

# Između Kine, islamskog svijeta i Europe: šalice za kavu iz Osijeka

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# IZMEĐU KINE, ISLAMSKOG SVIJETA I EUROPE: ŠALICE ZA KAVU IZ OSIJEKA

## BETWEEN CHINA, THE ISLAMIC WORLD, AND EUROPE: *COFFEE CUPS* FROM OSIJEK

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U radu se donosi materijal koji pripada dvjema različitim epizodama iz osječke povijesti. Stariji nalazi kineskog porculana i kvarcne keramike iz islamskog svijeta s nekoliko pozicija u Tvrđi su iz 17. – 18. stoljeća, kada su šalice, korištene za kavu i čaj, ušle u upotrebu i stizale iz raznih istočnih radionica. S druge strane, kasniji nalazi europskog porculana i kamenine iz Donjeg grada su uglavnom s početka 19. stoljeća, kada je proizvodnja porculana bila razvijena širom Europe kao i konzumacija kave odnosno čaja.

Šalice i tanjurići su u plavo-bijelom stilu, pod kojim se podrazumijeva bijela pozadina, u našem slučaju tijelo posude, na kojoj se plavom bojom slikala dekoracija prije nanošenja prozirne glazure. Iako dubljih korijena, stil je populariziran širenjem južnokineskog porculana iz Jingdezhen, koji je utjecao na brojne proizvodnje diljem svijeta.

**KLJUČNE RIJEČI:** Osijek, šalice za kavu, porculan, kvarcna keramika, kamenina

The paper discusses material belonging to two different moments from the history of Osijek. Older finds of Chinese porcelain and Islamic stonepaste from several sites in Tvrđa are from the 17<sup>th</sup> and 18<sup>th</sup> centuries, when coffee and tea cups from various eastern workshops were introduced. On the other hand, later finds of European porcelain and creamware from the Downtown are mostly from the early 19<sup>th</sup> century, when porcelain production and the consumption of coffee and tea were widespread all over Europe. The cups and saucers are in the blue-and-white style, which means that underglaze blue decoration is painted on their white body. This style has deeper roots, but it gained popularity due to the spread of southern Chinese porcelain from Jingdezhen, which had a significant impact on production all over the world.

**KEY WORDS:** Osijek, coffee cups, porcelain, stonepaste, creamware



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Open Access Ovaj rad dijeli se prema odredbama i uvjetima licence Creative Commons Attribution 4.0 International license (<https://creativecommons.org/licenses/by/4.0/>), koja dopušta neograničenu ponovnu upotrebu, dijeljenje i reprodukciju u bilo kojem mediju, pod uvjetom da je izvorno djelo ispravno citirano.

Porculanom se na zapadu smatraju glazirani proizvodi pečeni na visokim temperaturama, od oko 1250 °C do 1400 °C, koje između ostalih, karakterizira bijela boja, translucenost, tanke stijenke i specifična rezonancija (Kerr, Wood 2004: 52). Valja razlikovati različite načine oponašanja ili imitacije njegovog bijelog izgleda. Isprva se on dobivao nanošenjem neprozirnog bijelog premaza dok se kasnije pojavila bijela struktura. U prošlosti, ali i u današnje vrijeme, nerijetko su za većinu njih korišteni raznovrsni termini. Za dobivanje proizvoda s gore spomenutim karakteristikama koje ima pravi porculan, važno je bilo poznavanje tehnologije proizvodnje i sirovina odnosno njihova dostupnost. Upravo su one, uglavnom nedostupne ili nepoznate u drugim dijelovima svijeta, zajedno s tisućljetnim razvojem keramičarstva, zaslužne za pojavu porculana u kineskim radionicama. S obzirom na specifičnu geološku povijest, razlikuju se sirovine korištene za proizvodnju u sjevernoj u odnosu na južnu Kinu (Kerr, Wood 2004: 87–88).

## Lokaliteti i kontekst nalaza

Grupa nalaza predstavljena ovdje, dolazi s nekoliko lokaliteta u osječkoj Tvrđi i Donjem gradu. Starijoj skupini pripadaju nalazi s lokaliteta Tvrđa – Istočni ulaz (karta 1: 1) gdje su provedena istraživanja 2017. godine, kao i obližnjeg lokaliteta Tvrđa – Carska vrata (karta 1: 2) istraženog godinu prije.<sup>1</sup> Ulomci s prvospomenutog lokaliteta (SJ 28/81: T. 1: 1–2, 4, 7; SJ 51: T. 1: 3, 8–9, 11; SJ 51/257: T. 1: 5; SJ 257: T. 1: 6, 13) su uglavnom zabilježeni u slojevima šute (SJ 28/81; 51; 257) unutar dva veća ukopa (SJ 5; 41) i ispod masivnog i nabijenog nivelacijskog sloja (SJ 27; 52). Slojevi šute su sadržavali materijal koji se može datirati od kasnosrednjovjekovnog razdoblja sve do početka odnosno prve polovice 18. stoljeća. Pojedini ulomci su zabilježeni iznimno na drugim dijelovima lokaliteta (SJ 88: T. 1: 12). Sličan kontekst pronalaska, s materijalom koji se može datirati kroz nekoliko stoljeća, vezan je uz jedini ulomak (T. 1: 10) s lokaliteta Tvrđa – Carska vrata. Drugom kronološkom kontekstu, s kraja 18./početka 19. st. pripadaju nalazi s lokaliteta u Vukovarskoj 192 (karta 1: 3) koji gotovo svi dolaze iz iste stratigrafske jedinice (SJ 107: T. 1: 14, 16–17; 3: 18–20; SJ 17: T. 2: 15).<sup>2</sup>

1 Više o istraživanjima kod Leleković 2017; 2018.

2 Više o istraživanjima kod Cingeli 2015.

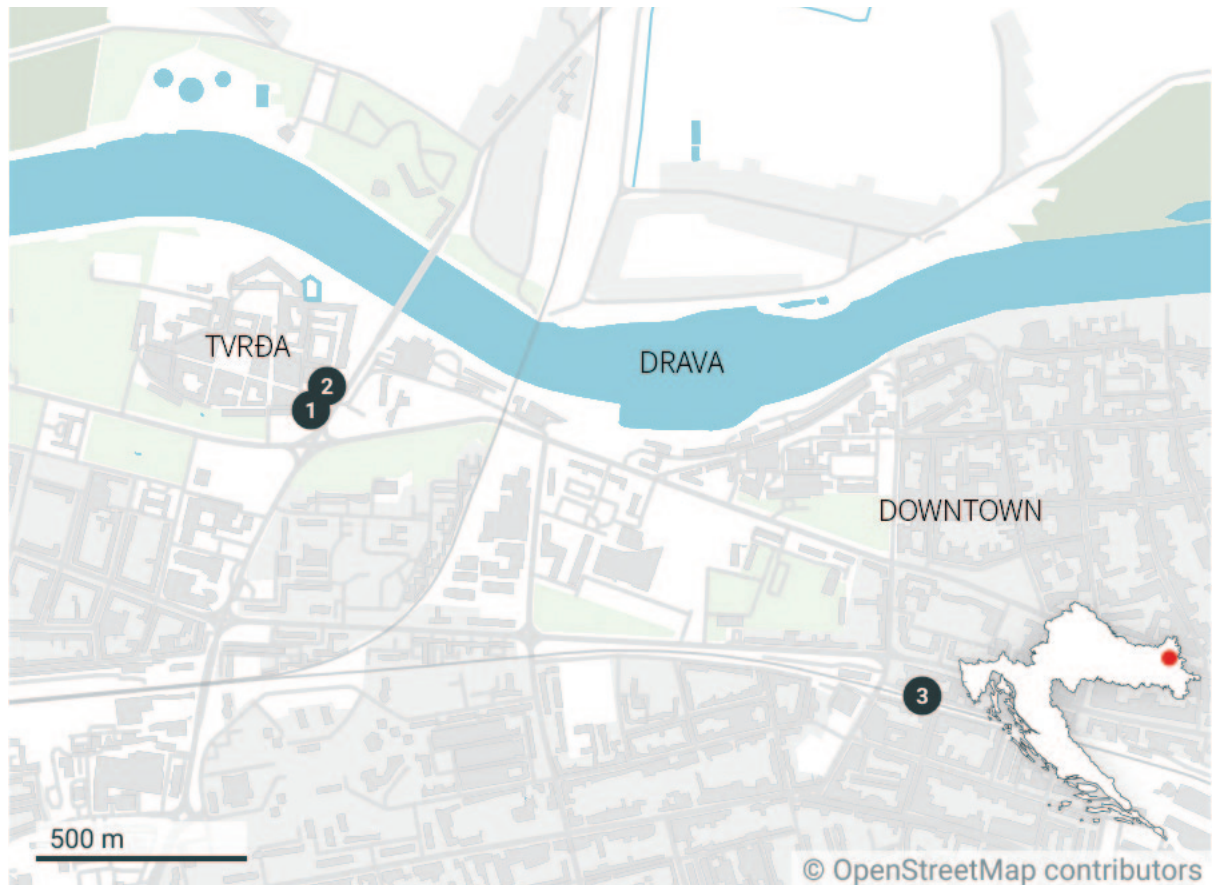
High-fired glazed products, fired on temperatures around 1250°C to 1400°C and characterized among others by white color, translucency, thin walls, and a specific resonance, are designated as porcelain in the West (Kerr, Wood 2004: 52). We should distinguish various ways of mimicking or imitating its white appearance. The application of opaque white glaze was used at first, while a whitish body appeared later. Just like today, various designations were used in earlier times to describe those products. To produce porcelain with the characteristics mentioned above, it was important to know the production technology and raw materials as well as their availability. The latter, mostly unavailable or unknown in other parts of the world, together with the millennial development of ceramic production, are responsible for the introduction of porcelain in Chinese workshops. Due to specific geological history, the raw materials used for production in the north of China differ from those in the south (Kerr, Wood 2004: 87–88).

## Sites and context of finds

The group of finds presented here comes from Osijek, from a few sites at Tvrđa and the Downtown. The finds from the sites of Tvrđa – Eastern Entrance (Map 1: 1), excavated in 2017, and the nearby Tvrđa – Imperial Gates (Map 1: 2), excavated the year before, belong to the older group of finds.<sup>1</sup> The fragments from the former site (SU 28/81: Pl. 1: 1–2, 4, 7; SU 51: Pl. 1: 3, 8–9, 11; SU 51/257: Pl. 1: 5; SU 257: Pl. 1: 6, 13) were mostly unearthed in rubbish fills (SU 28/81; 51; 257) inside two large cuts (SU 5; 41) and under a massive and compact leveling layer (SU 27; 52). The rubbish fills contained material that can be dated from late medieval times to the beginning or the first part of the 18<sup>th</sup> century. Exceptionally, some of the fragments come from other parts of the site (SU 88: Pl. 1: 12). A similar context of finds, which includes material datable to several centuries, is associated with one fragment (Pl. 1: 10) from the site of Tvrđa – Imperial Gates. The finds from the site in Vukovarska 192 (Map 1: 3) belong to different chronological contexts from the end of the 18<sup>th</sup> and the beginning of the 19<sup>th</sup> century and are almost all from the same stratigraphic unit (SU 107: Pl. 1: 14, 16–17; 3: 18–20; SU 17: Pl. 2: 15).<sup>2</sup>

1 More about the excavations in Leleković 2017; 2018.

2 More about the excavations in Cingeli 2015.



Karta 1 – Lokaliteti u Osijeku (izradio: M. Matković, 2023.; izvor: OpenStreetMap, Creative Commons Attribution-ShareAlike 2.0 license, CC BY-SA 2.0; Created with Datawrapper)

Map 1 – Sites in Osijek (made by: M. Matković, 2023; source: OpenStreetMap, Creative Commons Attribution-ShareAlike 2.0 license, CC BY-SA 2.0; Created with Datawrapper)

## Terminologija: porculan, kvarcna keramika, kamenina

Porculan je ime dobio prema nazivu za kauri pužice (lat. *Cypraea moneta*) koje karakterizira sjajni bijeli i tanašni izgled.<sup>3</sup> Identičan termin, vjerojatno talijansku riječ *porcellana*, mogao je upotrijebiti Marko Polo opisujući keramičarske proizvode Kine krajem 13. stoljeća, što je u njegovom *Opisu svijeta* Rustichello prenio na francusko-talijanskom jeziku (Carswell 1985: 13–15; van Driem 2019: 74, bilj. 86). U Kini se isti termin koristi za sve fine keramičarske proizvode pečene na visokim temperaturama (kin. *ci*) dok se na zapadu, tako i ovdje, razlikuje kamenjača od porculana (Kerr, Wood 2004: 9–11).<sup>4</sup> Uslijed širenja kineskog plavo-bijelog

3 Više o etimologiji naziva kod Carswell 1985: 13.

4 Kamenjača je tvrde, vitrificirane, netranslucentne strukture i pečena na temperaturi od oko 1200 °C. S glazurom se u južnoj Kini javlja od vremena dinastije Shang (16. – sredina 11. st. pr. Kr.) dok je u sjevernoj Kini češća od 5./6. st. po Kr. (Kerr, Wood 2004: 142–143). Istom kontekstu pripadaju i termini kao što su „proto-porculan“, „primitivni porculan“ „kvazi-porculan“ i slični.

## Terminology: porcelain, stoneware, creamware

The term “porcelain” comes from a name for the money cowrie (lat. *Cypraea moneta*), which is characterized by a shiny white and thin appearance.<sup>3</sup> Marco Polo may have used an identical designation, probably the Italian word *porcellana*, when describing ceramic products from China at the end of the 13<sup>th</sup> century, as recorded by Rustichello in the French-Italian language in his *Description of the World* (Carswell 1985: 13–15; van Driem 2019: 74, n. 86). A single term is used in China for all high-fired products (*ci* in Chinese) while the West differentiates Chinese stoneware from porcelain (Kerr, Wood 2004: 9–11).<sup>4</sup> Due to the spread of Chinese blue-

3 More about the etymology of the term in Carswell 1985: 13.

4 Chinese stoneware has a hard, vitrified and non-translucent structure, fired at temperatures around 1200°C. Glazed examples appeared in south China in the period of the Shang dynasty (16<sup>th</sup> – mid-11<sup>th</sup> century BC) while they were common in the north from the 5<sup>th</sup>/6<sup>th</sup> century AD (Kerr, Wood 2004: 142–143). Designations such as “proto-porcelain”, “primitive porcelain”, or “quasi-porcelain”, belong to the same context.



porculana na zapadu početkom novog vijeka i intenzifikacije europskih pokušaja njegove imitacije, nerijetko su se porculanom nazivali i tamošnji lokalni proizvodi koji su prihvatili sličan stil. Međutim, kada su tehničke karakteristike u pitanju, oni čiji materijalni ostaci postoje, u pravilu pripadaju običnoj keramici s neprozirnom kositrenom glazurom, staklu ili pak „mekom porculanu“, koji je nerijetko zapadna varijanta keramičke strukture za koju ovdje koristimo naziv kvarcna keramika.

Kada dolazi s istoka, ona se u literaturi ponekad naziva i „islamskim porculanom“ ili višeznačnim terminom „fajansa“,<sup>5</sup> koji je prikladniji i češće upotrebljavan za spomenutu europsku keramiku s neprozirnom kositrenom glazurom.<sup>6</sup> Za razliku od nje, kvarcna keramika podrazumijeva specifičnu strukturu karakterističnu prvenstveno za srednjovjekovnu i novovjekovnu keramiku iz islamskog svijeta.

Uz tu strukturu je vezano pečenje na nešto nižoj temperaturi od pravog porculana. To je jedan od razloga zašto se takvi proizvodi na zapadu često nazivaju „mekim porculanom“, ponekad zbog svog sastava i „staklenim porculanom“, za razliku od pravog odnosno „tvrđog porculana“ nešto drugačijeg recepta (Kerr, Wood 2004: 735–736).<sup>7</sup> Osim temperatura, spomenuta se podjela, ovisno o autoru, ponekad radi i na temelju drugih kriterija koji odražavaju različite načine odnosno recepte za dobivanje porculana.

Unatoč pojavi lokalne proizvodnje pravog porculana u Europi početkom 18. st., nastavljeno je eksperimentiranje i usavršavanje strukture keramike. Jedna od njih je i kamenina (njem. *Steingut*, tal. *terraglia*), koja se pojavila oko sredine 18. stoljeća i kao neke od prethodno spomenutih struktura, nalazi se između obične keramike i porculana. Od svih spomenutih, kamenina, naziv koji se koristi i kao skupni termin, najmanje je jasno definirana u hrvatskoj literaturi.

Bez obzira na strukturu, svi osječki ulomci kineskog i europskog porculana, kamenine te kvarcne keramike iz islamskog svijeta, imaju plavu dekoraciju ispod prozirne glazure. S obzirom

and-white porcelain in the West after the end of the medieval period and the intensification of European imitations, the term “porcelain” was used infrequently for local products in the same style. However, the technical characteristics of the surviving material indicate that those examples belong to tin-glazed earthenware, glass, or “soft porcelain”, which is often a Western variant of ceramic structure, here called stonepaste.

When it comes from the East, sometimes the term “Islamic porcelain” or ambiguous “faience” is used,<sup>5</sup> the latter being more suitable and more often utilized for the mentioned European tin-glazed pottery,<sup>6</sup> while stonepaste implies a specific structure characterising primarily the medieval and post-medieval pottery from the Islamic world.

That kind of structure is fired at lower temperatures than true porcelain. That is one of the reasons why those products are often called “soft porcelain” in the West, sometimes even “glass porcelain” because of their composition, unlike the “true” or “hard” porcelain of a somewhat different recipe (Kerr, Wood 2004: 735–736).<sup>7</sup> Depending on the author, differentiation is sometimes based on criteria other than temperature, reflecting various ways of obtaining porcelain.

Despite the introduction of local true porcelain production at the beginning of the 18<sup>th</sup> century, there was constant experimentation and perfection of pottery structures. One of the types produced from around the mid-18<sup>th</sup> century was creamware (Ger. *Steingut*, Ita. *Terraglia*); like some other mentioned types, it sits between earthenware and porcelain. Creamware, also used as an umbrella term, is yet to be defined more clearly in publications in the Croatian language.

Regardless of type, all the fragments of Chinese and European porcelain, creamware as well as stonepaste from the Islamic world, have underglaze blue decoration. Due to their background and decoration color, the term “blue-

5 Naziv „fajansa“ se danas koristi i za silikatne proizvode iz vremena Starog Egipta, koje treba razlikovati od kasnije kvarcne keramike; u pojedinoj se literaturi korištenoj ovdje koristi i naziv „polufajansa“ koji se objašnjava izostankom neprozirnog premaza prisutnog kod „prave fajanse“ odnosno kvarcne keramike, usp. npr. Гусач 2012.

6 Fajansa (= majolika, bianchi di Faenza) prema gradu Faenzi (tal. Faenza, preko fra. faïence), jednom od najvažnijih središta proizvodnje majolike kao i širenja tehnologije njene izrade.

7 Iako se uglavnom koristi u modernoj literaturi, podjelu na *pâte dure* i *pâte tendre* s obzirom na temperaturu pečenja, koristio je još Alexandre Brongniart (1770. – 1847.).

