



# TERRE DI MARE

L'ARCHEOLOGIA DEI PAESAGGI COSTIERI E LE VARIAZIONI CLIMATICHE

Atti del Convegno Internazionale di Studi  
*Trieste, 8-10 novembre 2007*

a cura di  
**Rita Auriemma e Snježana Karinja**



Progetto finanziato con il contributo del  
Fondo Europeo di Sviluppo Regionale

Progetto Interreg Italia-Slovenia IIIA AltoAdriatico



# TERRE DI MARE

---

L'ARCHEOLOGIA DEI PAESAGGI COSTIERI E LE VARIAZIONI CLIMATICHE

---

**Atti del Convegno Internazionale di Studi**  
*Trieste, 8-10 novembre 2007*

a cura di

**Rita Auriemma e Snježana Karinja**

Il volume, pubblicato nell'ambito del Progetto Interreg IIIA Italia-Slovenia *AltoAdriatico*  
(*I siti costieri dell'alto arco adriatico: indagini topografiche a terra e a mare*)  
è stato stampato con il contributo della Fondazione Benefica Kathleen Foreman Casali,  
della Fondazione Cassa di Risparmio di Trieste e della Società T.O. DELTA.

In copertina: Punta Sottile, Muggia (Ts); il molo romano (foto **Fabrizio Antonioli** - ENEA).

Cartografia informatizzata: **Dorotea Riccobono**

Sistema informativo geografico su DVD allegato: **Michele Fernetti**

Impaginazione: **GB Comunicazione** - Trieste

Le immagini di beni di proprietà dello Stato Italiano vengono diffuse su concessione del Ministero per i Beni e le Attività Culturali, Soprintendenza per i Beni Archeologici del Friuli Venezia Giulia.

È vietata l'ulteriore riproduzione o duplicazione dell'immagine con qualsiasi mezzo senza l'autorizzazione della Soprintendenza stessa.

© 2008 - Università degli Studi di Trieste

Dipartimento di Scienze dell'Antichità "Leonardo Ferrero"

via del Lazzaretto Vecchio, 6 - 34123 Trieste, Italia

tel.: +390405582800; fax: +390405582804 - 2814

e-mail: norio@units.it

© 2008 - Pomorski muzej - Museo del mare "Sergej Mašera" Piran - Pirano

Cankarjevo nabrežje 3, SI - 6330 Piran, Slovenija

tel.: +386(0)56710040; fax.: +386(0)56710050

e-mail: muzej@pommuz-pi.si

# Indice

## Presentazione

<i>Gino Bandelli</i> .....	11
<i>Monika Verzár</i> .....	12
<i>Martina Gamboz</i> .....	14
<i>Flavio Bonin</i> .....	15
<b>Il Progetto Interreg Italia-Slovenia IIIA <i>AltoAdriatico</i>: risultati e prospettive</b> Rita Auriemma, Snježana Karinja .....	17

## I Sessione

### Il progetto Interreg “AltoAdriatico”: risultati e prospettive

<b>I castellieri di Trieste tra Carso e mare</b> Ambra Betic, Federico Bernardini, Emanuela Montagnari Kokelj .....	25
<b>Il sito di Zaule presso Trieste (Italia nord-orientale)</b> Federico Bernardini, Ambra Betic .....	38
<b>Sermino protostorica e i castellieri del litorale sloveno</b> Maša Sakara Sučević .....	44
<b>Archaeological research of maritime infrastructure of Roman settlements on the Slovenian coast of Istria (1993-2007)</b> Marko Stokin, Andrej Gaspari, Snježana Karinja, Miran Erič .....	56
<b>Terre di mare: paesaggi costieri dal Timavo alla penisola muggesana</b> Rita Auriemma, Valentina Degrassi, Patrizia Donat, Dario Gaddi, Susanna Mauro, Flaviana Oriolo, Dorotea Riccobono .....	75
<b>I sistemi portuali e gli insediamenti costieri in epoca medievale dalle Foci del Timavo a Muggia</b> Pietro Riavez .....	213
<b>Archaeological and geomorphological data to deduce sea level changes during the late Holocene in the Northeastern Adriatic</b> F. Antonioli, S. Furlani, K. Lambeck, F. Stravisi, R. Auriemma, D. Gaddi, A. Gaspari, S. Karinja, V. Kovačić .....	221

## II Sessione

### Geomorfologia: dal paleopaesaggio agli assetti costieri del futuro. Le evidenze archeologiche sommerse come **markers** delle variazioni del livello del mare

<b>Sea level change and archaeological coastal sites: an interdisciplinary approach applied along the south-eastern coast of Sicily</b> Gianfranco Scicchitano, Fabrizio Antonioli, Elena Flavia Castagnino Berlinghieri, Carmelo Monaco .....	239
<b>Modificazioni della linea di costa nella laguna di Sulki in epoca punico-romana (Isola di S. Antioco, Sardegna sud-occidentale)</b> Paolo Orrù, Emanuela Solinas, Elisabetta Frau .....	247
<b>Notch development inferred by limestone lowering rates in Northeastern Adriatic</b> Stefano Furlani, Franco Cucchi, Anna Rossi, Roberto Odorico .....	257

Il porto e la peschiera di Miseno (NA): nuovi dati archeologici per lo studio delle variazioni del livello del mare nell'area flegrea Alessandra Benini .....	269
Strutture portuali di Via dei Cavazzeni (Trieste): indicazioni sul livello del mare Valentina Degrassi, Stefano Furlani, Franca Maselli Scotti, Romana Melis, Fabrizio Antonioli, Giulia Fonda.....	275

### III Sessione

#### Portualità marittima e infrastrutture nel Mediterraneo. Tipologie edilizie, tecniche costruttive e rapporti con il territorio

Recenti scoperte sottomarine nella baia di Kaštela Irena Radić Rossi .....	285
Underwater archaeological research at the Vižula peninsula near Medulin Igor Miholjek.....	299
Dragonera. Due ville romane. Alka Starac .....	304
Quatre ans de recherche sur le littoral parentin M.-B. Carre, V. Kovačić, F. Tassaux, .....	310
Il porto di <i>Tergeste</i> : riflessioni a seguito dei recenti rinvenimenti Franca Maselli Scotti .....	317
Le strutture portuali di via Cavana a Trieste Paola Ventura, Valentina Degrassi, Gabriella Petrucci.....	328
Il paesaggio costiero antico nella Laguna nord di Venezia: recenti acquisizioni dall'archeologia subacquea Marco D'Agostino, Luigi Fozzati, Alberto Lezziero, Marco Marchesini, Stefano Medas .....	340
La dinamica insediativa della Laguna di Venezia: alcuni casi di studio dalla Laguna nord Massimo Capulli, Luigi Fozzati, Alberto Lezziero, Alessandro Pellegrini .....	349
Archeologia della costa: la situazione marchigiana Maria Cecilia Profumo.....	360
Le strutture portuali romane in cementizio: questioni progettuali, problemi cronologici. Enrico Felici .....	369
The construction of the Herodian harbour of Caesarea Palaestina Christopher J. Brandon .....	377

### IV Sessione

#### Paesaggi e modelli insediativi

Le ville costiere tra la fine della Repubblica e gli inizi dell'Impero: il quadro delle fonti letterarie Pasquale Rosafio.....	387
L'indagine archeologica e paleoambientale del complesso costiero di Loron - Istria: spunti per un modello interpretativo. Antonio Marchiori, Daniele Giardino .....	392
Il Porto Quieto e il fiume: un mutare di funzioni e di paesaggi tra l'Istria costiera e l'interno Chiara D'Inca.....	400
Analiza razmerja med rimske poselitvijo in bližino obale v severozahodni Istri Sašo Poglajen.....	408

