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FIELDWORK AT NOVAE 2013

Novae is located in northern Bulgaria, not far from modern Svištov. This Roman legionary fortress of the *legio I Italica* and Late Antique town in the province of Moesia inferior has been investigated for more than 50 years.¹

The 2013 campaign (1 August – 14 September) was the third one at the relatively new Sector 12 (Fig. 1), where fieldwork was initiated in 2011.² There, we attempted at establishing whether the principal structure was the house of the immunes,³ legionary barracks (possibly of the first cohort),⁴ or something altogether different.

During the 2013 campaign, the investigated area (Fig. 2) was enlarged towards the east and south, making certain adjustments to the initial plan after, as a somewhat nasty surprise, the western quarter of the trench had been filled in to build a road by construction workers preparing the reconstruction of the *principia* nearby. The area measures ca. 900 m² after the fieldwork of 2013, when a surface of around 250 m² was uncovered.

There is ample evidence for the early phase of the legionary camp, built in earth and timber,⁵ both in small finds as well as remains of architecture, although the latter is hard to read because it was largely overbuilt in the follow-



ing stages of development. It is quite evident that the first phase consisted exclusively of wooden constructions. Many post holes are visible in the virgin soil of yellow loess, sometimes aligned with the remains of beam walls. In some cases, the walls are so close to each other that we might have the traces of a wooden cistern without aqueduct for collecting rainwater, like in other camps⁶ (Fig. 3). The early

¹ T. DERDA, P. DYCZEK, J. KOLENDO (eds.) *Novae. Legionary Fortress and Late Antique Town*, vol. I: *A Companion to the Study of Novae*, Warsaw 2008. Annual reports are published in "Archeologia" (Warsaw). See also: T. SARNOWSKI (ed.), *Novae. An Archaeological Guide*, Warszawa 2012. Our research is kindly supported by the University of Warsaw and the National Science Centre (Narodowe Centrum Nauki), within the project: "Obóz legionowy i miasto późnoantyczne – kontynuacja badań. Baraki I kohorty i późna zabudowa" (Legionary fortress and late antique town – continued research. Barracks of the 1st cohort and late architecture), N N109 182140.

² For the first two campaigns see: M. LEMKE, *Fieldwork at Novae 2011*, "Światowit" IX (L)/A (2011), 2012, 195–200; idem, *Fieldwork at Novae 2012*, "Światowit" X (LI)/A (2012), 2013, 151–156.

³ Soldiers of various assignments exempt from the duties of a common soldier. The immunes' quarters were usually located in the *scamnum* east of the *principia* (H. VON PETRIKOVITS, *Die Innenbauten römischer Legionslager während der Prinzipatszeit*, Abhandlungen der Rheinisch-Westfälischen Akademie der Wissenschaften 56, Opladen 1975, 60). This option is further supported by the discovery of a number of medical tools, because medics were ranked among the immunes. Cf. H. VON

PETRIKOVITS, *Die Innenbauten...*, 43–50; A. V. DOMASZEWSKI, *Die Rangordnung des Römischen Heeres*, Bonn 1908, 3–5, 45; M. LEMKE *Fieldwork at Novae 2012...*, 154.

⁴ "Hyginus," *De munitione castrorum*, 21; VEGETIUS, *Epitoma rei militaris*, II 6,8; D. BREEZE, *The Organization of the Legion: The First Cohort and the Equites Legionis*, "Journal of Roman Studies" 59/1–2, 1969, 50–55; S. FRERE, *Hyginus and the First Cohort*, "Britannia" 11, 1980, 51–60; H. V. PETRIKOVITS, *Die Innenbauten...*, 38–42; D. DAVISON, *The Barracks of the Roman Army from the 1st to 3rd Centuries A.D.*, Oxford 1989, 52.

⁵ E. GENČEVA, *Le premier camp militaire à Novae*, "Novensia" 14, 2003, 21–37. However, the established dating of AD 45–69 for this phase, as well as the identification of the garrison as *legio VIII Augusta* is rather tentative, relying basically on the single grave stele of a *cornicen* from that legion discovered at Novae (B. GEROV, *Inscriptiones Latinae in Bulgaria repertae*, Sofia 1989, no. 300). Cf. M. LEMKE, *What if it wasn't the Eighth Legion? Remarks by the Devil's Advocate*, (in:) T. Sarnowski (ed.), *Novae. The Moesian Base of the Eighth Augustan Legion*, forthcoming.