5 The term “faience” is also used today for siliceous products from ancient Egypt, which should be differentiated from later stonepaste; certain works from our bibliography utilize the term “half faience”, which is defined by the absence of the opaque glaze that characterizes “faience” that is stonepaste, cf. Гусач 2012.

6 Faïence (= maiolica, bianchi di Faenza) was named after the town of Faenza (faïence in French), one of the most important centers of maiolica production as well as the spread of that production technology

7 Although mostly used in modern works, the differentiation between *pâte dure* and *pâte tendre*, based on firing temperatures, was first used by Alexandre Brongniart (1770–1847).

na boju njihove dekoracije i pozadine, takav dekorativni izričaj se naziva plavo-bijelim stilom. U nastavku se, prije interpretacije novih nalaza iz Osijeka, najprije donosi kratka povijesna pozadina kave i čaja, čija je upotreba usko vezana uz ovaj tip materijala, zatim i grupa nalaza o kojima je ovdje riječ uz osvrt na slične primjerke iz arheološkog konteksta, zabilježene na pojedinim hrvatskim lokalitetima.

## Kava i čaj

Prema konvencionalnom tumačenju, kava (tur. *kahve*, preko arap. *qahwah*) je iz Etiopije, najkasnije u drugoj polovici 15. stoljeća, prenesena u Jemen, gdje su stimulativni napitak od nje počeli koristiti derviši šazilijskog reda (tur. *tarikāt*) u svojim, često noćnim ritualima odnosno *zićiru* (arap. *dhikr*) (Hattox 1985: 11–15; Ayvazoğlu 2011: 19). Da je na arapskom poluotoku prisutna i prije, ukazuje karbonizirano zrno kave s lokaliteta Kush (Ras al-Khaimah, Ujedinjeni Arapski Emirati), pronađeno u sloju iz 12. stoljeća (Petersen 2020: 204). Međutim, za potvrdu, točnije okolnosti nalaza, dataciju i pretpostavke o njegovom porijeklu, valja pričekati detaljniju objavu. Za dalje širenje prema susjednom mamelučkom teritoriju, najprije u Hidžaz a zatim u Egipat i Siriju, značajni su spomenuti jemenski derviši (Hattox 1985: 23–24). Pisani izvori svjedoče o prisutnosti kave do kraja 15. stoljeća u Meki odnosno u prvom desetljeću 16. stoljeća u Kairu (Hattox 1985: 27). Osim derviša, putnici poput hadžija su u ograničenom obliku mogli proširiti kavu, koja je u svakome slučaju vrlo brzo ušla u upotrebu ostalog stanovništva, što je dovelo do pojave posebnih objekata – kavana, u kojima se spomenuti napitak posluživao. Najstarije su otvorene u Hidžazu, u mamelučko vrijeme, gdje pisane informacije upućuju na postojanje sličnih objekata u Meki 1511. godine (Hattox 1985: 77) dok su u Kairu postojale prije mamelučkog poraza od snaga Selima I. i propasti sultanata (1516. – 1517.) (Mahamid, Nissim 2018: 154). Nakon što je kava ušla u upotrebu na prostoru Osmanskog Carstva, došlo je do njenog značajnijeg širenja, prvenstveno preko Egipta odnosno trgovačkog središta u Kairu i njegove luke Aleksandrije. S obzirom na njegov pravac, ne čudi da se kava, kao i objekti gdje se posluživala, na europskom kopnu najranije javljaju na jugoistoku kontinenta, točnije rečeno na području pod osmanskom vlašću.

Prema Ibrahimu Pečeviji (2000: 301), u Istanbulu, Anatoliji i Rumeliji, kave i kavana nije bilo prije 1554. godine, kada su Hakem iz Alepa i

and-white style" is used. Before we discuss the new finds from Osijek, we give a short historical background of coffee and tea, since their use is closely related to this type of material. Along with the groups of finds that follow, we will discuss a review of selected examples from archaeological contexts unearthed on various Croatian sites.

## Coffee and tea

According to the conventional interpretation, coffee (Tur. *kahve* from Arab. *qahwah*) was brought not later than the second part of the 15<sup>th</sup> century from Ethiopia to Yemen, where dervishes of the Shadhili Order (Tur. *tarikāt*) started to use this stimulative drink in their often nocturnal rituals or *dhikr* (Hattox 1985: 11–15; Ayvazoğlu 2011: 19). A carbonized bean from a 12<sup>th</sup>-century layer at the site of Kush (Ras al-Khaimah, United Arab Emirates) indicates an even earlier presence of coffee in the Arabian Peninsula (Petersen 2020: 204). However, confirmation should be sought in a detailed publication with more precise circumstances and assumptions on the date and origin. The dervishes from Yemen played an important role in the spread of coffee towards the neighboring territories under the Mamluks, first in Hijaz and then in Egypt and Syria (Hattox 1985: 23–24). Written sources indicate that coffee was present in Mecca before the end of the 15<sup>th</sup> century and in Cairo in the first decade of the 16<sup>th</sup> century (Hattox 1985: 27). Aside from dervishes, travellers like the hajji could have helped the spread of coffee, which was very quickly in general public use, leading to the emergence of a special public institution – the coffeehouse, where coffee was served. The oldest coffeehouses were opened during the Mamluk period in Hijaz, where written records testify that similar establishments existed in Mecca in 1511 (Hattox 1985: 77) and somewhat later in Cairo, before Selim I defeated the Mamluks (1516–1517) (Mahamid, Nissim 2018: 154). Coffee spread significantly when Ottomans became acquainted with it, primarily through Egypt – that is, the merchant hub in Cairo and its port, Alexandria. Considering the trade route, it is no surprise that coffee, as well as the establishments where coffee was served, first appeared in Europe in the southeast part of the continent – to be exact, in the area under the Ottomans.

According to Ibrahim Pečevi (2000: 301), there was no coffee or coffeehouses in Istanbul, Anatolia and Rumelia before 1554, when Hakem

Šems iz Damaska otvorili kavane u dijelu Istanbula zvanom Tahtakale. Iako je do pojave kave tamo vjerojatno došlo nešto ranije (Винавер 1965: 329; Ayvazoğlu 2011: 9–10, 23–24), činjenica je da je njeno značajnije širenje zabilježeno kroz drugu polovicu 16. stoljeća dok informacije vezane uz pojedina mjesta u Anatoliji ukazuju kako su do početka 17. stoljeća i skromnija domaćinstva posjedovala pribor za pripremanje odnosno posluživanje kave (Faroqhi 1986: 89–90).

Zapadna Europa odnosno njeni dijelovi i manji broj ljudi, s kavom se upoznao već u drugoj polovici 16. stoljeća, preko pojedinaca porijeklom iz Osmanskog Carstva i „zapadnjaka“ koji su iz trgovačkih, političkih i drugih razloga tamo boravili ili na neki način bili povezani s tim prostorom (Винавер 1965: 335; van Driem 2019: 464). Međutim, trebalo je proći određeno vrijeme do nešto šireg prihvaćanja kave, koje je vidljivo od druge polovice 17. stoljeća, s pojavom kavana u raznim dijelovima zapadne Europe i posebno u narednom 18. stoljeća, kada su zapadnoeuropske sile proširile uzgoj kave na svoje azijske, afričke i američke posjede (van Driem 2019: 492–495). Uslijed specifičnog položaja i društvene situacije, na Malti su kava i kavane (1633.) prisutni ranije nego u kopnenom dijelu zapadne Europe (Cutajar, Spiteri 2019: 42), gdje se najranije i isprva rijetke kavane javljaju oko sredine 17. stoljeća.

Kao što je poznato, prostor današnje Hrvatske je početkom novoga vijeka bio dijelom različitih političkih zajednica no s obzirom na gore navedene informacije, za pretpostaviti je kako je kava najranije prisutna na područjima koja su bila pod Osmanlijama ili onima koji su s njima održavali prisne odnose. Informacije koje svjedoče o prisutnosti kave i postojanju kavana mogu se pratiti od ranog 17. stoljeća (Винавер 1965: 333–340; Čelebi 1967: 516), u slučaju Osijeka nešto kasnije. U pisanim izvorima iz 1718. godine, kao građanin Tvrđe je spomenut *Caffee Sieder* Johannes Manuck iz Nahičevana (Safavidsko Carstvo) (Mažuran 1965: 92), koji je prema Ivi Mažuranu (1965: 52), s obzirom na zanimanje „kafedžije“, „vjerojatno (...) iste godine otvorio kavanu“, iako o njoj nema nikakvih podataka, kako je spomenuti autor i naveo.<sup>8</sup> Ako je nije bilo i ranije, kavana je do kraja 18. stoljeća postojala i u Osijeku (Винавер 1965: 337).

from Aleppo and Shems from Damascus opened coffeehouses in Istanbul's Tahtakale. Although coffee probably appeared somewhat earlier (Винавер 1965: 329; Ayvazoğlu 2011: 9–10, 23–24), it is a fact that it spread significantly in the second part of the 16<sup>th</sup> century, while information regarding some settlements in Anatolia indicates that even modest households possessed coffee paraphernalia by the beginning of the 17<sup>th</sup> century (Faroqhi 1986: 89–90).

Back in the second part of the 16<sup>th</sup> century, some people in parts of Western Europe knew about coffee via individuals from the Ottoman Empire and the “Westerners” who resided there or were in any other way connected with that area for mercantile, political or other reasons (Винавер 1965: 335; van Driem 2019: 464). However, some time passed before coffee came into wider use, noticeable from the second part of the 17<sup>th</sup> century, when coffeehouses appeared in various parts of Europe, and especially in the 18<sup>th</sup> century, when coffee cultivation started in Asian, African, and American possessions of several Western European powers (van Driem 2019: 492–495). Due to the island's specific position and social situation, coffee and coffeehouses (1633) were introduced in Malta earlier than in the west of the European continent (Cutajar, Spiteri 2019: 42), where the first rare coffeehouses appeared around the mid-17<sup>th</sup> century.

In the early Modern period, the territory of present-day Croatia was under different rulers; however, keeping in mind the above-mentioned information, it can be assumed that coffee first appeared on the territory of the Ottomans or in the area in close relationship with them. Information about coffee and the existence of coffeehouses can be followed from the early 17<sup>th</sup> century (Винавер 1965: 333–340; Čelebi 1967: 516). In the case of Osijek, we know from written sources that in 1718, *Caffee Sieder* Johannes Manuck from Nakhchivan (Safavid Empire) was mentioned as a citizen of Tvrđa (Mažuran 1965: 92); he, according to Ivi Mažuran (1965: 52), “probably (...) opened a coffeehouse the same year”, since he was a coffeemaker, although we do not have any information about its existence, as emphasized by the author.<sup>8</sup> If not before, coffeehouses existed in Osijek by the late 18<sup>th</sup> century (Винавер 1965: 337).

<sup>8</sup> Iako je spomenut u germaniziranom/latiniziranom obliku, s obzirom na prezime (armen. մանուկ, manuk = dijete) i područje s kojeg dolazi, moguće je da je spomenuti Johannes armenskog porijekla.

<sup>8</sup> Although he is mentioned in Germanized/Latinized form, taking into account his last name (Armenian մանուկ, manuk = child) and the area from which he came, it seems possible that Johannes was of Armenian origin.

Druga važna prehrambena i trgovačka roba koja se konzumirala u obliku napitka, također porijeklom s istoka je čaj (lat. *Camellia sinensis*). Izvorno je s prostora zapadnih Himalaja (van Driem 2019: 20) a u Kini je za pripremu napitka uveden najkasnije do 4. stoljeća, isprva među pripadnicima viših slojeva stanovništva južne Kine, nešto kasnije na sjeveru dok je u široj upotrebi posebno od razdoblja dinastije Tang (van Driem 2019: 44–47).

Iz toga vremena je poznata knjiga o čaju, *Chajing* (Lu Yu, 780.) odnosno spomen konkretnih keramičarskih proizvoda (Yue kamenjača, Xing porculan) za njegovu konzumaciju (Kerr, Wood 2004: 152, 271; van Driem 2019: 54–57). U vremenu spomenute dinastije se ispijanje čaja proširilo u Koreju kao i Japan, gdje se nije dugo zadržalo. Tek nakon nekoliko stoljeća kada je čaj ponovno ušao u upotrebu, otvorena je i prva čajana na svijetu, u mjesto Uji (Kyoto) (van Driem 2019: 154–156, 166, 231), dok su se nešto kasnije, također u vremenu dinastije Song, čajane proširile i u Kini (van Driem 2019: 91). U pojedinim europskim izvorima čaj je spomenut od druge polovice 16. stoljeća (Volker 1954: 48–49; van Driem 2019: 245–247), dok je za početke „globalizacije čaja“ važan bio dolazak Portugalaca u Japan (van Driem 2019: 259–260) a nešto kasnije trgovina Nizozemske istočnoindijske kompanije (niz. *Vereenigde Oostindische Compagnie*, u nastavku VOC) i Istočnoindijske kompanije (eng. *East India Company*, u nastavku EIC). Posredstvom prvospomenute, u Europu je 1610. godine poslana manja količina japanskog a vrlo brzo i kineskog čaja (Volker 1954: 48; van Driem 2019: 315). Iako nije uživao popularnost kave, konzumacija čaja je zabilježena u Osmanskom Carstvu u 17. stoljeću, kako svjedoči Evliya Čelebija u slučaju Istanbula (Ayvazoğlu 2011: 149).

U Kini se za ispijanje čaja isprva koristila zdjelica (*chawan*) dok je u vremenu dinastije Ming bila popularna kombinacija šalice s poklopcem i tanjurićem (*gaiwan*) (van Driem 2019: 115). Od razdoblja spomenute dinastije češće su bile i male šalice (van Driem 2019: 96), oblikom usporedive s primjercima kineskog porculana i kvarcne keramike iz islamskog svijeta o kojima će više riječi biti u nastavku.

## Kineski porculan

Najpoznatiji dio povijesti plavo-bijelog stila vezan je uz porculan sa središtem proizvodnje u južnokineskom mjestu Jingdezhenu (Jiangxi), čija se afirmacija smješta u kasnije vrijeme vlasti

The second important alimentary and mercantile commodity, also consumed as a beverage and of Eastern origin, is tea (Lat. *Camellia sinensis*). Originally from the western Himalayas (van Driem 2019: 20), it was introduced as a beverage in China in the 4<sup>th</sup> century AD at the latest – first among the higher classes of south China and later in the north – while its widespread use started at the time of the Tang dynasty (van Driem 2019: 44–47).

The period produced a famous book about tea, *Chajing* (Lu Yu, 780), as well as the mention of concrete ceramic products (Yue stoneware, Xing porcelain) for its consumption (Kerr, Wood 2004: 152, 271; van Driem 2019: 54–57). During the Tang dynasty, tea drinking spread in Korea and Japan, where the custom then mostly vanished. When tea was reintroduced a few centuries later, the world's first teahouse opened in Uji (Kyoto) (van Driem 2019: 154–156, 166, 231); somewhat later, in the Song dynasty era, teahouses spread in China (van Driem 2019: 91). Some European sources mention tea in the second part of the 16<sup>th</sup> century (Volker 1954: 48–49; van Driem 2019: 245–247), while the Portuguese arrival in Japan was important for the “globalization of tea” (van Driem 2019: 259–260); later trade was facilitated by the Dutch East India Company (Nl. *Vereenigde Oostindische Compagnie*, VOC) and the British East India Company (EIC). By means of the VOC, a small amount of Japanese tea reached Europe in 1610, followed by Chinese tea (Volker 1954: 48; van Driem 2019: 315). Although not as popular as coffee, tea was consumed in 17<sup>th</sup> century Ottoman Istanbul, as reported by Evliya Çelebi (Ayvazoğlu 2011: 149).

At first, a bowl (*chawan*) was used for tea drinking; in the Ming era, a combination of a lidded cup with a saucer (*gaiwan*) was popular (van Driem 2019: 115). From that dynasty era, smaller cups gained popularity (van Driem 2019: 96). Examples of Chinese porcelain and stonepaste of similar shape from the Islamic world are discussed in the following text.

## Chinese porcelain

The most widely known part of the history of the blue-and-white style is related to the porcelain produced in Jingdezhen (Jiangxi) in south China, which came to prominence in the later part of the rule of the Mongol Yuan dynasty. Two altar vases from Percival David's collection, dated to 1351, hold a central place among the “fourteenth-century blue-and-white porcelain”,

mongolske dinastije Yuan. Središnje mjesto kod „plavo-bijelog porculana iz 14. st.“, kako ga naziva John Pope, imaju dvije oltarne vaze iz kolekcije Percivala Davida, datirane u 1351. godinu, (Pope 1952; 1981: 59–81). Iako bez kontinuiteta upotrebe, sličan stil je u rijetkim primjercima poznat i ranije. Kada je u pitanju porculan, najstariji i rijetki primjerci dekorirani plavom bojom ispod glazure, zabilježeni su na nekim lokalitetima u provinciji Zhejiang još u 10. stoljeću odnosno vremenu Sjeverne dinastije Song (Kerr, Wood 2004: 674), dok je povijest starijih primjeraka sličnog stila na kamenjači, isprepletana između Kine u kasnijem vremenu dinastije Tang (618. – 907.) i prostora današnjeg Iraka, tada u okviru abasidskog kalifata. Prethodno je na sjeveru Kine, za razliku od tradicionalnih proizvoda sa zelenom glazurom, unaprijeđena proizvodnja u Xingu (Hebei), rezultirala pojavom bijele kamenjače, u ranom 7. stoljeću i prvog svjetskog porculana (Kerr, Wood 2004: 143). Tamošnji utjecaj je bio važan kod uspostave najranije proizvodnje porculana na jugu, također razvijenog iz kamenjače, u vremenu Pet dinastija odnosno u ranom 10. stoljeću (Kerr, Wood 2004: 550). Najvažnije radionice su se nalazile u i oko spomenutog mjesta Jingdezhen, čiji su proizvodi vrlo brzo pronašli tržište i na Bliskom istoku (Kerr, Wood 2004: 214). Tamošnji porculan je od najranije faze proizvodnje rađen od jedne sirovine, kaoliniziranog porculanskog kamena pripremljenog u obliku opeke (*petuntse/baidunzi*) i sastavljenog uglavnom od kvarca, tinjca te kaolina, dok se najkasnije od vremena dinastije Yuan, recept promijenio i podrazumijevao kombinaciju nekaoliniziranog porculanskog kamena i kaolina (Tite et al. 1984; Kerr, Wood 2004: 219–220, 229).

