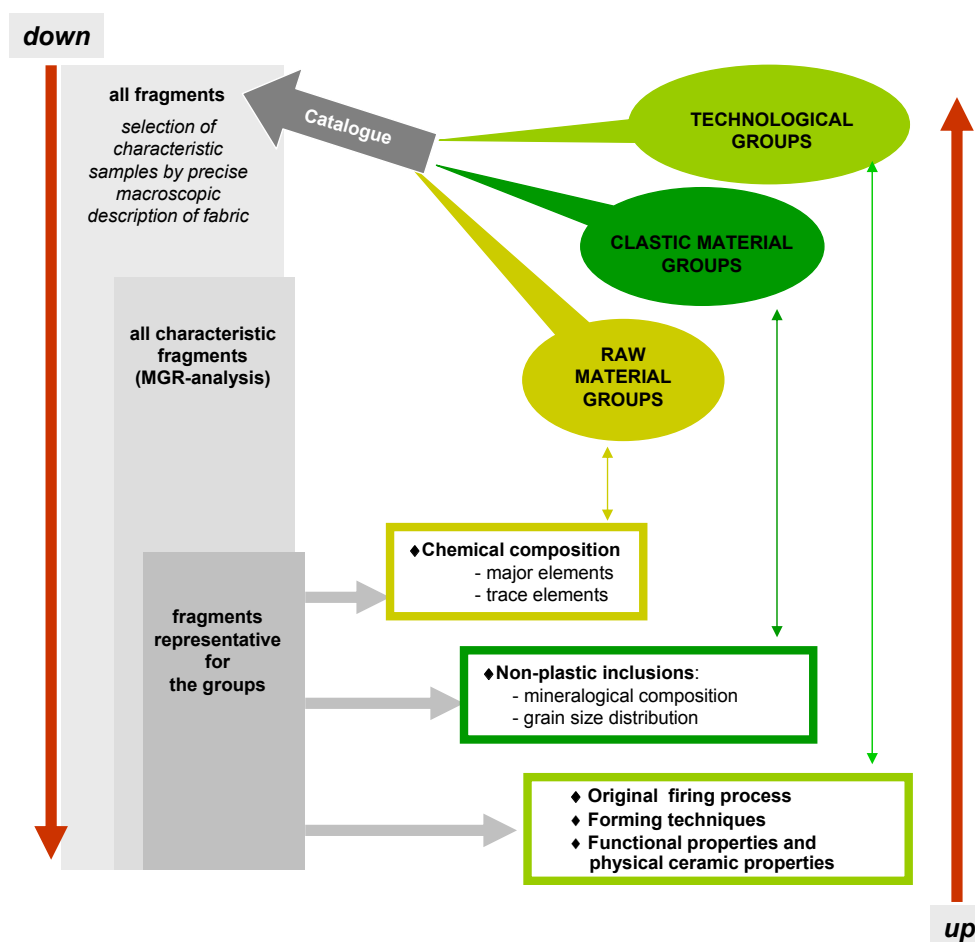


Fig. 13. Diagram illustrating a down-up sampling strategy

The use of a portable ED-X-ray fluorescence analyser (pXRF) to determine the chemical composition of archaeological ceramics has opened up a wide range of opportunities. This device enables a large number of measurements to be made relatively quickly at a low cost. It means that classification using MGR-analysis can be preceded by classification based on chemical composi-

³⁶ DASZKIEWICZ 1995; 1998.

tion analysis using the pXRF technique to help decide which samples to select for further analysis (this selection is usually based on frequently unreliable macroscopic descriptions). The pXRF technique is very useful as a classification tool. However, when writing up the results of this analysis, it must be remembered that there are considerable limitations associated with the use of this technique in provenance studies and especially in the analysis of coarse-tempered pottery.³⁷

Correlation of macroscopically identified fabrics with raw material groups determined by laboratory analysis

