

## *Claustra Alpium Iuliarum, tractus Italiae circa Alpes* and the defence of Italy in the final part of the Late Roman period

Slavko CIGLENEČKI

### Izvleček

[*CLAUSTRA ALPIUM IULIARUM, TRACTUS ITALIAE CIRCA ALPES* IN PROBLEM OBRAMBE ITALIJE V ZAKLJUČNEM POZNO-RIMSKEM OBDOBJU] V zadnjem času je izšlo nekaj del, ki parcialno ali tudi celoviteje obravnavajo zaporni sistem *claustra Alpium Iuliarum*, njegovo vključitev v slabo poznani *tractus Italiae circa Alpes* in obsežno problematiko obrambe severne Italije v poznorimski dobi. V prvem sklopu problemov obravnava avtor nedorečenost datacij pri vojaških utrdbah sistema *claustra* in pri poznem datiranju zapornih zidov. Kratko se pomudi pri identificiranju utrdb trakta, ki jih razume kot širše zasnovano obrambo Italije in ne zgolj sektor v Julijskih Alpah. V zadnjih dveh sklopih obravnava kronologijo in tipološke značilnosti utrjenih višinskih postojank, ki v nekem segmentu in na določenih mestih dobijo povsem vojaški značaj, ter pokaže na v globino razprostrto obrambo Italije.

**Ključne besede:** Slovenija, Italija, poznorimska doba, *claustra Alpium Iuliarum, tractus Italiae circa Alpes*, višinske utrjene postojanke, obramba v globino

### Abstract

In recent years, there has been a lively discussion that focuses, either partially or more integrally, on the *claustra Alpium Iuliarum* barrier system, its inclusion in the poorly understood *tractus Italiae circa Alpes* and the Late Roman defence of northern Italy in general. This contribution adds to the discussion and first tackles the different dating of the forts and fortlets of the *claustra* system and the late dating of the barrier walls by some authors. The contribution briefly deals with the identification of the forts of the *tractus*, which is understood as part of a broadly-based defence of Italy rather than a single sector of defence in the Julian Alps. It also tackles the chronology and character of the fortified hilltop sites that have, in a certain period and in certain places, a completely military character and point to a defence-in-depth of Italy.

**Keywords:** Slovenia, Italy, Late Roman period, *claustra Alpium Iuliarum, tractus Italiae circa Alpes*, fortified hilltop settlements, defence-in-depth

The frontier between Illyricum and Italy represented a zone of great concern to the Roman administration in the Late Roman period. This is illustrated by the numerous finds of military equipment and forts, indirectly by the important battles that took place here, but most impressively by the construction of the *claustra Alpium Iuliarum* barrier system. With its barrier walls and forts, it strengthened the defence of the already arduous passage across the mountainous terrain that led into Italy. The knowledge of the defence installations in the wider area of this frontier is improving and allows us to paint an ever more accurate picture concerning the defence of the hub of the Roman Empire at the time. There are, however, certain persisting omissions and misinterpretations in literature that blur the picture; they will be addressed below.

A number of discussions and syntheses on that subject and on the *claustra Alpium Iuliarum* barrier system in particular (e.g. Christie 1991; Curk 1997; Napoli 1997, 260–286) have been published in the last decade of the 20<sup>th</sup> century, including a scientific conference held in 1994 in Ajdovščina and marking 1600 years since the Battle of the Frigidus (contributions published in Bratož [ed.] 1996 and Ciglenečki [ed.] 1997c). The keen interest in the topic continued in the 21<sup>st</sup> century with several overviews of the barrier system, its role within the poorly understood *tractus Italiae circa Alpes* and the defence of northern Italy in the Late Roman period. The results of the investigations at Hrušica have also been included into the Arheološki parki severnega Jadrana/Archaeological Parks of the Northern Adriatic project (see Kos 2015).

I have already tackled this topic at a conference held in 2011. In the time between its presentation and its publication in 2015, however, several important contributions have been published on the subject which I had not been able to include (cf. Ciglenečki 2015). Given their content, I deem it useful to critically examine some of what has been written on the barrier system and the wider defence of Italy, on the military zone, the *tractus Italiae circa Alpes* defence zone, the defence-in-depth system and, in connection with the latter, the appearance and function of the Late Roman fortified hilltop settlements of which some, at a certain period and in certain aspects, show a completely military character.

Of the above-mentioned publications, three monographs are dedicated almost exclusively to the barrier system (Bekić, Radić Štivilić 2009; Kusetić 2014; Kos 2015). Of particular importance for

our discussion are the parts in the monographs that tackle the appearance and development of individual forts within the barrier system of the Julian Alps, which reveal a chronological framework identical to that of the hilltop settlements outside the system.

The overview below tackles four sets of questions that require critical examination: chronology of the barrier system, date and extent of the tractus, chronology and character of the hilltop settlements and of defence-in-depth.

### CLAUSTRA ALPIUM IULIARUM AND THEIR CHRONOLOGY

The main question addressed in some contributions is the date of the construction of the barrier system in the Julian Alps. Having said that, it is often unclear whether the authors write of the entire system, both the forts and the barrier walls, or primarily the linear defence in the shape of long walls (their contemporaneity is not obligatory and not at all proven). For the forts at Hrušica, Ajdovščina and Vrhnika, it has been established some time ago that they were in use for a longer period of time and a dating different from that of the barrier walls has already been suggested in 1939 by Balduin Saria, who presumed the forts to be Diocletian in date and the barrier walls only constructed around 400 (Saria 1939, 145–146). A similar opinion was initially held by Peter Petru, but he later advocated contemporaneous construction (Petru 1975; id. 1980–1981, 134). Irrefutable evidence of a longer existence of the forts was provided by the excavations at Hrušica, Ajdovščina and recently also of the so-called *principium* of Tarsatica (Ulbert 1981, 42–49; Osmuk 1997, 122–127; Bekić 2009b, 380–382). The information available thus far on the contact between the forts and the linear walls is quite controversial, and the linear barrier walls have as yet not been reliably dated (cf. Napoli 1997, 282–283 and in particular detail in Kos 2015, 32–35). Supported by a small number of finds, their existence is only confirmed for the second half of the 4<sup>th</sup> century; there are indications that it might be earlier, but we have no solid proof (Kos 2015, 35; Ciglenečki 2015, 391–392). Apart from Slovenian and Croatian scholars, however, this particular and very important question has not received widespread attention.

The first of the three above-mentioned monographs is the publication of the *principium* of Tarsatica

(Bekić, Radić Štivić 2009). It is an extensive presentation of the results of the excavations conducted in the centre of Rijeka (*Tarsatica*). A detailed analysis of the coins and other small finds, as well as the architecture enabled the determination of the main habitation phases and, most importantly for the question at hand, the construction and abandonment of the building presumed to be the *principium* of the Roman camp in the city. Luka Bekić dates its construction between 260 and 270, the abandonment towards the end of the 4<sup>th</sup> century and the peak of military presence in the second half of the 4<sup>th</sup> century (Bekić 2009a, 220–224; Bekić 2009b, 381–382). The monograph also includes an overview of the research and rescue investigations on the barrier walls in Croatia. In it, Ranko Starac mentioned some installations (particularly the fort at Pasjak along the road from *Tarsatica* to Tergeste, dated to the 270s) which he presumes to be connected with the barrier walls and the Late Roman defence system in the area (Starac 2009). Connected with this research is the 2010 graduate thesis by Mario Zaccaria, which details the author's field observations and conservation efforts on the sections of the barrier walls in Croatia. The full version of this work is only available in typescript, while the published digital version is considerably shortened (M. Zaccaria 2012).

Comparing the range of the coin finds from *Tarsatica* with those from the forts of *Castra* and *Ad Pirum*, Peter Kos established a slightly later intensification of the monetary circulation, which led him to suggest that the *principium* was only built at the end of the 270s or in the 280s, but also that the military presence in the *principium* only dates to the Valentinian period (Kos 2012, 287–288).

In his article on the chronology of the *claustra* barrier system, Kos also analysed the – now fairly numerous – coin finds related to the system, which in many respects complements his earlier analysis from 1986 (Kos 1986, 195–207; id. 2012). The article explains the research methodology and its limitations, and is based on critically evaluated data on the coins from reliable contexts. By interpreting the fluctuation of the monetary circulation and the coin finds from archaeological contexts, he was able to propose an approximate chronology of the forts within the barrier system in the Julian Alps. One of the important findings and one relevant to the topic at hand is the confirmation of the fort at Hrušica being constructed in the 320s, as indicated earlier by Thilo Ulbert, and of the

fluctuations in activity at the fort in the course of the 4<sup>th</sup> century, particularly in its second half. The numismatic evidence, alongside other finds, thus refutes the late dating of the *claustra* barrier system that has sometimes been suggested on the basis of the (too) little that we have in the way of ancient literary sources.

In a later article, Kos wrote an overview of the *claustra* barrier system where he reiterated the chronology of the forts and the barrier walls, as well as the chronology of the barrier system on the basis of the numismatic and in part also other archaeological evidence, again refuting the authors not considering the known archaeological and numismatic evidence in their study and dating the *claustra* to the late 4<sup>th</sup> century (Kos 2013, 245).

