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ROMAN MILITARY SENTRY POSTS IN THE BORDER ZONE OF CRIMEAN CHERSONESOS

(Pl. V–IX)

ABSTRACT. *This paper summarizes final results of a Polish-Ukrainian research project carried out in 2000–2004 in the frontier area of the rural hinterland of Tauric Chersonesos. On the edge of a steep escarpment separating the Heraklean Peninsula from the rest of Crimea, archaeological excavations have revealed architectural remains of a Roman sentry post (Kazatskaya hill) in existence in the second half of the second and early third centuries AD. Of the remnants of another post (Kavkaz Bair) only an enclosure ditch and foundations of a square tower have been brought to light. The construction was probably abandoned before it was completed. The Romans are likely to have reinforced an existing Hellenistic sentry system, composed of fortified farmhouses, with one or two isolated burgi.*

The following is a presentation of the most recent archaeological research carried out by a joint Polish-Ukrainian expedition on Roman military installations in the Crimea. Apart from the ruins of a fort on the Ai-Todor cape (ancient Charax),¹ all traces of Roman military presence in Crimea are referred directly or indirectly to Tauric Chersonesos² (Fig. 1) and are located either inside the town itself (citadel) or close

to it, on the Heraklean Peninsula (Balaklava-Kadykova, Kavkaz Bair, Kazatskaya, Suzdalskaya?) (Fig. 2).

¹ The Roman fort of Charax on the southern coast of Crimea, outside the *chora* of Chersonesos, was the easternmost position garrisoned by Lower Moesian detachments (*vexillationes*) in the second century AD. Farther east lay the territories of the Bosphoran Kingdom, an ally of Rome, remaining under the discreet supervision of the Roman governor of Pontus and Bithynia. On the Charax fort, see recently V.M. ZUBAR, *Rimskaja krepost' Charax*, *Stratum plus* 4, 2000, 4–170; on the dating, cf. T. SARNOWSKI, *The Phantom Squadron of the Ravennate Fleet on the Black Sea in the First Century AD*, *ZPE* 157, 2006, 256–260; IDEM, *Ti. Plautius Silvanus, Tauric Chersonesos and Classis Moesica*, *Dacia* 50, 2006, 85–92. The earliest dated inscription from Charax (IOSPE I² 674 – dedication to Jupiter by M. Geminus Fortis, beneficiarius of the provincial legate Ummidius Quadratus) originates from AD 118/119–121/122. The second dated inscription from Charax (Année Épigraphique 1997, 1332) informs of construction works carried out in AD 166 by a *vexillatio* under the command of a centurion of the legion *XI Claudia*. The exact date of the evacuation of the fort is not known. The latest dated find from inside the fort is a coin of Gordian III.

² Three funerary inscriptions of two soldiers and one *centurio princeps* from two units (*cohors Thracum* and *Cypria*) found in Kerč (Pantikapaion) [CIRB 666, 691, 726] cannot be considered proof of a regular presence of Roman troops in the Bosphoran Kingdom. Individual soldiers could have made their way there either as advisers and trainers of the Bosphoran army (M.P. SPEIDEL, D.H. FRENCH, *Bithynian Troops in the Kingdom of the Bosphorus*, *Epigraphica Anatolica* 6, 1985, 101) or during the wars of Sauromates II at the end of the second century AD (V.M. ZUBAR, *Latinskie epigrafičeskie pamjatniki Pantikapeja*, *Bosporiskie issledovanija* 3, 2003, 38–46). Another opinion presented by V.M. ZUBAR, *Ešče po povodu interpretacii nadgrobija soldata Kiprskoj kogorty Lucija Voluzija iz Pantikapeja*, in: *Bosporiskij fenomen*, 1, Sankt-Peterburg 2002, 61) that *L. Volusius, mi(les) coh(o)r(tis) Cypriae > (centuria) Ael(ii) Secundi* (CIRB 691) and *G. Memmios, speires Kyprias* (CIRB 726) came from Bosphoros and that they returned to their native land after completing their military service and were buried there, does not seem very likely. The *cohors Thracum*, in which the *centurio princeps* was one Didza, son of Beithos, buried in Pantikapaion with his wife Elene (CIRB 666), belonged to the Bosphoran army according to V.A. GORONČAROVSKIJ, T.S. TIHONOVA, *Rimskij gladius iz raskopok nekropolja Gorgippii*, *Chersonesskij Sbornik* 14, 2005, 122; cf. M. ROSTOWZEW, *Römische Besatzungen in der Krim und das Kastell Charax*, *Klio* 2, 1902, 84; S.M. KRYKIN, *Votivnyj barel'ef frakijskogo vsadnika iz Poltavskogo Kraevedčeskogo Muzeja*, *VDI* 192, 1990, 78.

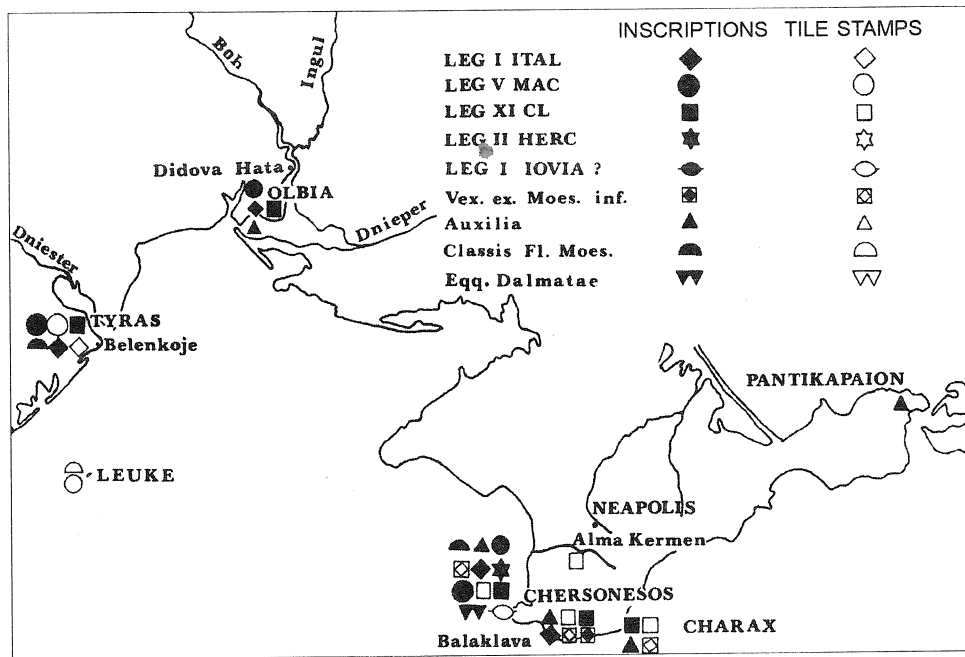


Fig. 1. Simplified map of the northern Black Sea region with references to finds of Roman military inscriptions and tile stamps

The Latin texts on the tombstones of Roman legionary and auxiliary soldiers document their presence in Chersonesos from the reign of Hadrian or possibly not earlier than Antoninus Pius. Considering that it is doubtful whether the expedition of Plautius Silvanus, Moesian governor in AD 60–67, ever reached Chersonesos,³ it is all the more difficult to assume that a Roman contingent had put down roots in this Greek colony already late under Nero. The evidence for the reign of Trajan is more certain, as there is indirect proof of the presence in Chersonesos during this time of P. Vedius P.f. Quirina Antoninus, military tribune of the legion *I Italica*.⁴

The earliest dated military inscriptions from Chersonesos originate from the reign of Commodus.⁵ Considerable building activity, however, is attested already for the rule of Antoninus Pius, perhaps even the first third of the second century AD, by tile-stamps of the legion *V Macedonica*⁶ and the VEMI

stamps (long known, but only recently deciphered following excavations at Balaklava).⁷ A recently published inscription reporting on the rebuilding in AD 250 of a *schola principalium* continues to be the latest dated evidence of Roman army units in Chersonesos prior to the Tetrarchy. It was founded by one M. Ratin(ius) Saturninus, *centurio* of *I Italica*, who while in Crimea bore the title of *praepositus vexillat(ionis) Chersoniss(itanae)*.⁸ Another recently published votive text from Chersonesos attests the presence there of a *vix(illatio) mil[(itum) legg(ionum) XI] Cl(audiae) [et eqq(uitum) D]almat(arum)* in the last third of the third century.⁹ This unit was commanded by Aur(elius) Candi[dus], [*prae*]p(ositus?) prot[ector].