Il quartiere episcopale di un emporio altomedievale. Gli scavi nel centro storico di Comacchio e la sequenza dei materiali. Sauro Gelichi, Claudio Negrelli, Diego Calaon, Elena Grandi.....	416
--	-----

## V Sessione

### Merci, trasporti e contatti nell'alto Adriatico

Rapporti circumadriatici in età preromana: la diffusione della ceramica di produzione daunia in alto Adriatico Nicoletta Poli .....	431
La ceramica grigia nei siti costieri dell'Alto Adriatico orientale. Una produzione a Stramare di Muggia? Patrizia Donat, Renata Merlatti .....	435
The beginning of Roman commerce along the main route Aquileia - Emona Jana Horvat.....	444
Merci, trasporti e contatti nella <i>Venetia</i> : le importazioni di anfore olearie dal Mediterraneo orientale Chiara Belotti.....	454
Trade and consumption of foodstuffs in Northern Adriatic: the case of the villa Školarice Tina Žerjal.....	462
Lo sfruttamento delle risorse marine a Trieste in età romana: i dati dai recenti scavi di Crosada di Cavana Gabriella Petrucci.....	470

### La mostra "Terre di Mare"

La mostra "Terre di mare" Rita Auriemma, Snježana Karinja.....	479
L'atleta della villa di Barcola Giulia Mian.....	486
Elenco Autori.....	492

Progetto Interreg Italia-Slovenia IIIA <i>AltoAdriatico</i> : Carta Archeologica Projekt Interreg Italija-Slovenija IIIA <i>AltoAdriatico</i> : Arheološka karta Elenco UT   Koda TE Poimenovanje .....	496
---	-----

### Tavola fuori testo

Progetto Interreg Italia-Slovenia IIIA <i>AltoAdriatico</i> : Carta Archeologica Projekt Interreg Italija-Slovenija IIIA <i>AltoAdriatico</i> : Arheološka karta
---



## The beginning of Roman commerce along the main route Aquileia - Emona

### Abstract

An important old route connecting the Italian peninsula with the central Danube region began at Aquileia and crossed the low-lying passes between the Julian Alps and the Dinaric Mountains. Selected archaeological sites in the Postojna and Ljubljana basins are discussed with the aim of identifying the stages of the trade development during the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC: Grad near Šmihel (the first half of the 2<sup>nd</sup> century BC), numismatic evidence (the middle of the 2<sup>nd</sup> century BC), the Razdrto Pass (the end of the 2<sup>nd</sup> and the first third of the 1<sup>st</sup> century BC), Nauportus and Emona (Augustan period).

The founding of the Roman colony of Aquileia in 181 BC and the occupation of Histria in 178/177 BC had a profound effect on the north-eastern Adriatic area.<sup>1</sup>

By the middle of the 2<sup>nd</sup> century BC, Roman ceramics (and other goods) were well represented in the coastal sites of north-western Istria. The best evidence for this was provided by the site of Sermin, probably a kind of a coastal *emporium*, where a large amount of later Greco-Italic amphoras originating from the Adriatic production centres had been deposited.<sup>2</sup> The settlements multiplied from the end of the 2<sup>nd</sup> century BC onwards, offering an insight into the wide diffusion of the Roman material, e. g. fine and common ceramics as well as amphoras Lamboglia 2, in the coastal zone.<sup>3</sup> On the other hand, the archaeological traces of the Romans in the mainland territory east of Aquileia in the 2<sup>nd</sup> century BC are very sparse. Contacts and trading with the peoples of the south-eastern Alpine area were of primary importance to Aquileia from the outset.<sup>4</sup> An important old route connecting the Italian peninsula with the central Danube region began at Aquileia and crossed the low-lying passes between the Julian Alps and the Dinaric Mountains (Fig. 1). Going eastwards from Aquileia, the first pass was Razdrto (598 m asl), situated at the western edge of the Postojna basin. The latter represented the crossroads of routes leading from Aquileia, Tergeste, northern Istria and the Kvarner Bay. After that, the main route descended down to the Ljubljana basin, to the springs of the Ljubljanica river. There an old navigable route began that enabled transport far into the East along the Ljubljanica, Sava and Danube rivers.<sup>5</sup> Actually, two old long-distance communications fork in the area of the Ljubljana basin, the so-called Amber Route leading northwards (Aquileia - Celeia - Carnuntum - the Baltic Sea) and the route along the Sava river, also called the Argonaut's Route (Caput Adriae - the Sava - the Danube - the Black Sea).<sup>6</sup>

The text below will discuss selected archaeological sites along the main south-eastern Alpine route, in the Postojna and Ljubljana basins, with the aim of identifying the stages of the trade development during the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC. The specific types of material traded will, for the most part, be neglected.<sup>7</sup>

### The Postojna basin

#### Grad near Šmihel

An important prehistoric hillfort at Grad near Šmihel commanded the Postojna basin and the 7 km distant Razdrto Pass. A large hoard was discovered there, which predominantly contained Roman weapons for distance fighting: heavy and light *pila*, incendiary *pila*, javelins, catapult bolts, arrowheads and swords. Many of them were deformed - evidently previously used in battle. Based on the *pila* with flat hafts, the hoard could be dated to the end of the 3<sup>rd</sup> and the first half of the 2<sup>nd</sup> century BC. Historical circumstances, on the other hand, rather indicate a burial from the first half of the 2<sup>nd</sup> century BC. The hoard should be tied to the otherwise unknown Roman military activity in the hinterland of Aquileia, which probably intended to establish control over the route and open the path for Roman trade towards the east.<sup>8</sup>

1 Šašel Kos 1997.

2 Horvat 1997a, pp. 98-99, 118-120, 123, fig. 47; Kirigin 1994.

3 Horvat 1995a; Horvat 1997a, pp. 120-130.

4 Šašel Kos 1997.

5 Šašel 1966; Šašel 1977; Tassaux 2004.

6 Buora 1996; Šašel Kos 1997, pp. 34-38; Šašel Kos 2006.

7 North-eastern Italian brooches: Demetz 1999; Božič 2008, forthcoming. Ceramics: Bezeczký 1987; Horvat 1995a; Horvat 1997a, 118-130.