⁶ H. JACOBI, *Die Be- und Entwässerung unserer Limeskastelle*, "Saalburg-Jahrbücher" 8, 1934, 46–48, fig. 17.

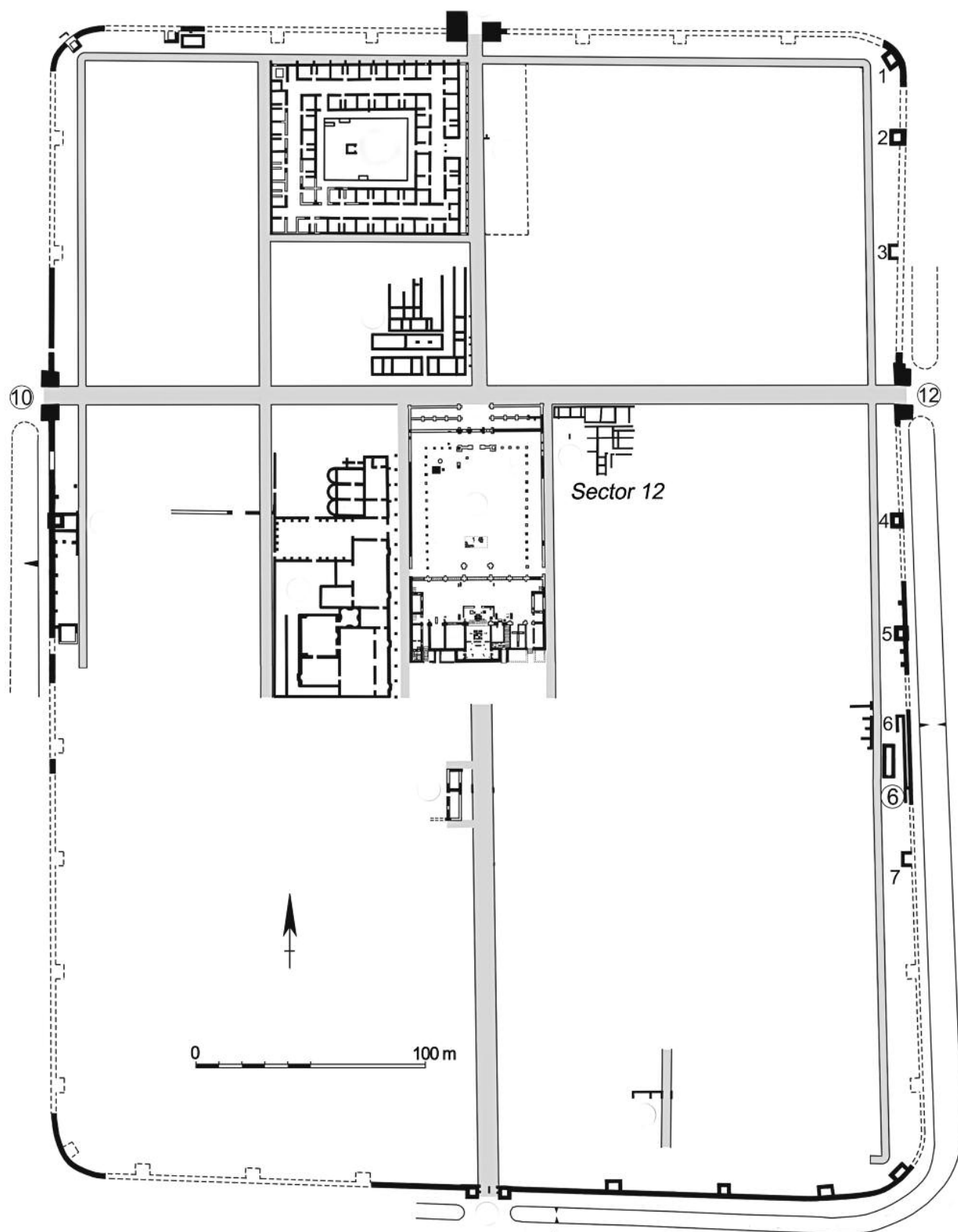


Fig. 1. Novae. Plan of the legionary fortress in the 2nd and 3rd c. AD (Based on an outline plan by J. Kaniszewski, supplemented by T. Sarnowski, L.A. Kovalevskaja, P. Zakrzewski, P. Dyczek, M. Lemke).