The Roman military contingent in Crimea, formed of soldiers of the Lower Moesian army, stood under the command of tribunes of the legion *I Italica* from Novae. They had their quarters in the Chersonesos citadel, which was built back in the Hellenistic period. Ships of the Moesian Fleet, attested epigraphically

³ SARNOWSKI, *Ti. Plautius Silvanus...*, 85–92.

⁴ IOSPE I² 562 = *Année Épigraphique* 2000, 1280; see T. SARNOWSKI, *Der Grabstein der Freigelassenen IOSPE I² 562 und die Anfänge der römischen Stadtgarnison von Chersonesos*, in: T. SARNOWSKI, O.J. SAVELJA, *Balaklava. Römische Militärstation und Heiligtum des Jupiter Dolichenus*, Warszawa 2000, 201–205.

⁵ CIL III 14214, 34 = IOSPE I² 417 = E.I. SOLOMONIK, *Latinski nadpisi Chersonesa Tavričeskogo*, Moskva 1983, 37, no. 9; CIL III 13750 = IOSPE I² 404 = SOLOMONIK, *op. cit.*, 20 f., no. 1.

⁶ I.A. ANTONOVA, D.A. KOSTROMIČEV, *Lateinische Ziegelstempel aus Chersonesos*, in: SARNOWSKI, SAVELJA, *op. cit.*, 213, pl. 16:15–16; T. SARNOWSKI, *Römische Militärziegel von der südwestlichen Krim. Probleme der Produktionstätigkeit und Produktionsorte*, *Archeologia* 56, 2005, 95, type 9.

⁷ *Année Épigraphique* 1998, 1163 a; see T. Sarnowski, in: T. SARNOWSKI, V.M. ZUBAR, *Römische Besatzungstruppen auf der Südkrim und eine Bauinschrift aus dem Kastell Charax*, *ZPE* 112, 1996, 234, note 35.

⁸ *Année Épigraphique* 1996, 1358 = 1999, 1349; see Y.G. VINOGRADOV, V.M. ZUBAR, *Die schola principalium in Chersonesos*, *Il Mar Nero* 2, 1995–1996, 129–143.

⁹ V.M. ZUBAR, T. SARNOWSKI, I.A. ANTONOVA, *Novaja latinskaja nadpis' iz raskopok citadeli i nekotorye voprosy pozdneantičnej istorii Chersonesa*, *Chersonesskij Sbornik* 11, 2001, 106–115.

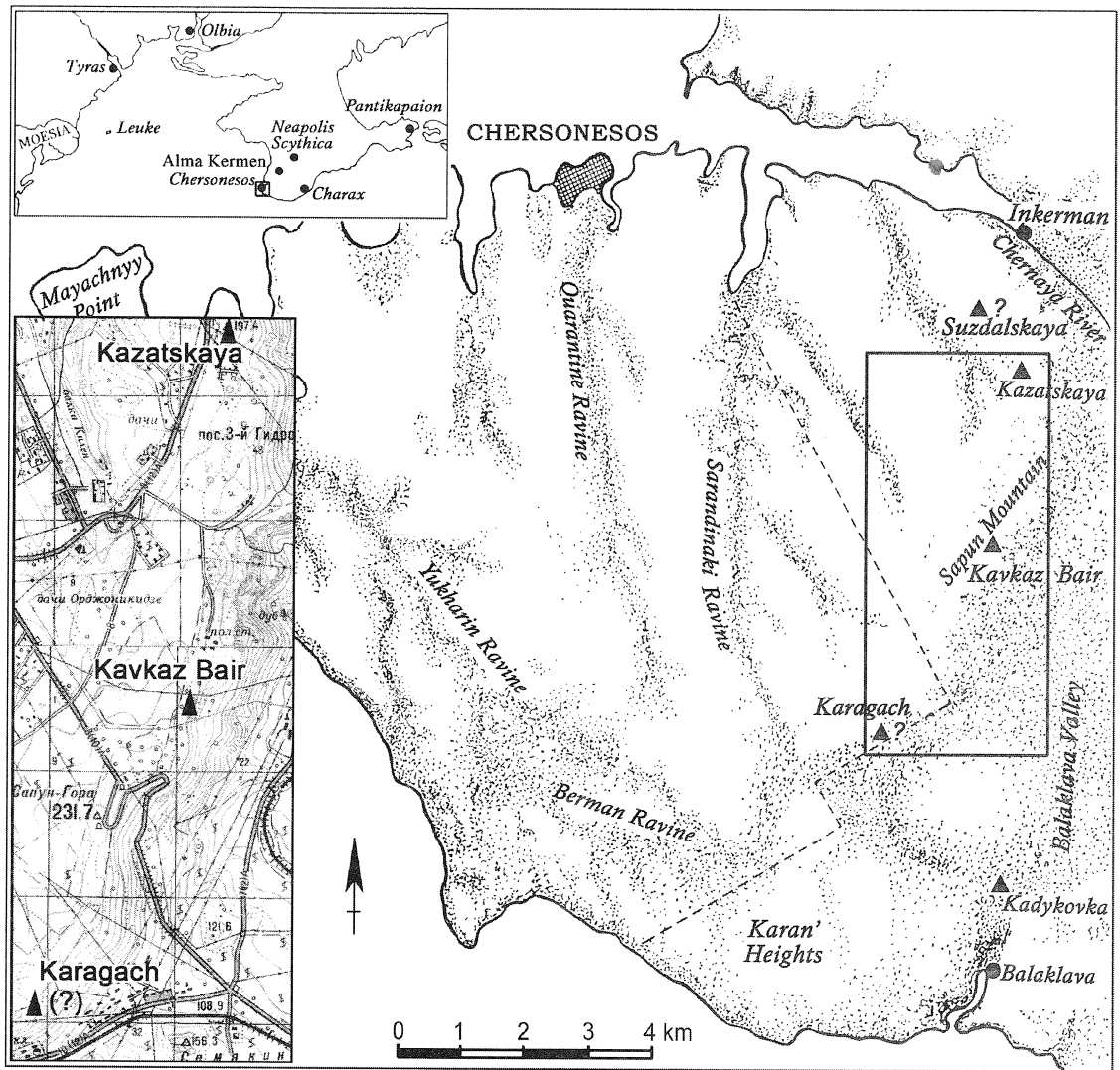


Fig. 2. Crimea. Heraklean Peninsula with inset map of the Sapun Heights showing distribution of the conjectural and archaeologically confirmed Roman military sites. Broken line indicates the extent of the divided *chora* of Tauric Chersonesos

even by individual names, used to land in nearby Quarantine Bay.¹⁰ Exploration of the citadel, the area of which amounts to no more than about 0.5 ha, has identified a bath building, two barrack-blocks, the house of a centurion(?) and *principia*(?).¹¹ No more than 2,000 sq.m could have actually been used by soldiers, thus limiting the garrison to one or two *centuriae* and the command support staff.

¹⁰ SOLOMONIK, *op. cit.*, 34–35, no. 7. Contrary to what was believed even recently, the Moesian Fleet in Crimea did not have a predecessor in the first century AD in the form of a squadron of the Ravennate Fleet, which has been proved to be a phantom; cf. SARNOWSKI, *The Phantom...*, 256–260.