One of these authors is Andrew G. Poulter, who attempted to reassess the function of the barrier system in the Julian Alps with the aid of historical, archaeological and topographic data, suggested a significance less of a military and more of a frontier control nature (Poulter 2013, 122–123). He presumes the construction of the system towards the end of the 4<sup>th</sup> century, similarly as Degrassi, Marcone and others before him (Degrassi 1954, 144; Marcone 2002, 175). As opposed to these scholars who based their conclusions exclusively on ancient literary sources, Poulter's hypotheses rest in a broader measure on archaeological sources. Partial replies to his work have already been given by Bratož and Kos (Bratož 2014, 194, Fn. 28; Kos 2013, 245, Fn. 31), I will therefore limit my response to Poulter's understanding of the north-eastern frontier of Italy, more precisely to some of the controversial aspects of the hilltop settlements as part of the defence of Italy's north-eastern frontier (see below).

The second monograph to be discussed is the 2014 book on the *claustra* barrier system, which is the final product of an archaeological and conservation project. In the part on archaeology and topography, Jure Kusetič presents the results of the extensive fieldwork that included recent measurements of the barrier walls and a critical verification of their course (and the newly detected section at Novi pot) (Kusetič 2014, 27–111). The results are generously and well-illustrated, offering a better understanding of the concept of linear defence. The second part brings a presentation of the function and chronology of the barrier walls from historical and archaeological, but primarily numismatic perspectives, where Kos again defined the chronological landmarks as revealed

by the study of the recovered coins (Kos 2014a, 112–132). Andreja Breznik and Marko Stokin in the third part present the management of the heritage monument that is the *claustra* barrier system (Breznik, Stokin 2014).

The most recent monograph – published in 2014 in digital and in 2015 in printed form – has again been written by Kos and brings the previously unpublished plans and photographs made during the Slovenian excavations at Hrušica in 1971–1979, which are kept in the *Narodni muzej Slovenije* (<http://www.claustra.org/images/vsebina/Ad-Pirum-Hrusica-in-claustra-Alpium-Iuliarum.pdf>; Kos 2015). Particularly valuable are the numerous colour plans and cross sections, which offer a detailed insight into the stratigraphy of the site. Unfortunately, however, the publication lacks the analysis of the small finds, which have never been published and which would certainly afford a better understanding of the documentation presented in this most recent monograph and of the site, particularly in view of the fact that it is the Slovenian part of the excavations that revealed most important sealed contexts, as the team investigated the residentially most prominent part of the fort with deepest archaeological layers.

### TRACTUS ITALIAE CIRCA ALPES

Recently, a number of differing interpretations have been published on the topic of the *tractus*, primarily as far as its extent and dating are concerned. In the opinion of Neil Christie, it is “most likely a defensive belt articulated between the major fortified cities from Aosta through to Cividale which co-ordinated a series of intermediate and advance defences” (Christie 2001, 241). The abandonment of the barrier system in the Julian Alps (up to AD 402), in which he sees the only identified section of the *tractus*, is believed to have coincided with the beginning of Invillino and other fortified settlements in the hinterland of the mountain passes (Christie 2001, 241). In a later article, Christie defined the *claustra* barrier system as the best articulated section of the *tractus* defensive zone, with other sections only represented by fortified towns and individual forts (Christie 2007, 566).

Apart from the forts of the *claustra*, Arnaldo Marcone emphasises the importance of the centres such as Forum Iulii, Glemona and Iulium Carnicum as part of the *tractus*. He cites Bierbrauer’s hypothesis of the Late Roman roots of the *castra*

in Friuli. In connection with that, he also mentions forts in East Tyrol and in Slovenia, particularly Rifnik (Marcone 2004, 357–359).

In studying the small Late Roman finds dating to around 400 and the first three decades of the 5<sup>th</sup> century, my colleague Tina Milavec and myself defined some of the better known fortified sites in the area west and east of the linear barriers of the *claustra* system as elements in the defence of northern Italy, i.e. in the *tractus*, the institution of which historians set to this time frame (Ciglencečki, Milavec 2009). The reason for this is the fact that some of the posts in strategically vital locations yielded a similar array of dress items and weapons as known from other already investigated forts of the barrier system and elsewhere (cf. the finds in Ulbert 1981; Ciglencečki 1997a; Sokol 1994; id. 1998). This is confirmed by the finds of imported pottery and transport vessels, which corresponds with the information in the ancient sources of the *comitatenses* being paid in kind in the first few decades of the 5<sup>th</sup> century (Vidrih Perko, Župančič 2003, 464). The glazed ware and material culture of the *foederati* from some of the forts offer additional evidence of their military character (Magrini, Sbarra 2009; Modrijan 2009; Bausovac, Pirkmajer 2012; Knific, Tomanič-Jevremov 1996; Ciglencečki, Milavec 2009). Posts of this type persisted in some areas to the mid-5<sup>th</sup> century, although their layout and defence installations often differed considerably from the earlier Roman forts (Ciglencečki, Milavec 2009, 181).

In a special discussion on the barrier walls in the Julian Alps and on *Notitia Dignitatum*, Kos presented his understanding of the *tractus* (Kos 2014b), similarly as in an earlier article from 2013. His main hypothesis is that the pictogram titled *tractus Italiae circa Alpes* in *Notitia Dignitatum*, schematically showing a town and behind it mountains with two barrier walls with towers, can only represent the barrier walls in the Julian Alps (Kos 2013, 243–244; id. 2014b). Consequently, *tractus* would actually be the barrier system in the second half of the 4<sup>th</sup> century in the Julian Alps. This hypothesis has been proposed by several authors in the past (Saria 1939, 146; Petru 1972, 356; id. 1976, 229; C. Zaccaria 1981, 82; Slapšak 1997, 49), but it is Kos who presented most broadly-based arguments in its favour. His interpretation is fundamentally different from most others, from Hans Zeiss (1928, 28) onwards, who understood the *tractus* as a much more extensive defence installation (a good overview of the different hypotheses

can be found in the said article by Kos, although others can be added to the list). As for opposing opinion, we should first mention that of historian Rajko Bratož, who published a comprehensive and thorough synthesis of the Late Antique period in the present-day Slovenia, with a large part of the book dedicated to the question of the Italian barrier walls and the *tractus* (Bratož 2014). He rejects the possibility of the defensive walls in the Alps as depicted in *Notitia Dignitatum* representing the entire *tractus*, arguing that *comes rei militaris* is too high a rank for an area covering only part of a province and would rather suit the command on the level of a diocese or of several provinces (Bratož 2014, 197–198).

Other reservations should be mentioned in connection with the interpretation of the *tractus* as proposed by Kos, particularly in attempting to understand the military presence in a time after the abandonment of the defence installations along the main road across Hrušica. In his interpretation of the *tractus*, Kos apparently only took into account the three successive sections of barrier walls along the main road between Vrhnik and Hrušica, including the forts along the walls. Excavations at Hrušica, at Lanišče, as well as the finds unearthed in advance of gas pipeline construction at the location of Turški klanci, just before the steepest section of the Roman road across the Hrušica Pass, very reliably date the use of the road and indirectly the date of the barrier walls on both sides of it (Ulbert 1981, 46–49; Ciglencečki 1985, 269–270; Kos 1986, 207; Pröttel 1996, 133–137; Pflaum 2007, 311–312; Frelj 2003, 26). All known small finds, with the exception of a single (unreliable?) solidus of Valentinianus III from Hrušica, date the abandonment of the road and the barrier wall to the early 5<sup>th</sup> century. After this time, i.e. when the note on the *tractus* in *Notitia Dignitatum* is presumed to have been written (Bratož 2014, 195), the road was no longer in use and the barrier walls associated with it were no longer needed. The abandonment of the road and the reasons for it have been extensively discussed in the 1985 article, where I also indicated the possibility of continued maintenance of the barrier installations in other sections. In connection with the published results of the first investigations at Korinjski hrib, I emphasised the significance of the road from the valley of the Krka river across the Bloke plateau, past the lake of Cerknjško jezero and into the valley of the Vipava river (Ciglencečki 1985, 267–270; id. 1997b, 186). It is the barrier

walls along this road, as well as those north of the former main road across Hrušica, that could represent the continuation of the Late Roman defence system (Ciglencečki, Milavec 2009, 175; Ciglencečki 2011). This, however, refutes Kos' argument of the pictogram in *Notitia Dignitatum* only representing the walls from the 4<sup>th</sup> century, as the research done thus far does not reveal how long into the 5<sup>th</sup> century (or possibly even later?) were the defence installations along the roads north and south of the abandoned main road across Hrušica in use.

Similarly as Kos, most other authors dealing with the barrier system equate the end of the central line of the barrier walls with the collapse of the entire defence system (cf. Christie 1991; Poulter 2013; Marcone 2004). However, we should emphasise the fact that the barrier walls along minor roads have been poorly investigated and barely published (overview in Kos 2015, 20–32). One of such investigations is the 1961 small-scale trial trenching of a tower at Rakitna (cf. Šašel 1971), another the 1970 investigation at Benete (Šašel, Urleb 1971), while the rescue investigations in Croatia only yielded a limited number of small finds that do not allow for a detailed date to be proposed (overview of the recent investigations in Starac 2009 and Kusetič 2014).

