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GRUBA EGEJSKA KERAMIKA IZ SLOJEVA ANTIČKE LUKE U ZATONU

Gruba egejska keramika je čest nalaz ne samo u Zatonu, već i na drugim antičkim lokalitetima. Često je zapostavljena u publikacijama i ne mijenja bitno oblik tijekom vremena postojanja. U ovome se članku obrađuje građa sakupljena iz stratigrafskih istraživanja u Zatonskoj luci tijekom 6 godina istraživanja (2002. – 2011.). Grupirana je tipološki, a u statistikama je raspoređena po slojevima i kvadrantima. Dan je i kataloški popis inventarnih brojeva te su izvučeni neki zaključci na temelju rasporeda građe u slojevima i kvadrantima.

Ključne riječi: gruba egejska keramika, Zaton, podvodna arheologija

AEGEAN COARSE WARE FROM THE LAYERS OF THE ANCIENT PORT OF ZATON

Aegean coarse ware is a common finding not only in Zaton, but also in other ancient sites. Such findings are often neglected in publications, but do not change the form of its existence through time. This article deals with material collected from stratigraphic excavations at the Zaton port during six years of excavations (2002-2011). The excavations are grouped typologically, and are statistically distributed in layers and squares. A catalogue list of inventory numbers is also provided, and some conclusions have been made based on the distribution of material in layers and squares.

Keywords: Aegean coarse ware, Zaton, underwater archaeology

Općenito o gruboj egejskoj keramici

Grubom egejskom keramikom nazivaju se radionički ujednačeni i u nekoliko morfološko–namjenskih tipova podijeljeni keramički proizvodi. Takvo posuđe nije reprezentativne vrste, već je uglavnom korišteno u kuhinji i u svakodnevnom životu, na što ukazuju česti tragovi gorenja na narebrenom posuđu. Karakteristična je za prostor istočnog Mediterana, gdje se pretpostavlja postojanje jednog ili više radioničkih centara. Jedan od tih centara sigurno je Fokeja (Phocaea), a druga bi bila smještena na Atici ili jednom od egejskih otoka.[1] Kemijska i mineraloška analiza nekih fragmenata iz rada J. Istenič i G. Schneider pokazuje da su akvilejski primjerci (bikonične zdjele) izrađeni na prostoru Fokeje (zbog vulkanskih inkluzija u glini), dok su neki emonski primjerci (3 lonca narebrenog tijela manjih dimenzija) lokalne kopije importa. Primjerke iz centra smještenog na Atici ili nekim od egejskih otoka moguće je prepoznati po primjesama kristalnog škriljevca (tinjca) u glini. U većini slučajeva gruba egejska keramika je prekrivena sivim premazom, nekom vrstom engobe.[2] Raniji autori smatraju da je s obzirom na brojnost nalaza na području moguće da se ista vrsta keramike proizvodila i u lokalnim radionicama na istočnoj obali Jadrana.[3] Većina tipova ove vrste keramike je narebrena i unutar tipa dobro ujednačena, odnosno postoji nekoliko varijacija koje se uglavnom svode na oblik oboda ili trbuha. Keramika je obično finije fakture, bez velike primjesa kalcita. Od toga prosjeka odstupaju samo veći primjerci, tave i plitice. Ovdje obrađena keramika uključuje bikonične zdjele, narebrene lonce, lončiće, vrčeve, tave, plitice i keramičke ulomke koje ne možemo sa sigurnošću svrstati u jednu ili drugu vrstu. Ovakvu vrstu keramike nalazimo kao teret na brodu, najčešće kao dio opreme brodske kuhinje te je čest nalaz ne samo u slojevima rimskodobnih luka, već i na kopnenim lokalitetima.[4] Kronološki većina autora ovu keramiku smješta u vremenski raspon od druge polovice prvog stoljeća do sredine trećeg, s oblicima koji traju i duže.

Povijest istraživanja grube egejske keramike

Gruba egejska keramika se po prvi puta kao posebna grupa izdvaja u radu H. S. Robinsona u radu o rimskoj keramici u slojevima atenske Agore.[5] Na ovom lokalitetu prepoznaju se najraniji oblici grube egejske keramike u materijalu iz slojeva s kraja prvog stoljeća, koji je predstavljen bikoničnom zdjelom prilično niskog donjeg konusa. Prema atenskim nalazima, glavninu proizvodnje možemo pratiti kroz kraj prvog, drugo i početak trećeg stoljeća za neke proizvode – kroz Robinsonove grupe G, J, K i M.

1 J. Istenič – G. Schneider, 2000, 346
2 R. Zlatunić, 2005, 77.
3 B. Ilakovac, 1968, 200.
4 M. Jurišić, 2000, 35.
5 H. S. Robinson, 1959.

Aegean coarse ware in general

Aegean coarse ware features standardised workmanship and is divided into number of morphological types of ceramic products from similar workshops. These vessels were not indicative types, but were mainly used in kitchens and everyday life, as is suggested by frequent burn traces on ribbed vessels. This is typical for the Eastern Mediterranean region, with the assumption that one or more workshop centres existed. One of these centres is definitely Phocaea, and the others were located in Attica, or on one of the Aegean islands.[1] Chemical and mineralogical analysis of some fragments from the work of J. Istenič and G. Schneider shows that Aquileia specimens (biconical bowls) were produced in the Phocean area (due to the inclusion of volcanic clay), whereas some Emona specimens (3 pots with a smaller ribbed body) were local copies of imports. The specimens from the centre located in Attica or some of the Aegean islands can be identified due to the additions of crystalline slate (mica) in the clay. In most cases, coarse Aegean pottery is covered with a grey coating, a sort of engobe.[2] Previous authors have argued that due to the prevalence of findings in the area, the same type of pottery was possibly produced in local workshops on the east coast of the Adriatic.[3] Most types of this pottery are ribbed and well uniformed within, meaning that there are several variations, mainly taking the form or a rim or abdomen. Usually, the pottery has a finer texture, without larger additions of calcite. Only larger specimens, pans and trays deviate from this average. The pottery dealt with here includes biconical bowls, ribbed pots, small pots, pitchers, pans, patens, and pottery shards, which we cannot attribute to any of the types with certainty. This type of pottery has been found as ship cargo, usually part of a ship's kitchen inventory, and is a common finding not only in the layers of Roman ports, but also on land sites.[4] Chronologically, most authors place this kind of pottery in the period from the second half of the 1st century to the mid-3rd century, with forms that are known to have exceeded this period.

A history of the excavation of Aegean coarse ware

For the first time, Aegean coarse ware stands out as a special group in H. S. Robinson's work on Roman pottery in the layers of the Athenian Agora.[5] At this site, the earliest forms of coarse Aegean pottery were discovered in material from layers dating from the end of the 1st century, which is represented by the biconical bowl featuring a quite low bottom cone section. According to the Athenian

1 J. Istenič – G. Schneider, 2000, 346.
2 R. Zlatunić, 2005, 77.
3 B. Ilakovac, 1968, 200.
4 M. Jurišić, 2000, 35.
5 H. S. Robinson, 1959.

Drugo važno djelo koje obrađuje grubu egejsku keramiku jest ono J. W. Hayesa, gdje se objavljuje materijal iz vile Dionysos u Knossosu.[6] Hayes smješta neke fragmente iz slojeva prije nastanka vile u prvo i rano drugo stoljeće, no većina nalaza pripada standardnom narebrenom posuđu koje nalazimo diljem egejskog prostora u drugom i trećem stoljeću. Većinu primjeraka iz vile Dionysos smatra importom. Za manji dio smatra da je lokalnog podrijetla, ali nastalog po egejskim uzorima. Ovu keramiku razlikuje po fakturi i boji od atenske. Primjerci s atenske Agore, kao i iz Knososa dolaze sistematskim iskapanjem pa je moguće pratiti trend promjena na raznim tipovima. Veličina i širina ručki lonaca i bikoničnih zdjela se smanjuje s vremenom, lonci postaju manje vrećasti, a dno im je zaobljenije, a bikoničnim zdjelama se produljuje gornji dio. Dobro sačuvani primjerci glavnih slojeva pokazuju sredinu ovog trenda, dok oni iz nižih slojeva ukazuju na početne forme.[7]

Grubom egejskom keramikom s istočne strane Jadrana prvi se bavio B. Ilakovac.[8] Opisuje grubu egejsku keramiku koju je kupio Arheološki muzej u Zadru a koja potječe iz zatvorene cjeline antičkog brodoloma potonulog kod Paklenih otoka. Osim opisa donosi i zapremninu u rimskim mjernim jedinicama pa možemo primijetiti da je većina vrijednosti zaokružena na cijelu mjeru ili polovicu mjere. Keramički fundus je, sudeći po odsustvu tragova gorenja, dio brodskog tereta[9] i kao takav se promatra kao zatvorena cjelina. Oblici tava i lončića datiraju brodolom, kao i brodski teret, u vremenski raspon od 70. do 160. godine.[10] U ovom članku se prvi puta javlja i ideja o lokalnoj radionici (ili radionicama) specijaliziranoj za masovnu serijsku proizvodnju obične kuhinjske keramike.[11]

Rapanić opisuje antički brodolom s teretom keramike kraj Vignja, kojemu je teret bio vjerojatno namijenjen nekoj luci srednjeg Jadrana.[12] Osvrće se na nekoliko tipova grube egejske keramike i keramičke gradele. Veličina tereta ovog broda također sugerira radionički centar specijaliziran za serijsku proizvodnju ovakvog tipa keramike. Prema analogijama datira ovu keramiku u širok vremenski raspon od kraja prvog stoljeća pa kroz cijelo drugo. Isti brodolom spominje i Gjivoje[13] u istom zborniku.

Najkonkretniji pregled dosadašnjih radova i stanja istraženosti egejskog kuhinjskog posuđa donosi M. Jurišić, kao i okvirnu dataciju u drugo i treće stoljeće, makar slične forme (u degeneriranom obliku) postoje do u 5 stoljeće.[14] Dodaje još dva podmorska nalazišta (Maharac

6 J. W. Hayes, 1983.
7 J. W. Hayes, 1983, 106.
8 B. Ilakovac, 1968.
9 B. Ilakovac, 1968.
10 B. Ilakovac, 1968, 200.
11 B. Ilakovac, 1968, 200.
12 Ž. Rapanić, 1972.
13 J. Gjivoje, 1972.
14 M. Jurišić, 2000.

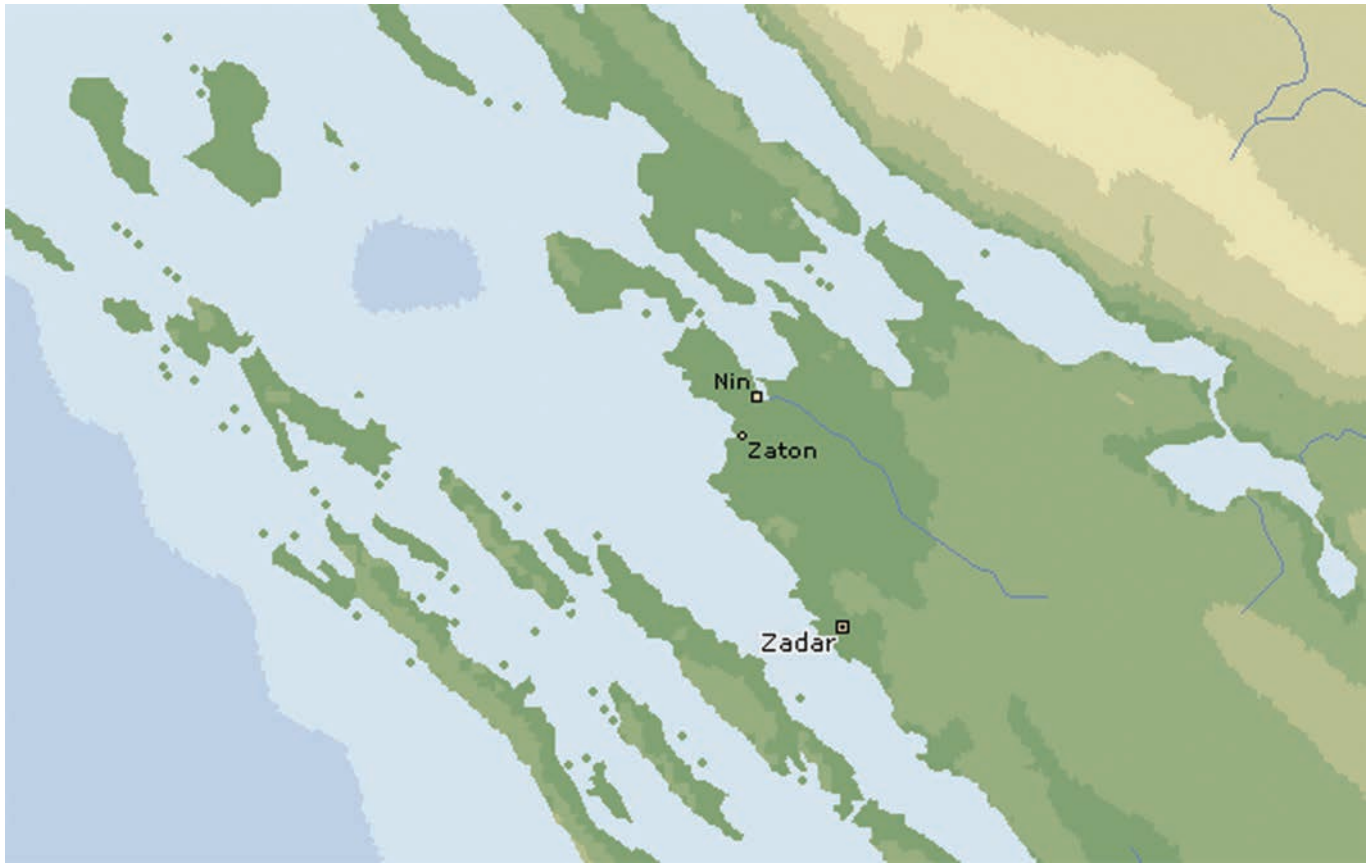
findings, the bulk of the production can be traced to the end of the 1st century, the 2nd century and for some of the other products the beginning of the 3rd century – when applying the Robinson G, J, K and M groups.

Another important work that deals with Aegean coarse ware is that of J. W. Hayes, in which he publishes the material from villa Dionysos in Knossos.[6] Hayes dates some of the fragments from the layers prior to the villa to the 1st and early 2nd century, but most of the findings belong to the standard ribbed vessels, found throughout the Aegean region from the 2nd and 3rd century. Most specimens from villa Dionysos are considered to have been imports. A small part are deemed to be of local origin, but produced according to Aegean models. This pottery differs from the Athenian in texture and colour. Specimens from the Athenian Agora, including those from Knossos come from a systematic excavation; hence, the different trends can be traced to various types. The size and width of the handles on pots and biconical bowls decreases throughout the ages, the pots becoming less pear-shaped, and the bottoms rounded, whereas the biconical bowls have an extend upper section. Well-preserved specimens from the main layers indicate somewhere in the middle of this trend, while those from the lower layers suggest the initial forms.[7]

Aegean coarse ware from the eastern Adriatic coast was first addressed by D. Ilakovac.[8] He describes Aegean coarse ware purchased by the Archaeological Museum Zadar, which originated back to the closed unit of an ancient shipwreck, and sunk near Pakleni otoci. Besides giving a description, he also provides the volume in Roman units of measurement, and we notice that most of the values are rounded off to a whole or half measure. The pottery holding, judging by the absence of burn traces, is part of a ship's cargo[9] and as such is viewed as an integral unit. The shapes of the pans and small pots, as is the cargo, are dated to the period from 70 to 160 based on the actual shipwreck.[10] This article presents for the first time the idea of a local workshop (or workshops) that specialised in mass serial production of ordinary kitchen pottery.[11]

Rapanić describes the ancient shipwreck containing the pottery cargo near Viganj, which was probably destined for a central Adriatic port.[12] He reviews several types of Aegean coarse ware and ceramic grills. The size the ship's cargo further suggests the existence of a workshop centre that specialised in the serial production of this type of pottery. Based on analogies, this pottery dates to

6 J. W. Hayes, 1983.
7 J. W. Hayes, 1983, 106.
8 B. Ilakovac, 1968.
9 B. Ilakovac, 1968.
10 B. Ilakovac, 1968, 200.
11 B. Ilakovac, 1968, 200.
12 Ž. Rapanić, 1972.



Slika 1. Položaj Zatona u odnosu na Zadar i Nin
Figure 1. Position of Zaton with respect to Zadar and Nin
priredio / prepared by: **S. Gluščević**

– datirano u kraj prvog i početak drugog stoljeća i Veliki Školj – datiran u drugo i treće stoljeće) gdje je također nađena gruba egejska keramika u smislu tereta. Kao dio kuhinjskog posuđa, gruba egejska keramika je nađena na par podmorskih lokaliteta: u brodolomu kod Zlarina – s teretom rimskih i grčkih Dressel 2 – 4 amfora i rodskih amfora datiranim u prvu polovicu prvog stoljeća pokazuje nekoliko tipova grube egejske keramike uz ostalu keramiku (Pergamonska i Çandrli);[15] u teretu brodoloma na Glavatu kod Mljeta – uz južnotalijanski teret nađeni su lončići, lonci, vrč s trilobnim otvorom i nekoliko bikoničnih zdjela s poklopcima; brodolom kod Ilovika[16] s glavnim teretom sjevernoitalskih Forlimpopoli amfora namijenjenih istočnom tržištu datiranih u 120. godinu također sadrži par tipova grube egejske keramike: lončiće i jedan vrč s trilobnim otvorom.[17]

Gruba egejska keramika je česta pojava u lukama. Nalazi su brojni, ali neobjavljeni. Od rimskodobnih luka spomenut ćemo Zaton, Murter (*Colentum*), Kumenat kraj

a wide period spanning from the end of the 1st century and extending throughout the entire 2nd century. The same shipwreck is also mentioned by Gjivoje[13] in the same conference proceedings.

