

STAKLENI ARIBALI IZ JADERA

U radu se obrađuju stakleni recipijenti koji su u ranocarskom periodu činili važan dio toaletnog pribora. Riječ je o aribalima (*aryballoī*), spremnicima za pohranu raznih kozmetičkih pripravaka za njegu tijela. U Zadru je do danas evidentiran 21 primjerak i svi su otkriveni na jadertinskoj nekropoli u grobnim cjelinama 1. i 2. stoljeća. Na temelju morfoloških značajki i kronološkog konteksta aribali su podijeljeni u pet skupina. Detaljna je obrada pokazala da većina primjeraka iz 1. stoljeća i prve polovine 2. stoljeća pripada izrađevinama istočnomediterskih radionica. Iznimku čini aribal s rebrastom dekoracijom koji sadrži obilježja zapadnog radioničkog kruga druge polovine 1. stoljeća. Raznolikost i luksuznost primjeraka i u ovom segmentu sitne materijalne građe čine antički Zadar jednim od najvažnijih nalazišta na karti Mediterana.

KLJUČNE RIJEČI: *Jader, rimske staklene posude, aryallos, tehnike izrade, importi, trgovina*

UVOD

Zahvaljujući recentnim istraživanjima antičke nekropole u Zadru, kao i nizu radova posvećenih bogatom materijalu iz jadertinskih grobova, ukazuje se mogućnost potpunijeg sagledavanja staklene građe iz ranocarskog perioda.¹ U mnoštvu otkrivenih utilitarnih predmeta može se izdvojiti više skupina proizvoda čija raznolikost i radionička pripadnost svjedoče o razvijenim trgovackim vezama kolonije Jader s ostalim mediteranskim središtima. U svjetlu tih činjenica moguće je razmotriti grupu staklenih

GLASS ARYBALLOI FROM JADER

The subject of this paper is glass containers, which in the Early Imperial period represented an important toiletry item. Aryballoī were containers for storing various cosmetic preparations for personal grooming. In Zadar, 21 specimens have been recorded, which were all unearthed in 1st- and 2nd-century tomb groups at the Iadertian necropolis. On the basis of their morphological significance and chronological context, the aryballoī have been divided into 5 groups. A more detailed study has demonstrated that most of the specimens from the 1st century and the first half of the 2nd century were artefacts from eastern Mediterranean workshops. An exception is the aryballos with a ribbed decoration, which bears the characteristics of a western workshop circle from the second half of the 1st century. The diversity and luxury of the specimens in this segment of delicate material artefacts also make antique Zadar one of the most significant sites for such finds in the Mediterranean.

KEY WORDS: *Jader, Roman glass, aryballos, production techniques, imports, trade*

INTRODUCTION

Recent excavations of the classical antique necropolis in Zadar, as well as a series of papers dealing with the rich material from Iadertian graves, offer the opportunity to provide a complete overview of the glass inventory from the Early Imperial period.¹ Among the numerous utility artefacts that have been unearthed, several groups of products can be identified whose diversity and workshop origin testify to the developed trade connections of the Jader colony with other Mediterranean centres. In the light of

1 Pregled dosadašnjih radova o staklenoj građi sa zadarske nekropole vidi u I. FADIĆ, 2009, 405-416.

1 For an overview of papers on glass artefacts from the Zadar necropolis, see: I. FADIĆ, 2009, 405-416.

aribala² koja potvrđuje import sa Zapada, ali i udaljenih istočnih provincija. Riječ je o relativno rijetkim nalazima otkrivenim u paljevinskim grobovima 1. i 2. stoljeća. U arheološkim kampanjama od 1989. godine do danas dokumentiran je ukupno 21 primjerak. Radi preciznijeg određenja radioničke pripadnosti i utvrđivanja eventualnih putova distribucije aribali su podijeljeni u pet skupina. Osnovni kriterij podjele čine morfološke značajke i kronološki kontekst.

GRUPA 1

Iz repertoara importiranih ranocarskih proizvoda otkrivenih na antičkoj nekropoli u Zadru izdvajaju se dva aribala (Kat. br. 1-2) čije se radioničko podrijetlo može vezati uz produkciju sirijsko-palestinskih radionica prve polovice 1. stoljeća. Oba primjerka pripadaju luksuznim izrađevinama puhanim u dvodijelni reljefno ornamentirani kalup s dekoracijom koja odražava stil vremena u kojem su nastali. Vjeran odraz vrsnih levantskih majstora vidljiv je u pojedinim morfološkim obilježjima (Sl. 1). Kuglasto tijelo s kružnom bazom, relativno dug cilindrični vrat i dvije tanke, lučno svijene ručke spojene na ramenu i pod obodom značajke su istaćane i precizne izrade. Pomnim je pregledom utvrđeno da su oba primjerka puhanata u jednom te istom kalupu, o čemu svjedoče jednakе dimenzije, identičan ukras te iste nepravilnosti na tragovima spojeva kalupa. Aribali su izrađeni od iznimno tankog stakla u nijansama žućkaste i jantarno smeđe boje. Kompoziciju ukrasa čine radikalno raspoređeni jezički otisnuti na ramenu i donjem dijelu tijela te središnji dio izveden u neprekinutom nizu X motiva, oblikujući romboidan ukras. Osim reljefne dekoracije na tijelu su vidljivi i tragovi okomitih sekacija kalupa.

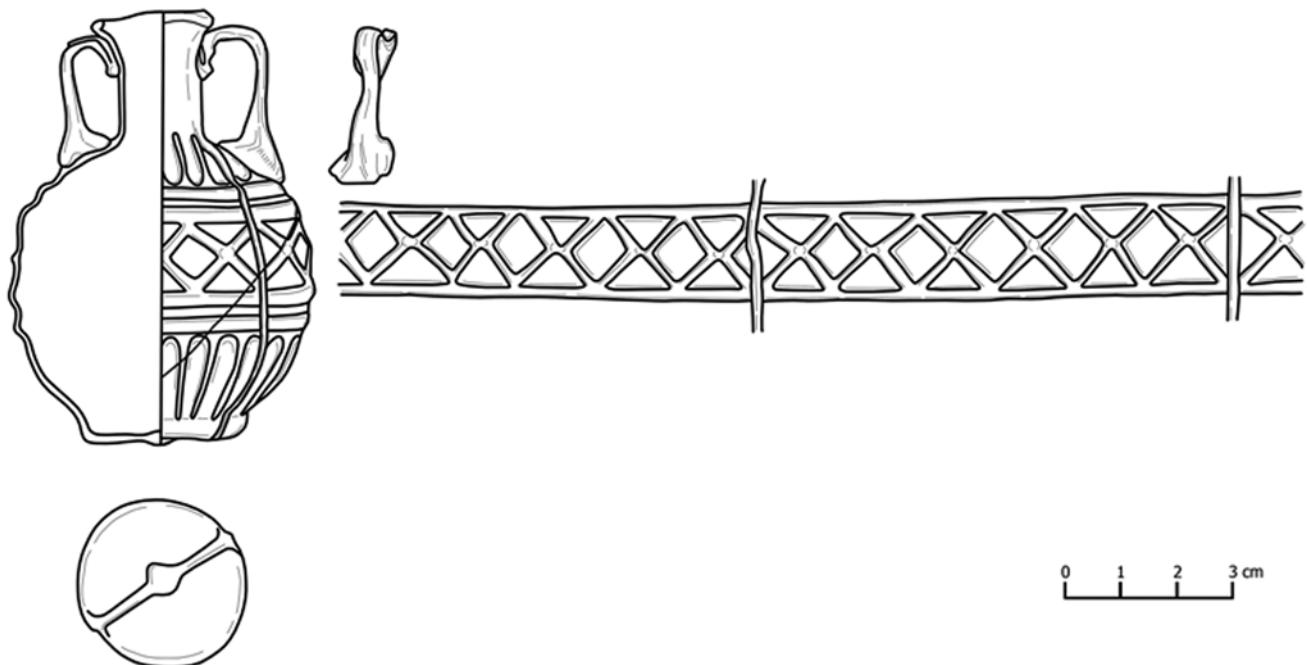
2 Aribali pripadaju skupini recipijenata koji su u ranocarskom periodu činili važan dio toaletnog pribora. O njihovom značaju i funkciji svjedoče raniji helenistički uzori te oslikani prikazi na raznim keramičkim posudama i kamenim spomenicima. Uglavnom su korišteni za pohranu raznih kozmetičkih pripravaka za njegu tijela. Prilikom odlaska u kupališta Rimljani su ih često nosili na brončanom lancu ovještene o zapešće ili pojasa, a uz njih su nerijetko pridružene metalne strigile kao obvezatan dio pribora za kupanje. Prvotno su izrađivane kuglaste forme recipijenata, dok se s vremenom, osobito u 3. stoljeću, razvijaju raznoliki oblici (F. FREMERSDORF, E. POLÓNY-FREMERSDORF, 1984, 101-109). Za opširnije opće podatke o staklenim aribalima vidi: C. ISINGS, 1957, 78-81; W. HILGERS, 1969, 37-38; S. BIAGGIO SIMONA, 1991, 214-215; S. J. FLEMING, 1997, 24-25; D. WHITEHOUSE, 1997, 201, br. 351; Z. BULJEVIĆ, 2002, 316-321; I. LAZAR, 2003, 172.

these facts, it is possible to study the group of glass aryballoii² and confirm their import from the West but also from distant eastern provinces. These are relatively rare finds unearthed in 1st- and 2nd-century incineration graves. In the archaeological campaigns that have been carried out since 1989, 21 specimens have been recorded. In order to more precisely determine their workshop origin and possible distribution paths, the aryballoii have been divided into 5 groups. The basic classification criteria were their morphological characteristics and chronological context.

GROUP 1

From the repertoire of imported Early Imperial products unearthed at the Classical Antiquity necropolis in Zadar, two aryballoii (Cat. Nos. 1-2) stand out. Their origin can be linked to the production of Syro-Palestinian workshops from the first half of the 1st century. Both specimens belong to luxury artefacts blown into a two-part relief-ornamented mould with decoration reflecting the style of the period in which they were produced. A reflection of the skill of the Levantine masters is visible in their individual morphological characteristics (Fig. 1). The spherical body with a circular base, a relatively long cylindrical neck and two thin coil handles applied from shoulder to underside of the rim, suggest skilled and precise workmanship. A careful examination suggests that both specimens were blown into the same mould, which is confirmed by their identical dimensions, decoration and irregularities on the traces of the mould joints. The aryballoii were made of extraordinarily thin glass with nuances of yellowish and amber-brown. The composition of the ornamentation consists of radially distributed tongues on the shoulder and the lower part of the body, while on the central part there is a continuous series of X motifs, forming a rhomboid

2 The aryballoii belong to a group of containers which in the Early Imperial period constituted an important toiletry item. Their significance and function are confirmed by earlier Hellenistic models and painted illustrations on different ceramic vessels and stone monuments. They were mostly used to store various cosmetic preparations for personal grooming. When visiting baths, the Romans often wore them on a bronze chain hung from the wrist or waist, often accompanied by metal strigils, a mandatory bathing accessory. Originally, containers of a spherical form were made. With time, particularly in the 3rd century, various forms developed (F. FREMERSDORF, E. POLÓNY-FREMERSDORF, 1984, 101-109). For more extensive general data on glass aryballoii, see: C. ISINGS, 1957, 78-81; W. HILGERS, 1969, 37-38; S. BIAGGIO SIMONA, 1991, 214-215; S. J. FLEMING, 1997, 24-25; I. WHITEHOUSE, 1997, 201, No. 351; Z. BULJEVIĆ, 2002, 316-321; I. LAZAR, 2003, 172.