It is not possible to assert that the barrier walls were in use over a long period, but they may have been considered in the calculations of the Roman command as a possible factor of defence and therefore featured in *Notitia Dignitatum*. Important in that sense is the writing of Prosper of Aquitaine, from the mid-5<sup>th</sup> century, which includes a description of Attila's invasion of Italy in 452 and mentions that Aetius did not use the barriers in the Alps that could have served as the point of repelling the invaders (*Epitoma Chronicon* 1367).

The possibility of a continuous use of some of the barrier walls is indirectly suggested by the posts established in the vicinity of minor roads and inhabited in the time around 400, some even later (Tonovcov grad, Puštal, Limberk and others) (overview in Ciglencečki, Milavec 2009). I have mentioned this fact in a few earlier articles, but the military character of a settlement was most convincingly proven with the systematic investigations at Tonovcov grad (Ciglencečki 2011; Milavec 2011, 46–47; Modrijan 2011, 206). With the exception of the partially investigated Korinjski hrib where the remains of Late Roman wooden architecture were unearthed under the stone building from the 6<sup>th</sup> century, most other sites have not been inves-

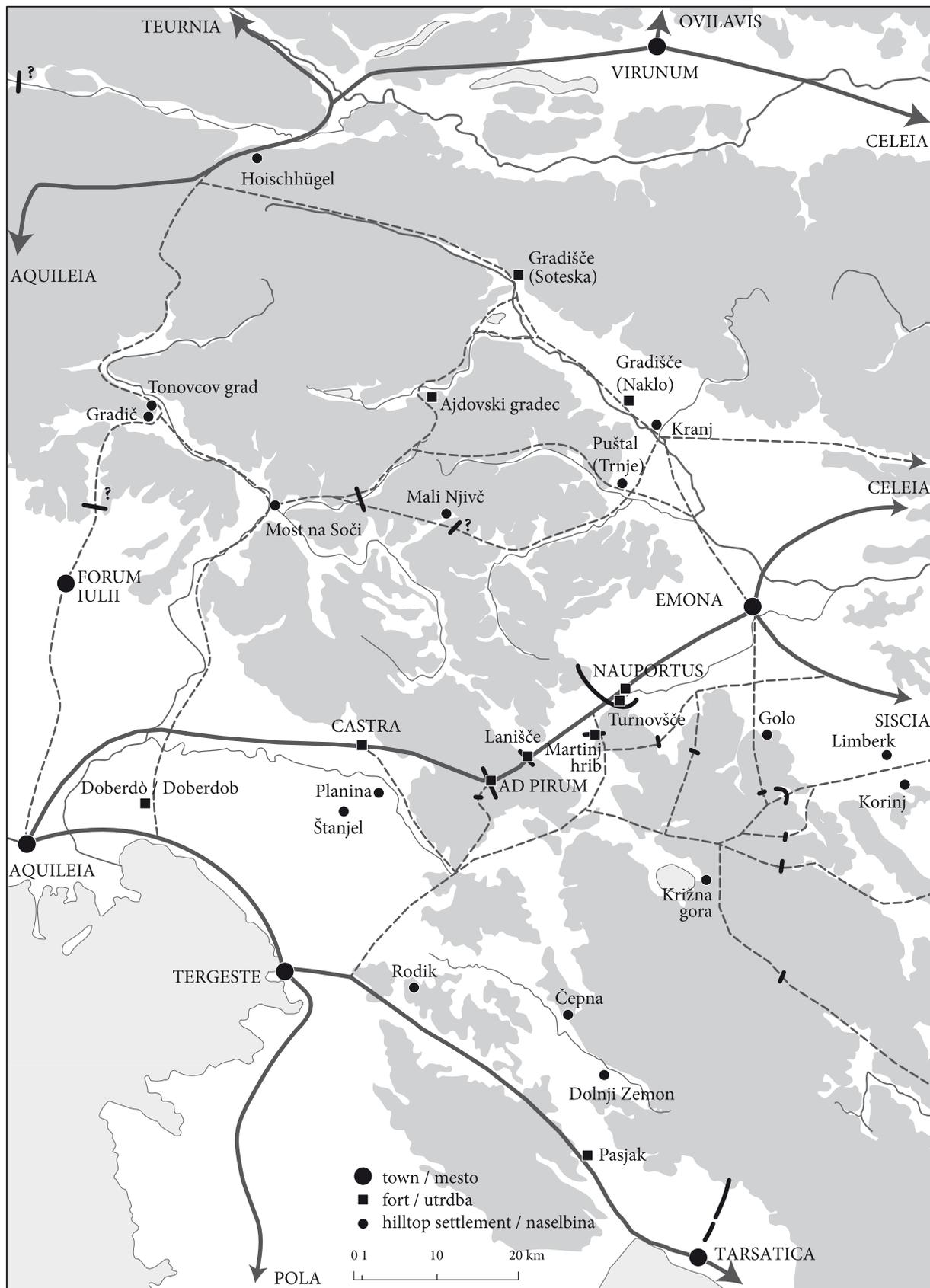


Fig. 1: Barrier walls, reconstructed road network and important Late Roman sites in the area of the barrier system.  
Sl. 1: Zaporni zidovi, rekonstruirana cestna mreža in pomembnejša poznorimska najdišča na območju zapor.

tigated in detail and only yielded stray coins and other metal finds mostly discovered with a metal detector (Ciglencečki 1985, 256–257). An example of the latter is the as yet uninvestigated hilltop settlement at Limberk, located in the vicinity of a road well protected with a barrier wall, where a team from the Narodni muzej Slovenije excavated a very important ironwork hoard that, together with the previously known metal finds and coins, confirmed the existence of the site into the first half of the 5<sup>th</sup> century (Ciglencečki 1985, 261–263; Šemrov 2004, 120–121; Bitenc, Knific 2001).

The identification of the posts of the *tractus* is entirely based on the existing interpretations and dating of the summary note and the pictogram in *Notitia Dignitatum*. As already mentioned, most scholars understand the *tractus* as a broadly-based defence of northern Italy set up in the early decades of the 5<sup>th</sup> century, more precisely between 402 and 425. The military posts of this defence zone, however, have not been named in ancient texts and are, in the absence of archaeological evidence, completely unknown. There have been several attempts at locating them, primarily when investigating individual sites. Volker Bierbrauer, for example, raised the possibility of the third habitation phase of the hilltop settlement at Colle Santino in Invillino coinciding with the frontier defence efforts. He writes that, at that time, the earlier settlement was systematically torn down and a new one constructed next to it. The new settlement was equipped with towers and inhabited by more people than previously. He noted the possible connection between the organisation of the *tractus* involving militia-like units of local Romanised inhabitants and the archaeologically evidenced civilian presence at the site in this time, which he substantiated with the find of a gilded bronze crossbow (*Zwiebelknopffibel*) fibula dated to around 400 (Bierbrauer 1987, 335–336). Based on certain weapons and pieces of military dress, Sabine Felgenhauer-Schmiedt made a similar supposition for the site at Kapelle (1993, 47).

In a broadly-based understanding of the defence of northern Italy, Milavec and myself presented several sites that, through convincing finds of military equipment and weapons, as well as strategic locations, may have functioned as military or auxiliary posts in the early part of the 5<sup>th</sup> century. The article only included sites that indicated the possibility of a defence-in-depth in the area of the south-eastern Alps, which was the topic at hand. However, investigations show that we may

add other sites to the list, for example Invillino, Kapelle, Monte Sorantri, Castelraimondo and others (Villa 2001, 858; Santoro Bianchi 1992, 193–194).

The current state of research allows us to reach two conclusions; the first is that most historians see the *tractus Italiae circa Alpes* as a system of defence in the first three decades of the 5<sup>th</sup> century, and the second is that there are hilltop settlements with military elements in the areas of easiest passage from the east and the north into Italy that also date – as opposed to Hrušica and other sites along the lines of the main road defence – to the early decades of the 5<sup>th</sup> century. Connecting the two thus seems a logical conclusion, as military posts were most needed in this particular area.

Contemporaneously with the forts of the *claustra*, fairly regularly designed forts were also constructed in the lowland sub-Alpine areas to the east, for example at Velike Malence, Zalog, Črnomelj, but also the numerous other posts on strategically significant locations that were constructed on naturally much better protected elevations (overview in Ciglencečki 2015, 398–415). All of these sites underscore the strategic importance of the wider area of passage from Illyricum to Italy and represent evidence of a defence-in-depth (see commentary below).

#### CHRONOLOGY AND CHARACTER OF FORTIFIED HILLTOP SETTLEMENTS

We should first turn our attention to the simplistic understanding of the beginning, duration and character of the fortified hilltop settlements that persists in foreign literature (primarily British and French) from the good, but nowadays and at least for the area of the eastern Alps, completely outdated overview of the Late Roman forts published by Johnson (1983, 240) onwards. Most later authors dated the beginning of the hilltop posts to the early 5<sup>th</sup> century, which is consequentially reflected in an erroneous understanding of the barrier system, the *tractus*, as well as the defence-in-depth. In view of that, it should be reiterated that most hilltop settlements already existed in the second half of the 4<sup>th</sup> century and that they are largely contemporaneous with the forts of the barrier system in the Julian Alps.

