

# Istočnomediteranska keramika iz antičke luke u Pakoštanima

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# Istočnomediteranska keramika iz antičke luke u Pakoštanima

## *The eastern Mediterranean pottery from the ancient harbour in Pakoštane*

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*U podvodnim arheološkim istraživanjima antičke luke u Pakoštanima pronađeno je mnoštvo predmeta iz vremena prvih stoljeća rimske vladavine. Većinu čine keramičke posude porijeklom iz različitih dijelova Carstva. Količinom i raznolikošću ističu se one iz istočnomediteranskih radionica, istočna sigilata B, çandarli keramika i kuhinjsko posuđe. Temeljem tipoloških komparacija raspoznaju se standardizirani, velikoserijski tipovi keramičkih oblika, međutim, pojavljuju se i rijetki primjerci koji su vjerojatno proizvedeni izvan glavnih radioničkih centara.*

*Ključne riječi: antička luka Pakoštane, istočnomediteranska keramika, istočna sigilata B, çandarli, kuhinjsko posuđe, brodsko posuđe*

*A wealth of objects from the first centuries of Roman rule have been found in the underwater archaeological excavations of the ancient harbour in Pakoštane. Most of those are ceramic vessels originating from various parts of the Empire. Prominent in terms of quantity and variety are those from eastern Mediterranean workshops, the eastern sigillata B, Çandarli ware and kitchenware. Standardized types of ceramic forms, produced on massive scale, are distinguished on the basis of typological comparisons. However, there are also rare pieces that were probably produced outside the main workshop centres.*

*Key words: ancient harbour in Pakoštane, eastern Mediterranean pottery, eastern sigillata B, Çandarli, kitchenware, galley ware*

Mjesto Pakoštane smjestilo se 30 kilometara jugoistočno od Zadra, na prevlaci između mora i Vranskog jezera. Najranije podatke o arheološkom potencijalu pakoštanske luke donosi don Luka Jelić, koji joj pridaje veliku važnost kao pristaništu grada Aserije (Jelić 1898, 121). Ćiril Iveković, u izvještaju iz 1930. godine, piše da je pakoštanska luka bila pristup u čitavu Dalmatinsku zagoru, od Karina do Burnuma (Iveković 1932, 155)<sup>1</sup>, dok prve materijalne dokaze donosi Mate Suić, koji pronalazi ostatke arhitekture istočno od Pakoštana, na položaju Janice (Batović 1965, 289). U podmorju istog lokaliteta Dasen Vrsalović opaža balastno kamenje, te ulomke amfora i tegula (Vrsalović 1974, 49).

Prvi arheološki radovi u pakoštanskom podmorju započeli su na mjestu rimskog pristaništa, koje se nalazi uz plažu na položaju Janice.<sup>2</sup> Operativni dio rimske obale protezao

The municipality of Pakoštane lies 30 kilometers southeast of Zadar, on an isthmus between the sea and the Vransko lake. The earliest information on the archaeological potential of the Pakoštane harbour was provided by don Luka Jelić, who attributed great importance to it as a port of the town of Asseria (Jelić 1898, 121). Ćiril Iveković wrote in his 1930 report that the Pakoštane harbour provided access to the entire region of Dalmatinska Zagora, from Karin to Burnum (Iveković 1932, 155)<sup>1</sup>, while the first material evidence was provided by Mate Suić, who discovered the remains of architecture east of Pakoštane, at the site of Janice (Batović 1965, 289). Dasen Vrsalović noticed ballast stones as well as fragments of amphorae and tegulae in the underwater zone of the same site (Vrsalović 1974, 49).

The first archaeological activities in the Pakoštane offshore zone started at the spot of the Roman harbour, situated next to the beach at the site of Janice.<sup>2</sup> The operative part of the

1 Iveković nadalje izvještava: "...Na mjestu gdje sada stoji selo Pakoštane, moralo je u rimsko doba biti veliko naselje, kako pokazuju različiti i veliki ostaci zidova, mozaika i drugih spomenika, i svakako bi bilo potrebno da se jedared i ovo mjesto dobro i sistematički pretraži."

2 Sustavna podvodna arheološka istraživanja potaknuta su informacijama studenta arheologije Marka Meštrova o bogatim ostacima rimskodobne keramike u podmorju Pakoštana. U istraživanjima 2004. sudjelovali su: dr.sc. Zdenko Brusić i dr.sc. Mato Ilkić (Sveučilište u Zadru, Odjel za arheologiju), studenti arheologije Marko Meštrov i Mate Parica, uz naknadno uključivanje mr.sc. Irene Radić-Rossi i Krunoslava Zubčića, prof., (Hrvatski restauratorski zavod, Odjel za podvodnu arheologiju).

1 Iveković further reports: "...There must have been a large settlement in the Roman period at the spot where the village of Pakoštane now stands, as testified by various and large remains of walls, mosaics and other monuments, and it would definitely be necessary to carry out a proper and systematic survey of this site sometime in the future."

2 The systematic archaeological excavations were stimulated by information provided by Marko Meštrov, a student of archaeology, about rich remains of Roman pottery in the Pakoštane underwater zone. The participants in the 2004 excavations were: Zdenko Brusić, PhD and Mato Ilkić, PhD (University of Zadar, Department of Archaeology), students of archaeology Marko Meštrov and Mate Parica, with the subsequent participation of Irena Radić-Rossi, MSc and Krunoslav Zubčić (Croatian Conservation Institute, Department of Underwater Archaeology).



Karta 1 Smještaj Pakoštana  
Map 1 The position of Pakoštane

se uz današnje kopno, a sada se nalazi na morskom dnu, i to na dubini od približno dva metra. Položaj je od bure bio zaštićen samim kopnom, dok ga je od južnih vjetrova štiti prirodni greben, koji se proteže od kopna pa gotovo do otočića Sv. Juština.<sup>3</sup> Sve ovo činilo je pristanište izrazito sigurnim od svih vremenskih nepogoda.

Probnom arheološkom sondom, veličine 4 x 2 m, utvrđen je bogat kulturni sloj debljine oko 80 cm. Sloj je nastao intenzivnim boravkom brodova na istome mjestu. Ostatci prehrane, kosti raznih životinja, koštice bresaka, maslina, šljiva, oraha i bajama, uz nagorjelo kuhinjsko posuđe, dočaravaju život na brodu. Komadi olovnih utega za mreže, udice, te ostatci ribljih kostiju kao i velikih probušenih dolija,<sup>4</sup> govore o ribolovu u samoj luci, dok nebrojene ljuštore morskih školjaka i puževa dobro ilustriraju dopunsku prehranu mornara i putnika u razdoblju od I. do III. st. po. Kr., u vrijeme najvećeg prometa rimske luke u Pakoštanima (Brusić 2005, 18). Prostor pakoštanske luke s otocima Sv. Juštinom i Velim školjem tvorilo je već u predrimsko doba pristanišni prostor liburnskog naselja, danas prepoznatljivog po suhozidnim

3 Najvjerojatnije se radi o geološkoj pojavi koja je iskorištena kao prirodna zaštita luke. Iako zbog relativno pravilnih blokova i odstupanja u odnosu na okolnu vapnenačku uslojenost, odaje dojam umjetne tvorevine, gotovo je sigurno da je ovo geološka formacija pješčenjačke žile koja je iskorištena kao lukobran.

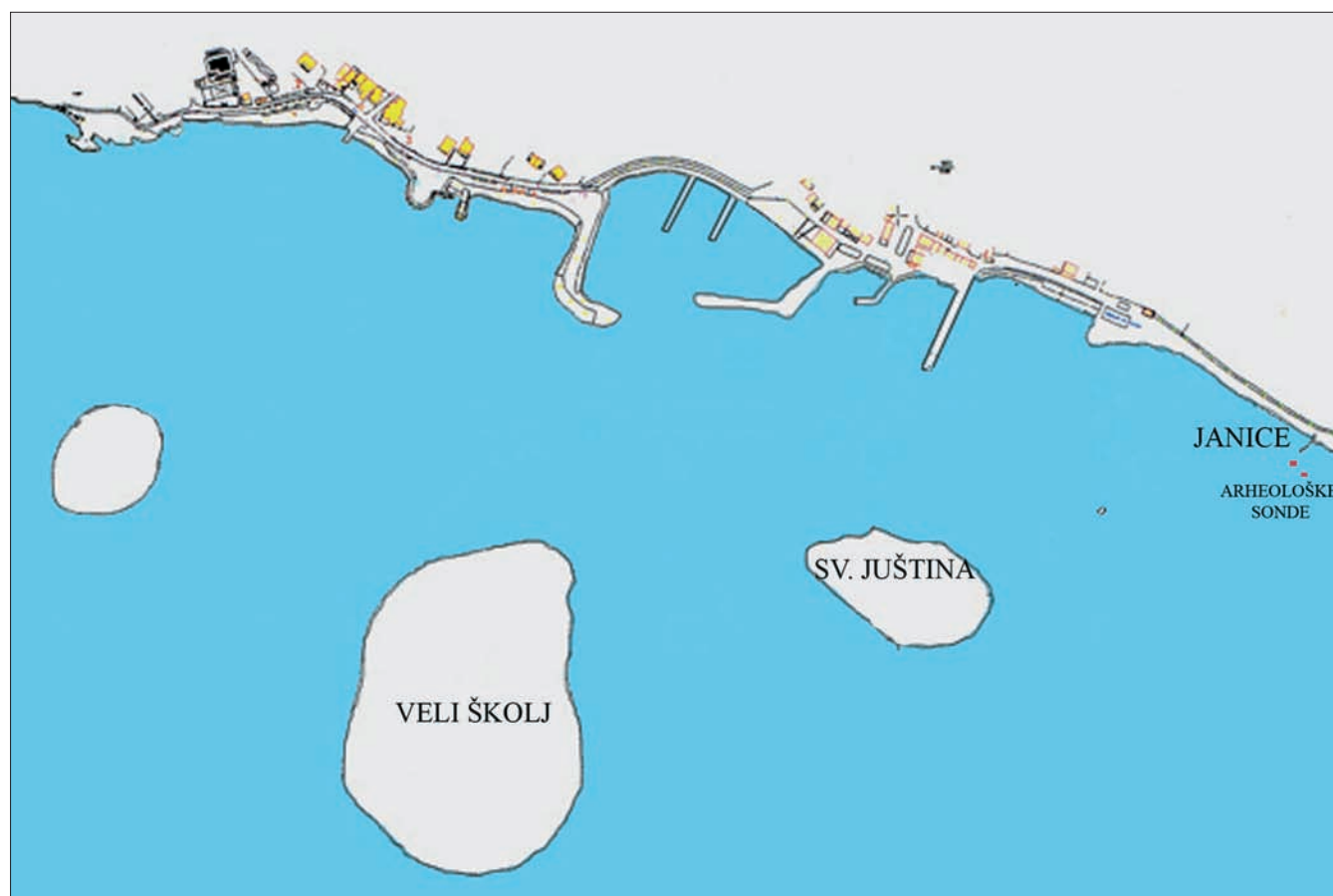
4 Pretpostavlja se da su probušeni doliji služili za držanje žive ribe.