Ryc. 1. Novae. Plan obozu legionowego w II i III w.

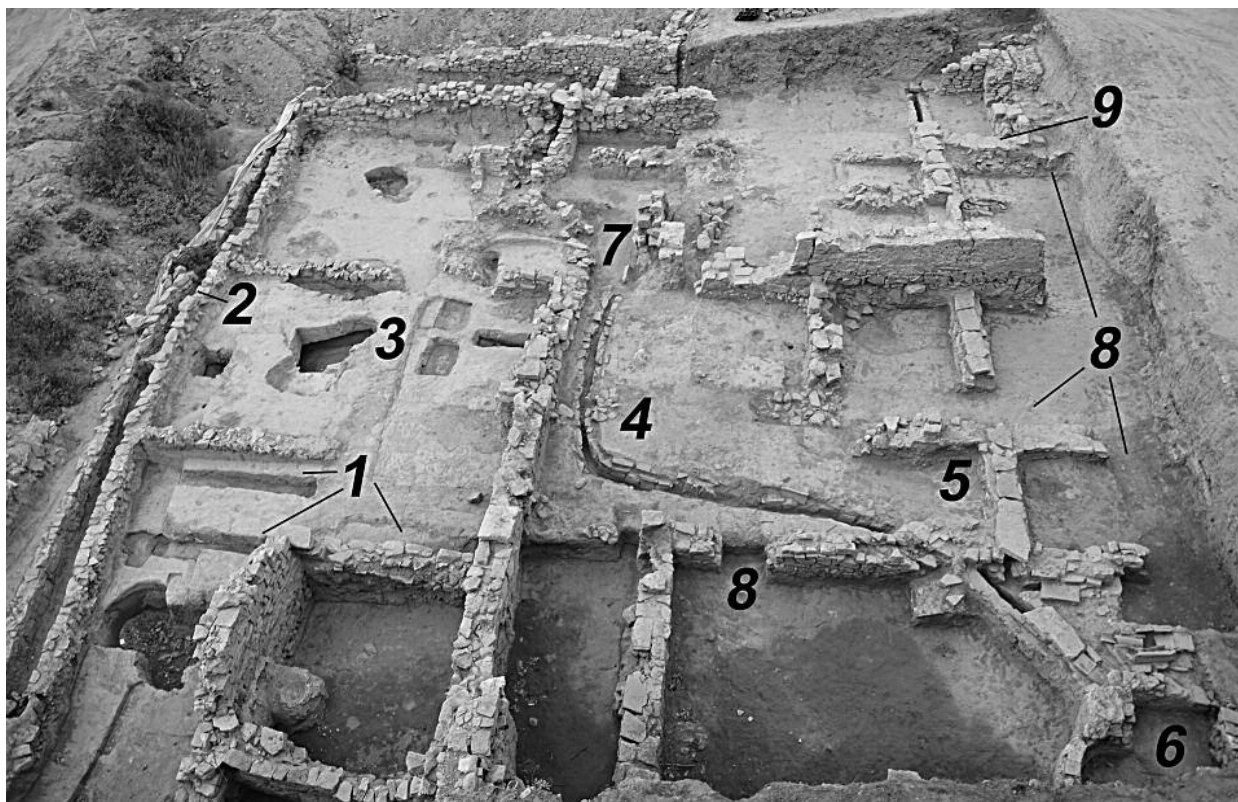


Fig. 2. Sector 12 after the 2013 campaign (Photo M. Lemke). 1 – early wooden structures; 2 – open channel; 3 – garbage pits; 4 – “meandering” channel; 5 – N-S drainage channel; 6 – basin; 7 – latrine; 8 – ghost walls; 9 – tributary channel.

Ryc. 2. Sektor 12 po kampanii w 2013 r. 1 – wczesne konstrukcje drewniane; 2 – otwarty kanał; 3 – jamy odpadkowe; 4 – „meandrujący” kanał; 5 – kanał ściekowy na osi północ-południe; 6 – basen; 7 – latryna; 8 – negatywy murów; 9 – kanał wpadający do głównego kanału ściekowego.