To have a statistically significant database, which can allow hypotheses to be confirmed, all (or nearly all) pottery fragments must be classified.³⁸ There are a wide variety of guidelines relating to the macroscopic description of ceramic bodies,³⁹ and the practical experience of numerous archaeological teams working in various regions on different types of pottery is also diverse. In general, regardless of the criteria used in these descriptions, macroscopic classification of ceramic bodies in the field relies on attributing each sherd to a strictly defined fabric type (or ware). Fabric types should be the subject of laboratory analysis conducted in order to provide a precise identification of their chemical, mineralogical and petrographic composition, the conditions in which they were fired and sometimes also their functional properties (five samples per fabric should be regarded as the minimum). Different fabrics sometimes prove to have the same chemical, mineralogical and petrographic composition, thus must have been made using the same ceramic body. This demonstrates that macroscopically visible differences between individual fabrics stem from technological processes (e.g. firing temperature, firing atmosphere, firing time, or methods used to prepare the ceramic body). Nonetheless, this type of situation does not pose any problems: the process of linking fabrics in one provenance group can be done without re-examining any samples. Problems are presented by the opposite scenario, when, after analysing several samples representing the same fabric, it transpires that each sample has a different chemical, mineralogical and petrographic composition. It is then that presenting an accurate picture of the proportion of sherds representing individual types of ceramic body necessitates the reassessment of all pottery fragments.⁴⁰ The best solution is to conduct laboratory analysis after the first season of excavation. The reference types established on the basis of the pilot series of analysis results should form the basis for classifying ceramic sherds in future excavation seasons.

Summary

It is vital to carry out comprehensive archaeoceramological analysis for as large a number as possible of ceramic fragments recovered from excavation. It should always be remembered that analytical procedures and interpretation of results must take into account factors associated with the changes that occur within ceramic sherds during their deposition in archaeological strata. Analysis results must be reproducible and characterised by a high degree of accuracy and precision. Care must also be taken to not apply knowledge of the contemporary world to the evaluation of analysis results.

³⁷ BEHRENDT, MIELKE, MECKING 2012; SCHNEIDER, DASZKIEWICZ 2010; DASZKIEWICZ, SCHNEIDER 2011; 2012; DASZKIEWICZ *et alii* 2013.

³⁸ DASZKIEWICZ 1995.

³⁹ "Projektgruppe Keramik" 1989; DASZKIEWICZ, BARAŃSKI 2011.

⁴⁰ DASZKIEWICZ *et alii* 2009.

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Streszczenie

Antyczna ceramika w laboratorium — zasady archeoceramologicznych badań nad jej pochodzeniem i technologią

W artykule podsumowane są doświadczenia z prac naukowo-badawczych w zakresie archeoceramologii, prowadzonych przez autorkę we współpracy z Ewą Bobryk oraz Gerwulfem Schneiderem (tzw. DBS zespół). Tematyka tych prac dotyczy głównie analizowania zabytkowej ceramiki naczyniowej pozyskanej w trakcie prac wykopaliskowych na stanowiskach zarówno Starego, jak i Nowego Świata, datowanych od okresu mezolitu po późne średniowiecze. Przedstawiona jest w nim problematyka związana z kompleksowymi badaniami obejmującymi zarówno badanie składu chemicznego, mineralogiczno-petrograficznego, jak również badania technologiczne oraz funkcjonalne. Opisana jest *down-up* strategia z zastosowaniem analizy MGR, pozwalająca zmini-malizować koszty przebadania istotnej pod względem statystycznym liczby próbek. Duże możliwości stwarza obecnie zastosowanie techniki p-ED-XRF w analizie ceramiki zabytkowej. Technika ta — w połączeniu z opisem makroskopowym tworzywa (makroskopową analizą ceramiczną), a tym bardziej w połączeniu z analizą MGR — jest bardzo użytecznym narzędziem do klasyfikacji próbek, ułatwiającym ich późniejszy wybór na potrzeby analiz szczegółowych.

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ANALYSIS OF CHEMICAL COMPOSITION OF ANCIENT CERAMICS

Abstract: The paper aims at discussing some preconditions of chemical analysis of ancient ceramics. At the Arbeitsgruppe Archäometrie, Freie Universität Berlin, wavelength-dispersive X-ray fluorescence (WD-XRF) is used. Comparison with neutron-activation analysis (NAA) is discussed. The total precision of analysis comprises precision of sampling, of preparation and of measurement. Accuracy must be determined by analysing international standard reference material. SARM69 is discussed as an example.