Roman coast extended along the present-day land, while presently it lies on the sea bed at the depth of approximately two metres. The position was protected from the *bora* by the dry land itself, while the protection from the south winds was provided by a natural reef extending from the dry land almost to the isle of Sv. Juština.<sup>3</sup> All this rendered the harbour a markedly secure place from all weather conditions.

A test trench measuring 4 x 2 m helped in determining a rich cultural layer about 80 cm thick. The layer was created by intense stay of ships at the same spot. The remains of food, bones of various animals, pits of peaches, olives, plums, walnuts and almonds, in addition to burned kitchenware, evoke life on a ship. The pieces of lead weights for nets, fishing hooks and remains of fish bones as well as big perforated dolia,<sup>4</sup> speak of fishing within the harbour itself, while innumerable shells of clams and snails illustrate well the supplementary diet of sailors and travelers in the period between the 1<sup>st</sup> to the 3<sup>rd</sup> cent. A.D., at the time of the most intense traffic of the Roman harbour in Pakoštane (Brusić 2005, 18). The zone of the Pakoštane harbour with the islets of Sv. Juština and Veli Školj formed already in the pre-Roman times the port area of the Liburnian settlement, recognizable today by the dry-

3 Most probably this is a geological phenomenon, which was used as a natural protection of the harbour. Even though due to relatively regular blocks and deviation with regard to the surrounding limestone stratification it gives an impression of an artificial creation, this is almost certainly a geological formation of a sandstone vein, used as a breakwater.

4 It is supposed that perforated dolia were used for keeping live fish.



Karta 2 Prostor Pakoštane s označenim nalazištem  
Map 2 The Pakoštane area with the site marked

bedemima na najvišem dijelu Veli školja, a već tada je vjerojatno bio povezan s većim liburnskim središtima u zaleđu kao što su *Asseria* (Podgrađe kod Benkovca) i *Nedinum* (Nadin) (Brusić 2005, 16). Dolaskom pod rimsku upravu višestruko se intenzivira plovidba duž istočne obale Jadrana, čime pakoštanska luka još više dobiva na značenju. Ona zbog svoje sigurnosti postaje nezaobilazno stajalište brodova koji plove Jadranom. U ovakvim lukama brodovi su noćili ili čekali povoljne vremenske prilike za nastavak putovanja, u ovom slučaju to je prolaz kroz Pašmanski kanal, gdje je važio poseban režim plovidbe u skladu s dnevnom promjenom smjera i jačine morske struje (Brusić 2005, 16). Veliki kompleks antičke luke u Pakoštanima i bogati arheološki slojevi ne govore samo o privremenoj postaji brodova, već ukazuju i na značajnije tranzitno pristanište (Brusić 2005, 16).

Prilikom podvodnih arheoloških istraživanja rimske luke na položaju Janice, uz već navedene ostatke prehrane mornara koji su boravili na brodovima, pronađeno je i mnogo keramičkog posuđa. Posude su različitih tipova, kvalitete i što je vrlo važno, različitoga radioničkog porijekla. Zastupljene su gotovo sve vrste keramičkog posuđa koje se javljaju na istočnoj obali Jadrana u razdoblju od I. do III. st. po Kr. Pronađene su posude fine izrade, najčešće zdjele, tanjuri i vrčevi, porijeklom iz sjeverne i južne Italije, Afrike, Grčke i Male Azije.

U ovom radu obrađeno je isključivo posuđe egejsko-maloazijskoga, tj. istočnomediterranskoga radioničkoga kruga, odnosno ono koje spada u skupinu istočne sigilate (T. 1-2) i istočnoga kuhinjskoga posuđa (T. 3-5).

tone walls on the highest part of Veli Školj, which had probably already at that time been connected with larger Liburnian centres in the hinterland, such as *Asseria* (Podgrađe near Benkovac) and *Nedinum* (Nadin) (Brusić 2005, 16). After the Roman authority has been established the navigation along the eastern coast of the Adriatic increased multifold, which led to even greater prominence of the Pakoštane harbour. In such harbours ships spent nights or awaited suitable weather conditions to resume their journey, in this case this entails a passage through the Pašman Channel, where a specific regime of navigation was in effect in line with the daily change of direction and force of the sea current (Brusić 2005, 16). The large complex of the ancient harbour in Pakoštane and the rich archaeological layers do not speak only of a temporary station for the ships, but likewise point to a more important transit port (Brusić 2005, 16).

The underwater archaeological excavations of the Roman harbour at the Janice site, in addition to already mentioned dietary remains of the soldiers that manned the ships, yielded also numerous ceramic vessels. The vessels are of various types and quality and what is very important, come from various workshops. Almost all types of ceramic vessels that appear on the eastern Adriatic coast in the period from the 1<sup>st</sup> to the 3<sup>rd</sup> cent. A.D. are represented. Among the discovered vessels there are also those of finer workmanship, most often bowls, plates and beakers, coming from northern and southern Italy, Africa, Greece and Asia Minor.

This paper contains the analysis exclusively of vessels from the Aegean-Asia Minor, i.e. the eastern Mediterranean workshop circle, that is, those that belonging to the group of the eastern sigillata (Pl. 1-2) and eastern kitchenware (Pl. 3-5).



Sl. 1 Prostor Pakoššana s označenom antičkom lukom  
Fig. 1 The Pakoššana area with the ancient harbour marked

### ISTOČNOMEDITERANSKA SIGILATA

Od istočnomediterranske sigilate u Pakoššanima je zastupljena istočna sigilata B,<sup>5</sup> i to njezina kasnija, B2 faza, čije porijeklo možemo tražiti u zapadnim dijelovima Male Azije, najvjerojatnije u gradu *Trallesu* (Hayes 1985, 49). U vrijeme Flavija i Trajana serija B2 osvaja dio tržišta, koji je prethodno bio u rukama aretinskih proizvođača, a to su Kreta, zapadna Grčka, obale Jadrana i južna Italija (Hayes 1985, 52). Najveći dio formi nastao je pod utjecajem aretinske keramike (Hayes 1985, 50). Uz ovu vrstu sigilate, u pakoštanskome materijalu prisutna je i jedna forma čandarli keramike.

Pregled, u Pakoššanima pronađene istočne sigilate B2,<sup>6</sup> najbolje je započeti s, među nalazima najzastupljenijim tipom posude, a to je tanjur ravnog dna (T. 1, 1-3), Hayes forma 60 (Hayes 1985, 64, T. XIV). Pronađeni su brojni ulomci koji pripadaju približno 12 primjeraka ovog tipa posuđa. Stijenke tanjura imaju bikonični oblik naglašenog loma. Dno tanjura je ravno, a na njegovoj unutrašnjoj strani najčešće se nalaze ukrasi od dva pojasa s kružnicama (T. 1, 3). Jedan tanjur vidno odstupa od standarda izrazito uvučenim dnom (T. 1, 3). Na jednom tanjuru, te na jednom ulomku, nalazimo pečate floralnih motiva (T. 1, 4, 5). Boja gline varira od narančastocrvene do tamnosmeđe. Čvrstoća je također raznolika, međutim, primjetno je da su narančastocrvene puno kvalitetnije od tamnijih inačica koje se ljušte i raspadaju. Premazi posuda variraju od crvenih do žućkastih inačica. Tanjuri su različitih dimenzija, od najmanje 16 cm (T. 1, 2), do najviše 26 cm promjera ruba oboda. Keramika B2 grupe datira se u razdoblje od 70. do 150. godine poslije Krista (Hayes 1985, 51), s time da su rani primjerci manjih dimenzija, promjera 14-20 cm, dok se u kasnijoj fazi izrađuju u dvije veličine, promjera 15-18 cm i 22-30 cm (Hayes 1985, 64).

Drugu skupinu po brojnosti čine duboki tanjuri oblog dna, Hayes ESB forma 80 (T. 1, 6-10) (Hayes 1985, 69, T. XV). Tanjuri imaju profilirani obod koji s unutrašnje strane sadrži urezanu liniju, dok je dno koje s vanjske strane ima prstenastu nožicu, s unutrašnje strane izvedeno u karakterističnoj

5 Naziv istočna sigilata B, koji je danas općeprihvaćen, uvodi K. M. Kenyon 1957. godine, dok ovu keramiku H. S. Robinson naziva Samijskom.

6 U daljnjem tekstu koristiti ću Hayesovu tipologiju formi. On razlikuje 80 formi, od kojih prvih 50 pripada istočnoj sigilati B1, dok bi grupu B2 činile forme od 51 do 80.



Sl. 2 Tanjur nedugo nakon vađenja iz sloja (snimio: M. Parica)  
Fig. 2 The plate soon after it had been removed from the layer (photo by M. Parica)

### THE EASTERN MEDITERRANEAN SIGILLATA

As regards the eastern Mediterranean sigillata, Pakoššana yielded eastern sigillata B,<sup>5</sup> more precisely its later, B2 phase, whose origin can be sought in the western parts of Asia Minor, in all likelihood in the town of *Tralles* (Hayes 1985, 49). In the times of Flavius and Trajan series B2 took over a part of the market that had previously been in the hands of the producers from Arezzo, i.e. Crete, western Greece, the coasts of the Adriatic and southern Italy (Hayes 1985, 52). Most of the forms were created under the influence of the Arezzo pottery (Hayes 1985, 50). In addition to this type of sigillata, the Pakoššana material contains also a form of *Çandarli* ware.

It is best to begin the survey of the eastern sigillata B2<sup>6</sup> discovered in Pakoššana with the most frequent type of vessel among the finds, a flat-based plate (Pl. 1, 1-3), Hayes's form 60 (Hayes 1985, 64, Pl. XIV). Numerous fragments of this type of vessel have been found, which belong to a total of approximately 12 pieces. The walls of the plate have a biconical shape with a prominent inflection. The plate has a flat base, and its interior is most frequently decorated with two belts with circles (Pl. 1, 3). One plate is markedly different from the standard by its prominently bulging base (Pl. 1, 3). Stamped floral motifs are found on one plate and on another fragment (Pl. 1, 4, 5). The colour of clay varies from orange-red to dark brown. The hardness likewise varies, however, it is noticeable that the orange-red specimens are of much better quality than the darker variants, which peel off and disintegrate. The vessel slips vary from red to yellowish variants. The plates are of various sizes, with the rim diameters ranging from 16 cm (Pl. 1, 2) up to 26 cm. The pottery of B2 group is dated to the period from 70 to 150 A.D. (Hayes 1985, 51), with the earlier pieces having smaller dimensions, with diameters between 14-20 cm, while in the later phase they are produced in two sizes, with diameters of 15-18 and 22-30 cm (Hayes 1985, 64).