Additional misdating of the hilltop posts has been caused by the fact that scholars in the past dated their duration in a general manner, to the 4<sup>th</sup>–6<sup>th</sup> century span (cf. Egger 1942, 266; Petriko-

vits 1971, 192; Petru 1978, 362; Šašel 1980, 14). Later investigations have shown that the posts had at least three chronologically distinct habitation phases and may have only exceptionally been inhabited continuously, though this continuation has been conclusively proven at none of the posts (cf. Ciglenečki 2008, 485–490).

In the publication of the first systematically investigated hilltop settlement at Invillino, Bierbrauer dated the second phase, with a different economic orientation than previously, to the second half of the 4<sup>th</sup> century (Bierbrauer 1987, 292). In the review of this publication, Max Martin attributed the earliest stone-built architecture to this phase, which coexisted with the wooden buildings. He also noted that this phase represents the most important shift in the settlement history of the site (Martin 1992, 261–263). If the situation at Invillino is not completely clear given that we only have the results of the first systematic excavation at our disposal, coupled with a specific situation at the site, the area of the south-eastern Alps has revealed a number of fortified settlements, the investigations at which clearly date one of the most significant habitation phases to the time in question, i.e. the second half of the 4<sup>th</sup> century. Such dating of the beginning of the fortified hilltop settlements in the Late Roman period has been established since the beginning of investigations in the 1970s, as some of these settlements revealed large quantities of reliably datable small finds including coins, often in sealed contexts (overview in Petru 1969; id. 1978, 362). Archaeologists initially surmised a continuous habitation of these forts from the second half of the 4<sup>th</sup> to the late 6<sup>th</sup> century, with the beginning often set to a time after 378 (Petru 1978, 362; Šašel 1988, 102). In the first attempt at typologically classifying the then known hilltop sites, I indicated the possibility that most of these show an intense habitation phase in the 4<sup>th</sup> century and not necessarily a continuation through to the late 6<sup>th</sup> century (Ciglenečki 1979, 469). The dating into the second half of the 4<sup>th</sup> century, as proposed for individual sites, has been entirely confirmed by the analysis of the coin finds from individual hilltop posts, by the integral study of the hilltop sites in the south-eastern Alps and by all subsequent investigations in this area (Kos 1986, 216; Ciglenečki 1987, 121–127; id. 2008, 493–501).

The multitude of small metal finds, coins and precisely datable imported pottery allows us to reliably date a habitation phase on most of these sites in the second half of the 4<sup>th</sup> century, a number

of them showing the first concentrations of finds in the Valentinian period. This observation can be brought into connection with the information we have on the Emperor Valentinian's redistribution of soldiers to smaller forts at various strategically important locations in the limes area (MacMullen 1984, 577). It seems very likely that such redistribution also occurred along the important routes deep into the empire, particularly after the painful lesson learned during the incursion of the Quadi and the Sarmati in 374. Moreover, the spectre of small finds and the chronological phases is the same as that observed in the forts of the barrier system in the Julian Alps (overview of the characteristic small finds in Ciglenečki 1994; id. 2008).

Apart from Slovenian authors, the hilltop sites have been interpreted by a number of other authors who discussed the defence of the Late Roman Italy. Giulio Bigliardi published a typology of the hilltop sites and observed that those from the late 3<sup>rd</sup> and the 4<sup>th</sup> century show a military character (Bigliardi 2004, 339). We should be cautious, however, in considering such observations, as the posts from the late 3<sup>rd</sup> and the 4<sup>th</sup> century have as yet not been investigated in a measure that would allow us to claim their exclusively military character. What is certain is that some revealed a military presence, possibly small army units or militias within large settlements, such as Rodik (Slapšak 1978, 547) and Ančnikovo gradišče (Pröttel 1996, 153, Fn. 19; Strmčnik Gulič, Ciglenečki 2003, 30). We should also bear in mind that in the early period, when the threat was not so strongly felt, hilltop refugia for the civilian population were also very common (Ciglenečki 1997a, 193–195; id. 2008, 493–496).

Christie mentions the appearance of hilltop settlements from the 3<sup>rd</sup> century onwards – presumably in part encouraged by the state (Christie 2007, 567). He justifiably poses the question as to what extent the inhabitants of these settlements conducted military or observational tasks (ib., 569).

In an article on the defence of Italy in the Late Roman period, Michaël Vannesse (2007, 318) refuted the possibility of military hilltop sites in the south-eastern Alpine area existing prior to the early 5<sup>th</sup> century. Such a conclusion on the basis of ancient literary sources alone might have been understood in the time when the hilltop settlements and the small finds from them have been poorly known – compare Egger's similar deduction when dating the site at Duel over 80 years ago (!) (Egger 1929, 208–209) – but the currently available and reliable data as the result of long years

of systematic archaeological investigations of the hilltop sites in the eastern Alpine area clearly date the beginning of habitation on these sites at least in the second half of the 4<sup>th</sup> century, while some exhibit signs of an even earlier, albeit short, occupation (see above).

In 2010, Vannesse wrote an extensive monograph entirely dedicated to the question of the defence of northern Italy, which is based on different kinds of sources (Vannesse 2010). Part of his analysis deals with the interpretation of hilltop settlements, particularly with the problems related to identifying military posts in the Late Roman period. He states all the weak points of the interpretations proposed thus far and offers an overview of the presumed military posts in Italy. It appears, however, that his main goal was to show what he had already noted in his earlier work, namely that there are no 4<sup>th</sup>-century military posts outside the area of the barrier walls and hence no defence-in-depth. He omitted all the Late Roman fortified hilltop sites in the Slovenian part of *Venetia* (with the exception of the forts of the *claustra*) that revealed a military presence, although he did list all the similar posts and even those that are less reliably interpreted as such in the Italian part (Vannesse 2010, 281–345).

Poulter uses a different approach to refute dating the hilltop settlements to the second half of the 4<sup>th</sup> century. In his opinion, the coins from the second half of the 4<sup>th</sup> century recovered at the hilltop sites are all residual finds (!), hence the great number of these posts cannot be contemporaneous with the forts of the barrier system (Poulter 2013, 118). In a similar manner, he denies the chronological value of imported pottery and suggests that the hilltop sites were only constructed in the 5<sup>th</sup> century and were not military in character. He observes that the defence walls are never more than a metre thick, which is insufficient for defence walls proper, but merely for enclosures surrounding the church complexes from the late 5<sup>th</sup> and the 6<sup>th</sup> centuries! He also entirely dismisses the possibility of the pieces of military dress and weaponry confirming a military presence in these sites. The most compelling evidence for a non-military character of these sites is, in his opinion, the location high on tops of steep hills that prevented them from playing a prominent role in the defence of the mountain passes. He only recognises an importance of the hilltop sites in the late 5<sup>th</sup> and the 6<sup>th</sup> century, when they presumably functioned as religious centres and wonders if they could possibly have hosted a more substantial number of inhabitants (Poulter 2013, 119).

Poulter's text reveals a very poor knowledge of the hilltop settlements in the eastern Alpine area; it is very difficult to respond in detail to all of the gaps in the interpretation and there is, in fact, no need – a great deal of literature is available on that subject, part of which Poulter cites, but does not consider. The literature dating the hilltop posts into the 4<sup>th</sup> century has been discussed above, including the 2012 article by Kos who was able to convincingly argue that the hilltop sites were undoubtedly inhabited in the 4<sup>th</sup> century by analysing in detail the coins in settlements, towns and contemporary hoards. As far as Poulter's claim is concerned, that the coin finds from the 4<sup>th</sup> century cannot be taken as evidence of contemporary habitation, we should say that habitation is proven, in addition to the coins, by numerous reliably dated and well preserved finds that could only have been lost in a time when they were still in use and that it is, moreover, unimaginable for all the finds to be in secondary use in the 5<sup>th</sup> and 6<sup>th</sup> centuries, particularly the sigillata, the transport vessels and the glazed pottery! There are, of course, numerous instances of secondary use, particularly of coins and fibulae from the first two centuries, partly also of those from the 3<sup>rd</sup> and 4<sup>th</sup> centuries, but these objects are usually poorly preserved and show clear signs of prolonged use. More than a single habitation phase is also proven by clear stratigraphic relations between earlier, 4<sup>th</sup> century buildings and later buildings from the late 5<sup>th</sup> and the 6<sup>th</sup> century above them (e.g. at Tonovcov grad – Ciglencečki, Modrijan, Milavec 2011, 75–80). And finally, the most irrefutable evidence of the dating in the second half of the 4<sup>th</sup> century are the numerous sites where Antique occupation ended in the early 5<sup>th</sup> century, such as Kuzelin, Ančnikovo gradišče, Rodik, Dunaj, Zbelovska gora and Brinjeva gora (and contemporary cemetery), where the possibility of residual finds is non-existent (overview in Ciglencečki 2008, 494 with references).

The thin defensive walls can be understood when taking into consideration the location of these sites – on tops of steep hills that offered great natural protection. The area of the south-eastern Alps does have forts from the 4<sup>th</sup> century with thick walls, for example at Velike Malence, Zalog and Črnomelj, but these are located in the lowland and hence exposed to attacks with siege engines. The site that very clearly illustrates this consideration is Ančnikovo gradišče, where the walls in the relatively easily accessible part measure 1.4–1.8 m in thickness, but only 0.65–0.95 m in the parts that

are naturally well protected. Moreover, there are a number of Late Antique military posts with thin defensive walls known in Dalmatia. One of these is the systematically excavated fort at Gradina on the island of Žirje, dated to the 6<sup>th</sup> century, which protected the access to a harbour on the busy maritime route along the Adriatic coast (Pedišić 2001). The surviving remains of the fort consist of the defensive walls with five towers and a small command building. The defensive walls are 80–90 cm thick and excellently preserved, in places up to its original height of 6 m, and are well adapted to the terrain of the naturally protected rocky hill.