Nakon mongolskog sloma i uspostave vlasti kineske dinastije Ming (1368. – 1644.), plavo-bijeli porculan je dobio poseban status. Iako se od toga vremena kineski keramičarski proizvodi pronalaze u većem broju na drugim područjima, u više navrata je njegov izvoz značajno ograničavan od strane službene vlasti. Unatoč činjenici da je kineskih keramičarskih proizvoda na europskom tlu bilo i prije, porculan je u nešto većem no i dalje u niskom broju, zabilježen od posljednjeg stoljeća srednjeg vijeka (Whitehouse 1972; Guttiérrez et al. 2021). Obično je riječ bila o diplomatskom poklonu iz islamskog svijeta te su takvi primjerci bili ograničeni na veoma uski krug ljudi, poput pripadnika firentinske obitelji Medici, koja je imala jednu od

as John Pope calls it (Pope 1952; 1981: 59–81). A similar style was sometimes documented in earlier times, but without continuity. When it comes to porcelain, the oldest rare examples with underglaze blue decoration come from several sites in the Zhejiang province dated to the 10<sup>th</sup> century, the Northern Song dynasty era (Kerr, Wood 2004: 674); the history of older Chinese stoneware examples in similar style combines late Tang China (618–907) and the territory of present-day Iraq, which was part of the Abbasid Caliphate at the time. Earlier, in north China, the traditional green-glazed examples gave way to improved production in Xing (Hebei), resulting in the introduction of white stoneware, which was followed in the early 7<sup>th</sup> century by the world's first porcelain (Kerr, Wood 2004: 143). The influence from the north was important for the production of the earliest porcelain in the south, also developed from stoneware, in the Five Dynasties period in the early 10<sup>th</sup> century (Kerr, Wood 2004: 550). The principal workshops were located in and around Jingdezhen; their products very quickly reached the Middle Eastern markets (Kerr, Wood 2004: 214). From the earliest times, the porcelain there was produced from a single kaolinized porcelain stone prepared in bricks (*petuntse/baidunzi*) and composed mostly of quartz, mica, and kaolin; by the Yuan era, the recipe changed and combined non-kaolinized porcelain stone with kaolin (Tite et al. 1984; Kerr, Wood 2004: 219–220, 229).

After the fall of Mongol rule and the establishment of the Chinese Ming dynasty (1368–1644), blue-and-white porcelain was given special status. From that time, Chinese ceramics were present in significant numbers in other areas, but their export was significantly limited by state officials on several occasions. Even though Chinese ceramics were present on European soil before, porcelain was documented in slightly higher (although still low) numbers from the last century of the Middle Ages (Whitehouse 1972; Guttiérrez et al. 2021), usually as diplomatic gifts from the Islamic world and confined to a narrow group of people, like the members of the Medici family from Florence, who acquired one of the most prolific collections (Liverani 1936; Whitehouse 1972: 76; Wilson 1993: 234). A significant number of porcelain objects reached the Old Continent in the Early Modern period by the new sea routes to the East. The first century

najvećih kolekcija (Liverani 1936; Whitehouse 1972: 76; Wilson 1993: 234). Do značajnijeg prisustva porculana na Starom kontinentu došlo je početkom novoga vijeka i uspostave novih pomorskih ruta prema istoku. Prvo stoljeće su obilježili Portugalci koji su uvozili velike količine porculana na domaće tržište dok su do kraja 16. stoljeća i druge europske sile s ciljem sudjelovanja u trgovini s istokom, osnovale svoje istočnoindijske kompanije. Najvažnije su bile engleska (1600., EIC) kasnije britanska te nizozemska (1602., VOC). Upravo je posljednja pokrenula pravu pomamu za porculanom u Europi, zahvaljujući aukcijama zaplijenjenog tereta s nekoliko portugalskih karaka s početka 17. stoljeća (Volker 1954: 22–23). Od tada se porculan proširio Europom kao nikada prije a Nizozemci su kroz prvu polovicu 17. stoljeća postali vodeća zapadna trgovačka sila na istoku. U međuvremenu su se u Kini intenzivirali sukobi sa sjevernim susjedima odnosno njihovi prodori u unutrašnjost Carstva, koji su rezultirali uspostavom vlasti mandžurske dinastije Qing (1644. – 1912.). Nakon zauzeća Pekinga (1644.), osvajanja su nastavljena i u narednim desetljećima sve do 1683. godine i pada Tajvana u ruke pripadnika nove dinastije.

Takav slijed događaja se odrazio i na keramičarsku proizvodnju u Jingdezhen u koji je zbog preusmjerenja sredstava izgubio carsko pokroviteljstvo, što je dovelo do migracije majstora u privatne radionice i pojave tzv. prijelaznog stila od dvadesetih i tridesetih godina 17. stoljeća (Kilburn 1981: 13; Little 1983: 1). Malo je informacija o proizvodnji u Jingdezhen u vremenu nakon 1644. godine sve do njene normalizacije 1683. godine. Iako određene informacije upućuju na postojanje okrnjene proizvodnje sa zaustavljanjima bar u dijelu toga razdoblja (Kilburn 1981: 14–15; Little 1983: 1–3, 16–20; Kerr 1986: 14–19; Golombek, Reilly 2014: 26), prazninu na tržištu poput europskog, na koja su prethodno u velikim količinama plasirani kineski proizvodi, VOC je nastojao popuniti porculanom „u kineskom stilu“ iz japanskih radionica (od 1659. godine) te perzijskom kvarcnom keramikom (Volker 1954: 59; Klose 1993: 71; Golombek, Reilly 2014: 28). Pisani izvori VOC-a svjedoče kako je u Europu od 1602. do 1654. godine njihovim posredstvom stiglo više od tri milijuna primjeraka kineskog porculana (Volker 1954: 227), barem kada je riječ o službenim podacima. S druge strane, japanski porculan je od 1659. do 1682. godine uvezen u puno manjoj količini, od oko 190 000 primjeraka

of the period was marked by the Portuguese, who imported porcelain in great quantities for the domestic market, while by the end of the 16<sup>th</sup> century other European powers established their East India companies to participate in eastern trade. The most significant of those were the English (1600, EIC) – later the British – and the Dutch (1602, VOC). The latter started a porcelain craze in Europe due to auctions of the cargo from a few Portuguese carracks at the beginning of the 17<sup>th</sup> century (Volker 1954: 22–23). From that time, porcelain spread throughout Europe like never before and the Dutch became the leading Western mercantile power in the East through the first half of the 17<sup>th</sup> century. In the meantime, conflicts of China with its northern neighbors intensified, as well as their incursions into Chinese territory, which resulted in the establishment of Manchu Qing dynasty rule (1644–1912). After Beijing (1644), territorial gains continued in the following decades, until the fall of Taiwan into the hands of the new dynasty in 1683.

Such a turn of events had an impact on ceramic production in Jingdezhen. Due to the redirection of funds, the imperial sponsorship was lost, which forced a migration of workers towards private workshops and the appearance of the “transitional” style in the 1620s and 1630s (Kilburn 1981: 13; Little 1983: 1). There is a lack of information about the production in Jingdezhen from 1644 to the normalization in 1683. Although several indicators point to intermittent reduced production at least in a part of that period (Kilburn 1981: 14–15; Little 1983: 1–3, 16–20; Kerr 1986: 14–19; Golombek, Reilly 2014: 26), there was a market hiatus in Europe, where Chinese ceramics were exported in huge quantities, which VOC tried to fill with Japanese porcelain “in the Chinese style” (from 1659) and with Persian stonepaste (Volker 1954: 59; Klose 1993: 71; Golombek, Reilly 2014: 28). Dutch written sources attest that more than three million vessels of Chinese porcelain were imported by VOC to Europe from 1602 to 1654 (Volker 1954: 227), at least when it comes to official numbers. On the other hand, the import of Japanese porcelain was somewhat modest compared to China, with around 190,000 from 1659 to 1682 (Volker 1954: 172); Persian pottery was even less numerous, with around 1600 examples reaching Batavia yearly until 1683 – around 40,000 in a quarter of a century (Volker 1954: 116). Part of that number was destined

(Volker 1954: 172) a još je skromniji broj perzijske keramike, koja je u Bataviju do 1683. godine stizala u svega oko 1600 primjeraka godišnje odnosno 40 000 u četvrt stoljeća (Volker 1954: 116). Dio tog broja je slan u druge dijelove jugoistočne Azije dok je pomorskom rutom prema zapadu preko južnoafričke obale, perzijska keramika stizala u nizozemske luke (Volker 1954: 113–116). Nakon snažnog povratka kineskog porculana na europsko tržište nakon 1683. godine, još neko vrijeme je tamo izvožen i japanski porculan (Crowe 2002: 169), čini se i perzijska keramika (Lane 1957: 76, 110) no već je nekoliko desetljeća kasnije, razvoj prvog europskog porculana odnosno uspostava njegove komercijalne proizvodnje (1710.), utjecala na smanjenje keramičarskih proizvoda s Dalekog istoka na europskom tlu kroz naredno vrijeme (Kerr, Wood 2004: 747).

Dosad je iz arheološkog konteksta s hrvatskih lokaliteta (karta 2) objavljen manji broj posuda, najčešće šalice, interpretiranih kao kineski porculan (Barilović: Krmpotić 2014: 80, kat. br. 281; Bisaga: Brusić 1987; Dubrovnik: Milošević, Topić 2010: 148, n. 1; Topić, Milošević 2018: 15, Pl. IV: 5–6; Ilok: Rimpf 2017: 429, kat. br. 4, sl. 14; 2020: 63, kat. br. 77; Korodvar: Radić 2015: 65, kat. br. 125; Osijek: Radić 2015: 63–64, 66, kat. br. 118–121, 126; 2017: 78, kat. br. 21; Ružica: Radić, Bojčić 2004: 216–217, kat. br. 434–437). Najveći broj takvih nalaza dolazi iz Osijeka. Ulomak šalice s Križanićevog trga (Radić 2015: 63, kat. br. 118; 2017: 78, kat. br. 21) pripada porculanu iz vremena cara Kangxija kojeg karakterizira („batavijsko“) smeđa caklina s vanjske i prikaz pejzaža s unutrašnje strane, izveden kobaltno plavom bojom. Takav je stil karakterističan od vremena spomenutog cara, posebno od kasnog 17. stoljeća i u narednom 18. stoljeću (Li 2012), kada je imitiran u pojedinim europskim i radionicama islamskog svijeta (Crowe 1996: 314; Trzeciecki 2021: sl. 2: 1). Osim smeđe, u vremenu dinastije Qing su bile karakteristične i glazure u nekoliko drugih boja dobivenih na temelju oksida željeza (Kerr 1986: 81–86; Martin 1993: 84). Tome kontekstu, odnosno Kangxijevom vremenu, pripada i šalice sa suptilnom zelenom („celadon“) glazurom s vanjske i plavom dekoracijom s unutrašnje strane (Radić 2015: 63, kat. br. 119). Kineski porculan se spominje kao teret brodoloma kod Bisage u kornatskom arhipelagu, no čini se da je, s obzirom na izgled, kvalitetu i opis, samo jedna šalice od objavljenih uistinu porculanska, ona za koju je navedeno da je „od vrlo kvalitetnog porculana“ i koja ima dekoraciju u prijelaznom stilu 17. stoljeća

for other areas in southeast Asia, while Persian pottery reached Dutch harbors over the western sea route via Cape in South Africa (Volker 1954: 113–116). After the strong comeback of Chinese porcelain on the European market after 1683, it seems that Japanese porcelain was still imported for some time (Crowe 2002: 169) along with Persian pottery (Lane 1957: 76, 110), but a few decades later, the development of first European porcelain and its commercial production (1710) resulted in diminishing numbers of Far East ceramics on European soil in the following period (Kerr, Wood 2004: 747).

Only a small number of vessels, usually cups, from Croatian sites (Map 2), found in archaeological contexts and interpreted as Chinese porcelain, have been published (Barilović: Krmpotić 2014: 80, cat. no. 281; Bisaga: Brusić 1987; Dubrovnik: Milošević, Topić 2010: 148, n. 1; Topić, Milošević 2018: 15, Pl. IV: 5–6; Ilok: Rimpf 2017: 429, cat. no. 4, Fig. 14; 2020: 63, cat. no. 77; Korodvar: Radić 2015: 65, cat. no. 125; Osijek: Radić 2015: 63–64, 66, cat. nos. 118–121, 126; 2017: 78, cat. no. 21; Ružica: Radić, Bojčić 2004: 216–217, cat. nos. 434–437). The largest number of such finds comes from Osijek. The cup fragment from Križanić Square (Radić 2015: 63, cat. no. 118; 2017: 78, cat. no. 21) belongs to the Kangxi porcelain characterized by (“Batavian”) brown glaze on the outside and cobalt-blue painted landscape decoration on the inside. That style was in use from the Kangxi era, especially in the late 17<sup>th</sup> and the 18<sup>th</sup> century (Li 2012), when imitations appeared in several European and Islamic workshops (Crowe 1996: 314; Trzeciecki 2021: Fig. 2: 1). Next to the brown glaze, glazes in several other iron oxide colors were used in the Qing era (Kerr 1986: 81–86; Martin 1993: 84). A cup with a subtle green (“celadon”) glaze on the outside and blue painted decoration on the inside belongs to that context (Radić 2015: 63, cat. no. 119). Chinese porcelain was mentioned as the cargo of a ship that sank near Bisaga, in the Kornati archipelago, but appearance, quality and description indicate that only one published cup was of porcelain: the one described as being “of high-quality porcelain” and with a decoration in the transitional style from the 17<sup>th</sup> century (Brusić 1987: 484, Pl. III: 6; X: 1–4). Other examples “of light-yellow porcelain” should be interpreted in the light of the information that mentioned possible production in Kütahya (Gelichi 2014: 33), which should await detailed publication, especially since the excavations on the site have continued in

(Brusić 1987: 484, T. III: 6; X: 1–4). Ostale primjerke „od svjetložutog porculana“ valja gledati u svjetlu informacije o mogućoj kutahijskoj provenijenciji (Gelichi 2014: 33), o čemu svakako treba pričekati detaljniju publikaciju, posebno s obzirom na to da je lokalitet istraživao u više navrata u novije vrijeme. Kao kineski porculan je opisano nekoliko ulomaka iz Ružice (Radić, Bojčić 2004: 216–217, kat. br. 434–437; Radić 2015: 64–65, kat. br. 122–124), od kojih je jedan primjerak, s obzirom na lošiju kvalitetu, povezan s „lokalnim radionicama“ (Radić, Bojčić 2004: 216, kat. br. 434). Grubljem porculanu iz provincijalnih radionica, od kojih su najpoznatiji proizvodi iz mjesta Zhangzhou (Fujian), pripisan je tek manji broj nalaza s europskih lokaliteta. Arheološki podaci ukazuju na prisustvo takvih primjeraka u Nizozemskoj (Amsterdam, Lisse, Middelburg: Ostkamp 2014: 63, sl. 9, 24–26) i Engleskoj (London: Killock, Meddens 2005: 39), iako pojedini autori ističu kako grublji porculan iz Zhangzhoua, s VOC-ovih brodova, nije bio dio tereta već privatni posjed mornara (Ketel 2012: 123; Ostkamp 2014: 73). Ako primjerak iz Ružice pripada porculanu, treba također reći kako kvaliteta proizvoda iz Jingdezhen nije bila jednaka kroz cijelo razdoblje u koje su datirani ovdje spomenuti nalazi. Iako je navedeno da je ulomak šalice azijskog porculana s („batavijsko“) smeđom caklinom iz Barilovića pronađen u sloju iz 17. stoljeća (Krpmotić 2014: 80, kat. br. 281), njegova dekoracija je usporediva s primjercima iz ranijeg vremena vlasti cara Qianlonga (1735. – 1796.) (Søndergaard Kristensen 2014: 163, sl. 7: 5.2). Ulomak iz Iloka je opisan kao kineski porculan i datiran u 16. – 17. stoljeće (Rimpf 2017: 429, kat. br. 4, sl. 14), no čini se da je „nejasan motiv“ na njegovom dnu *lanterna* odnosno prikaz svjetionika luke u Genovi. Senat Republike je 1641. godine dopustio upotrebu toga motiva kao oznake proizvodnje majolike u Albisola (*manifattura Grosso*) odnosno 1698. godine u Savoni (*manifattura Chiodo/Chiodo-Peirano*) (Ferrarese 1968: 277). S druge strane, poznato je kako su se u Kini proizvodili proizvodi po uzoru na one iz europskih radionica. Također, posebne narudžbe vezane uz dekorativne motive ili oblike zabilježene su još od prve polovice 16. stoljeća i vremena portugalske pomorske dominacije, dok su se povećale od vremena nizozemske prevlasti na istoku (Volker 1954: 27–28, bilj. 10; Kilburn 1981: 43; Little 1983: 8–10; Ketel 2012: 102; Kerr, Mengoni 2011: 10–13, 39). I dalje je prevladavala dekoracija u kineskom stilu dok je europska postala češća od kraja 17. stoljeća (Little

recent times. A few fragments from Ružica were designated as Chinese porcelain (Radić, Bojčić 2004: 216–217, cat. nos. 434–437; Radić 2015: 64–65, cat. nos. 122–124), and one of them was interpreted as a product of “local workshops” in China due to its inferior quality (Radić, Bojčić 2004: 216, cat. no. 434). Only a small number of vessels from European sites were attributed to coarser porcelain from provincial workshops, Zhangzhou (Fujian) being the most prominent among them. Archaeological data illustrates their presence in the Netherlands (Amsterdam, Lisse, Middelburg: Ostkamp 2014: 63, Fig. 9: 24–26) and England (London: Killock, Meddens 2005: 39), although some authors emphasize that coarse porcelain from Zhangzhou, from VOC ships, was not part of the cargo but a personal possession of sailors (Ketel 2012: 123; Ostkamp 2014: 73). If the example from Ružica belongs to porcelain, it should be said that products from Jingdezhen, from the time to which these finds were dated, were not always of the same quality. Although it was stated that a fragment of an Asian porcelain cup with (“Batavian”) brown glaze from Barilović was found in a 17<sup>th</sup>-century layer (Krpmotić 2014: 80, cat. no. 281), its decoration is comparable to the examples from the earlier Qianlong era (1735–1796) (Søndergaard Kristensen 2014: 163, Fig. 7: 5.2). A fragment from Ilok was described as Chinese porcelain and dated to the 16<sup>th</sup>–17<sup>th</sup> century (Rimpf 2017: 429, cat. no. 4, Fig. 14), but it seems that the “illegible motif” on the bottom is a *lanterna*, a depiction of a lighthouse in Genoa. The Senate of the Republic granted the use of that motif as a workshop mark to a maiolica workshop in Albisola (*manifattura Grosso*) in 1641 and to a workshop in Savona (*manifattura Chiodo/Chiodo-Peirano*) in 1698 (Ferrarese 1968: 277). On the other hand, it is known that there were Chinese renditions of European vessels. Also, special orders regarding decoration or shapes were documented from the first part of the 16<sup>th</sup> century and the time of the Portuguese maritime dominance, increasing during the time of the Dutch dominance in the east (Volker 1954: 27–28, n. 10; Kilburn 1981: 43; Little 1983: 8–10; Ketel 2012: 102; Kerr, Mengoni 2011: 10–13, 39). Still, Chinese-style decorations prevailed, while European decorations started to appear more often in the late 17<sup>th</sup> century (Little 1983: 10). Since pottery from north and central Italy appeared in smaller numbers in various sites in eastern Croatia after the Ottoman rule collapsed, the fragment from Ilok can be placed