The second most frequent group consists of deep plates with a round base, Hayes's form ESB 80 (Pl. 1, 6-10) (Hayes 1985, 69, Pl. XV). The plates have a profiled rim that has an incised line running in the interior, while the base, which has a

5 The term eastern sigillata B, which is in general use today, was introduced in 1957 by K. M. Kenyon, while H. S. Robinson calls this pottery type Samian Ware.

6 I shall be using Hayes's typology of forms further in the text. He distinguishes 80 forms, the first 50 of which belong to eastern sigillata B1, while group B2 consists of forms between 51 and 80.

stepeničastoj formi, bez žigova. Pronađeno je oko 8, kako cjelovitih tako i fragmentiranih primjeraka. Ukoliko uzmemo u obzir oblik i dimenzije ovih tanjura, vidimo da su razlike minimalne, dok, gledajući kvalitetu i boju gline i premaza, ove posude pokazuju znatne varijacije. Kao i kod tanjura ravnog dna, najbolju kvalitetu izrade pokazuju narančastocrvene posude sa žučkastim i crvenim premazom (T. 1, 6, 10), dok su lošije kakvoće one izrađene od crvenkastosmeđe i tamnožute gline (T. 1, 7, 9). Na gotovo svim primjercima vidljive su horizontalne brazde koje su rezultat rada na lončarskom kolu. Na jednom primjerku uočljiva je deformacija, točnije iskrivljenje posude nastalo prije samog pečenja (T. 1, 9). Među svim primjerkima ovog tipa posuđa, valja izdvojiti i jedan istovjetni tanjur (sl. 2) izrađen od sive gline koji ima metalizirajući premaz (T. 1, 8).<sup>7</sup> Ova pojava nije iznenađujuća budući da ovaj keramički oblik predstavlja imitaciju metalne patere (Hayes 1985, 69). Duboki tanjuri oblog dna javljaju se u dvije dimenzije, promjera 14-16 cm i 18-20 cm (Hayes 1985, 69). Jedan primjerak pronađen u Pakoštanima spada u manju varijantu, dok ostali pripadaju u veću. Datiraju se u razdoblje od 80. do 150. godine poslije Krista (Hayes 1985, 70).

Posljednju skupinu istočne sigilate B2 čine duboke zdjele, Hayes ESB forma 76b (T. 2, 1-3). Ravnog su dna s vrlo malo izbočenom prstenastom nožicom, kosih stijenki i prema vani izvučenim obodom. Vanjsku stranu stijenke okružuje jedna urezana kružnica. Pronađeni su dijelovi od približno četiri posude, promjera od 16 do 24 cm. Vidljivi su ostatci žučkastog premaza, dok je glina od koje su izrađene tamnožuta i lošije kvalitete. Hayes ovu veću varijantu zdjela datira u razdoblje od 100. do 150. godine nakon Krista (Hayes 1985, 69).

Çandarli<sup>8</sup> keramika zastupljena je jednom uobičajenom formom, a to je polusferična zdjela, Hayes forma L 19 (Hayes 1985, 76, T. XVII). Zdjela je poluloptastoga, jednostavnog oblika, s istaknutom prstenastom nogom (T. 2, 4, 5). Konični prijelaz između oboda i trbuha posude ukrašen je naglašenim rebrom koji okružuje cijelu posudu. Zdjele su rađene od kvalitetne narančastocrvene gline s tamnocrvenim premazom. Pronađeni su fragmenti triju posuda. Promjera su 17 i 19 cm. Na jednoj zdjeli vidljiv je pečat *in planta pedis* koji je površno utisnut i nije čitljiv (T. 2, 4). Ovaj keramički oblik izrađen je po uzoru na italsku formu Goudineau 38b, te se datira u drugu polovinu I. i početak II. st. po. Kr. (Hayes 1985, 76, T. XVII).

Posljednji primjer sigilate predstavljaju dvije zdjele nešto tanjih stijenki (T. 2, 6, 7). S unutarnje strane ukrašene su jednom, odnosno dvjema kružnicama izvedenim sitnim polukružnim ubodima. Nije očuvan ni jedan ulomak dna posude, međutim, prema analogijama koje donosi Brusić, koji ovaj tip također pripisuje istočnomediterranskim radionicama, može se pretpostaviti postojanje trokutaste kanelure na samom dnu tanjura (Brusić 1993, 83, T. IV, 7). Jedno takvo dno Robinson pripisuje pergamskoj radionici, a pronađeno je na atenskoj Agori u kontekstu prve polovine II. st. po. Kr. (Robinson 1959, 47, Pl. 60).

Na koji način istočnomediterranska keramika dolazi na istočni Jadran najbolje nam ilustriraju nalazi nekoliko antičkih brodoloma, čiji teret sadrži isključivo ovu vrstu keramike. Kao glavni brodski teret pronađena je na lokalitetima: Izmetište

ring-foot on the outside, is executed in a characteristic step-like form in the interior, without stamps. Around 8 pieces have been found, complete as well as fragmented. If we consider the form and dimensions of those plates, we see that the differences are minimal, whereas if one looks at the quality and colour of clay and slip, these vessels show considerable variation. Similar to the flat-based plates, the workmanship is best in the case of orange-red vessels with a yellowish and red slip (Pl. 1, 6, 10), while those made of reddish-brown and dark yellow clay are of a less good quality (Pl. 1, 7, 9). Almost all pieces show horizontal furrows brought about by the action of the potter's wheel. Deformation is visible on one piece, or more precisely, the vessel distorted prior to the firing itself (Pl. 1, 9). An identical plate deserves to be singled out from all other examples of this type of vessel (Fig. 2). It is made of gray clay and has a metallizing slip (Pl. 1, 8).<sup>7</sup> This phenomenon is not surprising as this ceramic form represents an imitation of a metal patera (Hayes 1985, 69). Deep round-based plates appear in two sizes, with a diameter of 14-16 cm and 18-20 cm respectively (Hayes 1985, 69). One piece found in Pakoštane belongs to the smaller variant, while the remainder belongs to the larger one. They are dated to the period between 80 and 150 A.D. (Hayes 1985, 70).

The last group of eastern sigillata B2 consists of deep bowls, Hayes ESB form 76b (Pl. 2, 1-3). They have a flat base with an only slightly projecting ring-foot, with slanting walls and everted rim. An incised circle goes around the outside of the wall. Pieces of approximately four vessels have been found, with diameters ranging between 16 to 24 cm. The remains of a yellowish slip are visible, while the clay they were made of is dark yellow and of poorer quality. Hayes dates this larger variant of bowls to the period between 100 and 150 A.D. (Hayes 1985, 69).

The Çandarli<sup>8</sup> ware is represented with a standard form – a hemispherical bowl, Hayes form L 19 (Hayes 1985, 76, Pl. XVII). The bowl has a semi-globular, simple shape, with a prominent ring-foot (Pl. 2, 4, 5). The conical transition from the rim to the belly is decorated with a pronounced rib encircling the entire vessel. The bowls were made of orange-red clay of good quality, with a dark red slip. Fragments belonging to three vessels have been found. Their diameters are 17 and 19 cm. An *in planta pedis* stamp is visible on one bowl, superficially impressed and illegible (Pl. 2, 4). This ceramic form is made on the model of the Italic form Goudineau 38b, and it is dated to the second half of the 1<sup>st</sup> and the beginning of the 2<sup>nd</sup> cent. A.D. (Hayes 1985, 76, Pl. XVII).

The last example of sigillata consists of two bowls with somewhat thinner walls (Pl. 2, 6, 7). Their interior is decorated with one and two circles respectively, executed with tiny semicircular stabblings. Even though not one fragment of a vessel base has been preserved, according to the analogies put forward by Brusić, who likewise attributes this type to eastern Mediterranean workshops, it can be surmised that there was a triangular canelure on the very bottom of the plate (Brusić 1993, 83, Pl. IV, 7). One such base, found at the

7 Metalizirajući premaz ovog tanjura očuvao se zahvaljujući konzervacijskim odlikama morskog mulja na nalazištu. Iako je tanjur odmah pri pronalasku stavljen u proces desalinizacije, nakon završetka tog procesa premaz je izgubio glavninu svojeg obilježja. Kako bi se zaštitili ovako dobro očuvani premazi, bilo bi dobro i prije desalinizacije nekim sredstvom impregnirati reprezentativnu stranu posude.

8 Robinson ovu keramiku naziva Pergamskom, a Kenyon predlaže naziv *Sigillata Orientale C*, dok Hayes koristi naziv *Çandarli* prema imenu luke blizu Pergama, gdje se i proizvodila ova grupa keramike (Hayes 1985, 71), u čijim formama se razaznaje znatan utjecaj aretinskih majstora (Hayes 1985, 73). U daljnjem tekstu koristit će se Hayesovo nazivlje.

7 The metallizing slip of this plate has been preserved owing to the conservation properties of the sea mud at the site. Even though the plate has been subjected to desalinization immediately after it was found, following the end of the process the slip lost most of its properties. In order to protect such well-preserved slips, it would be good to impregnate the representative side of a vessel with a certain substance even before desalinization.

8 Robinson uses the term Pergamon Ware for this pottery type, while Kenyon proposes the name *Sigillata Orientale C*, and Hayes uses the term *Çandarli*, after a harbour near Pergamon, where this pottery group had been produced (Hayes 1985, 71). A considerable influence of the Arezzo masters is perceptible in the forms of this ware (Hayes 1985, 73). Hayes's terminology will be used throughout the text.



Sl. 3. Nalazište Viganj kod Pelješca (snimio: Z. Brusić)  
Fig. 3. The Viganj site off Pelješac (photo by Z. Brusić)

(Ilakovac 1968, 183-200) kod Paklenih otoka i Viganj (Cambi 1969, 230) kod Pelješca, a kao dio tereta javlja se na lokalitetima: Maharac (Vrsalović 1979, 247) i Veliki školj na Mljetu (Vrsalović 1979, 248-249).

### ISTOČNOMEDITERANSKA KUHINJSKA KERAMIKA

Osim spomenutih slučajeva, gdje istočnomediteranska kuhinjska keramika<sup>9</sup> čini glavni dio tereta trgovačkog broda, ona se javlja na velikom broju istočnojadranskih brodoloma, okvirno datiranih od I. do III. st. po. Kr. U ovom slučaju istočna kuhinjska keramika nije dio tereta, već ima svoju funkciju u brodskoj kuhinji. Neka nalazišta ovog tipa su: Zlarin (Vrsalović 1974, 41), Glavat kod Mljeta (Jurišić 1988, 41-42), te Ilovik (Dautova-Ruševljan 1970, 167).