Key words: precision, accuracy, standard reference material, SARM69

The techniques currently most commonly used to analyse chemical composition of ancient pottery are: WD-XRF (wavelength-dispersive X-ray fluorescence¹), NAA (neutron activation analysis²), ICP-OES (inductively coupled plasma optical emission spectrometry³) and ICP-MS (inductively coupled plasma mass spectrometry⁴). The use of OES (optical emission spectrometry⁵) and AAS (atomic absorption spectroscopy⁶) has been discontinued in ceramic analysis.

The optimum technique for analysing chemical composition should enable determination of all major elements present in a ceramic sherd and as many as possible trace elements (content below 0.1% = 1000 ppm). The most suitable techniques for this purpose are XRF and ICP-OES. The ICP-MS technique is less useful when the concentration of elements exceeds 1%, whereas NAA cannot be used to determine the content of all major elements, or can only produce an imprecise assessment. Table 1 presents a compilation of the major elements detected in ancient pottery. The first column shows elements determined by WD-XRF at the laboratory of the Arbeitsgruppe Archäometrie, Freie Universität Berlin (FUB).⁷ The second column relates to chemical analysis by NAA carried out by H. Mommsen in Bonn. The third column also refers to NAA, the next two columns referring to chemical analysis using ICP-OES and ICP-MS — these data were taken from the individual analysis results from 16 laboratories collaborating on international analysis of a certified ceramic reference material (SARM69 = ceramic 1) from South Africa.⁸ Analysis using NAA was also carried out by laboratories with the capacity to determine short-lived nuclides, hence they were able to determine the concentration of a greater number of elements than H. Mommsen in Bonn.

¹ PL: fluorescencja rentgenowska z dyspersją długości fali.

² PL: neutronowa analiza aktywacyjna.

³ PL: optyczna spektrometria emisyjna ze wzbudzeniem w plazmie sprzężonej indukcyjnie.

⁴ PL: spektrometria mas z jonizacją w plazmie sprzężonej indukcyjnie.

⁵ PL: optyczna spektrometria emisyjna.

⁶ PL: atomowa spektrometria absorpcyjna.

⁷ This analysis was done from 1975 to 2007. Since 2008 analysis has been carried out in cooperation with Rudolf Naumann, Geoforschungszentrum Potsdam.

⁸ MARS LAND, HANSEN, OOSTHUYSEN 2001

Trace element content is also analysed — as an example, trace elements determined by Schneider & Daszkiewicz and by H. Mommsen are given below (elements given in parentheses are determined with low precision in archaeological ceramics):

WD-XRF (FU Berlin, Schneider & Daszkiewicz): Ba, Ce, (Co), Cr, (Cu), (Ga), (La), Nb, Ni, Pb, Rb, Sr, (Th), V, Y, Zn, Zr; in glaze and glass: Sn; it is also possible to determine the content of As, Cs, Nd, Sc and W, but only for samples with high levels of these elements (which do not occur in ancient pottery; furthermore, in Berlin analysis is carried out on melted samples⁹);

NAA (Bonn, H. Mommsen): (As), Ba, Ce, Co, Cr, Cs, Eu, Ga, Hf, La, Lu, Nd, (Ni), Rb, Sb, Sc, Sm, Sr, Ta, Tb, Th, U, W, Yb, Zn, (Zr).¹⁰

There is a very wide range of variation between the capabilities of the individual analytical techniques. The limits of detection depend on the mass of powder available and used for analysis. They differ for each technique from element to element. Combining ICP-OES and ICP-MS allows a large number of elements to be determined, but there are certain problems with preparing samples for analysis (hydrofluoric acid must be used to turn a ceramic sample into a solution). Problems with the solubility of minerals means that Zr content is usually underestimated using ICP.

In addition to facilitating the determination of a large number of elements, chemical analysis should be performed with high precision and accuracy. This is vital in view of the high degree of similarity frequently observed in the chemical composition of ancient pottery produced at various workshops, and because of the need to carry out comparative studies (comparing the results of analyses performed at lengthy time intervals or in different laboratories). Unfortunately, not all laboratories that analyse ancient pottery meet these criteria.

The certified ceramic reference material SARM69 = ceramic 1 is available for the calibration, control and verification of chemical analysis of ancient pottery. A quantity of 80 kg was prepared from clay potsherds from an Iron Age site in Orange Free State and distributed by MINTEK (Council for Mineral Technology, South Africa). Three mineral phases are present in SARM69: quartz, feldspar and muscovite. Table 3 shows the results of chemical analysis carried out using WD-XRF in Berlin by Schneider & Daszkiewicz at the laboratory of the Arbeitsgruppe Archäometrie FUB (and sent before knowing the results of other laboratories) as well as the later certified values and, in italics, tentative values¹¹ (SARM69 report).