SL. I. / FIG. I.

Aribal reljefno dekorirana tijela (kat. br. 1), crtež: J. Belevski.
Aryballos with a relief-decorated body (cat. no. 1), drawing: J. Belevski.

Za dosadašnji znanstveni doprinos u pogledu geneze te tipološke i kronološke valorizacije reljefno ornamentiranih aribala zaslužan je veći broj istraživača.³ Cjelovitiji pregled donosi M. Stern u kojem aribale, ali i ostale proizvode (vrčevi, amforiski) s X motivom, na temelju dekoracije, načina izrade i postojećih analogija pripisuje sirijsko-palestinskim radionicama druge polovine 1. stoljeća.⁴ Aribali i drugi tipološki srođni oblici s identičnim ukrasom registrirani su većinom u istočnim provincijama, i to na području današnje Sirije, Libanona, Armenije, Gruzije, Turske i Grčke.⁵ Prema sadašnjem stupnju istraženosti, njihova pojava na Zapadu izolirana je

decoration. Apart from the relief decoration (lozenge pattern), traces of vertical sections of the mould are also visible on the body.

A number of scholars have contributed to the study of the genesis as well as the typological and chronological valorisation of relief-ornamented aryballoi.³ An extensive overview has been given by M. Stern, who on the basis of their decoration, workmanship techniques and existing analogies, classified aryballoi, but also other products (jugs, amorphiskoi) with an X motif (lozenge pattern), as originating from Syro-Palestinian workshops of the second half of the 1st century.⁴ Aryballoi and other typologically related forms with identical decoration have been recorded mostly in the eastern provinces, more precisely in the area of present-day Syria, Lebanon, Armenia, Georgia, Turkey and Greece.⁵ Based on the present state of excavations, their occurrence in the

3 B. N. ARAKELIAN, G. A. TIRATZIAN, G. D. KHACHATRIAN, 1969, 56-57; G. D. KHACHATRIAN, 1976, 54-55; E. M. STERN, 1995, 150-151. Za navedenu se grupu u stručnoj literaturi, osim naziv *aryballos*, koristi i termin *amphoriskos*. Neovisno o upotrebi nazivlja, bočice su imale funkciju aribala o čemu svjedoči i primjerak iz Princeton University Art Museuma na kojem su sačuvani dijelovi brončanog lanca (A. C. ANTONARAS, 2012, 78, br. 78).

4 E. M. STERN, 1995, 150-151; S. F. ANDERSEN, 2007, 50-51 (Bahrain, Saar, grob 137).

5 B. N. ARAKELIAN, G. A. TIRATZIAN, G. D. KHACHATRIAN, 1969, 56-57; G. D. KHACHATRIAN, 1976, 54-55; E. M. STERN, 1995, 150-151.

3 B. N. ARAKELIAN, G. A. TIRATZIAN, G. I. KHACHATRIAN, 1969, 56-57; G. I. KHACHATRIAN, 1976, 54-55; E. M. STERN, 1995, 150-151. Besides the name *aryballos*, the term *amphoriskos* is also used in professional literature for the aforementioned group. Regardless of the terminology used, flacons functioned as aryballoi, as confirmed by a specimen from the Princeton University Art Museum which has preserved parts of a bronze chain (A. C. ANTONARAS, 2012, 78, No. 78).

4 E. M. STERN, 1995, 150-151; S. F. ANDERSEN, 2007, 50-51 (Bahrain, Saar, grave 137).

5 B. N. ARAKELIAN, G. A. TIRATZIAN, G. I. KHACHATRIAN, 1969, 56-57; G. I. KHACHATRIAN, 1976, 54-55; E. M. STERN, 1995, 150-151.

na svega dva centra, antički Zadar i Vaison-la-Romaine u Francuskoj.⁶ Među usporednim je primjercima, neovisno o dijelu Carstva gdje su registrirani, zastupljeno više razlikovnih elemenata, od kojih su najizraženiji oni vezani uz upotrebu vrste kalupa, bilo da je riječ o dvodijelnom ili trodijelnom modelu. Iz svega navedenog proizlazi da različite tehnološke osobitosti i ostale morfološke razlike upućuju na više proizvodnih serija ali i postojanje više centara proizvodnje.⁷ Zadarski aribali pripadaju manje zastupljenoj skupini proizvoda izrađenih u dvodijelnom kalupu, slični akvizicijama iz Metropolitan Museuma, Princeton University Art Museuma i J. Paul Getty Museuma te nalazu s otoka Naxosa.⁸

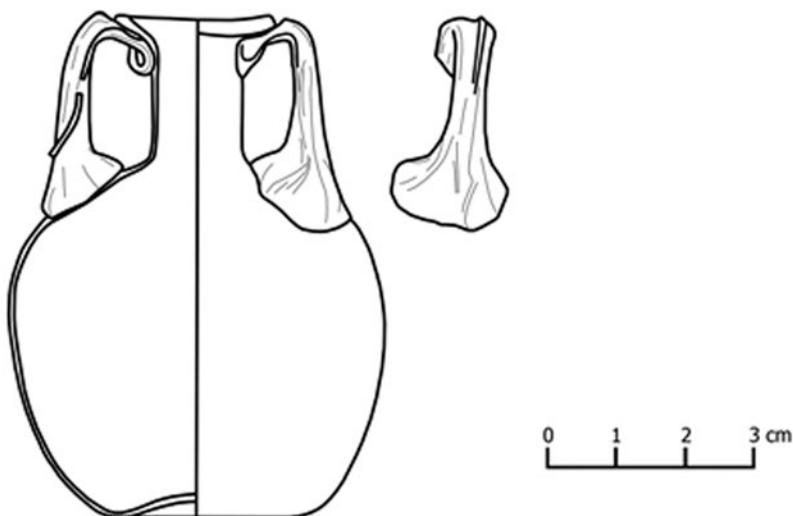
Suvremene teorijske spoznaje uglavnom upotpunjuju postavljene teze vezane uz podrijetlo i rasprostranjenost, međutim, za precizniju kronologiju važan prinos predstavlja primjeri iz Jadera. Nalazi s jadertinske nekropole upućuju na nešto raniji nastanak, i to u razdoblje druge četvrtine 1. stoljeća.⁹ Teze o mogućem utjecaju Enionovih proizvoda na pojavu reljefne dekoracije na aribalima i srodnim oblicima¹⁰ dodatno potkrjepljuje ranija datacija.

West has been identified in only two centres: antique Zadar and Vaison-la-Romaine in France.⁶ Among parallel specimens, independent of the part of the Empire in which they have been recorded, several distinctive elements are present. The most characteristic of these is associated with the use of a type of mould consisting of two or three parts. The various technological traits and other morphological differences suggest several product series but also several production centres.⁷ The Zadar aryballoi belong to a less frequently encountered group of products made in two-part moulds, similar to the acquisitions of the Metropolitan Museum, Princeton University Art Museum and the J. Paul Getty Museum, as well as the find from the island of Naxos.⁸

Recent theoretical insights mostly support the established thesis associated with their origin and distribution. However, the specimens from Jader contribute to a more precise chronology. Finds from the Iadertinian necropolis suggest a somewhat earlier origin, most probably the second quarter of the 1st century.⁹ The thesis of the possible influence of Ennion's products on the occurrence of the relief decoration on aryballoi and related forms¹⁰ is additionally supported by this earlier dating.

- 6 S. FONTAINE, J. ROUSSEL-ODE, 2010, 191, sl. 13/104.
- 7 U većini dosadašnjih stručnih i znanstvenih objava nedostaju detaljni opisi pa za mnoge aribale nisu pribilježeni niti osnovni dekorativni elementi (broj reljefnih jezičaca i X motiva). Zbog navedenoga nije moguće analizirati eventualne proizvodne serije niti ponuditi sigurnije tumačenje uže radioničke pripadnosti.
- 8 Više o aribalima iz navedenih muzeja vidi: Metropolitan Museum, no. 17.194.221 (<http://www.metmuseum.org>); Princeton University Art Museum (A. C. ANTONARAS, 2012, 78, br. 78); J. Paul Getty Museum, 2003.203 (<http://www.getty.edu>). Primjerak iz Naxosa danas se čuva u Arheološkom muzeju Naxos (<http://www.ancient.eu.com>).
- 9 Precizniju dataciju omogućuje grobna cijelina 16 (antička nekropola, arheološka istraživanja 1998.) u kojoj je pronađen aribal obrađen pod kat. br. 2. Pokraj kamene kvadratne urne otkriveni su i brojni drugi keramički i stakleni prilozi koji upućuju na vrijeme druge četvrtine 1. stoljeća (više o grobu vidi u S. GLUŠČEVIĆ, 2005, 1138, grob 16). Obrada aribala s romboidnim ukrasom ne bi bila potpuna bez spomena dvaju vrčića ovoidna tijela identične dekoracije otkrivena tijekom arheoloških istraživanja antičke nekropole u Zadru 1989. godine. Iako je riječ o iznimno srodnjoj skupini, upotreba trodijelnog kalupa upućuje na drugi radionički centar. Grobna cijelina u kojoj su vrčići pronađeni također ukazuje i na nešto kasniji nastanak, i to na vrijeme od 50. do 70. godine. Više o reljefno ornamentiranim vrčićima vidi u I. FADIĆ, B. ŠTEFANAC, 2010, 294-296.
- 10 E. M. STERN, 1995, 151.

- 6 S. FONTAINE, J. ROUSSEL-ODE, 2010, 191, Fig. 13/104.
- 7 Most professional and academic papers that have so far been published have lacked detailed descriptions. Therefore, the basic decorative elements of many aryballoi have not even been noted (the number of relief tongues and X motifs). Thus, it is not possible to analyse possible product series or offer a more certain interpretation of their workshop origin.
- 8 For more on the aryballoi in the abovementioned museums, see: Metropolitan Museum, No. 17.194.221 (<http://www.metmuseum.org>); Princeton University Art Museum (A. C. ANTONARAS, 2012, 78, No. 78); J. Paul Getty Museum, 2003.203 (<http://www.getty.edu>). The specimen from Naxos is at present kept at the Naxos Archaeological Museum (<http://www.ancient.eu.com>).
- 9 A precise dating is made possible on the basis of tomb group 16 (classical antique necropolis, 1998 archaeological campaign) in which the aryballos processed under Cat. No. 2 was unearthed. Next to a square-shaped stone urn, numerous other ceramic and glass enclosures were also unearthed, suggesting the second quarter of the 1st century (for more about the grave, see: S. GLUŠČEVIĆ, 2005, 1138, grave 16). The processing of the aryballoii with a rhomboidal decoration would be incomplete without mentioning two small jugs with an ovoid body and identical decoration uncovered in the course of the archaeological campaign at the classical antique necropolis in Zadar in 1989. Although it is a closely related group, the use of a three-part mould suggests another workshop centre. The tomb group in which the small jugs were found also suggests somewhat later production, most probably within a range of 50 to 70 years. For more about relief-ornamented small jugs, see: I. FADIĆ, B. ŠTEFANAC, 2010, 294-296.
- 10 E. M. STERN, 1995, 151.