8 Horvat 2002; Kmetič, Horvat, Vodopivec 2004; Horvat 1997b; Connolly 2000; Guštin, Gaspari 2005, pp. 356-357.

## Numismatic evidence

The numismatic evidence was carefully studied and interpreted by Alenka Miškec. *Victoriati*, which are dated to the first half of the 2<sup>nd</sup> century BC, appear in considerable number in the south-western part of Slovenia as individual finds and in three hoards: from the Ljubljanica river (at the confluence with the Zrница river), at Baba near Slavina and Gradišče near Knežak. The hoards are dated with the latest coins shortly after the middle of the 2<sup>nd</sup> century BC (the Ljubljanica 147 BC, Baba 146 BC, Knežak 146 BC). The Roman coins along the Amber Route demonstrate a strong Roman influence in the mid-2<sup>nd</sup> century BC. The complete lack of such coins in areas further to the north, and particularly in the Norican Kingdom, undoubtedly indicates the course of Roman penetration - the active policy in the middle of the 2<sup>nd</sup> century BC was directed towards the Balkans.<sup>9</sup>

## Ocra - Razdrto

The Razdrto Pass (597 m asl) and the Nanos hill (1261 m asl) that rises above it are both mentioned in the classical literary sources with the same name - *Ocra*.<sup>10</sup> The Nanos is exceptionally imposing and visible from far away, also from the lowlands near Aquileia. Razdrto should therefore be regarded as a first-class traffic and strategic point, where some aspects of the transit traffic could be preserved in the archaeological record.<sup>11</sup>

The area of Razdrto reveals a concentration of archaeological sites (Fig. 2). Their chronology indicates periods of increased traffic across the pass: the Middle and Late Bronze Ages (Šušec, Goli vrh), the Late La Tène and Early Roman periods through to the early 1<sup>st</sup> century AD (Šušec, Preval, Mandrga, Goli vrh) as well as the Late Roman period (Preval, Žingarca).<sup>12</sup>

The area revealed also the remains of the Roman road; they were excavated on the top of the pass - at Preval - and at Šušec west of the pass, on a sheltered terrace on the slopes of the Nanos.<sup>13</sup> The archaeological remains can be interpreted as resting posts with an isolated building standing on each of the two sites. A small settlement site of Mandrga 500 m east of the pass is most likely not situated far from the Roman road. The sites at Goli vrh, Žingarca and Gradišče, on the other hand, were positioned above the pass, on the hills affording protection and a good view over a large area. In the shortage of extensive archaeological research, these can be regarded primary as control points.<sup>14</sup>

The site of Mandrga provided a lot of Roman material, though no built structures were identified during the excavations. Studying the field documentation and the composition of small finds, however, led to the supposition that the remains of one or two wooden buildings were probably discovered there.<sup>15</sup> The small finds are remarkably uniform, regarding both chronology and provenience. The site yielded almost exclusively Roman material of a Late Republican date; there were very few exceptions.<sup>16</sup>

The site revealed a large amount of potsherds belonging to wine amphoras of the Lamboglia 2 type (Fig. 3). This amphora type was produced in the central and northern Adriatic area from the last quarter of the 2<sup>nd</sup> to the third quarter of the 1<sup>st</sup> century BC. The form did witness a certain development in the course of almost a century of production, but this is difficult to define and identify.<sup>17</sup> For the amphoras from Razdrto it seems that they should be positioned well before the appearance of the latest forms that show traits of transition to the later amphoras Dr. 6 A.<sup>18</sup>

The forms of the black glazed pottery found at Mandrga (Fig. 4: 1-7) are common in various production circles of Campanian ceramics in the second half of the 2<sup>nd</sup> and in the 1<sup>st</sup> century BC. The fabric of most fragments is very uniform. Some forms, such as the conical bowls with emphasized rim edges (forms Morel 2652-2653; Fig. 4: 5) and the plate with a stamp in the form of a double C (Fig. 4: 7), indicate the origin of the whole group of ceramics in the north Etruscan circle of black glazed (Campanian) ceramics.<sup>19</sup> Forms such as deep plates with curving walls (Fig. 4: 1), plates with very broad undulated rims (Fig. 4: 3-4), bowls with simple everted rims (Fig. 4: 2) and conical bowls with emphasized rim edges and rounded profile (Fig. 4: 5) date mostly to the end of the 2<sup>nd</sup> or in the first third of the 1<sup>st</sup> century BC.<sup>20</sup> The absence of the so-called "porous fabric" known from Magdalensberg or the "central Padanian black glazed pottery" are also of chronological importance - they show that the site of Mandrga predates the large-scale distribution of the "porous fabric".<sup>21</sup>

To conclude, the forms of the black glazed pottery and the Lamboglia 2 amphoras indicate the chronological position of Mandrga at the end of the 2<sup>nd</sup> or the first third of the 1<sup>st</sup> century BC.

Other types of ceramics were also being imported from Italy in that period: high thin-walled beakers (types Marabini 3 and 4; Fig. 4: 8), Italian common ware (jugs, bowls in grey ware of the Venetian tradition; Fig. 4: 9) and Italian cooking ware (pots with almond rims, baking dishes without a slip and accompanying lids; Fig. 4: 10-13).<sup>22</sup>

The cooking ware of local tradition is very poorly represented (perhaps a small part of pots and baking rings).

9 Miškec 2003; Kos, Šemrov 2003.

10 Šašel 1974; Šašel 1977.

11 Horvat 2005, 237-242; Guštin, Gaspari 2005.

12 Horvat 2005; Bavdek 1996; Svoljšak 2003.

13 Svoljšak 2003; Bavdek, Horvat, forthcoming.

14 Horvat 2005, pp. 241-242.

15 Bavdek, Horvat, forthcoming.

16 Bavdek 1996, pp. 298-299. Bavdek, Horvat, forthcoming.

17 Carre 1985, p. 211; Cipriano, Carre 1989, pp. 80-85; Bruno 1995, pp. 15-38; Horvat 1997a, p. 58; Pesavento Mattioli 2000, p. 108.

18 Horvat 1997a, pp. 60-67, 71-74.

19 Morel 1987, pp. 120-126; Brecciaroli Taborelli 2005, pp. 71-73.

20 Frontini 1985; Sfreddo 1998.

21 Schindler 1986, pp. 354-361; Olcese 1998, pp. 11-14; Horvat 1995a, pp. 30-36.

22 Fasano 1994; Santoro Bianchi 2005; Bats 1993, pp. 358-361; Olcese 2003, pp. 26-27.

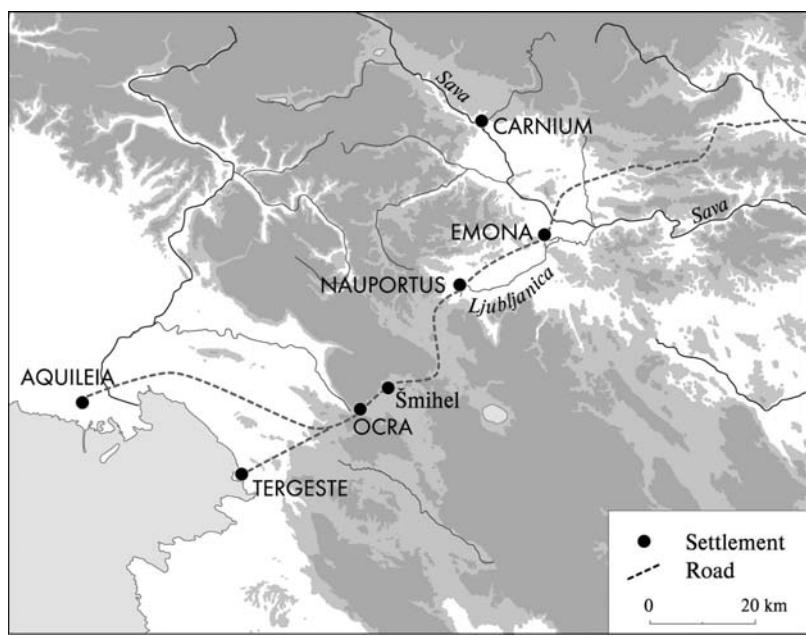


Fig. 1. The main route Aquileia - Emona in the 1st century BC.