Budući da je istočnomediteranska kuhinjska keramika bila sastavni dio brodske kuhinje, sasvim je logično da isto posuđe nalazimo i na mjestima gdje su se brodovi trajnije zadržavali, pa je tako poznato više antičkih luka u čijim slojevima nalazimo ovo posuđe, primjerice, Zaton kod Zadra (Vrsalović 1979, 412), Murter (Vrsalović 1974, 37), Kumenat kod Biograda (Jurišić 2000, 38), Maračol kod Unija (Vrsalović 1979, 163), Verige na Brijunima (Jurišić, Radić 1989, 34-35), Resnik kod Kaštela, i naravno, Janice u Pakoštanima. Podvodni arheološki lokaliteti nisu jedini na kojima nalazimo kuhinjsku keramiku. Nalazimo je u velikom broju, priobalnih kao i kontinentalnih lokaliteta, tako da nalazišta spomenute keramike možemo pratiti od Mljeta, Pelješca, preko dalmatinskih luka i njihova zaleđa, po Istri, zapadnoj Sloveniji, duž talijanske obale, do nalazišta Porto Recanati u blizini Ankone (Istenič, Schneider 2000).

U bogatim arheološkim slojevima pakoštanske antičke luke pronađen je velik broj cjelovitih kao i fragmentiranih posuda. Uzmemo li u obzir prepoznatljive dijelove posuđa kao što su ručice, obodi i dna, broj primjeraka pronađenih u sondi mogao bi iznositi približno oko stotinu i pedeset komada istočnomediteranske kuhinjske keramike. Znajući da je veličina arheološke sonde bila 4 x 2 m, možemo pretpostaviti vrlo veliku koncentraciju ovog posuđa na cjelokupnom nalazištu, što je još jedan od dokaza intenzivnog prometa u samoj luci.

Osim broskog gorionika i tanjura profiliranog oboda, antička luka u Pakoštanima dala je sve glavne tipove istočnomediteranske kuhinjske keramike. Sve posude na sebi imaju vidljive tragove gorenja, što nam govori da su najvjerojatni-

9 Ova vrsta keramike naziva se još i keramika egejskih tipova.

Agora in Athens in a context of the first half of the 2<sup>nd</sup> cent. A.D., is attributed by Robinson to a workshop in Pergamon (Robinson 1959, 47, Pl. 60).

The way the eastern Mediterranean pottery reached eastern Adriatic is best illustrated by the finds of several ancient shipwrecks, whose cargo contains exclusively this type of pottery. It formed the principal cargo at the following sites: Izmetište (Ilakovac 1968, 183-200) off the Paklenski Otoci archipelago and Viganj (Cambi 1969, 230) off Pelješac, and it appears as a part of cargo at Maharac (Vrsalović 1979, 247) and Veliki Školj off Mljet (Vrsalović 1979, 248-249).

### THE EASTERN MEDITERRANEAN KITCHENWARE

In addition to the mentioned cases, where eastern Mediterranean kitchenware<sup>9</sup> makes up the bulk of the cargo of the merchant ship, it appears in case of numerous eastern Adriatic shipwrecks, approximately dated from the 1<sup>st</sup> to the 3<sup>rd</sup> cent. A.D. In this case the kitchenware is not part of the cargo but forms part of the galley equipment. Some of the sites of this type are: Zlarin (Vrsalović 1974, 41), Glavat near Mljet (Jurišić 1988, 41-42), and Ilovik (Dautova-Ruševljan 1970, 167).

As the eastern Mediterranean kitchenware was a composite part of a ship's galley, it is perfectly logical that the same ware is found also at places where the ships spent considerable time. Consequently, several ancient harbours with layers containing this ware are known, e.g. Zaton near Zadar (Vrsalović 1979, 412), Murter (Vrsalović 1974, 37), Kumenat near Biograd (Jurišić 2000, 38), Maračol near Unije (Vrsalović 1979, 163), Verige on the Brijuni islands (Jurišić, Radić 1989, 34-35), Resnik near Kaštela and, of course, Janice in Pakoštane. The underwater archaeological sites are not the only ones that yielded kitchenware. We find it also at a large number of coastal sites as well as those on the continent, so that the sites with the mentioned ware can be followed from the Mljet island and the Pelješac peninsula, across Dalmatian harbours and their hinterland, through Istria, western Slovenia, along the Italian coast, to the site of Porto Recanati in the vicinity of Ancona (Istenič, Schneider 2000).

A large number of complete vessels as well as fragmented ones have been found in rich archaeological layers of the ancient harbour of Pakoštane. If we take into consideration the recognizable parts of vessels, such as handles, rims and bases, the number of pieces found in the trench could amount to approximately hundred and fifty pieces of eastern Mediterranean kitchenware. Knowing that the size of the archaeological trench was 4 x 2 m, we can surmise a great density of this ware over the entire site, which is another proof for an intense traffic in the harbour itself.

In addition to a ship's burner and a plate with a profiled rim, the ancient harbour in Pakoštane yielded all the main types of the eastern Mediterranean kitchenware. All the vessels show visible traces of burning, which tells us that they had most probably been used in a ship's galley. Traces of burning are lacking only on small one-handed pots and beakers, however, this vessel types were generally not used for cooking.

The bowls (Pl. 3, 1-4) were made of well-refined clay of good quality, and show a variety of sizes and shapes. Traces of burning are visible on the outer sides of the vessels. Various texture colours are visible on the fractures of vessels, of which reddish-brown prevail, while brown and yellow ones appear more rarely. The vessel walls themselves are 3-6 millimetres thick. There are two basic variants, deeper and

9 This pottery type is called also the Aegean type pottery.



Sl. 4 Zdjela *in situ* (snimio: Z. Brusić)  
Fig. 4 A bowl *in situ* (photo by Z. Brusić)

je bile korištene u brodskoj kuhinji. Tragove gorenja nemaju jedino mali lončići s jednom ručicom i vrčevi, međutim, ovi tipovi posuda općenito nisu bili korišteni za kuhanje.

Zdjele (T. 3, 1-4) su načinjene od kvalitetne, dobro pročišćene gline, različitih su dimenzija i oblika. Na vanjskim dijelovima posuda vidljivi su ostatci gorenja. Na lomovima posuda uočavaju se različite boje fature koje su najčešće crvenkasto-smeđe, a rjeđe se javljaju smeđe i žute. Same stijenke posuda su debljine od 3 do 6 milimetara. Dvije su osnovne inačice, dublje i pliće zdjele. Sve inačice karakterizira bikoničnost tijela, oblo dno te dvije trakaste ručice. Znatno dio posuda ima deformacije nastale utiskivanjem ručica u meku glinu. Značajnije razlike primjećuju se kod izvedbe oboda. Prema Hayesovoj tipologiji većina zdjela iz Pakošтана pripada tipu 2 (Hayes 1983, 122), kojeg karakterizira u presjeku ravan i prema gore izvučen obod (T. 3, 1, 3). Istovjetne posude susrećemo i na atenskoj Agori u kontekstu kraja I. i početka II. st. po. Kr. (Robinson 1959, 42, Pl. 7). Pronađeno je i nekoliko ulomaka zdjela, čiji je obod izveden u obliku slova S (T. 3, 4). Analogije ovakvoj zdjeli nalazimo na Izmetištu (Jurišić 2000, 36, 65, 155) i Vignju (Rapanić 1972, 145-147).

Lonci (T. 3, 5-10) su trbušastog oblika, tankih kaneliranih stijenki. Općenito se javljaju s dvije, jednom, ili bez ručica, dok u cijelosti svi očuvani pakoštanski lonci imaju dvije ručice. Različitih su dimenzija, napravljeni su od fino pročišćene gline te su se fragmenti stijenki izrazito dobro očuvani. Stijenke su na lomovima crvenkastosmeđe, žute i sivo-crne boje. Kanelure se javljaju od oboda do dna, s vanjske i unutarnje strane. Uzmemo li u obzir same dimenzije, jasno vidimo da su zastupljene sve veličinske skupine lonaca, međutim, najčešći promjer samog oboda kreće se oko 20 cm. Na samom dnu modelirano je udubljenje, tako da lonci mogu samostalno stajati na ravnoj plohi. Nekoliko lonaca ima vidno, prema dolje, izvučen dio sa stajaćom plohom, što je moglo nastati vađenjem lonca s lončarskog kola, ili se pak radi o namjerno izvedenom obliku radi lakšeg postavljanja na obruč za kuhanje (T. 3, 5). Na nekima se primjećuju iskrivljenja, nastala utiskivanjem ručica u meku glinu. Pored bikoničnih zdjela, lonci su najviše zastupljeni oblik na nalazištu. Obodi su izvedeni u nekoliko varijanti. Najčešći oblik lonca je Hayesov tip 2 (Hayes 1983, 122-123), to znači oštro prelomljen i prema gore blago izvučen obod (T. 3, 5, 9). Analogni oblici lonaca nađeni su i na atenskoj Agori i datirani su u razdoblje između kraja I. i početka II. st. po. Kr. (Robinson 1959, 42, Pl. 7). Pronađen je i tip 1 (Hayes 1983, 122-123), kod kojeg je obod trokutastog presjeka izvučen prema dolje (T. 3, 6). Među ostalim oblicima pronadjen je i jedan fragment manjeg lonca, malo razvučenoga, trokutastog presjeka. Kosi-

shallower bowls. All variants are characterized by a biconical body, round base and two strap handles. A considerable number of vessels show deformations caused by pressing the handles into soft clay. Significant differences are visible in the rendering of rims. According to Hayes's typology most bowls from Pakošтана belong to type 2 (Hayes 1983, 122), characterized by an upward-everted rim of a flat cross-section (Pl. 3, 1, 3). Identical vessels were found at the Agora in Athens in the context of the end of the 1<sup>st</sup> and the beginning of the 2<sup>nd</sup> cent. A.D. (Robinson 1959, 42, Pl. 7). Several fragments of bowls were also found, with a rim executed in the shape of the letter S (Pl. 3, 4). We find analogies for a bowl of this kind at Izmetište (Jurišić 2000, 36, 65, 155) and at Viganj (Rapanić 1972, 145-147).