¹¹ Cf. I.A. ANTONOVA, V.M. ZUBAR, *Nekotorye itogi arheologičeskikh issledovanij rimskoj citadeli Chersonesa*, *Chersonesskij Sbornik* 12, 2003, 31–68; A.V. BUJSKICH, *Prostranstvennoe razvitie Chersonesa Tavričeskogo v antičnuju epochu*, *Simferopol'* 2008, 225 f.

Balaklava-Kadykovka near Chersonesos was another point of importance on the map of Roman military installations in second-century Crimea. A fort stood close to the temple of Jupiter Dolichenus built or rebuilt by the *vexillatio exercitus Moesiae inferioris* in the reign of Antoninus Pius. Excavations have uncovered so far only part of what was presumably the headquarters building.¹² The fort appears to have been evacuated around AD 223, this being the date of issue of the latest coin in a hoard of 57 denarii discovered in this building.¹³

The territory of the Chersonesan state in the first centuries AD corresponded to the immediately adja-

¹² SARNOWSKI, SAVELJA, *op. cit.*, 24–26, fig. 5.

¹³ A.A. FILIPPENKO, N.A. ALEKSEENKO, *Der römische Münzschatzfund von Balaklava*, in: SARNOWSKI, SAVELJA, *op. cit.*, 167–168.

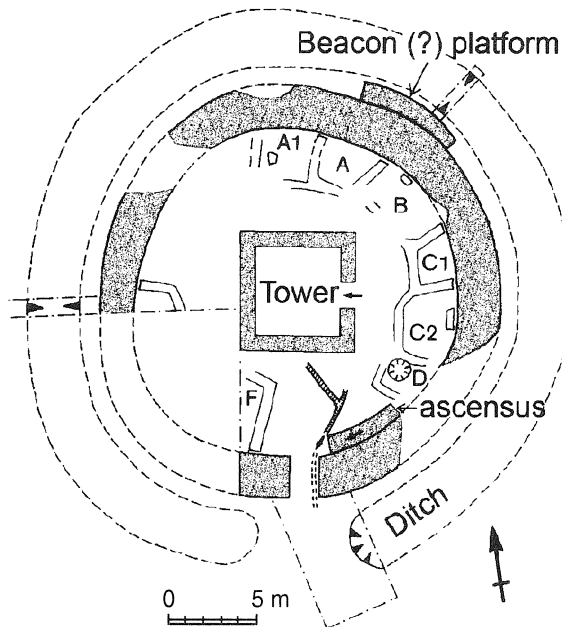


Fig. 3. Kazatskaya hill. Plan of the Roman sentry post

cent *chora* of Chersonesos, which covered almost the entire Heraklean Peninsula in the southwestern part of Crimea. Only the eastern fringes of the peninsula, separated from the rest of Crimea by a steep escarpment along the Karan' and Sapun Heights (Fig. 2), remained outside the land division system which had divided the countryside into regular plots already in the fourth century BC. It is in this border zone that all the alleged and archaeologically confirmed Roman sentry posts on the Heraklean Peninsula are located (Pl. V.1).¹⁴ The Roman army command apparently respected the existing land tenure situation; soldiers sent out on detached duties were on the watch in a difficult terrain, where there were no or only few farmhouses, but which afforded excellent observation opportunities from the plateau edge toward the Inkerman and Balaklava valleys.

The Heraklean Peninsula was most easily approached from the southeast. Access from the direction of Inkerman, east of Kazatskaya hill (197.4 m a.s.l.), from where there was a view of the surrounding countryside to the west and the valleys to the east, was more difficult. Once the area was opened for research at the end of the 1980s, an Archaeological Expedition of the Tauric Chersonesos National Preserve in Sevastopol, headed by O.J. Savelja, carried out in 1991 a brief season of excavation on Kazatskaya hill, identifying the remains as a Roman

sentry post.¹⁵ Regular fieldwork in association with the Archaeological Expedition of the Institute of Archaeology of the University of Warsaw and headed by the first of the authors of this paper, started in 2000 and was continued for three more seasons.¹⁶

The natural plant cover around the site had been impacted recently by pine forestation and the introduction of summer houses with unkempt gardens and orchards in part of the area (Pl. V.2). The earlier oak and hornbeam woods survive as clusters of low Downy oak (*Quercus pubescens*), bushes and clearings overgrown with grass and weeds.¹⁷ Eroded shell holes, trenches and embankments from the times of the Crimean War and World War II can still be discerned in a few places on the site.

The Roman sentry post cleared on Kazatskaya hill is a round structure composed of a ditch, enclosure wall, yard and square tower in the center (Fig. 3, Pl. V.3 and 4). The ditch, which runs 1.20–1.40 m outside of the enclosure wall, is 3 to 3.40 m wide and 0.60–1.20 m deep. V-shaped on the south side, it is more like a trough in section in the other two

¹⁵ O.J. SAVELJA, *Nekotorye rezul'taty rabot Sevastopol'skoj Arheologičeskoj Ekspedicii v okruge Chersonesa v 1990–1995 gg.*, Chersonesskij Sbornik 8, 1997, 91f.; cf. V.M. ZUBAR, *Ešče raz o Tavričeskom limese*, Rossijskaja Archeologija 2, 2000, 52–60.

¹⁶ The Ukrainian part of the team headed by O.J. Savelja included the following colleagues from the National Preserve of Tauric Chersonesos, Sevastopol: D.J. Savelja, V. Nessel, A.A. Filippenko, P.V. Peresvetov and L.A. Kovalevskaia (Crimean Branch of the Institute of Archaeology, National Ukrainian Academy of Sciences, Simferopol); participating on the Polish side were T. Sarnowski, K. Misiewicz, R. Karasiewicz-Szczypiorski, M. Wagner (Institute of Archaeology, University of Warsaw) and about 60 students of archaeology from the University of Warsaw. Volunteers included students from Sevastopol, Russia and Israel. Specialists studying the material in addition to the above expedition members included: L.N. Golovčenko, Sevastopol (identification of coins), I.J. Suchanova, Sevastopol (restoration of handmade pottery), M. Rutkowska and J. Piątkowska-Malecka, Warszawa (analysis of the faunal remains). Restoration of coins and other metal finds was carried out at the laboratory of the National Preserve of Tauric Chersonesos, Sevastopol. Fieldwork was supported modestly from the statutory funds of the Institute of Archaeology of the University of Warsaw. In 2001, the Polish team also had the support of the Foundation for Polish Science. See T. SARNOWSKI, O. SAVELJA, R. KARASIEWICZ-SZCZYPIORSKI, *Extra fines Imperii. Rzymski posterunek wojskowy w okolicach Sevastopola na Krymie*, Światowit 45 A, 2002, 167–172; T. SARNOWSKI, *Die Römer bei den Griechen auf der südlichen Krim. Neue Entdeckungen und Forschungen*, in: *Limes XIX. Proceedings of the XIXth International Congress of Roman Frontier Studies*, Pécs 2005, 740 f.

¹⁷ According to Dr. H. Winter of the State Institute of Geology, Warsaw, a pollen analysis of a soil sample from the Roman-period fill in the lower part of the ditch revealed the presence of isolated pine (*Pinus sylvestris* type), *Cichorioideae* (subfamily of the *Asteraceae*, the largest family of flowering plants) and *Chenopodiaceae* (family of flowering plants). No pollen representative of grass (*Poaceae*) or grain (*Cerealida*) was observed. Moss and fungus spores were noted in abundance.

¹⁴ Cf. T. SARNOWSKI, L.A. KOVALEVSKAJA, *O zaščite Chersonesskogo gosudarstva sojuznym rimskim voennym kontingentom*, Rossijskaja Archeologija 2, 2004, 40–50 with a critical view on the Roman army presence in selected places of the Chersonesan *chora*.