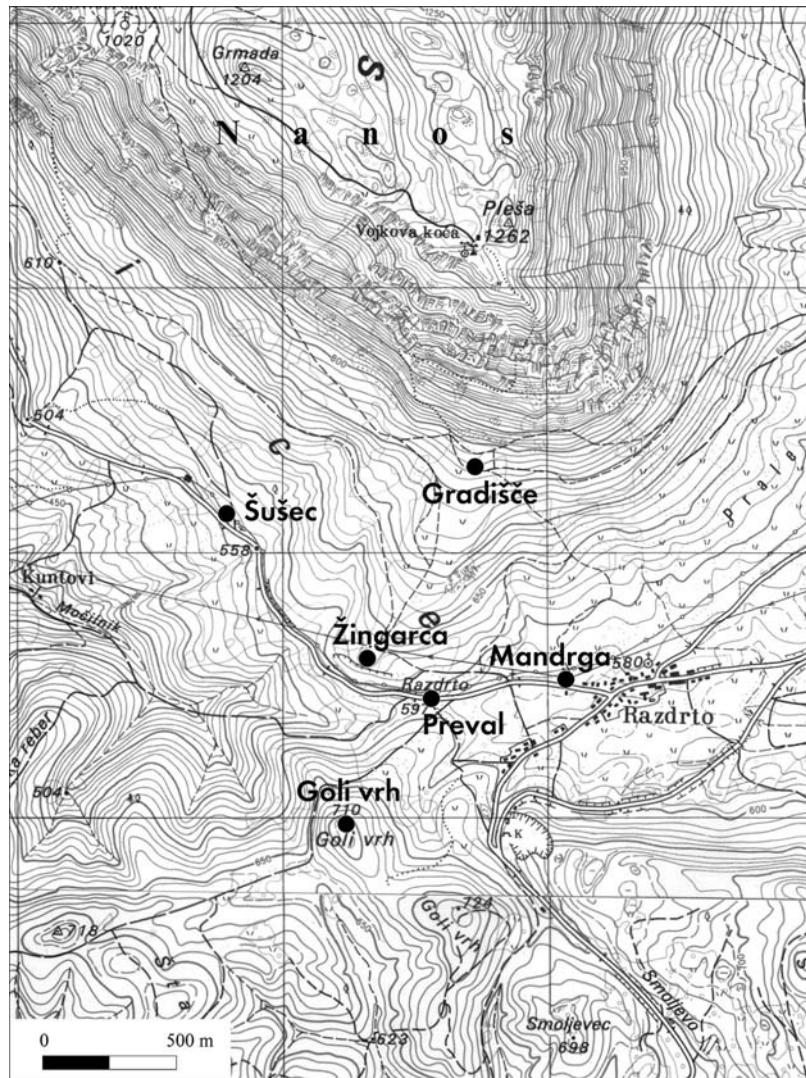


Fig. 2. Archaeological sites in the area of the Razdrto Pass.

The archaeological material from Mandrga does not differ from the contemporary deposits in north-eastern Italy and Istria. Probably the best comparison is that of the deposit from Fornače near Piran, on the coast of north-western Istria. It revealed a great quantity of the earlier Lamboglia 2 amphoras, but also black glazed pottery similar to that from Mandrga, a Megarian cup of the Ephesian-Ionian type, thin-walled Marabini 1 and 3 beakers and Italian cooking ware (baking dishes and lids).<sup>23</sup>

The area of Notranjska, where Mandrga is situated, saw the prevalence of fortified hilltop settlements in the La Tène period. Contacts with the Roman world, which can be observed on these indigenous sites, were mostly limited to the circulation of Roman coins - alongside Celtic silver coins. The profound influence and wide-scale use of Roman products in daily life can be noticed only from the middle Augustan period onwards.<sup>24</sup> Therefore, Mandrga appears to be a foreign element within the autochthonous environment at the end of the 2<sup>nd</sup> or beginning of the 1<sup>st</sup> century BC - an outpost of the Romans on a strategic site that exerted control over the road towards the east. It seems that the Adriatic wine amphoras from Razdrto - Mandrga represent a material proof for the wine trade at the end of the 2<sup>nd</sup> or beginning of the 1<sup>st</sup> century BC. The scarce finds from the consumer sites, with the only exception of Magdalensberg,<sup>25</sup> indicate a limited extent of the wine trade in the Eastern Alps and Middle Danubian area.<sup>26</sup> It should also be noted that no oil amphoras were found at Razdrto - Mandrga.

## The Ljubljana basin

### Nauportus

The key strategic point in central Slovenia was Nauportus, situated at the western edge of the Ljubljana basin, in the area of present-day Vrhnika, and at the beginning of the river route along the Ljubljanica, Sava and Danube. Strabo reports, for the 2<sup>nd</sup> century BC, that goods were being transported by wagons from Aquileia to Nauportus, a settlement of the Celtic Taurisci, then reloaded onto ships that navigated the rivers to the Danube.<sup>27</sup> The settlement's name and historical analogies provide the basis for inferring that a toll station existed at Nauportus. However, the position of the Celtic Nauportus from the 2<sup>nd</sup> century BC is not known.<sup>28</sup>

The settlement enjoyed the status of *vicus* in the territory of Aquileia from the middle of the 1<sup>st</sup> century BC onwards. During the 1<sup>st</sup> century BC, important Aquileian merchant families maintained control over the *vicus* via their freedmen; they also controlled the transit of the long-distance traffic that passed by Nauportus. The historical and epigraphic data lead to the conclusion that immigration from Italy was quite considerable from the very start.<sup>29</sup>

The Early Roman Nauportus was situated on the plain, where the Ljubljanica bends towards the moor of the Ljubljansko barje.<sup>30</sup> The Roman road Aquileia - Emona, which was probably constructed under Augustus, led along the western bank of the Ljubljanica through the settlement area at Breg. This part of the settlement has its origins in the Middle Augustan period and was uninterruptedly occupied through to the 4<sup>th</sup> century.<sup>31</sup>

Dolge njive, the eastern and best known part of the Early Roman settlement, lay inside the meander of the Ljubljanica river bend. The new ground plan of the site, which was engendered by geophysical prospection and the combination of this with the ground plans resulting from former excavations, has a good interpretative potential (Fig. 5).<sup>32</sup>

The Dolge njive site measured 130 x 144 m. The Ljubljanica river flows along two sides of the site; while a defence ditch filled with water ran along the eastern and probably also the southern sides. The defence wall with four protruding square towers was 2-3 m wide at the southern and eastern sides, while the back walls of the buildings formed a less than 1 m wide defence wall at the western and northern ends.<sup>33</sup>

The central market, which has an irregular form of a parallelogram, covers about 30 % of the site surface. A large area is built-up with storehouses - *horrea*: rows of buildings with long and narrow rooms, wide entrances and a portico. They occupy about 30 % of the area, that is about 5.500 m<sup>2</sup> (Buildings 2-5, 11-17, 19-20, 22-23). The entrances face towards the market and cover the entire width of the rooms. The type of *horrea* with rooms lined in a row was well known throughout the Roman world primarily in ports; the entrances to the rows of storehouses were frequently open towards the piers in ports. The type appears in various parts of the Empire during a large chronological span from the 1<sup>st</sup> century BC through to the 2<sup>nd</sup> century AD.<sup>34</sup>

The long and narrow building with eight rooms (21) probably functioned, based on its form and dimensions, as a row of *tabernae*.<sup>35</sup> The relatively small building (25), situated in the corner of the market and not holding a dominant position, had a ground plan similar to that of a particular type of sanctuaries with ambulatories in which the Celtic tradition intermingled with Roman elements.<sup>36</sup> The river port was situated just north of the built-up area.