SL. 2. / FIG. 2.

Bojani aribal tankih stijenki (kat. br. 3), crtež: J. Belevski.
Coloured thin-walled aryballos (cat. no. 3), drawing: J. Belevski.

GRUPA 2

Uz otkriće reljefno ornamentiranih aribala, arheološka su istraživanja na nekropoli Jadera pružila spoznaje o još jednoj skupini koja predstavlja sirijsko-palestinsko nasljeđe. Riječ je o četiri primjerka¹¹ (Kat. br. 3-6) koja se u osnovnim tipološkim značajkama podudaraju s prethodno obrađenim recipijentima. Ako se izuzme nedostatak reljefne dekoracije i tehnološki proces puhanja u kalup, mogu se primjetiti ista morfološka obilježja poput kuglasta tijela, relativno dugog cilindričnog vrata i tankih lučno svijenih ručki spojenih na ramenu i pod obođom (Sl. 2). Primjerici su slobodno puhanji, bojani u tamnijim nijansama plavog, ljubičastog i žućkastog stakla dok iznimno tanke stijenke pojačavaju efekt providnosti. Tanke ručke odražavaju karakteristike vrsnih majstora redovito kolorirane u različitoj boji u odnosu na recipijent.

Slični primjerici bojanih aribala uglavnom se javljaju na Levantu i područjima koja mu gravitiraju.¹² Južoliburnski nalazi pohranjeni u Muzeju stakla u Muranu već su ranije potaknuli pojedine

GROUP 2

The archaeological excavations at the Iader necropolis yielded not only relief-ornamented aryballois, but also insights into another group representing Syro-Palestinian origins. It includes four specimens¹¹ (Cat. Nos. 3-6) whose basic typological characteristics overlap with the previously studied containers. Apart from the lack of relief decoration and the technological process of blowing into the mould, the same morphological characteristics can be noticed, such as the spherical body, the relatively long cylindrical neck, the thin coil handles applied from shoulders to underside of the rim (Fig. 2). The specimens were freely blown, coloured in darker nuances of blue, purple and yellowish glass, while the extraordinarily thin walls strengthen the effect of transparency. The thin handles confirm the workmanship of skilled masters. As a rule, they are a different colour from that of the container.

Similar specimens of coloured aryballois mostly appear in the Levant and its catchment areas.¹² Southern Liburnian finds kept in the Museum of

- 11 Ovim se primjerima može pribrojiti još jedan jadertinski aribal od jantarno-smeđeg stakla pohranjen u Muzeju hrvatskih arheoloških spomenika u Splitu (T. ŠEPAROVIĆ, N. URODA, 2009, 89, br. 210). Po morfološkim karakteristikama u potpunosti odgovara ovdje obrađenim nalazima.
- 12 J. W. HAYES, 1975, 54, br. 119-122; N. KUNINA, 1997, 321, br. 340-342; E. M. STERN, 2001, 44; Y. ISRAELI, 2003, 259, br. 333-334; S. F. ANDERSEN, 2007, 41-44, br. 13.1-13.17; A. C. ANTONARAS, 2009, 271, br. 459-460. Za primjerak iz Cipra vidi The Fitzwilliam museum, br. GR.35.1876 (<http://www.fitzmuseum.cam.ac.uk>).

- 11 Another Jadertianian aryballos of amber-brown glass, kept at the Museum of Croatian Archaeological Monuments in Split, can also be added to these specimens (T. ŠEPAROVIĆ, N. URODA, 2009, 89, No. 210). Based on its morphological characteristics, it fully corresponds to the finds processed in this paper.
- 12 J. W. HAYES, 1975, 54, Nos. 119-122; N. KUNINA, 1997, 321, br. 340-342; E. M. STERN, 2001, 44; Y. ISRAELI, 2003, 259, br. 333-334; S. F. ANDERSEN, 2007, 41-44, br. 13.1-13.17; A. C. ANTONARAS, 2009, 271, br. 459-460. For the specimen from Cyprus, see: The Fitzwilliam Museum, No. GR.35.1876 (<http://www.fitzmuseum.cam.ac.uk>).



SL. 3. / FIG. 3.

Aribal i amforisk iz groba 418 (antička nekropola, arheološka istraživanja 2006.), foto: I. Jukić.

Aryballos and amphoriskos from grave 418 (classical antique necropolis, 2006 archaeological campaign), foto: I. Jukić.

istraživače da izoliraju sjevernodalmatinsko područje kao mjesto intenzivnih trgovackih kontakata sa sirijsko-palestinskom obalom.¹³ Novi nalazi iz Jadera potkrjepljuju pretpostavljeni import s proizvodnim centrima na Istoku. Producija bojanih aribala tankih stijenki započela je nešto prije sredine 1. stoljeća, o čemu svjedoče i kronološki jasno definirani jadertinski nalazi.¹⁴

13 E. M. STERN, 2001, 44.

14 Od četiriju obrađenih primjeraka tri (Kat. br. 3-5) su otkrivena u grobnoj cjelini 418 (antička nekropola, arheološka istraživanja 2006.). Riječ je o paljevinskom grobu s kamenom kvadratnom urnom oko koje su bili smješteni raznoliki stakleni i keramički prilozi datirani u drugu četvrtinu 1. stoljeća. Aribal obrađen pod kat. br. 6. otkriven je u paljevinskom grobu (grob 205, arheološka istraživanja 1989.) pokraj kamene cilindrične urne (S. GLUŠČEVIĆ, 2005, 430). Uz urnu je pronađeno mnoštvo keramičkih i staklenih priloga koji se s velikom sigurnošću mogu smjestiti u vrijeme druge četvrtine 1. stoljeća.

Glass in Murano have already caused certain researchers to identify the northern Dalmatian area as the location of intensive trade contacts with the Syro-Palestinian coast.¹³ New finds from Jader support the assumption of importing from production centres in the East. The production of coloured thin-walled aryballooi had begun somewhat before the middle of the 1st century, as confirmed by the chronologically clearly defined Iadertinian finds.¹⁴

The abovementioned group of containers can be seen in the same context as the group of related amphoriskoi from Jader. These specimens have the same typological characteristics, but their body is somewhat elongated. A comparative study of both

13 E. M. STERN, 2001, 44.

14 Of four studied specimens, three (Cat. Nos. 3-5) were uncovered in grave 418 (classical antique necropolis, archaeological campaign 2006). They were found in an incineration grave with a square-shaped stone urn, around which various glass and ceramic enclosures, dated to the second quarter of the 1st century, were distributed. The aryballos analysed under Cat. No. 6 was uncovered in incineration grave 205 (archaeological campaign 1989) next to a cylindrical stone urn (S. GLUŠČEVIĆ, 2005, 430). Next to the urn, numerous ceramic and glass grave goods were unearthed which can with great certainty be dated to the period of the second quarter of the 1st century.

Navedena grupa recipijenata može se promatraći u istom kontekstu sa skupinom srodnih amforiska iz Jadera. Ti su primjerici istih tipoloških karakteristika, ali nešto izduženija tijela. Stručna obrada obiju skupina, osobito nalaza iz groba 418 u kojima je osim aribala potvrđen i amforisk, pokazala je da se radi o proizvodima iste radionice (Sl. 3). Kao i u slučaju aribala, usporedbe za amforiske ovoidne tijela uglavnom su potvrđene na sirijsko-palestinskom području i crnomorskoj obali.¹⁵

GRUPA 3

U grobovima zadarske nekropole otkriveno je 10 primjeraka koji sadrže sve karakteristike klasičnog tipa aribala forme Isings 61 rasprostranjene u Rimskom Carstvu kroz dulji vremenski period. Sudeći po minucioznim detaljima izrade, riječ je o aribalima istočno-mediteranskog podrijetla koje odlikuje kuglasto tijelo, kratak cilindrični vrat, dvostruko presavijeni obod tipa ovratnika i dvije kratke trakaste ručke, aplicirane na vratu i ramenu (Sl. 4). Pojedini primjerici puhanici u staklu žućkasto-zelenkastih nijansi imaju deblje stijenke (Kat. br. 7-9), dok su plavkasto-zelenkasti aribali nešto tanji (Kat. br. 10-15).

Detaljnu analizu istočnomediterskih aribala donosi N. P. Sorokina, prema kojoj jadertinski primjerici odgovaraju drugoj grupi s ručkama tipa C i obodom tipa B, koja se veže uz obalni prostor Male Azije.¹⁶ Dosadašnji nalazi upućuju na široko područje rasprostiranja s naglaskom na prostor istočnog Mediterana i obale Crnog mora.¹⁷ Isto su tako opravdane teze pojedinih istraživača da pojedina žarišta na Zapadu treba pripisati istočnomediterskom importu.¹⁸ Brojne inačice vidljive u detaljima oblikovanja ručke, dužine vrata, boji i debljini stakla sugeriraju na više istočnomediterskih radionič-

groups, particularly the finds from grave 418, in which, along with aryballois, an amphoriskos was found, demonstrates that the products originated from the same workshop (Fig. 3). As is the case with the aryballois, analogies with amphoriskoi with an ovoid body have mostly been confirmed in the Syro-Palestinian area and along the Black Sea coast.¹⁵

GROUP 3

In the graves of the Zadar necropolis, 10 specimens were uncovered that bear all the characteristics of the classical aryballos type of the Isings 61 form which was distributed throughout the Roman Empire over a long time period. The delicate details of the workmanship suggest aryballois of eastern Mediterranean origin, characterised by a spherical body, a short cylindrical neck, a twice-folded collar type rim and two short, ribboned handles applied on the neck and shoulder (Fig. 4). Some glass-blown specimens of a yellowish-greenish shade have thicker walls (Cat. Nos. 7-9), while those of bluish-greenish aryballois are somewhat thinner (Cat. Nos. 10-15).

A more detailed analysis of eastern Mediterranean aryballois was published by N. P. Sorokina, according to whom the Iadertinian specimens correspond to the second group with type C handles and a type B rim, which is associated with the coastal area of Asia Minor.¹⁶ The finds that have been unearthed to date suggest a wide distribution area, particularly in the eastern Mediterranean and along the Black Sea coast.¹⁷ This also justifies the thesis of certain researchers who assert that certain examples in the West should be classified as eastern Mediterranean imports.¹⁸ Numerous variations, visible in the details of the modelling of the handles, the length of the neck, and the colour and thickness of the glass suggest several eastern Mediterranean workshop cen-

15 Treasures of the Holy Land, 1986, 256, br. 136; N. KUNINA, 1997, 293, br. 191; Y. ISRAELI, 2003, 260, br. 336-337.

16 Sorokina za aribale druge grupe izdvaja Pergam kao izvojni centar, dok argumente za takvu tezu vidi u tradicijskoj izradi oboda preuzetoj s pergamskih helenističkih proizvoda od keramike (N. P. SOROKINA, 1987, 42). Neovisno o tome je li obod "ovratnik" izvorni pergamski element, njegovo istočnomeditersko podrijetlo nije upitno. Više o tom tipu oboda vidi: C. ISINGS, 1957, 67; L. CHARLESWORTH, 1966, 32; E. M. STERN, 2001, 50.