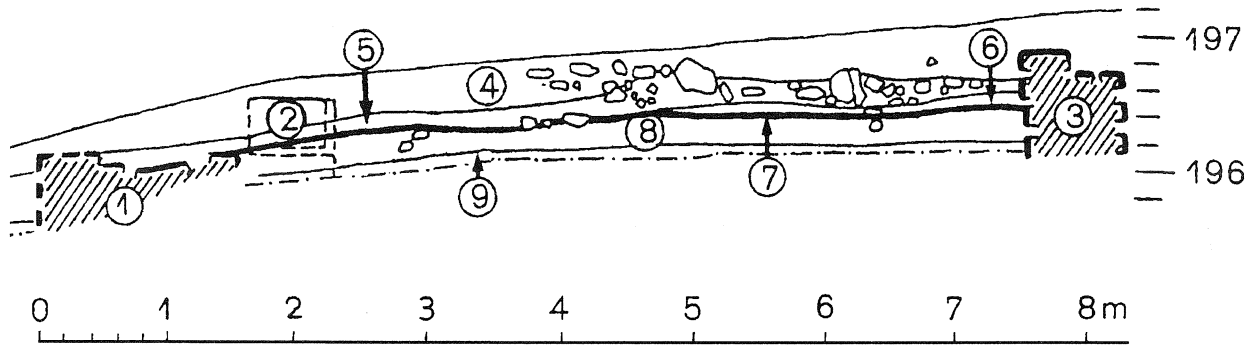


Fig. 4. Roman sentry post on Kazatskaya hill. Section across the southern part of the yard. 1: Enclosure wall, 2: *Ascensus* (projection of stone blocks from S), 3: South wall of the tower, 4: Top-soil, 5: Rubble layer, 6: Yellow-brown clay + gravel, 7: Gravel gritted surface of the yard, 8: Building debris, 9: Natural soil

tested places. It seems to have been cut entirely in a very hard, clay-and-gravel ground. In front of the gate there was a causeway across the ditch between the two semi-circular butt-ends separated by apparently a few meters (Pl. VI.1).¹⁸ Judging by the quantity of potsherds from the eastern end of the ditch (Pl. VI.2), the soldiers must have considered this place a convenient dump for their rubbish.

A wall 2.20–2.50 m wide enclosed a round area, 18.50 m in diameter, giving a total ground surface of more than 250 sq.m. The maximum preserved height of this wall is 30 cm in places; it was built of irregular, medium-sized stones for the face and small-sized ones for the core, all bonded with clay. It had shallow foundations, set on a leveled layer of building debris and earth. In two parts of the wall elongated projections were noted. The outside projection on the northeastern side was 6 m long and 1.25 m wide, forming what appears to be a kind of beacon platform. The inside projection (5 × 1 m) to the right of the entrance supported a staircase or ramp (*ascensus*) leading to the rampart walk (Pl. VI.3). The relatively good state of preservation of the *ascensus* sets the estimated height of the enclosure wall at c. 2.10 m. It is not clear what the upper parts of the wall were constructed of. Few stones in the rubble speak in favor of a facing of stones retaining a core of gravel and clay.

The entrance to the post, 1.50 m wide, was found on the south side. Its framing consisted of two large and fairly regular limestone blocks; the same kind of blocks were also used for the threshold. No signs of the door-closing device have been found. Neither is the reconstruction of a wooden gate tower above the entrance a certainty (Pl. VI.4). The idea is based on a stone block with oval depression, found *in situ* just about 1.50 m away, opposite the western jamb,

perhaps serving as a base for one of the inside piers of the tower.

A number of rectangular cubicles were constructed at some point against the inside face of the enclosure wall; they had a surface area of about 6.50 (C1) through 11.50 sq.m (C2). The walls, presumably of wattle and daub, stood on shallow and careless foundations, or rather base walls made of irregular stones bonded in clay. These were from 0.40 to 0.60 m wide. Patches of a whitewashed clay coat were observed on some of the facing stones inside the rooms. In all of the units tamped earth formed the floor, its level recorded only thanks to the remains of small fires, two of which even had a low stone casing. Units A1 and C2 were distinguished by small pillars of stones and clay, freestanding in A1 and attached to the facing of the enclosure wall in C2. Their size was 0.3 and 0.8 sq.m respectively, and they were both 0.30 m high. The concentration of lamps and censers inside units B and C2 suggests a habitational function for these interiors. One of the units may have served as a small stable.¹⁹ The inside of the enclosure wall, wherever there were no cubicles, appears to have been lined with some kind of light structure forming eaves.

The ground inside the post, between the cubicles and tower, comprised a hardened gravel and clay floor with some amphora sherds (Fig. 4). It shows a slight slope toward the south, that is, toward the entrance to the enclosure. Two narrow stone drains run in the direction of the entrance to the south of the tower (Pl. VII.1). They were undoubtedly used to drain water from the yard. Near the *ascensus*, in area D, there was a clay pithos (Pl. VIII.9) with a capacity of more than 1 000 liters, sunk almost 0.70 m, that is, about half its height, into the ground. It must have been used to store potable water, which was brought

¹⁸ Further excavation will be required to verify this distance. The southwestern quarter of the site was left untouched after the last excavation season.

¹⁹ Horse bones are represented among the faunal remains from the sentry post on Kazatskaya hill.

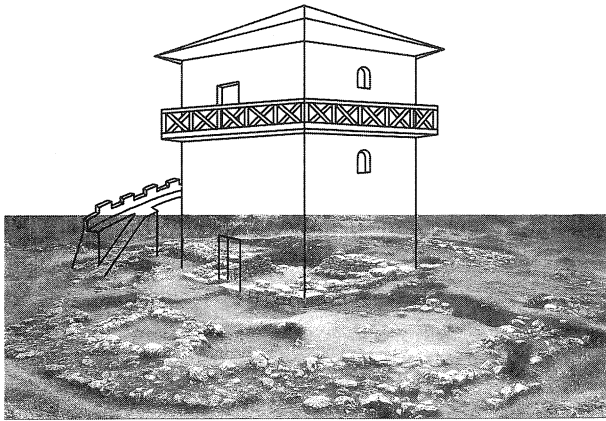


Fig. 5. Roman sentry post on Kazatskaya hill. Excavated ruins and simplified reconstruction

from a stream situated slightly over 1 km to the southwest of the post.

The square tower (Pl. VII.2) measuring 6.60 m to the side had walls from 0.75 to 0.80 m thick. This gave an inside surface of 25 sq.m. The entrance, 0.75 m wide, was located in the middle of the eastern side. Inside the tower, just right of the entrance, there was a large block of stone, which is presumed to have been the beginning of wooden steps leading to the upper floors. The wall foundations (Pl. VII.3) were 1.60–1.70 m deep and were constructed in a trench with vertical sides, matching the foundation and wall in width, excavated in a layer of gravel and yellowish clay below it. The stone used for the wall and foundation, as for other walls within the sentry post, was limestone, quarried somewhere nearby. Clay was the binding material everywhere. The bondwork of both foundation and wall is quite regular, making use mostly of roughly dressed stones of medium size. Bigger blocks with a maximum length of 0.70 to 0.90 m were employed for the corners, door jambs and occasionally in the wall face. The building technique, material and bond resemble the walls of the Jupiter temple built by the army in Balaklava rather than the civil structures from Chersonesos and its *chora*. The deep foundation is unmatched anywhere in Crimea, but finds parallels in Roman military architecture from Lower Moesia.²⁰ The depth of the tower foundation and the estimated height of the enclosure wall give an idea of the possible height of the tower (Fig. 5), which may

²⁰ A good example in point are the fortifications of the legionary camp in Novae, where a similar mode of construction was employed for the foundations, which went down a minimum of 1 m in the clay ground; cf. T. SARNOWSKI, *The Legionary Defenses of Novae. Report on Latest Sections*, *Archeologia* 32, 1981, 29 ff.; S. PARNICKI-PUDELKO, *The Fortifications in the Western Sector of Novae*, Poznań 1990, 70, 90 f.

have had at least two stories above the ground floor, reaching about 9 m under the eaves (Pl. VI.4). Concentrated finds of *tegulae* and *imbrices* roof-tile fragments in the middle of the tower indicate a four-gabled roof. The *tegulae* (Pl. VIII.12) were 37×48 cm on the average.²¹ Preserved evidence of a wooden roof structure consists of a number of forged iron nails with square heads and a length equal to 7.5 cm. Inside the tower, the bottom floor was made of leveled clay and gravel. A small fire was traced by the south wall and a small pit by the west wall. A kind of bench c. 0.75 m wide, constructed of irregular stones bonded in clay, was recorded against the west wall. Only one course of this presumed bench has been preserved.