23 Stokin 1992; Horvat 1995a; Horvat 1997a, pp. 73-74, fig. 27, tab. 59-65.

24 Horvat 1995b; Horvat 2005.

25 Maier-Maidl 1992, p. 13.

26 Bezeczký 1994a, pp. 13-15; Bezeczký 1994b, p. 81; Tassaux 2004, pp. 170-174.

27 Šašel Kos 1990, pp. 17-19, 143-145.

28 Šašel 1966; Šašel Kos 1990, pp. 20, 146-147.

29 Šašel Kos 1990; Šašel Kos 1998; Šašel Kos 2000, 294-297; Šašel Kos 2002.

30 Horvat 1990.

31 Horvat, Mušič 2007, pp. 167-171.

32 Mušič, Horvat 2007.

33 Mušič, Horvat 2007, pp. 233-238, 261-262.

34 Mušič, Horvat 2007, pp. 238-244, 262-264.

35 Mušič, Horvat 2007, pp. 244-245, 264.

36 Mušič, Horvat 2007, pp. 249-250, 264.

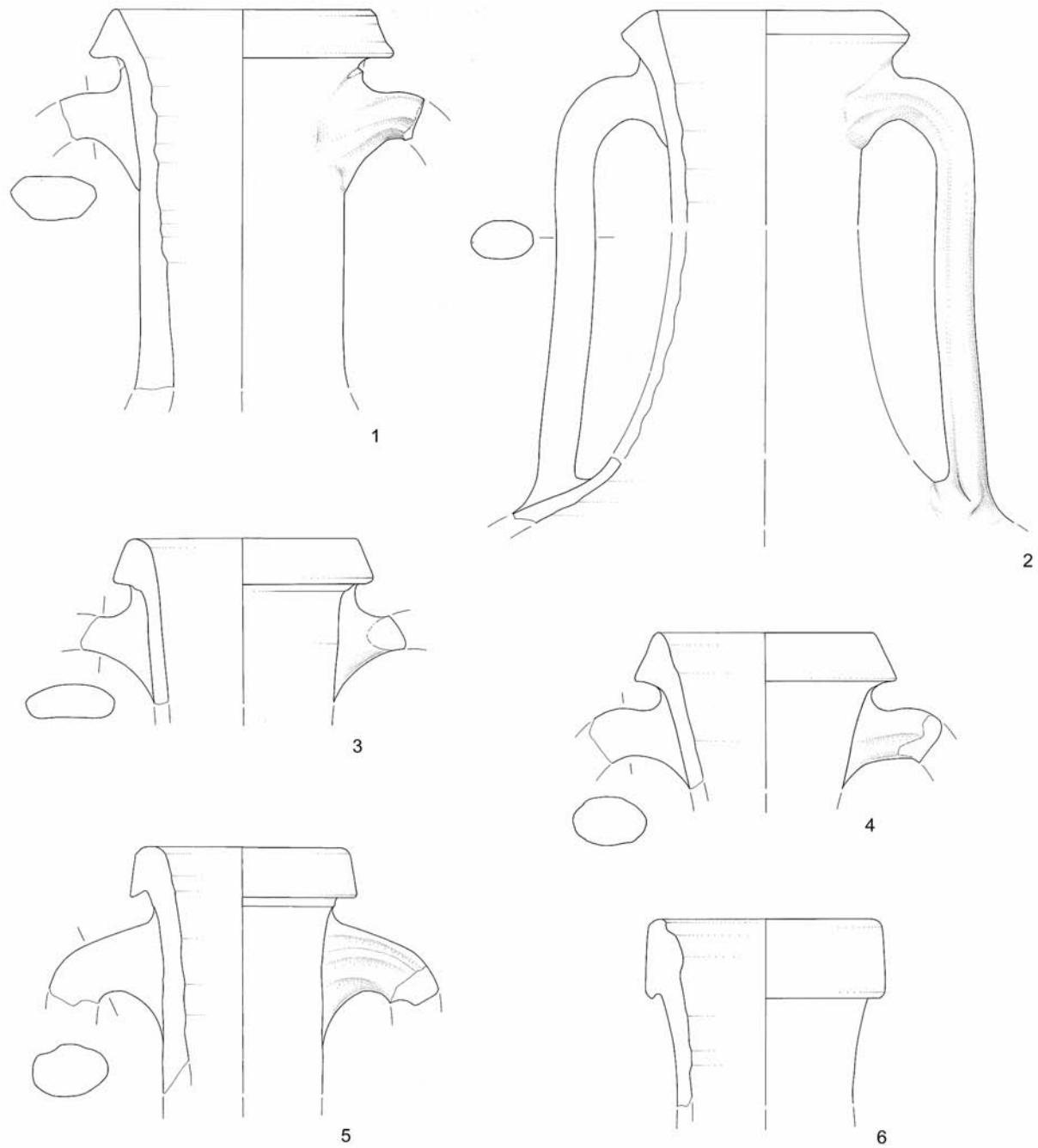


Fig. 3. Lamboglia 2 amphoras from Razdrto. Scale 1:4

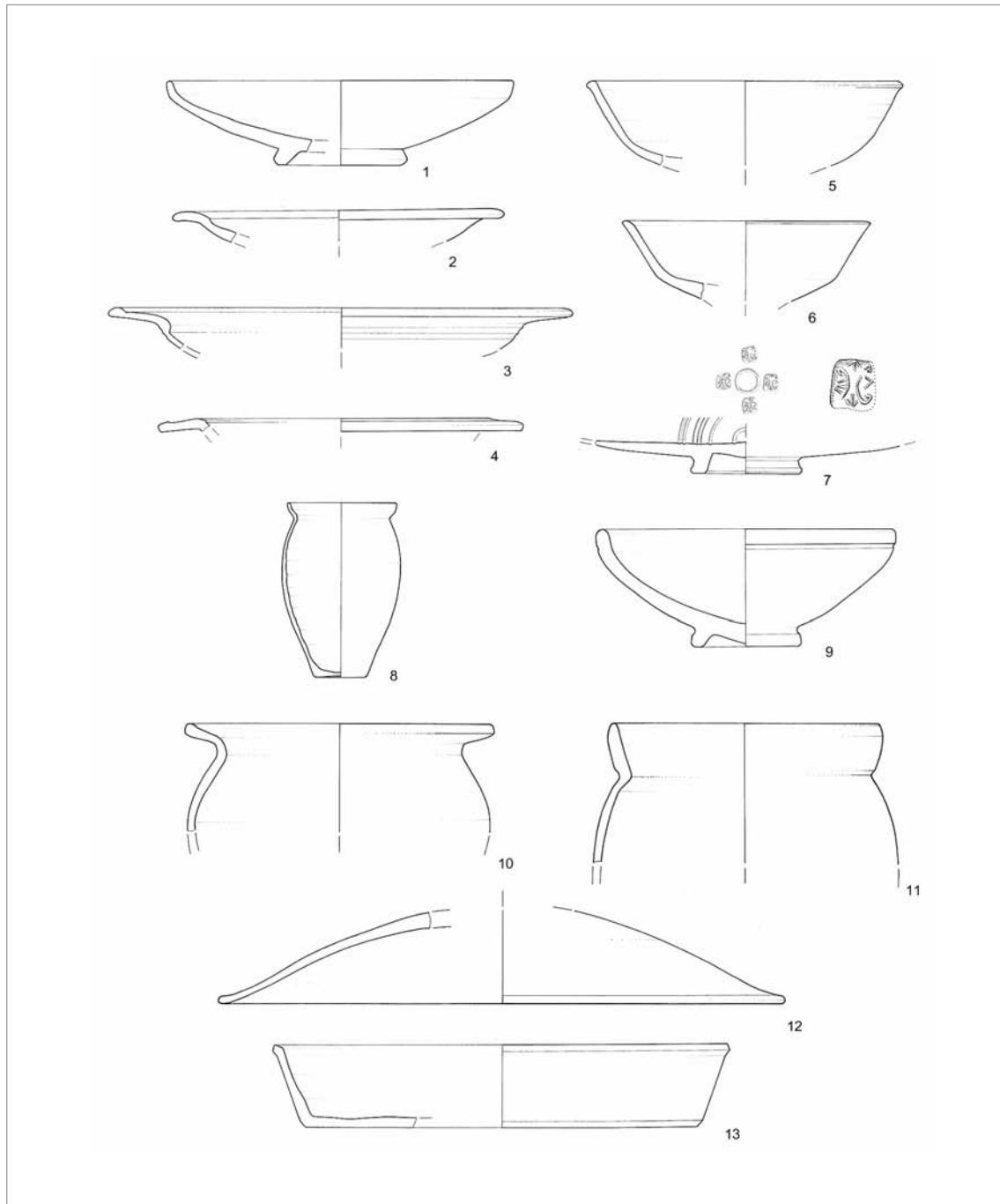


Fig. 4. Black glazed ware, thin-walled pottery, grey pottery of Venetian tradition and Italian cooking ware from Razdrto. Scale 1:4 (a stamp 1:1).

The majority of small finds from the old archaeological excavations at Dolge njive lacks detailed stratigraphic data. However, the forms of the black glazed pottery and its distribution demonstrate that most of the settlement was probably constructed in the Pre-Augustan or Early Augustan period. Small finds also show that the decline of the settlement at Dolge njive occurred during the first half of the 1<sup>st</sup> century AD.<sup>37</sup>

The main characteristic of Nauportus - Dolge njive is its key position at the junction between land routes leading from north-eastern Italy and Istria and water routes leading eastwards. The large storehouses, market and fortifications lead us to infer that the site of Dolge njive acted as a reloading trading post, where long-distance transit traffic and trade could operate. The extensiveness of the complex points to an exceptionally large amount of traffic and goods, particularly in the Augustan period. In addition to the regular merchant traffic, military shifts and supplies also passed through Nauportus. It has to be noted that further down along the Sava, in the Brežice gateway that opens into the Pannonian plain, a whole series of military camps dating to the Augustan period is known.<sup>38</sup>

### Emona

Emona was situated at an old crossroads in the centre of the Ljubljana basin, just 20 km east from Nauportus. The settlement existed there in the second half of the 1<sup>st</sup> century BC on the right bank of the Ljubljanica river, in the area of Stari and Gornji trg. The earliest strata from the Late Republican or Early Augustan period revealed local coarse wares, fine La Tène wares as well as several types of Italic pottery (black glazed and thin-walled ceramics). Terra sigillata appeared in the Middle Augustan period.<sup>39</sup> A tombstone, probably from the Late Republican period, testifies that Emona was important enough to attract settlers (merchants?) from Aquileia of a certain social position, such as the members of the Caesernii family.<sup>40</sup>

Emona was initially completely overshadowed by Nauportus, though it had a far more significant geo-political position: it was situated at the narrowest point of the Ljubljana basin, on the crossroads of mainland routes (directed towards Italy, Noricum and Pannonia) and near the confluence of the navigable Ljubljanica and Sava rivers. It could secure the route to Italy much better than Nauportus.<sup>41</sup>

A colony was founded in Emona perhaps already in the time of Octavian.<sup>42</sup> However, a new Roman settlement with orthogonal grid-plan, forum and defence walls was built on the left bank of the Ljubljanica river only at the beginning of the 1<sup>st</sup> century AD.<sup>43</sup> In that century, Nauportus witnessed a decline and Emona became the main regional centre.<sup>44</sup>

### Acknowledgements

I would very much like to thank Andreja Maver for the translation of the text as well as Mateja Belak, Drago Valoh and Tamara Korošec for having produced the drawings and the maps.

37 Mušič, Horvat 2007, pp. 254-261.

38 Mušič, Horvat 2007, pp. 265-267.

39 Vičič 1993; Vičič 1994; Vičič 2002.

40 Šašel Kos 1995, pp. 230, 235-236; Šašel Kos 1998, pp. 104-105; Šašel Kos 2000, pp. 294-297.

41 Šašel Kos 1995, pp. 233-234; Šašel Kos 2000, pp. 294-297; Šašel Kos 2003.

42 Šašel Kos 1995, pp. 231-233, 240.