Naturally, the ceramic reference material SARM69 is not the only one used to calibrate or verify the results of analysis of ancient pottery. Because of the fairly diverse contents of individual elements in ancient ceramic bodies, a large variety of reference materials must be used. Appropriate reference materials are selected by checking the content of individual elements in them so that calibration is carried out for the full range of predicted concentrations.¹² Data regarding reference materials have been published: for example Govindaraju¹³ has published a compilation of 383

⁹ Samples selected for analysis are thoroughly cleaned. The outer layers of the samples are removed mechanically, after which these cleaned samples are rinsed in an ultrasonic bath. Once the rinsed samples have been dried they are subsequently powdered in an agate mortar. The resultant powder is then dried for 24 hours at 105°C, after which the samples are ignited for 1 hour at 900°C in a resistance chamber furnace, and then transferred to a desiccator and cooled to room temperature. The ignited, cooled powder is mixed with a flux consisting of a mixture of lithium tetraborate and lithium metaborate — Merck Spectromelt A12 — this applies to samples of 1g mass (100 mg samples are mixed solely with lithium tetraborate — Merck Spectromelt A10). Having been melted in a platinum crucible at 1130°C, the molten samples are cast into

discs of 3.5 cm diameter (2.5 cm diameter for 100 mg samples) and cooled in air at room temperature.

¹⁰ A comparison of results of analyses by WD-XRF and by NAA was made by SCHNEIDER, MOMMSEN 2009.

¹¹ Discussion of the terminology used in reports is not the remit of the author of this comment.

¹² This means that if it is intended to analyse samples in which, for example Ca content is 2000 ppm in one sample and 40% in another, several reference materials must be used for calibration — reference materials in which the value for Ca is given in ppm and in per cent.

¹³ GOVINDARAJU 1994.

international geostandards. At their Berlin laboratory Schneider & Daszkiewicz used between 20 and 30 reference materials for calibration [Tab. 3] but analysed a total of 60 reference materials.

An important consideration is how to publish the results of chemical analysis. Archaeoceramological publications must include tables of analysis results and not just results in the form of various types of graph. Only publication of data for individual samples enables the use of other authors' analysis results, as well as offering an opportunity to establish what a given researcher means by the term 'group'¹⁴ (this provides far more information than simply stating average values and coefficient of variation values). Unfortunately, despite this issue having been addressed on multiple occasions at archaeometric conferences, for a variety of reasons not all publications include data tables. Looking at the numbers presented in the tables it must be remembered that not all numbers have the same value for comparisons. Whether or not a direct comparison can be made between chemical analysis results from different laboratories depends on the precision and accuracy of each individual element of the analysis carried out at each laboratory. Not all laboratories meet the requirements of precise and accurate analysis, which is particularly significant in the analysis of ancient ceramics when, in order to determine provenance, it is necessary to compare the results of analyses carried out at intervals of several years, and no additional samples of the artefact are available to verify analysis results.

When analysing ceramic artefacts it has to be borne in mind that measurement accuracy cannot be tested by repeated measurement of the same sample. Repeating a measurement can only provide information about precision (Ger. *Wiederholungsgenauigkeit*). Measurement accuracy can only be tested through measurement of international reference materials (e.g. using the SARM69 reference material in the analysis of ancient pottery) and through exchange of samples between laboratories.

Total precision (analysis precision) is affected by several errors; these are associated with:

- precision of sampling,
- precision of the individual preparing the sample (personal error),
- precision of measurement (this can vary if, for example, equipment is replaced or repaired)

Errors stemming from sampling have the biggest impact on analysis precision; this error is particularly large in the case of coarse ware pottery and it depends on the sample size. Precision of measurement is improved by measuring a monitor sample (every day when measurements are made) and is tested by repeating measurements of the same sample after certain periods. In order to assess the precision of analysis (total precision) it is better to analyse ten samples taken from the same ceramic sherd than to repeat analysis of the same powdered reference material ten times.