Poulter, in his simplistic portrayal of this very complex subject, also fails to distinguish between the sites from the second half of the 4<sup>th</sup> century that are strategically located close to roads and passages (e.g. Dunaj, Puštal, Velike Malence, Brinjeva gora, Črnomelj) and much later settlements from the late 5<sup>th</sup> and the 6<sup>th</sup> century that are removed from the main roads and located at higher altitudes (Ajdna, Prapretno, Vranje and others). In addition to those, there are also sites inhabited in both periods that were located so as to offer a strategic advantage as well as natural protection (e.g. Tonovcov grad, Puštal, Rifnik). The small finds recovered at these posts reveal the presence of foreign ethnic groups that offer additional weight to the strategic significance of the posts.

As for the finds interpreted as pieces of military dress, we should emphasise that most authors agree that certain elements of the male dress do represent marks of official, either civilian or military, positions (cf. Sommer 1984, 83–119; Bishop, Coulston 1993, 173–180; Southern, Dixon 1996, 118–121, 124–125; Pflaum 2002, 275–276; Bishop, Coulston 2006, 218–224; Vannesse 2010, 263–273; Christie 2007, 570). Given the location of the forts on steep hills of strategic significance, as well as the mostly modest architecture in the fort interiors, however, a civilian component can clearly be dismissed.

### DEFENCE-IN-DEPTH

Some of the authors dealing with the defence of northern Italy also tackled the problem of defence-in-depth and took either of two completely opposing views: most presume the existence of defence-in-depth, while others advocate a linear defence limited to the Alpine area. Some of the typical recently voiced opinions will be presented

below. In discussing the Langobard *castra* in Friuli, Christie showed a Late Roman origin of the forts mentioned by Paul the Deacon and expressed the opinion that the defence of towns and additional strategic forts (primarily on elevations) represented the Roman internal response to outside threats from the 3<sup>rd</sup> century onwards, which he interprets as defence-in-depth (Christie 2001, 239–242). Later, in an article on the defence of Pannonia and Italy in the Late Roman period, he established that Noricum and Pannonia were vital for the defence of Italy stretching from the Danube and across the Alps to the Po river (Christie 2007, 547). He emphasised the construction of the weapons' workshops in the towns of northern Italy that were connected with the road system to the provinces of Raetia, Noricum and Pannonia.

Marcone, in his discussion on Illyricum and the defence of Italy at its north-eastern frontier in the Late Roman period, states that the hilltop site at Doberdò/Doberdob represents part of a network of signalling posts connected with the *claustra*, which can be brought in relation with the hypothesis put forward by Šašel, on the existence of a military frontier zone with signalling posts and other military installations in a wider hinterland of the barrier system (Marcone 2004, 354; Šašel 1970–1971, 38). It should be stressed that, given the size of the fort at Doberdò/Doberdob (260 × 120 m) and its strategic location at a major Roman road, the fort might have housed a large army unit tasked with protecting the road (Furlani 1969; Ciglenečki 1987, 72 and 211; Maselli Scotti 1992, 371–372).

Bigliardi, in his overview of the hilltop settlements in the central and eastern Alps from the Late Republican to the Late Antique periods, established that *claustra* represents defence-in-depth based on a coordinated effort of mobile troops and a permanent defence in autonomous forts and in fortified towns (Bigliardi 2004, 336). He observed a demilitarisation of the northern arch of the Alps and a concentration of the army in main towns, primarily in Aquileia, Iulium Carnicum and Forum Iulii (id., 337).

In order to show Edward Lutwak's hypothesis on 'the grand strategy' as unacceptable, Vannesse uses the example of north-eastern frontier of Italy to negate the defence-in-depth presumed for this area. He discusses in detail the network of sites presumed to have served as the support of the system of the *claustra* barrier walls. He mentions refugia in the hinterland, as well as watch towers

and roads that enabled the provisioning of the militias in the hinterland; he does not doubt their existence, but believes they could only have appeared in the early 5<sup>th</sup> century and not before. He deems such a late beginning as understandable given the uncertainty after the invasions and considers them as a common result of a local initiative in a time when the Roman army had already abandoned the forts in the Julian Alps (Vannesse 2007, 318). Such a supposition leads to the conclusion that there was no defence-in-depth at the north-eastern frontier of Italy (on the archaeological contribution to the dating of the hilltop sites see the commentary in the chapter on the *tractus*).

In the publication of the investigations of the Late Antique hilltop site at Tonovcov grad near Kobarid, I attempted to show the place of the newly-discovered post with considerable habitation traces from the second half of the 4<sup>th</sup> and the first three decades of the 5<sup>th</sup> century within a wider area and within a reconstructed road network of the Late Roman period in the area north of the main road across Hrušica (Ciglenečki 2011). Based on the concentration and identical range of characteristic items of Late Roman male dress and weaponry as known from the previously investigated and contemporary military forts, as well as on the important strategic location along a major road, I interpreted the post as an element in the defence-in-depth of Italy, which in the second half of the 4<sup>th</sup> century functioned contemporaneously with the *claustra* barrier system. The hilltop site gained in importance in the first three decades of the 5<sup>th</sup> century, after the abandonment of the main road across Hrušica that caused an intensification of traffic along the minor roads, of which one of the more important ones led across the Predil/Predel Pass into Italy (Ciglenečki 2011, 270–271).

When interpreting the barrier system, Kos expressed the opinion that *praetentura Italiae* represented defence-in-depth, while *claustra* represented linear defence. With this in mind, he refuted the hypothesis on a military frontier zone (Kos 2013, 237, 243–244). He does not discuss the disposition in depth of the hilltop sites along the minor roads to the north and south of the main road across Hrušica also protected by barrier walls and only accepts the existence of a linear defence. We should stress here that, as already noted above, the contemporary hilltop sites along the roads that led through the barrier walls cannot be treated separately from the barrier walls, as their strategic location and the small finds certainly indicate a

use contemporaneous with that of the forts of the *claustra*. Moreover, the important forts in Vrhnika and Ajdovščina together with the three barrier walls positioned in depth along the well protected road across Hrušica certainly cannot be interpreted as mere linear defence!

Traces of earlier defence installations in the south-eastern Alps (*praetentura*), later hilltop sites with signs of presence of the Ostrogoths and the Langobards, but also some of the important battles of the Late Roman period that took place far beyond and in front of the barrier walls suggest that the defence of Italy was never only linear, but extended in depth and that the barrier walls only represented the most visible element of defence at least in the second half of the 4<sup>th</sup> century. The defence of Italy at its most exposed, north-eastern frontier certainly necessitated the protection and surveillance of the vast Alpine and sub-Alpine areas. Recent investigations of the fortified hilltop sites certainly support Šašel's hypothesis on a military zone in this difficult sector of Italian frontier defence, but also reveal an elaborate system of defence-in-depth (Šašel 1970–1971, 38–39).

The numerous investigated and some only hypothesised hilltop sites reveal not so much a 'grand strategy' as formulated by Lutwak, but more a continuous adaptation to individual dangerous military situations that occurred already in the last third of the 3<sup>rd</sup> century and became more frequent in the second half of the 4<sup>th</sup> century. The last, somewhat improvised attempts at an elastic defence-in-depth can be discerned in the hilltop sites in the first half of the 5<sup>th</sup> century. For the hilltop sites, such an interpretation is supported by the selected locations alone, on naturally well protected hills that eliminated the need for thick walls, which were sometimes even improvised, while the site interiors held stone buildings alongside wooden ones or possibly tents, suggesting that garrisons were not permanently stationed at all of them. The fairly numerous and high-quality pieces of weaponry and military dress do indicate a last ditch attempt at the defence of Italy. Identification of the hilltop sites of major military importance is based on their strategic location, but most of all on the structure of small finds closely comparable with that of the known military forts both in the vicinity (forts of the *claustra* barrier system) and along the limes, which hence allows us to at least partially determine their function.

The concentration of archaeological finds of a military character on strategically positioned



Fig 2: Sv. Pavel above Planina, 0.5 m lidar derived digital elevation model revealing Roman-period building features.  
 Sl. 2: Sv. Pavel nad Planino. Načrt najdišča z dobro vidnimi strukturami rimskih zgradb.  
 (Data processing and visualization\*: / Računalniška obdelava načrta\*\*: Edisa Lozić)

posts along major roads and paths shows that the defence of Italy covered a wider area of the Alpine and sub-Alpine areas, as the numerous hilltop sites in a wide belt on both sides of the barrier walls cannot be interpreted as mere refugia and civil

settlements. These hilltop sites may be understood as posts where small garrisons performed signalling tasks and, where needs be, controlled the neuralgic points, but also tracked, obstructed and intercepted possible enemies on their way to Italy.