17 N. P. SOROKINA, 1987, 42; N. KUNINA, 1997, br. 228, br. 346-348; Y. ISRAELI, 2003, 215-216, br. 260-261; A. C. ANTONARAS, 2012, 251, br. 410.

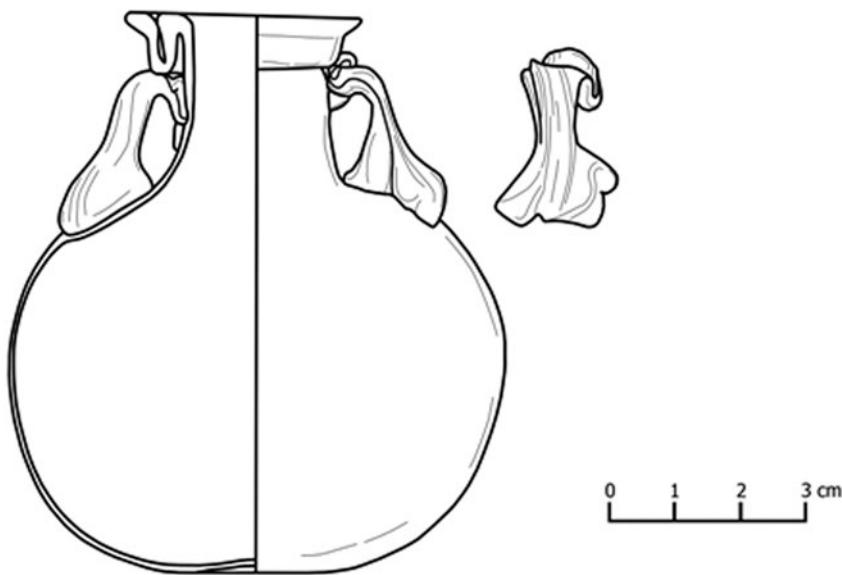
18 J. W. HAYES, 1975, 37; V. ARVELLIER-DULONG, M.-D. NENNA, 2005, 220; J. ROUSSEL-ODE, 2008, 294-295.

15 Treasures of the Holy Land, 1986, 256, No. 136; N. KUNINA, 1997, 293, No. 191; Y. ISRAELI, 2003, 260, Nos. 336-337.

16 Sorokina believes that the aryballois of the second group originated from Pergamon, supporting her thesis by pointing to the traditional production of the rims, which have been assumed from Pergamon Hellenistic ceramic products (N. P. SOROKINA, 1987, 42). Regardless of whether the "collar" rim was originally a Pergamon element, its eastern Mediterranean descent is not in question. For more about this rim type, see: C. ISINGS, 1957, 67; L. CHARLESWORTH, 1966, 32; E. M. STERN, 2001, 50.

17 N. P. SOROKINA, 1987, 42; N. KUNINA, 1997, No. 228, Nos. 346-348; Y. ISRAELI, 2003, 215-216, Nos. 260-261; A. C. ANTONARAS, 2012, 251, No. 410.

18 J. W. HAYES, 1975, 37; V. ARVELLIER-DULONG, M.-D. NENNA, 2005, 220; J. ROUSSEL-ODE, 2008, 294-295.



SL. 4. / FIG. 4.

Aribal s obodom tipa ovratnika (kat. br. 15.) crtež: J. Belevski.

Aryballos with a collar type rim (cat. no. 15), drawing: J. Belevski.

kih centara. Nešto veće količine nalaza u Dalmaciji¹⁹ i južnoj Galiji²⁰ te pojedinačni primjeri iz Italije²¹ zasada ne pružaju dovoljno argumenata o produkciji na Zapadu.

Aribali s dvostruko presavijenim obodom tipa ovratnika pojavljuju se vrlo rano, i to već tijekom prvih desetljeća 1. stoljeća. Najveći broj nalaza pripisuje se drugoj polovini 1. i početku 2. stoljeća. Jaderinski nalazi kronološki odgovaraju analognim primjerima s istočnog Mediterana, obale Crnog mora i Italije.²² Većina ih je pronađena u grobnim cjelinama datiranim u drugu polovinu 1. stoljeća s naglaskom na flavijevski period. Vremenu Klaudijeve vladavine pripada samo jedan primjerak otkriven tijekom recentnih arheoloških istraživanja 2012. godine (Kat. br. 16).²³

19 Za ranije objave o aribalima iz južne Liburnije vidi S. GLUŠČEVIĆ 1986, 268, tab. 6, br. 3, 5; G. L. RAVAGNAN, 1994, 42-45, br. 45, 47, 48, 51-53; S. GLUŠČEVIĆ, 2005, 128-129, sl. 31; I. FADIĆ, 2006, 71, br. 101. Ovom popisu treba pridodati nalaz s antičke nekropole u Biljanima Donjim kod Benkovca, pohranjen u Muzeju antičkog stakla (Inv. br. A13068). U južnom dijelu provincije Dalmacije poznat je tek jedan aribal iz Budve (Č. MARKOVIĆ, 2012, 223, T. 95:6).

20 J. ROUSSEL-ODE, 2008, 294-295, sl. 12.

21 *Magiche Transparenze*, 1999, 123, br. 87; *Vitrum*, 2004, 201, br. 1.6.

22 N. P. SOROKINA, 1987, 42; *Magiche Transparenze*, 1999, 123, br. 87; *Vitrum*, 2004, 201, br. 1.6.

23 Aribal obrađen pod kat. br. 16 otkriven je u paljevinskom grobu 34 (arheološka istraživanja antičke nekropole u Ulici fra Ivana Zadranića 2012. godine). Pokraj kamene urne, uz brojne keramičke i staklene priloge, otkriven je novac Klaudija kovan 50.-51. u Rimu.

tres. The larger quantities of finds from Dalmatia¹⁹ and southern Gaul,²⁰ and individual specimens from Italy,²¹ have so far not provided enough evidence to confirm their production in the West.

Aryballoi with a twice-folded collar type rim appear as early as the first decade of the 1st century. The largest number of finds has been dated to the second half of the 1st and the beginning of the 2nd century. Iaderinian finds chronologically correspond to analogous specimens from the eastern Mediterranean, the Black Sea coast, and Italy.²² Most of them have been found in tomb groups dated to the second half of the 1st century, particularly the Flavian period. Only a single specimen, uncovered in the course of archaeological excavations in 2012 (Cat. No. 16), belongs to the period of Claudius's reign.²³

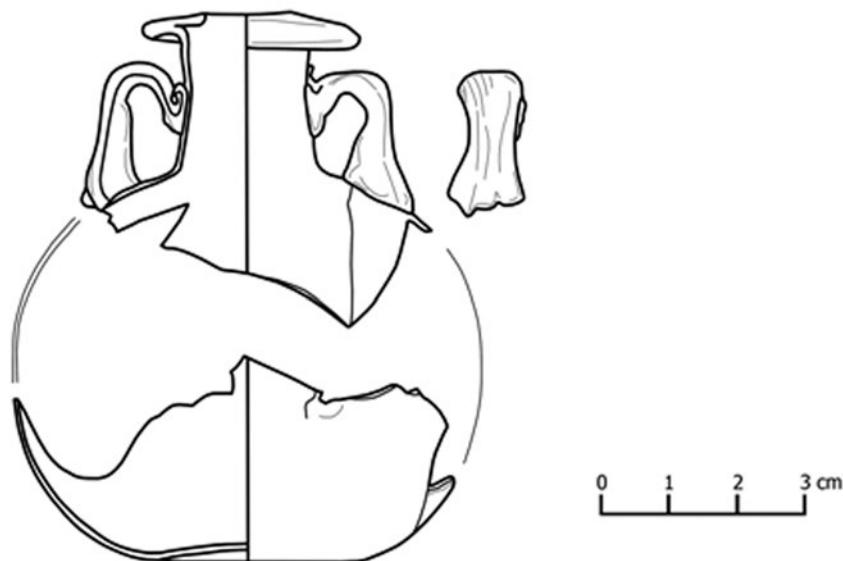
19 For earlier publications on aryballoi from southern Liburnia, see: S. GLUŠČEVIĆ 1986, 268, Pl. 6, Nos. 3, 5; G. L. RAVAGNAN, 1994, 42-45, Nos. 45, 47, 48, 51-53; S. GLUŠČEVIĆ, 2005, 128-129, Fig. 31; I. FADIĆ, 2006, 71, No. 101. The list needs to be expanded by a find from the classical antique necropolis in Biljane Donje near Benkovac, kept in the Museum of Ancient Glass (inv. no. A13068). In the southern part of the province of Dalmatia, only one aryballos from Budva is known (Č. MARKOVIĆ, 2012, 223, Pl. 95:6).

20 J. ROUSSEL-ODE, 2008, 294-295, Fig. 12.

21 *Magiche Transparenze*, 1999, 123, No. 87; *Vitrum*, 2004, 201, No. 1.6.

22 N. P. SOROKINA, 1987, 42; *Magiche Transparenze*, 1999, 123, No. 87; *Vitrum*, 2004, 201, No. 1.6.

23 The aryballos analysed under Cat. No. 16 was uncovered in incineration grave 34 (archaeological excavations at the classical antique necropolis in Fra Ivana Zadranića Street in 2012). Next to a stone urn, along with numerous ceramic and glass burial objects, Claudian coins, minted in 50-51 AD in Rome, were also uncovered.



SL. 5. / FIG. 5.

Aribal s obodom trokutasta presjeka (kat. br. 20),
crtež: J. Belevski.

*Aryballos with a triangular cross-section rim (cat. no. 20),
drawing: J. Belevski.*

GRUPA 4

Sljedeća skupina aribala brojčano je skromno zastupljena, no iznimno je važna jer predstavlja proizvode prve polovine 2. stoljeća. Sva četiri primjerka (Kat. br. 17-20) moguće je uspoređivati kao mlađu varijantu prethodno obrađene skupine gdje se razlike očituju u načinu oblikovanja oboda koji je prstenast ili trokutast u presjeku (Sl. 5). Aribali imaju kuglasto tijelo, kratak cilindrični vrat i dvije kratke trakaste ručke aplicirane na vratu i ramenu. Izrađeni su u tehnicu slobodnog puhanja od plavkastog i zelenkastog stakla tankih stijenki.

Ta skupina odgovara grupi 1 prema Sorokinu, tj. proizvodima atribuiranim istočnomediterranskim radionicama druge polovine 1. i 2. stoljeća.²⁴ U raznim inačicama oblik je prisutan širom Carstva, ali i izvan njegovih granica.²⁵ U kronološkom kontekstu valja spomenuti da su jadertin-

GROUP 4

The following group of aryballois is poorly represented in terms of numbers. However, it is extraordinarily important, because it represents products from the first half of the 2nd century. All four specimens (Cat. Nos. 17-20) can be seen as a more recent variant of the previously analysed group, with differences evident in the techniques for modelling the rim, which has a ring- or triangular-shaped cross-section (Fig. 5). The aryballois have a spherical body, a short cylindrical neck and two short, ribbed handles applied on the neck and the shoulder. They were made using the free-blowing technique of the bluish and greenish thin-walled glass.