The most specific overview of previous works and the degree of research conducted into Aegean coarse ware has been presented by M. Jurišić, as well providing an approximate framework dating from the 2nd and 3d century, although similar forms (in a degenerate form) existed until the 5th century.[14] He adds two more underwater archaeological sites (Maharac - dated to the end of the 1st and beginning of the 2nd century, and Veliki Školj - dated to the 2nd and 3rd centuries), where Aegean coarse ware shipped as cargo was also found. As part of the cookware, Aegean coarse ware was found in a few underwater archaeological sites: the shipwreck at Zlarina - with a cargo of Roman and Greek Dressel 2-4 amphorae and Rhodian amphorae dated to the first half of the 1st century providing several types of Aegean coarse ware along with other pottery (Pergamon and Chandra); [15] the shipwreck cargo at Glavata near Mljet – along with the southern Italic cargo, small pots, pots, jugs with a trilobate opening and several biconical bowls with lids were found;

15 M. Jurišić, 2000, 38.
16 M. Orlić, 1986.
17 M. Jurišić, 2000, 38

13 J. Gjivoje, 1972.
14 M. Jurišić, 2000.
15 M. Jurišić, 2000, 38.

Biograda, sidrište Maraćol kraj Unija i uvalu Verige na Brijunima s tipovima koji pokazuju promjene u kvaliteti proizvodnje i izgledu kakve možemo pratiti na atenskoj Agori, s datacijom od prvog do petog stoljeća.[18]

Parica objavljuje keramiku iz istraživanja rimske luke na položaju Janice u Pakoštanima.[19] U radu se bavi isključivo oblicima posuđa istočnomediteranskog područja, istočnom sigilatom i istočnim kuhinjskim posuđem (gruba egejska keramika). Od grube egejske keramike zastupljeni su svi važniji tipovi. Cjelokupnu istočnomediteransku keramiku nađenu u rimskoj luci u Pakoštanima datira u razdoblje od kraja prvog stoljeća pa kroz cijelo drugo stoljeće.[20]

Da keramika ove vrste nije ograničena samo na podmorske lokalitete pokazuje i niz drugih istraživanja na obali i zaleđu na lokalitetima Satrić kraj Sinja, grobni prilozi u Zadru, Ninu, Bribiru, V. Mrdakovici, Ljubljani, Puli, Anconi, i drugdje. Ako se gruba egejska keramika nalazi u grobnim cjelinama onda su u funerarnim ritualima lonci često korišteni i kao urne. Razlog neobjavljivanja je često taj da istraživači više pažnje obraćaju na sigilatu nego na uobičajeniju i češću grubu egejsku keramiku. Što se tiče sjevernijih krajeva Hrvatske, gruba egejska keramika nije zastupljena u tolikom broju kao na obali i zaleđu.

M. Topić obrađujući keramičke nalaze s prostora temenosa Augusteuma u Naroni između amfora, terakota i ostalih tipova keramike, dotiče se i grube egejske keramike, od koje donosi neke tipove poput lonaca, bikoničnih zdjela (kaserola) i poklopaca.[21] Lončiće oba tipa, kao i vrčeve s trilobnim otvorom autorica stavlja u kategoriju keramike tankih stijenki B. Gruba egejska keramika na području temenosa je datirana u vremenski period od 60. do 250 godine, dok su ostali tipovi koje autorica stavlja u kategoriju tankih stijenki B datirani u prvo i drugo stoljeće (tzv. Boccalini a collarino) i prvo do treće stoljeće (vrčevi s trilobnim otvorom).

J. Istenič obrađuje grubu egejsku keramiku, također u zatvorenoj cjelini, na nalazištu Rodik – nekropola Pod jezerom.[22] Obrađuje bikoničnu zdjelu iz groba br. 6 i lonac narebrenog tijela manjih dimenzija iz groba br. 7 te se bavi putem kojim bi spomenuta egejska keramika došla na područje nekropole Pod jezerom. Datacija posuđa je izvedena na analogiji s keramikom koja potječe s atenske Agore (raniji oblici – kasno prvo, rano drugo stoljeće) prema komparativnom materijalu i komparativnom materijalu iz groba 6 (firma svjetiljka iz prve polovice drugog stoljeća).[23]

J. Istenič i G. Schneider donose pregled egejske keramike na prostoru istočnog Jadrana, i donose i neke

18 M. Jurišić, 2000.
19 M. Parica, 2008.
20 M. Parica, 2008, 90.
21 M. Topić, 2004
22 J. Istenič,1988.
23 J. Istenič,1988, 108.

the shipwreck off Ilovik[16] with the main cargo of northern Italic Forlimpopoli amphorae earmarked for the eastern market and dating back to the year 120 also contains a couple of types of coarse Aegean pottery: small pots and a pitcher with a trilobate opening.[17]

Aegean coarse ware is common in ports. The finds are numerous, but unpublished. The ports from Roman times include the ports at Zaton, Murter *(Colentum),* Kumenat near Biograd, the Maraćol anchorage near Unija and the bay of Veriga on Brijuni with types that show changes in the quality of production and an appearance that can be traced to the Athenian Agora, and dated from the 1st to the 5th century.[18]

Parica published pottery from the excavations of a Roman port at the Janica site in Pakoštane.[19] This paper deals solely with forms of dishes from the eastern Mediterranean region, with an eastern sigillata and eastern cookware (Aegean coarse ware). The coarse Aegean pottery is represented by all the major types. The entire eastern Mediterranean pottery finds from the Roman port of Pakoštane date to the period from the end of the 1st century and extends throughout the entire 2nd century.[20]

The fact that pottery of this type is not limited to underwater archaeological sites is supported by a host of other excavations on the coast and at the inland sites of Satrić near Sinj, the grave goods in Zadar, Nin, Bribir, Velika Mrdakovica, Ljubljana, Pula, Ancona and elsewhere. When coarse Aegean pottery is found in grave units, it means that the pots were often used as urns in funerary rituals. The reason such discoveries have not been published was that researchers often paid more attention to sigillata than to the regular and prevalent coarse Aegean pottery. As for the more northerly parts of Croatia, Aegean coarse ware has not been found in the large numbers as they were on the coast and in the hinterland.

M. Topić who deals with pottery finds from the temonos of Augusteum in Narona, and besides the amphorae, terracotta and other types of pottery, also touches on the Aegean coarse ware, of which he presents such types as the pots, biconical bowls (casserole) and lids.[21] The author places both types of small pots and the pitches with a trilobate opening into the category of thin-walled pottery. Aegean coarse ware from the area of the temonos dates from the year 60 to 250, while the other types which the author categorises as thin-walled B date to the 1st and 2nd century (so called Boccalini a collarino) and from the 1st to the 3rd century (pitches with a trilobate opening)

16 M. Orlić, 1986.
17 M. Jurišić, 2000, 38
18 M. Jurišić, 2000.
19 M. Parica, 2008.
20 M. Parica, 2008, 90.
21 M. Topić, 2004.

Slika 2. Zračni snimak ostataka lukobrana
Figure 2. Aerial photograph of the remains of the breakwater
foto / photo: **S. Gluščević**

nove podmorske, priobalne i lokalitete u zaleđu kao npr.: Hruščica, Ljubljana, Grosuplje, Buzet – Funtana, Katoro kraj Umaga, Sorna kraj Poreča, Kringa, Pula, Nin, Zadar, Nadin – Gradina, Biljane Donje, Pašman, Smokvice u Kornatima i Satrić.[24] Autori spominju i nalazišta sa sjeverne i zapadne obale Jadrana poput Akvileje, Oderza, Corte Cavanella de Lorea, S. Basilija, Voghenze, Russi – Ravenne i Portorecanatija, gdje su nađeni (i objavljeni) razni primjeri lončića, narebrenih lonaca i bikoničnih zdjela uglavnom iz grobnih cjelina, no smatra se i da dobar broj predmeta vjerojatno leži još neprepoznat u muzejskim depoima. Donose kemijsku i mineraloško analizu primjeraka iskopanih u Ostiji, iz Akvileje i Emone, čiji rezultat ukazuje na dva središta u prostoru istočnog Mediterana te nekoliko primjeraka lokalnih kopija importa (emonski primjerci). Skupinu keramike s vulkanskim inkluzijama smještaju u

J. Istenič addresses coarse Aegean pottery, also in a closed unit, at the Rodik site – at the necropolis Pod jezerom.[22] Analysis is directed towards a biconical bowl from grave no. 6 and a smaller pot with a ribbed body from grave no. 7, and deals with the way in which the mentioned Aegean pottery arrived to the area of the necropolis Pod jezerom. Dating the vessels is performed analogously to the pottery from the Athenian Agora (earlier forms - late 1st, early 2nd century) based on comparative material from grave no. 6 (FIRMA-type lamp from the first half of the 2nd century).[23]

J. Istenič and G. Schneider provide an overview of the Aegean pottery from the eastern Adriatic region, and present some new underwater, coastal and inland localities such as: Hruščica, Ljubljana, Grosuplje, Buzet – Funtana, Katoro near Umag, Sorna near Poreč, Kringa, Pula, Nin, Zadar, Nadin – Gradina, Biljane Donje, Pašman, Smokvice in the Kornati and Satrić.[24] The authors also mention the sites on the north and west Adriatic coast such as Aquileia,

22 J. Istenič, 1988.
23 J. Istenič, 1988, 108.
24 J. Istenič – G. Schneider, 2000.

24 J. Istenič – G. Schneider, 2000.

centar u Fokeji, dok skupinu s primjesama tinjca u glini smatraju proizvodom Atike ili nekih egejskih otoka.[25]

Tina Žerjal navodi nalaze grube egejske keramike i među nalazima iz *ville rustice* Ager Tergestinusa.[26] Lokalitet je bio naseljen u razdoblju između 1. st. do sredine 5. st., a materijal egejske keramike sadrži sve tipove osim lončića tipa 2.[27]

Z. Gregl i K. Jelinčić navode neke rijetke nalaze koji bi mogli pripadati gruboj egejskoj keramici u okolici Zagreba.[28] Riječ je o nekoliko ulomaka ručki s lokaliteta Male mlake (Tabla 4, br. 38 – 40) i imitaciji vrča s trolisnim otvorom malih dimenzija, bez udubljenja s umbom na dnu (Tabla 6, br. 65) s lokaliteta Petrovina Turopoljska.

Snežana Nikolić – Đorđević[29] u obradi materijala koji potječe s područja antičkog Singidunuma spominje lončiće, lonce i vrčeve. Lončiće tipa 1 naziva peharima i svrstava ih u svoj tip IX/24. Pehari predstavljaju proizvode lokalnih radionica, i datirani su u naseobinskim slojevima od sredine 2. st. do sredine 3. st., s nekim rijetkim primjercima koji datiraju i do posljednje četvrtine 3. st.[30] Lonac narebrenog tijela se spominje kao pehar tip XI/37, jedini nalaz tog tipa i datiran je u kraj 2. st.[31]

Općenito o Zatonu

Rimska luka na položaju Kremenjača u Zatonu nastaje prvotno kao gospodarska luka obližnje Enone koja se nalazi oko 2,5 km jugozapadno. Njezino antičko ime nije poznato, a današnji naziv Kremenjača najvjerojatnije duguje gomilama jajolikih nukleusa kvarcita (kremena) koji se mogu vidjeti na obali i u moru.[32]

Materijal pokazuje da je luka osnovana već u prvom stoljeću najvjerojatnije zbog potreba gospodarstva i izgradnje obližnje Enone (materijal iz najnižih slojeva ukazuje na to vrijeme: sigilatni tanjur *Consp 21*[33] u sloju 7 te efeška lucerna[34] datirana u vrijeme između vladavine Flavijevaca i Trajana, i sigilatna zdjelica tipa Hayes 80 istočne sigilate datirana u razdoblje 80. – 150. g[35] u sloju 6). Prednosti položaja na morskom putu između Zadra i Novalje doveli su i do toga da se ona vremenom razvila u važnu tranzitnu luku na istočnojadranskoj plovnoj ruti. Enona je naravno imala pristanište kao municipij, ali i prije kao liburnsko središte. Međutim, zbog pličine i nanosa pijeska Ninskog zaljeva, pretpostavlja se da je bilo iskoristivo samo za brodove plitkog gaza. Kada je u prvom stoljeću

25 J. Istenič – G. Schneider, 2000, 346-347.
26 T. Žerjal, 2008.
27 T. Žerjal, 2008, 135.
28 Z. Gregl – K. Jelinčić, 2010.
29 S. Nikolić – Đorđević, 2000.
30 S. Nikolić – Đorđević, 2000, 167-168.
31 S. Nikolić – Đorđević, 2000, 172.
32 Z. Brusić, 1968, 204.
33 R. Habelt, 1990, 88-89.
34 D. M. Bailey, 1988, 376. Usporedi s Tab 101/Q3045.
35 J.W. Hayes, 1986, Tab Xv/ 5.

Oderzo, Corte Cavanella de Lorea, S Basilio, Voghenza, Russi - Ravenna and Porto Recanati, where various examples of small pots, ribbed pots and biconical bowls were found (and published) mainly from the grave units. However, it is believed that a sizeable number of items probably still lie in museum depots unrecognised. They provide a chemical and mineralogical analysis of the specimens excavated in Ostia, from Aquileia and Emona, where the result indicates two centres in the eastern Mediterranean region, and several specimens of local imported examples (Emona specimens). A collection of pottery containing volcanic inclusions is located in the centre of the Phocaea, while the group with admixtures of mica in the clay are considered products from Attica or some of the other Aegean islands.[25]

Tina Žerjal presents coarse Aegean pottery and under the finds from the *villa rustica*, from Ager Tergestinusa.[26] The site was inhabited from the 1st to the mid-5th century. The Aegean pottery material contains all types except for pots of type 2.[27]

Z. Gregl and K. Jelinčić mention some rare finds that might belong to Aegean coarse ware in the surrounding areas near Zagreb.[28] It includes a few fragments of handles from the locality Mala mlaka (Table 4, no. 38-40) and an imitation of a pitcher with a small trefoil opening, without dents and an umbo at the bottom (Table 6, no. 65) from the Petrovina Turopoljska site.

Snežana Nikolić - Đorđević[29] in analysing the material that comes from the area of ancient Singidunum, mentions small pots, pots and pitchers. The type 1 small pots are called beakers and are categorised as type IX / 24. The beakers are products from local workshops, and having been found in the settlement strata date from the mid-2nd to the mid-3rd century, along with some rare specimens dating back to the last quarter of the 3rd century.[30] A pot featuring a ribbed body is referred to as beaker type XI / 37, the only finding of this type and dates to the late 2nd century.[31]

Generally about Zaton

The Roman port positioned at Kremenjača in Zaton was originally a commercial port near Enona, which was located approximately 2.5 km southwest. Its ancient name is not known, and the present name Kremenjača probably owes to the mounds featuring an oval nuclei of quartzite (in Croatian, *kremen*), and which can be found on the coast and in the sea.[32]

25 J. Istenič – G. Schneider, 2000, 346-347.
26 T. Žerjal, 2008.
27 T. Žerjal, 2008, 135.
28 Z. Gregl – K. Jelinčić, 2010.
29 S. Nikolić – Đorđević, 2000.
30 S. Nikolić – Đorđević, 2000, 167-168.
31 S. Nikolić – Đorđević, 2000, 172.
32 Z. Brusić, 1968, 204.

započela urbanizacija Enone, trebalo je popločati ulice, izgraditi kuće, hramove, emporije, zidine i ostalu arhitekturu da bi se grad približio standardima rimskog urbanizma. Prema proračunima, trebalo je prevesti i ugraditi oko 163,000 tona građevinskog materijala ne računajući kamene podove, drvenu građu i krovni pokrov.[36] Pošto je pristanište u ninskoj laguni bilo pogodno samo za pristajanje manjih ribarskih brodova ali sigurno ne i brodovlja koje se koristilo za prijevoz kamene građe, nametnula se potreba za izgradnjom pristaništa koje bi moglo podnijeti takvu vrstu transportnih operacija.

Vrijeme izgradnje možemo smjestiti u vrijeme početka prvog stoljeća, a pojačani intenzitet aktivnosti i kulturne slojeve u sredinu prvog stoljeća. Ona je vezana uz razvitak gospodarstva i izgradnju obližnje Enone, koja je počela već za najranijeg carstva. To nam potvrđuju razni epigrafički spomenici,[37] a i činjenica da je hram izgrađen u doba Flavijevaca (69. – 96.)

Povijest istraživanja i nova metodologija rada u Zatonu

Istraživanja u Zatonu započela su davne 1968. godine pod vodstvom Zdenka Brusića nakon dojava lokalnih ribara.[38] Istraživanje je obavljeno nasuprot rtu koji sa zapada zatvara uvalu Dražnik. Uz hrpe balastnog kamenja već su onda otkriveni i ostaci dvije vrste brodova. Daljnjim istraživanjima 1979., 1982. i 1983. je pristupljeno s istočne, unutrašnje strane lukobrana.[39] Kraj nekadašnje operativne obale za pretovar tereta, osim balastnog kamenja u obliku kvarcitnih nukleusa, u moru je pronađen i građevinski materijal koji je možda nepažnjom tadašnjih lučkih radnika dospio na dno. Radi se o dva velika neobrađena stupa, nekoliko neobrađenih kamenih blokova i raznom drugom građevinskom materijalu.[40]Istraživalo se po kvadratima postavljene kvadrantne mreže, a do dubine od 120 cm. Iskapanju se nije pristupilo stratigrafski, a materijal je obrađivan isključivo komparativno–tipološkom metodom. Moguće je bilo izvući samo neke zaključke na osnovi relativnih odnosa u slojevima.

Istraživanjima 1986. godine iskopan je kulturni sloj debljine oko 1 metar te su se utvrdili stratigrafski odnosi određenih keramičkih tipova.[41] Uz keramiku naišlo se na staklene i metalne nalaze, kao i na dijelove brodske opreme, kože i razne ostatke flore i faune.[42] Keramički oblici korespondiraju s vremenom od prvog do trećeg stoljeća.