43 Vičič 2003.

44 Horvat, Mušič 2007.

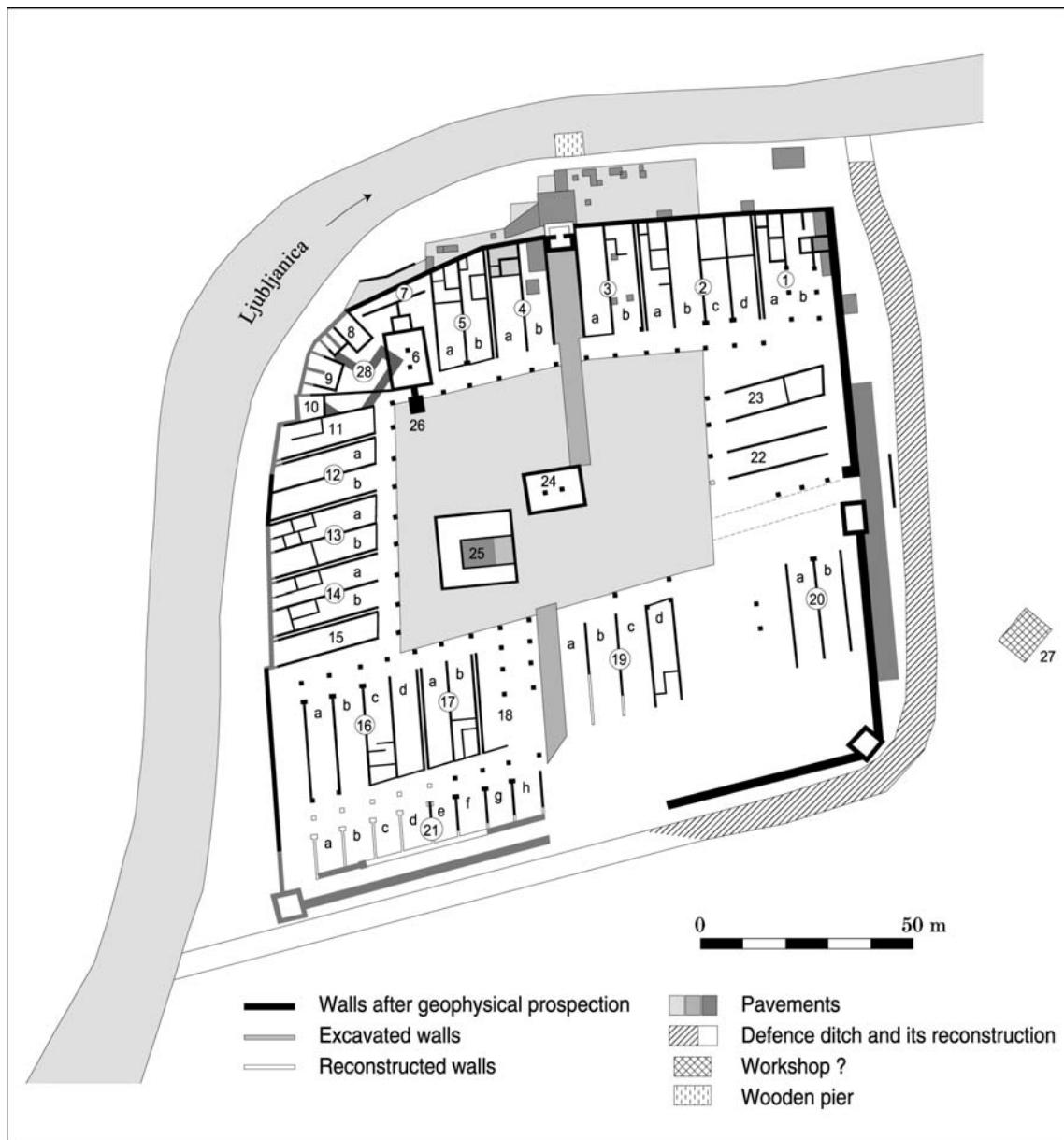


Fig. 5. Nauportus - Dolge njive. The fortified settlement of the Augustan period: central market place, horrea, tabernae and sanctuary. The river port was situated north of this site. (After Mušič, Horvat 2002, fig. 39).

## REFERENCES

- Bats M. 1993 = *Céramique commune italique*, in M. Py (ed.), *Dictionnaire des Céramiques Antiques en Méditerranée nord-occidentale*, Lattara, 6, pp. 357-362.
- Bavdek A. 1996 = *Fundorte aus spätrepublikanischer und frührömischer Zeit in Razdrto am Fuße des Nanos*, »Arheološki vestnik«, 47, pp. 297-306.
- Bavdek A., Horvat J., forthcoming = *Razdrto*, in *Opera Instituti Archaeologici Sloveniae*, Ljubljana.
- Bezczky T. 1987 = *Roman Amphorae from the Amber Route in Western Pannonia*, in *BAR Int. Ser.*, 386, Oxford.
- Bezczky T. 1994a = *Amphorenfunde vom Magdalensberg und aus Pannonien*, in *Kärntner Museumsschriften*, 74, *Archäologische Forschungen zu den Grabungen auf dem Magdalensberg*, 12, Klagenfurt.
- Bezczky T. 1994b = *Amphorae from the forum of Emona*, »Arheološki vestnik«, 45, pp. 81-93.
- Božič D. 2008 = *Poznolatensko-rimsko grobišče v Novem mestu*, in *Katalogi in monografije*, Ljubljana, forthcoming.
- Brecciaroli Taborelli L. 2005 = *Ceramiche a vernice nera*, in D. Gandolfi (ed.), *La ceramica e i materiali di età romana*, Quaderni della Scuola Interdisciplinare delle Metodologie Archeologiche, 2, Bordighera, 59-103.
- Bruno B. 1995 = *Aspetti di storia economica della Cisalpina romana*, in *Studi e ricerche sulla Gallia Cisalpina*, 7, Roma.
- Buora M. (ed.) 1996 = *Lungo la via dell'Ambra*, Atti del Convegno di Studio (Udine-Aquileia 1994), Udine.
- Carre M. B. 1985 = *Les amphores de la Cisalpine et de l'Adriatique au début de l'empire*, »Mélanges de l'École française de Rome«, 97/1, pp. 207-245.
- Cipriano M. T., Carre M. B. 1989 = *Production et typologie des amphores sur la côte adriatique de l'Italie*, in *Amphores romaines et histoire économique: dix ans de recherche*, Collection de l'École française de Rome, 114, Rome, pp. 67-104.
- Connolly P. 2000 = *The reconstruction and use of Roman weaponry in the second century BC*, »Journal of Roman Military Equipment Studies«, 11, pp. 43-46.
- Demetz S. 1999 = *Fibel der Spätlatène- und frühen römischen Kaiserzeit in den Alpenländern*, in *Frühgeschichtliche und Provinzialrömische Archäologie*, 4, Rahden.
- Fasano M. 1994 = *Ceramica a paretì sottili e semidepurata dallo scavo di Sevegliano (Udine)*, »Alba regia«, 25, »Rei Cretariae Romanae Fau-torum Acta«, 34, 1994 (1995), pp. 165-172.
- Frontini P. 1985 = *La ceramica a vernice nera nei contesti tombali della Lombardia*, in *Archeologia dell'Italia Settentrionale*, 3, Como.
- Guštin M., Gaspari A. 2005 = *Ocra: il passo tra il mondo romano e le comunità protostoriche continentali*, in G. Bandelli, E. Montagnari Kokelj (eds.), *Carlo Marchesetti e i castellieri 1903-2003. Fonti e studi per la storia della Venezia Giulia*, Studi, 9, Trieste, pp. 353-360.
- Horvat J. 1990 = *Nauportus (Vrhnička)*, in *Dela 1. razr. SAZU*, 33, Ljubljana.
- Horvat J. 1995a = *Ausbreitung römischer Einflüsse auf das Südostalpengebiet in voraugusteischer Zeit*, in *Provinzialrömische Forschungen*, Festschrift für G. Ulbert, Espelkamp, pp. 25-40.
- Horvat J. 1995b = *Notranjska na začetku rimske dobe: Parti pri Stari Sušici, Ambrožev gradišče in Baba pri Slavini (Notranjska [Inner Carniola] at the Beginning of the Roman Period: Parti near Stara Sušica, Ambrožev gradišče and Baba near Slavina)*, »Arheološki vestnik«, 46, pp. 177-216.
- Horvat J. 1997a = *Sermin*, in *Opera Instituti Archaeologici Sloveniae*, 3, Ljubljana.