The group corresponds with Group 1 according to Sorokina, i.e. products attributable to eastern Mediterranean workshops from the second half of the 1st and 2nd century.²⁴ In different variants, the form is present throughout the Empire, but also beyond its boundaries.²⁵ In terms of chronology, it

24 N. P. SOROKINA, 1987, 41; A. C. ANTONARAS, 2012, 251, br. 409. U nabranju rijetkih analogija valja spomenuti primjerke istočne provenijencije iz kolekcija muzeja u Krakovu (Muzeum Narodowe w Krakowie, inv. br. MNK IV-Sz-1707, Kerč na Krimu, <http://katalog.muzeum.krakow.pl>) i Bostonu (Museum of Fine Arts, inv. br. 94.197, Phoenicia, <http://www.mfa.org>).

25 Jedan primjerak pronađen je na antičkoj nekropoli Abu Ashira u Bahrainu (M.-D. NENNA, 2000, 170, br. 75; S. F. ANDERSEN, 2007, 38-41, kat. br. 12.1, 12.2, 12.4, 12.5, 12.7, 12.10-12.13, 12.15, 12.16, 12.18, 12.20 (Bahrain)).

24 N. P. SOROKINA, 1987, 41; A. C. ANTONARAS, 2012, 251, No. 409. Among the rare analogies, the following specimens of eastern origin should be mentioned: from the Krakow museum collection (Muzeum Narodowe w Krakowie, inv. no. MNK IV-Sz-1707 from Kerch in Crimea, <http://Catalogue.muzeum.arm.pl>) and in Boston (Museum of Fine Arts, inv. no. 94.197 from Phoenicia, <http://www.mfa.org>).

25 One specimen was unearthed at the Classical Antiquity necropolis of Abu Ashira in Bahrain (M.-D. NENNA, 2000, 170, No. 75; S. F. ANDERSEN, 2007, 38-41, kat. br. 12.1, 12.2, 12.4, 12.5, 12.7, 12.10-12.13, 12.15, 12.16, 12.18, 12.20 (Bahrain)).

ski aribali otkriveni u jasno definiranim grobnim cjelinama popraćenim novcima careva Nerve i Antonina Pija.²⁶

GRUPA 5

Zasebnu obradu i tumačenje zaslužuje aribal s rebrastom dekoracijom otkriven tijekom arheoloških istraživanja antičke nekropole 2005. godine (Kat. br. 21). Pronađen je kao prilog u grobnoj cjelini 410 uz kamenu cilindričnu urnu. Uz mnoštvo drugih staklenih i keramičkih nalaza otkrivena je i brončana garnitura aribala (trodijelni lanac s alkama i poklopcem) s dvije pripadajuće željezne strigile (Sl. 6). Cjelokupan inventar groba ukazuje na to da je ukop pripadao osobi višeg društvenog sloja.²⁷ Sukladno tome aribal s brončanim lancem može se uvrstiti u luksuzne proizvode, što je vidljivo i iz precizne i istaćene izrade recipijenta svojstvene samo vrsnim majstorima (Sl. 7). Posebnu pozornost privlači neuobičajeno veliko kuglasto tijelo i stijenke ukrašene reljefnim rebrima.

U tehnološkom smislu recipijent je izrađen slobodnim puhanjem dok su rebra izvučena pincetom na još vruće staklo. Nakon štipanja rebara uslijedilo je ponovno puhanje kojim je recipijent blago proširen, a rebra su ostala u visokom reljefu. U drugom se stupnju izrade oblikovao obod i kratke ručke aplicirane na predjelu ramena i prijelazu iz tijela u vrat. Opisani način izrade potvrđen je eksperimentima u staklarskoj radionici Muzeja antičkog stakla u Zadru.

Podaci o aribalima s rebrastom dekoracijom u stručnoj su literaturi prilično oskudni. Poznate su tek uzgredne objave materijala u kojima se donose

should be mentioned that the Iadertinian aryballoi were unearthed in clearly defined tomb groups, accompanied by coins of the emperors Nerva and Antoninus Pius.²⁶

GROUP 5

The aryballos with a ribbed decoration, uncovered in the course of the archaeological campaign at the antique necropolis in 2005 (Cat. No. 21) deserves to be analysed and interpreted separately. It was unearthed as an enclosure in tomb group 410 next to a cylindrical stone urn. Along with a number of other glass and pottery finds, a bronze set of aryballoi was uncovered, consisting of a three-part chain with rings and a lid, and with two corresponding iron strigils (Fig. 6). The entire grave inventory suggests that the burial belonged to a person of higher social class.²⁷ Accordingly, the aryballos with the bronze chain can be classified as a luxury product, which is also suggested by the precise and fine workmanship, characteristic only of skilled craftsmen (Fig. 7). The unusually large spherical body and the walls decorated with relief ribs are particularly interesting.

In technological terms, the container was made by free-blowing, while the ribs were pinched with pincers on the still hot glass. After pinching the ribs, the glass was blown again to slightly expand the container, while the ribs remained in high relief. The second production stage enclosed the forming of the rim and the short handles, which were applied on the shoulder and the transition from the body to the neck. The described production technique was confirmed in experiments in the Glass Workshop of the Zadar Museum of Ancient Glass.

26 Predmeti obrađeni pod kat. br. 18-20 otkriveni su u grobnoj cjelini 411 (antička nekropolja, arheološka istraživanja 1989. godine). Riječ je o paljevinskom grobu s keramičkom urnom. Osim staklenih aribala u grobu je bila priložena keramička lampa kratka uglata nosa, zdjelica (istočna sigilata B) i brončani novac cara Nerve (M. ČELHAR, S. GLUŠČEVIĆ, M. ILKIĆ, 2007, 43, br. 76). Aribal obrađen pod kat. br. 17. pronađen je u inhumiranom grobu 91 tijekom arheoloških istraživanja 1989. godine. Uz skelet su pronađena dva balzamarija koničnosploštena tijela, navedeni aribal i brončani novac cara Antonina Pija (M. ČELHAR, S. GLUŠČEVIĆ, M. ILKIĆ, 2007, 54, br. 118).

27 Uz aribal i željezne strigile u grobu 410 su bile priložene tri keramičke svjetiljke obla nosa s volutama (tip Loeschke IV), sigilatna zdjelica, srebrna piksida s prikazom kvadrige, brončana pinceta s futrolom, prsten s gemom, željezni nož sa srebrnom prevlakom te od staklenih priloga: tri konične zdjelice, bočica trbušasta tijela, dvije plitice, tri kvadratična vrčića i više spaljenih balzamarija.

26 Artefacts processed under Cat. Nos. 18-20 were uncovered in grave 411 (classical antique necropolis, archaeological campaign 1989), an incineration grave with a ceramic urn. Apart from glass aryballoi, a ceramic lamp with a short, angular nose, a bowl (eastern sigillata B) and bronze coins of the Emperor Nerva were enclosed in the grave (M. ČELHAR, S. GLUŠČEVIĆ, M. ILKIĆ, 2007, 43, No. 76). The aryballos analysed under Cat. No. 17 was unearthed in inhumation grave 91 in the course of the 1989 archaeological campaign. Next to the skeleton, two balsamaria with a conical flat body, the aforementioned aryballos, and bronze coins of the Emperor Antoninus Pius were also found (M. ČELHAR, S. GLUŠČEVIĆ, M. ILKIĆ, 2007, 54, No. 118).

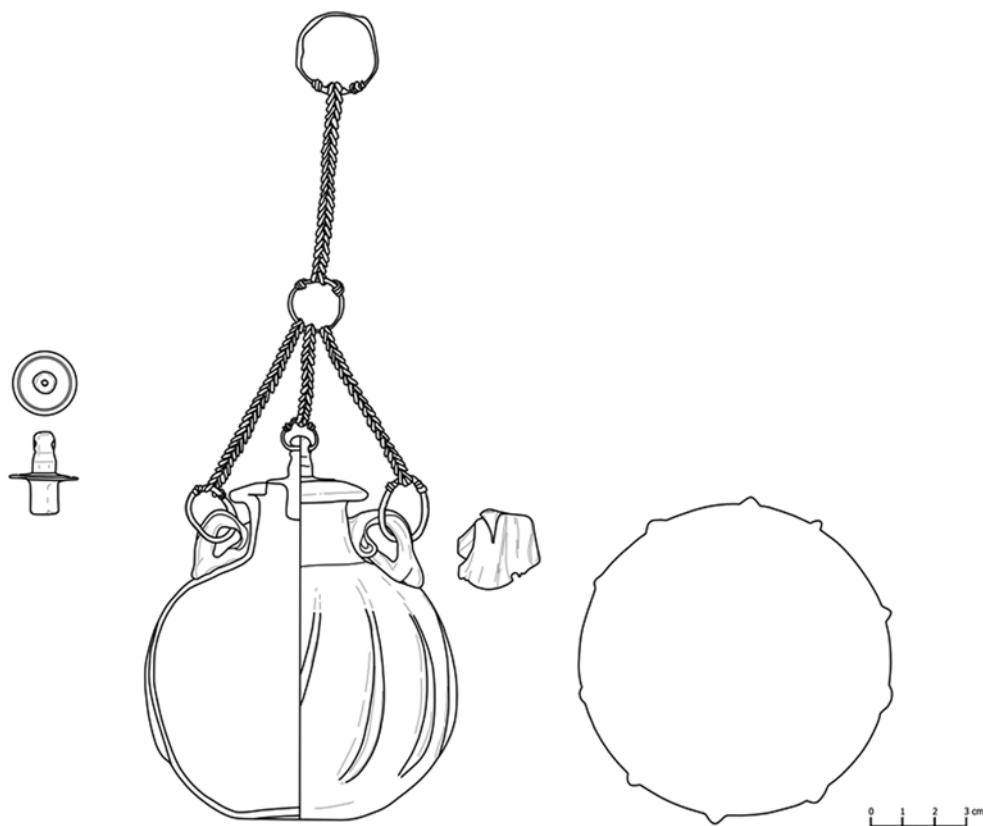
27 Along with the aryballos and the iron strigils, the following were also enclosed in grave 410: three ceramic lamps with a round nose with volutes (type: Loeschke IV); a small sigillata bowl; a silver pyxis with a depiction of a quadriga; bronze pincers with a sheath; a ring with a gem; and an iron knife with a silver coating. As far as glass goods are concerned, three small conical bowls, a small bottle with a belly-shaped body, two plates, three small square bottles and several incinerated balsamaria were unearthed.



SL. 6. / FIG. 6.

Aribal i strigile iz groba 410 (antička nekropolja, arheološka istraživanja 2006.), foto: B. Štefanac.

Aryballos and strigils from grave 410 (classical antique necropolis, 2006 archaeological campaign), foto: B. Štefanac.



SL. 7. / FIG. 7.