It should be remembered that the so-called preparation error plus the measurement error should be less than $\sim 1/3$ of the sampling error, because in this situation analysis precision is usually associated only with the non-homogeneity of the analysed ceramic sherd.

$$S_a^2 = S_s^2 + S_p^2 + S_m^2$$

where: S_a = analysis precision; S_s = sampling precision; S_p = preparation precision; S_m = measurement precision. If the preparation error plus the measurement error is greater than $\sim 1/3$, groups cannot be correctly identified nor can pottery sherds from various vessels be recognised, because the preparation error and measurement error make up too great a proportion of the analysis error. This means that, in the case of ancient pottery, chemical analysis must be carried out with very high precision.

¹⁴ It is not uncommon for one researcher to classify a sample as belonging to one particular group, whilst another researcher will deem the chemical composition of that sample to be sufficiently different to exclude it from this group. Moreover, if only the results of chemical analysis are available, it has to be decided what range of concen-

trations of individual elements is associated with variation within a given clay deposit and what range is associated with variation within a given group (group = typologically homogeneous assemblage of pottery sherds made in one place and one period of history).

The coefficient of variation ($n = 20$) for measurement precision by WD-XRF over a five-year period at the Arbeitsgruppe Archäometrie FUB amounts to:

- below 2% for Si, Ti, Al, Fe, Mn, Mg, Ca, K, P
- a maximum of 6% for Na, V, Cr, Ni, Cu, Zn, Rb, Sr, Y, Zr, Ba, Ce
- below 15% for Nb, La, Pb
- below 30% for Th.

The coefficient of variation ($n = 20$) for preparation precision over a five-year period at the Arbeitsgruppe Archäometrie FUB amounts to ($n = 20$):

- below 2% for Si, Ti, Al, Fe, Mg, K
- a maximum of 6% for Mn, Ca, Na, V, Cr, Ni, Rb, Sr, Y, Zr, Ba
- below 15% for P, Cu, Zn, Nb, Pb
- below 20% for La, Th.

It has to be remembered that in the case of archaeometric research (and, indeed, other types of research) the term ‘analytical chemistry’ should not only denote the use of routine methods of analysis — it does not simply consist of carrying out analysis, applying multivariate statistical methods and then drawing cultural and historical inferences from the obtained results. It is important to evaluate the results of analysis before writing them up and interpreting them. Evaluation of results must take into account both the non-homogeneity of the ceramic sherd and the possible alterations (i.e. the changes which take place within the sherd as a result of its deposition in different environmental conditions). The content of each element determined by chemical analysis therefore must be evaluated, for example, titanium and calcium levels within a sherd are of diverse significance in terms of provenance. Small differences in titanium contents of two sherds may indicate a different provenance whereas the same difference in calcium may even occur within a single sherd due to the large variation of calcium within many raw materials or due to alteration effects. This has to be borne in mind when multivariate statistical methods are used. Univariate evaluation of data is a condition precedent.

Tab. 1. Major and trace elements detected in archaeological ceramics by various analytical techniques, the three last columns are based on information from preliminary report SARM69 (in parentheses – elements determined with low precision)

Element	WD-XRF FU-Berlin	NAA MommSEN	NAA SARM69	ICP-OES SARM69	ICP-MS SARM69
Li				(x)	(x)
Be				(x)	(x)
B				(x)	
C					
Na	x	x	x	x	
Mg	x		(x)	x	
Al	x		x	x	
Si	x			x	
P	x			x	
S	(x)			x	
Cl	(x)				
K	x	x	x	x	
Ca	x	x	x	x	
Sc	(x)	x	x	(x)	(x)
Ti	x	(x)	(x)	x	
V	x		(x)	x	(x)
Cr	x	x	x	x	(x)
Mn	x		x	x	
Fe	x	x	x	x	
Co	(x)	x	x	x	x
Ni	x	(x)		x	x
Cu	x			x	x
Zn	x	x		x	x
Ga	(x)	x		x	x
Ge					(x)
As	(x)	x	x	(x)	x
Se					(x)
Br			x		
Rb	x	x	x		x
Sr	x		(x)	x	x
Y	x			x	x
Zr	x	(x)	(x)	x	x
Nb	x			x	x
Mo					x
Ru					(x)
Rh					
Pd					(x)
Ag				(x)	
Cd				(x)	(x)
In					