Nowhere inside the post was there any evidence suggesting a conflagration or any other dramatic event which could have stood at the root of the buildings destruction. Rubble consisting of roof-tiles with boulders mostly on top occurred practically only inside the tower and, much less extensively, just outside its walls. The post seems to have been evacuated rather quickly, but giving thought to a possible return. This is indicated by a shoddy wall blocking the entrance into the enclosure. It is likely that the roof collapsed on its own some time after the evacuation and the walls gradually declined.

The poor stratigraphy with a leveled building layer (Fig. 6), some traces of occupation in places and rubble on top do not give any indication of possible renovations or rebuilding. Neither is the ditch fill diagnostic in this respect. The post appears to be a single-phase feature, although the cubicles along the inside face of the enclosure wall must have been built already when the post was in use.²² Stamped roof-tiles suggest, however, that the roof of the tower was repaired or at least the missing tiles replaced at regular intervals. Each of more than a dozen tiles bears the stamps of VEMI or LE XI CL, 2 CLA and 1 DI. Dating of these stamps indicates that the original roof consisted of tiles from the brickyards of the *vexillatio exercitus Moesiae inferioris*; later replacements of tiles were produced by *XI Claudia*.²³ At least a few of the tiles had scratched game boards on them.

Ten coins were found inside the post. Apart from one denarius of Trajan of AD 114, they were all much worn Chersonesan coins of the first and second

²¹ A.A. FILIPPENKO, *Stroitel'nye materialy s punktov dislokacii rimskich vojsk v Kadykovke i na vysote Kazatskoj*, *Chersonesskij Sbornik* 9, 1998, 110–117; SARNOWSKI, *Römische Militärziegel...*, 91ff.

²² The third author of the present paper is of the opinion that there were two-phases, this being suggested among others by some roofing tile fragments found under the stones of the bench inside the tower.

²³ SARNOWSKI, *Römische Militärziegel...*, 98.

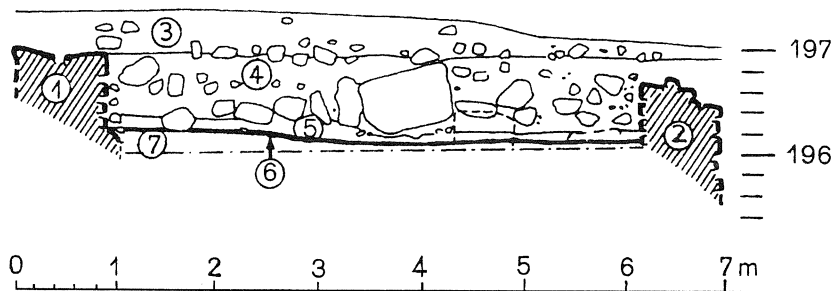


Fig. 6. Roman sentry post on Kazatskaya hill. Section N–S across the fill of the tower. 1: South wall, 2: North wall, 3: Top-soil, 4: Rubble layer, 5: Grey earth with ashy lenses, 6: Floor level, 7: Natural soil (reddish clay + gravel)

centuries AD representing the following denominations: *assarios*, *tetrassarios*, *tetrachalkos* and *dupondius*. Of the latest date are two *dupondii*, one from AD 138–161, the other from the third quarter of the second century AD.²⁴

The pottery is predominantly of a second and third century date, mostly amphorae of Heraklean production, made of a light-colored clay and representing types Shelov C and A–C, but Sinopean, Bosporan and Kolchean containers of the Zeest 72, 73, 79, 82, 89(?) and Vnukov Sin II and I–II types were also present. Single sherds of amphorae of Zeest 60 from the first century BC–first century AD and of vessels of the fifth–eighth, eighth–ninth and ninth–eleventh centuries have also been recorded.²⁵ One stamped (TV) fragment of a handle belongs most probably to a North Italian amphora of the Forlimpopoli type of the first–second century AD.²⁶ The tableware comprises red slip ware and coarse tableware. The repertoire of shapes includes bowls, dishes, plates, jugs, cups and goblets, with a distinct preponderance of closed shapes (jugs, cups and goblets) over open ones (bowls, dishes, plates). The vast majority of red-slip wares represents the so-called Pontic Sigillata from around the late first to the mid-third century AD; plates and cups of Hayes forms 1 and 5 can be distinguished among others.²⁷ A few

finds, including a cup with rosette stamp, represent Eastern Sigillata B.²⁸ Innumerable pieces of beakers bore decoration in the form of simple linear graffiti. Handmade and wheel-thrown kitchen pottery (cooking pots, lids, casseroles, frying pans, bowls, platters) formed a substantial group.

Among the clay finds, oil lamps (Pl. VIII.1–5, 8) and censers (Pl. VIII.6–7) merit special attention. They are present in practically all the cubicles constructed against the enclosure wall. In the typological sense, the lamps from Kazatskaya hill are fairly uniform, representing for the most part the Loeschcke type VIII, which was extremely popular in the second and third centuries AD in Chersonesos and other sites in the Black Sea littoral.²⁹ Analogous examples of lamps occurred also in Balaklava, for example.³⁰ According to specialists, they represent the Pontic version of Roman round lamps, similar in quality to Pontic Sigillata.³¹ The occupants of cubicle B on Kazatskaya hill also had a very characteristic lamp of the Palaimonion type (Pl. VIII.8), known primarily from sacral contexts dating to the second half of the second and the beginning of the third century AD. Lamps of this type³² occur in Chersonesos and the *chora* in

²⁸ Cf. D.V. ŽURAVLEV, *Krasnolakovaja keramika gruppy Eastern Sigillata B iz mogil'nika Bel'bek IV v Jugo-Zapadnom Krymu*, in: S.V. DEMIDENKO, D.V. ŽURAVLEV (eds), *Drevnosti Evrazii*, Moskva 1997, 246–248.

²⁹ Identification by V. Nessel; cf. L. CHRZANOWSKI, D. ŽURAVLEV, *Lamps from Chersonesos in the State Historical Museum – Moscow*, Roma 1998 (= *Studia Archaeologica* 94), 79 ff.; S. LOESCHCKE, *Lampen aus Vindonissa. Ein Beitrag zur Geschichte von Vindonissa und des antiken Beleuchtungswesens*, Zürich 1919, 237 ff.

³⁰ V. NESSEL, *Tonlampen und Räucherfässer*, in: SARNOWSKI, SAVELJA, *op. cit.*, 104 f., fig. 22; EADEM, *Svetil'niki iz chrama Jupitera Dolichena i voennogo posta na vys. Kazackoj*, in: *Pričernomor'e, Krym, Rus' v istorii i kulture. Materialy II sudakskoj meždunarodnoj naučnoj konferencii*, I, Kiev–Sudak 2004, 95 f.

³¹ Cf. CHRZANOWSKI, ŽURAVLEV, *op. cit.*, 79–85; DOMŻALSKI, *op. cit.*, 82.

³² O. BRONEER, *Isthmia*, III: *Terracotta Lamps*, Princeton 1977, 37, 42 f.; K.W. SLANE, *Corinth*, XVIII, 2: *The Sanctuary of Demeter and Kore: The Roman Pottery and Lamps*, Princeton 1990, 11, 26.