1983: 10). S obzirom na činjenicu da se nakon pada osmanske vlasti na raznim istočnohrvatskim lokalitetima u manjem broju pojavljuje keramika iz sjeverne i srednje Italije, ako je ligurske proizvodnje, moguće je iločki primjerak smjestiti u taj kontekst.<sup>9</sup> Kao kineski porculan je opisan još jedan ulomak posude nepoznatog oblika iz lloka (Rimpf 2020: 63, kat. br. 77). S obzirom na njegove karakteristike, prvenstveno dekoraciju, moguće je kako je riječ o kvarcnoj keramici iz islamskog svijeta, prvenstveno osmanskoj. Jedan primjerak iz Dubrovnika, prema opisu ima oznaku cara Xuandea (1425. – 1435.), „što posudu datira između 1425. – 1435. godine“ (Milošević, Topić 2010: 148, bilj. 1). Takvu preliminarnu interpretaciju treba uzeti s rezervom iz više razloga. Kao što je već rečeno, za razliku od prijašnjeg razdoblja, plavo-bijeli porculan je od vremena dinastije Ming dobio poseban status. Njegova izrada je regulirana i u ranom razdoblju bila gotovo u potpunosti namijenjena carskoj upotrebi. Car Hongwu je još oko 1371. godine zabranio pomorsku trgovinu, uz zakon donesen 1393. godine, koja je od sada trebala biti vođena isključivo službenim državnim kanalima i preko sustava tributa (van Driem 2019: 309), poput poznatih pomorskih ekspedicija koje je vodio Zheng He početkom 15. stoljeća. Također je važno istaknuti kako je porculan s oznakama vladara, u upotrebi od vremena cara Yonglea (1402. – 1424.), iz početnog vremena njihovog korištenja, bio visoke kvalitete izrade i u pravilu namijenjen upotrebi najvišeg društvenog sloja a ne izvozu (Krahl 1986: 103). S obzirom na navedeno, postoji mogućnost da dubrovački primjerak nije iz vremena spomenutog cara, već izrađen kasnije. Poznato je kako je stil iz razdoblja cara Xuandea u upotrebi ostao i u određenom vremenu nakon njegove smrti, posebice oznaka s njegovim imenom (Krahl 1986: 106, bilj. 22; Valenstein 1989: 165–167). Tako je, kao i neke druge oznake, korištena u kasnijem vremenu vlasti dinastije Ming te naredne dinastije Qing (Pope 1981: 123–124, 128–129, 133, 136, T. 77; 98; Krahl 1986: 106–107; Kerr 1986: 44). Budući da su slični primjerci zabilježeni u našem susjedstvu (Budim, Eger: Komori 2017: 61, 125–128, sl. 38), ne bi trebala iznenaditi njihova pojava i na hrvatskim lokalitetima. Tanjurić i zdjela iz Dubrovnika (Topić, Milošević 2018: 15, T. IV: 5–6) pripadaju ranijem vremenu vlasti dinastije Qing a ujedno su i rijetki

in that context if it is of Ligurian origin.<sup>9</sup> One more fragment of an unknown shape from llok was described as Chinese porcelain (Rimpf 2020: 63, cat. no. 77). Due to its characteristics, primarily decoration, the fragment may belong to Islamic stonepaste, primarily Ottoman. One example from Dubrovnik was described as having a Xuande reign mark (1425–1435), “which dates the vessel between 1425–1435” (Milošević, Topić 2010: 148, n. 1). This preliminary interpretation should be taken with a grain of salt for various reasons. As already stated, unlike the previous period, blue-and-white porcelain gained special status in the Ming era. Its production was regulated and almost exclusively intended for imperial use in the early years. Around 1371, the Hongwu Emperor forced a ban on sea trade, and under the law of 1393 it had to be conducted through the official state channels and tribute system (van Driem 2019: 309), like in the case of the famous naval expeditions of Zheng He at the beginning of the 15<sup>th</sup> century. It is also important to emphasize that porcelain with reign marks (in use since the Yongle era, 1402–1424) was initially of high quality and usually intended for use by the highest class of society and not for export (Krahl 1986: 103). Considering this, it is possible that the fragment from Dubrovnik was not of a Xuande date but manufactured later. We know today that decorative style from the Xuande era remained in use even after the emperor’s death, especially his reign mark (Krahl 1986: 106, n. 22; Valenstein 1989: 165–167). Xuande, as well as some other reign marks, were used in later Ming and Qing eras (Pope 1981: 123–124, 128–129, 133, 136, Pl. 77; 98; Krahl 1986: 106–107; Kerr 1986: 44). Since similar examples have been documented in our neighborhood (Buda, Eger: Komori 2017: 61, 125–128, Fig. 38), their appearance on Croatian sites should not be surprising. A saucer and a bowl from Dubrovnik (Topić, Milošević 2018: 15, Pl. IV: 5–6) belong to the early Qing era. They are also rare examples of shapes that do not belong to cups. A few more examples from Osijek were interpreted as porcelain, but from Persia, and dated to the 17<sup>th</sup>–18<sup>th</sup> century (Horvat, Biondić 2007: 44–50, cat. nos. 8, 18–20, 23). We will return to them in the next chapter.

To the already published Chinese porcelain, we can add seven examples of cups with underglaze

<sup>9</sup> Dosada objavljeni nalazi se često mogu povezati s proizvodnjom u pokrajinama Marche i Abruzzo (usp. Osijek: Horvat, Biondić 2007: 40–41, kat. br. 3–7 i Leleković 2018: 40, slika gore; Virovitica: Salajić 2008: 104; Đakovo: Šunjić, Sinobad 2018: 26, sl. 5.18).

<sup>9</sup> The published finds can often be associated with the workshops in Marche and Abruzzo regions (cf. Osijek: Horvat, Biondić 2007: 40–41, cat. nos. 3–7, and Leleković 2018: 40, upper photo; Virovitica: Salajić 2008: 104; Đakovo: Šunjić, Sinobad 2018: 26, Fig. 5.18).



Karta 2 – Lokaliteti kineskog porculana i kutahijske keramike (izradio: M. Matković, 2023.; izvor: OpenStreetMap, Creative Commons Attribution-ShareAlike 2.0 license, CC BY-SA 2.0; Created with Datawrapper)

Map 2 – Findspots of Chinese porcelain and Kütahya pottery (made by: M. Matković, 2023; source: OpenStreetMap, Creative Commons Attribution-ShareAlike 2.0 license, CC BY-SA 2.0; Created with Datawrapper)

primjerci oblika koji ne pripadaju šalicama. Još nekoliko primjeraka iz Osijeka je interpretirano kao porculan, ali iz Perzije, uz dataciju u 17. – 18. stoljeće (Horvat, Biondić 2007: 44–50, kat. br. 8, 18–20, 23), o čemu više u narednom poglavlju.

Dosada poznatim primjercima kineskog porculana možemo pridodati još sedam primjeraka šalice dekoriranih kobaltno plavom bojom ispod glazure, koje možemo datirati u 17. – 18. stoljeće (T. 1: 1–7). Čini se da je najstariji među njima primjerak (T. 1: 1), koji se prema dekorativnom stilu može datirati u prvu polovicu 17. stoljeća. Sljedeća šalice (T. 1: 2) je nešto robusnijeg izgleda, odnosno debljih stijenki, od tipičnih primjeraka porculana među novim materijalom iz Osijeka. Razlikuje se i po konturnoj lotus i lingzhi dekoraciji koja je karakteristična za porculan namijenjen izvoz u vremenu kasne dinastije Ming i spomenutog cara Kangxija (1662. – 1722.) (Lane 1957: 96). U njegovo su vrijeme datirane šalice sličnog stila

cobalt-blue decoration from the 17<sup>th</sup>–18<sup>th</sup> century (Pl. 1: 1–7). It seems that the oldest example among them (Pl. 1: 1) can be dated to the first part of the 17<sup>th</sup> century based on its decorative style. The following cup (Pl. 1: 2) is of somewhat robust shape with thicker walls than the typical examples of the new material from Osijek. This example is also differentiated by the contour lotus and lingzhi decoration which is characteristic of late Ming and Kangxi export porcelain (1662–1722) (Lane 1957: 96). Cups of similar style from Eger (Hungary) have been dated to the time of that emperor (Komori 2017: 84–85; Fig. 51; 2019: 173, Fig. 6: 1). A fragment (Pl. 1: 3) decorated with a similar floral composition is also from the Qing era. Most of the fragments have monochrome glaze (brown, green) on the outside and a blue decoration on the inside (Pl. 1: 4–7), a style that was already discussed earlier in this text. We should emphasize one fragment (Pl. 1: 7)

iz Egera (Mađarska) (Komori 2017: 84–85: sl. 51; 2019: 173, sl. 6: 1). Iz vremena dinastije Qing je i primjerak (T. 1: 3) ukrašen sličnom vegetabilnom dekoracijom. Većina ulomaka ima jednobojnu glazuru (smeđa, zelena) s vanjske i plavom bojom izvedenu dekoraciju s unutrašnje strane (T. 1: 4–7), stilu o kojemu je već bilo riječi u prethodnom dijelu teksta. Valja istaknuti ulomak (T. 1: 7) s dijelom duboko urezane dekoracije izvedene *post cocturam* preko smeđe cakline, u tehnici karakterističnoj za staklarske radionice srednje i sjeverne Europe (Martin 1993: 88; Espir 2005: 57). Spomenuta informacija je ujedno važna za rekonstrukciju puta kojim je materijal ovoga tipa stizao na osječko područje nakon pada osmanske vlasti (1687.).

## Kvarcna keramika iz islamskog svijeta

Nakon sjeverne i prije pojave u južnoj Kini, lokalna proizvodnja porculana se razvila u Koreji, u 9. stoljeću, što je ujedno bila i jedina proizvodnja izvan Kine sve do kraja 16. odnosno početka 17. stoljeća kada se porculan počeo proizvoditi i u Japanu (Kerr, Wood 2004: 719–720). Za razliku od Dalekog Istoka, majstori iz islamskog svijeta, odnosno zapadne Azije i sjeverne Afrike, s obzirom na nedostupnost sirovina i nepoznavanje tehnologije, nisu mogli proizvesti porculan. U tome kontekstu se često interpretira uvođenje neprozirnog bijelog, često kositrenog premaza na proizvodima od obične keramike, zabilježeno od 8./9. stoljeća i moguće inspirirano bijelim izgledom kineskih proizvoda, iako je prethodno na tome području postojala tradicija neprozirnih premaza (Mason, Tite 1997; Watson 2004; Priestman 2011; Matin et al. 2018), slično kao i pojava unaprijedene strukture nekoliko stoljeća kasnije, razvijene na temelju dostupnih sirovina i lokalne tradicije (Mason, Tite 1994; Watson 1999; Tite et al. 2011), koju ovdje nazivamo kvarcnom keramikom. Za njenu izradu se, prema poznatom zapisu Abu'l Qasim Kašanija iz 1301. godine, koristio smrvljeni kvarc, staklena fritta i bijela glina u omjeru 10 : 1 : 1 (Allan 1973: 111–120), recept koji je manje ili više nepromijenjen zadržan do modernog vremena (Mason, Tite 1994: 77–78). Najstariji primjeri prave kvarcne keramike su u većoj količini zabilježeni u fatimidskom Egiptu od druge faze razvoja, datirane oko 1025. do 1075. godine (Mason, Tite 1994), dok je tehnika u posljednjoj četvrtini 11. stoljeća bila poznata u sirijskom i perzijskom dijelu Seldžučkog Carstva (Tonghini 1997; Rugiadi 2011). Na istim je prostorima u tome vremenu, uz kvarcnu keramiku,

with a deeply incised *post cocturam* decoration made over the brown glaze. This technique is characteristic of glass workshops in central and north Europe (Martin 1993: 88; Espir 2005: 57), which is important for the reconstruction of the trade routes which were used to transport material of this type to the Osijek area after the fall of Ottoman rule (1687).

## Stonepaste from the Islamic world

After North China, local porcelain production appeared in Korea from the 9<sup>th</sup> century, even earlier than in South China; it was also the only production outside China until the end of the 16<sup>th</sup> and the beginning of the 17<sup>th</sup> century, when porcelain production started in Japan (Kerr, Wood 2004: 719–720). Unlike the Far East, Islamic ceramists from West Asia and North Africa were not able to produce porcelain, due to the unavailability of raw materials and production technology. The introduction of opaque white and often tin glaze on earthenware from the 8<sup>th</sup>/9<sup>th</sup> century is usually interpreted in this context, since it could have been inspired by the white appearance of Chinese products, although there was a tradition of opaque glazes in that region (Mason, Tite 1997; Watson 2004; Priestman 2011; Matin et al. 2018), as well as the development of pottery structure a few centuries later, based on the available raw materials and local tradition (Mason, Tite 1994; Watson 1999; Tite et al. 2011), which was designated here as stonepaste. According to the recipe of Abu'l Qasim Kashani from 1301, stonepaste was produced from crushed quartz, glassy fritta, and white clay, in a 10:1:1 ratio (Allan 1973: 111–120), which remained more or less the same and was in use until modern times (Mason, Tite 1994: 77–78). The oldest examples of true stonepaste in somewhat higher numbers appeared in Fatimid Egypt from the second phase of its development, dated around 1025 until 1075 (Mason, Tite 1994), while the technique was known in the last quarter of the 11<sup>th</sup> century in the Syrian and Persian part of the Seljuk Empire (Tonghini 1997; Rugiadi 2011). In the same area at that time, underglaze-painted decoration appeared alongside stonepaste production (Tonghini 1997; Rugiadi 2011).

This technology of pottery production and decoration was used after the affirmation of Chinese blue-and-white for pottery production in a similar style, which developed in various parts

razvijena i tehnika slikanja ispod glazure odnosno prije njenog nanošenja (Tonghini 1997; Rugiadi 2011).

Takav način izrade i dekoracije korišten je, nakon afirmacije kineskog plavo-bijelog porculana, za proizvodnju keramike u sličnom stilu, koja se razvila u različitim dijelovima islamskog svijeta do kraja 14. stoljeća (Lane 1957: 29; Carswell 1985: 32). Kada je Osmansko Carstvo u pitanju, tome kontekstu pripadaju plavo-bijele pločice u tehnici kvarcne keramike s dekoracijom ispod glazure s početka 15. stoljeća iz Muradije u Edirni (Lane 1957: 42–43). Većina ukrašenih pločica iz spomenute džamije ima dekoraciju iznad glazure i pripada specifičnom višebojnom („timurskom“) stilu koji kombinira perzijske i kineske motive, vezanom uz „tabriške majstore“ (perz. *ostādān-e Tabriz*), grupe poznate ranije iz Zelenog kompleksa u Bursi, koji su vjerojatno nakon smrti Timura, emigrirali iz njegova Carstva (Lane 1957: 41–43). Krajem istoga stoljeća, pod pokroviteljstvom osmanskog dvora, pojavila se proizvodnja kvarcne keramike s dekoracijom ispod glazure u Izniku, koja doduše ne predstavlja kontinuitet prethodne, kako su pokazale arheometrijske analize (Henderson, Raby 1989). Iako je spomenuta vrsta najpoznatija po višebojnoj dekoraciji (uglavnom) ispod glazure iz zrele faze proizvodnje, njezine su početke obilježili plavo-bijeli proizvodi u Baba Nakaš (tur. *Baba Nakkaş*) stilu, nekoć poznatim kao stil „Abrahama iz Kutahje“, prema armenskom natpisu na ibriku iz 1510. godine (Carswell, Dowsett 1972: 78, sl. 16, T. 21: a), koji se zajedno sa surahijom iz 1529. godine u narednom turgakeš (tur. *tuğrakeş*) stilu, također s armenskim natpisom i spomenom Kutahje (Carswell, Dowsett 1972: 79–80, sl. 17, T. 21: b), uglavnom smatra jednim od dokaza proizvodnje izničke keramike u tome mjestu (Carswell 1972: 4–6; Henderson, Raby 1989: 128; Akalın 1997: 11–12; Demirsar-Arılı 1997: 240–241; Bilgi 2006: 12; Kürkman 2006: 53–55). Tamo je preko pisanih i arheoloških podataka keramičarska djelatnost zabilježena najkasnije od sredine 15. stoljeća (Carswell 1972: 6; Henderson, Raby 1989: 129; Akalın 1997: 9–10; Demirsar-Arılı 1997: 237–238; Kürkman 2006: 38–41). Među raznovrsnim morfološkim repertoarom kutahijskih radionica istaknuto mjesto su imale šalice. Iako su njihovi najpoznatiji primjerci dekorirani u prepoznatljivom višebojnom stilu i datirani od početka 18. stoljeća, kutahijske radionice su proizvodile keramiku, tako i šalice,

of the Islamic world by the late 14<sup>th</sup> century (Lane 1957: 29; Carswell 1985: 32). When Ottoman Empire is concerned, blue-and-white stonepaste tiles from Muradiye mosque in Edirne from the early 15<sup>th</sup> century belong to that context (Lane 1957: 42–43). Most of the embellished tiles from that mosque have overglaze decoration and belong to a specific polychrome (“Timurid”) style which combines Persian and Chinese motifs. They are associated with the “masters of Tabriz” (Pers. *ostādān-e Tabriz*), a group known earlier from the Green Complex in Bursa, who probably emigrated from the Empire of Tamerlane after his death (Lane 1957: 41–43). Near the end of the 15<sup>th</sup> century, under the sponsorship of the Ottoman court, stonepaste production with underglaze decoration appeared in Iznik, which, however, does not represent continuity with the previously mentioned production, as shown by the archaeometric analysis (Henderson, Raby 1989). Although the most famous examples of Iznik pottery are usually in polychrome (and often) underglaze decoration from the times when production peaked, its beginnings were marked by blue-and-white products in the Baba Nakkaş style, formerly known as Abraham of Kütahya style, due to the Armenian inscription on an ibrik from 1510 (Carswell, Dowsett 1972: 78, Fig. 16, Pl. 21: a), which, alongside a surahi from 1529 in the subsequent tuğrakeş style, also with an Armenian inscription mentioning Kütahya (Carswell, Dowsett 1972: 79–80, Fig. 17, Pl. 21: b), is usually considered as evidence of the production of Iznik pottery there (Carswell 1972: 4–6; Henderson, Raby 1989: 128; Akalın 1997: 11–12; Demirsar-Arılı 1997: 240–241; Bilgi 2006: 12; Kürkman 2006: 53–55). Written and archaeological sources indicate that pottery production in Kütahya started in the mid-15<sup>th</sup> century at the latest (Carswell 1972: 6; Henderson, Raby 1989: 129; Akalın 1997: 9–10; Demirsar-Arılı 1997: 237–238; Kürkman 2006: 38–41). Among various morphological repertoires of the Kütahya workshop, cups had a prominent role. Although their most famous examples were decorated in a recognizable polychrome style and dated from the beginning of the 18<sup>th</sup> century, workshops in Kütahya also produced pottery, including cups, of less eye-catching appearance, including blue-and-white examples (Carswell 1972: 19). Their simple appearance may be the reason why there are uncertainties regarding the beginnings of their production.

manje upečatljivog izgleda, uključujući i one u plavo-bijelom stilu (Carswell 1972: 19). Možda i zbog takvog jednostavnog izgleda postoje nejasnoće oko početka njihove proizvodnje.