Sn	(x)			(x)	x
Sb		x	x	(x)	x
Te					(x)
Cs		x	x		x
Ba	x	x	x	x	x
La	(x)	x	x	x	x
Ce	x	x	x	x	x
Pr					x
Nd	(x)	x	x		x
Sm		x	x		x
Eu		x	x		x
Gd					x
Tb		x	x		x
Dy			x		x
Ho					(x)
Er					(x)
Tm					x
Yb		x	x		x
Lu		x	x		x
Hf		x	x		x
Ta		x	x		(x)
W		x			x
Re					
Os					
Ir					
Pt					(x)
Au					(x)
Hg					
Tl					
Pb	x			x	x
Bi					(x)
Th	(x)	x	x		x
U		x	x		x

Tab. 2. Analysis by WD-XRF in Berlin compared to the certified values of the international reference material for ancient ceramics SARM69 = ceramic 1 (italics = tentative values, l.o.i. = loss on ignition)

SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MnO	MgO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	V	Cr	Ni	Cu	Zn	Rb	Sr	Y	Zr	Nb	Ba	Ce	Pb	l.o.i.
per cent by weight										ppm													%
Analysis in Berlin by WD-XRF, February 1999																							
66,4	0,779	14,6	7,25	0,129	1,87	2,37	0,86	1,96	0,27	157	217	54	45	62	67	112	31	293	4	500	63	10	3,53
Certificate S-Africa, November 2000 (16 laboratories worldwide)																							
66,6	0,777	14,4	7,18	0,129	1,85	2,37	0,79	1,96	0,28	157	223	53	46	68	66	109	29	271	9	518	67	14	3,6

Tab. 3. International reference materials used in Berlin (Schneider & Daszkiewicz)

Name of standard		Institution preparing and distributing the standard	
Diorite	DR-N	ANRT	Association Nationale de la Recherche Technique, Paris
Serpentinite	UB-N	ANRT	
Bauxite	BX-N	ANRT	
Distene	Dt-N	ANRT	
Glass Standard	VS-N	ANRT	
K-Feldspar	FK-N	ANRT	
Dolomite	BCS368	BCS	British Chemical Standards
Syenite	SY-2	CCRMP	Canadian Certified Reference Materials Project
Gabbro	MRG-1	CCRMP	
Basalt	BR-1	CRPG	Centre de Recherches Pétrographiques et Géochimiques France
Biotite	Mica-Fe	CRPG	
Phlogopite	Mica-Mg	CRPG	
Dunite	NIM-D	MINTEK	Council for Mineral Technology, South Africa
Lujavrite	NIM-L	MINTEK	
Ceramic	SARM69	MINTEK	
Plastic Clay	NBS98	NIST	National Institute of Standards and Technology, USA
Diabase	W-1	USGS	United States Geological Survey, Reston
Andesite	AGV-1	USGS	
Basalt	BCR-1	USGS	
Dunite	DTS-1	USGS	
Granite	G-2	USGS	
Granodiorite	GSP-1	USGS	
Peridotite	PCC-1	USGS	
Basalt	BHVO-1	USGS	
Marine Mud	MAG-1	USGS	
Basalt	BM	ZGI	Zentrales Geologisches Institut, Berlin
Granite	GM	ZGI	
Greisen	GnA	ZGI	
Limestone	KH	ZGI	
Feldspathic Sand	FK-N	ZGI	
Clay Shale	TB	ZGI	

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S. A. MARSLAND, R. HANSEN, L. OOSTHUIZEN, *The Preparation and Certification of a Clay Certified Reference Material*, Randburg (This report is available from MINTEK, Private Bag X3015, Randburg 2125, Republic of South Africa).

SCHNEIDER, MOMMSEN 2009

G. SCHNEIDER, H. MOMMSEN, "Eastern Sigillata C von Pergamon und Çandarlı (Türkei)", [in:] *Archäometrie und Denkmalpflege. Kurzberichte 2009*, ed. A. HAUPTMANN, H. STEGE (= *Metalla*, Sonderheft 2), Bochum, pp. 223–225.