Istraživanja u Zatonu nastavljena su 2002. godine,[43] a traju i do danas pod vodstvom dr. sc. Smiljana Gluščevića

The material indicates that the port was founded in the 1st century, most likely due to the needs of the local economy and construction of nearby Enona (material from the lowest layers suggest this: sigillata plate *Consp 21* [33] in layer 7 and an Ephesian lucerna[34] dated to rule of the Flavians and Trajan, and the sigillata bowl of type Hayes 80 eastern sigillata dated to the period from 80 to 150[35] in layer 6). The advantages of the position on the sea route between Zadar and Novalja led to its development as an important transit port along the maritime route on the eastern Adriatic. The Enona, of course, a municipality and prior to that a Liburnian centre, had a dock. However, due to shallow waters and sand deposits at the Bay of Nin, the assumption is that it was only useable for shallow draft vessels. When the urbanisation of Enona began in the 1st century, the streets had to be paved, and the houses, temples, emporia, walls and other architecture had to be built in order for the city to approach Roman urbanism standards. According to calculations, around 163,000 tons of building materials, not counting stone floors, construction timber and roof covering, had to be transported and included in the construction.[36] Since the dock in the Nin Lagoon was perfect for docking small fishing boats, but certainly not suitable for ships used for transporting stone materials, a dock had to be built that could handle these transport operations.

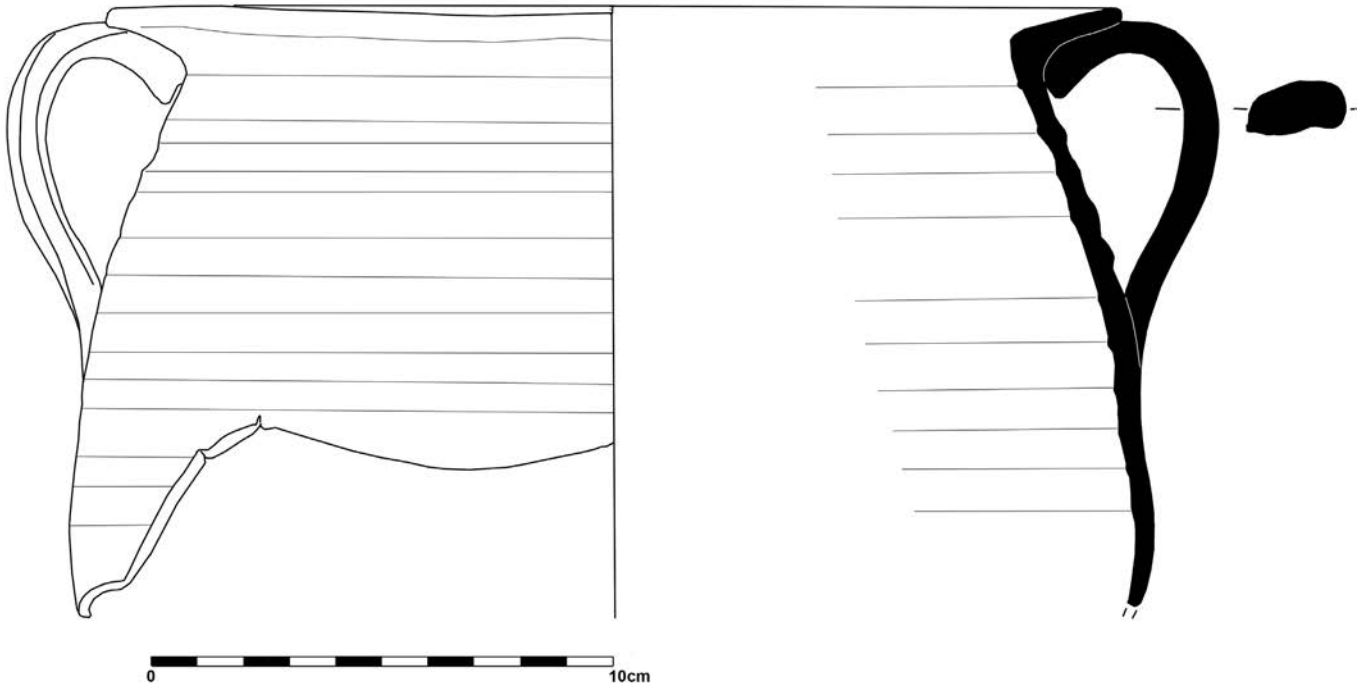
The period of construction can be dated to the beginning of the 1st century, whereas the intensified activities and cultural strata to the mid-1st century. The construction can be linked to the economic development and the construction of nearby Enona, which already began in the earliest empire. This has been asserted by various epigraphic monuments,[37] and the fact that the temple was built in the Flavian era (69-96)

A history of excavations and new work methodologies in Zaton

Excavations in Zaton began as far back as 1968 under the guidance of Zdenko Brusić after receiving reports of findings from local fishermen.[38] The excavations were carried out opposite the cape that closed Bay of Dražnik to the west. Besides the piles of ballast stones, remains of two types of ships had already been uncovered back then. Further excavations in 1979, 1982 and 1983 were done from the east, the inner side of the breakwater.[39] In the sea, next to the place of the former operational foreshore used for transferring cargo, besides ballast stones in the form

36 B. Ilakovac, 1996, 90.
37 J. Medini, 1969, 53-54; B. Ilakovac, 1999, 10.
38 Z. Brusić, 1968.
39 Z. Brusić, 1980, 112-113; S. Gluščević, 1984, 17-18.
40 Z. Brusić, 1980, 112.
41 S. Gluščević, 1986.
42 S Gluščević – M. Jurišić – R. Šoštarić – S. Vujčić Karlo, 2006.
43 S. Gluščević, 2007.

33 R. Habelt, 1990, 88-89.
34 D. M. Bailey, 1988, 376. Compare with Tab 101 / Q3045.
35 J. W. Hayes, 1986, Tab Xv / 15.
36 B. Ilakovac, 1996, 90.
37 J. Medini, 1969, 53-54; B. Ilakovac, 1999, 10.
38 Z. Brusić, 1968.
39 Z. Brusić, 1980, 112-113; S. Gluščević, 1984, 17-18.



Slika 3. Lonac narebrenog tijela
Figure 3. Pot with a ribbed body
crtež / drawing: **Robert Maršić**

kojemu se autor ovom prilikom zahvaljuje na ustupanju materijala obrađenog u ovome radu. U novim se istraživanjima prišlo stratigrafskom istraživanju slojeva u luci. Iste je godine nađen i treći šivani brod (serilia).

Upravo iz najnovijih istraživanja i potječe ovdje obrađeni materijal te se bavi stratigrafski prikupljenim podacima iz istraživanja obavljenih 2002., 2003., 2005., 2006., 2007. i 2011. godine. Iskapanja nisu objavljena osim onih iz 2002., pa je najveći dio materijala kojim se obrađuje u ovome članku prvi puta obrađen.

Metodologija

Stratigrafsko iskopavanje slojeva je obavljeno u precizno postavljenoj čvrstoj kvadratnoj mreži georeferenciranoj totalnom stanicom. Mreža je bila smještena na istočnoj, operativnoj strani lukobrana gdje se pretpostavljala najveća koncentracija nalaza. Sastojala se od aluminijskih profila kvadratnog presjeka stranice 50 mm. Profili su spojeni u kvadrate stranice 250 cm. Svaki je kvadrat dobio abecednu oznaku pa je kasnije elastičnom trakom podijeljen u 4 jednaka podkvadranta dužine jedne stranice od 125 cm. Na takav način je svaki podkvadrant dobio i odgovarajuću alfanumeričku oznaku (npr. A 1/1, A 1/2, A 1/3 i A 1/4). Istraživanja su vršena s brodova usidrenih u neposrednoj blizini nalazišta. Iskopavanje je provođeno pomoću vodenih pumpa i tzv. mamut sisaljki, a arbitrarno je određena dubina jednog sloja kao 10 cm. Slojevi su dobili numeričke oznake, i to od recentnog (gornjeg) prema

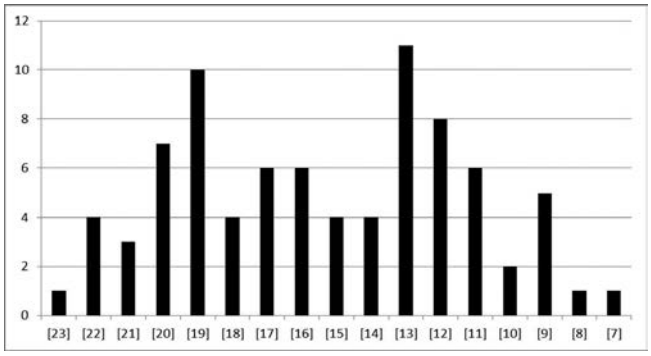
quartziferous material, construction material was also discovered which perhaps, due to the negligence of the then port workers, found its way to the bottom. It includes two large raw pillars, several raw stone blocks and various other building materials.[40] Investigations were carried out in the squares placed across the quadrant grid to a depth of 120 cm. The excavation was not approached in a stratigraphic manner, and the material was treated solely using a comparative-typological method. This approach led to drawing only some conclusions based solely on the relationships between the layers.

In 1986, excavations unearthed a cultural layer about 1 meter in thickness, and stratigraphic relationships between the particular ceramic types were determined.[41] Besides pottery finds, glass and other metal finds were also discovered, as well parts of ship equipment, leather and various remains of flora and fauna.[42] The pottery forms correspond to the period from the 1st to the 3rd century.

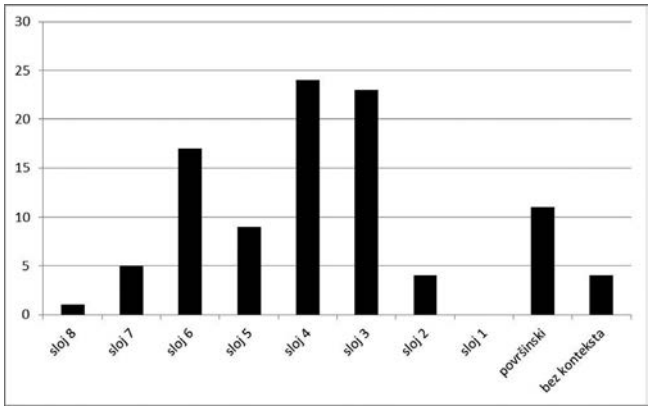
Excavations in Zaton continued in 2002,[43] and have carried on to this day under the guidance of Dr Smiljan Gluščević, whom this author would like to thank for providing the material dealt with in this paper. In new excavations, a stratigraphic examination of the layers in the harbour was conducted. That same year, a third sewn boat (serilia) was discovered.

Therefore, the material treated here is that from the latest excavations, and deals with stratigraphic data

40 Z. Brusić, 1980, 112.
41 S. Gluščević, 1986.
42 S Gluščević – M. Jurišić – R. Šoštarić – S. Vujčić Karlo, 2006.
43 S. Gluščević, 2007.



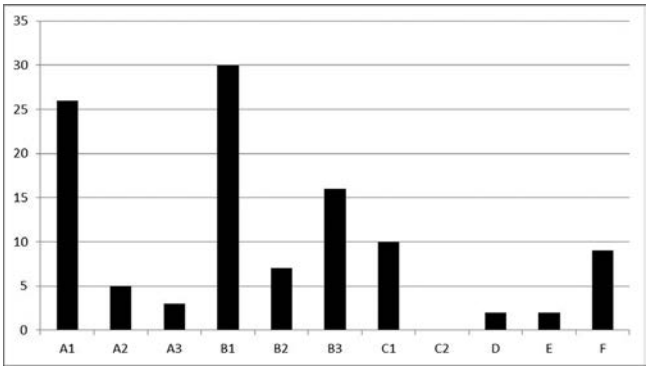
Slika 4. Distribucija lonaca prema promjeru oboda
Figure 4. Distribution of pots based on rim diameter
priredio / prepared by: **D. Taras**



Slika 6. Distribucija lonaca narebrenog tijela po slojevima
Figure 6. Distribution of pots with a ribbed body according to layers
priredio / prepared by: **D. Taras**

donjem – dubina od 0 – 10 cm je smatrana 1. slojem, od 11 – 20 cm 2. slojem itd... Uz uobičajene nalaze na istraživanju su skupljani i uzorci slojeva radi arheobotaničke analize te su sakupljane i životinjske kosti, ostaci školjaka i puževa. Svaki se nalaz skicirao na ploču od pleksiglasa u trenutku iskopavanja i to s 3 koordinate. Uz skiciranje dokumentiralo se i podvodnim fotoaparatom te su rađene i video snimke. Na kraju dana bi se skica ucrtavala u mjerilu u dnevnik istraživanja, tako da je svaki nalaz smješten u prostoru lokaliteta te bi se odmah unosili u privremeni inventar. Skupljalo se ne samo karakteristične dijelove posuda poput dna, grla amfora ili oboda posuda, već i dijelove trbuha (koji su zanemarivani tijekom prijašnjih kampanja) što je rezultiralo i nekim cjelovitim rekonstrukcijama posuda.

Za potrebe ovog rada svaki komad lonca, bikonične zdjele i neodređenog fragmenta je fotografiran, izmjeren i opisan za potrebe zapisivanja u M++ te mu je boja određena prema Munsellovim tablicama. Dijelovi istih posuda su spajani koristeći ljepilo za drvo (Drvofix), čime se dobilo i nekoliko dobrih rekonstrukcija. Materijal iz kvadranata C, D, E i F neće biti iskorišten u stratigrafskim odnosima zbog činjenice da su kvadranti većim dijelom

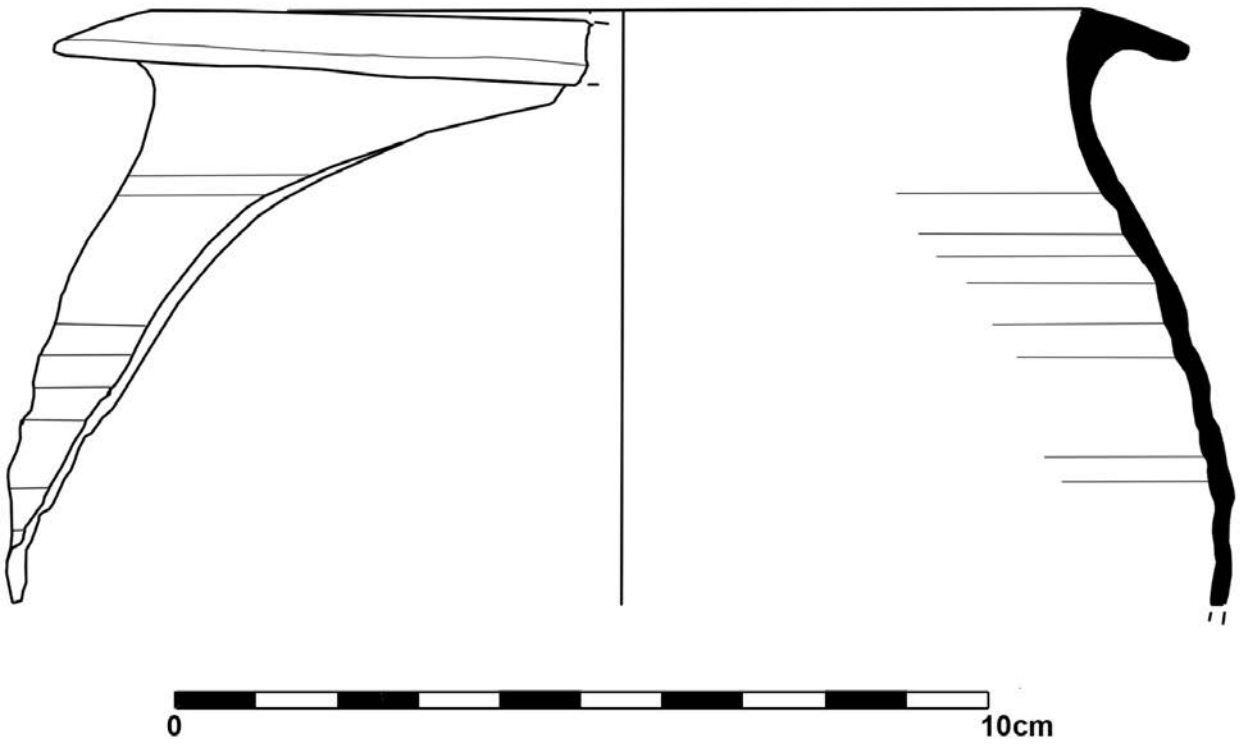


Slika 5. Distribucija fragmenata lonaca po kvadrantima
Figure 5. Distribution of pots according to squares
priredio / prepared by: **D. Taras**

collected from excavations conducted in 2002, 2003, 2005, 2006, 2007 and 2011. The excavations have not been published, except for those from 2002; hence, most of the material that the author here has presented in this article is dealt with for the first time.

Methodology

Stratigraphic excavation of layers was carried out in precisely set square grid, and georeferenced with the total station. The grid was situated on the east, the operational side of the breakwater where supposedly lies the greatest concentration of finds. The grid consisted of square-shaped aluminium sections with 50 mm edges. The sections were connected into square sections of 250x250 cm. Each square was given an alphabetical designation, and was later divided into four equal sub-squares with a length of 125 cm using an elastic band. Thus, each sub-square was designated an appropriate alphanumeric designation (for example, A 1/1, A 1/2, A 1/3 and A 1/4). The excavations were conducted using boats anchored directly near the site. The excavation was aided by water pumps and the so-called mammoth pumps (water dredges), with the depth of one layer determined arbitrarily as 10 cm. The layers were given a numerical designation, starting from the most recent (upper) and running towards the lower layer. A depth of 0-10 cm was considered the first layer, 11-20 cm the second layer, and so on. Besides the usual finds, the excavations yielded samples from layers for the purpose of archaeobontanical analysis and animal bones, including the remains of shells, and snails were also collected. During excavation, each find was sketched on a Plexiglas board using three coordinates. In addition to the sketch, documentation was created with the use of an underwater camera and video recordings. At the end of the day, the sketch was plotted to scale in an excavation diary, so that each find was situated in the site area and would be immediately entered into the preliminary inventory. Not only were typical parts of a vessel collected, parts such as the bottom, neck of an amphora or the rim of



Slika 7. Lonac narebrenog tijela sa zakošenim obodom prema dolje
Figure 7. Pot with a ribbed body featuring a downward skewed rim
crtež / drawing: **Robert Maršić**

postavljeni na lukobran, to jest na područje gdje se ne može pretpostaviti nastanak slojeva kao u ostalim kvadrantima, pa bi stoga i arbitrarna stratigrafija davala drugačije rezultate. Kvadrant F je udaljen od kvadratne mreže u pravcu sjeveroistoka te je i u njemu ustanovljen plitak kulturni sloj. Korišteni su ipak u nekim statističkim analizama poput postotka keramike s tragovima gorenja i sivim premazom te promjera oboda. Ostala keramika (kvadranti A i B) je stratigrafski razdijeljena te su oblici datirani koristeći stratigrafsku situaciju Zatona.