Konvencionalni kronološki okviri se temelje na više primjeraka pločica i posuda koji nose datume s početka 18. stoljeća (Lane 1939: 234–235; Carswell, Dowsett 1972: 12–14), od kojih su najstariji ibrik i zdjela iz 1716. godine (Carswell 1972: 17). Pojedini pisani izvori iz ranijeg 17. stoljeća spominju fildžane, odnosno šalice. Tako su u posjedu Sulejman-age iz 1605. godine izničke šalice (François 2007: 302), dok drugi izvor iz 1608. godine spominje fildžandžije (tur. *filcanci*) iz Kutahje, naziv koji se odnosi na majstore keramičare (Akalin 1997: 13; Demirsar-Arılı 1997: 243; Kürkman 2006: 53; Bilgi, Zambak Vermeersch 2018: 31–32). Više autora početak proizvodnje šalica također smješta prije 18. stoljeća. Garo Kürkman (2006: 129) navodi kako je njihova izrada u istanbulskim i izničkim radionicama započela još u drugoj polovici 16. stoljeća odnosno do njegovog kraja u slučaju plavo-bijelih primjeraka u Kutahji, iako nije naveden izvor tih podataka. Prema I. Volkovu (Волков 2006: 484), šalice za kavu su se proizvodile u Kutahji oko sredine 17. stoljeća, među kojima su bili i plavo-bijeli primjerci. Sličnu dataciju, od 17. stoljeća, kao i mogućnost proizvodnje u Izniku, navodi i Anna De Vincenz (2020: 308). Do najkasnije posljednjeg desetljeća 17. stoljeća datirani su primjerci kutahijskih šalica u plavo-bijelom stilu iz mjesta Kamjanec – Podiljskyj (Ukrajina) (Гусач, Нечитайло 2018), dok je u isto stoljeće često datiran i značajan broj sličnih plavo-bijelih šalica s mađarskih lokaliteta no one se u pravilu nazivaju „perzijskom fajansom“ (Gerő 1978; Holl 2007; Gerelyes 2008). Takva se interpretacija, koju su prihvatili i brojni kasniji autori, može pratiti od sedamdesetih godina prošloga stoljeća (Kolláth 2021: 299–300). O pisanim podacima koji svjedoče o uvozu perzijske odnosno safavidske keramike kroz 17. stoljeće u Europu je već bilo govora, dok za sada i manji broj nalaza iz arheološkog konteksta svjedoči o njenom prisustvu na europskom tlu (London, Engleska: Killock, Meddens 2005: 11, sl. 24: 7; Enkhuizen, Nizozemska: Schrickx, Duijn 2012: 6–7).<sup>10</sup> Potrebno je, međutim, razlikovati nalaze iz europskog dijela Osmanskog Carstva od drugih dijelova kontinenta. J. Michael Rogers (2003: 46) je nalaze „safavidskih šalica za kavu“

The conventional chronological framework is based on several tiles and vessels dated from the early 18<sup>th</sup> century (Lane 1939: 234–235; Carswell, Dowsett 1972: 12–14), the oldest ones being an ibrik and a bowl from 1716 (Carswell 1972: 17). Some written sources from the early 17<sup>th</sup> century mention *filcans*, i.e. cups. Suleyman Aga possessed Iznik *filcans* in 1605 (François 2007: 302), while another source from 1608 mentions cupmakers (Tur. *fincanci*) from Kütahya, a term associated with ceramic producers (Akalin 1997: 13; Demirsar-Arılı 1997: 243; Kürkman 2006: 53; Bilgi, Zambak Vermeersch 2018: 31–32). Many authors also date the beginning of the production of cups before the 18<sup>th</sup> century. According to Garo Kürkman (2006: 129), their production in Istanbul and Iznik workshops started in the second part of the 16<sup>th</sup> century, and before the end of that century in Kütahya in the case of blue-and-white examples, although the author did not name the source of that information. According to I. Volkov (Волков 2006: 484), coffee cups were in production around the mid-17<sup>th</sup> century in Kütahya, among which there were blue-and-white examples. Anna De Vincenz (2020: 308) mentioned a similar chronology, from the 17<sup>th</sup> century, and the possibility of production in Iznik workshops. Examples of Kütahya blue-and-white cups from Kamianets–Podilskyi (Ukraine) were dated to the last decade of the 17<sup>th</sup> century at the latest (Гусач, Нечитайло 2018), while a significant number of similar blue-and-white cups from Hungarian sites are often dated to the same century, but usually called “Persian faience” (Gerő 1978; Holl 2007; Gerelyes 2008). Such interpretation, accepted by various later Hungarian authors, can be traced to the 1970s (Kolláth 2021: 299–300). We already mentioned the written sources that talk about the import of Persian (Safavid) pottery in Europe in the 17<sup>th</sup> century; for now, a small number of finds from archaeological contexts attests to their presence in Europe (London, England: Killock, Meddens 2005: 11, Fig. 24: 7; Enkhuizen, Netherlands: Schrickx, Duijn 2012: 6–7).<sup>10</sup> The finds from the European part of the Ottoman Empire should be differentiated from the rest of the continent. The finds of “Safavid coffee cups” from Hungarian sites were interpreted by J. Michael Rogers (2003: 46) as a response to local demand, while John Hayes (1992: 266, 441, n. 6) mentions a possible Kütahya provenance for some of them

10 Usp. i “Persian Kutayha (sic) ware” iz Londona kod Tyler 2001: 68.

10 Cf. “Persian Kutayha (sic) ware” from London in Tyler 2001: 68.

s mađarskih lokaliteta interpretirao kao odgovor na tamošnju lokalnu potražnju, dok John Hayes (1992: 266, 441, bilj. 6) navodi moguću kutahijsku provenijenciju za neke od njih, doduše uz dataciju u 19. stoljeće. Pojedini nalazi iz arheološkog konteksta ukazuju na prisutnost safavidske keramike barem u istočnom dijelu Osmanskog Carstva (Sard, Turska: Crane 1987: 52, sl. 11; Damask, Sirija: François 2009: 54, sl. 3: 12). Za razliku od jednako malobrojnih europskih nalaza slične provenijencije, spomenuti osmanski nalazi safavidske keramike su ukrašeni lustrom iznad glazure odnosno u stilu koji je karakterističan uglavnom za proizvodnju u Mašhadu (Iran) u kasnom 17. stoljeću (Golombek 2014: 114).

U novije vrijeme je manji broj „perzijske fajanse“ s mađarskih lokaliteta podvrgnut arheometrijskim analizama, koje su ukazale na njegovu osmansku provenijenciju odnosno sličnost s izničkom keramikom (Zay 2014; Balla, Èder 2017), o čijoj proizvodnji u drugoj polovici 17. stoljeća sve do prekida u prvim nekoliko desetljeća 18. stoljeća, za razliku od prethodnog razdoblja, postoji jako malo informacija (Lane 1957: 56; Bilgi, Zambak Vermeersch 2018: 34).

Uz srednjovjekovnu i ranonovovjekovnu kvarcnu keramiku iz islamskog svijeta, na današnjim hrvatskim lokalitetima su zabilježeni i nalazi kasnije osmanske keramike (karta 2). Najviše do sada objavljenih nalaza, najčešće šalice, dolazi iz Osijeka, gdje su pronađeni primjerci u višebojnom (Horvat, Biondić 2007: 44–49, kat. br. 9–13, 15–17, 20; Radić 2015: 55–60, kat. br. 99–101, 103, 106–108, 111–112), ali i plavo-bijelom stilu.

S obzirom na to da se najranija proizvodnja porculana u Osmanskom Carstvu pojavila krajem 18. stoljeća (Altun 1997: 285), odnosno da je nije bilo u vremenu safavidske vlasti u Perziji, već od vremena kadžarske dinastije i 19. stoljeća (Golombek, Reilly 2014: 35), šalice iz Osijeka spomenute u prethodnom poglavlju (Horvat, Biondić 2007: kat. br. 8, 18–20, 23), koje su ranije datacije i opisane kao porculanske, zahtijevaju drugačiju interpretaciju. Dostupne analogije ukazuju na njihovu osmansku provenijenciju uz dataciju u kasno 17. ili ranije 18. stoljeće. Primjerak u višebojnom stilu (Horvat, Biondić 2007: 49, kat. br. 20) je identičan šalicama iz Budima (Garády 1944: T. CXLI: 10, 12) koje su proizvod kutahijskih radionica iz 18. stoljeća (Baha Tanman 2010: 160, kat. br. 36). Identične provenijencije i datacije je plavo-bijela šalice (Horvat, Biondić 2007: 44,

– from the 19<sup>th</sup> century, however. Rare finds from archaeological contexts give evidence about the presence of Safavid pottery, at least in the eastern part of the Ottoman Empire (Sardis, Turkey: Crane 1987: 52, Fig. 11; Damascus, Syria: François 2009: 54, Fig. 3, 12). Unlike equally rare European finds of similar provenance, the mentioned Ottoman finds of Safavid pottery have overglaze lustrium decoration, a style mostly characteristic of the workshops in Mashhad (Iran) from the late 17<sup>th</sup> century (Golombek 2014: 114).

Recent archaeometric analyses of a few “Persian faience” finds from Hungarian sites showed their similarity to Ottoman (Iznik) pottery (Zay 2014; Balla, Èder 2017), whose production in the second part of the 17<sup>th</sup> century to its end in the first decades of the 18<sup>th</sup> century, unlike the previous period, is mostly unknown (Lane 1957: 56; Bilgi, Zambak Vermeersch 2018: 34).

Next to medieval and earlier post-medieval Islamic stonepaste, finds of later Ottoman pottery were also documented on sites in present-day Croatia (Map 2). Most published finds, usually cups, come from Osijek, in polychrome style (Horvat, Biondić 2007: 44–49, cat. nos. 9–13, 15–17, 20; Radić 2015: 55–60, cat. nos. 99–101, 103, 106–108, 111–112), but also in blue-and-white style.

Since the earliest porcelain production in the Ottoman Empire appeared in the late 18<sup>th</sup> century (Altun 1997: 285) and there was no production in Safavid Persia until the Qajar dynasty in the 19<sup>th</sup> century (Golombek, Reilly 2014: 35), a different interpretation is required for the mentioned cups from Osijek (Horvat, Biondić 2007: cat. nos. 8, 18–20, 23), which are dated earlier and described as porcelain. Available analogous material suggests their Ottoman origin and later 17<sup>th</sup> or early 18<sup>th</sup>-century date. A polychrome example (Horvat, Biondić 2007: 49, cat. no. 20) is identical to cups from Buda (Garády 1944: Pl. CXLI: 10, 12) which were produced in Kütahya in the 18<sup>th</sup> century (Baha Tanman 2010: 160, cat. no. 36). Of identical origin and date is a blue-and-white cup (Horvat, Biondić 2007: 44, cat. no. 8) with a decoration also known in the polychrome style (Bilgi, Zambak Vermeersch 2018: 184, cat. no. 65). A similar example (Horvat, Biondić 2007: 48, cat. no. 19) is comparable to examples produced in Kütahya (Sardis, Turkey: Crane 1987: 52; Fig. 10; Liutik, Russia: Гусац 2012: Pl. 1: 9; Silifke, Turkey: Özdemir 2018: Pl. 2: d). The inside of the bottom of the cup has a

kat. br. 8) s dekoracijom koja je poznata i na primjercima u višebojnom stilu (Bilgi, Zambak Vermeersch 2018: 184, kat. br. 65). Slično se može reći i za sljedeći primjerak (Horvat, Biondić 2007: 48, kat. br. 19), koji pronalazi analogije s primjercima kutahijske proizvodnje (Sard, Turska: Crane 1987: 52; sl. 10; Ljutik, Rusija: Гусач 2012, T. 1: 9; Silifke, Turska: Özdemir 2018: T. 2: d). Na dnu s unutrašnje strane, šalica ima motiv karakterističan za kutahijske radionice (Kürkman 2006: 268), dok s vanjske strane na dnu, mjestu gdje se tradicionalno na kineskom porculanu smješta oznaka cara, šalica ima jednostavnu slikanu zvjezdicu, koja se pronalazi i na primjerku s motivom stiliziranih krizantema ili cvjetova lijepe Kate (lat. *Callistephus chinensis*) (Horvat, Biondić 2007: 50, kat. br. 23; Radić 2015: 67, kat. br. 131). Takva se dekoracija javlja na porculanu iz vremena Kangxija, nakon 1683. godine, često namijenjenom izvozu na bliskoistočno i europsko tržište (Krahl, Ayers 1986: 1024–1025, kat. br. 2208a–b; Kerr 1986: 62–63; Crowe 2007; Kerr, Mengoni 2011: 22). Pod tim utjecajem je od kraja 17. stoljeća sličan motiv zastupljen i na perzijskoj (Crowe 2002: 240–241; 2007; Golombek 2014: 111) odnosno kutahijskoj keramici (Lane 1939: 236, sl. X; Гусач 2012: T. 2: 1, 9–10?; 2017: 592, sl. 8: 5; Bilgi, Zambak Vermeersch 2018: 168, kat. br. 52). Iako je ovaj tip nalaza za sada uglavnom poznat samo iz Osijeka, ulomak iz Sinja s izrazito stiliziranom dekoracijom (Petričević Banović 2018: kat. br. 77), kao i plavo-bijele šalice kod kojih je jasnija povezanost s dekoracijom kineskog porculana, pronađene na lokalitetu na trgu J. J. Strossmayera u Đakovu,<sup>11</sup> poziciji samostana sv. Margarete u Bijeli nedaleko Daruvara te utvrdi Sokolac u Brinju,<sup>12</sup> svjedoče da se slične primjerke kvarcne keramike može očekivati i na drugim hrvatskim lokalitetima.

Većina osječkih posuda je u tipičnom višebojnom stilu karakterističnom za kutahijske radionice od početka 18. stoljeća (Horvat, Biondić 2007: 44–48, kat. br. 9, 11–13, 15–17; Radić 2015: 56, kat. br. 103). Jedna od osječkih posuda ima nizove konusa odnosno motiva u obliku suze, koji su, kako navodi Yolande Crowe (2007), s kineskog porculana, preko perzijske keramike, došli i do kutahijskih radionica, gdje

motif characteristic of Kütahya workshops (Kürkman 2006: 268), while the outside of the bottom, a place traditionally reserved for reign marks on Chinese porcelain, has a simple painted star motif, which can also be seen on an example decorated with a chrysanthemum or aster pattern (lat. *Callistephus chinensis*) (Horvat, Biondić 2007: 50, cat. no. 23; Radić 2015: 67, cat. no. 131). This kind of decoration appeared on Kangxi porcelain after 1683, often for export to Middle Eastern and European markets (Krahl, Ayers 1986: 1024–1025, cat. no. 2208a–b; Kerr 1986: 62–63; Crowe 2007; Kerr, Mengoni 2011: 22). Under its influence, a similar motif appears from the end of the 17<sup>th</sup> century on Persian pottery (Crowe 2002: 240–241; 2007; Golombek 2014: 111) as well as Kütahya pottery (Lane 1939: 236, Fig. X; Гусач 2012: T. 2: 1, 9–10?; 2017: 592, Fig. 8: 5; Bilgi, Zambak Vermeersch 2018: 168, cat. no. 52). Although this type of finds is known mostly from Osijek, similar examples of stonepaste can be expected on the other sites in Croatia, as evidenced by a fragment from Sinj with pronouncedly stylized decoration (Petričević Banović 2018: cat. no. 77), as well as the blue-and-white cups that more closely follow the decoration of Chinese porcelain, from J. J. Strossmayer Square in Đakovo,<sup>11</sup> monastery of St. Margaret in Bijela near Daruvar and Sokolac fortress in Brinje.<sup>12</sup>

Most of the vessels from Osijek are in a typical polychrome style characteristic of Kütahya workshops from the beginning of the 18<sup>th</sup> century (Horvat, Biondić 2007: 44–48, cat. nos. 9, 11–13, 15–17; Radić 2015: 56, cat. no. 103). One of the vessels from Osijek has a series of cones (tear-shaped motifs), known also in the blue-and-white style, which, according to Yolande Crowe (2007), appeared in Kütahya workshops from Chinese porcelain via Persian pottery. An element of importance for dating the Persian examples is the Armenian monogram of the merchant Paron Safraz, who ran a family business from 1701 until his death in 1727. The polychrome style of Kütahya is documented on a few other sites in Croatia. A cup from Dubrovnik (Topić, Milošević 2018: 15, Pl. IV: 3) is decorated in a style comparable to examples from the mid-18<sup>th</sup> century (Bilgi 2006: 129–135, cat. nos. 144–

11 Neobjavljeno, istraživanje obrta „Gaea“, 2009. godine (osobni uvid).

12 Neobjavljeno, istraživanja Odjela za kopnenu arheologiju Službe za arheološku baštinu Hrvatskog restauratorskog zavoda, 2021./2022. godine (osobni uvid).

11 Unpublished, excavations of a private company, “Gaea”, from 2009 (personal inspection).

12 Unpublished, excavations of the Department of Land Archaeology of Service for Archaeological Heritage, Croatian Conservation Institute, 2021/2022 (personal inspection).

se javljaju i u plavo-bijeloj kombinaciji. Na dataciju perzijskih primjeraka ukazuje armenski monogram trgovca Parona Safraza, koji je na čelu obiteljskog posla bio od 1701. sve do smrti 1727. godine. Višebojni kutahijski stil je poznat i s nekoliko drugih hrvatskih lokaliteta. Šalica iz Dubrovnika (Topić, Milošević 2018: 15, T. IV: 3) je dekorirana u stilu koji se može usporediti s primjercima datiranim od sredine 18. stoljeća (Bilgi 2006: 129–135, kat. br. 144–155; Bilgi, Zambak Vermeersch 2018: kat. br. 68–71, 79, 175, 179–180). Dva ulomka iz Sinja s duboko urezanom površinom (Petričević Banović 2018: kat. 79–80), mogu se datirati iza prve četvrtine 18. stoljeća kada se pojavio takav način dekoracije (Carswell 1972: 19; Bilgi 2006: kat. br. 29–31) dok je posljednji primjerak po uzoru na kineski porculan s cvjetnom dekoracijom u ovalnim panelima (Petričević Banović 2018: kat. 78), iz druge polovice 18. stoljeća (Bilgi 2006: kat. br. 156).

Nekoliko novih primjeraka iz Osijeka pripada ovoj grupi nalaza (T. 1: 8–13). Bolje sačuvani ulomci nose dekoraciju rađenu po uzoru na kineski porculan. Jedan primjerak (T. 1: 10) ima središnji medaljon kakav se pronalazi na primjercima iz vremena dinastije Ming odnosno cara Zhengde (1505. – 1521.), dok je uobičajen od sredine stoljeća i vremena cara Jiajinga (1521. – 1567.) (Carswell 1972: 17–18; 1985: 113). Na Bliskom istoku su česti kineski primjerci takve dekoracije različite kvalitete dok je ista imitirana u Kutahji, kao i nekim drugim radionicama islamskog svijeta, uključujući i perzijske u Europu (Carswell 1985: 145). Slični primjerci šalica s raznih lokaliteta povezani su s osmanskim ili perzijskom proizvodnjom i datirani od (kasnijeg) 17. ili u 18. stoljeću (Bač: Hađ 1961: 95, T. XV: 6; Carswell 1972: 17; Eger: Fodor, Kozák 1972: 149, sl. 14, 16; Iznik: Altun, Demirsar-Arli 2001: 388, sl. 7; Budim, Baja: Holl 2007: sl. 20: 1; 32: 3; Kamjanec – Podiljskyj: Гусач, Нечитайло 2018: 343, sl. 16: 2; 17: 5; Bijela kod Daruvara, osobni uvid). Dva ulomka (T. 1: 11–12) imaju identičnu dekoraciju (lotus i lingzhi), rađenu također po uzoru na kineski porculan. Iako su pronađeni u različitim kontekstima, moguće je da pripadaju istoj posudi. Posljednji ulomak kvarcne keramike (T. 1: 13) ima smeđu caklinu s vanjske strane lošije kvalitete. O tome stilu je ovdje već bilo riječi. Poput kineskih, i ovi primjerci često imaju dekoraciju izvedenu plavom bojom s unutrašnje strane, ponekad i pri vrhu ili dnu s vanjske strane posude.