The pots (Pl. 3, 5-10) are bellied with thin cannellured walls. They generally appear with two, one or without handles, while all entirely preserved pots from Pakošтана have two handles. They are of various dimensions, made of finely refined clay and the wall fragments are markedly well preserved. The walls show reddish-brown, yellow and gray-black colour on the fractures. The cannellures are present from the rim to the base, on the outside and the inside. If we consider the dimensions themselves, we see clearly that all size groups of pots are present, but the most frequent size of the rim diameter is around 20 cm. A depression is modeled on the very base, so that the pots can stand on their own on a flat surface. Several pots have clearly visible downward-facing drawn-out part with a standing surface, which may have occurred when the pot was being removed from a potter's wheel, or else it was a deliberate form with the aim of facilitating the placement of a pot on a cooking ring (Pl. 3, 5). Distortions are visible on some pots, brought about by inserting handles into soft clay. In addition to the biconical bowls, the pots are the most frequent form at the site. The rims are executed in several variants. The most frequent pot form is type 2 after Hayes (Hayes 1983, 122-123), i.e. with a sharply bent and slightly upwards drawn-out rim (Pl. 3, 5, 9). Analogous pot forms were found at the Agora in Athens, dated to the period between the end of the 1<sup>st</sup> and the beginning of the 2<sup>nd</sup> cent. A.D. (Robinson 1959, 42, Pl. 7). Type 1 was also found (Hayes 1983, 122-123). It has a rim of a triangular cross-section, drawn-out downwards (Pl. 3, 6). Among other forms, there is a fragment of a smaller pot, with a slightly stretched triangular cross-section. The slant of the rim descends outwards at an angle of 45 degrees (Pl. 3, 8). The site of Viganj provided a closer analogy (Jurišić 2000, 163), while Hayes places it in type 4 (Hayes 1983, 122, 124).

One-handed small pots (Pl. 4, 1-6) are made of finely refined clay, have markedly thin walls with a profiled belly. The rim extends outwards, and a sharp transition from the shoulder to the mouth of the vessel is in most cases decorated with a horizontal ring encircling the entire vessel. A vertical handle of an irregular cross-section extends from the rim and connects near the middle of the belly of the vessel. The vessel base is slightly pronounced, while the standing surface is cut flat. Even though six almost entire pieces have been found, the pots have considerably worn-out walls and are prone to cracking. If we consider the complete pieces and discovered bases of these small pots, we see that there had been around 35 of them in the area of the trench, which speaks that they were present in large numbers at the whole site. Almost all small pots from Pakošтана belong to the shorter variant (Pl. 4, 2-6), which is in fact the most frequent one at our sites, for instance, at Izmetište (Ilakovac 1968, 183-185, Pl. I, Pl. III) and Viganj (Rapanić 1972, 144, 147). Shorter pots belong to type 2 in Hayes's classification (Hayes 1983, 122, 124). Among other





Karta 3 Nalazišta egejske kuhinjske keramike na jadranskom prostoru (prema Istenič J, Schneider G. 2000, Fig. 1, 342): 1 Rodik, 2 Hrušica, 3 Ljubljana, 4 Grosuplje, 5 Buzet-Funtana, 6 Katoro-Umag, 7 Sorna kod Poreča, 8 Kringa, 9 Pula, 10 Brijuni, 11 Nerezine, 12 Ilovik, 13 Nin, 14 Zadar, 15 Nadin-Gradina, 16 Biljane Donje, 17 Pašman, 18 Smokvice kod Šibenika, 19 Satrič, 20 Pakleni otoci, 21 Viganj na Pelješcu, 22 Mljet, 23 Aquileia, 24 Oderzo, 25 Corte Cavanella de Loreo, 26 S. Basilio, 27 Voghenza, 28 Russi-Ravenna, 29 Portorecanati.

Map 3 The sites with the Aegean kitchenware in the Adriatic area (after Istenič J, Schneider G. 2000, Fig. 1, 342): 1 Rodik, 2 Hrušica, 3 Ljubljana, 4 Grosuplje, 5 Buzet-Funtana, 6 Katoro-Umag, 7 Sorna near Poreč, 8 Kringa, 9 Pula, 10 Brijuni, 11 Nerezine, 12 Ilovik, 13 Nin, 14 Zadar, 15 Nadin-Gradina, 16 Biljane Donje, 17 Pašman, 18 Smokvice near Šibenik, 19 Satrič, 20 Pakleni Otoci, 21 Viganj on Pelješac, 22 Mljet, 23 Aquileia, 24 Oderzo, 25 Corte Cavanella de Loreo, 26 S. Basilio, 27 Voghenza, 28 Russi-Ravenna, 29 Porto Recanati.

na oboda pada prema van pod kutom od 45 stupnjeva (T. 3, 8). Bližu analogiju nalazimo na nalazištu Viganj (Jurišić 2000, 163), dok ga Hayes smješta pod tip 4 (Hayes 1983, 122, 124).

Lončići s jednom ručicom (T. 4, 1-6) izrađeni su od dobro pročišćene gline, stijenke su izrazito tanke i trbušasto modelirane. Obod je izvučen prema van, a oštar prijelaz ramena u otvor posude, u većini je slučajeva ukrašen horizontalnim prstenom koji okružuje cijelu posudu. Okomita ručica nepravilnog presjeka, proteže se od visine oboda i spaja se pri sredini trbuha posude. Dno posude je malo naglašeno, a stajaća ploha ravno odsječena. Iako je nađeno šest gotovo cijelih primjeraka, lončići su dosta nagriženih stijenki i skloni pucanju. Uzmemo li u obzir cjelovite primjerke i pronađena dna ovih lončića, vidimo da ih je na prostoru sonde bilo oko 35, što nam govori o njihovoj velikoj zastupljenosti na cijelom lokalitetu. Gotovo svi lončići iz Pakoššana pripadaju nižoj varijanti (T. 4, 2-6) koja je ustvari i najčešća na našim nalazištima, primjerice, na Izmetištu (Ilakovac 1968, 183-185, T. I, T. III) i Vignju (Rapanić 1972, 144, 147). Niži lončići spadaju pod tip 2 Hayesove podjele (Hayes 1983, 122, 124). Među ostalim u Pakoššanima je pronađeno i nekoliko ulomaka oboda vjerojatno jednoga višeg lončića s izvučenijim obodom (T. 4, 1). Prema Hayesu, ovaj izduženi lončić pripadao bi tipu 1, tj. izvornom egejskom

things, Pakoššana yielded also several rim fragments of what was probably a taller small pot with a more everted rim (Pl. 4, 1). In Hayes's opinion, this elongated small pot would belong to type 1, i.e. the original Aegean form, while shorter forms are often found over southern and central Italy (Hayes 1983, 107). Such proportion in favour of shorter pots is not surprising in the least, considering that the shorter form is more numerous at other sites (Jurišić 2000, 35). A small pot with a rim of a triangular cross-section and with a prominent horizontal ring (Pl. 4, 6) draws attention among other objects. The shape of this fragment resembles Hayes's type 1 of a larger pot with two handles, and it has no analogies so far on the Adriatic sites. Another interesting find is that of a small pot whose horizontal ring has a trapezoidal cross-section instead of a semicircular, which is usual (Pl. 4, 3). Among numerous fragments of pot walls there is one containing incised lines that make up an indeterminate shape (Pl. 4, 5). The lines were incised after the vessel had been fired, and they perhaps form part of a drawing extending over the entire vessel. Hayes dates the one-handled pots from late Flavian period up until the year 200. However, he points out that the coloured types of pots continue also during the 3<sup>rd</sup> cent. A.D. (Hayes 1983,

obliku, dok se niži oblici često nalaze i po južnoj i središnjoj Italiji (Hayes 1983, 107). Ovakav bročani odnos u korist nižih lončića uopće na začuđuje, budući da je niži oblik zastupljeniji i na ostalim lokalitetima (Jurišić 2000, 35). Od ostalih oblika vrlo je zanimljiv i lončić s obodom trokutastog presjeka i naglašenoga horizontalnog prstena (T. 4, 6). Ovaj ulomak svojim oblikom podsjeća na Hayesov tip 1 većeg lonca s dvije ručice, te na jadranskim nalazištima, zasad, nema analogija. Zanimljiv je i nalaz lončića čiji je horizontalni prsten trapezoidnog presjeka, a ne polukružnoga, kako je to već uobičajeno (T. 4, 3). Među mnogobrojnim ulomcima stijenki lončića pronađen je i jedan fragment na kojem se vide urezane crte koje tvore nekakav neodređen oblik (T. 4, 5). Crte su urezane nakon pečenja same posude, i možda su dio crteža koji se protezao duž cijele posude. Hayes lončice s jednom ručicom datira od kasnoga flavijevskog razdoblja pa sve do 200. godine, međutim, naglašava kako bojani tipovi lončića traju i tijekom III. st. po. Kr. (Hayes 1983, 107). Ovi oblici lončića javljaju se i na atenskoj Agori i datirani su od kraja I. do početka III. st. po. Kr. (Robinson 1959, 41, 55, Pl. 7, 9).

Vrčevi (T. 4, 7) su trbušastog oblika i otvora u obliku trilobe. Prijelaz između vrata i trbuha je oštar, a stajaća ploha izrazito uvučena. Svi vrčevi imaju jednu trakastu ručicu koja se s ruba otvora spušta na trbuh posude. Stijenke su tamnocrvene boje, a vidljive su i kanelure nastale radom na lončarskom kolu. Stijenke su najdeblje na samom trbuhu vrča, oko 6 mm, a najtanje su, oko 3 mm, na vratu i na dnu vrča. Na mjestu gdje se trakasta ručica spaja s trbuhom posude primjetna su i udubljenja, nastala njezinim utiskivanjem u meku glinu prije samog pečenja. U antičkoj luci pronađen je jedan gotovo cijeli, te dva necjelovita primjerka. Ovaj cjelovitiji vrč visine je 20 cm pa tako pripada većem tipu vrča (T. 4, 7). Veći vrčevi mnogo su rjeđi među istočnojadranskim podvodnim nalazima (Jurišić 2000, 35). Vrčevi ovog tipa nađeni su i na atenskoj Agori, a pripadaju razdoblju od kraja I., do polovine II. st. po. Kr. (Robinson 1959, 42, Pl. 7).

Poklopci (T. 4, 8, 9) su koničnog oblika, s nepravilnom če-pastom drškom. Stijenke su tamnocrvene boje, a na njihovim vanjskim stranama uočavaju se kanelure. Grube su izrade, a najveća iskrivljenja uočavaju se kod drški koje su u svim slučajevima nepravilno nakošene. U antičkoj luci u Pakoštanima pronađena su četiri cjelovitija primjerka. Gotovo svi imaju oštećenja po bridovima pa je nemoguće sasvim točno odrediti njihov promjer, međutim, vrlo vjerojatno su odgovarali zdjelama i loncima. U prilog ovome govore i podatci s brodoloma kod rta Izmetište, gdje su se, među ostalim, poklopci nalazili na zdjelama, a u rjeđim slučajevima i na loncima (Jurišić 2000, 36). Hayes istovjetni oblik s Krete svrstava pod tip 1, te ga datira u razdoblje prije 150. godine poslije Krista (Hayes 1983, 122, 124). Uzimajući u obzir sve to, ove poklopce možemo okvirno datirati jednako kao zdjele i lonce.