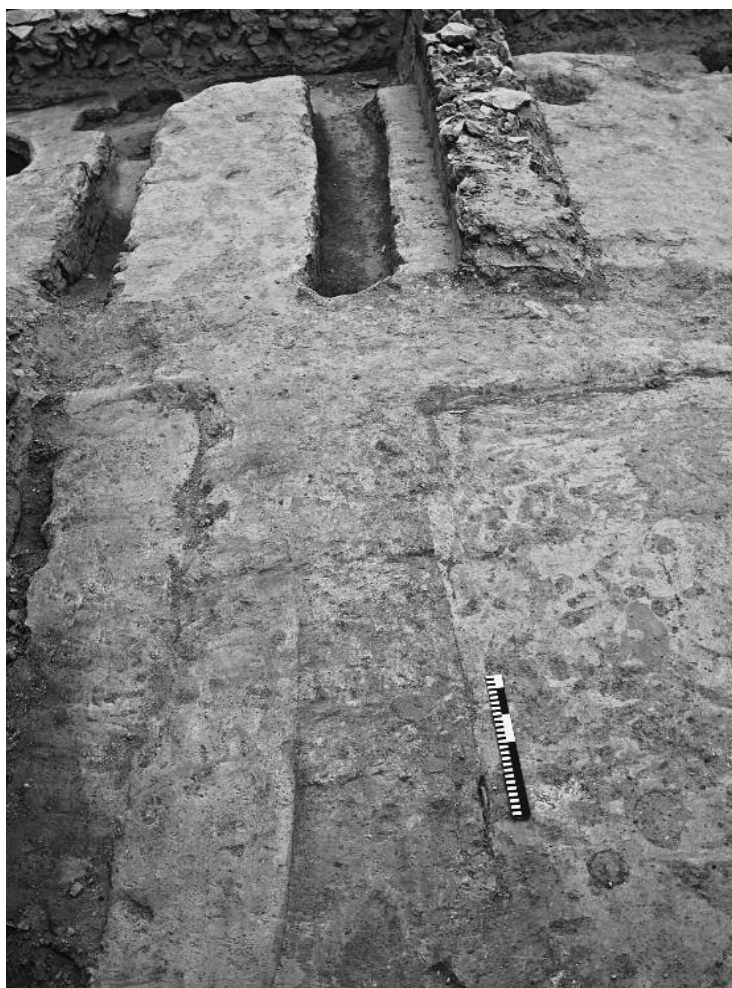


Fig. 3. Remains of a wooden cistern (?) (Photo M. Lemke).

Ryc. 3. Pozostałości drewnianej cysterny (?).



Fig. 4. Sewage channel with its tributary (Photo M. Lemke).

Ryc. 4. Kanał ściekowy z „dopływem”.

dating of these structures is supported by ^{14}C probes. The small finds and pottery from this phase include large amounts of storage amphorae, glass, some bits of jewellery and Italic *terra sigillata*, mostly from garbage pits. This assemblage, along with the somewhat repetitive patterns in the occurrence of post holes and the lack of indications for any of the larger constructions of a legionary fortress, lead us to believe that soldier barracks or storage buildings were located here.

The first phase of stonework typically incorporates medium and larger limestones of a yellowish colour. The construction was preceded by the building of a system of aqueducts and sewage channels that upset the existing wooden layout from the earlier phase. After unearthing a large open channel during the first campaign in 2011,⁷ in 2013 another channel was explored that had been discovered the year before.⁸ The two channels from 2011 and 2013 run from south to north in a straight line and form part of the original sewer layout, while the third one in between them

(investigated 2012–2013) meanders from southeast to northwest and was added to the network at a later time, along with a small basin in the southeast corner of the trench.

The main sewage channel (Fig. 4) runs along the eastern side of the trench, passing under several walls. It is a large, solidly built drainage channel, running from south to north, made of medium sized stones dug into the loess ground and bricks, held together by white hydraulic mortar (*opus signinum*). The last level of the side walls, underneath the lid stones, was made of bricks measuring $25 \times 12 \times 5$ cm. The lids are either considerably large stone slabs, ca. $90 \times 45 \times 12$ cm or slightly smaller ones, ca. $40 \times 40 \times 12$ cm. The bottom was made of *tegulae*. The depth measures ca. 60 cm, the internal width 20 cm, while the entire construction is 60 cm wide. A similarly constructed canal was found in 2007 in one of the trenches probing the *thermae* beneath the *valetudinarium*.⁹ Towards the northern end of the trench, an additional tributary channel directs its waters into this sewer. This channel was built in all likelihood

⁷ Probably designed for disposing of excess rainwater from the roofs. M. LEMKE, *Fieldwork at Novae 2011...*, 196; cf. H. JACOBI, *Die Be- und Entwässerung...*, 51.