155; Bilgi, Zambak Vermeersch 2018: cat. nos. 68–71, 79, 175, 179–180). Two fragments from Sinj with a carved/incised surface (Petričević Banović 2018: cat. nos. 79–80) can be dated after the first quarter of the 18<sup>th</sup> century, when that type of decoration appeared (Carswell 1972: 19; Bilgi 2006: cat. nos. 29–31), while the last example (Petričević Banović 2018: cat. no. 78), with floral motifs in oval panels following a similar decoration on Chinese porcelain, is from the second part of the 18<sup>th</sup> century (Bilgi 2006: cat. no. 156).

A few of the new fragments from Osijek belong to this group of finds (Pl. 1: 8–13), whose decoration takes inspiration from Chinese porcelain. A cup (Pl. 1: 10) has a central medallion, detectable from the Zhengde Emperor era (1505–1521) and more frequent from the mid-16<sup>th</sup> century and the Jiajing Emperor era (1521–1567) (Carswell 1972: 17–18; 1985: 113). Chinese porcelain with that kind of decoration of varied quality was frequent in the Middle East, while its imitations were produced in Kütahya and other Islamic workshops, including Persian ones, as well as in Europe (Carswell 1985: 145). Similar cups from various sites were interpreted as Ottoman or Persian and dated from the (later) 17<sup>th</sup> or in the 18<sup>th</sup> century (Bač: Hađ 1961: 95, Pl. XV: 6; Carswell 1972: 17; Eger: Fodor, Kozák 1972: 149, Fig. 14: 16; Iznik: Altun, Demirsar-Arli 2001: 388, Fig. 7; Budim, Baja: Holl 2007: Fig. 20: 1; 32: 3; Kamianets–Podilskyi: Гусач, Нечитайло 2018: 343, Fig. 16: 2; 17: 5; Bijela near Daruvar, personal inspection). Two fragments (Pl. 1: 11–12) have identical decoration (lotus and lingzhi), also based on Chinese porcelain. Although they were found in different contexts, they may belong to the same vessel. The last stonepaste fragment (Pl. 1: 13) has a brown glaze on the outside of inferior quality in a style that was already mentioned here. These examples, like the Chinese ones, often have blue decoration on the inside, and sometimes also on the top or bottom part of the outside of the vessel.

## European porcelain and creamware

Until the early modern period, Western Europe was lagging behind the Far East as well as the Near/Middle East when it came to the technology of pottery production. As early as the later phase of the High Middle Ages, the technique of the opaque tin-glazed pottery was introduced in present-day Italy from the Iberian Peninsula; it is also known as maiolica, from Mallorca,



## Europski porculan i kamenina

Kada je tehnologija proizvodnje keramike u pitanju, zapadna Europa je sve do prvih stoljeća novoga vijeka zaostajala, kako za Dalekim istokom tako i za islamskim svijetom. Još u kasnijoj fazi razvijenog srednjeg vijeka je na područje današnje Italije s iberskog poluotoka uvedena tehnologija proizvodnje keramike s neprozirnim kositrenim premazom, poznata kao majolika prema važnoj luci Mallorci dok su kasniji pokušaji dobivanja strukture slične porculanu rezultirali pojavom „mekog porculana“ odnosno kvarcne keramike. Za dobivanje recepta najstarije takve proizvodnje u Firenci (1575. – 1587.) zaslužan je bio, znakovito, „*un levantino*“ (Liverani 1936: 28).

U nastavku se proizvodnja sličnog „mekog porculana“ pojavila i u nekim drugim europskim radionicama dok je na pojavu prvog pravog europskog porculana, razvijenog u saksonskoj radionici Ehrenfrieda Walthera von Tschirnhausa (1651. – 1708.) i njegovog pomoćnika Johanna Friedricha Böttgera (1682. – 1719.), pod pokroviteljstvom Augusta II. Jakog, elektora Saksonije i kralja Poljske, trebalo pričekati sve do početka 18. stoljeća. Slično kao u Kini, porculanu je prethodila kamenjača, razvijena 1707. godine, uz karakterističnu crvenu boju, dok su početkom sljedeće 1708. godine u Dresdenu pečeni prvi primjerci porculana, u proizvodnji nakon smrti von Tschirnhausa, od 1710. godine u obližnjem Meissenu. U usporedbi s klasičnim južnokineskim porculanom, europski porculan je imao nešto drugačiji sastav, omjer sastojaka kao i višu temperaturu pečenja (Kerr, Wood 2004: 750–751). Iako je početak proizvodnje u Meissenu prethodio pismima francuskog isusovca d'Entrecollesa (1712., 1722.) u kojima je autor detaljno opisao način izrade kineskog porculana i poslao uzorke korištenih sirovina, tamošnje su informacije u narednom vremenu imale značajan utjecaj na europsku proizvodnju (Kerr, Wood 2004: 37). Originalni meissenski recept je uključivao kalcinirani alabaster, kvarc i kaolin uz pečenje na oko 1350 °C dok je glazura rađena od silicija, kaolina i boraksa (Kerr, Wood 2004: 751–752). Slični sastojci su korišteni i u nekim drugim ranim europskim radionicama dok je nakon smrti Böttgera recept izmijenjen, pa je uz kaolin i kvarc uključio i glinence umjesto alabastera odnosno kod glazura je kalcij zamijenio boraks. Takav sastav, uz korištenje glinenaca, postao je standardan kod brojnih europskih proizvodnji (Kerr, Wood 2004: 752–753).

an important port. To obtain porcelain, later experiments resulted in the appearance of “soft porcelain” (stonepaste). It is indicative that the recipe for the oldest production in Florence (1575–1587) came from “*un levantino*” (Liverani 1936: 28).

The production of similar “soft porcelain” appeared in some other European workshops, while the first true porcelain in Europe was developed in Saxony at the beginning of the 18<sup>th</sup> century by Ehrenfried Walther von Tschirnhaus (1651–1708) and his assistant Johann Friedrich Böttger (1682–1719), under the sponsorship of Augustus II the Strong, elector of Saxony and king of Poland. Similar to China, porcelain was developed after stoneware (1707) with a characteristic red color, while the first porcelain was fired in Dresden in early 1708 and produced after the death of von Tschirnhaus, in nearby Meissen, from 1710. When compared with classic South Chinese porcelain, the European equivalent had a somewhat different recipe as well as higher firing temperature (Kerr, Wood 2004: 750–751). Although the beginning of production in Meissen antedated the letters of the French Jesuit d'Entrecolles (1712, 1722) in which he described the process of production of porcelain in China and provided samples of raw materials that were used, these letters had a significant impact on the European production in the following period (Kerr, Wood 2004: 37). The original recipe from Meissen included calcified alabaster, quartz, and china clay, with firing at around 1350°C, while the glaze was of silica, china clay, and borax (Kerr, Wood 2004: 751–752). Similar components were used in some other early European productions, but after the death of Böttger, the recipe was altered: aside from china clay and quartz, it included feldspar instead of alabaster, and calcium replaced borax in the glaze recipe. A similar feldspathic composition became the standard in various European workshops (Kerr, Wood 2004: 752–753).

Although present on many sites in Croatia, the finds of European porcelain and creamware from archaeological contexts are rarely published. The reasons should be sought in the fact that, unlike the material from various museum collections, finds from archaeological contexts are usually utilitarian and with simple decoration or without it. It is not rare for similar decoration to be found on products of different workshops or workshop areas. Also, due to the nature of the

Iako su prisutni na brojnim hrvatskim lokalitetima, nalazi europskog porculana i kamenine iz arheološkog konteksta se rijetko pronalaze u literaturi. Razloge tome treba tražiti u činjenici da su, za razliku od materijala tog tipa koji se pronalazi u različitim muzejskim kolekcijama, nalazi iz arheološkog konteksta često izraženog utilitarnog karaktera i jednostavnije dekoracije ili bez nje. Nerijetko se ista ili identična dekoracija pronalazi na proizvodima iz raznih radionica ili radioničkih područja kao što su i strukture tih proizvoda zbog prirode korištenih sirovina više sličnije jedna drugoj nego što je to slučaj kod obične keramike, što dodatno otežava njihovu točniju identifikaciju. Činjenica je također da se taj tip materijala ujedno nalazi na rubu interesnog područja kojim se bavi arheologija i isprepliće s drugim znanstvenim disciplinama. Kao i u slučaju prethodnih grupa, najviše nalaza dolazi iz Osijeka (Radić 2017: 81, 86, 99, kat. br. 36–43, 77, 148).

Iako je kombinacija šalice i tanjurića karakteristična za europski način konzumacije kave i čaja, tanjurići su dosta ranije korišteni u Kini (Kerr, Wood 2004: 272–273; van Driem 2019: 115). Njihova je upotreba u europskom kontekstu posebno raširena od 18. stoljeća. Šalice i tanjurići (T. 2: 14–17; 3: 18) su, uz stilizirane ovule uz rub, dekorirani figuralno-vegetabilnom dekoracijom od kojih većina ima prikaz kamena i ptice (njem. *Fels und Vogel*) uglavnom karakterističan za pojedine njemačke, austrijske i češke radionice kroz dijelove 18. i 19. stoljeća (Osijek: Radić 2017: 81, kat. br. 36–37; Varšava, Poljska: Trzeciński 2021: sl. 2: 10). Na temelju radioničarskih oznaka, osječke primjerke možemo povezati s nekima od njih.

Jedan tanjurić (T. 2: 14) ima slikani austrijski štit (njem. *Bindenschild*), oznaku bečke radionice, uspostavljenu 1718. godine, neposredno nakon Meissena. Takva utisnuta oznaka je korištena nakon carskog preuzimanja proizvodnje od 1744. godine a slikana od 1749. godine dok su od 1784. godine posude nosile i oznaku godine proizvodnje (Neuwirth 1979: 59–68). Sa stražnje strane tanjurića je utisnut broj 807, koji ukazuje na proizvodnju u 1807. godini dok je ispod radioničarske oznake i slikana oznaka majstora (njem. *Kunstlernummern*), broj 14 (Neuwirth 1979: 68–70). Jedan tanjurić (T. 3: 18) i nekoliko šalica (T. 2: 16–17) imaju slikano slovo S ili kombinaciju slova G kroz kojeg prolazi strelica. Prva oznaka je karakteristična do 1812. godine za proizvodnju u mjestu Schlaggenwald (Konečný 2003: 261), što je njemački naziv za Horní Slavkov (Češka).

raw materials used, the fabrics of these products tend to be more similar to each other than in the case of earthenware, which makes identification even more difficult. It is also a fact that this type of material is sometimes considered “borderline archaeology” and intertwines with other scientific disciplines. Similar to previous groups, most of the finds are from Osijek (Radić 2017: 81, 86, 99, cat. nos. 36–43, 77, 148).

Although the cup and saucer combination is characteristic of the European way of coffee and tea consumption, saucers were documented in China from a very early date (Kerr, Wood 2004: 272–273; van Driem 2019: 115). Their use was more common in the European context, especially from the 18<sup>th</sup> century. On the cups and saucers presented here (Pl. 2: 14–17; 3: 18), the stylized ovuli below the rim are accompanied by figural-floral decoration, mostly of rock and bird pattern (Ger. *Fels und Vogel*) mostly characteristic of some German, Austrian and Bohemian workshops throughout the 18<sup>th</sup> and 19<sup>th</sup> centuries (Osijek: Radić 2017: 81, cat. nos. 36–37; Warsaw, Poland: Trzeciński 2021: Fig. 2: 10). Based on workshop marks, the finds from Osijek can be associated with some of them.

One saucer (Pl. 2: 14) has a painted Austrian coat of arms (Ger. *Bindenschild*), the mark of a Vienna workshop founded in 1718, following the Meissen production. That kind of impressed mark was in use after the production came under imperial ownership in 1744, and was painted from 1749; from 1784, the year of production also appeared on the vessels (Neuwirth 1979: 59–68). The number 807 is impressed on the back side of our saucer, indicating that it was produced in 1807, while the workshop mark is above the painted master's mark (Ger. *Kunstlernummern*) number 14 (Neuwirth 1979: 68–70). One saucer (Pl. 3: 18) and several cups (Pl. 2: 16–17) have the painted letter S or a combination of the letter G with an arrow. The first mark was characteristic until 1812 for production in Schlaggenwald (Konečný 2003: 261), which is the German name for Horní Slavkov (Czech Republic). The manufacture there, from 1792, belongs to the beginnings of Bohemian porcelain. Short-lived production in nearby Háje (Ger. Rabensgrün) from 1789 preceded (Konečný 2003: 140–141). The second mark is related to Giesshübel, i.e., the German name for the place Stružná (Kysibl) where production was recorded from 1802, while the mentioned mark was used in the initial period of production (Konečný 2003:

Tamošnja proizvodnja, uspostavljena 1792. godine, vezana je uz početke češkog porculana. Prethodila joj je kratkotrajna izrada u obližnjem mjestu Háje (njem. Rabensgrün) od 1789. godine (Konečný 2003: 140–141). Druga oznaka je vezana uz Giesshübel, odnosno njemački naziv za mjesto Stružná (Kysibl), gdje je proizvodnja zabilježena od 1802. godine dok se spomenuta oznaka koristila u početnom razdoblju proizvodnje (Konečný 2003: 339). Za razliku od prethodnih, jedna cilindrična litron šalica (T. 3: 19) i pripadajući tanjurić (T. 3: 20) pripadaju kamenini. Imaju sličnu dekoraciju. Na šalici su u gornjem redu izvedene vertikalne crtice koje sačinjavaju nizove trokuta dok se u donjem redu, kao i na tanjuriću, izmjenjuju crtice koje tvore motiv trokuta, s grupom točkica. Riječ je o tzv. bečkom rubu (njem. *Wiener Muster*), dekoraciji koja se pojavila u drugoj polovici 18. stoljeća. Osim Beča (Cvijetinović 2020: 65, PPMHP 127174, 127213), slična dekoracija i oblik se pronalazi i u drugim radionicama (Krapina: Klobučar 1978: 41, kat. br. 31). Jedan od rijetkih objavljenih primjeraka iz arheološkog konteksta dolazi iz Stolnog Biograda (mađ. Székesfehérvár), gdje je datiran u drugu polovicu 18./prvu polovicu 19. stoljeća (Kovács 2017: 329, bilj. 61, sl. 3: 3).

## Zaključak

U prijašnjem su vremenu proizvodi iz Kine predstavljali teško dostupnu i luksuznu robu cijenjenu u različitim dijelovima svijeta, iako danas često nemaju takav status. Takav je slučaj s tamošnjim keramičarskim proizvodima koji su u pojedinim dijelovima Europe u ograničenom obliku prisutni od srednjovjekovnog razdoblja. Pomorska otkrića i uspostava novih ruta prema istoku početkom novoga vijeka doprinijela je širenju različitih roba, između ostalih i porculana a čini se da su se u tome vremenu pojavili i najstariji primjerci na današnjim hrvatskim lokalitetima, kako svjedoči do sada malobrojno objavljeni materijal od kojih je najraniji iz kasnog 16. ili početka 17. stoljeća. Najstariji osječki nalazi porculana su iz vremena osmanske vlasti s područja Tvrđe dok se s njihovim uvozom nastavilo i nakon njenog sloma (T. 1: 1–7). Do sada nisu sa sigurnošću identificirani kineski keramičarski proizvodi stariji od 16. st., koji su zabilježeni na više lokaliteta u našem susjedstvu, nerijetko vezanim uz kamenjaču odnosno celadon. Morfologija dosad objavljenih porculanskih nalaza, koji u najvećem broju slučajeva pripadaju šalicama, ukazuje na usku povezanost s novom robom uvedenom u

339). Unlike those previously mentioned, one cylindrical litron cup (Pl. 3: 19) and its matching saucer (Pl. 3: 20) belong to creamware. The decoration of the cup consists of a row of hatches that are triangularly shaped, while the bottom row has a combination of triangular-shaped hatches and a group of dots, found also on the saucer. This kind of decoration is called the Vienna pattern (Ger. *Wiener Muster*), which appeared in the second part of the 18<sup>th</sup> century. Besides Vienna (Cvijetinović 2020: 65, PPMHP 127174, 127213), similar decorations and shapes were manufactured in other workshops (Krapina: Klobučar 1978: 41, cat. no. 31). One of the rare published examples from an archaeological context was found in Székesfehérvár (Hungary) and dated in the second part of the 18<sup>th</sup> and the first part of the 19<sup>th</sup> century (Kovács 2017: 329, n. 61, Fig. 3: 3).