Streszczenie

Analiza składu chemicznego ceramiki zabytkowej

W artykule tym dyskutowane są warunki, jakie powinna spełnić analiza chemiczna ceramiki zabytkowej. Dyskutowana jest kwestia całkowitej precyzji analizy oraz dokładności analizy. Dokładność analizy jest pokazana na przykładzie analizy międzynarodowego materiału referencyjnego SARM69. Optymalna technika analizy składu chemicznego powinna pozwolić oznaczyć wszystkie pierwiastki główne występujące w czerepie ceramicznym oraz możliwie dużo pierwiastków śladowych (zawartość poniżej 0,1% = 1000 ppm). Do tego celu najlepiej nadają się techniki WD-XRF oraz ICP-OES/ICP-MS. Za pomocą techniki NAA nie można oznaczyć wszystkich pierwiastków głównych albo oznaczane są one z małą precyzją.

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б	b
в	v
г	g
д	d
е	e
ж	ž
з	z
и	i

й	j
к	k
л	l
м	m
н	n
о	o
п	p
р	r
с	s
т	t
у	u
ф	f
х	h
ц	c
ч	č
ш	š
щ	šč (rosyjski); št (bułgarski)
ъ	ă (bułgarski)
ы	y (rosyjski)
ь	,
э	e (rosyjski)
ю	ju
я	ja
ђ	đ (serbski)
ѓ	g' (macedoński)
љ	lj (serbski)
њ	nj (serbski)
ћ	ć (serbski)
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џ	dž (serbski)

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GUIDELINES FOR *NOVENSIA* AUTHORS

Novensia editors have prepared the present guidelines for preparing articles and materials for publishing in the periodical. All efforts by prospective authors to follow these guidelines will greatly facilitate editorial work and quicken the publishing process.

GENERAL GUIDELINES:

1. Texts should be submitted in standard font (Times New Roman, Garamond etc.) — 12 pt text, 10 pt footnotes.
2. Texts should be submitted as text documents (DOC files) and as a PDF file.
3. Illustrations need to be submitted separately; do not paste them in the text file.
4. Each article should have an abstract and keywords (in English) and summary (in Polish for texts not in Polish, in English for texts in Polish).
5. Authors are requested to provide their institutional affiliation.

FOOTNOTES:

Footnote are bottom of page and should include, beside relevant text, bibliographic references following the model below:

LAST NAME year of publication, page range.

e.g. KOLENDO 2008, pp. 120–121.

Notes:

1. Semicolons should be used to separate reference items in footnotes. For a number of works by the same author use either:
ECK 2001; ECK 2003a
or:
ECK 2001; 2003a
2. All footnote references need to be listed as a full bibliographic reference at the end of the article.

LIST OF BIBLIOGRAPHIC REFERENCES:

A list of bibliographic references follows the text of the article.

Each item on the list begins with:

LAST NAME year of publication —

Followed by:

1. Book:

F. LAST NAME, *Title*, place of publication.

e.g. PARNICKI-PUDEŁKO 1990 — S. PARNICKI-PUDEŁKO, *The Fortifications in the Western Sector of Novae*, Poznań.

2. Book in series:

F. LAST NAME, *Title* (= *Name of series* number in series), place of publication.

e.g. KUNISZ 1987 — A. KUNISZ, *Le trésor d’antoniniens et de folles des ‘Principia’ de la légion de Novae (Bulgarie)* (= *Studia Antiqua* 10), Warszawa.

3. Article/chapter in collective work:

F. LAST NAME, “Title of article/chapter”, [in:] *Title of collective work*, ed. F. LAST NAME, place of publication, page range.

e.g. DYCZEK 2005 — P. DYCZEK, “On the genesis of Roman legionary hospitals”, [in:] *Limes XIX, Proceedings of the XIXth International Congress of Roman Frontier Studies, Pécs, Hungary, September 2003*, ed. Z. VISY, Pécs, p. 871–881.

4. Article/chapter in collective work published in a series:

F. LAST NAME, “Title of article/chapter”, [in:] *Title of collective work*, ed. F. LAST NAME (= *Name of series* number in series), place of publication, page range.

e.g. KOLENDO 2008 — J. KOLENDO, “Novae during the Goth raid of AD 250/1 (Iordanes, *Getica* 101–103)”, [in:] *A Companion to the Study of Novae*, ed. T. DERDA, P. DYCZEK, J. KOLENDO (= *Novae. Legionary Fortress and Late Antique Town* 1), Warsaw, p. 117–131.

5. Article in periodical:

F. LAST NAME, “Title of article”, *Title of periodical* number of periodical, page range.

e.g. LEMKE 2009 — M. LEMKE, “Stone projectiles from Novae”, *Novensia* 20, p. 209–219.