Materijal

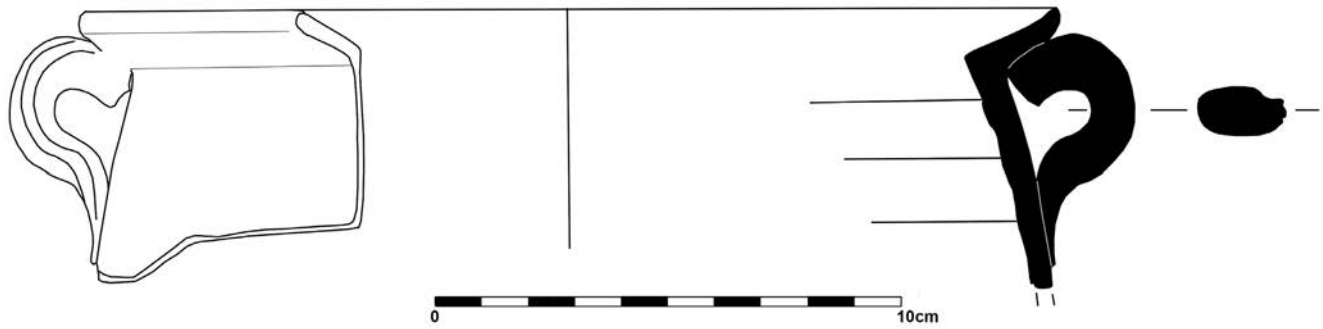
Lonac narebrenog tijela se javlja u 24% (120 komada) od ukupnog zbroja primjeraka grube egejske keramike. Ima izvijen i zaravnjen obod, nekad s varijantom gdje je zakošen prema dolje. Ručke su okomite, trakaste i nepravilnog oblika ili rezane. Započinju ispod oboda, ne prelaze ga pa završavaju iznad trbuha. S obje strane tijela stijenke su narebrene, ali ne uvijek pri vrhu. Dno je zaobljeno, nekad zaravnjeno pri sredini. Glina je dobro pročišćena, makar se može naći i primjeraka s većom količinom kalcita u glini, kao i onih s primjesom mice (7%). S vanjske strane je česta pojava sivog premaza (64%) i tragova gorenja (53%), dok je iznutra mogući tamni premaz (smola) (19%). Oblik je

vessels, but also parts of the abdomen (overlooked during previous campaigns), and this led to a somewhat complete reconstruction of the vessels.

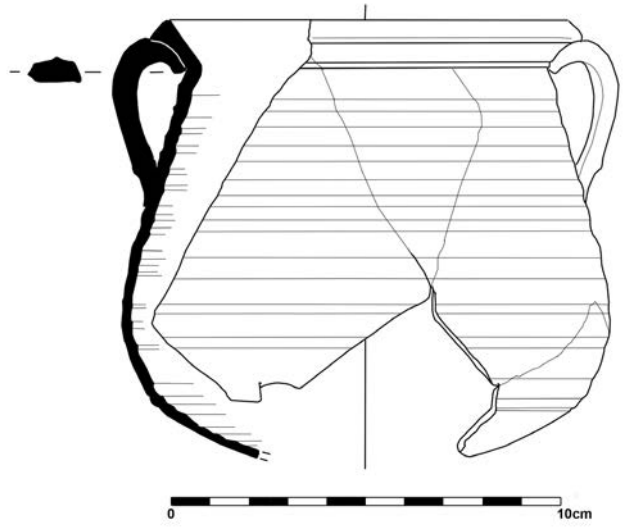
For the purposes of this paper, each piece of a pot, biconical bowl and undetermined fragment was photographed, measured and described for the purpose of recording into M++, and their colour was determined according to the Munsell colour chart. Parts of the same vessels were combined using wood glue (Drvofix), which resulted in a few good reconstructions. The material from squares C, D, E and F will not be used in establishing stratigraphic relationships due to the fact that the squares are largely set on the breakwater, which is the area where the formation of layers as in the other squares cannot be assumed, and consequently an arbitrary stratigraphy would give different results. Square F was set at a distance from the square grid in a northeast direction, and in it a shallow cultural strata was discovered. In some of them, statistical analyses were conducted such as the percentage of pottery with burn traces and grey slip, and the rim diameter. Other pottery (squares A and B) were stratigraphically divided, and the shapes were dated based on the stratigraphic situation of Zaton.

Material

A pot featuring a ribbed body appears in 24% (120 units) of the total number of specimens of Aegean coarse ware. It has a curved and flattened rim, sometimes with a variation that is slanted downwards. The handles are vertical, stripped and feature an irregular shape or are cut. They begin below



Slika 8. Lonac narebrenog tijela sa zadebljanim obodom konkavnog presjeka
Figure 8. Pot with a ribbed body featuring a thicker rim with a slightly concave cross section
crtež / drawing: **Robert Maršić**



Slika 9. Lonac s trokutastim presjekom oboda
Figure 9. Pot featuring a rim with triangular cross section
crtež / drawing: **Robert Maršić**

namijenjen kuhinjskoj upotrebi, što pokazuje i činjenica da je preko pola fragmenata prekriveno manje ili više tragovima gorenja. Na atenskoj Agori ovakvi oblici su vezani uz kontekste kraja prvog stoljeća i početka drugog stoljeća.[44] Ovaj tip lonca u Hayesovoj klasifikaciji odgovara loncu tipa 2 i tipa 4, i kao takav je datiran na egejskom području u razdoblje drugog i trećeg stoljeća.[45] Nalazimo ga i kao česti nalaz u funkciji urne iz grobova prvog i drugog stoljeća.[46]

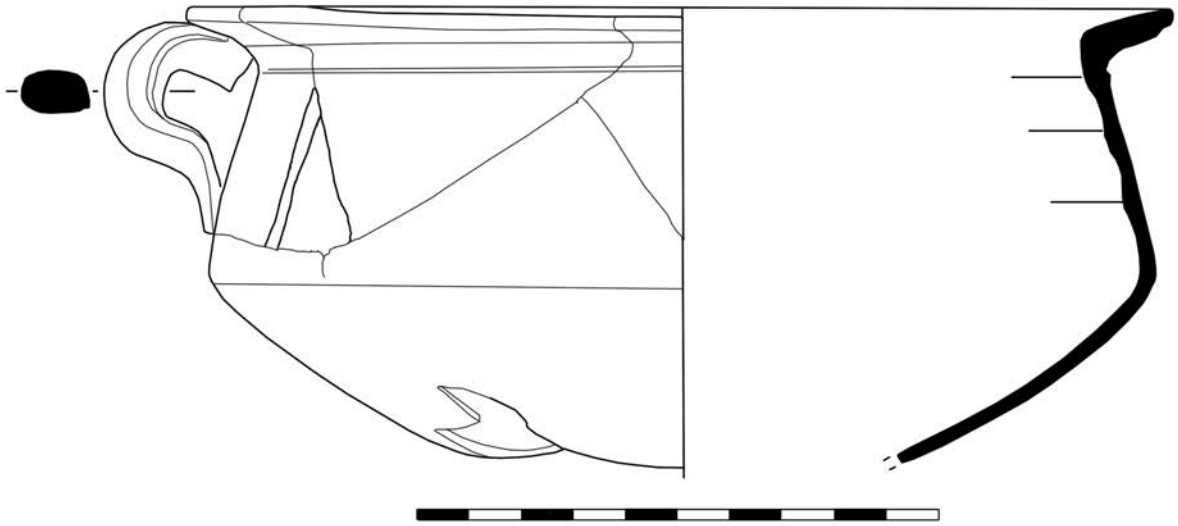
Oblik se javlja u svim slojevima zatonske luke, tako da traje od sredine prvog stoljeća do duboko u četvrto

the rim, do not exceed it, and end above the abdomen. On both sides of the body, the walls are ribbed, but not always quite near the top. The bottom is rounded, sometimes flattening towards the middle. The clay is well purified, even though specimens can be found with a larger amount of calcite in the clay, as well as clay with some mica (7%). The outside surface has a common grey coating (64%) and burn traces (53%), whereas inside there is possibly a dark (resinous) coating (19%). The shape is designed for kitchen use, as is evident by the fact that over half of the fragments are more or less covered with burn traces. On the Athenian Agora, these forms are linked to period at the end of the 1st century and early 2nd century.[44] This type of pot in Hayes's classification corresponds to pot type 2 and 4, and as such, in the Aegean area is dated to the period of the 2nd and 3rd centuries.[45] It is also found as a frequent find of urns from the graves of the 1st and 2nd centuries.[46]

The shape appears in all layers of the Zaton port, and therefore dates from the mid-1st and well into the 4th century. It is arranged across the layers in squares A and B: 4 specimens in layer 7 (4%), 15 specimens in layer 6 (15%), 9 specimens in layer 5 (9%), 24 specimens in layer 4 (24%), 23 specimens in layer 3 (23%), 4 specimens in layer 2 (4%), and 9 specimens were a surface find (9%). The rim diameters are quite similar, with two prominent groups of rim diameters ranging from 19 cm to 20 cm in 15% of cases, and 11 cm to 13 cm in 22% of cases for all specimens where their opening diameters could be measured (77%). They differ mainly in the shape of the rim: they can be skewed downwards with a somewhat concave cross section (Inv. no. 1201HA, 1472H, 1516H, 1592H, 5272H, 6041H, 6041H, 6053H), and belonging to pot type 3 according to Hayes's classification (2nd and 3rd century in the Aegean region). These fragments are present in layers 6, 4 and 3; somewhat thickened at the top and sometimes featuring a concave section (all others) that belong to pot type 2 according to Hayes's classification. There are distinctive pots with smaller dimensions belonging to Hayes type 4 (Inv. no. 409H, 459k,

44 H S. Robinson, 1959.
45 J. W. Hayes, 1983, 105-106.
46 M. Topić, 2004, 306.

44 H. S. Robinson, 1959.
45 J. W. Hayes, 1983, 105-106.
46 M. Topić, 2004, 306.



Slika 10. Bikonična zdjela
Figure 10. Biconical bowl
crtež / drawing: **Robert Maršić**

stoljeće. Raspoređen je po slojevima kvadranata A i B: 4 primjerka u sloju 7 (4%), 15 primjeraka u sloju 6 (15%), 9 primjerka u sloju 5 (9%), 24 primjeraka u sloju 4 (24%), 23 primjeraka u sloju 3 (23%), 4 primjerka u sloju 2 (4%) te 9 primjeraka površinskog nalaza (9%). Promjerima oboda su dosta ujednačeni, s dvije istaknute grupe promjera oboda od 19 cm do 20 cm u 15% slučaja i od 11 cm do 13 cm u 22% slučaja, od svih primjeraka kojima se mogao izmjeriti promjer otvora (77%). Razlikuju se najviše u obliku oboda: može biti zakošen prema dolje s manje više konkavnim presjekom (inv. Br. 1201H, 1472H, 1516H, 1592H, 5272H, 6041H, 6041H, 6053H) koji spada u lonac tipa 3 po Hayesovoj klasifikaciji (drugo i treće stoljeće u egejskom prostoru) – ovi fragment su prisutni u slojevima 6, 4 i 3; manje više zadebljan pri vrhu, ponekad s konkavnim presjekom (svi ostali) koji spada u lonac tipa 2 po Hyesovoj klasifikaciji. Izdvajaju se i lonci manjih dimenzija koji pripadaju Hayesovom tipu 4. (inv. br. 409H, 459H, 539H, 581H, 1270H, 1272H, 1277H, 1305H, 1534H, 1701H, 3158, 4023H, 5423H, 6053H)[47] – većinom u slojevima 4 i 3, s jednim primjerkom u sloju 1 te lonci s trokutastim presjekom oboda (1552H, 1554H) u slojevima 5 i 3.

Bikonična zdjela[48](engl. *casserole*) se javlja u 11% (56 komada) od ukupnog zbroja ukupnog broja primjeraka grube egejske keramike. Ima izvijen i zaravnjen obod, s varijantama gdje je obod zakošen prema gore ili dolje. Ručke su okomite, trakaste i nepravilnog oblika ili u obliku slova D. Započinju ispod oboda, ne prelaze ga, pa završavaju iznad prijelaza u donji konus. S vanjske strane gornji konus je obično gladak, a donji narebren, dok je s unutrašnje strane tijelo narebreno. Glina je dobro pročišćena, makar se može naći i primjeraka s većom količinom kalcita u glini,

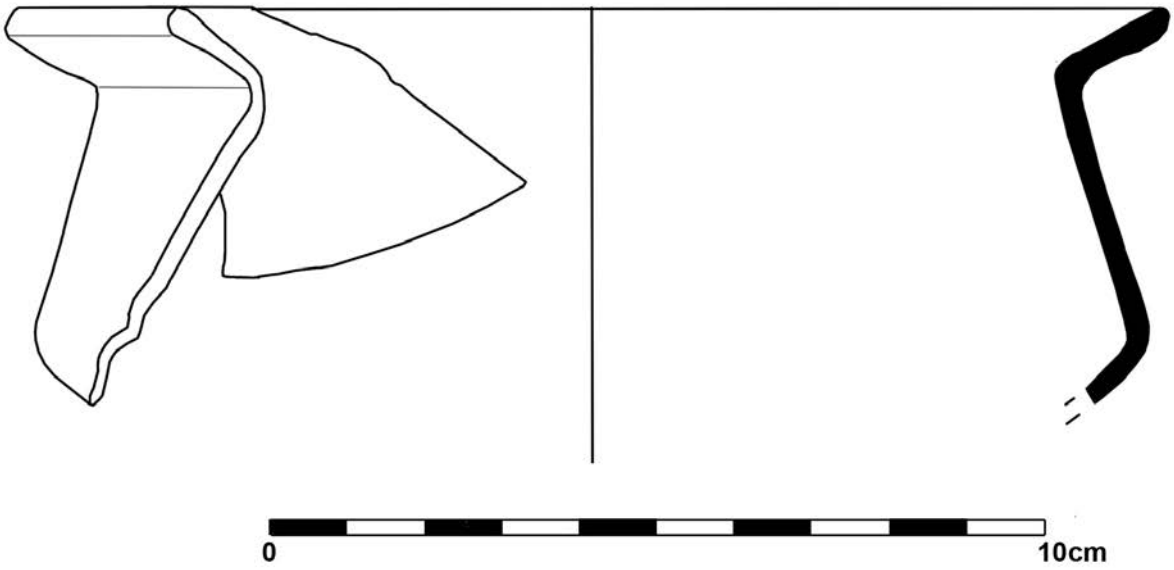
47 J. W. Hayes, 1983, 106.
48 Kaserole ili zdjele.

539H, 581H, 1270H, 1272H, 1277H, 1305H, 1534H, 1701H, 3158, 4023H, 5423H, 6053H)[47] - mainly in layers 4 and 3, with a single specimen in layer 1, and pots with a triangular cross section of the rim (1552H, 1554H) in layers 5 and 3.