Aribal s brončanom garniturom (kat. br. 21), crtež: J. Belevski.
Aryballos with bronze set (cat. no. 21), drawing: J. Belevski.

samo opći podatci o predmetima. Jedini primjerak donekle sličnih karakteristika kojem je poznata lokacija pronalaska potječe iz Heddernheima u Njemačkoj.²⁸ Ostale srodne analogije uglavnom uključuju akvizicije muzeja te one aukcijskih kuća.²⁹ S obzirom na nedostatak izravnih usporedbi kvalificiran odgovor na pitanje radioničke pripadnosti moguće je dobiti analizom pojedinih elemenata gornjeg dijela posude. Ako se izuzme rebrasta dekoracija tijela, aribali s obodom trokutasta presjeka i kratkim ručkama apliciranim na ramenu i na prijelazu iz tijela u vrat, nalik jadertinskom primjerku, javljaju se većinom na Zapadu s naglaskom na područje Italije.³⁰ Konačno, oslanjajući se na ustanovljene predloške izrade ručki i oboda te navedene usporedbe, aribal iz Jadera može se svrstati u krug italskih ili transalpinskih radionica druge polovine 1. stoljeća. Uz to, analiza ostalog materijala iz groba 410 potvrđuje zadani kronološki okvir.³¹

ZAKLJUČAK

Iz analitičkog dijela rada jasno se izdvajaju primjerici koji ukazuju na trgovačke veze Jadera s udaljenim krajevima istočnog Mediterana, sa sredinama razvijena staklarskog obrta, iz kojih su dopremani razni luksuzni proizvodi. Posebno su znakoviti reljefno ornamentirani aribali uvršteni u prvu skupinu (grupa 1). Temeljem novih spoznaja, radi se o proizvodima čiji romboidni motivi upućuju na predloške Enionova kruga i ukazuju na sirijsko-palestinske radionice druge četvrtine 1. stoljeća. Zadani kronološki okvir potvrđuju jadertinski primjerici otkriveni u vremenski jasno definiranim grobnim cjelinama. Paralelno sa spomenutim produktima u Jader su s Levanta pristizali jednostavniji slobodno puhanii oblici aribala (grupa 2) bez reljefna ukrasa, ali jednako kvalitetne izrade.

Information about aryballoi with ribbed decoration in academic papers is rather scarce. Only the occasional publication of artefacts is known, in which only general data about the artefacts has been made known. The only specimen with somewhat similar characteristics whose unearthing site is known originates from Heddernheim in Germany.²⁸ Other related analogies mainly include acquisitions by museums or auction houses.²⁹ Given the lack of direct comparisons, a qualified answer to the question of workshop origin can be obtained through an analysis of the individual elements of the upper part of the vessel. If we take out the ribbed decoration of the body, aryballoi with a rim with a triangular cross-section and short handles applied on the shoulder at the transition from the body to the neck that resemble the Iadertinian example, occur mostly in the West, particularly in the area of Italy.³⁰ Finally, relying on the identified models of handle and rim production, and the abovementioned comparison, the aryballos from Jader can be classified as belonging to the circle of Italic or Transalpine workshops of the second half of the 1st century. In addition, an analysis of the remaining artefacts from grave 410 also confirms the given chronological frame.³¹

CONCLUSION

The analytical part of the paper presents specimens that point to the trade connections of Iader with distant regions of the eastern Mediterranean with developed glass craft centres, from which various luxury products were transported. The relief-ornamented aryballoi, classified as belonging to the first group (group 1) are particularly significant. On the basis of newly uncovered evidence, these are products whose rhomboid motifs (lozenge pattern) suggest models from Ennion's circle and point to Syro-Palestinian workshops from the second quarter of the 1st century. The given chronological timeframe is confirmed by

28 E. WELKER, 1974, 34, br. 49.

29 M. VANDERHOEVEN, 1961, 88, br. 96 (Muzej Curtius); J. ČADÍK, 1970, 31, sl. 9c (Nacionalni muzej u Pragu); M. STERN, 2001, 100, kat. br. 36. Za primjerak iz aukcijske kuće Christie's vidi <http://www.christies.com/lotfinder/ancient-art-antiquities/a-roman-blue-glass-aryballos>.

30 J. PRICE, S. COTTAM, 1998, 188-189, sl. 85:a; A. LARESE, E. ZERBINATI, 1998, 172, br. 115 (Rovigo); *Vitrum*, 2004, 202, br. 1.9 (Pompeji); V. ARVEILLER-DULLONG, M.-D. NENNA, 2005, 137, br. 350, 351, 353; L. MANDRUZZATO, A. MARCANTE, 2007, 56, br. 1 (Akvileja).

31 Vidi bilješku 27.

28 E. WELKER, 1974, 34, No. 49.

29 J. ČADÍK, 1970, 31, Fig. 9c (Prague National Museum); M. VANDERHOEVEN, 1961, 88, No. 96 (Museum Curtius); M. STERN, 2001, 100, Cat. No. 36. For the specimen from the Christie's auction house, see: <http://www.christies.com/lotfinder/ancient-art-antiquities/a-roman-blue-glass-aryballos>.

30 J. PRICE, S. COTTAM, 1998, 188-189, Fig. 85:a; A. LARESE, E. ZERBINATI, 1998, 172, No. 115 (Rovigo); *Vitrum*, 2004, 202, No. 1.9 (Pompeii); V. ARVEILLER-DULLONG, M.-D. NENNA, 2005, 137, Nos. 350, 351, 353; L. MANDRUZZATO, A. MARCANTE, 2007, 56, No. 1 (Akvileja).

31 See note 27.

Obje grupe pokazuju sličnosti u oblikovanju ručki i oboda, ali i u upotrebi iznimno tankih stijenki recipijenta.

Aribali treće skupine (grupa 3) predstavljaju import iz istočnomediterskih radionica druge polovine 1. stoljeća, a o tome svjedoče njihove morfološke značajke i arheološki kontekst. Prepoznatljiva istočnomediterska obilježja uobličena su u trakastim ručkama razvučenim od ramena do oboda i u dvostruko presavijenom obodu. Nalazi iz Jadera u kronološkoj su korelaciji s analognim primjercima s istočnog Mediterana i obale Crnog mora, a većina ih je otkrivena u grobovima iz flavijevskog perioda.

Tradiciju proizvodnje istočnomediterskih aribala 2. stoljeća moguće je pratiti kroz četvrtu skupinu (grupa 4). Ta se grupa može uspoređivati kao mlađa varijanta prethodne skupine jer svojom veličinom i formom te načinom oblikovanja ručki u potpunosti odgovara primjercima s dvostruko presavijenim obodom. Slijed razvoja vidljiv je u formiranju oboda koji je jednostavnije izvedbe, trokutast ili prstenast u presjeku. U kronološkom pogledu, jadertinski nalazi potječu iz precizno datiranih grobnih cjelina popraćenih novcima careva Nerve i Antonina Pija.

Na koncu valja izdvojiti aribal s rebrastom dekoracijom (grupa 5) u čijim se minucioznim detaljima oblikovanja ručki i oboda mogu prepoznati obilježja zapadnih staklarskih radionica druge polovine 1. stoljeća. Vrlo slična manira oblikovanja ručki osobito je zapažena kod primjeraka s italskog i transalpinskog područja. Iz svega navedenog proizlazi da je aribal iz Jadera nastao u jednoj od navedenih oblasti. Sačuvani brončani lanac s poklopcom i dvije pripadajuće željezne strigile potvrđuju praktičnu namjenu aribala, koji se nosio ovješen o zapešće ili pojasa prilikom odlaska na kupališta.

the Iadertinian specimens unearthed in chronologically clearly defined tomb groups. At the same time as the aforementioned products, simple freely blown aryballoi forms (group 2) without relief ornamentation, but of equally fine workmanship, came to Jader from the Levant. Both groups demonstrate a similarity in the modelling of the handles and rims, but also in the use of extraordinarily thin-walled containers.

The aryballoi of the third group (group 3) represent imports from eastern Mediterranean workshops from the second half of the 1st century, as confirmed by their morphological characteristics and archaeological context. Their distinctive eastern Mediterranean characteristics comprise the ribboned handles, pulled from the shoulder to the rim, and the twice-folded rim. The finds from Jader chronologically correlate with analogous specimens from the eastern Mediterranean and the Black Sea coast, and most of them were uncovered in graves from the Flavian period.

The production tradition of eastern Mediterranean 2nd-century aryballoi can be traced in the fourth group (group 4). This group can be seen as a more recent variant of the previous group, as their size and form, as well as the technique for modelling the handles, fully correspond with the specimens with a twice-folded rim. The course of their development is visible in the forming of the rim, which is of simple workmanship with a triangular or ring-shaped cross-section. In terms of chronology, the Iadertinian finds originate from precisely dated graves accompanied by coins of the emperors Nerva and Antoninus Pius.

Finally, the aryballos with ribbed decoration (group 5) needs to be mentioned. The delicate details of the modelling of the handles and rims suggest the characteristics of western glass workshops from the second half of the 1st century. A very similar style of modelling handles has been noticed in specimens from the Italic and Transalpine regions. All this suggests that the aryballos from Jader was produced in one of the aforementioned areas. The preserved bronze chain and lid and the two accompanying iron strigils confirm the practical function of the aryballos, which was worn hung from the wrist or belt when visiting baths.

KATALOG

V. = visina; š. = širina; p. o. = promjer oboda.

Kat. br. 1.

Zadar, Muzej antičkog stakla, inv. br. A7768.
 Zadar, antička nekropola, arheološka istraživanja 1989., grob 25.
 Aribal reljefno dekorirana tijela izrađen od iznimno tankog žućkasto-smeđeg stakla. Cilindrični vrat prelazi u blago razvraćen obod s uvijenim rubom. Tanke plavkasto-zelenkaste ručke kružnog presjeka spojene su pod obodom i na ramenu. Reljefni ukras čini središnji friz s romboidnim motivima (12 rombova) te reljefni jezičci otisnuti na ramenu (16) i donjem dijelu tijela (21). Kuglasto tijelo počiva na niskoj kružnoj bazi. Na tijelu su vidljivi spojevi dvodijelnog kalupa.

V. = 7,5 cm; š. = 5,3 cm; p. o. = 2,1-2,3 cm; baza = 2,7-2,9 cm.

Druga četvrtina 1. stoljeća.

Neobjavljen.



CATALOGUE

h = height; w = width; r. d. = rim diameter

Cat. No. 1

Zadar, Museum of Ancient Glass, inv. no. A7768
 Zadar, classical antique necropolis, 1989 archaeological campaign, grave 25

Aryballos with a relief-decorated body made of extremely thin yellowish-brownish glass. The cylindrical neck turns into a mildly everted rim with an inverted edge. The thin bluish-greenish coil handles applied from shoulder to underside of the rim. The relief decoration consists of a central frieze with rhomboidal motifs (12 rhombs) and relief tongues impressed on the shoulder (16) and the lower part of the body (21). The spherical body lies on a low circular base. The joints of a two-part mould are visible on the body.

h = 7.5 cm; w = 5.3 cm; r. d. = 2.1-2.3 cm; base = 2.7-2.9 cm

Second quarter of the 1st century

Unpublished

Kat. br. 2.

Zadar, Muzej antičkog stakla, inv. br. A8620.
 Zadar, antička nekropola, arheološka istraživanja 1998., grob 16.
 Aribal reljefno dekorirana tijela izrađen od iznimno tankog žućastog stakla. Cilindrični vrat prelazi u blago razvraćen obod s uvijenim rubom. Tanke plavkaste ručke kružnog presjeka spojene su pod oboodom i na ramenu. Reljefni ukras čini središnji friz s romboidnim motivima (12 rombova) te reljefni jezičci otisnuti na ramenu (16) i donjem dijelu tijela (21). Kuglasto tijelo počiva na niskoj kružnoj bazi. Na tijelu su vidljivi spojevi dvodijelnog kalupa.
 $V = 7,5 \text{ cm}$; $\text{š.} = 5,3 \text{ cm}$; $\text{p. o.} = 2,2-2,3 \text{ cm}$; baza = $2,7-2,9 \text{ cm}$.
 Druga četvrtina 1. stoljeća.
 Neobjavljen.