- Horvat J. 1997b = *Roman Republican weapons from Šmihel in Slovenia*, "Journal of Roman Military Equipment Studies", 8, pp. 105-120.
- Horvat J. 2002 = *The Hoard of Roman Republican Weapons from Grad near Šmihel*, "Arheološki vestnik", 53, pp. 117-192.
- Horvat J. 2005 = *Poselitev na Pivškem in ob zgornjem toku Reke od pozne bronaste dobe do pozne antike / Settlement in the Pivka Area and Along the Upper Course of the Reka River From the Late Bronze Age to the Late Antique Period*, in *Kras. Voda in življenje v kamnitih pokrajini / Water and Life in a Rocky Landscape*, Ljubljana, pp. 220-248.
- Horvat J., Mušič B. 2007, *Nauportus, a commercial settlement between the Adriatic and the Danube*, in M. Chiabà, P. Maggi and C. Magrini (eds.), *Le Valli del Natisone e dell'Isonzo tra Centroeuropa e Adriatico*, Studi e ricerche sulla Gallia Cisalpina, 20, Trieste, Roma, pp. 165-174.
- Kirigin B. 1994 = *Grčko-italske amfore na Jadranu*, »Arheološki vestnik«, 45, pp. 15-24.
- Kmetič D., Horvat J., Vodopivec F. 2004 = *Metallographic examinations of the Roman Republican weapons from the hoard from Grad near Šmihel*, »Arheološki vestnik«, 55, pp. 291-312.
- Kos P., Šemrov A. 2003 = *Skupna najdba keltskih in rimskej novcev v reki Ljubljanici. Doprinos h kronologiji novcev plemena Tavriskov / A hoard of Celtic and Roman coins from the Ljubljanica River. A contribution to the chronology of the coinage of the Taurisci*, »Arheološki vestnik«, 54, pp. 381-395.
- Maier-Maidl, V. 1992 = *Stempel und Inschriften auf Amphoren vom Magdalensberg*, in *Kärntner Museumsschriften*, 73, *Archäologische Forschungen zu den Grabungen auf dem Magdalensberg*, 11, Klagenfurt.
- Miškec A. 2003 = *The Early Romanization of the Southeastern Alpine Region in the Light of Numismatic Finds*, »Arheološki vestnik«, 54, pp. 369-379.
- Morel J.-P. 1987 = *La céramique à vernis noir en Italie septentrionale*, in D. Vitali (ed.), *Celti ed Etruschi nell'Italia centro-settentrionale dal V secolo a. C. alla romanizzazione*, Imola, pp. 111-134.
- Mušič B., Horvat J. 2007 = *Nauportus - an Early Roman trading post at Dolge njive in Vrhnička*, "Arheološki vestnik", 58, pp. 219-283.
- Olcese G. 1998 = *Ceramiche in Lombardia*, in G. Olcese (ed.), *Ceramiche in Lombardia tra II secolo a. C. e VII secolo d. C. raccolta dei dati editi*, Documenti di archeologia, 16, Mantova, pp. 7-19.
- Olcese G. 2003 = *Ceramiche comuni a Roma e in area romana: produzione, circolazione e tecnologia*, in *Documenti di archeologia*, 28, Mantova.
- Pesavento Mattioli S. 2000 = *Anfore: problemi e prospettive di ricerca*, in G. P. Broglio, G. Olcese (eds.), *Produzione ceramica in area padana tra il II secolo a. C. e il VII secolo d. C.: nuovi dati e prospettive di ricerca*, Documenti di archeologia, 21, Mantova, pp. 107-120.
- Santoro Bianchi S. 2005 = *La ceramica grigia padana*, in D. Gandolfi (ed.), *La ceramica e i materiali di età romana*, Quaderni della Scuola Interdisciplinare delle Metodologie Archeologiche, 2, Bordighera, pp. 105-114.
- Šašel J. 1966 = *Keltisches portorium in den Ostalpen*, in *Corolla memoriae Erich Swoboda dedicata*, Graz-Köln, pp. 198-204 (= in J. Šašel, *Opera selecta*, Situla, 30, Ljubljana, 1992, pp. 500-506).
- Šašel J. 1974 = *Okra, »Kronika«*, 22, pp. 9-17.
- Šašel J. 1977 = *Strabo, Oca and Archaeology*, in *Ancient Europe and the Mediterranean. Studies presented in honour of Hugh Hencken*, Warminster, pp. 157-160 (= in J. Šašel, *Opera selecta*, Situla, 30, Ljubljana, 1992, pp. 630-633).
- Šašel Kos M. 1990 = *Nauportus: antični literarni in epigrافski viri / Nauportus: Literary and Epigraphical Sources*, in: Horvat 1990, pp. 17-33, 143-159.