⁸ M. LEMKE *Fieldwork at Novae 2012...*, 153.

⁹ T. KOWAL, *Skupisko amfor odkryte w sondażu 2/2007 na odcinku IV*, “Novensia” 20, 2009, 109–124.



Fig. 5. „Meandering” channel, with a cover of roofing tiles *in situ* (Photo M. Lemke).
 Ryc. 5. „Meandrujący” kanał z pokrywającymi dachówkami *in situ*.

as part of the initial sewer layout within the first stone phase of the fortress. It was intersected when the basin in the southern part of the trench was built in its place, but continued to be in use, at least northwards from the basin. It remains to be seen, as fieldwork progresses towards the south, whether the course of this channel was merely redirected through the basin, or if the stretch to the south completely fell out of use.

The “meandering” channel (Fig. 5) has a depth of ca. 35 cm. Its width gradually decreases from 25 to 12 cm (possibly to surge water pressure before reaching a room in the northern part of the trench interpreted as a latrine). The walls are made of large stones and a layer of bricks beneath the lid. The cover lids are *tegulae* of the *legio I Italica*

and the *legio I Minervia Pia Fidelis*. The bottom also consists of *tegulae*, sometimes stamped LEG I ITAL, but interestingly also with a number of stamps by the *legio XI Claudia*. Apparently, this channel was built along with the small basin at a time of reorganisation within the fortress. Towards the end of the first century, in the eve of Trajan’s first Dacian war, the existing bathhouse in the *praetentura* of the camp was torn down and a large *valetudinarium* was built in its stead.¹⁰ New *thermae* were subsequently built west of the *principia*,¹¹ but the availability of both spare material from the disassembled bath, as well as professionals specialised in building hydraulic constructions, maybe from the detachments of the 11th and 1st *Minervia* legions,¹² might have been taken advantage of, to also build smaller

¹⁰ P. DYCZEK, *Western Sector (Section IV), 2007–2010. Preliminary Report on the Excavations of the Center for Research on the Antiquity of Southeastern Europe, University of Warsaw*, “Archeologia” (Warsaw) LX (2009), 2011, 103–116; M. LEMKE, *Fieldwork at Novae (Bulgaria) in 2009 and 2010*, “Światowit” VIII (XLIX)/A (2009–2010) 2011, 191–194, pls. 199–201.

¹¹ A. BIERNACKI, *The Roman Legionary Bath of the 2nd century AD*

in Novae, (in:) P. Freeman, J. Bennet, Z. Fiema, B. Hoffmann (eds.), *Limes XVIII. Proceedings of the 18th International Congress of Roman Frontier Studies Held in Amman, Jordan (September 2000)*, B.A.R. International Series 1084, Oxford 2002, 649–662.

¹² T. SARNOWSKI, *Zur Truppengeschichte der Dakerkriege Traians. Die Bonner legio I Minervia und das Legionslager Novae, “Germania”* 65, 1987, 112–118.



Fig. 6. Basin with a drainage junction and a Late Antique ghost wall (Photo M. Lemke).

Ryc. 6. Basen z rozwidleniem kanałów odpływowych i późnoantycznym negatywem muru.

features, like a basin and latrine within a possible centurion's house. A hint supporting this theory is the fact that the stamps on the bottom tiles of the channel, bearing the mark of the first legion, represent early, Flavian types¹³ – such as those used in the early *thermae*. This channel from the late 1st century was still in use during the Late Antique (civilian) Period, when several walls were constructed above it, but care was taken not to hinder its functioning, unlike the “open” channel, which was blocked by a wall.

The small, partly excavated basin (Fig. 6) with a projected surface of no more than 7 m² was probably part of a private bath. It is rectangular or even square in shape, with an added apse on its western side. The side walls measure 25 cm at the top, widening downwards. The bottom was made out of extremely hard, grey hydraulic mortar. The walls were built out of *bessales* measuring 19×19 cm, as well as broken *tegulae* and bricks. There are two plugholes in the northern wall, measuring 11 and 9 cm in diameter. The lower drainage runs through a clay pipe, while the

upper hole was simply framed with fragments of *tegulae*. The inside surface of the basin walls was clad in a nearly white hydraulic mortar with a shade of pink, containing a considerable amount of ceramic addition. The walls and bottom show traces of new layers of mortar being added, a process that probably raised the ground level within the basin and made a second, higher plughole necessary.