Tave (T. 5, 1-3) imaju oblik plitkih, masivnih tanjura koji na dijelu oboda imaju kratku dršku s otvorom koji je vjerojatno služio za nasad drvenog nastavka. U Pakoštanima su pronađeni fragmenti triju tava. Grube su izrade, tamnocrvene boje te debljih stijenki s dosta primjesa kalcita. Najkласičnija tava ima bočnu stijenku nagnutu prema van pod kutom od 45° (T. 5, 2). Na vanjskoj strani primjećuje se čađa, što je posljedica korištenja, tj. izlaganja otvorenoj vatri. Debljina stijenke oboda je 11 mm, a debljina ravnog dna iznosi 7 mm. Vrh oboda je oblog presjeka, a pretpostavljeni promjer cijele posude iznosi približno 30 cm, a to znači da ovaj primjerak spada u manju skupinu, dok veće tave imaju promjer oko 40 cm. Budući da tava nije očuvana u cijelosti, teško je odrediti postojanje drške jer je u nekim slučajevima tave uopće nemaju. Tave slične

107). These pot forms appear also at the Agora in Athens and are dated from the end of the 1<sup>st</sup> until the beginning of the 3<sup>rd</sup> cent. A.D. (Robinson 1959, 41, 55, Pl. 7, 9).

The beakers (Pl. 4, 7) are bellied and have a mouth in the shape of a triloba. The transition between the neck and the belly is sharp, and the standing surface is markedly drawn-in. All the beakers have a strap handle that descends from the rim to the belly of the vessel. The walls are dark red, and cannelures from the action of a potter's wheel are also visible. The walls are thickest at the beaker belly, around 6 mm, while they are thinnest, around 3 mm, on the neck and on the base of the beaker. At the spot where the strap handle joins the belly there are visible depressions where the handle was pressed into soft clay prior to the firing. The ancient harbour yielded one complete piece as well as two incomplete ones. The more complete beaker is 20 cm high which makes it a pot of a larger type (Pl. 4, 7). Larger beakers are much rarer among eastern Mediterranean underwater finds (Jurišić 2000, 35). The beakers of this type were also found at the Athenian Agora, and they belong to the period from the end of the 1<sup>st</sup> until the mid-2<sup>nd</sup> cent. A.D. (Robinson 1959, 42, Pl. 7).

The lids (Pl. 4, 8, 9) have a conical shape, with an irregular plug-shaped handle. The walls are dark red, and cannelures are perceptible on their exterior sides. They were coarsely made, and the biggest distortions can be seen on handles, which are irregularly slanted in all cases. Four more complete pieces have been found in the ancient harbour in Pakoštane. Almost all of them are damaged on the edges and it is impossible to be fully precise about their diameter; however, in all likelihood they corresponded to the bowls and pots. The data from the shipwreck at the Izmetište cape speak in favour of this. There, among other things, the lids stood on bowls and in rarer cases also on pots (Jurišić 2000, 36). Hayes places a corresponding piece from Crete in type 1 and dates it in the period prior to 150 A.D. (Hayes 1983, 122, 124). Taking all this into account, we can generally date these lids the same as the bowls and pots.

Pans (Pl. 5, 1-3) are shaped as shallow, massive plates with a short handle on a part of the rim, with an opening that was most probably used for a wooden extension. Pakoštane yielded fragments of three pans. They were coarsely made, are of red colour with thicker walls with a lot of calcite additions. The most classic pan has the side wall inclined outwards at an angle of 45° (Pl. 5, 2). Soot is visible on the exterior, a consequence of use, i.e. exposure to open fire. The rim wall is 11 mm thick, while the thickness of the flat base is 7 mm. The rim top has a round cross-section and the surmised diameter of the entire vessel is approximately 30 cm, meaning that this piece belongs to the group of smaller pans, while the larger ones have diameter around 40 cm. Considering that the pan is not entirely preserved, it is difficult to determine whether it had had a handle, as there are pans lacking the handle altogether. Similar pans were found at the Agora in Athens, in the context of the 1<sup>st</sup> cent. and the first half of the 2<sup>nd</sup> cent. A.D. (Robinson 1959, 33, Pl. 7, 72). Hayes distinguishes two types of pans (Hayes 1983, 126-127). The mentioned specimen would belong to Hayes's type 1, i.e. a classical form of a pan which normally has a cylindrical extension for hafting the handle. Hayes thinks of a workshop in the Aegean, more precisely on Egina (Hayes 1983, 107). Further, it is important to mention Izmetište near Hvar (Jurišić 2000, 36) and Viganj near Pelješac (Rapanić 1972, 146-167), two very rich shipwrecks that brought to light several dozens of pans of this type. The

ovoj nađene su na atenskoj Agori, i to u kontekstu I. i prve polovine II. st. po. Kr. (Robinson 1959, 33, Pl. 7, 72). Hayes tave dijeli na dva tipa (Hayes 1983, 126-127). Spomenuti primjerak pripadao bi Hayesovom tipu 1, tj. klasičnom obliku tave koja najčešće ima cilindrični dodatak za nasad drške (Hayes 1983, 126). Hayes pretpostavlja radionicu na egejskom prostoru, točnije na Egini (Hayes 1983, 107). Nadalje, važno je spomenuti Izmetište kod Hvara (Jurišić 2000, 36.) i Viganj kod Pelješca (Rapanić 1972, 146-167), dva vrlo bogata brodoloma koja su iznijela na vidjelo više desetaka tava ovog tipa. Drugi primjer pripadao bi Hayesovom tipu 2 (T. 5, 3), čija se bočna stijenka savija oštrim lomovima (Hayes 1983, 126-127), dok posljednja ima oblu stijenku s dužom jezičastom ručicom (T. 5, 1).

Uz ove uobičajene, pronađena je i jedna vrlo rijetka posuda koja oblikom podsjeća na *kantharos* (T. 5, 4). Na nalazištu Izmetište imamo samo jedan istovjetni primjerak (Jurišić 2000, 37, Fig. 29), dok je na atenskoj Agori ovakav oblik pronađen u kontekstu sredine I. st. po. Kr. (Robinson 1959, 83, Pl. 70).

## ZAKLJUČAK

Unatoč činjenici koja nam govori da istočnomediterska keramika čini samo dio od ukupnoga arheološkog materijala iz Pakošтана, podatci dobiveni analizom ovog tipa posuda mogu uvelike pomoći u interpretaciji tog, u antici vrlo važnog, prostora.

Tu keramiku u pakoštansku luku donose trgovački brodovi, vjerojatno dijelom kao svoj teret, odnosno kao posude brodske kuhinje. Zbog već prije spomenutog zadržavanja brodova i posade u luci, posude je dospjelo na dno luke. Postavlja se pitanje, kako? Na to se može ponuditi više odgovora. Na većini kuhinjskih posuda izraziti su tragovi gorenja, tj. posude je višekratno korišteno, te se bacalo u more ukoliko bi došlo do bilo kakvog oštećenja. Sigilata je mogla biti odbačena i iz brodske kuhinje, i s druge strane, kao keramika oštećena u samom transportu.

Brojni ostatci posuda na dnu luke mogu barem djelomično ilustrirati život antičke luke. Možemo pretpostaviti više brodova privezanih duž operativne obale zaštićene lukobranom. Trgovci opskrbljuju brodske kuhinje namirnicama. Koristi se voda s jakog izvora pokraj lukobrana. Brodovi i njihove posade čekaju iskrcaj ili ukrcaj tereta, popravljaju se manja oštećenja na brodovima ili se jednostavno čeka povoljan vjetar za daljnju plovidbu. Najkraće rečeno, promet u luci je intenzivan.

Proizlazi pitanje, zašto Pakošтane? Odgovore možemo tražiti u nedostatku ozbiljnijega lučkog postrojenja na potezu od Kumenta kod Biograda, pa sve do luke antičkog Colentuma, te u golemoj trgovačkoj moći Aserije, Nadina, Alverie i, Pakošтанima najbliže, Blandone. Ovom popisu treba pridodati i cijeli niz gospodarskih zdanja na širem vranskom području te pakoštanski kompleks *villae rusticae* koji je zasigurno imao veliku ulogu u nastanku luke koja vremenom izrasta u jednu od važnijih postaja u trgovačkoj razmjeni između navedenih zajednica i cijelog Sredozemlja.

Istočnomeditersku keramiku pakoštanske luke možemo okvirno datirati u razdoblje druge polovine I., te tijekom čitavog II. st. po. Kr. Najvećim dijelom posude je klasičnoga, standardiziranog oblika, to znači originalni primjerci maloazijskih i egejskih radionica koji su krajem I. st. po. Kr. preplavili Jadran. Najbolji pokazatelj rute importa su brodolomi kod Izmetišta (Jurišić 2000, 30-38) i Vignja (Rapanić 1972, 141-148). Međutim, u Pakošтанima nalazimo i specifične oblike koji nemaju sličnosti s izvornicima, što je vjerojatno rezultat proizvodnje izvan izvornih radioničkih centara, te se ovo posude manjih radionica, iako u manjoj mjeri, također počinje koristiti u trgovinskoj razmjeni i opremanju trgovačkih brodova.

second example would belong to type 2 after Hayes (Pl. 5, 3), whose side wall bends in sharp inflections (Hayes 1983, 126-127), while the last one has a round wall with a longer tongue-shaped handle (Pl. 5, 1).

In addition to these usual pieces, a very rare vessel resembling a *kantharos* (Pl. 5, 4) has also been found. Only one identical piece comes from the site of Izmetište (Jurišić 2000, 37, Fig. 29), while at the Athenian Agora such shape was found in the context of mid-1<sup>st</sup> cent. A.D. (Robinson 1959, 83, Pl. 70).

## CONCLUSION

In spite of the fact telling us that the eastern Mediterranean pottery forms only a part of the whole of the archaeological material from Pakošтane, the information obtained by the analysis of this type of ware can significantly contribute to the interpretation of this area of great importance in antiquity.

This ware was brought to the Pakošтane harbour by merchant ships, probably partly as their cargo, partly as galley-ware. On account of the already mentioned stay of the ships and crew in the harbour, the ware ended at the bottom of the harbour. The question poses itself, how? Several answers can be offered. There are multiple vestiges of burning on most of the kitchen vessels, i.e. the pottery was used on many occasions, and it was thrown in the sea in case of any damage. The sigillata may have been discarded from a ship's galley and, on the other hand, as ware damaged during the transport.