\* Point cloud has been filtered with lasground software (settings: terrain type – forest or hills, granularity - ultra fine; ignore points with classification 7). DEM interpolated with ordinary kriging (settings: No. of sectors to search – 4, maximum No. of data from all sectors 64, maximum No. of data from each sector 16, maximum No. of data in all sectors – 8, blank node if more than 3 sectors are empty, radius 20 m). Complex multiple visualization merging RVT software derived visualizations sky-view factor and opens (settings for both: No. of search directions 16, radius 10 pixels, low level of noise removal) and WhiteboxGIS software derived deviation from mean elevation (settings: radius 7 cells).

(Data source: web service eVode at <http://evode.arso.gov.si/indexd022.html?q=node/12>, GKOT D48 files GK415\_78, GK415\_79, GK416\_78 and GK416\_79).

\*\* Oblak točk je filtriran s programom Lastools, orodje lasground (nastavitve zelo natančno, hribovje in gozd). Klasificiran oblak točk Kriging) z naslednjimi parametri: 4 sektorji iskanja, najmanj 3 točk iz vsakega sektorja ter najmanj 8 ter največ 64 točk iz vseh sektorjev, brez podatka v primeru, ko so prazni trije sektorji, polmer iskanja 20 m. (Vir podatkov: portal eVode Ministrstva za okolje in prostor, datoteke GKOT GK415\_78, GK415\_79, GK416\_78 in GK416\_79).

## CONCLUSION

This brief overview of some of the issues raised in recent publications was aimed at highlighting certain aspects pertaining to the role and even more so the chronology of the *claustra* barrier system, the *tractus* and the numerous, mainly hilltop sites that suggest a defence-in-depth. I particularly wished to draw attention to some of the persistent assertions and assumptions that fail to take into account the results of the intensive archaeological investigations taking place over the last forty years, that reinterpret these results at will or simply disregard them. Clearly, it is essential to have a good knowledge of the archaeological situation in this area in order to correctly illuminate the defensive measures of the Late Roman Empire. Our knowledge improves with the ever new data on the already known sites, as well as the discoveries of new ones. An example of the latter is the recently discovered Late Roman hilltop site at Mali Njivč in the heart of the *claustra* barrier system that revealed a characteristic array of the pieces of male dress and weaponry (Istenič 2015). There

are also new techniques of field reconnaissance and remote sensing, most importantly the use of LiDAR, which often offer a better understanding of the already known, but poorly investigated sites hidden underneath a woodland vegetation cover. Such is the hilltop site at Sv. Pavel above Planina (Fig. 2), which Petru included into the barrier system (Svoljšak 1966; Petru 1969, 16–17; Ciglencčki 1997a, 197–198). It is overlooking the crossing of the two roads leading from the fort in Ajdovščina (*Castra*) towards Emona and has been previously only known for the defensive walls and individual Late Roman finds. In addition to that, the LiDAR model has confirmed the existence of numerous buildings in the interior that reveal a very large and important Late Roman post in a crucial strategic location. It is an additional element of the in-depth network of hilltop sites that functioned contemporaneously with the barrier system in the Julian Alps and that were later used as independent forts aimed at deterring and stopping the enemy from entering into Italy.

*Translation: Andreja Maver*

- BAUSOVAC, M., D. PIRKMAJER 2012, Late Roman glazed pottery from Rifnik near Celje. – *Acta Rei Cretariae Romanae Fautorum* 42, 33–39.
- BEKIĆ, L. 2009a, Antički numizmatički nalazi / Reperti numismatici di età antica. – In: Bekić, Radić Štivić (eds.) 2009, 379–383.
- BEKIĆ, L. 2009b, Zaključak / Conclusione. – In: Bekić, Radić Štivić (eds.) 2009, 379–383.
- BEKIĆ, L., N. RADIĆ ŠTIVIĆ (eds.) 2009, *Tarsatički principij. Kasnoantičko vojno zapovjedništvo / Principia di Tarsatica. Quartiere generale d'epoca tardoantica*. – Rijeka.
- BIERBRAUER, V. 1987, *Invillino-Ibligo in Friaul 1. Die römische Siedlung und das spätantik-frühmittelalterliche Castrum*. – Münchner Beiträge zur Vor- und Frühgeschichte 33.
- BIGLIARDI, G. 2004, *Alpes, id est Claustra Italiae*. – La trasformazione dei complessi fortificati romani dell'arco Alpino centro-orientale tra l'età tardo-repubblicana e l'età tardo-antica. – *Aquileia Nostra* 75, 317–372.
- BISHOP, M. C., J. C. N. COULSTON 1993, *Roman Military Equipment from the Punic Wars to the Fall of Rome*. – London.
- BISHOP, M. C., J. C. N. COULSTON 2006<sup>2</sup>, *Roman Military Equipment from the Punic Wars to the Fall of Rome*. – Oxford.
- BITENC, P., T. KNIFIC 2001, Zakladna najdba. Limberk nad Veliko Račno. – In: P. Bitenc, T. Knific, *Od Rimljanov do Slovanov. Predmeti*, 32–33, Ljubljana.
- BRATOŽ, R. (ed.) 1996, *Westillyricum und Nordostitalien in der spätrömischen Zeit (Zahodni Ilirik in severovzhodna Italija v poznorimski dobi)*. – Situla 34.
- BRATOŽ, R. 2014, *Med Italijo in Ilirikom. Slovenski prostor in njegovo sosedstvo v pozni antiki*. – Zbirka Zgodovinskega časopisa 46, Dela I. razreda SAZU 39.
- BREZNIK, A., M. STOKIN 2014, Upravljanje območja Claustra Alpium Iuliarum (Management of the Claustra Alpium Iuliarum Area). – In: J. Kusetič (ed.), *Claustra Alpium Iuliarum. Med raziskovanjem in upravljanjem (Claustra Alpium Iuliarum. Between research and management)*, 133–164, Ljubljana.
- CHRISTIE, N. 1991, The Alps as a frontier (A.D. 168–774). – *Journal of Roman Archaeology* 4, 410–430.
- CHRISTIE, N. 2001, The Castra of Paul the Deacon and the Longobard frontier in Friuli. – In: Paolo Diacono e il Friuli altomedievale (secc. VI–X). *Atti del XIV Congresso internazionale di studi sull'Alto Medioevo. Cividale del Friuli, 24–29 settembre 1999*, Atti dei congressi 14, 231–251, Spoleto.
- CHRISTIE, N. 2007, From the Danube to the Po: the Defence of Pannonia and Italy in the Fourth and Fifth Centuries AD. – In: A. G. Poulter (ed.), *The Transition to Late Antiquity. On the Danube and Beyond*, Proceedings of the British Academy 141, 547–578.
- CIGLENEČKI, S. 1979, Kastel, utrjeno naselje ali refugij? (Kastell, befestigte Siedlung oder Refugium?) – *Arheološki vestnik* 30, 459–472.