**Cat. No. 2**

Zadar, Museum of Ancient Glass, inv. no. A8620
 Zadar, classical antique necropolis, 1998 archaeological campaign, grave 16
 Aryballos with a relief-decorated body made of extremely thin yellowish glass. The cylindrical neck turns into a mildly everted rim with an inverted edge. The thin bluish coil handles applied from shoulder to underside of the rim. The relief decoration consists of a central frieze with rhomboidal motifs (12 rhombs) and relief tongues impressed on the shoulder (16) and the lower part of the body (21). The spherical body lies on a low circular base. The joints of a two-part mould are visible on the body.
 $h = 7.5 \text{ cm}$; $w = 5.3 \text{ cm}$; $r. d. = 2.2-2.3 \text{ cm}$; base = $2.7-2.9 \text{ cm}$
 Second quarter of the 1st century
 Unpublished

Kat. br. 3.

Zadar, Muzej antičkog stakla, inv. br. A9699.
 Zadar, antička nekropola, arheološka istraživanja 2006., grob 418.
 Aribal kuglasta tijela izrađen od iznimno tankog plavkastog stakla. Cilindrični vrat prelazi u blago razvraćen obod s ravno rezanim rubom. Tanke ljubičaste ručke kružnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehniči slobodnog puhanja.

V. = 7,2 cm; š. = 5,3 cm; p. o. = 2,4 cm.

Druga četvrтina 1. stoljeća.

Neobjavljen.

Cat. No. 3

Zadar, Museum of Ancient Glass, inv. no. A9699
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 418

Aryballos with a spherical body made of extremely thin bluish glass. The cylindrical neck turns into a mildly everted rim with a flat cut edge. The thin violet coil handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

$h = 7.2 \text{ cm}$; $w = 5.3 \text{ cm}$; $r. d. = 2.4 \text{ cm}$;

Second quarter of the 1st century

Unpublished



Kat. br. 4.

Zadar, Muzej antičkog stakla, inv. br. A9700.
 Zadar, antička nekropola, arheološka istraživanja 2006., grob 418.
 Aribal kuglasta tijela izrađen od iznimno tankog bezbojnog stakla s ljubičastim odsjajem. Cilindrični vrat prelazi u blago razvraćen obod s uvijenim rubom. Tanke plavkaste ručke kružnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.
 $V. = 7,3 \text{ cm}$; $\check{s}. = 5,4 \text{ cm}$; $p. o. = 2,4 \text{ cm}$.
 Druga četvrtina 1. stoljeća.
 Neobjavljen.

**Cat. No. 4**

Zadar, Museum of Ancient Glass, inv. no. A9700
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 418
 Aryballos with a spherical body made of extremely thin colourless glass with a purple sheen. The cylindrical neck turns into a mildly everted rim with an inverted edge. The thin bluish coil handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.
 $h = 7.3 \text{ cm}$; $w = 5.4 \text{ cm}$; $r. d. = 2.4 \text{ cm}$
 Second quarter of the 1st century
 Unpublished

Kat. br. 5.

Zadar, Muzej antičkog stakla, inv. br. A15313.
 Zadar, antička nekropola, arheološka istraživanja 2006., grob 418.
 Aribal kuglasta tijela izrađen od iznimno tankog ljubičastog stakla. Cilindrični vrat prelazi u blago razvraćen obod s uvijenim rubom. Tanke plavkaste ručke kružnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.

V. = 7,2 cm; š. = 5,3 cm; p. o. = 2,2 cm.

Druga četvrtina 1. stoljeća.

Neobjavljen.

Cat. No. 5

Zadar, Museum of Ancient Glass, inv. no. A15313
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 418

Aryballos with a spherical body made of extremely thin purple glass. The cylindrical neck turns into a mildly everted rim with an inverted edge. The thin bluish coil handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

h = 7.2 cm; w = 5.3 cm; r. d. = 2.2 cm

Second quarter of the 1st century

Unpublished



Kat. br. 6.

Zadar, Arheološki muzej u Zadru, inv. br. A7974.
 Zadar, antička nekropola, arheološka istraživanja
 1989., grob 205.
 Aribal kuglasta tijela izrađen od iznimno tankog
 žućkastog stakla. Cilindrični vrat prelazi u bla-
 go razvraćen obod s prstenastim rubom. Tanke
 žućkasto-zelenkaste ručke kružnog presjeka spojene
 su pod obodom i na ramenu. Tijelo je izrađeno u
 tehnici slobodnog puhanja.

V. = 7,7 cm; p. o. = 2,7 cm.

Druga četvrtina 1. stoljeća.

Neobjavljen.

Cat. No. 6

Zadar Archaeological Museum, inv. no. A7974
 Zadar, classical antique necropolis, 1989 archaeological campaign, grave 205

Aryballos with a spherical body made of extremely thin yellowish glass. The cylindrical neck turns into a mildly everted rim with a ring-shaped edge. The thin yellowish-greenish coil handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

h = 7.7 cm; r. d. = 2.7 cm

Second quarter of the 1st century

Unpublished



Kat. br. 7.

Zadar, Arheološki muzej u Zadru, inv. br. A8636.
Zadar, antička nekropola, arheološka istraživanja
1998., grob 43.

Aribal kuglasta tijela izrađen od tankog žućkasto-zelenkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.

V. = 6,6 cm; š. = 6,2 cm; p. o. = 3,0 cm.

Kraj 1. stoljeća.

K. A. GIUNIO, 2010, 97, br. 146.

Cat. No. 7

Zadar Archaeological Museum, inv. no. A8636
Zadar, classical antique necropolis, 1998 archaeological campaign, grave 43

Aryballos with a spherical body made of thin yellowish-greenish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

h = 6.6 cm; w = 6.2 cm; r. d. = 3.0 cm

End of the 1st century

K. A. GIUNIO, 2010, 97, No. 146.



Kat. br. 8.

Zadar, Muzej antičkog stakla, inv. br. A8637.
 Zadar, antička nekropola, arheološka istraživanja 1998., grob 43.
 Aribal kuglasta tijela izrađen od tankog žućkasto-zelenkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.

Rekonstruirana v. = 6,5 cm; š. = 5,9 cm; p. o. = 2,7 cm.

Kraj 1. stoljeća.

Neobjavljen.

**Cat. No. 8**

Zadar, Museum of Ancient Glass, inv. no. A8637
 Zadar, classical antique necropolis, 1998 archaeological campaign, grave 43

Aryballos with a spherical body made of thin yellowish-greenish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

Reconstructed h = 6.5 cm; w = 5.9 cm; r. d. = 2.7 cm
 End of the 1st century

Unpublished

Kat. br. 9.

Zadar, Muzej antičkog stakla, inv. br. A8638.
Zadar, antička nekropola, arheološka istraživanja 1998., grob 43.
Aribal kuglasta tijela izrađen od tankog žućkasto-zelenkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.
Rekonstruirana v. = 6,5 cm.
Kraj 1. stoljeća.
Neobjavljen.



Cat. No. 9

Zadar, Museum of Ancient Glass, inv. no. A8638
Zadar, classical antique necropolis, 1998 archaeological campaign, grave 43
Aryballos with a spherical body made of thin yellowish-greenish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.
Reconstructed h = 6.5 cm;
End of the 1st century
Unpublished

Kat. br. 10.

Zadar, Muzej antičkog stakla, inv. br. A8634.
 Zadar, antička nekropola, arheološka istraživanja 1998., grob 33.
 Aribal kuglasta tijela izrađen od tankog plavkasto-zelenkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Prijelaz iz tijela u vrat naglašen je suženjem. Tanke zelenkaste ručke ovalnog presjeka spojene su pod obođom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.

V. = 7,2 cm; š. = 6,6 cm; p. o. = 2,5 cm.

Kraj 1. stoljeća.

Neobjavljen.

Cat. No. 10

Zadar, Museum of Ancient Glass, inv. no. A8634
 Zadar, classical antique necropolis, 1998 archaeological campaign, grave 33

Aryballos with a spherical body made of thin bluish-greenish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The turn from the body to the neck is accentuated by a narrowing. The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

h = 7.2 cm; w = 6.6 cm; r. d. = 2.5 cm;

End of the 1st century

Unpublished



Kat. br. 11.

Zadar, Muzej antičkog stakla, inv. br. A8632.
 Zadar, antička nekropola, arheološka istraživanja 1998., grob 33.
 Aribal kuglasta tijela izrađen od bezbojna stakla s plavkasto-zelenkastim odsjajem. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratinik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.
 $V = 7,3 \text{ cm}$; $\check{s} = 6,6 \text{ cm}$; $p. o. = 2,6 \text{ cm}$
 Kraj 1. stoljeća.
 Neobjavljen.

**Cat. No. 11**

Zadar, Museum of Ancient Glass, inv. no. A8632
 Zadar, classical antique necropolis, 1998 archaeological campaign, grave 33
 Aryballos with a spherical body made of colourless glass with a bluish-greenish sheen. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.
 $h = 7.3 \text{ cm}$; $w = 6.6 \text{ cm}$; $r. d. = 2.6 \text{ cm}$;
 End of the 1st century
 Unpublished

Kat. br. 12.

Zadar, Muzej antičkog stakla, inv. br. A8633.
 Zadar, antička nekropola, arheološka istraživanja 1998., grob 33.
 Aribal kuglasta tijela izrađen od tankog plavkasto-zelenkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.
 $V = 7,4 \text{ cm}$; $\check{s} = 6,8 \text{ cm}$; $p.o. = 2,6 \text{ cm}$.
 Kraj 1. stoljeća.
 Neobjavljen.

**Cat. No. 12**

Zadar, Museum of Ancient Glass, inv. no. A8633
 Zadar, classical antique necropolis, 1998 archaeological campaign, grave 33
 Aryballos with a spherical body made of thin bluish-greenish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.
 $h = 7.4 \text{ cm}$; $w = 6.8 \text{ cm}$; $r. d. = 2.6 \text{ cm}$;
 End of the 1st century
 Unpublished

Kat. br. 13.

Zadar, Muzej antičkog stakla, inv. br. A15204.
 Zadar, antička nekropola, arheološka istraživanja 2006., grob 354.
 Aribal kuglasta tijela izrađen od tankog plavkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog punanja.

V. = / cm; š. = / cm; p. o. = 2,7 cm.

Druga polovina 1. stoljeća.

Neobjavljen.

**Cat. No. 13**

Zadar, Museum of Ancient Glass, inv. no. A15204
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 354

Aryballos with a spherical body made of thin bluish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

h = / cm; w = / cm; r. d. = 2.7 cm;

Second half of the 1st century

Unpublished

Kat. br. 14.

Zadar, Muzej antičkog stakla, inv. br. A15205.
 Zadar, antička nekropola, arheološka istraživanja 2006., grob 354.
 Aribal kuglasta tijela izrađen od tankog plavkastog stakla. Kratak cilindrični vrat prelazi u dvostruko presavijen obod (tip "ovratnik"). Tanke zelenkaste ručke ovalnog presjeka spojene su pod obodom i na ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.