Immediately north of the basin, the sewage channel branches. The new main sewer on this stretch was the meandering ceramic channel, whose water was reused in the latrine, because the junction into the original channel, running N-S, occurs at a height of 45 cm from the bottom: only when the water reached this level the latter would be filled.

The walls from the time of the channels, discovered above and next to them, seem to belong to a single building with a small courtyard, covering the entire excavated area east of the “open” channel discovered in 2011. These walls are solidly built in neat, but not quite ashlar masonry from limestone blocks and mortar. Given the elaborate aqueducts, the layout of the building and the small finds, it is highly

¹³ Personal communication Dr Michał Duch.

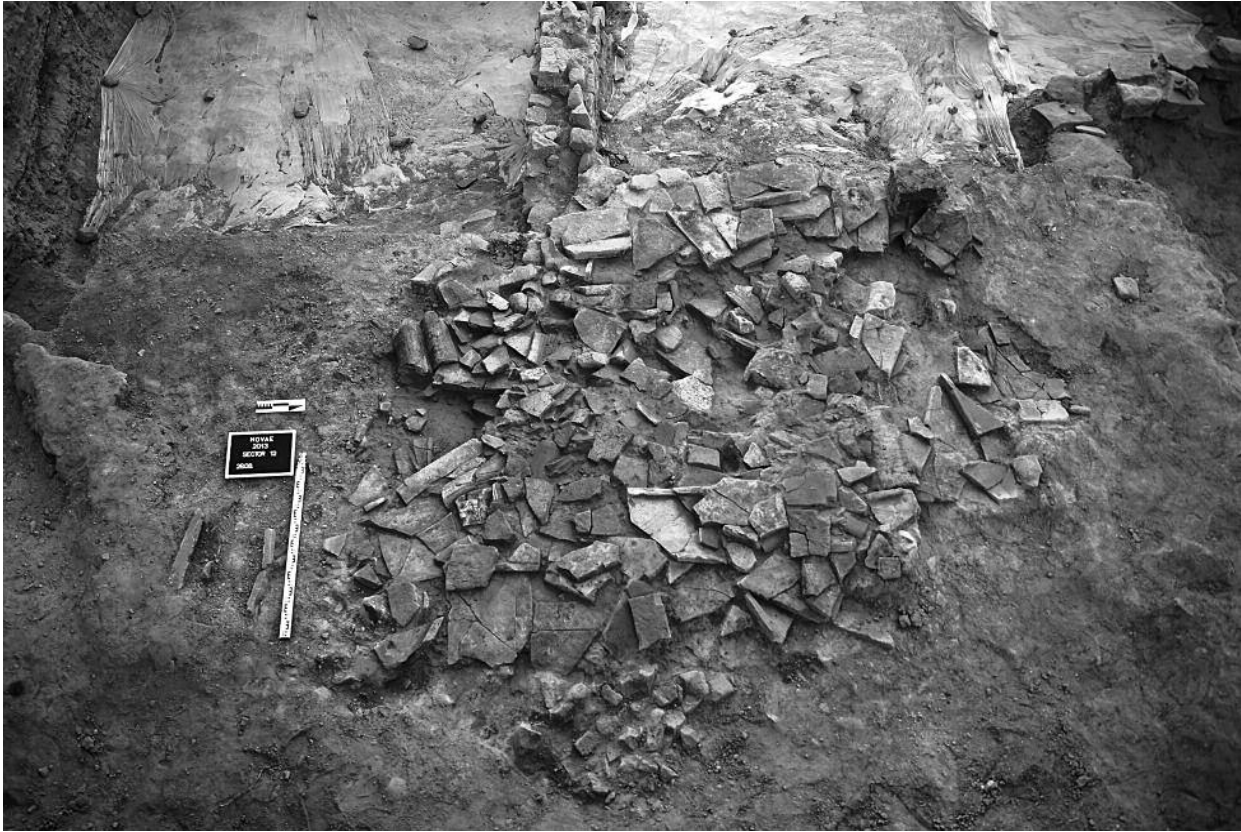


Fig. 7. Collapsed roof north of the basin (Photo M. Lemke).