6. Article (item) in encyclopedia:

F. LAST NAME, “Title of article (item)”, *Title of encyclopedia* volume number (optional), place of publication, page or column range.

e.g. CERMANOVIĆ-KUZMANOVIĆ 1976 — A. CERMANOVIĆ-KUZMANOVIĆ, “Risinium”, *The Princeton Encyclopedia of Classical Sites*, Princeton, p. 760.

Notes:

1. Items by the same author published in one year need to be identified by successive letters of the alphabet (e.g. 1998a, 1998b, 1998c etc.), listed in alphabetical order of titles.
2. Multiple authors need to be cited in the order on the title page, separated by commas. For more than three authors, list name of first author only and add *et alii*.
3. For book titles in English capitalize all words; in article titles in English capitalize only proper names.
4. For repeated citing of popular series (e.g. *CIL*) and encyclopedias (*RE*) list relevant abbreviations; write out in full if cited only once.
5. In case of titles in other than congress languages include translation into the language of the article, in square brackets [].
6. Pages (columns) should be preceded by the relevant abbreviation in the language of the article (PL: s., kol.; ENG: p./pp., col./cols; DE: S., Sp., etc.).
7. Page ranges should be given with ‘en dash’ (see pt. 9 below) without spaces, e.g. 22–35.
8. For multiple publication place names use ‘en dash’ (see pt. 9 below) with spaces, e.g. Warszawa – Kraków – Wrocław.
9. ‘En dash’ — key combination Ctrl + – (from the number keyboard).
10. Internet citations should provide full URL in footnotes as well as bibliography. Please provide access dates in each case. If a hard-copy version exists, do not cite electronic version.

TRANSLITERATION RULES FOR PROPER NAMES IN THE CYRILLIC ALPHABET

Proper names (geographical names, personal names and last names) in the Cyrillic alphabet should be transliterated according to the following rules:

Cyrillic alphabet	transliteration
а	a
б	b
в	v
г	g
д	d
е	e
ж	ž
з	z
и	i

й	j
к	k
л	l
м	m
н	n
о	o
п	p
р	r
с	s
т	t
у	u
ф	f
х	h
ц	c
ч	č
ш	š
щ	šč (Russian); št (Bulgarian)
ъ	ă (Bulgarian)
ы	y (Russian)
ь	,
э	e (Russian)
ю	ju
я	ja
ђ	đ (Serbian)
ѓ	g' (Macedonian)
љ	lj (Serbian)
њ	nj (Serbian)
ћ	ć (Serbian)
ќ	k' (Macedonian)
џ	dž (Serbian)

ILLUSTRATIONS:

1. Illustrations included with an article need to be cited in the text.
2. References to figures are given in the text in square brackets; e.g. [Fig. 1], [Figs. 2–3] (in English), [Ryc. 1], [Ryc. 2–3] (in Polish), [Abb. 1], [Abb. 2–3] (in German) etc.
3. Provide captions for figures describing content. List of figure captions can be appended at the end of the article (after the list of bibliographic references).
4. Include credit information. Authors are responsible for obtaining all relevant copyright permissions required for the legal publication of submitted materials.
5. Submit illustrations as separate files identified by the number of the figure as cited in the text of the article.

Photographs:

Photographs should be submitted as original digital files (TIFF, JPEG, RAW etc.) in maximum available resolution.

Scans:

Scan transparencies in 2400 dpi resolution and submit as TIFF files.

Ink drawings etc. should be scanned in 1200 dpi, as RGB (color) or GREYSCALE (black/white) in TIFF format.

Drawings:

Digitized figures (plans, maps, drawings of objects etc.) should be submitted as files of the original software in which they were done, that is Corel (not higher than X3) or Illustrator (AI). For Autocad and Archicad software, files should be saved in Corel format, for example.

Submit all illustrations of this kind additionally as PDF or JPG files for inspection.

Avoid submitting JPG or PDF files of figures prepared in one of the graphic software programs.

Parameters for figures drawn using Corel or Illustrator software:

Minimum line thickness: 0.1 mm.

Color: CMYK, for black C=0 M=0 Y=0 K=100.

For shades of gray, the difference should be at least 10%.

For legends, Arial font; next to scale: 6 pt, other parts of the legend: 7–9 pt.