- Šašel Kos M. 1995 = *The 15th legion at Emona - some thoughts*, "Zeitschrift für Papyrologie und Epigraphik", 109, pp. 227-244.
- Šašel Kos M. 1997 = *The End of the Norican Kingdom and the Formation of the Provinces of Noricum and Pannonia*, in *Akten des IV. internationalen Kolloquiums über Probleme des provinzialrömischen Kunstschaaffens*, Situla, 36, Ljubljana, pp. 21-42.
- Šašel Kos M. 1998 = *Caesarian inscriptions in the Emona basin?*, in G. Paci (ed.), *Epigrafia romana in area Adriatica*, Pisa, Roma, pp. 101-112.
- Šašel Kos M. 2000 = *Caesar, Illyricum, and the hinterland of Aquileia*, in G. Urso (ed.), *L'ultimo Cesare*, Roma, pp. 277-304.
- Šašel Kos M. 2002 = *The boundary stone between Aquileia and Emona*, "Arheološki vestnik", 53, pp. 373-382.
- Šašel Kos M. 2003 = *Emona was in Italy, not in Pannonia*, in M. Šašel Kos, P. Scherrer (eds.), *The autonomous towns of Noricum and Pannonia, Pannonia I*, Situla 41, Ljubljana, pp. 11-19.
- Šašel Kos M. 2006 = *A Few Remarks Concerning the archaiologia of Nauportus and Emona: The Argonauts*, in M. Kokole et al. (eds.), *Mediterranean Myths from Classical Antiquity to the Eighteenth Century*, Ljubljana, pp. 13-20.
- Schindler M. 1986 = *Die »Schwarze Sigillata« des Magdalensberges 2. Neufunde seit 1965*, in H. Vettters, G. Piccottini (eds.), *Die Ausgrabungen auf dem Magdalensberg 1975 bis 1976*, Magdalensberg - Grabungsbericht, 15, Klagenfurt, pp. 345-390.
- Sfredda N. 1998 = *Ceramica a vernice nera*, in G. Olcese (ed.), *Ceramiche in Lombardia tra il secolo a.C. e VII secolo d.C. raccolta dei dati editi*, Documenti di archeologia, 16, Mantova, pp. 21-36.
- Stokin M. 1992 = *Naselbinski ostanki iz 1. st. pr. n. š. v Fornačah pri Piranu*, in »Arheološki vestnik«, 43, pp. 79-92.
- Svoljšak D. 2003 = *Šušec pri Razdrtem*, in D. Prešeren (ed.), *Zemlja pod vašimi nogami. Arheologija na avtocestah Slovenije*, Ljubljana, pp. 262-264.
- Tassaux F. 2004 = *Les importations de l'Adriatique et de l'Italie du nord vers les provinces danubiennes de César aux Sévères*, in G. Urso (ed.), *Dall'Adriatico al Danubio*, Pisa, pp. 167-205.
- Vičič B. 1993 = *Zgodnjerimsko naselje pod Grajskim gričem v Ljubljani. Gornji trg 15* (Frührömische Siedlung unter dem Schloßberg in Ljubljana. Gornji trg 15), "Arheološki vestnik", 44, pp. 153-201.
- Vičič B. 1994 = *Zgodnjerimsko naselje pod Grajskim gričem v Ljubljani. Gornji trg 30, Stari trg 17 in 32* (Die frührömische Siedlung unterhalb des Schloßbergs in Ljubljana. Gornji trg 30, Stari trg 17 und 32), "Arheološki vestnik", 45, pp. 25-80.
- Vičič B. 2002 = *Zgodnjerimsko naselje pod Grajskim gričem v Ljubljani. Gornji trg 3* (Frührömische Siedlung unter dem Schloßberg in Ljubljana. Gornji trg 3), "Arheološki vestnik", 53, pp. 193-221.
- Vičič B. 2003 = *Colonia Iulia Emona*, in M. Šašel Kos, P. Scherrer (eds.), *The autonomous towns of Noricum and Pannonia, Pannonia I*, Situla 41, Ljubljana, pp. 21-45.