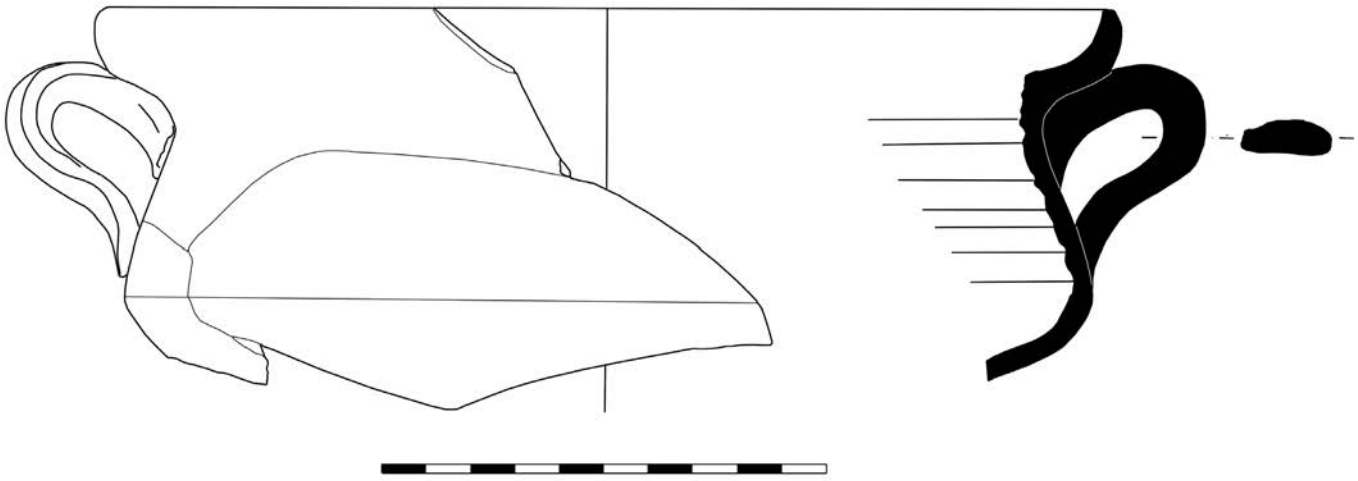
Biconic bowls[48] (*Casserole)* occur in 11% (56 units) of the total number of Aegean coarse ware specimens. They have a curved and flattened rim, with variations where the rim is skewed upwards or downwards. The handles are vertical, stripped and feature an irregular shape or D-shape. They begin below the rim, do not exceed it, and end up above the transition in the lower cone. On the outside, the upper cone is usually smooth and has a ribbed bottom, while the inside of the body is ribbed. The clay is well purified, even though there are specimens with a larger quantity of calcite in the clay, as well as those with an admixture of mica (1%). On the outside, there is often a grey coating (70%) and burn traces (58%), whereas the inside can have a dark (resinous) coating (12%). The shape is designed for kitchen use, as is evident by the fact that over half of the fragments are more or less covered with burn traces. On the Athenian Agora, these forms are linked period at the end of the 1st century and early 2nd century.[49] The Hayes's classification belongs to casserole type 2, which are dated like the pots - to the 2nd and 3rd century.[50] B. Ilakovac provides an analogy of this shape to the shape of a vessel on three legs, where it is thought that the early imperial artisans adopted them from the Late La

47 J. W. Hayes, 1983, 106.
48 Casserole or bowl.
49 H. S. Robinson, 1959.
50 J. W. Hayes, 1983, 105.

191-218

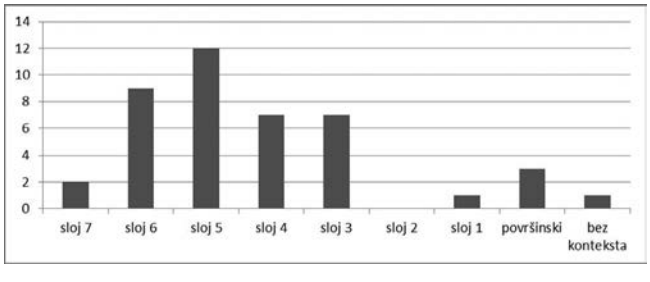


Slika 11. Bikonična zdjela sa zadebljanim obodom
Figure 11. Biconical bowl featuring a thicker rim
crtež / drawing: **Robert Maršić**

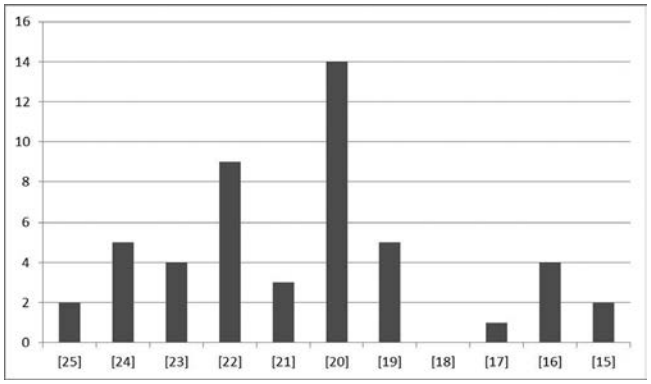


Slika 12. Bikonična zdjela s obodom u obliku slova S
Figure 12. Biconical bowl featuring an S-shaped rim
crtež / drawing: **Robert Maršić**

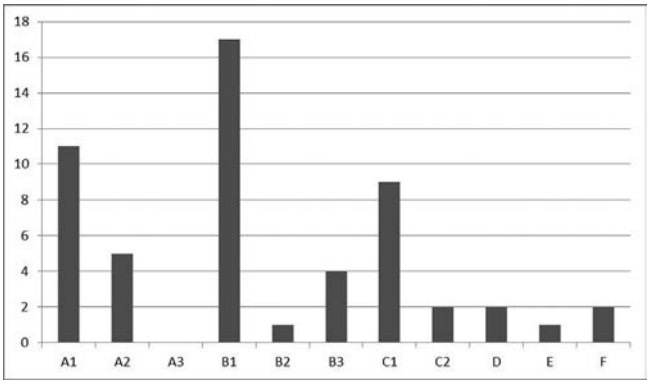
kao i onih s primjesom tinjca (1%). S vanjske strane česta je pojava sivog premaza (70%) i tragova gorenja (58%), dok je iznutra moguć tamni premaz (smola) (12%). Ovaj oblik je namijenjen kuhinjskoj upotrebi, što pokazuje i činjenica da je više od pola primjeraka prekriveno manje ili više tragovima gorenja. Na atenskoj Agori ovakvi oblici su vezani uz kontekste kraja prvog stoljeća i početka drugog



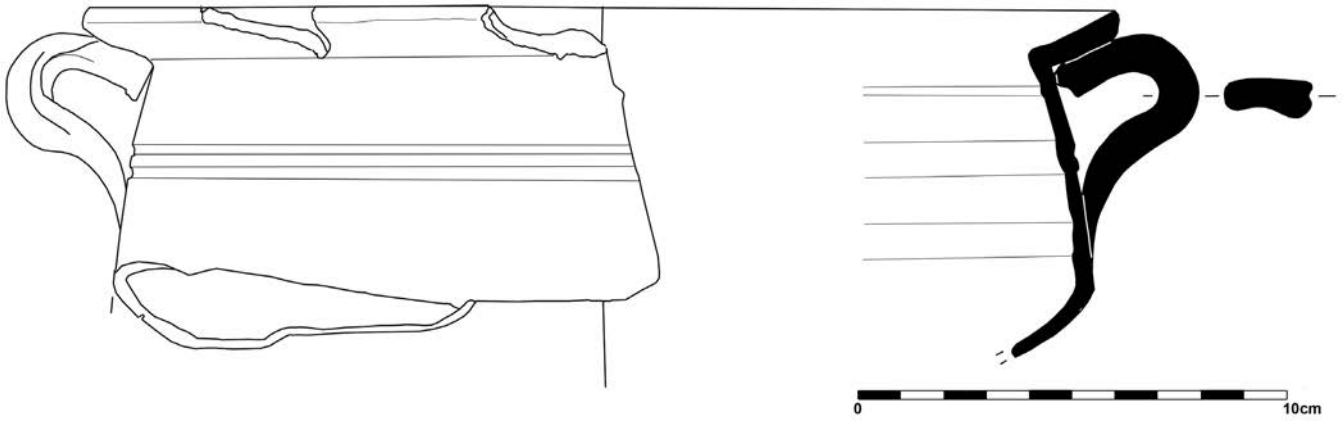
Slika 13. Distribucija fragmenata bikoničnih zdjela po kvadrantima
Figure 13. Distribution of biconical bowls according to squares
priredio / prepared by: **D. Taras**



Slika 14. Distribucija bikoničnih zdjela prema promjeru oboda
Figure 14. Distribution of biconical bowls based on rim diameter
priredio / prepared by: **D. Taras**



Slika 15. Distribucija fragmenata bikoničnih zdijela po kvadrantima
Figure 15. Distribution of biconical bowls according to squares
priredio / prepared by: **D. Taras**



Slika 16. Bikonična zdjela s kanelirama
Figure 16. Biconical bowl with fluting
crtež / drawing: **Robert Maršić**

stoljeća.[49] U Hayesovoj klasifikaciji pripada pod kaserole tipa 2, koji se datiraju kao i lonci – u drugo i treće stoljeće.[50] B. Ilakovac navodi analogiju ovog oblika s oblikom posude na tri nožice, za koje se smatra da su ih ranocarski keramičari preuzeli iz kasnog Latena.[51] Dijeli ih u tri skupine prema zapremnini: velika zdjela (16 hemina = 8 sekstarija = 1/2 modiusa = 4,7 l), srednja (1/6 modiusa = 1,46 l) i mala (1/16 modiusa = 1 sekstarij = 0,547 l).[52] Svi oblici koji se javljaju u Zatonu pripadaju Hayesovom tipu 2.[53]

Oblik se javlja većinom u donjim slojevima zatonske luke (sloj 6 – sloj 3) i površinskom sloju, što bi odgovaralo vremenu od kraja prvog stoljeća do sredine trećeg stoljeća. Raspoređen je po slojevima kvadranata A i B: 2 primjerka u sloju 7 (5%), 9 primjeraka u sloju 6 (23%), 10 primjeraka u sloju 5 (26%), 6 primjerka u sloju 4 (16%), 7 primjerka u sloju 3 (18%), 1 primjerak u sloju 1 (3%) i 3 primjerka kao površinski nalazi (8%). Promjerima oboda su dosta ujednačeni, s jednom istaknutom grupom promjera 20

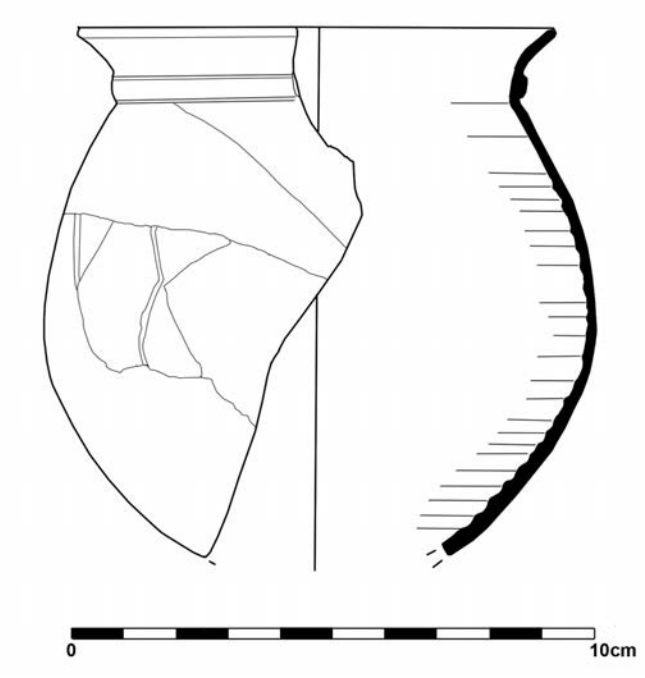
Téne period.[51] They are divided into three groups based on their volumes: a big bowl (16 hemina = 8 sextarii = 1/2 modius = 4.7 l), medium-sized bowl (1/6 modius = 1.46 l) and a small bowl (1/16 modius = 1 sextarius = 0.547 l).[52] All forms that appear in Zaton belong to Hayes's type 2.[53]

The form is found mostly in the lower Zaton port (layer 6 – layer 3) and the surface layer, which would correspond to the period from the late 1st to the mid-3rd century. It is arranged in layers of squares A and B: 2 specimens in layer 7 (5%), 9 specimens in layer 6 (23%), 10 specimens in layer 5 (26%), 6 specimens in layer 4 (16%), 7 specimens in layer 3 (18%), one specimen in layer 1 (3%) and 3 specimens as surface finds (8%). The rim diameters are quite similar, with a prominent group featuring a diameter of 20 cm (28%) for all the specimens where the rim could be measured

49 H. S. Robinson, 1959.
50 J. W. Hayes, 1983, 105.
51 B. Ilakovac, 1968, 198.
52 B. Ilakovac, 1968, 192.
53 J. W. Hayes, 1983, 106.

51 B. Ilakovac, 1968, 198.
52 B. Ilakovac, 1968, 192.
53 J. W. Hayes, 1983, 106.

cm (28%), od svih primjeraka kojima se mogao izmjeriti promjer otvora (89%). Razlikuju se najviše u nagibu oboda, ali svi su manje više izvijeni prema gore za što možemo povući analogiju s nalazištima Viganj[54] i Izmetište[55] te trščanskim agerom.[56] Tri primjerka su ukrašena kanelurama po gornjem konusu (inv. br. 1642H, 1699H, 5751H), a jedan primjerak ima ugreban simbol ili slovo kraj ručke (inv. br. 1646H), dok je kod jednog primjerka obod u obliku slova S (inv. br. 1640H) u Zatonu prisutan u sloju 6, kao i kod primjerka s Knossosa u slojevima prije nastanka vile.[57] Dva primjerka ukrašena kanelurama spadaju u slojeve 5 i 6, a onaj s izgrebanim simbolom/slovom također u sloj 6. Neki oblici imaju zadebljane krajeve oboda za bolje prianjanje poklopca.

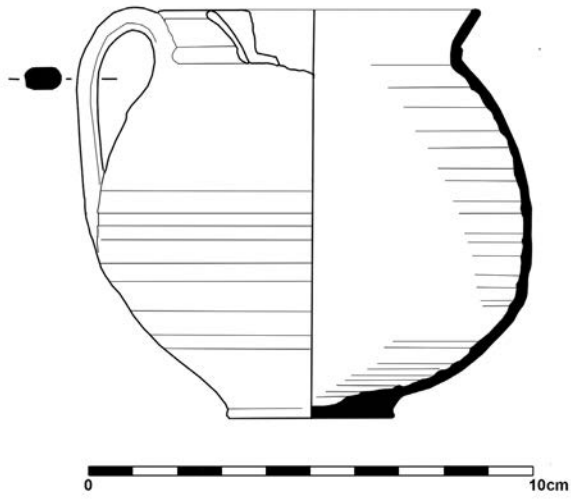


Slika 17. Lončić tipa 1
Figure 17. Small pot / cup type 1
crtež / drawing: **Robert Maršić**

Lončić tipa 1 se javlja u 39% (195 komada) od ukupnog zbroja primjeraka grube egejske keramike. Obod je zakošen prema gore, a od tijela ga dijeli plitko i profilirano rebro. Ručka je okomita, trakasta i oblog presjeka, nekad „rezana". Započinje ispod oboda, penje se do vrha, nekad ga i prelazi pa završava na trbuhu koji je manje više loptastog oblika. S vanjske strane lončića tijelo je glatko, dio trbuha može biti narebren a s unutrašnje strane tijelo je

54 Ž. Rapanić, 1972, 145.
55 B. Ilakovac, 1968, 188-191.
56 T. Žerjal, 2008, 136.
57 J. W. Hayes, 1983, 105.

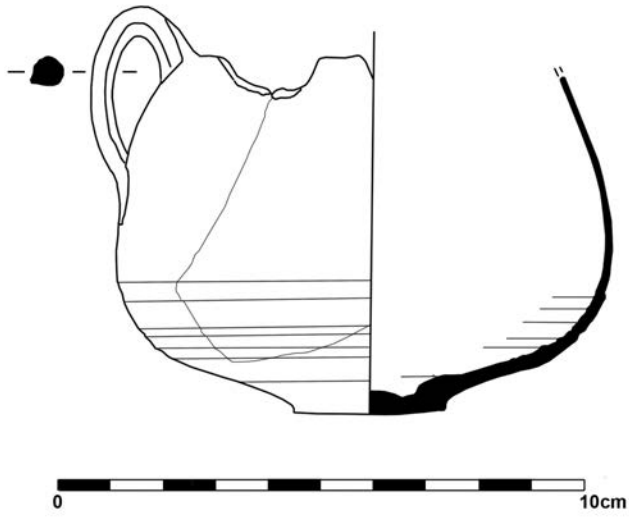
(89%). They differ mainly in the shape of the rim, but they are all more or less curved upwards, for which we have analogies at the sites of Viganj[54] and Izmetište,[55] as well as the Tregeste (Trieste) ager.[56] Three specimens are decorated with grooves on the upper cone (Inv. no. 1642H, 1699H, 5751H), and one specimen has a symbol or letter scratched at the end of the handle (Inv. no. 1646H). Another specimen has an S-shaped rim (Inv. no. 1640H), as well as specimens from Knossos in the layers occurring prior to the construction of the villa[57] - present in layer 6 in Zaton. Two specimens adorned with grooves belong to layers 5 and 6, and the one with the scratched symbol/letter belongs to layer 6. Some forms have thickened ends of the rim for a tighter fit of the lid.



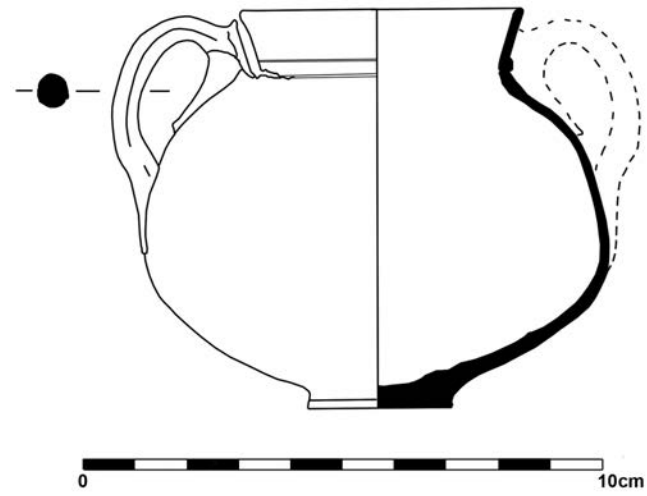
Slika 18. Lončić okruglog trbuha
Figure 18. Small pot / cup type 1 featuring a round abdomen
crtež / drawing: **Robert Maršić**

Small pot type 1 occurs in 39% (195 units) of the total number of Aegean coarse ware specimens. The rim is skewed upwards, and is separated from the body by a shallow and moulded rib. The handle is vertical, stripped and has a round cross-section, sometimes 'cut'. It starts below the rim, rises to the top, sometimes passes it and ends at the abdomen, which a more or less spherical shape. The outside of the body of the small pot is smooth, part of the abdomen may be ribbed and inner side ribbed or smooth. The leg can be round or conical, is always shallow, and the bottom of the foot can be a different colour from the rest

54 Ž. Rapanić, 1972, 145.
55 B. Ilakovac, 1968, 188-191.
56 T. Žerjal, 2008, 136.
57 J. W. Hayes, 1983, 105.



Slika 19. Lončić vrećastog trbuha
Figure 19. Small pot / cup type 1featuring a pear-shaped abdomen
crtež / drawing: **Robert Maršić**



Slika 20. Lončić bikoničnog trbuha
Figure 20. Small pot / cup type 1 with a biconical abdomen
crtež / drawing: **Robert Maršić**

narebreno ili glatko. Noga može biti okrugla ili stožasta, uvijek je plitka, a dno s nogom može biti drugačije boje od ostatka tijela zbog stavljanja lončića u peći jedan na drugi. Glina je najčešće dobro pročišćena, s malo ili bez kalcita, a neki primjerci imaju primjese tinjca u glini (24%). Česta pojava je i sivi premaz na vanjskoj površini stijenke (67%), a s unutrašnje strane tamni (smola?) (32%).