Ryc. 7. Zawalony dach na północ od basenu.

probable that a centurion's house at the end of a barrack building¹⁴ or maybe the house of the immunes was located here.¹⁵ If it were the former, this would be proof that the barracks were oriented along the N-S axis at Novae, parallel to the *principia*.

There are also a number of ghost walls in the investigated area, forming a large, rectangular structure. These walls were built later than the 1st/2nd c. main phase, cutting through its structures, all the way down to the foundations, which is especially visible in the damaged water channels. Hence they are probably Late Antique, from one of the civilian buildings, which from the second half of the 4th c. onwards commonly occupied the centre of the camp.¹⁶ Yet interestingly, almost everywhere the stones have been re-

moved thoroughly down to the foundations, unlike those in the earlier walls. The eastern part of the legionary basin was destroyed by such a wall, which was subsequently dismantled, leaving only a foundations layer of small stones. Towards the northern edge of the trench however, the same wall is preserved to a higher level, the construction there being entirely made of medium sized stones bound with white mortar in a rather crude manner. This "ghost edifice" was likely connected in some way with the "flat" portico to the south, made of reused bases and capitals taken from the ruined *principia*,¹⁷ because both architectural features are aligned (occasionally taking advantage of the legionary walls as foundations). A collapsed roof of reused legionary tiles, heaped into a large pile (Fig. 7) and a further aqueduct

¹⁴ Cf. B. HOFFMANN, *The Quarters of Legionary Centurions of the Principate*, "Britannia" 26, 1995, 107–151.

¹⁵ Cf. note 3.

¹⁶ T. SARNOWSKI, *Die Principia von Novae im späten 4. und frühen 5. Jh.*, (in:) G. v. Bülow, A. Milčeva (eds.), *Der Limes an der unteren Donau von Diokletian bis Heraklios, Vorträge der internationalen Konferenz Svištov, Bulgarien (1.–5. September 1998)*, Sofia

1999, 57–64; M. LEMKE, *The Dwindling Legion. Architectural and Administrative Changes in Novae (Moesia inferior) on the Verge to Late Antiquity*, (in:) R. Collins, M. Weber (eds.), *Roman Military Architecture on the Frontiers in Late Antiquity: Armies and their Architecture*, forthcoming.

¹⁷ M. LEMKE *Fieldwork at Novae 2012...*, 156; idem, *The Dwindling Legion...*



Fig. 8. Late Antique channel in the vicinity of the former latrine (no. 7 on Fig. 2) (Photo M. Lemke).

Ryc. 8. Późnoantyczny kanał w pobliżu wcześniejszej latryny (nr 7 na Ryc. 2).

(Fig. 8), discovered in the northern part of the trench and also running along a N-S axis, were as well part of the Late Antique structures here. The channel was built with late antique roofing tiles and bricks, stamped LEG I ITAL and ended in a small, almost completely destroyed basin. Apparently the water was drained from there into the still functioning “meandering” channel.

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WYKOPALISKA W NOVAE W 2013 R.

W 2013 r. przeprowadzono trzecią kampanię wykopaliskową na odcinku 12, w prawym *latus praetorii* po wschodniej stronie *principia*, na południe od *via principalis* (Ryc. 1, 2). W tym miejscu, zgodnie ze standardowym planem rzymskiego obozu wojskowego, powinno się znajdować *praetorium*, koszary dla *immunes* lub też baraki, być może pierwszej kohorty. Dotychczasowe badania nie pozwalają jeszcze na ustalenie, jaką funkcję pełniły odsłonięte konstrukcje. Odkryto obiekty należące do drewnianych pozostałości architektonicznych pierwszego obozu (Ryc. 3),

jak i późniejsze, wybudowane już przez legion I Italski, z trzema solidnymi kanałami odprowadzającymi wodę deszczową oraz z niewielkiej łaźni prywatnej (Ryc. 4–6). Odsłonięto także szereg negatywów murów tworzących prostokątną budowlę, która była prawdopodobnie związana z późnoantycznym portykiem przy południowej krawędzi wykopu. Z tego samego okresu pochodzą kolejny wodociąg (Ryc. 8) oraz zawalony dach z wtórnie użytych dachówek legionowych (Ryc. 7).