Numerous remains of vessels on the bottom of the harbour can at least partly illustrate the life of the ancient harbour. We can evoke a picture of several ships tied along the operative coast protected by a breakwater. The merchants supply the galleys with provisions. Water from a strong source near the breakwater is used. The ships and their crews await the unloading or loading of the cargo, minor damages on the ships are being repaired or simply the ships wait for a favourable wind to resume the navigation. To cut the long story short, the traffic in the harbour is intense.

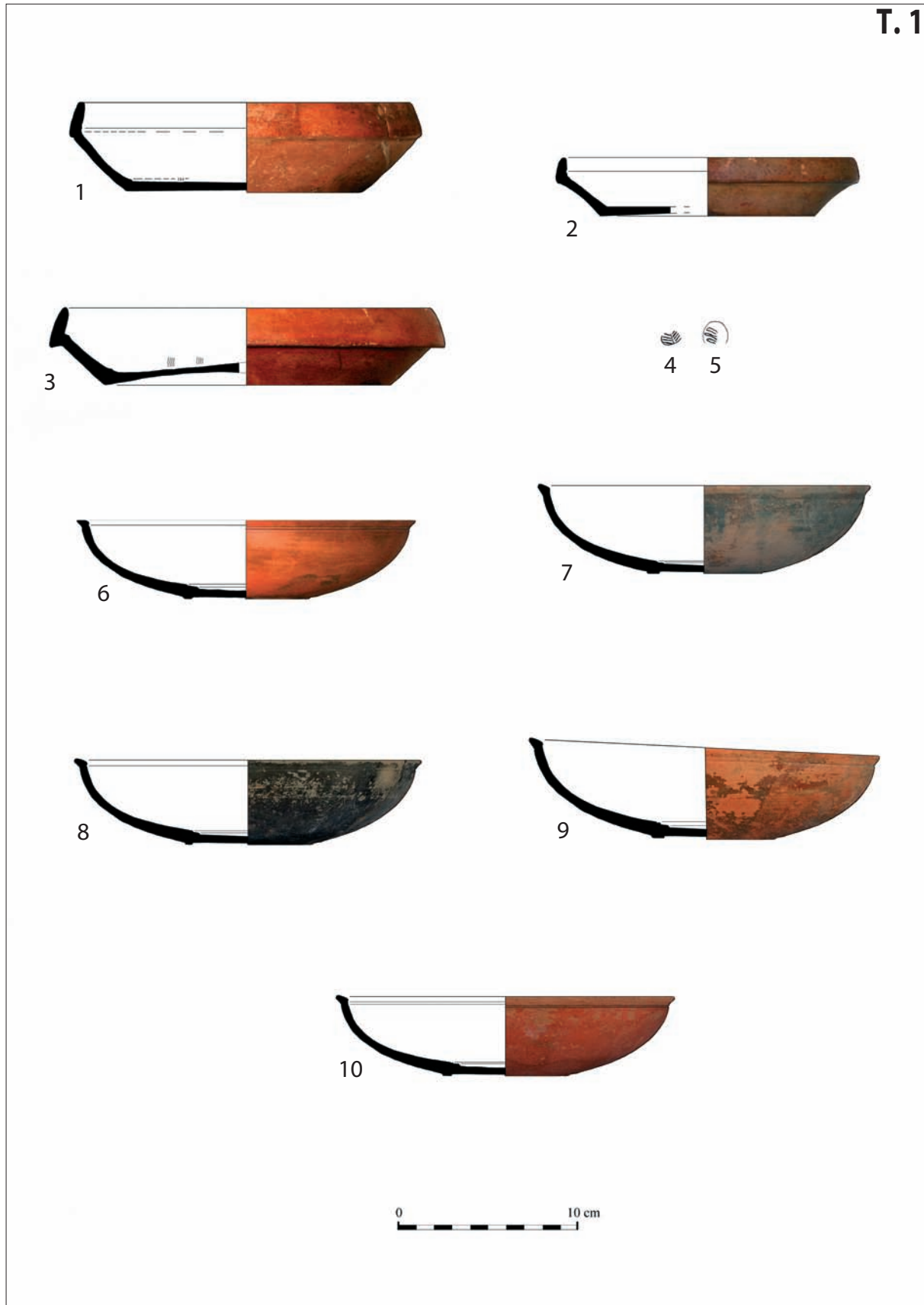
The question arises, why Pakošтane? The answers can be looked for in the absence of a serious harbour facility on the stretch from Kument near Biograd all the way to the harbour of ancient Colentum, as well as in the great commercial power of Asseria, Nedinum, Alveria and Blandona, which is the nearest site to Pakošтane. To this list one should add a whole series of economic buildings in the wider area of Vrana as well as a Pakošтane complex of a *villa rustica* which certainly had a big role in the creation of the harbour, which in the course of time grew into one of the more important stations in the commercial exchange between the mentioned communities with the entire Mediterranean.

We can approximately date the eastern Mediterranean pottery from the Pakošтane harbour in the period of the second half of the 1<sup>st</sup> cent. and the entire course of the 2<sup>nd</sup> cent. A.D. The largest part of the pottery has a classical, standardized form, meaning they were original pieces from the workshops in Asia Minor and the Aegean, which flooded the Adriatic towards the end of the 1<sup>st</sup> cent. A.D. The best indicator of the import route are the shipwrecks near Izmetište (Jurišić 2000, 30-38) and Viganj (Rapanić 1972, 141-148). However, we find in Pakošтane also specific forms without resemblance to the original pieces, which is probably the result of the production outside the original workshop centres, so this vessels from minor workshops, even though to a lesser degree, likewise started to be used in commercial exchange and the fitting out of merchant ships.

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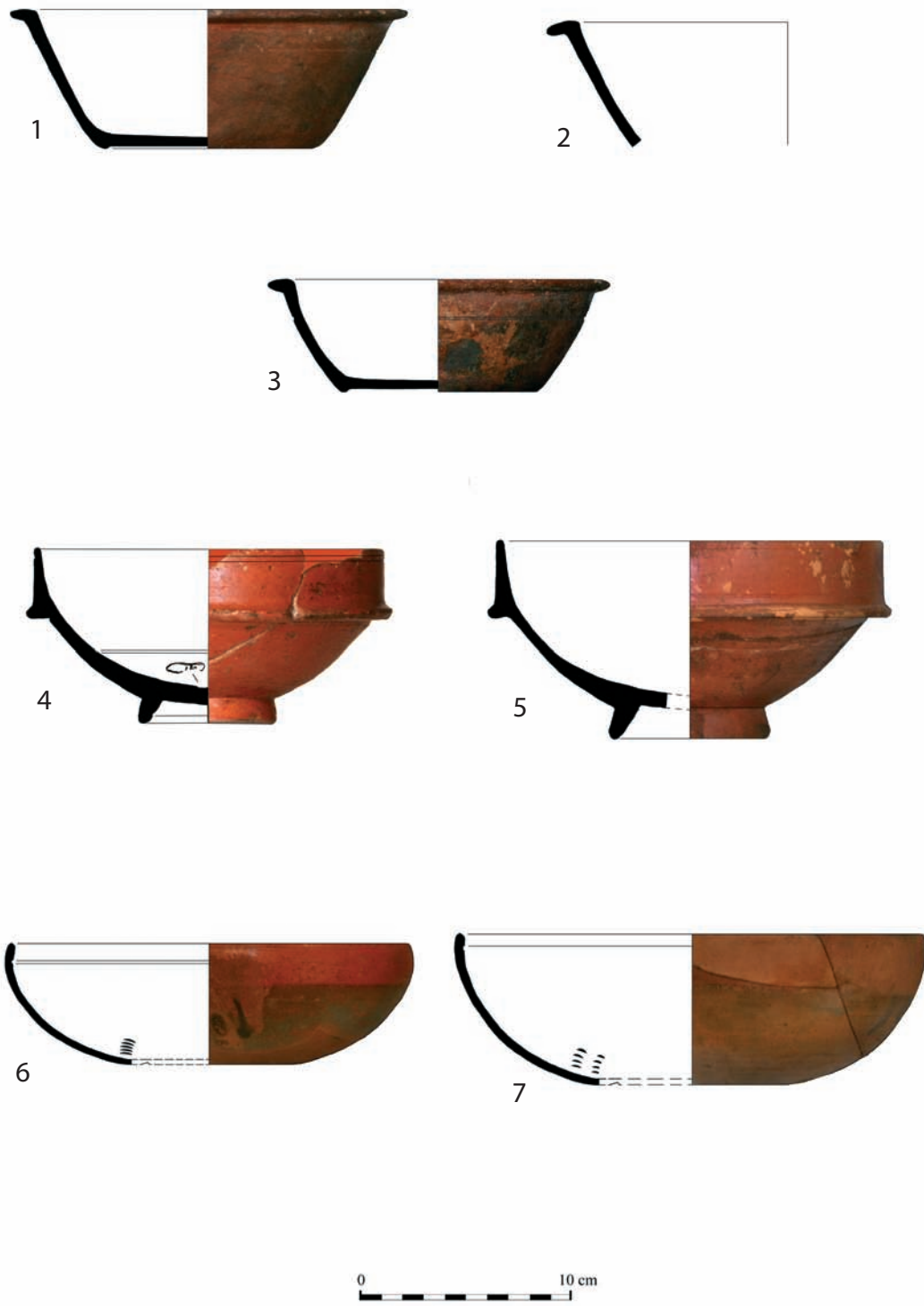
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T. 1