²⁴ V.A. ANOHIN, *Monetnoe delo Chersonesa*, Kiev 1977, 153, n^o 259, pl. XVII; IDEM, *Monetnoe delo Chersonesa Tavričeskogo I–III vv. n.e.*, *Numizmatika i epigrafika* 4, 1963, 70, nos 11, 11a, pl. X.

²⁵ Identification and dating of amphorae by L.A. Kovalevskaja; cf. B. ZEEST, *Keramičeskaja tara Bospora*, MIA 83, 1960, 111–117; S.Y. VNUKOV, *Pričernomorskie amfory I v. do n.e. – II v. n.e.*, Moskva 2003, 52, 130–140; D.B. ŠELOV, *Uzkogorlye svetloglinjanye amfory pervykh vekov našej ery. Klassifikacija i chronologija*, KSIA 156, 1978, 18.

²⁶ Identification by I. Modrzewska Pianetti; cf. T. ALDINI, *Fornaci di Forum Popili*, Forlimpopoli 1981, 40–45, fig. 24.

²⁷ Identification by V. Nessel; cf. J.W. HAYES, *Sigillate orientali*, in: *Ceramica fine Romana nel Bacino Mediterraneo (tardo ellenismo e primo imperio)*. Atlante delle forme ceramiche II, EAA, Roma 1985, 92–96; K. DOMŻALSKI, *Terra sigillata from Nymphaion*. *Survey* 1994, *Archeologia* 47, 1996, 101 f.

definitely secular structures.³³ The same is to be said of censers, which are represented in the material from the post by five very similar objects. Close parallels are known, among others, from Chersonesos and Balaklava.³⁴ It can be assumed that on Kazatskaya hill censers were used primarily as mosquito deterrent.

Another surprisingly numerous category are glass vessels, unfortunately too poorly preserved for reliable identification in most cases. Overall, they seem to have been beakers used for drinking purposes. The absolute majority represents a pale bluish, bluish, greenish and olive green transparent glass. Meriting special attention is a mould-blown cylindrical beaker imitating embossed metal ware, made of a grayish-purple glass and identified as Isings form 31 of the first–second century AD.³⁵ One base and one rim fragment have been identified fairly securely as a free-blown beaker, form AR 39 = Trier 63 of the second–third century AD.³⁶ Less reliable are the identifications of two bases and one handle as belonging to a mould-blown bottle Isings type 90, undecorated beaker Isings type 106b1 = AR 64.1 = Trier 52, and jug Isings type 88.

Weapons and armor have also been found in the excavation on Kazatskaya hill. Spherical projectiles for use by either hand or sling are represented by about ten objects from 3 to 7 cm in diameter. Five trilobate tanged arrowheads indicate the presence of archers in the garrison.³⁷ Soldiers appear to have worn scale armor (*lorica squamata*), but finds included beside a few pieces of iron armor-scales also iron lugs of 2 cm diameter, which may have been suspension loops hinged to a sword or dagger sheath, or proof of the use of mail armor (*lorica hamata*). Small bronze plates with rivets or rivet holes and a U-sectioned brass binding from a shield's edge should also be attributed to this category of finds. Other personal fittings of bronze include a terminal belt-plate in *opus interrabile* from the last three decades of the second and the first half of the third century AD.³⁸

³³ L.A. KOVALEVSKAJA, *Archeologia* 55, 2004, 143; *contra* E.J. KLENINA, V. SOZNIK, *Keramičeskie sosudy II–III v. n.e. iz usad'by "Bliznecy" (Chora Chersonesa Tavričeskogo)*, Poznań 2004, 70.

³⁴ See NESSEL, *Tonlampen...*, 104 f.

³⁵ C. ISINGS, *Roman Glass from Dated Finds*, Groningen/Djakarta 1957, 45 f.; cf. A(ugusta) R(auricorum) form 33.1 – B. RÜTTI, *Die römischen Gläser aus Augst und Kaiseraugst*, II, Augst 1991 (= *Forschungen in Augst* 13).

³⁶ RÜTTI, *op. cit.*, 56, pl. 50; K. GOETHERT-POLASCHEK, *Katalog der römischen Gläser des Rheinischen Landesmuseums Trier*, Mainz 1977, form 63.

³⁷ See M.C. BISHOP, J.C.N. COULSTON, *Roman Military Equipment from the Punic Wars to the Fall of Rome*, London 1983, 79, fig. 43.

³⁸ See J. OLDENSTEIN, *Zur Ausrüstung römischer Auxiliareinheiten*, *Berichte der Römisch-Germanischen Kommission* 57, 1976, 193–197, no. 788, pl. 6.2.

and a teardrop strap terminal known from Dacia of the second Antonines and Severus,³⁹ the Upper Germanian and Raetian limes,⁴⁰ and Hadrian's Wall in Britain.⁴¹ A few iron hobnails represent military *caligae*, whereas a bronze spring fibula of the first–second century must have been used with linen clothing.⁴²

Other objects from the post on Kazatskaya hill included a whetstone, a few iron knives, and a bronze needle. One rather long and thin animal bone appears to have been worked into a flute with six holes being pierced in a row on one side, which was discarded only after it had split making it useless for this musical endeavor (Pl. VIII.10).

An examination of the faunal skeletal assemblage brought important results.⁴³ Soldiers seem to have consumed meat from domestic animals, which represented 99% of all the mammal bones from the site (59% sheep and goat, 21.2% pig, 14% cattle, 4.5% horse, 0.9% dog).⁴⁴ This meat diet was only slightly supplemented by meat from wild animals (0.9% of all skeletal material: gazelle, roe deer, fallow deer, wild boar, hare), birds (1.7 %, including 0.5% hen), fish (0.2%) and mollusk (8.6%, including 6.4% *Unio sp.*, 1.5% oyster; 0.7% snail). Sheep represented a small

³⁹ E. CHIRILA *et al.*, *Das Römerlager von Buciumi*, Cluj 1972, pl. LXXI 1–12.

⁴⁰ OLDENSTEIN, *op. cit.*, 142–147, nos 291–304, pl. 36.

⁴¹ BISHOP, COULSTON, *op. cit.*, fig. 80:4, 12.

⁴² See A.K. AMBROZ, *Fibuly juga evropejskoj časti SSSR (II v. do n.e. – IV v. n.e.)*, Moskva 1966 (= *Svod Archeologičeskich Istočnikov*, D1-30), 49; cf. N.G. NOVIČENKOVA, *Fibuly iz sviatilišča u perevala Gurzufskoe Sedlo*, *Rossijskaja Archeologija* 1, 2000, 163, fig. 8:1–6.

⁴³ 1715 animal bones in the assemblage, of these 1144 determined by species and anatomy; see M. RUTKOWSKA *et al.*, *Meat Eaten by Roman Soldiers at the Sentry Post on Kazatskaya Hill near Inkerman (Sevastopol, Ukraine)* – in press.

⁴⁴ Compared with results of animal bone analyses for the Chersonesan farm 340 (L. KOVALEVSKAJA, T. SARNOWSKI, *Crimean Chersonesos. Farmhouses of the Roman Period* – in this volume of *Archeologia*), where 59% of the identified bones belonged to sheep and goat, 30.5% to cattle, 4.5% to pig, and 4.8% to horse. A corresponding statistics for the assemblage from the temple of Jupiter Dolichenus in Balaklava is as follows: 64.6% sheep/goat, 29.1% cattle, 4% pig, 1.4% horse, and 0.9% dog (A. GREŻAK, J. PIĄTKOWSKA-MAŁECKA, *Tierknochen*, in: SARNOWSKI, SAVELJA, *op. cit.*, 109–111). The several times higher percentage of pig bones in the material from the post on Kazatskaya hill compared to that from Farmhouse 340 suggests pig breeding by the military. A still higher percentage of pig bones is regularly observed in faunal skeletal assemblages from the legionary camp at Novae dated to the first and second–third centuries AD (A. GREŻAK, A. LASOTA-MOSKALEWSKA, *Szczątki zwierzęce z principia w Novae z I w. n.e.*, *Novensia* 11, 1998, 203–209; D. MAKOWIECKI, Z. SCHRAMM, *Preliminary Results of Studies on Archaeozoological Material from Excavations in Novae (Season 1992)*, in: A.B. BIERNACKI (ed.), *Novae. Studies and Materials*, I, Poznań 1995, 71–81). The pig breeding by soldiers is confirmed even in isolated military posts in the Egyptian Eastern Desert; H. CUVIGNY *et al.*, *La route de Myos Hormos*, II, Le Caire 2003.