## Conclusion

In the past, manufactured goods from China were hard-to-obtain luxury items, highly priced around the world, although that is often not the case today. Similarly, their ceramic products were documented in small numbers in some parts of Europe from the Middle Ages. The Age of Discovery and the new maritime routes toward the East at the beginning of the early modern period contributed to the dissemination of various goods, including porcelain. It seems that the earliest examples on sites in present-day Croatia are from that time, attested from the late 16<sup>th</sup> or early 17<sup>th</sup> century by rarely published material. The oldest examples of porcelain from Osijek are from Ottoman times, from sites in Tvrđa, while their import continued after the Ottoman demise (Pl. 1: 1–7). There are no finds of Chinese ceramics that can be securely dated before the 16<sup>th</sup> century, as documented on a few sites in our neighborhood in the case of stoneware that is celadon. When it comes to morphology, the published porcelain finds suggest a close connection with the new commodities introduced around that time, also from the East. The first is coffee, which appeared in 16<sup>th</sup>-century Europe, at first in the southeast – the area under Ottoman rule including Osijek – and somewhat later in the West. Tea, the second commodity after coffee, gained importance in the Ottoman Empire in later times. Besides luxury Chinese porcelain cups, the Osijek area used earthenware and stonepaste cups (Pl. 1: 8–13),

sličnom razdoblju, također s istoka. Riječ je o kavi, koja je u upotrebu na području Europe ušla u 16. stoljeću, najranije na njenom jugoistoku odnosno području pod osmanskom vlašću, koje je tada obuhvaćalo i Osijek a nešto kasnije je stigla na zapad kontinenta. Ubrzo nakon kave, u upotrebu je uveden i čaj, koji je tek u kasnijem vremenu dobio na značaju u Osmanskom Carstvu. Osim luksuznih šalica od kineskog porculana, na osječkom su području korištene i šalice od obične keramike kao i kvarcne keramike (T. 1: 8–13) čije su glavne osmanske radionice bile u Kutahji i Izniku. Tamošnja je proizvodnja jednim dijelom rađena po uzoru na popularnu plavo-bijelu dekoraciju s kineskog porculana a sličan je utjecaj vidljiv i kod pojedinih oblika poput šalica. Porculanski i proizvodi od kvarcne keramike koje pronalazimo u Osijeku, u početnom su vremenu bili dostupni ograničenom broju ljudi odnosno grupama o čemu u osječkom slučaju najbolje svjedoče nalazi iz starog franjevačkog samostana. Iako se kutahijski primjerci uglavnom datiraju od ranog 18. stoljeća, više informacija ukazuje na njihovu proizvodnju i ranije. Dodatnu pomutnju unosi i činjenica da su se slične šalice u plavo-bijelom stilu proizvodile i na drugim područjima u to vrijeme, između ostalih i u Safavidskom Carstvu čiji su proizvodi u vremenu dinastičkih borbi u Kini, kraće vrijeme korišteni kao zamjena za kineski porculan, o čemu najviše podataka postoji za zapadnu Europu, kao i činjenica da su, unatoč sukobima, kao i u prethodnom razdoblju, postojale interakcije između dvaju velikih umjetnosti islamskog svijeta, osmanske i perzijske. U tome bi pogledu situaciju mogao rasvijetliti materijal iz arheološkog konteksta koji je u prošlosti nerijetko bio zanemaren, kao i arheometrijske analize materijala koje su na nekim područjima dovele do reinterpretacije konvencionalnih atribucija. Noviji nalazi i analize su pokazali kako je određeni materijal interpretiran u prošlosti kao perzijski, zapravo drugačije provenijencije. Jedan od poznatijih takvih slučajeva je vezan uz keramiku koju danas nazivamo izničkom,<sup>13</sup> a slični primjerci se mogu navesti i na materijalu s područja Hrvatske.<sup>14</sup> Kutahijska keramika ili bar dio nje,

whose main Ottoman workshops were in Kütahya and Iznik. Part of the production there was modeled on popular blue-and-white decoration on Chinese porcelain. Something similar can be said for some of the shapes, like cups. Porcelain and stonepaste products, like the examples from Osijek, were initially available to distinguished individuals and specific groups of people; in the case of Osijek, this is best illustrated by the finds from the old Franciscan monastery. Although the examples from Kütahya are usually dated from the early 18<sup>th</sup> century, there is information suggesting an even earlier production. Additional confusion is caused by the fact that similar blue-and-white cups were manufactured in other areas, including the Safavid Empire; Safavid pottery was used in the time of dynastic struggles in China, as a replacement for porcelain in Europe, as known mostly from sources connected to Western Europe; moreover, similarly to the previous period and despite the conflicts, there were interactions between Ottoman and Persian art as two important art spheres of the Islamic world. More light could be shed by the material of this type from archeological contexts that was often neglected in the past, as well as archaeometric analyses which led to a reinterpretation of conventional attributions in some areas. New findings and analyses showed that certain materials interpreted as Persian in the past were actually of different origin. One of the most famous cases was pottery which we now know as Iznik pottery.<sup>13</sup> Similar examples from Croatia exist.<sup>14</sup> Kütahya pottery, or at least part of it, kept arriving in Osijek even after the Ottoman demise (1687). Similar materials on Hungarian sites were connected with the so-called Greek merchants (Gerelyes 2008). Chinese and Islamic products were eventually replaced by products from various European workshops (Pl. 2: 14–17; 3: 18–20) when coffee and tea consumption spread like never before. Something similar can be said for the use of porcelain, as its availability was “democratized” in comparison with the previous period, although cheaper alternatives were also in use. In the case of Osijek, finds of

13 Usp. i „perzijske albarele“ kod Gerő (1978: 347–348, sl. 1), kasnije povezane uz vjerojatnu proizvodnju u Siriji (prema Rogers 2003: 45).

14 Usp. keramiku s lokaliteta brodoloma kod Mljeta koja je isprva interpretirana kao perzijska kod Pešić (2009: 347–348) dok Nurhan Atasoy (2015: 20) smatra da je izničkog porijekla; u ovome bi pogledu trebalo reinterpretirati nekolicinu primjeraka keramike iz zagrebačke „Obrtne škole“ s kraja 19. stoljeća čiji je dekorativni stil nazvan perzijskim dok je danas jasno kako je riječ o osmanskome stilu, vjerojatno preuzetom posredno, iako je tvorac jednog od stilova prije sredine 16. st. bio „perzijanac“ Šahkuli.

13 Cf. “Persian albarelli” in Gerő (1978: 347–348, Fig. 1), later interpreted as probably Syrian (according to Rogers 2003: 45).

14 Cf. pottery from the site of the shipwreck near Mljet which was at first interpreted as Persian in Pešić (2009: 347–348), while Nurhan Atasoy (2015: 20) assumed Iznik origin; a reinterpretation should be provided for a couple of examples from “Obrtna škola” in Zagreb from the late 19th century, whose decorative style was designated as Persian, while today we know it as Ottoman, and probably was appropriated indirectly, although the inventor of one of the styles before the mid-16th century was a “Persian”, Shahkuli.

u Osijek je stizala i nakon nestanka osmanske vlasti (1687.). Prisutnost sličnog materijala na mađarskim lokalitetima je povezana uz tzv. grčke trgovce (Gerelyes 2008). Kineski i materijal iz islamskog svijeta su naposljetku zamijenili proizvodi iz raznih europskih radionica (T. 2: 14–17; 3: 18–20) kada je ispijanje kave i čaja bilo raširenije no prije. Slično se može reći i za upotrebu porculana čija je dostupnost „demokratizirana“ u odnosu na prethodno razdoblje iako su i dalje korištene i njegove jeftinije alternative. Takvi se nalazi u slučaju Osijeka pronalaze i na pozicijama izvan Tvrđe koje su naseljene nakon pada osmanske vlasti i naposljetku ujedinjene u jedan grad (1786.). Svim grupama nalaza je zajednička upotreba plavo-bijelog stila, popularizirana od 14. st. širenjem porculana iz Jingdezhen. Osim spomenutih namirnica, slični recipijenti su mogli biti korišteni i za konzumaciju čokolade, isprva konzumirane kao topli napitak i uvedene također početkom novoga vijeka no iz tzv. Novog svijeta. Nešto različiti oblik i dimenzije šalice europskog porculana i kamenine od prethodnika iz kineskih i radionica islamskog svijeta, odraz je, između ostalog, različitih načina konzumacije čaja i kave, koji se mogu vidjeti i do današnjih dana s obzirom na to da spomenuti spadaju među najpopularnije napitke diljem svijeta.

this kind also come from sites outside Tvrđa which were inhabited after the Ottoman demise and eventually united into a single town (1786). All the groups of materials have blue-and-white style in common, popularized from the 14<sup>th</sup> century as a result of the spread of Jingdezhen porcelain. Besides the mentioned commodities, similar vessels could be used for chocolate, which was consumed as a beverage at first and introduced from the beginning of the early modern period from the so-called New World. The somewhat different shapes and dimensions of European porcelain and creamware compared to their predecessors from Chinese and Islamic workshops are a reflection of, among others, different ways of tea and coffee consumption, noticeable even today since these beverages are among the most consumed drinks around the world.

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## LITERATURA BIBLIOGRAPHY

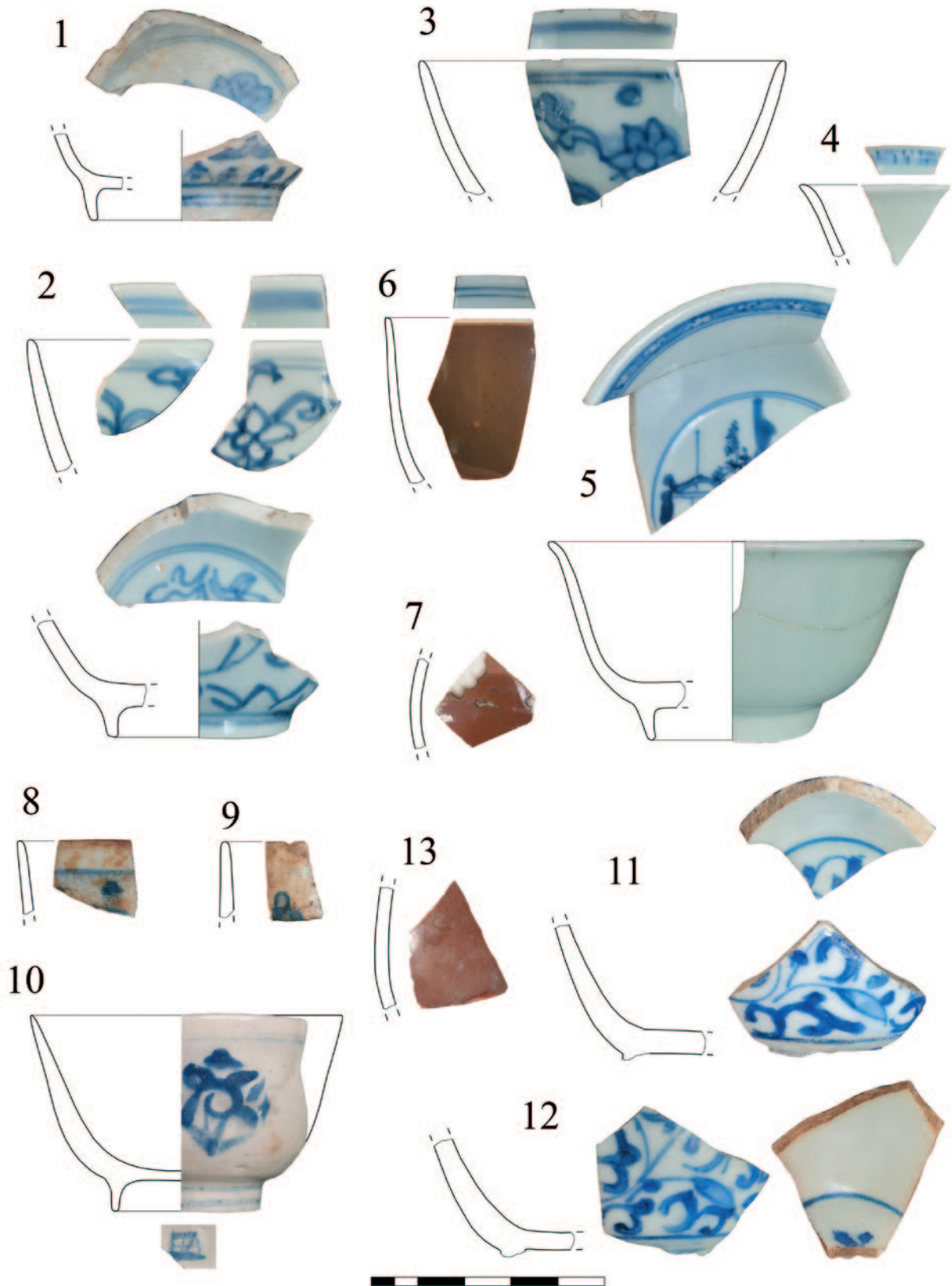
- Akalın, Ş.** 1997, Kütahya tiles and pottery in a historical perspective, in: *Delights of Kütahya. Kütahya tiles and pottery in the Suna & İnan Kıraç collection*, Akalın Ş., Yilmaz Bilgi H. (eds.), Vehbi Koç Foundation, Istanbul.
- Alajbegović Pečevića, I.** 2000, *Historija 1520–1576.*, prijevod, uvod i bilješke F. Nametik, El-Kalem, Orijentalni institut Univerziteta u Sarajevu, Sarajevo.
- Allan, J. W.** 1973, Abū'l-Qāsim's Treatise on Ceramics, *Iran: Journal of the British Institute of Persian Studies*, Vol. XI, 111–120. <https://doi.org/10.2307/4300488>
- Altun, A.** 1997, Pots to Porcelain, in: *The story of Ottoman Tiles and Ceramics*, Altun A. (ed.), Creative Yayıncılık ve Tantım Ltd., Istanbul, 281–285.
- Altun, A., Demirsar-Arlı, B.** 2001, Iznik çini fırınları kazısı 1999 çalışmaları, in: *22. kazı sonuçları toplantısı. 2. cilt*, Kültür bakanlığı yayınları, Izmir, 387–396.
- Atasoy, N.** 1994, The types and forms of Iznik pottery, in: *Iznik. The pottery of Ottoman Turkey*, Atasoy N., Raby J. (eds.), Alexandria Press, London, 37–49.
- Atasoy, N.** 2015, Keramika iz Iznika u svjetlu novih nalaza, in: *Iznik. Osmanska keramika iz dubine Jadrana / Ottoman pottery from the depths of the Adriatic*, Miholjek I., Zmaić Kralj V. (eds.), Muzej Mimara, Zagreb, 18–20.
- Ayvazoğlu, B.** 2011, *Turkish coffee culture. „A cup of coffee commits one to forty years of friendship“*, Republic of Turkey Ministry of Culture and Tourism Publications, Ankara.
- Baha Tanman, M.** 2010, Catalogue, in: *Exhibition on Ottoman Art. 16th–17th Century Ottoman Art and Architecture in Hungary and in the Centre of the Empire*, Baha Tanman M. (ed.), Istanbul 2010 European Capital of Culture Agency, Istanbul.
- Balla, M., Éder, K.** 2017, Budai lelőhelyekről előkerült török kori fajanszok anyagvizsgálata, in: *Mesterségek és műhelyek a középkori és kora újkori Magyarországon / Crafts and Workshops in Hungary during the Middle Ages and the early Modern period*, Benkő E., Kovács Gy., Orosz K. (eds.), Archaeolingua, Budapest, 95–112.
- Bilgi, H.** 2006, *Kütahya tiles and ceramics*, Pera Museum, Istanbul.
- Bilgi, H., Zanbak Vermeersch, I.** 2018, *Kütahya. Sadberk Hanım Museum Kütahya tiles and ceramics collection*, Vehbi Koç Foundation – Sadberk Hanım Museum, Istanbul.
- Brusić, Z.** 1987, Dio tereta s lađe iz 17. stoljeća potonule kod otoka Bisaga u kornatskom arhipelagu, *Prilozi povijesti umjetnosti u Dalmaciji*, Vol. 26, 473–490.
- Carswell, J.** 1972, *Kütahya tiles and pottery from the Armenian cathedral of St. James, Jerusalem II*, Clarendon Press, Oxford.
- Carswell, J.** 1985, Blue-and-white porcelain in China, in: *Blue and white. Chinese porcelain and its impact on the Western world*, Carswell J. (ed.), University of Chicago, Chicago 13–26.
- Carswell, J., Dowsett, C.** 1972, *Kütahya tiles and pottery from the Armenian cathedral of St. James, Jerusalem I*, Clarendon Press, Oxford.
- Cingeli, N.** 2015, Osijek – Vukovarska 192, *Hrvatski arheološki godišnjak*, Vol. 11 (2004), 43–45.
- Crane, H.** 1987, Some archaeological notes on Turkish Sardis, *Muqarnas*, Vol. 4, 43–58. <https://doi.org/10.2307/1523095>
- Crowe, Y.** 1996, Glazed ceramics, in: *Excavations in Kandahar 1974 and 1975*, British Archaeological Reports International Series 641, McNicoll A., Ball W. (eds.), Tempus Reparatum, Oxford, 313–364.
- Crowe, Y.** 2002, *Persia and China. Safavid blue and white ceramics in the Victoria & Albert Museum 1501–1738*, La Borie, London.
- Crowe, Y.** 2007, Kütahya patterns: out of the blue?, *Transactions of the Oriental Ceramic Society*, Vol. 71 (2006–2007), 45–52.
- Cutajar, N., Spiteri, M.** 2019, Ottoman coffee cups from 18th century Birgu and Valletta, *Tesserae: Bi-Annual Bulletin*, Vol. 8, 39–45.
- Cvijetinović, M.** 2020, *Keramika naša svagdašnja*, Pomorski i povijesni muzej Hrvatskog primorja, Rijeka.
- Čelebi, E.** 1967, *Putopis. Odlomci o jugoslavenskim zemljama*, Svjetlost, Sarajevo.
- De Vincenz, A.** 2020, Ottoman-period ceramic artifacts from the Magen Avraham compound Yafo (Jaffa), *'Atiqot*, Vol. 100, 293–347.
- Demirsar-Arlı, B.** 1997, Kütahya tiles and ceramics, in: *The story of Ottoman Tiles and Ceramics*, Altun A. (ed.), Creative Yayıncılık ve Tantım Ltd., Istanbul, 237–255.
- Espir, H.** 2005, *European Decoration on Oriental Porcelain 1700–1830*, Jorge Welsh Books, London.
- Faroqhi, S.** 1986, Coffee and spices: official Ottoman reactions to Egyptian trade in the later sixteenth century, *Wiener Zeitschrift für die Kunde des Morgenlandes*, Vol. 76, 87–93.
- Ferrarese, V. A.** 1968, Le nuove marche della maiolica ligure nei più recenti ritrovamenti, *Atti della Società Ligure di Storia Patria*, n.s. Vol. VIII(2), 273–280.
- Fodor, L., Kozák, K.** 1972, Leletegyüttesek a románkori székesegyház környékéről (Adatok az egri vár XVII–XVI. századi kerámiajának történetéhez, I.), *Agria. Az Egri Múzeum Évkönyve*, Vol. VIII–IX (1970–1971), 147–196.
- François, V.** 2007, Éléments pour une biographie des tasses à café dans l'empire ottoman, *Turcica*, Vol. 39, 293–320. doi: 10.2143/TURC.39.0.2033064
- François, V.** 2009, Céramiques d'époque ottomane á la citadelle de Damas. Des découvertes archéologiques nouvelles au Bilād al-Chām, *Al-Rāfidān*, Vol. 30, 53–66.
- Garády, S.** 1944, Agyagművesség, in: *Budapest a törökökban*, Fekete L. (ed.), Királyi magyar egyetemi nyomda, Budapest, 382–416.
- Gelichi, S.** 2014, The Adriatic sea, pottery and shipwrecks in the late and post-medieval times, an archaeological perspective, in: *Sv. Pavao shipwreck. A 16th-century Venetian merchantman from Mljet, Croatia*, Beltrame C., Gelichi S., Miholjek I. (eds.), Oxbow Books, Oxford, 25–35.