Po B. Ilakovcu zapremnina im je 6 ciata ili 1 hemina (1/2 sekstarija = 0,274 l).[58] Postoje i veći primjerci, s promjerima otvora većima od 10 cm (5 primjeraka – 8% od svih izmjerenih). Ovi lončići se javljaju i na atenskoj Agori, gdje se datiraju u razdoblje od kraja prvog stoljeća do početka trećeg stoljeća.[59] Nadalje, Marabini Moevs ovaj oblik naziva formom LXVIII te ga ubraja u kategoriju najpopularnijih oblika kuhinjskog posuđa iz repertoara keramike tankih stijenki koja se proizvodila od sredine prvog stoljeća.[60] Tehnika izrade ovog oblika i debljina stijenki vezana je za oblike keramike tankih stijenki, makar samo tijekom početne faze. Usko i plitko rebro koje dijeli obod od tijela lončića pojavljuje se i na ovom području, a smatra se da je takvo rebro krasilo i kuhinjsko posuđe kasnog razdoblja La Tène. Lončići pripadaju tipu 2 Hayesove podjele i datira ih u razdoblje od flavijevskog doba do 200. g, s napomenom da bojani oblici traju i duže.[61] M. Topić ih također svrstava u B skupinu keramike tankih stijenki.[62] Odlikuju se velikom ujednačenošću, s par varijanata drugačijeg oblika trbuha.[63]

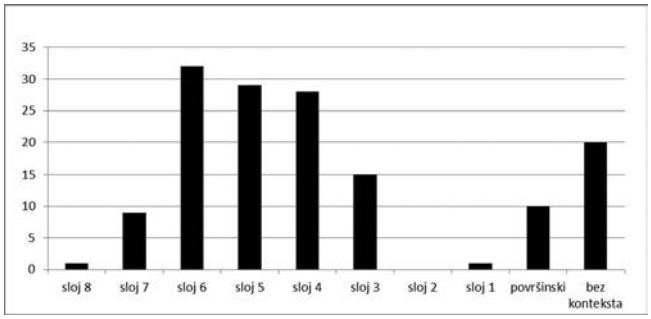
Slika 21. Glazirana površina
Figure 21. Glazed surface
foto / photo: **Dino Taras**

of the body, because the pots were place in the kiln one on top of the other. The clay is usually well purified, with little or no calcite, and some specimens have an admixture of mica in the clay (24%). The occurrence of the grey coating on the outer surface of the wall (67%), and the inside is dark (resin?)(32%) is common.

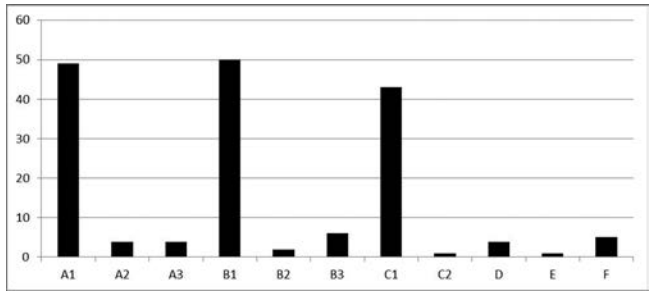
According to B. Ilakovac, their volumes are 6 cyathus or 1 hemina (1/2 sextarius = 0.274 l).[58] There are larger specimens, with diameters exceeding 10 cm (5 specimens or 8% of all those measured). These small pots also appear on the Athenian Agora, and date from the late 1st century to the beginning of the 3rd century.[59] Furthermore, Marabini Moevs calls this shape form LXVIII, and categorises it as the most popular cookware forms from the collection of thin-walled pottery, which was produced from the mid-1st century.[60] The production technique of this shape and

58 B. Ilakovac, 1968, 192.
59 H. S. Robinson, 1959.
60 M. T. Marabini Moevs, 1973.
61 J. W. Hayes, 1983, 107.
62 M. Topić, 2004, 309.
63 L. Gervasini, 2005, 284, Tav. 1b.

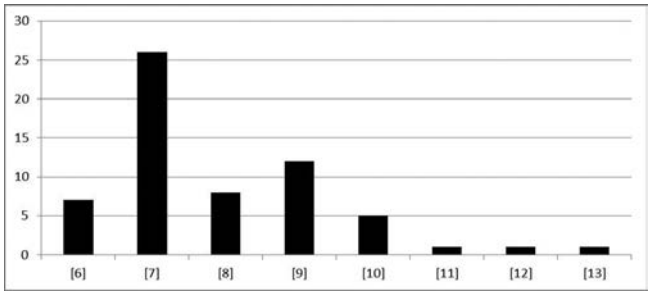
58 B. Ilakovac, 1968, 192.
59 H. S. Robinson, 1959.
60 M. T. Marabini Moevs, 1973.



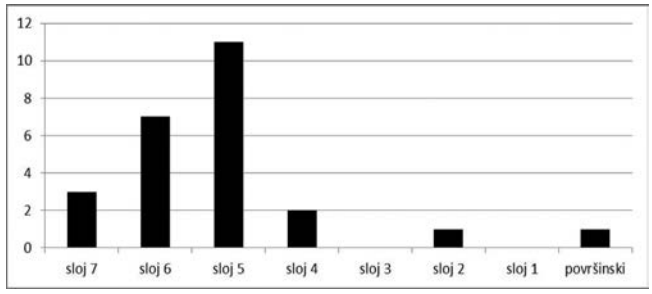
Slika 22. Distribucija lončića tipa 1 po slojevima
Figure 22. Distribution of small pots type 1 across layers
priredio / prepared by: **D. Taras**



Slika 23. Raspored fragmenata lončića tipa 1 po kvadrantima
Figure 23. Distribution of pots type 1 according to squares
priredio / prepared by: **D. Taras**



Slika 24. Distribucija lončića tipa 1 prema promjeru oboda
Figure 24. Distribution of small pots / cups type 1 based on rim diameter
priredio / prepared by: **D. Taras**



Slika 25. Distribucija lončića tipa 2 po slojevima
Figure 25. Distribution of small pots / cups type 2 across layers
priredio / prepared by: **D. Taras**

Ovi lončići su vjerojatno bili u funkciji čaša ili šalica, na što ukazuje malen broj primjeraka s tragovima gorenja (6%).

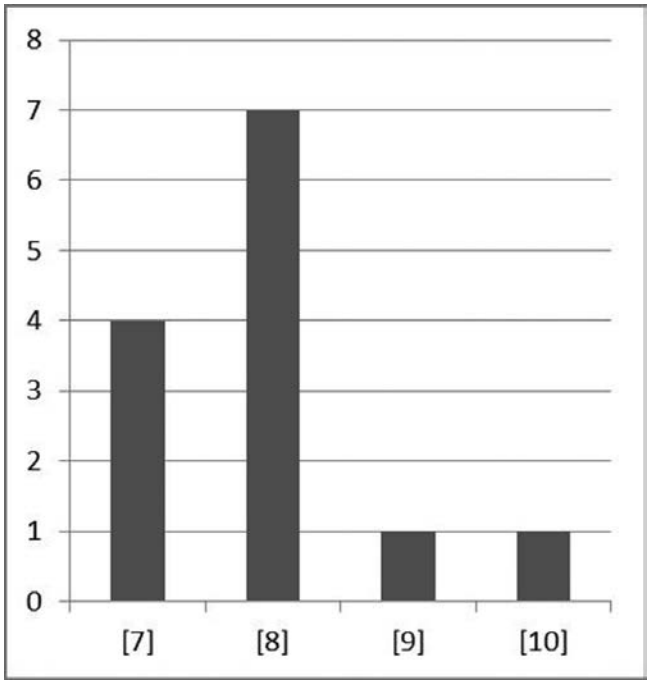
Oblik se javlja u svim slojevima u Zatonu osim slojeva 1 i 2. Raspoređen je po slojevima kvadrata A i B: 1 primjerak u sloju 8 (1%), 9 primjerka u sloju 7 (7%), 32 primjeraka u sloju 6 (26%), 29 primjeraka u sloju 5 (23%), 28 primjeraka u sloju 4 (22%) te po 15 primjeraka u sloju 3 (12%), 1 primjerak u sloju 1 (1%) i 10 površinskih primjerka (8%). Promjerima oboda su dosta ujednačeni, s jednom istaknutom grupom promjera 7 cm (42%), od svih primjeraka kojima se mogao izmjeriti promjer otvora (30%). Možemo ustvrditi da taj oblik traje od najnižih slojeva pa do površine, tj. tijekom skoro cijelog života zatonske luke. U ovom tipu keramike razlikujemo i nekoliko varijanti: po kriteriju oblika trbuha uz okrugle trbuhe, kakvih je većina, imamo varijante s vrećastim (inv. br. 622H, 1189H, 1539H, 1606H, 1189H) ili bikoničnim (inv. br.1597H, 1633H, 1660H) trbuhom. Ističu se još i glazirani primjerci (inv. br. 579H, 1574H, 1713H).

Lončići tipa 2 su rjeđi nego tip 1, javljaju se u 9% (44 komada) od ukupnog zbroja primjeraka grube egejske keramike. Obod je skoro okomit, a od tijela ga dijeli plitka i horizontalna kanelura. Ručka je okomita, trakasta i oblog presjeka, nekad „rezana". Započinje ispod oboda, penje se do vrha, nekad ga i prelazi pa završava na trbuhu koji je izduženog i zaobljenog oblika. S vanjske strane lončića

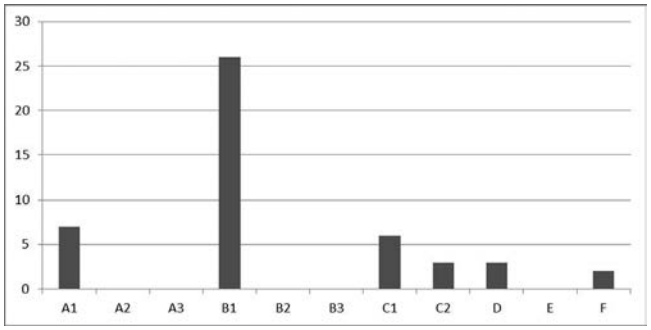
wall thickness in linked to the form of thin-walled pottery, if only during the initial phase. The narrow and shallow rib that divides the rim of the body of pots appears also in this area, and it is believed that this kind of rib adorned kitchenware of the later La Tène period. Small pots belong to Hayes's category of type 2 and date to the period from the Flavian era to 200 A.D., while noting that the coloured forms lasted even longer.[61] M. Topić also classifies them into group B of thin-walled pottery.[62] They are characterised by high uniformity, with a few variants of different abdomen forms.[63] These small pots were probably used as beakers or cups, as indicated by the small number of specimens with burn traces (6%).

The form occurs in all layers at Zaton except in layers 1 and 2. They are arranged in the layers of A and B squares: 1 specimen in layer 8 (1%), 9 specimens in layer 7 (7%), 32 specimens in layer 6 (26%), 29 specimens in layer 5 (23%), 28 specimens in layer 4 (22%), and 15 specimens in layer 3 (12%), 1 specimen in layer 1 (1%) and 10 specimens in the surface layer (8%). The rim diameters are quite similar, with a prominent group having a diameter of 7 cm (42%),

61 J. W. Hayes, 1983, 107.
62 M. Topić, 2004, 309.
63 L. Gervasini, 2005, 284, Tav. 1b.

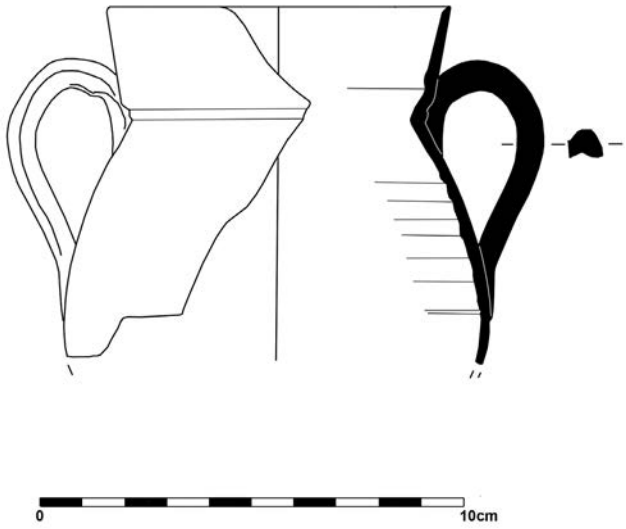


Slika 26. Distribucija lončića tipa 2 prema promjeru oboda
Figure 26. Distribution of small pots / cups type 2 based on rim diameter
priredio / prepared by: **D. Taras**



Slika 27. Distribucija lončića tipa 2 po kvadrantima
Figure 27. Distribution of small pots / cups type 2 according to squares
priredio / prepared by: **D. Taras**

tijelo je glatko, a donji dio trbuha može biti blago narebren. S unutrašnje strane tijelo je narebreno ili glatko. Noga može biti okrugla ili stožasta, a dno s nogom može biti drugačije boje od ostatka tijela zbog stavljanja lončića u peći jedan na drugi. Glina je najčešće dobro pročišćena, s malo ili bez kalcita. Česta pojava je i sivi premaz na vanjskoj površini stijenke (67%), kao i tamni premaz iznutra (40%). Ovaj tip lončića Hayes smatra izvornim egejskim proizvodom i navodi ga kao tip 1, s datacijom od flavijevskog vremena do oko 200. g.[64] Ovi lončići bi imali funkciju manjih vrčeva, ne samo oblikom već i činjenicom da su tragovi gorenja

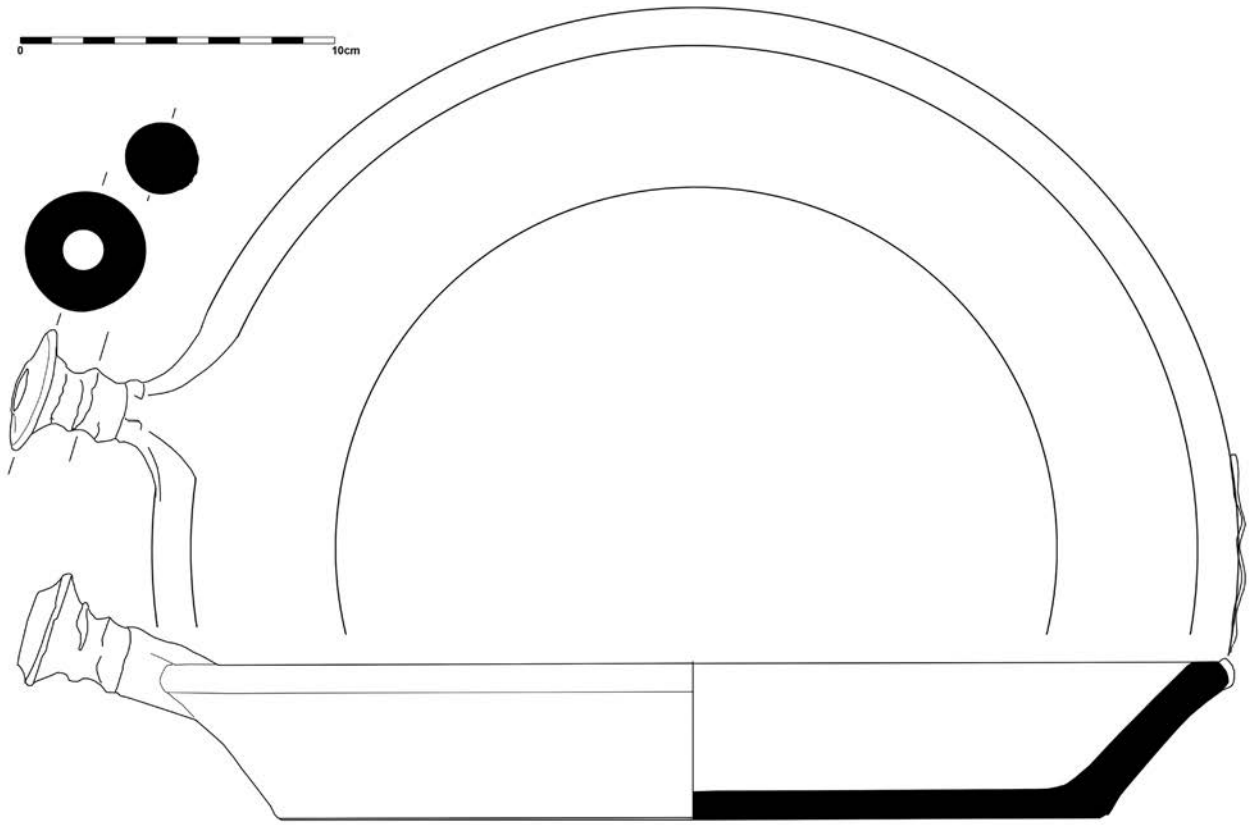


Slika 28. Lončić tipa 2
Figure 28. Small pot / cup type 2
crtež / drawing: **Robert Maršić**

for all specimens where their opening diameters could be measured (30%). We can assert that this form is present from the lowest layers to the surface layer, i.e. throughout almost the entire life of the Zaton port. In this type of pottery, we also distinguish several variants. Based on the criteria relating to the shape of the abdomen, besides round abdomens, as is the case with the majority, there are also the variants with pear-shaped (Inv no. 622H, 1189H, 1539H, 1606H, 1189H) or biconical (Inv. no. 1597H, 1633H, 1660H) abdomens. The glazed specimens (Inv. no. 579H, 1574H, 1713H) are also prominent

Small pots type 2 are rarer than type 1, and occur in 9% (44 units) of the total number of Aegean coarse ware specimens. The rim is almost perpendicular, and is separated from the body by a shallow horizontal flute. The handle is vertical, stripped and has a round cross-section, and is sometimes 'cut'. It starts below the rim, rises to the top, sometimes exceeds it and ends at the abdomen, which is an elongated and curved shape. The body is smooth on the outside of the small pot, whereas the lower abdomen can be slightly ribbed. The inner side is ribbed or smooth. The leg can be spherical or conical, and the bottom with the foot can be a different colour from the rest of the body because the small pots were placed in the kiln next to each other. The clay is usually well purified, with little or no calcite. A frequent feature is the grey coating on the outer surface of the wall (67%), and a dark coating on the inside (40%). This type of small pot is considered by Hayes to be an original Aegean product and states that it is type 1, while dating it to the period from the Flavian era to about

64 J. W. Hayes, 1983, 107.



Slika 29. Tava
Figure 29. Pan
crtež / drawing: **Robert Maršić**

prisutni na samo jednom primjerku. Raspoređeni su po slojevima kvadrata A i B: 3 primjerka u sloju 7 (25%), 7 primjeraka u sloju 6 (%), 11 primjeraka u sloju 5 (42%), 2 primjerka u sloju 4 (25%), 1 primjerak u sloju 3 (8%) i 1 primjerak iz površinskog sloja. Promjerima oboda su dosta ujednačeni, s jednom istaknutom grupom promjera 8 cm (53%), od svih primjeraka kojima se mogao izmjeriti promjer otvora (28%).