mouflon-like variety characterized by a withers height of 59 cm. Cattle included a small variety, most probably *Bos taurus brachyceros*, and the tall primitive one. From the appearance of the horse bones it can be inferred that horses were from medium-sized to big (150 cm at the withers). 2.2% of cattle bones belong to young individuals; sheep and goat slaughtered young constituted 10.1% and pig 17.1%. This indicates that pigs were kept for meat and fat, while sheep and goats mainly for meat, but also for milk, wool and skin; cattle were milk-producers and beasts of burden. The absence of cattle horn cores and digital bones is evidence of slaughtering taking place outside the post, perhaps near the water source, provided that the animals were bred by the garrison. All skeleton elements are represented among the bone remains of sheep, goat and pig, which suggests that at least occasionally the animals were slaughtered on the spot. Most of the skeletal remains of small ruminants and pigs, however, seem to belong to animals slaughtered outside the post. Many bones bear evidence of roasting (black singe marks), while the equally frequent grey and porous light bones suggest cooking.

Virtually the entire assemblage of finds from Kazatskaya hill indicates that the post functioned in the second and third centuries AD. Fortunately, a more precise dating is possible once certain categories of objects are analyzed in detail. The roofing-tiles with the VEMI stamp, for instance, assuming they had not lain in storage too long at the brickyards near Balaklava Kadykovka before being used for the tower roof, give a date around the middle of the second century (the stamps are dated to the rule of Antoninus Pius).⁴⁵ The roof was repaired one or more times most likely in the early third century AD, when tiles with the stamp LE XI CL were produced.⁴⁶ Only a border date is available for the evacuation of the post. It is AD 223, the date of issue of the latest coin from a hoard of Roman denarii found in an unidentified building of the already abandoned fort at Balaklava.⁴⁷ The ruins of the post, especially the tower, were visited apparently periodically in Early Byzantine and medieval times, as indicated by the rare amphora sherds of fifth–eighth, eighth–ninth and ninth–eleventh century date found in the rubble inside the tower, as well as a bronze buckle (Pl. VIII.11) from the second half of the seventh century discovered near the tower,⁴⁸ and an

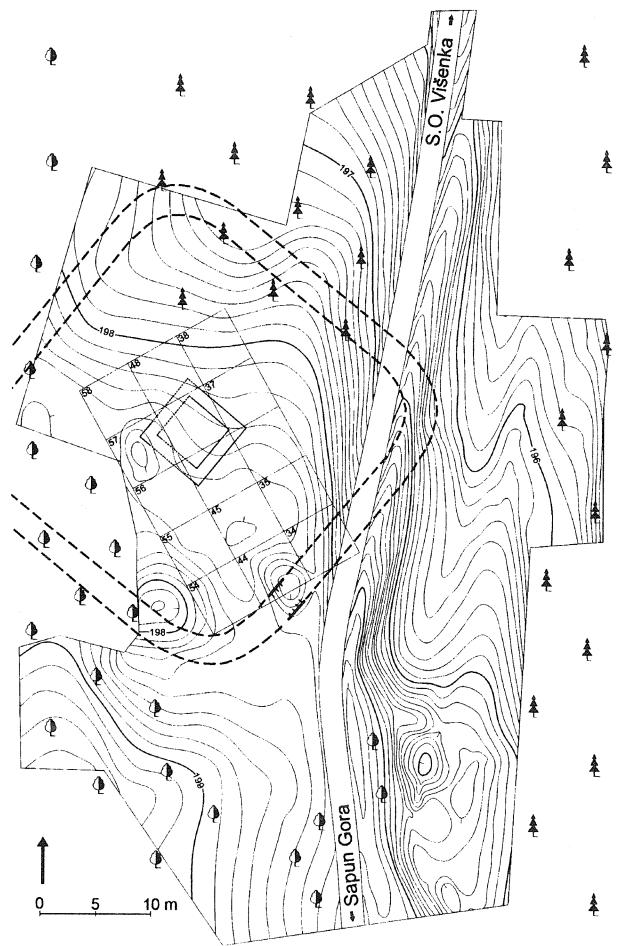


Fig. 7. Kavkaz Bair. Contour map

unstratified iron bit, possibly of the fourth–fifth century.⁴⁹

The Polish-Ukrainian expedition also carried out in 2004–2006 rescue excavations at Kavkaz Bair (Fig. 7, Pl. VII.4), a site located about 3 km south of Kazatskaya hill, where treasure hunters had been extremely active. The uncovered ruins were found to resemble in many respects the sentry post excavated on Kazatskaya hill. The site has a similar location on the Sapun Mountain above the Inkerman and Balaklava valleys, just 300 m from the Yalta–Sevastopol road which follows the easiest access route to the plateau in the Heraklean Peninsula. It occupies a small elevation, now scattered with large blocks of limestone evidently brought to the surface during earthworks preparing for the forestation of the area in 1968–1972. A dirt road runs along the east side of the site and next to it, the English-French line of trench defenses from the Crimean War (1854–1855), cut by trenches from World War II. Today,

⁴⁵ See SARNOWSKI, *Römische Militärziegel...*, 92–94, 100.

⁴⁶ *Ibidem*, 94.

⁴⁷ See above note 13.

⁴⁸ Cf. A. I. AJBABIN, *Etničeskaja istorija rannevizantijskogo Kryma*, Simferopol 1999, 316, pl. XXX 30.

⁴⁹ Cf. V. V. MAGOMEDOV, M. E. LEVADA, *Oružie černjachovskoj kul'tury*, *Materialy po Archeologii, Istории i Etnografii Tavrii* 5, 1996, 310, fig. 9:1.

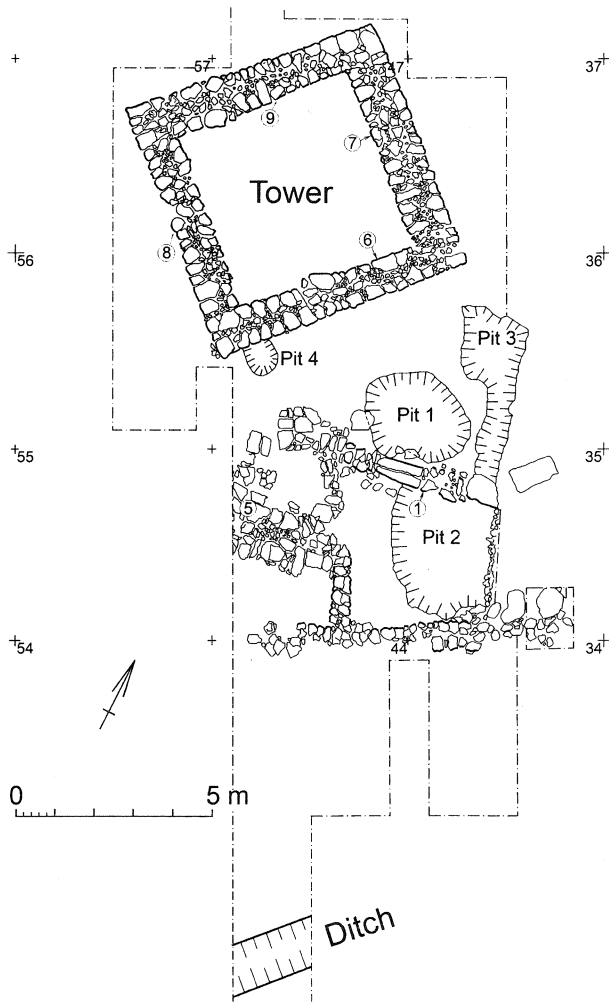


Fig. 8. Kavkaz Bair. Plan of excavated remains

the elevation is overgrown with grass and weeds; the area to the west of it features Field maple, Siberian peashrub and European smoketree, the area to the east is wooded with pine.⁵⁰