- CIGLENEČKI, S. 1985, Potek alternativne ceste Siscija–Akvileja na prostoru zahodne Dolenjske in Notranjske v času 4. do 6. stoletja. Preliminarno poročilo o raziskovanju Korinjskega hriba in rekognosciranjih zahodne Dolenjske (Der Verlauf der Alternativstrasse Siscia-Aquileia im Raum von Westdolenjsko und Notranjsko in der Zeitspanne vom 4. bis zum 6. Jh. Präliminarbericht über die Erforschung des Korinjski hrib und die Rekognoszierungen von Westdolenjsko). – *Arheološki vestnik* 36, 255–284.
- CIGLENEČKI, S. 1987, Höhenbefestigungen aus der Zeit vom 3. bis 6. Jh. im Ostalpenraum / Višinske utrdbе iz časa 3. do 6. st. v vzhodnoalpskem prostoru. – Dela 1. razreda SAZU 31.
- CIGLENEČKI, S. 1994, Höhenbefestigungen als Siedlungsgrundeinheit der Spätantike in Slowenien. – *Arheološki vestnik* 45, 239–266.
- CIGLENEČKI, S. 1997a, Strukturiranost poznorimske poselitve Slovenije (Strukturierung spätantiker Besiedlung Sloweniens). – *Arheološki vestnik* 48, 191–202.
- CIGLENEČKI, S. 1997b, Die wichtigsten Völkerwanderungszeitlichen Einfallstrassen von Osten nach Italien im Licht der neuesten Forschungen. – In: *Peregrinatio Gothica, Jantarová stezka*, Supplementum ad Acta Musei Moraviae, Scientiae sociales 82, 179–191.
- CIGLENEČKI, S. (ed.) 1997c, Mednarodni simpozij “Zahodni Ilirik in severovzhodna Italija v poznorimski dobi” / Internationales Symposium “Westillyricum und Nordostitalien in der spätrömischen Zeit” (Zemona, 5.–8. September 1994). – *Arheološki vestnik* 48, 117–370.
- CIGLENEČKI, S. 2008, Castra und Höhengiedlungen vom 3. bis 6. Jahrhundert in Slowenien. – In: H. Steuer, V. Bierbrauer (eds.), *Höhensiedlungen zwischen Antike und Mittelalter von den Ardennen bis zur Adria*, Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde 58, 481–532, Berlin, New York.
- CIGLENEČKI, S. 2011, Utrdba Tonovcov grad – pomemben člen poznorimske obrambe Italije / The fort at Tonovcov grad – an important part of the Late Roman defence system of Italy. – In: S. Ciglenečki, Z. Modrijan, T. Milavec, *Poznoantična utrjena naselbina Tonovcov grad pri Kobaridu. Naselbinski ostanki in interpretacija / Late Antique fortified settlement Tonovcov grad near Kobarid. Settlement remains and interpretation*, Opera Instituti Archeologici Sloveniae 23, 259–271.
- CIGLENEČKI, S. 2015, Late Roman army, *Claustra Alpium Iuliarum* and the fortifications in the south-eastern Alps / Poznorimska vojska, *Claustra Alpium Iuliarum* in utrjena krajina v jugovzhodnih Alpah. – In: J. Istenič, B. Laharnar, J. Horvat (eds.), *Evidence of the Roman army in Slovenia / Sledovi rimske vojske na Slovenskem*, Katalogi in monografije 41, 385–430.
- CIGLENEČKI, S., T. MILAVEC 2009, The defence of north-eastern Italy in the first decennia of the 5th century. – *Forum Iulii* 33, 175–187.
- CIGLENEČKI, S., Z. MODRIJAN, T. MILAVEC 2011, *Poznoantična utrjena naselbina Tonovcov grad pri Kobaridu. Naselbinski ostanki in interpretacija / Late Antique fortified settlement Tonovcov grad near Kobarid. Settlement remains and interpretation*. – Opera Instituti Archeologici Sloveniae 23.
- CURK, I. 1997, *Claustra Alpium Iuliarum* als Grenzgebiet unterschiedlichen Ethnien in der späten Kaiserzeit und in den Kleinfunden. – In: *Roman Frontier Studies 1995. Proceedings of the XVIIth International Congress of Roman Frontier Studies*, Oxbow Monograph 91, 439–444, Oxford.
- DEGRASSI, A. 1954, *Il confine nord-orientale dell'Italia romana. Ricerche storico-topografiche*. – *Dissertationes Bernenses* 1/6.
- EGGER, R. 1929, Ausgrabungen in Feistritz a.d. Drau, Oberkärnten. Der Hügel bei Duell. – *Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 25, Bbl., 159–216.
- EGGER, R. 1942, *Die Ostalpen in der Spätantike, Das neue Bild der Antike* 2, 395 ss. – (Cit. after: *Römische Antike und frühes Christentum. Ausgewählte Schriften von Rudolf Egger* 1, 1962, 257–271).
- FELGENHAUER-SCHMIEDT, S. 1993, *Das Kapelle (“die Kåpile”) ob Jadersdorf. Eine spätantik-frühmittelalterliche Höhengiedlung in Oberkärnten*. – *Aus Forschung und Kunst* 27.
- FRELIH, M. 2003, *Logatec – Longaticum in rimski obrambni sistem Claustra Alpium Iuliarum. S prispevkom o bitki pri reki Frigidus (Soča) leta 394*. – *Logatec*.
- FURLANI, U. 1969, Una stazione militare romana sul Castellazzo di Doberdò del Lago. – *Aquileia Nostra* 40, 57–70.
- ISTENIČ, J. 2015, Mali Njivč above Novaki / Mali Njivč nad Novaki. – In: J. Istenič, B. Laharnar, J. Horvat (eds.), *Evidence of the Roman army in Slovenia / Sledovi rimske vojske na Slovenskem*, Katalogi in monografije 41, 365–384.
- JOHNSON, S. 1983, *Late Roman Fortifications*. – London.
- KNIFIC, T., M. TOMANIČ-JEVREMOV 1996, Prva znamenja velikega preseljevanja ljudstev v Sloveniji (Erste Anzeichen der großen Völkerwanderung in Slowenien). – In: *Ptujski zbornik* 6/1, 369–393.
- KOS, P. 1986, *The Monetary Circulation in the Southeastern Alpine Region ca. 300 B. C. – A. D. 1000 (Denarni obtok na prostoru Jugovzhodnih Alp 300 pr. n. št. – 1000)*. – *Situla* 24.
- KOS, P. 2012, The construction and abandonment of the *Claustra Alpium Iuliarum* defence system in light of the numismatic material / Gradnja in opustitev obrambnega sistema *Claustra Alpium Iuliarum* v luči numizmatičnega gradiva. – *Arheološki vestnik* 63, 265–300.
- KOS, P. 2013, *Claustra Alpium Iuliarum* – protecting Late Roman Italy. – *Studia Europea Gnesnensia* 7, 233–261.
- KOS, P. 2014a, Izgradnja zapornega sistema *Claustra Alpium Iuliarum*. Antični, arheološki in numizmatični viri / Construction of the *Claustra Alpium Iuliarum* fortifications. Historical, archaeological and numismatic sources. – In: J. Kusetič, P. Kos, A. Breznik, M. Stokin (eds.), *Claustra Alpium Iuliarum – med raziskovanjem in upravljanjem / Claustra Alpium Iuliarum – Between Research and Management*, 112–132, Ljubljana.
- KOS, P. 2014b, Barriers in the Julian Alps and *Notitia Dignitatum* / Zapore v Julijskih Alpah in *Notitia Dignitatum*. – *Arheološki vestnik* 65, 409–422.
- KOS, P. 2015, *Ad Pirum (Hrušica): Claustra Alpium Iuliarum*. – *Zavod za varstvo kulturne dediščine Slovenije. Vestnik* 26/1.

- KUSETIČ, J. 2014, III. *Claustra Alpium Iuliarum* – topografski in arheološki pregled / The *Claustra Alpium Iuliarum* – A topographical and archaeological Overview. – In: J. Kusetič, P. Kos, A. Breznik, M. Stokin (eds.), *Claustra Alpium Iuliarum – med raziskovanjem in upravljanjem / Claustra Alpium Iuliarum – Between Research and Management*, 27– 111, Ljubljana.
- MACMULLEN, R. 1984, The Roman emperor's army costs. – *Latomus* 43, 571–580.
- MAGRINI, C., F. SBARRA 2009, Late Roman glazed pottery from the area of *Claustra* (Slovenia): Some preliminary remarks. – In: *La ceramica invetriata tardoromana nell'arco Alpino orientale e nelle province Danubiane. Primi risultati di un progetto internazionale / Late Roman glazed pottery productions in eastern Alpine area and Danubian provinces. First results of an international project*, Atti del I incontro Internazionale di Archeologia a Carlino, 14–15 dicembre 2007, 27–32, Carlino.
- MARCONI, A. 2002, Tra Adriatico e Danubio nel IV secolo. – In: M. Buora, W. Jobst (eds.), *Roma sul Danubio. Da Aquileia a Carnuntum lungo la via dell'ambra*, Cataloghi e Monografie Archeologiche dei Civici Musei di Udine 6, 173–178.
- MARCONI, A. 2004, L'Ilirico e la frontiera nordorientale dell'Italia nel IV secolo d.C. – In: G. Urso (ed.), *Dall'Adriatico al Danubio. L'Ilirico nell'età greca e romana, Atti del Convegno internazionale. Cividale del Friuli, 25–27 settembre 2003*, I convegni della Fondazione Niccolò Canussio 3, 343–359, Pisa.
- MARTIN, M. 1992, Volker Bierbrauer, Invillino – Invillino-Ibligo in Friaul 1, Die römische Siedlung und das spätantik-frühmittelalterliche Castrum (Münch. Beitr. z. Vor- u. Frühgesch. 33) and Volker Bierbrauer, Invillino-Ibligo in Friaul 2, Die spätantiken und frühmittelalterlichen Kirchen (Münch. Beitr. z. Vor- u. Frühgesch. 34). – *Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte* 75, 260–263.
- MASELLI SCOTTI, F. 1992, Due fortificazioni tardoantiche ad oriente di Aquileia. – In: *Felix temporis reparatio. Atti del Convegno Archaeologico Internazionale "Milano capitale dell'impero romano" Milano, 8–11 marzo 1990*, 369–373, Milano.
- MILAVEC, T. 2011, Kovinske najdbe / Metal finds. – In: Z. Modrijan, T. Milavec, *Poznoantična utrjena naselbina Tonovcov grad pri Kobaridu. Najdbe / Late Antique fortified settlement Tonovcov grad near Kobarid. Finds*, Opera Instituti Archeologici Sloveniae 24, 21–81.
- MODRIJAN, Z. 2009, Glazed pottery from Korinjski hrib and Tonovcov grad (Slovenija). – In: *La ceramica invetriata tardoromana nell'arco Alpino orientale e nelle province Danubiane. Primi risultati di un progetto internazionale / Late Roman glazed pottery productions in eastern Alpine area and Danubian provinces. First results of an international project*, Atti del I incontro Internazionale di Archeologia a Carlino, 14–15 dicembre 2007, 33–40, Carlino.
- MODRIJAN, Z. 2011, Keramika / Pottery. – In: Z. Modrijan, T. Milavec, *Poznoantična utrjena naselbina Tonovcov grad pri Kobaridu. Najdbe / Late Antique fortified settlement Tonovcov grad near Kobarid. Finds*, Opera Instituti Archeologici Sloveniae 24, 121–219.
- MODRIJAN, Z., S. CIGLENEČKI, T. MILAVEC 2011, Terenski izvid / Field report. – In: S. Ciglenečki, Z. Modrijan, T. Milavec, *Poznoantična utrjena naselbina Tonovcov grad pri Kobaridu. Naselbinski ostanki in interpretacija / Late Antique fortified settlement Tonovcov grad near Kobarid. Settlement remains and interpretation*, Opera Instituti Archeologici Sloveniae 23, 65–162.
- NAPOLI, J. 1997, *Recherches sur les fortifications linéaires romaines*. – Collection de l'École Française de Rome 229.
- OSMUK 1997, Ajdovščina - Castra. Stanje arheoloških raziskav (1994) (Ajdovščina - Castra. Forschungsstand (1994)), *Arheološki vestnik* 48, 1997, 119–130.
- PEDIŠIČ, I. 2001, Ostaci stambene arhitekture u bizantskoj utvrdi na otoku Žirju. – *Histria Antiqua* 7, 123–130.
- PETRIKOVITS, H. 1971, Fortifications in the North-Western Roman Empire from the Third to the Fifth Centuries A.D. – *Journal of the Roman Studies* 61, 178–218.
- PETRU, P. 1969, Najnovija istraživanja Julijskih Alpa. – *Osječki zbornik* 12, 5–24.
- PETRU, P. 1972, Novejše arheološke raziskave *Claustra Alpium Iuliarum* in kasnoantičnih utrdb v Sloveniji (Recenti ricerche archeologiche delle *Claustra Alpium Iuliarum* e delle fortificazioni tardo antiche in Slovenia). – *Arheološki vestnik* 23, 343–366.
- PETRU, P. 1975, Kasnoantične zapore. – In: *Arheološka najdišča Slovenije*, 105, Ljubljana.
- PETRU, P. 1976, Ricerche recenti sulle fortificazioni nelle Alpi orientali. – In: *Aquileia e l'arco alpino orientale, Atti della 6 settimana di studi aquileiesi, 25 aprile - 1 maggio 1975, Udine*, Antichità Altoadriatiche 9, 229–236.
- PETRU, P. 1978, Poznoantična poselitev Slovenije (Late Roman settlement in Slovenia). – *Arheološki vestnik* 29, 359–367.
- PETRU, P. 1980–1981, Eine bisher unbekannte Römerstrasse und die Sperrmauer auf der Hrušica (Ad Pirum). – *Archaeologia Jugoslavica* 20–21 (1983), 132–135.
- PFLAUM, V. 2002, Spätromische kerbschnittverzierte Gürtelbeschläge im Gebiet des heutigen Slowenien. – In: G. Cuscito, M. Verzár-Bass (eds.), *Bronzi di eta romana in Cisalpina*, Antichità Altoadriatiche 51, 259–287.
- PFLAUM, V. 2007, The supposed Late Roman hoard of tools and a steelyard from Vodice near Kalce / Domnevna poznorimska zakladna najdba orodja in hitre tehtnice z Vodice pri Kalcah. – *Arheološki vestnik* 58, 285–332.
- POULTER, A. 2013, An indefensible frontier: the *claustra Alpium Iuliarum*. – Jahreshefte des Österreichischen Archäologischen Instituts in Wien 81, 97–126.
- PRÖTTEL, Ph. M. 1996, *Mediterrane Feinkeramikimporte des 2. bis 7. Jahrhunderts n. Chr. im oberen Adriaikum und in Slowenien*. – Kölner Studien zur Archäologie der Römischen Provinzen 2.
- SANTORO BIANCHI, S. 1992, I risultati dello scavo. – In: *Castelraimondo. Scavi 1988–1990, I. Lo scavo*, 125–227, Roma.
- SARIA, B. 1939, Doneski vojaški zgodovini naših krajev v rimski dobi (Beiträge zu einer Militärgeschichte unseres Gebietes in römischer Zeit). – *Glasnik muzejskega društva za Slovenijo* 20, 115–151.
- SLAPŠAK, B. 1978, Rodik-Ajdovščina. – *Arheološki vestnik* 29, 546–547.