V. = / cm; š. = / cm; p. o. = 2,5-2,7 cm.

Druga polovina 1. stoljeća.

Neobjavljen.

**Cat. No. 14**

Zadar, Museum of Ancient Glass, inv. no. A15205
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 354

Aryballos with a spherical body made of thin bluish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.

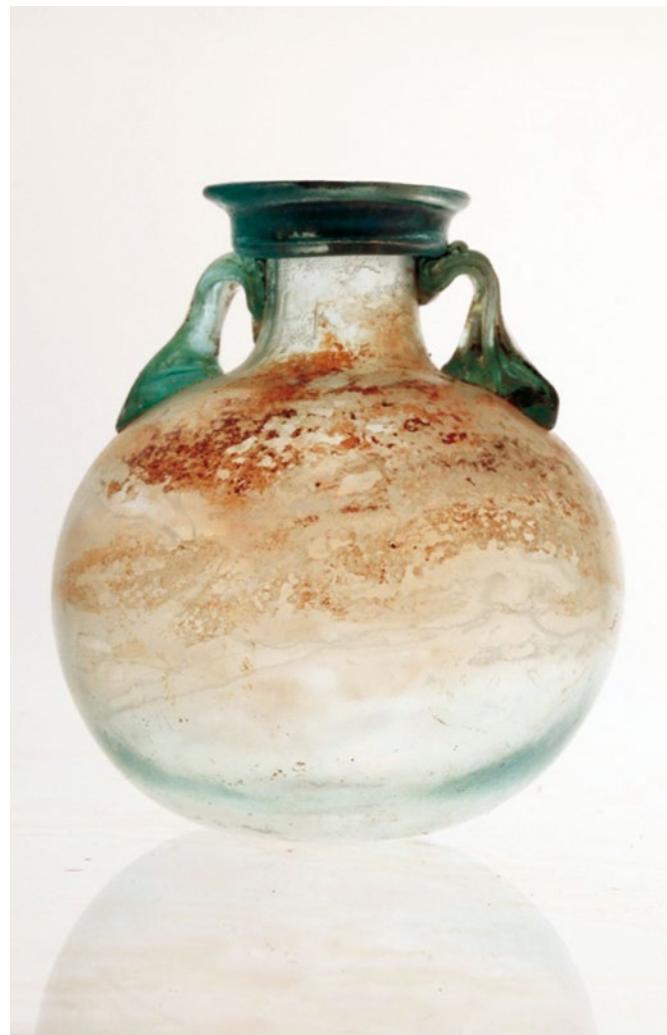
h = / cm; w = / cm; r. d. = 2.5-2.7 cm;

Second half of the 1st century

Unpublished

Kat. br. 15.

Zadar, Muzej antičkog stakla, inv. br. A9541.
 Zadar, antička nekropola, arheološka istraživanja
 2006., grob 283.
 Aribal kuglasta tijela izrađen od tankog plavkastog
 stakla. Kratak cilindrični vrat prelazi u dvostruko
 presavijen obod (tip "ovratnik"). Tanke zelenkaste
 ručke ovalnog presjeka spojene su pod obodom i na
 ramenu. Tijelo je izrađeno u tehnici slobodnog pu-
 hanja.
 V. = 8,5 cm; š. = 7,5 cm; p. o. = 3,5 cm.
 Druga polovina 1. stoljeća.
 Neobjavljen.

**Cat. No. 15**

Zadar, Museum of Ancient Glass, inv. no. A9541
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 283
 Aryballos with a spherical body made of thin bluish glass. The short cylindrical neck transforms into a twice-folded rim ("collar" type). The thin greenish handles applied from shoulder to underside of the rim. The body was made using the free-blowing technique.
 h = 8.5 cm; w = 7.5 cm; r. d. = 3.5 cm;
 Second half of the 1st century
 Unpublished

Kat. br. 16.

Zadar, Muzej antičkog stakla, inv. br. MAS 6272.
 Zadar, antička nekropola, arheološka istraživanja 2012., grob 34.
 Aribal kuglasta tijela s kratkim cilindričnim vratom izrađen od plavkasto-zelenkastog stakla debljih stjenki. Tijelo je ukrašeno horizontalnim urezanim linijama. Aribal je izrađen u tehnici slobodnog puhanja. Obod nedostaje (rekonstruiran).
 Sačuvana v. = 8,1 cm; š. = 7,2 cm; p. o. = / cm.
 Sredina 1. stoljeća.
 Neobjavljen.

**Cat. No. 16**

Zadar, Museum of Ancient Glass, inv. no. MAS 6272
 Zadar, classical antique necropolis, 2012 archaeological campaign, grave 34
 Aryballos with a spherical body and a short cylindrical neck made of bluish-greenish glass with thicker walls. The body is decorated with horizontal wheel-cut grooves. The aryballos was made using the free-blowing technique. Rim missing (reconstructed).
 present h = 8.1 cm; w = 7.2 cm; r. d. = / cm
 Middle of the 1st century
 Unpublished

Kat. br. 17.

Zadar, Muzej antičkog stakla, inv. br. A7839.
 Zadar, antička nekropola, arheološka istraživanja 1989., grob 91.
 Aribal kuglasta tijela izrađen od tankog zelenkastog stakla. Obod je horizontalno razvraćen i uvijen prema unutra. Tanke zelenkaste ručke ovalnog presjeka spojene su na vratu i ramenu. Tijelo je izrađeno u tehnici slobodnog puhanja.
 $V = 7,5 \text{ cm}$; $p. o. = 4,0 \text{ cm}$.
 Početak 2. stoljeća.
 K. A. GIUNIO, 2010, 97, br. 144.

**Cat. No. 17**

Zadar, Museum of Ancient Glass, inv. no. A7839
 Zadar, classical antique necropolis, 1989 archaeological campaign, grave 91
 Aryballos with a spherical body made of thin greenish glass. The rim is horizontally everted and then inverted towards the inside. The thin greenish handles applied from neck to shoulder. The body was made using the free-blowing technique.
 $h = 7.5 \text{ cm}$; $r. d. = 4.0 \text{ cm}$
 Beginning of the 2nd century
 K. A. GIUNIO, 2010, 97, no. 144.

Kat. br. 18.

Zadar, Arheološki muzej Zadar, inv. br. A8182.
 Zadar, antička nekropola, arheološka istraživanja 1989., grob 320.
 Aribal kuglasta tijela izrađen od tankog plavkastog stakla. Obod je horizontalno razvraćen, uvijen prema unutra i zakošen prema van. Tanke zelenkaste ručke ovalnog presjeka spojene su na vratu i ramanu. Tijelo je izrađeno u tehnici slobodnog puhanja.
 $V = 7,4 \text{ cm}$; $\check{s} = 6,8 \text{ cm}$; $p. o. = 3,5 \text{ cm}$.
 Početak 2. stoljeća.
 K. A. GIUNIO, 2010, 97, br. 145.

**Cat. No. 18**

Zadar Archaeological Museum, Inv. No. A8182
 Zadar, classical antique necropolis, 1989 archaeological campaign, grave 320
 Aryballos with a spherical body made of thin bluish glass. The rim is horizontally everted and then inverted inwards and bevelled outwards. The thin greenish handles applied from neck to shoulder. The body was made using the free-blowing technique.
 $h = 7.4 \text{ cm}$; $w = 6.8 \text{ cm}$; $r. d. = 3.5 \text{ cm}$
 Beginning of the 2nd century
 K. A. GIUNIO, 2010, 97, no. 145

Kat. br. 19.

Zadar, Muzej antičkog stakla, inv. br. A8212.
Zadar, antička nekropola, arheološka istraživanja 1989., grob 411.
Aribal kuglasta tijela izrađen od tankog plavkastog stakla. Obod je horizontalno razvraćen, uvijen prema unutra i zakošen prema van. Tanke zelenkaste ručke ovalnog presjeka spojene su na vratu i ramanu. Tijelo je izrađeno u tehnici slobodnog puhanja.
 $V = 8,3 \text{ cm}$; $\check{s} = 6,3 \text{ cm}$; $p. o. = 3,0 \text{ cm}$.
Početak 2. stoljeća.
Neobjavljen.

**Cat. No. 19**

Zadar, Museum of Ancient Glass, inv. no. A8212
Zadar, classical antique necropolis, 1989 archaeological campaign, grave 411
Aryballos with a spherical body made of thin bluish glass. The rim is horizontally everted and then inverted inwards and bevelled outwards. The thin greenish handles applied from neck to shoulder. The body was made using the free-blowing technique.
 $h = 8.3 \text{ cm}$; $w = 6.3 \text{ cm}$; $r. d. = 3.0 \text{ cm}$
Beginning of the 2nd century
Unpublished

Kat. br. 20.

Zadar, Muzej antičkog stakla, inv. br. A8213.
 Zadar, antička nekropola, arheološka istraživanja 1989., grob 411.
 Aribal kuglasta tijela izrađen od tankog plavkastog stakla. Obod je horizontalno razvraćen, uvijen prema unutra i zakošen prema van. Tanke zelenkaste ručke ovalnog presjeka spojene su na vratu i ramanu. Tijelo je izrađeno u tehniци slobodnog puhanja. Rekonstruirana v. = 7,8 cm; š. = 6,7 cm; p. o. = 3,1 cm. Početak 2. stoljeća.
 Neobjavljen.

**Cat. No. 20**

Zadar, Museum of Ancient Glass, inv. no. A8213
 Zadar, classical antique necropolis, 1989 archaeological campaign, grave 411
 Aryballos with a spherical body made of thin bluish glass. The rim is horizontally everted and then inverted inwards and bevelled outwards. The thin greenish handles applied from neck to shoulder. The body was made using the free-blowing technique.
 reconstructed h = 7.8 cm; w = 6.7 cm; r. d. = 3.1 cm
 Beginning of the 2nd century
 Unpublished

Kat. br. 21.

Zadar, Muzej antičkog stakla, inv. br. A9541.
 Zadar, antička nekropola, arheološka istraživanja 2006., grob 410.
 Aribal kuglasta tijela izrađen od plavkasto-zelen-kastog stakla debljih stijenki. Kratak cilindrični vrat prelazi u obod trokutasta presjeka. Ručke ovalnog presjeka spojene su na ramenu. Tijelo je ukrašeno reljefnim rebrima. Aribal je izrađen u tehnici slobodnog puhanja.
 $V = 10,3 \text{ cm}$; $\varnothing = 9,4 \text{ cm}$; $p. o. = 4,3 \text{ cm}$.
 Druga polovina 1. stoljeća.
 Neobjavljen.

Cat. No. 21

Zadar, Museum of Ancient Glass, inv. no. A9541
 Zadar, classical antique necropolis, 2006 archaeological campaign, grave 410
 Aryballos with a spherical body made of bluish-greenish glass with thicker walls. The short cylindrical neck transforms into a rim with a triangular cross-section. The handles with an oval cross-section are joined on the shoulder. The body is decorated with relief ribs. The aryballos was made using the free-blowing technique.
 $h = 10.3 \text{ cm}$; $w = 9.4 \text{ cm}$; $r. d. = 4.3 \text{ cm}$
 Second half of the 1st century
 Unpublished

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