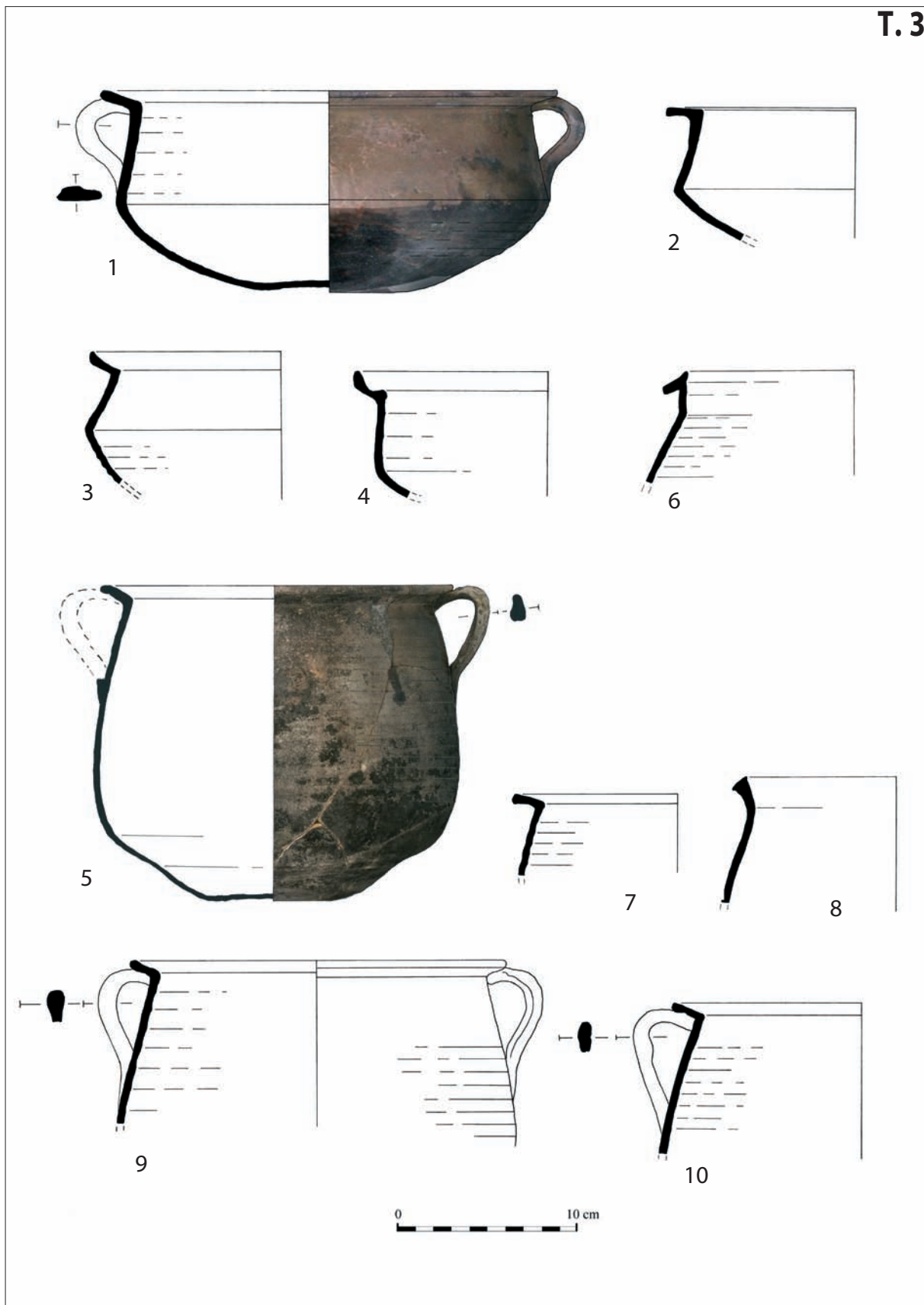
T.1 Pakoštane - Janice, tanjuri  
Pl.1 Pakoštane - Janice, plates

T.2



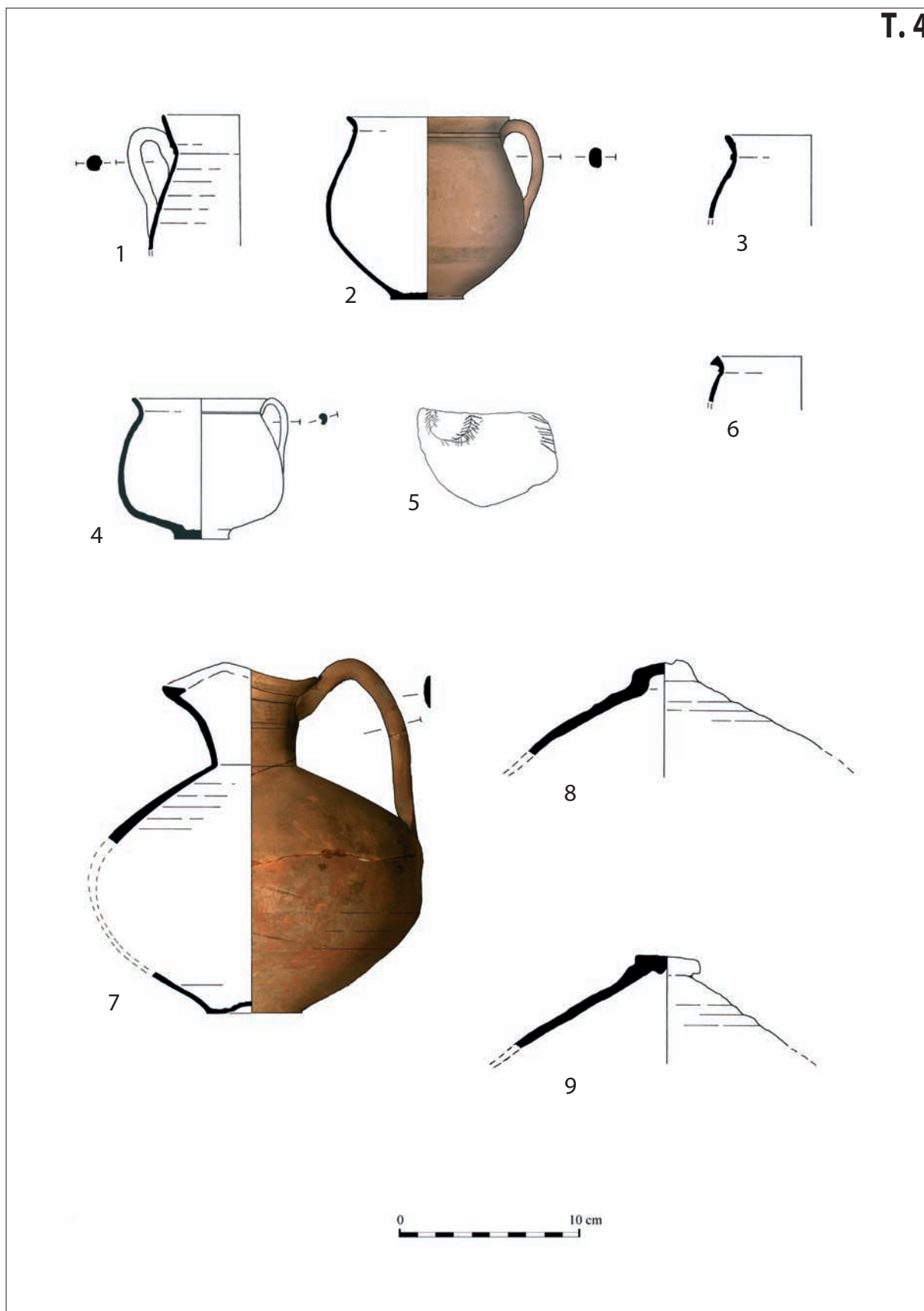
T.2 Pakoštane - Janice, zdjele  
Pl.2 Pakoštane - Janice, bowls

T.3



T.3 Pakoštane - Janice 1-4: zdjele; 5-10: lonci  
Pl.3 Pakoštane - Janice 1-4: bowls; 5-10: pots

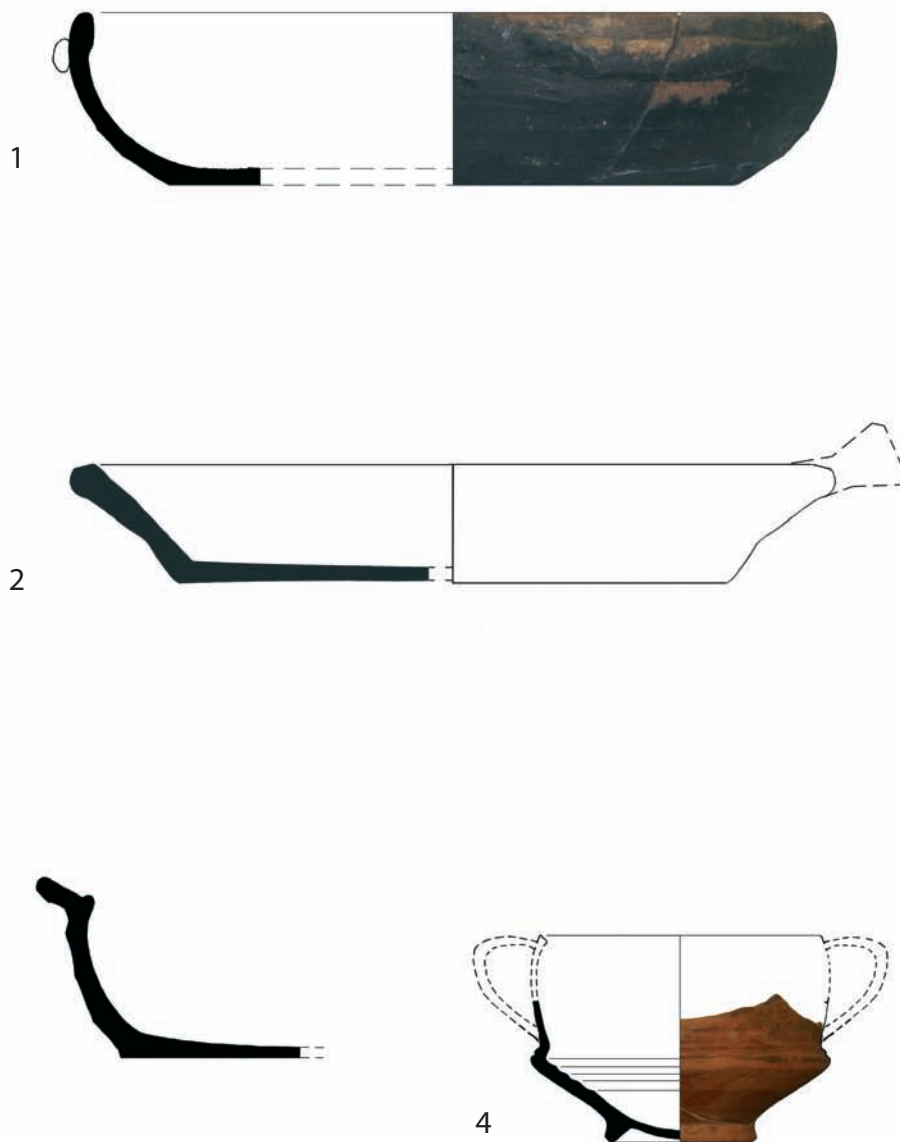
T.4



T.4 Pakoštane - Janice 1-6: lončići s jednom ručkom; 7: vrč; 8-9 poklopci  
Pl.4 Pakoštane - Janice 1-6: one handled small pots; 7: beaker; 8-9 lids



T.5



T.5 Pakoštane - Janice 1-3: tave ; 4: kantharos  
Pl.5 Pakoštane - Janice 1-3: pans ; 4: kantharos