- SLAPŠAK, B. 1997, Starejša zgodovina Rodika. – In: *Rodik med Brkini in Krasom: zbornik ob 350. letnici cerkve*, 19–64, Koper.
- SOKOL, V. 1994, Das spätantike Kastum auf dem Kuzelin bei Donja Glavnica. – *Arheološki vestnik* 45, 199–209.
- SOKOL, V. 1998, *Rimski metal s Kuzelina*. – Sestve, Zagreb.
- SOMMER, M. 1984, Die Gürtel und Gürtelbeschlüge des 4. und 5. Jahrhunderts im römischen Reich. – *Bonner Hefte zur Vorgeschichte* 22.
- SOUTHERN, P., K. R. DIXON 1996, *The Late Roman Army*. – Batsford, London.
- STARAC, R. 2009, Liburnijski limes – arheološko-konservatorski radovi na Lokalitetima Vranjeno i Za Presiku / Limes Liburnico – Ricerche archeologiche e lavori di recupero nelle località di Vranjeno e Za Presikom. – In: Bekić, Radić Štivić (eds.) 2009, 275–287.
- STRMČNIK GULIČ, M., S. CIGLENEČKI 2003, *Ančnikovo gradišče pri Jurišni vasi. Poznoantična in zgodnjerednjeveška naselbina na Pohorju / Late Antique and Early Medieval Settlement on Pohorje*. – Slovenska Bistrica.
- SVOLJŠAK, D. 1966, Arheološka podoba gradišča pri Sv. Pavlu nad Planino. – *Goriška srečanja* 1, 46–49.
- ŠAŠEL, J. 1970–1971, Alpes Iuliana. – *Arheološki vestnik* 21–22, 33–44 (= *Opera Selecta*, Situla 30, Ljubljana 1992, 728–739).
- ŠAŠEL, J. 1971, Rakitna. – In: J. Šašel, P. Petru (eds.), *Claustra Alpium Iuliarum I. Fontes*. – Katalogi in monografije 5, 71–74.
- ŠAŠEL, J. 1975, Kasnoantično in zgodnjerednjeveško obdobje v Vzhodnih Alpah in arheološke najdbe na Slovenskem. – In: *Arheološka najdišča Slovenije*, 68–73, Ljubljana.
- ŠAŠEL, J. 1980, Zur Historischen ethnographie des mittleren Donaupraums. – In: *Die Völker an der mittleren und unteren Donau im fünften und sechsten Jh.*, Veröffentlichungen der Kommission für Frühmittelalterforschung 4 (= Österr. Akad. d. Wiss., phil. hist. Klasse, Denkschriften 145), 13–17.
- ŠAŠEL, J. 1988, Der Ostalpenbereich zwischen 550 und 650 n. Chr. – In: *Studien zur Ethnogenese*, Rheinisch-Westfälische Akademie der Wissenschaften, Abhandlung 78, Bd. 2, 97–106.
- ŠAŠEL, J., P. PETRU (eds.) 1971, *Claustra Alpium Iuliarum I. Fontes*. – Katalogi in monografije 5.
- ŠAŠEL, J., M. URLEB 1971, Arheološka raziskovanja na Benetah. – *Mladinski raziskovalni tabori 1970*, 29–36, Ljubljana.
- ŠEMROV, A. 2004, *Die Fundmünzen der römischen Zeit in Slowenien* 5. – Mainz am Rhein.
- ULBERT, T. 1981, *Das spätrömische Kastell AD PIRVM – Hrušica*. – In: *Ad Pirum (Hrušica). Spätrömische Passbefestigung in den Julischen Alpen*, Münchner Beiträge zur Vor- und Frühgeschichte 31, 3–50.
- VANNESSE, M. 2007, *I claustra Alpium Iuliarum: un riesame della questione circa la difesa del confine Nord-Orientale dell'Italia in epoca tardoromana*. – *Aquileia Nostra* 78, 2007, 313–339.
- VANNESSE, M. 2010, *La défense de l'Occident romain pendant l'Antiquité tardive: recherches géostratégiques sur l'Italie de 284 à 410 ap. J.-C.* – Collection Latomus 326.
- VIDRIH PERKO, V., M. ŽUPANČIČ 2003, Il popolamento della Slovenia sudoccidentale e dell'Istria settentrionale nel periodo tarodomano e nell'alto medio evo alla luce delle ceramiche di importazione. – In: *Histria Antiqua* 11, 457–476.
- VILLA, L. 2001, Nuovi dati archeologici sui centri fortificati tardoantichi-altomedievali del Friuli. – In: *Paolo Diacono e il Friuli altomedievale (secc. VI - X)*, Centro Italiano di Studi sull'Alto Medioevo. Atti dei congressi 14, 825–861, Spoleto.
- ZACCARIA, C. 1981, Le fortificazioni romane e tardo antiche. – In: T. Miotti (ed.), *Storia ed evoluzione dell'arte delle fortificazioni in Friuli*, Castelli dell Friuli 5, 61–95.
- ZACCARIA, M. 2012, *Claustria Alpium Iuliarum: a Research Plan*. – *Haemus* 1, 135–167.
- ZEISS, H. 1928, Die Nordgrenze des Ostgotenreiches. – *Germania* 12, 25–34.

Slavko Ciglenečki  
 Znanstvenoraziskovalni center SAZU  
 Inštitut za arheologijo  
 Novi trg 2  
 SI-1000 Ljubljana  
 slavko.ciglenecki@zrc-sazu.si