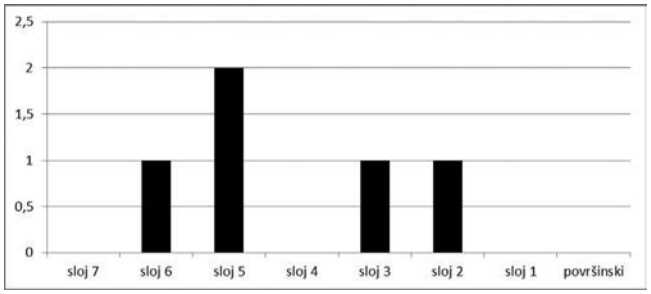
Tava se javlja u 1% (6 primjerka) (HAYES 1 Tava) od ukupnog broja primjeraka grube egejske keramike. Ima obod koji slijedi formu tijela, a s gornje strane je zaobljen. Ručka je valjkasta, narebrena i spiralno profilirana, a na vrhu proširena. Šuplja je iznutra, i postavljena pod tupim kutom na bočne stijenke. S vanjske strane tave tijelo je blago narebreno, a s unutrašnje glatko. Dno je ravno, s unutrašnje strane na prijelazu u bočne stijenke nalazi se plitko i usko rebro. Glina je grube fakture s primjesom kalcita. S obje strane su vidljivi sivi premaz i tragovi gorenja na svakom primjerku. Ovaj oblik Hayes svrstava u svoju kategoriju tava tipa 1,[65] a nađene su u velikom

65 J. W. Hayes, 1983, 126-127.

200 A.D.[64] These small pots are used as small pitchers, due not only to the shape but also the fact that burn traces are present on only one specimen. They are arranged in layers of squares A and B: 3 specimens in layer 7 (25%), 7 specimens in layer 6 (%), 11 specimens in layer 5 (42%), 2 specimens in layer 4 (25%), 1 specimen in layer 3 (8%) and 1 specimen in the surface layer. The rim diameters are quite similar, with a prominent group having a rim of 8 cm (53%), for all the specimens on which the rim could be measured (28%).

The **pan** appears in 1% (6 specimens) (HAYES 1 Pan) of the total number of Aegean coarse ware specimens. The rim follows the shape of the body and is rounded at the upper section. The handle is cylindrical, ribbed, has a spiral profile, and is wider at the top. It is hollow within, and set at an obtuse angle on the sidewalls. On the outside of the pan, the body is slightly ribbed, and smooth on the inside. The bottom is flat, and on the inside at the transition into the sidewalls, there is a shallow and narrow rib. The clay is a coarse texture with an admixture of calcite. Both sides have a visible grey coating and burn traces on each specimen. This form is categorised by Hayes as his category of pan Type 1,[65] which is found in large numbers at the shipwreck of Viganj.[66] Riley categorises them as belonging

64 J. W. Hayes, 1983, 107.
65 J. W. Hayes, 1983, 126-127.
66 Ž. Rapanić, 1972, 146.



Slika 30. Distribucija tava po slojevima
Figure 30. Distribution of pans across layers
priredio / prepared by: **D. Taras**

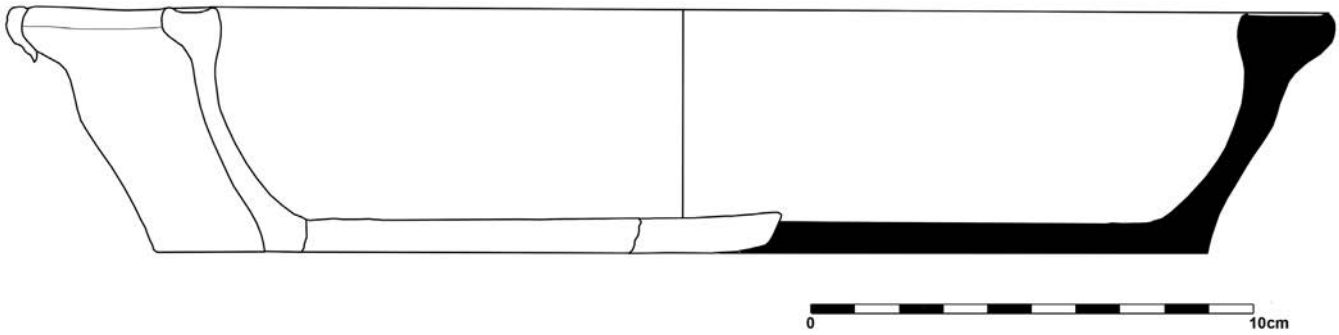
broju na brodolomima kod Vignja.[66] Riley ih navodi pod kategorijom ranorimskog kuhinjskog posuđa tipa 5 s iskopavanja u Sidi Kherebish u Bengaziju, Libija,[67] a Ludorf u pregledu uporabne keramike na području zapadne Male Azije pod Pfannentypus P I/3 (T 2 / P14), s datacijom od sredine 1. st. p. K., do sredine 3. st.[68]

Radionički je ovaj tip ujednačen, jedino varira promjerom (34,3 cm i 36,5 cm), a debljina oboda je između 0,8 cm i 1,2 cm. Rijedak je nalaz, ali se ipak pojavljuje u gotovo svakom sloju luke s barem jednim primjerkom. Ovaj oblik namijenjen je također kuhinjskoj upotrebi, što je i vidljivo iz činjenice da su svi primjerci prekriveni više ili manje tragovima gorenja.

to early Roman type 5 cookware from the excavations at Sidi Kherebish in Benghazi, Libya [67] whereas Ludorf in his review of functional ceramics in the region of western Asia Minor under Pfannentypus P I/3 (T 2 / P14), and dates them to the period from the mid-1st century B.C. to the mid-3rd century.[68]

In terms of workmanship, this type is uniform, and only varies in its diameter (34.3 cm and 36.5 cm), with the rim thickness ranging from 0.8 cm to 1.2 cm. It is a rare finding, but still at least one specimen appears in almost every layer of the port. This form is intended for use in the kitchen, which is evident from the fact that all the specimens are more or less covered with burn traces.

The plate appears in 1% (3 specimens) (HAYES 2 Pan) of the total number of Aegean coarse ware specimens. The rim is flattened outwards and slightly skewed on the upper side. Its starts from the rib, and is slightly



Slika 31. Plitica
Figure 31. Plate
crtež / drawing: **Robert Maršić**

Plitica se javlja u 1% (3 primjerka) (HAYES 2 Tava) od ukupnog broja primjeraka grube egejske keramike. Obod je zaravnjen prema vani i blago zakošen na gornju stranu. Započinje rebrom, a pri vrhu je blago zadebljan. Na dijametralno suprotnim stranama plitice nalaze se hvatišta u vidu blago valovite profilacije na obodu (horizontalne ručke). S vanjske strane plitice stijenke su blago narebrene, a mogu biti vidljivi i tragovi gorenja s obje strane (4 primjerka). S unutrašnje strane je vidljiv tamni premaz na jednom primjerku. Dno je zaravnjeno, iznutra malo uzdignuto, a s vanjske strane omeđeno plitkim rebrom. Glina je obično s primjesom kalcita. Radionički je ovaj tip ujednačen, varira promjerom gdje je jedan primjerak promjera manjeg od 30 cm (br. 5). U Hayesovoj klasifikaciji

thicker at the top. On diametrically opposite sides of the platen, there are rests in the form of slightly corrugated mouldings around the perimeter (horizontal handles). On the outside of the plate, the walls are slightly ribbed, and traces of burns from the upper side can be seen (3 specimens). Only a single specimen on its inner side has a visible dark coating. The bottom is flattened, slightly raised from the inside, and surrounded by a shallow rib

66 Ž. Rapanić, 1972, 146.
67 J. A. Riley, 1979, 252.
68 G. Ludorf, 2006, 42.

67 J. A. Riley, 1979, 252.
68 G. Ludorf, 2006, 42.

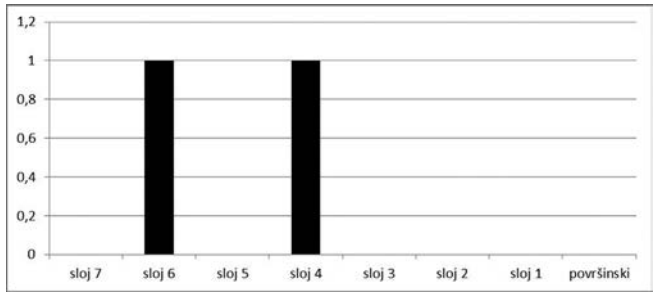
spada pod tave tipa 2.[69] Ovakav oblik prisutan na brodolomu kod Paklenih otoka Ilakovac datira u drugo stoljeće.[70] Ostali primjerci su promjera između 34,4 cm i 37 cm. U pregledu uporabne keramike na području zapadne Male Azije Ludorf ove plitice smješta u Pfannentypus P II/2 (T 4 / P50), s datacijom u 2. i 3. st.[71]

Oblik se javlja u slojevima 6 i 4 luke u Zatonu. Raspoređeni su po slojevima kvadranata A i B po jedan u svakom sloju.

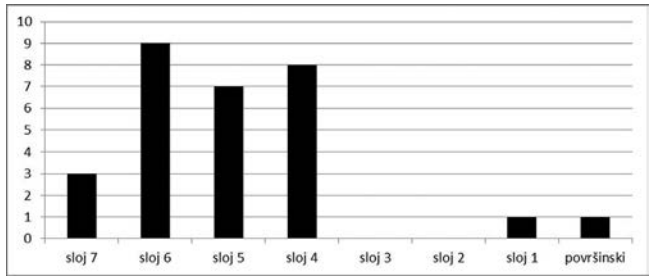
Vrč s trilobnim otvorom se javlja u 8% (40 primjeraka) od ukupnog broja primjeraka grube egejske keramike. Trilobni otvor postupno prelazi u naborani vrat. Ručka je trakasta, okomita i izbrazdana s vanjske strane. Započinje na naboranom vratu, nadvisuje trilobni otvor te se oštro spušta na područje trbuha koji je širok i zaobljen. S vanjske strane vrča tijelo je glatko, s čestom pojavom sivog premaza u 77% (10 primjeraka) slučajeva i tragova gorenja u 61% (8 primjeraka) slučajeva. Dno je konkavno, s izbačenim umbom u sredini. Glina je dobro pročišćena, obično s malom primjesom kalcita, a u 46% (8 primjeraka) i s primjesom tinjca. Ovom obliku pridružujemo kuhinjsku funkciju, što je i vidljivo iz činjenice da je preko polovice primjeraka prekriveno više ili manje tragovima gorenja. Prema visokom postotku primjeraka s dodatkom tinjca, ovi vrčevi su većinom istočnomediteranske provenijencije. Dijele se u 2 tipa po visini, do 20 cm i preko 20 cm. Po Ilakovcu, zapremnina manjeg iznosi 16 ciata (0,73 l).[72] Javljaju se i na području unutar hrama carskog kulta u Naroni, gdje su nađeni najčešće uz lonce i bikonične zdjele pa ih se datira u razdoblje od sredine prvog stoljeća do trećeg stoljeća.[73] U istraživanjima svetišta Kore i Demetre u Korintu također su pojavljuju vrčevi ovoga tipa, u obje veličine. Datirani su u šire razdoblje od 1. do 3. st. n. Kr.[74]

Oblik se javlja većinom nižim slojevima zatonske luke (sl. 7 do 4), sporadično i kasnije pa i u površinskom sloju. S obzirom na to datiramo ga u vrijeme od početka izgradnje zatonske luke pa do sredine četvrtog stoljeća. Raspoređen je u kvadrantima A i B po slojevima: 3 primjeraka u sloju 7 (10%), 9 primjerka u sloju 6 (31%), 7 primjerak iz sloja 5(24%), 8 primjeraka u sloju 4 (28%) te po jedan primjerak u sloju 1 (3%) i površinskom sloju (3%). Radionički su usklađeni oblikom, ali se razlikuju visinom i volumenom. Imamo 2 sačuvana primjerka ispod 20 cm (inv. br. 1726H, 1727H), i jedan visine 20,3 cm (inv. br. 1414H) od svih kojima možemo izmjeriti ili pretpostaviti visinu.

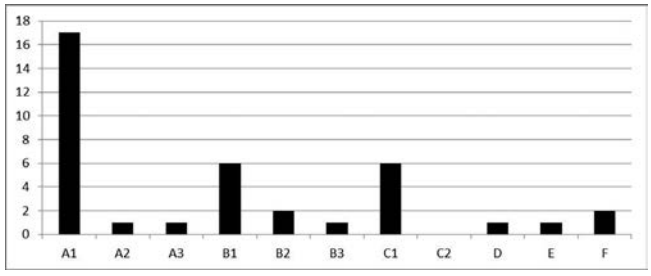
69 J. W. Hayes, 1983, 126-127.
70 B. Ilakovac, 1968, 199.
71 G. Ludorf, 2006, 43.
72 B. Ilakovac 1968, 192.
73 M. Topić, 2004, 309.
74 K.W. Slane, 1990, 103.



Slika 32. Distribucija plitica po slojevima
Figure 32. Distribution of plates according to layers
priredio / prepared by: **D. Taras**



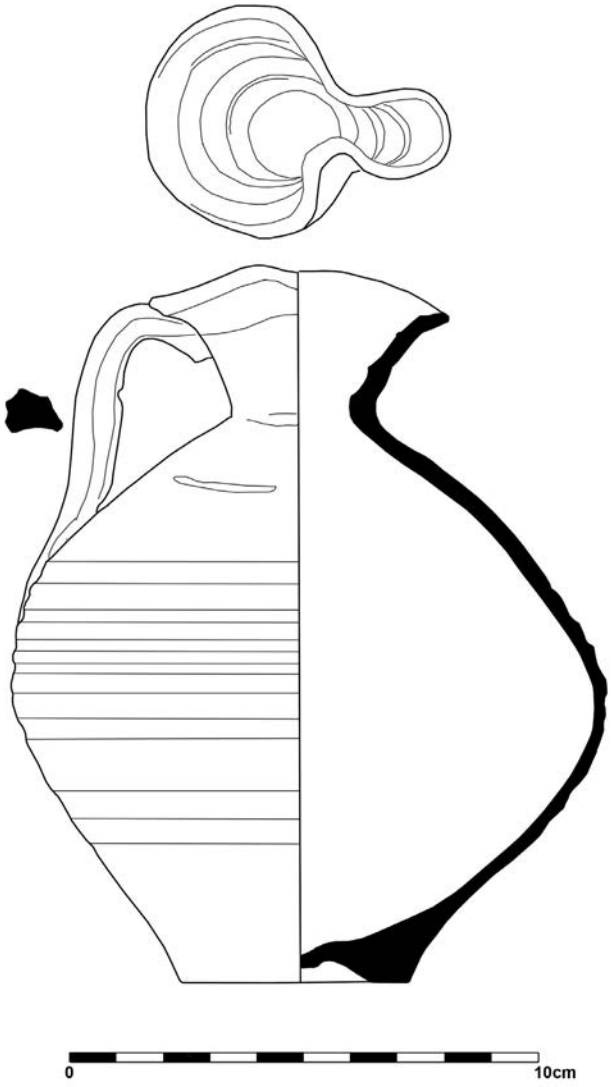
Slika 33. Distribucija vrčeva s trilobnim otvorom po slojevima
Figure 33. Distribution of pitchers featuring trilobate opening according to layers
priredio / prepared by: **D. Taras**



Slika 34. Distribucija vrčeva s trilobnim otvorom po kvadrantima
Figure 34. Distribution of pitchers featuring trilobate opening according to squares
priredio / prepared by: **D. Taras**

from the outside. The clay is usually mixed with calcite. In terms of the workmanship, this type is uniform, has varying diameters with one specimen having a diameter of less than 30 cm (no. 5). Based on Hayes's calcification, it belongs to pan type 2.[69] Ilakovac dates this form, which appears in shipwrecks at the Pakleni otoci, to the 2nd century.[70] Other specimens have a diameter ranging from 34.4 cm to 37 cm. In reviewing the functional pottery in area of western Asia Minor, Ludorf places these pans in

69 J. W. Hayes, 1983, 126-127.
70 B. Ilakovac, 1968, 199.

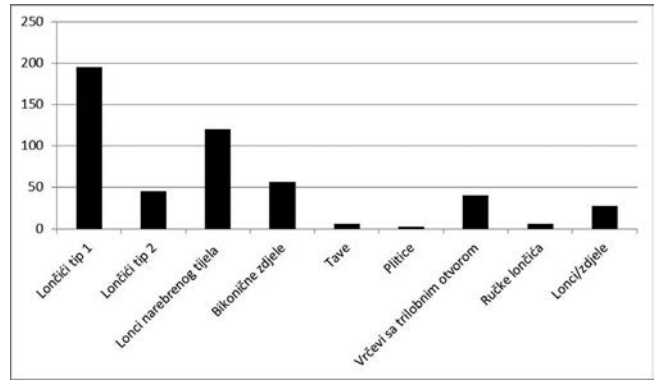


Slika 35. Vrč s trilobnim otvorom
Figure 35. Pitcher with trilobate opening
crtež / drawing: **Robert Maršić**

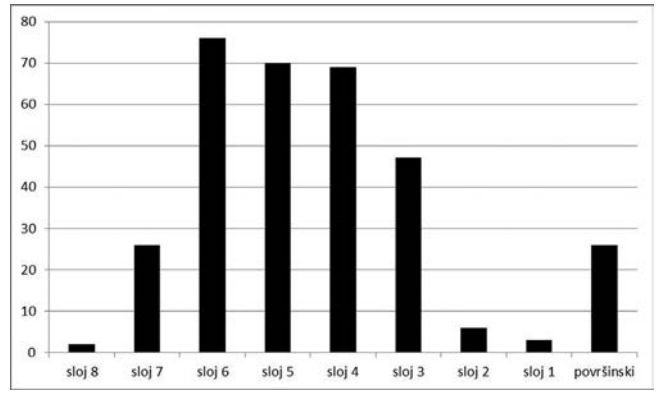
4.4. Neraspoređeni fragmenti

Postoji dio keramičke građe za koju se ne može utvrditi kojem tipu pripada, pošto nisu sačuvani karakteristični dijelovi posuda. Dvije su takve grupe – ručke lončića i obodi narebrenih lonaca ili bikoničnih zdjela.