Of the remains discovered at Kavkaz Bair (Fig. 8 and 9) only the foundations of a square tower (Pl. IX.1) and an enclosing ditch are of Roman date. The total area of the post is slightly bigger (about 1000 sq.m inside the enclosure ditch), but the dimensions and shape of the ditch (Pl. IX.2), as well as the construction technique observed on the tower foundations correspond well with counterparts inves-

⁵⁰ According to Dr. H. Winter of the State Institute of Geology, Warsaw, the soil sample from the lower part of the Roman-period ditch fill was characterized by low pollen frequency. No pollen of grass (*Poaceae*) or grain (*Cerealia*) was recorded. Pollen of pine (*Pinus sylvestris*) was observed in very good condition. Larger quantities of pollen represented *Cichorioideae* (subfamily of the *Asteraceae*, the largest family of flowering plants), *Apiaceae* (family of usually aromatic plants), bindweed (*Convolvulus*), *Artemisia*, bedstraw (*Galium*-type) and *Caryophyllaceae* (the 'pink' family of flowering plants). Moss and fungus spores were present as at Kazatskaya hill.

tigated on Kazatskaya hill. The place of the enclosure wall at Kavkaz Bair, at least in the excavated part of the site, is taken up by shoddy stone walls possibly belonging to a medieval farmhouse. The tower foundations measure 6.70×6.70 m and are constructed of clay-bonded stones set on bedrock at a maximum depth of 50 cm. A geophysical survey by the electrical resistivity method suggests⁵¹ that the enclosure ditch took a different course than on Kazatskaya hill – in a square rather than a circle. The entrance to both the enclosure and tower has not been identified.

Two coins from the excavations at Kavkaz Bair comprised a much worn denarius of Vespasian and a much damaged AE 2, perhaps from AD 367–395.⁵² Apart from the few nails and iron knife blades, the only metal find of merit is a fragmentary enameled bronze fibula from the second–early third century AD.⁵³ Four chronological groups can be distinguished in the pottery material: fourth–third century BC (a few amphora sherds), second–third century AD, fifth–seventh century AD, and ninth–thirteenth century AD. The assemblage from the second–third century is fragmented and not very numerous; in terms of typological identification it does not differ from the finds made on Kazatskaya hill.

The complete lack of any Roman roof tiles whatsoever leaves us with the following alternatives. Either the post was evacuated without haste, the building material from the dismantled roof and walls removed for use elsewhere, or else the construction was abandoned even before it was completed. The latter interpretation seems the more likely of the two.

The milecastles on Hadrian's Wall in Britain, which are comparable to the Crimean sentry posts in terms of chronology and surface area, were garrisoned most probably by 8–14 to 32 soldiers.⁵⁴ On Kazatskaya hill, the tower and cubicles would have normally accommodated no more than 8 to 12 men, up to 16 (two *contubernia*) in crisis situations. In any case, the architecture of the post and the stone-shots were sufficient for the soldiers manning the post to stand up to a small group of attackers for a relatively short period of time.

Some researchers, including the third author of the present paper, assume that a whole chain of regularly spaced sentry posts existed along the edge of the Sapun Mountain on the borders of the Chersones- an state in the Roman period. With Kavkaz Bair

⁵¹ Geophysical research by K. Misiewicz.

⁵² Identification by L.N. Golovčenko.

⁵³ Close to fibulae of group 7 in AMBROZ, *op. cit.*, 29, pl. 14:11.

⁵⁴ D.J. BREEZE, B. DOBSON, *Hadrian's Wall*, London¹ 1987, 34, 41, fig. 7, 12.

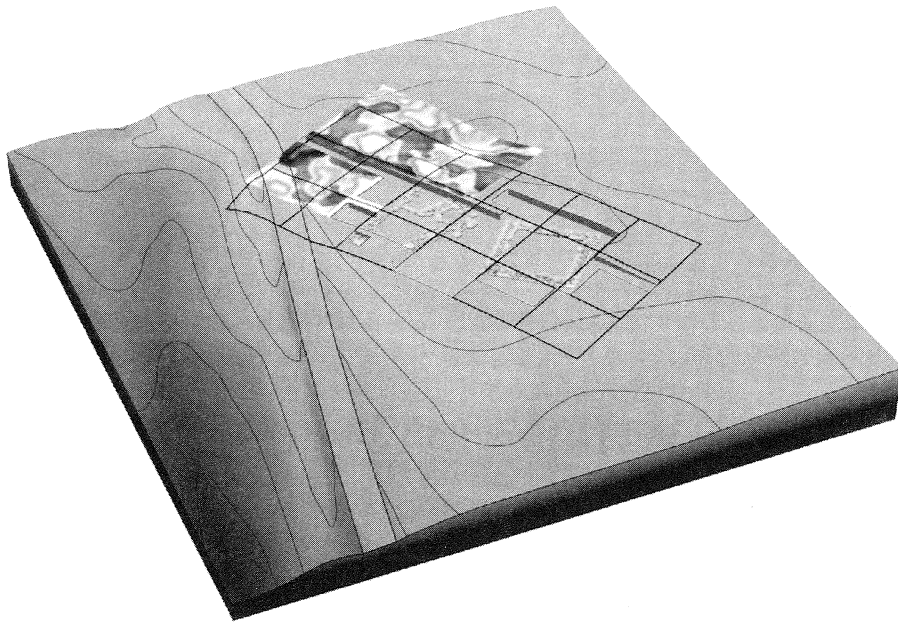


Fig. 9. Kavkaz Bair. Plan of electro-resistivity anomalies and 3D visualization of architectural remains

constituting at the present stage a fairly weak link in this conjectural network, it would be important to discover a post located about 3 km to the south of it, this being the approximate distance separating Kavkaz Bair from Kazatskaya hill. Karagač seems a likely candidate and a geophysical survey and excavations are planned there in the near future. Until the existence of this sentry post is confirmed in the field, however, the first author of the present paper remains true to his opinion, expressed previously, that the Romans reinforced an existing Hellenistic sentry system with one or two observation posts. The Chersonesan farmhouses were an important part of this border zone.⁵⁵ The Roman posts, whether one or more, were probably essential more as a demonstration of presence than an actual element of the limes like system.

Assuming we disregard the Flavian Gask Ridge signaling towers of Scotland, which have not been investigated sufficiently to date,⁵⁶ the nearest parallels for the Kazatskaya post in the European part of the Roman Empire will be found, for example, in the Gallic and Rhine provinces of the late third and fourth centuries.⁵⁷ The architecture of the Antoninian *burgus* (*speculatorius* ?) on Kazatskaya hill appears to be ahead in time compared with analogous designs in the West by well over a hundred years. Therefore, beside being of strategic importance for Rome, Crimea obviously served as a testing ground of sorts for Roman experiments with new ways of controlling border areas.

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⁵⁵ Cf. KOVALEVSKAJA, SARNOWSKI, *Crimean Chersonesos...*

⁵⁶ N. FIELDS, D. SPEDALIERE, *Rome's Northern Frontier AD 70–235. Beyond Hadrian's Wall*, Oxford 2005, 20 f.; D.J. WOOLSCROFT, B. HOFFMANN, *The First Frontier. Rome in the North of Scotland*, Stroud 2006.

⁵⁷ See, e.g., *burgi* in Düren/Froitzheim and Schlatt; R. BRULET, *L'architecture militaire romaine en Gaule pendant l'Antiquité tardive*, in: M. REDDÉ et al., *Les fortifications militaires. L'architecture de la Gaule romaine*, Bordeaux 2006, 156 ff.