Ručke lončića za koje ne možemo utvrditi kojem tipu pripadaju javljaju se s 1% (6) primjerka) od ukupnog zbroja grube egejske keramike. Fragmenti koji pripadaju loncima ili zdjelama javljaju se sa 6% (28 primjeraka). Gotovo svi imaju tragove sivog premaza (93%), a 57% je manje ili više prekriveno tragovima gorenja.



Slika 36. Brojčani odnos tipova unutar grube egejske keramike kroz sve slojeve
Figure 36. Numerical relationship between types of Aegean coarse ware throughout all layers
priredio / prepared by: **D. Taras**



Slika 37. Distribucija grube egejske keramike po slojevima
Figure 37. Distribution of Aegean coarse ware according to layers
priredio / prepared by: **D. Taras**

Pfannentypus P II/2 (T 4 / P50), and dates them to the 2nd and 3rd century.[71]

The form occurs in layers 6 and 4 of the Zaton port. They are arranged in layers of squares A and B, one in each layer.

A pitcher with a trilobate **opening** appears in 8% (40 specimens) of the total number of Aegean coarse ware specimens. The trilobate opening gradually leads to the wrinkled neck. The handle is stripped, vertical and grooved on the outside. It starts on the wrinkled neck, passes above the trilobate opening, and sharply descends to the abdomen area, which is wide and rounded. On the outside of the pitcher the body is smooth, with the frequent presence of a grey coating in 77% of cases (10 specimens) and burn traces in 61% of cases (8

71 G. Ludorf, 2006, 43.

ZAKLJUČAK

Zatonska gruba egejska keramika vremenom bitno ne mijenja svoj oblik pa je veoma teško datirati njene tipove. Vrijednost zatonskih primjeraka je u tome što oni dolaze iz stratigrafski jasnog konteksta pa pokušava dobiti neki relativni kronološki odnos između grube egejske keramike koja je radionički ujednačena i nekih iznimaka u sklopu korpusa te keramike. Promatranjem statističke situacije moguće je dobiti sliku o intenzitetu života luke ili trajanju oblika grube egejske keramike, ovisno o količini fragmenata u kulturnom sloju. Površina koja je istražena je obimom malena i samim time ne može biti indikativna za cijelo područje lokaliteta, ali će dati neku vrstu stratigrafske i statističke slike. Lonci narebrenog tijela izrađivani su u više veličina, s dvije grupe promjera koji mogu biti indikacija dvije standardizirane veličine (19 – 20 cm, i 11 – 12 cm). U slučaju bikoničnih zdjela, ističe se jedna skupina s daleko najvećim brojem primjeraka (20 cm). Lončići tipa 1 u najvećem broju izmjerljivih oboda imaju promjer od 7 cm, dok u tipu 2 imaju promjer 7 – 8 cm. Za jedan dio grube egejske keramike, možda iz najnižih slojeva, možemo pretpostaviti istočnomediteransko podrijetlo, dok se o ostatku može samo pretpostavljati. Primjerci s dodatkom tinjca mogu se sigurno vezati uz egejske proizvodne centre. Budući da ne postoje keramografske analize ovoga materijala, ne možemo reći jesu li to lokalne imitacije popularnog tipa egejske keramičke proizvodnje (kao npr. neki emonski primjerci) ili su svi uvezeni. Cjelokupni katalog sa strukturama gline i keramografskim analizama mogao bi predstavljati temelj sljedećeg rada o ovoj vrsti keramike.[75] Iz statistika je evidentna još jedna stvar: kvadranti A1, B1 i C1 sadržavaju većinu materijala na lokalitetu. To ne čudi s obzirom da se s tim kvadrantima počelo istraživanje još 2002. godine te su istraženi do sterilnog sloja. Kvadranti D, E i F s iskapani kasnijih godina i nisu istraženi do kraja.

Kronološki, gruba egejska keramika s ovog lokaliteta ne odstupa iz vremenskog okvira koji je postavljen u drugim radovima. Točnije, poklapa se sa situacijom na drugim istočnojadranskim lokalitetima poput luke u Pakoštanima ili hrama carskog kulta u Naroni. Neke atipične oblike možemo poistovjetiti s proizvodima radionica izvan izvornih radioničkih centara,[76] možda čak i s područja istočne obale Jadrana. Preko 50% nalaza (64%) je iz slojeva 6, 5 i 4 (početak funkcioniranja i prva stoljeća postojanja luke) a ispod 10% nalaza (8%) je iz prva dva sloja (slojevi 8 i 7), što bi značilo da je nakon početka funkcioniranja luke počelo vrijeme najintenzivnijeg uvoza i korištenja ove vrste keramike. Količina nalaza u sljedećem sloju opada

75 U ovome je radu dan popis inventarnih brojeva svih relevantnih ulomaka. Katalog u ovome obliku dovoljan je za potrebe rada ovakvoga tipa.

76 M. Parica, 2008, 90.

specimens). The bottom is concaved, with a protruding umbo in the middle. The clay is well purified, usually with a small admixture of calcite, and in 46% of cases (8 specimens) with an admixture of mica. This form has a kitchen function, as can be seen from the fact that over half of the specimens are more or less covered with burn marks. According to the high percentage of specimens with mica impurities, these pitchers are mostly from the eastern Mediterranean. They are divided into two types based on height, up to 20 cm and over 20 cm. According to Ilakovac, the volume of the smaller ones amounts to 16 cyathus (0.73 l).[72] They also appear in the area within the imperial cult temple in Narona, where pots and biconical bowls were most often found, and have been dated to the period from the mid-1st to the 3rd century.[73] In the excavations of the Sanctuary of Demeter and Kore at Corinth, larger pitchers of this type have also been found, in both sizes. They have been dated to a wider period from the 1st to the 3rd century A.D.[74]

The form is found mostly in the lower layers of the Zaton port (Fig. 7 to 4), and sporadically even later in the surface layer. Having said that, they are dated to a period from the commencement of the construction of Zaton port and to the mid-4th century. They are arranged in squares A and B across the layers: 3 specimens in layer 7 (10%), 9 specimens in layer 6 (31%), 7 specimens in layer 5 (24%), 8 specimens in layer 4 (28%), and a specimen in layer 1 (3%) and the surface layer (3%). The workmanship exhibits a uniform shape, but the height and volume differ. We have two preserved specimens smaller than 20 cm (Inv. no. 1726H, 1727H), and one with a height of 20.3 cm (Inv. no. 1414H), sourced from all of those where the height can be measured or assumed.

4.4. Unlisted fragments

Some pottery material cannot be determined as to what type it belongs to, as the characteristics of parts of the vessels have not been preserved. Two such groups are the handles of the small pots, the rims of the ribbed pots or the biconical bowls.

The handles of pots for which we cannot determine what type they belong to appear in 1% (6 specimens) of the total number of coarse Aegean pottery specimens. Fragments belonging to the pots and bowls appear in 6% of cases (28 specimens). Almost all have traces of grey coatings (93%), while 57% are more or less covered with burn marks.

72 B. Ilakovac 1968, 192.

73 M. Topić, 2004, 309.

74 K. W. Slane, 1990, 103.

(sloj 3), a trend se drastičnije nastavlja u slojevima do površine, iz čega bismo mogli zaključiti postupno gašenje ovih oblika, kao i gašenje gospodarskih i drugih aktivnosti. Zanimljivo je primijetiti da velik dio (55%) narebrenog posuđa pokazuje tragove gorenja, što bi moglo značiti da ti predmeti potječu iz brodskih kuhinja, a sasvim sigurno su korišteni.

Katalog inventarskih brojeva prema vrsti egejske keramike / Catalogue of inventory numbers according to type of Aegean ceramics

Lonci narebrenog tijela / Pots with a ribbed body: 402H, 409H, 413H, 457H, 458H, 468H, 459H, 539H, 546H, 563H, 565H, 581H, 582H, 587H, 611H, 635H, 1403H, 1404H, 1406H, 1412H, 1472H, 1778H, 4023H, 1176H, 1177H, 1180H, 1187H, 1192H, 1201H, 1209H, 1238H, 1242H, 1245H, 1252H, 1254H, 1270H, 1272H, 1277H, 1280H, 1287H, 1289H, 1296H, 1305H, 1309H, 1312H, 1323H, 1794H, 1796H, 1340H, 1352H, 1366H, 1402H, 1508H, 1509H, 1512H, 1515H, 1516H, 1518H, 1519H, 1520H, 1524H, 1525H, 1534H, 1537H, 1549H, 1552H, 1553H, 1554H, 1555H, 1560H, 1568H, 1578H, 1579H, 1582H, 1585H, 1592H, 1601H, 1602H, 1622H, 1623H, 1625H, 1629H, 1631H, 1634H, 1647H, 1651H, 1670H, 1671H, 1674H, 1682H, 1690H, 1700H, 1701H, 1712H, 1718H, 1720H 1838H, 1845H, 1933H, 1937H, 1940H, 2238H, 2265H, 2298H, 2301H, 2362H, 2378H, 3143H, 3144H, 3158H , 5443H, 5453H, 5484H, 5568H, 5585H, 5764H, 6039H, 6041H, 6053H, 6429H

Bikonične zdjele Biconical bowls: 412, 414H, 421H, 456H, 477H, 482H, 550H, 551H, 567H, 584H, 1194H, 1206H, 1210H, 1258H, 1325H, 1334H, 1373H, 1374H, 1533H, 1547H, 1557H, 1564H, 1595H, 1616H, 1620H, 1635H, 1640H, 1642H, 1646H, 1653H, 1666H, 1669H, 1673H, 1685H, 1699H, 1705H, 1707H, 1708H, 1716H, 1721H, 1725H, 1774H, 1800H, 1969H, 2180H, 2113H, 2141H, 5277H, 5485H, 5496H, 5593H, 5705H, 5751H, 6056H, 6065H, 6193H

Neodređeni ulomci (lonci ili zdjele) / Indefinite fragments (pots and bowls): 411H, 458H, 546H, 1239, 1191H, 1795H, 1546H, 1566H, 1607H, 1648H, 1659H, 1661H, 1665H, 1694H, 2079H, 2223H, 2330H, 2370H, 2375H, 2401H, 2466H, 3159H, 5727H, 5581H, 5913H, 6231H, 6376H, 6438H

Lončići tipa 1 / Small pots type 1: 450H, 545H, 552H, 554H, 566H, 568H,574H, 576H, 577H, 578H, 579H, 583H, 592H, 594H, 597H, 601H, 625H, 628H, 633H, 1405H, 1408H, 1409H, 1410H, 1411H, 1416H, 1442H, 1765H, 1767H, 1755H, 1776H, 1183H, 1184H, 1185H, 1189H, 1190H, 1213H, 1214H, 1259H, 1271H, 1299H, 1464H, 1351H, 1354H, 1365H, 1371H, 1479H, 1491H, 1492H, 1502H, 1505H, 1507H, 1511H, 1514H, 1517H, 1521H, 1523H, 1526H, 1527H, 1530H, 1538H, 1539H, 1543H, 1544H, 1548H, 1550H, 1551H, 1559H, 1562H, 1563H,

CONCLUSION

Aegean coarse ware from Zaton does not substantially change its form through time, so it becomes very difficult to date the types. The value of the Zaton specimens is that they come from a clear context in terms of stratigraphy; hence, there are attempts at obtaining some relative chronological links between the coarse Aegean pottery that has a uniform workmanship, and those exceptions from the pottery collection. By observing the statistical situation, a picture of the intensity of life in the port or lasting forms of coarse Aegean pottery can be obtained, depending on the quantity of fragments in the cultural strata. The area that has been excavated is small, and thus may not be indicative of the entire site, but does provide some sort of stratigraphic and statistical picture. Pots featuring a ribbed body were produced in several sizes, with two groups of diameters that may indicate two standardised sizes (19 - 20 cm, and 11 - 12 cm). In the case of biconical bowls, one group with by far the largest number of specimens (20 cm) is prevalent. Type 1 small pots most often have a measurable rim of 7 cm, and type 2 a rim diameter of 7-8 cm. For some of the Aegean coarse ware, perhaps those from the lowest strata, the presumption is that they are of eastern Mediterranean origin, while there are no clear presumptions for the rest of the specimens. Specimens with mica impurities can be linked with certainty to the Aegean production centres. Since a ceramographic analysis of this material has not been conducted, we are not able to say whether they are local imitations of the popular Aegean type of ceramic production (e.g. some Emona specimens) or whether they were all imported. The entire catalogue of clay structures and ceramographic analyses could form the basis of the next paper on this type of pottery.[75] Based on the statistics, one more thing is evident: squares A1, B1 and C1 contain most of the material on the site. This is not surprising given that excavations began on these quadrants back in 2002 and they have reached the sterile layer. Squares D, E and F were excavated years later, but have not been fully explored.

In chronological terms, coarse Aegean pottery from this site does not deviate from the timeframe established in other papers. More precisely, it coincides with the situation in other eastern Adriatic sites such as the port in Pakoštane or the imperial cult temple in Narona. Some atypical forms can be equated with products from workshops outside of the original workshop centres,[76] perhaps even from the areas of eastern Adriatic coast. Over 50% of the findings (64%) are from layers 6, 5, and 4 (the commencement of

75 This paper brings up a list of inventory numbers of all relevant fragments. This author thinks that a catalogue in this form is sufficient for the requirements of a work of this type.

76 M. Parica, 2008, 90.

1572H, 1574H, 1575H, 1576H, 1589H, 1593H, 1597H, 1598H, 1599H, 1606H, 1608H, 1609H, 1610H, 1611H, 1612H,1614H, 1615H, 1624H, 1626H, 1630H, 1636H, 1637H, 1643H,1655H, 1656H, 1657H, 1660H, 1663H, 1664H, 1667H, 1678H, 1680H, 1687H, 1689H, 1691H, 1697H, 1703H, 1704H, 1709H, 1711H, 1713H, 1714H, 1715H, 1719H, 1722H, 1723H, 1724H, 1728H,1729H, 1750H,1880H, 1909H, 1918H, 1951H, 1994H, 2045H, 2048H, 2095H, 2010H, 2175H, 2179H, 4466H, 4742H, 2224H, 2259H, 2274H, 2294H, 2316H, 2376H, 5207H, 5252H, 5309H, 5387H, 5395H, 5397H, 5408H, 5416H, 5426H, 5428H, 5454H, 5460H, 5502H, 5515H, 5535H, 5539H, 5553H, 5556H, 5589H, 5660H, 5688H, 5698H, 5723H, 5724H, 5763H, 5915H, 5929H, 5934H, 6052H, 6087H, 6109H, 6125H, 6135H, 6143H, 6149H, 6171H, 6181H, 6148H, 6189H, 6194H, 6199H, 6212H, 6216H, 6234H, 6236H,6244H, 6321H, 6378H, 6401H,

Lončići tipa 2 / Small pots type 2: 454H, 1276H, 1506H, 1529H, 1536H, 1540H, 1541H,1558H, 1565H, 1567H, 1573H, 1580H, 1596H, 1638H, 1652H, 1658H, 1672H, 1681H, 1710H, 1970H, 1912H, 2032H, 2157H, 2235H, 2281H, 2320H, 2400H, 5226H, 5273H, 5313H, 5609H, 5611H, 5655H, 5710H, 5758H, 5762H, 5831H, 5911H, 5940H, 5975H, 6139H, 6277H, 6283H, 6397H,

Ručke lončića tipa 1 ili 2 / Handles of small pots types 1 or 2: 554H, 569H, 572H, 574H, 583H, 622H, 630H, 631H, 5582H,

Tave / Pans: 557H, 1186H, 1463H, 1513H, 1706H, 5255H, 6391H,

Plitice / Platen: 1415H, 1532H, 1569H

Vrčevi / Pitchers: 401H, 564H, 604H, 1223H, 1311H, 1327H, 1355H, 1356H, 1367H, 1377H, 1407H, 1414H, 1510H, 1522H, 1697H, 1684H, 1726H, 1727H, 1737H, 1749H, 1754H, 1847H, 1874H, 1991H, 2067H, 2133H, 2170H, 2171H, 2341H, 5193H, 5440H, 5445H, 5457H, 5470H, 5513H, 5591H, 5822H, 5969H, 6049H, 6394H

the port's operations and its first century of existence), whereas less than 10% of the findings (8% in fact) are from the first two layers (layers 8 and 7). This would mean that following the commencement of port operations, a time of more intense importing activities and use of this type of pottery had begun. The quantity of findings in the subsequent layer is less (layer 3), with the trend drastically continuing in the layers leading to the surface, based upon which the conclusion is that these forms were gradually phased out, which also applied to economic and other types of activities. Interestingly enough, a large part (55%) of ribbed vessels have burn marks, meaning that these items originated from the ship kitchens, and would have most certainly been used.

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