- Gerelyes, I.** 2008, Types of Oriental pottery in archaeological finds from the 16th and 17th centuries in Hungary, *Acta Orientalia Academiae Scientiarum Hungariae*, Vol. 61(1–2), 65–76. <https://doi.org/10.1556/aorient.61.2008.1-2.7>
- Gerő, G.** 1978, Türkische Keramik in Ungarn, Einheimische und Importierte Waren, in: *Fifth International Congress of Turkish Art*, Fehér G. (ed.), Akadémiai Kiadó, Budapest, 347–361.
- Golombek, L.** 2014, Dominant fashions and distinctive styles, in: *Persian Pottery in the First Global Age*, Golombek L, Mason R. B., Proctor P., Reilly E. (eds.), Brill, Leiden – Boston, 57–121. [https://doi.org/10.1163/9789004260924\\_004](https://doi.org/10.1163/9789004260924_004)
- Golombek, L., Reilly, E.** 2014, Safavid Society and the Ceramic Industry, in: *Persian Pottery in the First Global Age. The Sixteenth and Seventeenth Centuries*, Golombek L, Mason R. B., Proctor P., Reilly E. (eds.), Brill, Leiden – Boston, 13–55. [https://doi.org/10.1163/9789004260924\\_003](https://doi.org/10.1163/9789004260924_003)
- Гусач, И.** 2012, Кютахийские кофейные чашечки из раскопок крепости Лютик (Сед–Ислам), *Вестник Танаиса*, Vol. 3, 114–139. [Gusach, I. 2012, Kyutakhiyskiye kofeynyye chashechki iz raskopok kreposti Lyutik (Sed–Islam), *Vestnik Tanaisa*, Vol. 3, 114–139.]
- Гусач, И.** 2017, Малоазийская поливная керамика XV–XVIII вв. из раскопок в турецкой крепости Азак, in: *Поливная керамика средиземноморья и причерноморья X–XVIII вв. Том 2 / Glazed Pottery of the Mediterranean and the Black Sea Region, 10<sup>th</sup>–18<sup>th</sup> centuries Vol. 2*, Бочаров С., Франсуа В., Ситдииков А. (eds.), Институт археологии им. А. Х. Халикова – Академия наук Республики Татарстан, Казань – Кишинев, 581–600. [Gusach, I. 2017, Maloaziyskaya polivnaya keramika XV–XVIII vv. iz raskopok v turetskoy kreposti Azak, in: *Polivnaya keramika sredizemnomor'ya i prichernomor'ya X–XVIII vv. Tom 2 / Glazed Pottery of the Mediterranean and the Black Sea Region, 10<sup>th</sup>–18<sup>th</sup> centuries Vol. 2*, Bocharov S., Fransua V., Sitdikov A. (eds.), Institut arkeologii im. A. Kh. Khalikova – Akademiya nauk Respubliki Tatarstan, Kazan' – Kishinev, 581–600.]
- Гусач, И., Нечитайло, П.** 2018, Импортные кофейные чашечки из закрытого комплекса конца XVII века в Каменце–Подольском, in: *Балансы истории: ценности и средства / Balances of History: Values and means*, Руссев Н. (ed.), Высшая Антропологическая Школа, Санкт Петербург – Кишинев – Одесса – Бухарест, 319–357. [Gusach, I., Nechitaylo, P. 2018, Importnyye kofeynyye chashechki iz zakrytogo kompleksa kontsa XVII veka v Kamentse–Podol'skom, in: *Balansy istorii: tsennosti i sredstva / Balances of History: Values and means*, Russev N. (ed.), Vysshaya Antropologicheskaya Shkola, Sankt Peterburg – Kishinev – Odessa – Bukharest, 319–357.]
- Gutiérrez, A., Gerrard, C., Zhang, R., Guangyao, W.** 2021, The earliest Chinese ceramics in Europe, *Antiquity*, Vol. 95(383), 1213–1230. <https://doi.org/10.15184/aqy.2021.95>
- Hattox, R.** 1985, *Coffee and coffeehouses. The origin of a social beverage in the Medieval Near East*, University of Washington Press, Seattle – London.
- Hayes, J.** 1992, *Excavations at Saraçhane in Istanbul. Volume 2. The pottery*, Princeton University Press – Dumbarton Oaks Research Library and Collection, Oxford.
- Henderson, J., Raby, J.** 1989, The technology of fifteenth century Turkish tiles: an interim statement on the origins of the Iznik industry, *World Archaeology*, Vol. 21(1), 115–132. <https://doi.org/10.1080/00438243.1989.9980094>
- Holl, I.** 2007, Külföldi kerámia Magyarországon III. (14.–17. század). I. Németországi kőcserép, II. Perzsa fajans, III. Kínai porcelán, *Budapest Régiségei*, Vol. XL, 253–294.
- Horvat, I., Biondić, R.** 2007, *Keramika i staklo 17. i 18. st. iz starog Franjevačkog samostana*, Muzej Slavonije Osijek, Osijek.
- Kerr, R.** 1986, *Chinese ceramics. Porcelain of the Qing dynasty 1644–1911*, Victoria and Albert Museum, London.
- Kerr, R., Mengoni, L.** 2011, *Chinese Export Ceramics*, V&A Publishing, London.
- Kerr, R., Wood, N.** 2004, *Science and Civilisation in China Volume 5, Chemistry and Chemical technology, Part XII: Ceramic Technology*, Cambridge University Press, Cambridge.
- Ketel, C.** 2012, Early 17<sup>th</sup> century Chinese trade ceramics for the Dutch market: distribution, types and consumption, in: *Zhu bo fan hai: shi liu zhi shi qi shi ji Zhongguo tao ci wai xiao yu wu zhi wen ming kuo san guo ji xue shu yan tao hui lun wen ji / Proceedings of the International Symposium: Chinese Export Ceramics in the 16th and 17th Centuries and the Spread of Material Civilisation*, Zheng P. (ed.), City University of Hong Kong, Hong Kong, 101–129.
- Kilburn, R.** 1981, *Transitional wares and their forerunners*, The Oriental Ceramic Society of Hong Kong, Hong Kong.
- Killock, D., Meddens, F.** 2005, Pottery as plunder: a 17<sup>th</sup>-century maritime site in Limehouse, London, *Post-Medieval Archaeology*, Vol. 39(1), 1–91.
- Klobučar, O.** 1978, *Krapinska kamenina*, Muzej za umjetnost i obrt, Zagreb.
- Klose, J.** 1993, Excavated oriental ceramics from the Cape of Good Hope: 1630–1830, *Transactions of the Oriental Ceramic Society*, Vol. 57 (1992–1993), 69–81.
- Kolláth, Á.** 2021, The research history of early modern pottery in Hungary, *Antaeus: Communicationes ex Instituto Archaeologico*, Vol. 37(1), 283–328. [https://doi.org/10.62149/Antaeus.37.2021\\_11](https://doi.org/10.62149/Antaeus.37.2021_11)
- Komori, T.** 2017, *Comparative study of the Chinese porcelain finds of Ottoman Buda and the castle of Eger*, Unpublished MA Thesis, Central European University, Budapest.
- Komori, T.** 2019, The topographical distribution of Chinese porcelain sherds in Ottoman Buda and Eger castle and its implications, in: *Europa Postmedievalis 2018. Post-medieval pottery between its borders*, Blažková G., Matějková K. (eds.), Archaeopress Publishing Ltd., Oxford, 167–179.
- Konečný, M.** 2003, *Česká keramika. Rukověť keramického průmyslu v Čechách 1748–1948*, Vydavatel Milan Konečný, Praha.
- Kovács, Gy.** 2017, A kora újkori kerámia változásaihoz. Régi és új elemek a Székesfehérvári Hiemer-ház leletanyagában, in: *Mesterségek és műhelyek a középkori és kora újkori Magyarországon. Tanulmányok Holl Imre emlékére*, Benkő E., Kovács Gy., Orosz K. (eds.), Archaeolingua, Budapest, 325–351.

- Krahl, R.** 1986, Chinese marks and inscriptions, in: *Chinese Ceramics in the Topkapı Sarayı Museum Istanbul. A Complete Catalogue. I: Historical Introductions, Yuan and Ming Dynasty Celadon Wares*, Krahl R., Ayers J. (eds.), Sotheby's Publications, London, 99–124.
- Krahl, R., Ayers, J.** (eds.) 1986, *Chinese Ceramics in the Topkapı Sarayı Museum Istanbul. A Complete Catalogue. III: Qing Dynasty Porcelains*, Sotheby's Publications, London.
- Krmpotić, M.** 2014, Kasnosrednjovjekovno i novovjekovno keramičko posuđe, in: *Stari grad Barilović. 10 godina arheoloških istraživanja*, Azinović Bebek A., Krmpotić M. (eds.), Hrvatski restauratorski zavod, Zagreb, 76–91.
- Kürkman, G.** 2006, *Magic of clay and fire. A history of Kütahya pottery and potters*, Suna and Inan Kiraç Foundation, Istanbul.
- Lane, A.** 1939, Turkish peasant pottery from Chanak and Kutahia, *The Connoisseur*, Vol. 104(459), 232–237, 259.
- Lane, A.** 1957, *Later Islamic Pottery*, Pitman Publishing Corporation, New York.
- Leleković, T.** 2017, Osijek – Tvrđa (Carska vrata, most), *Hrvatski arheološki godišnjak*, Vol. 13 (2016), 40–42.
- Leleković, T.** 2018, Osijek – Tvrđa (Carska vrata, most), *Hrvatski arheološki godišnjak*, Vol. 14 (2017), 38–41.
- Li, B.** 2012, 'Batavian' style Chinese export porcelain: origins, recent finds and historical significance, in: Sz. A. Busling, N. Đ. Chién, B. Li, *The Cà Mau Shipwreck Porcelain (1723–1735). Volume 2*, Magyar Indokína Társaság Kft, Budapest, 23–30.
- Little, S.** 1983, *Chinese Ceramics of the Transitional Period: 1620–1683*, China Institute in America, New York.
- Liverani, G.** 1936, Introduzione ad un catalogo delle porcellane dei Medici. Saggio di analisi cronologica, *Faenza*, Vol. XXIV(1–2), 6–39.
- Mahamid, H., Nissim, C.** 2018, Sufis and coffee consumption. Religio-legal and historical aspects of a controversy in the late Mamluk and early Ottoman periods, *Journal of Sufi studies*, Vol. 7(1–2), 140–164. <https://doi.org/10.1163/22105956-12341311>
- Martin, J.** 1993, Colonel William Thomlinson's collection of Chinese 18th century export porcelain 'Batavian' style and other brown glazed wares, *Transactions of the Oriental Ceramic Society*, Vol. 57 (1992–1993), 83–94.
- Mason, R. B., Tite, M. S.** 1994, The beginnings of Islamic stonepaste technology, *Archaeometry*, Vol. 36(1), 77–91. <https://doi.org/10.1111/j.1475-4754.1994.tb01066.x>
- Mason, R. B., Tite, M. S.** 1997, The beginnings of tin-opacification of pottery glazes, *Archaeometry*, Vol. 39(1), 41–58. <https://doi.org/10.1111/j.1475-4754.1997.tb00789.x>
- Matin, M., Tite, M., Watson, O.** 2018, On the origins of tin-opacified ceramic glazes: New evidence from early Islamic Egypt, the Levant, Mesopotamia, Iran and Central Asia, *Journal of Archaeological Science*, Vol. 97, 42–66. <https://doi.org/10.1016/j.jas.2018.06.011>
- Mažuran, I.** 1965, *Najstariji zapisnik općine Osijek – Tvrđa od 1705. do 1746. godine. Uvod u historiju Osijeka XVIII stoljeća*, Historijski arhiv, Osijek.
- Milošević, B., Topić, N.** 2010, Dubrovački nalazi keramike iz Iznika, *Starohrvatska prosvjeta*, III. ser. Vol. 37, 147–170.
- Hañ, Ш.** 1961, Тврђава Бач – резултати археолошких истраживања 1958. и 1959. године, *Рад војвођанских музеја*, Vol. 10, 89–115. [Nađ, Š. 1961, Тврђава Ваč – резултати археолошких истраживања 1958. и 1959. године, *Рад војвођанских музеја*, Vol. 10, 89–115.]
- Neuwirth, W.** 1979, *Wiener Porzellan. Original, Kopie, Verfälschung, Fälschung*, Selbsverlag Dr. Waltraud Neuwirth, Wien.
- Ostkamp, S.** 2014, The Dutch 17th century porcelain trade from an archaeological perspective, in: *Chinese and Japanese porcelain for the Dutch Golden age*, van Campen J., Eliëns T. (eds.), Waanders Uitgevers, Zwolle, 53–85.
- Özdemir, H.** 2018, Silifke castle excavation. Kütahya ceramics (2011–2014), in: *XI<sup>th</sup> Congress AIECM3 on Medieval and Modern period Mediterranean Ceramics Proceedings*, Vol. 1, Hazırlayan Y., Yenşehirlioğlu F. (eds.), Koç Üniversitesi Vekam, Antalya, 445–448.
- Pešić, M.** 2009, Keramički materijal iz Iznika i ostalih orijentalnih radionica s lokaliteta pličina Sv. Pavao por-ed otoka Mljeta, in: *Jurišičev zbornik. Zbornik radova u znak sjećanja na Marija Jurišića*, Bekić L. (ed.), Hrvatski restauratorski zavod, Zagreb, 338–349.
- Petersen, A.** 2020, Arabia and the Gulf, in: *Oxford Handbook of Islamic Archaeology*, Walker B., Insoll T., Fenwick C. (eds.), Oxford University Press, Oxford, 193–215.
- Petričević Banović, D.** 2018, Kasnosrednjovjekovna i novovjekovna keramika s tvrđave Grad u Sinju, in: *Tvrđava Grad*, Domazet D. (ed.), Muzej Cetinske krajine, Sinj, 118–161.
- Pope, J. A.** 1952, *Fourteenth-Century Blue-and-White. A Group of Chinese Porcelains in the Topkapı Sarayı Müzesi, Istanbul*, The Lord Baltimore Press, Washington.
- Pope, J. A.** 1981, *Chinese Porcelains from the Ardebil Shrine*, 2nd edition, Sotheby Parke Bernet Publications by Philip Wilson Publishers Ltd, London.
- Priestman, S. M. N.** 2011, Opaque glazed wares: the definition, dating and distribution of a key Iraqi ceramic export in the Abbasid period, *Iran: Journal of the British Institute of Persian Studies*, Vol. 49, 89–113. <https://doi.org/10.1080/05786967.2011.11834431>
- Radić, M.** 2015, *Osijek i šira okolica u osmanskom periodu / Osijek and surrounding area in the Ottoman period*, katalog izložbe, Muzej Slavonije Osijek.
- Radić, M.** 2017, *Tvrđa u Osijeku / Festung in Esseg / Fortress in Osijek*, katalog izložbe, Muzej Slavonije Osijek, Osijek.
- Radić, M., Bojčić, Z.** 2004, *Srednjovjekovni grad Ružica*, Muzej Slavonije Osijek, Osijek.
- Rimpf, A.** 2017, Ilok's fortress in the Ottoman period, in: *Srednjovjekovna naselja u svjetlu arheoloških izvora / Medieval Settlements in the light of Archaeological Sources*, Sekelj Ivančan T., Tkalčec T., Krznar S., Belaj J. (eds.), Zbornik Instituta za arheologiju 6, Institut za arheologiju, Zagreb, 421–438.
- Rimpf, A.** 2020, *Arheologija izvan zidina / Archaeology beyond the walls*, Muzej grada Iloka, Ilok.
- Rogers, J. M.** 2003, Ottoman archaeology in Eastern Europe, in: *Archaeology of the Ottoman period in Hungary*, Gerelyes I., Kovács Gy. (eds), Hungarian National Museum, Budapest, 41–46.



- Rugiadi, M.** 2011, The emergence of siliceous-paste in Iran in the last quarter of the 11<sup>th</sup> century and related issues. The dated assemblage from the Southern domed hall of the Great Mosque in Isfahan, *Vicino & Medio Oriente*, Vol. XV, 233–248.
- Salajić, S.** 2008, *Srednjovjekovna nizinska utvrda u Virovitici. Osvrt na arheološka istraživanja*, katalog izložbe, Gradski muzej Virovitica, Virovitica.
- Schricks, C., Duijn, D.** 2012, *Handel met sultan en sjah. Archeologische vondsten van Turks en Perzisch aardewerk uit de Gouden Eeuw in Hoorn en Enkhuizen*, *Archeologie in West-Friesland* 8, *Archeologie West-Friesland*, Hoorn.
- Søndergaard Kristensen, R.** 2014, Made in China: import, distribution and consumption of Chinese porcelain in Copenhagen c. 1600–1760, *Post-Medieval Archaeology*, Vol. 48(1), 151–181. <https://doi.org/10.1179/0079423614Z.00000000051>
- Šunjić, M., Sinobad, M.** 2018, Trg J. J. Strossmayera – istraživanja 2011.–2014. godine, in: J. Boras, *In villa que vocatur Diaco. Rezultati arheoloških istraživanja u Đakovu*, Muzej Đakovštine, Đakovo, 20–29.
- Taylor, K.** 2001, The excavation of an Elizabethan/Stuart waterfront site in the north bank of the River Thames at Victoria Wharf, Narrow Street, Limehouse, London E14, *Post-Medieval Archaeology*, Vol. 35(1), 53–95. <https://doi.org/10.1179/pma.2001.003>
- Tite, M., Freestone, I., Bimson, M.** 1984, A technological study of Chinese porcelain of the Yuan dynasty, *Archaeometry*, Vol. 26(2), 139–154. <https://doi.org/10.1111/j.1475-4754.1984.tb00329.x>
- Tite, M. S., Wolf, S., Mason, R. B.** 2011, The technological development of stonepaste ceramics from the Islamic Middle East, *Journal of Archaeological Science*, Vol. 38(3), 570–580. <https://doi.org/10.1016/j.jas.2010.10.011>
- Tonghini, C.** 1997, Ceramica 'selgiuchide' e ceramica 'di Raqqa': considerazioni sui criteri di classificazione alla luce di recenti indagini, in: *I Congresso nazionale di archeologia medievale*, Pisa, 29–31 maggio 1997, Gelichi S. (ed.), All'insegna del Giglio, Firenze, 428–433.
- Topić, N. Milošević, B.** 2018, Arheološko istraživanje ispod Mosta od Pila u Dubrovniku, *Anali Zavoda za povijesne znanosti Hrvatske akademije znanosti i umjetnosti u Dubrovniku*, Vol. 56(1), 1–42. <https://doi.org/10.21857/9e31lhngzm>
- Trzeciacki, M.** 2021, „A nice cup of tea.” Pottery as material evidence of changes in the table culture of 18th-century Warsaw, in: *Europa Postmediaevalis 2020. Post-medieval pottery in the spare time*, Blažková G., Matějková K. (eds.), Archaeopress Publishing Ltd., Oxford, 109–120.
- Valenstein, S. G.** 1989, *A Handbook of Chinese Pottery*, The Metropolitan Museum of Art, New York.
- van Driem, G. L.** 2019, *The tale of tea. A comprehensive history of tea from prehistoric times to present day*, Brill, Leiden – Boston.
- Винавер, В.** 1965, Прилог историји кафе у југословенским земљама, *Историјски часопис*, Vol. XIV–XV (1963–1965), 329–346. [Vinaver, V. 1965, Прилог историји кафе у југословенским земљама, *Историјски часопис*, Vol. XIV–XV (1963–1965), 329–346.]
- Volker, T.** 1954, *Porcelain and the Dutch East India Company. As recorded in the Dagh-Registers of Batavia Castle, those of Hirado and Deshima and other contemporary papers 1602 – 1682*, E. J. Brill, Leiden.
- Волков, И.** 2006, Закрытый комплекс турецкого времени из Азова, ин: Историко-археологические исследования в г. Азове и на Нижнем Дону в 2004 г. 21, Кияшко В. Я. (ед.), Издательство Азовского музея-заповедника, Азов, 473–497. [Volkov, I. 2006, Zakrytyy kompleks turetskogo vremeni iz Azova, in: Istoriko-arkheologicheskiye issledovaniya v g. Azove i na Nizhnem Donu v 2004 g. 21, Kiyashko V. Ya. (ed.), Izdatelystvo Azovskogo muzeja-zapovednika, Azov, 473–497.]
- Watson, O.** 1999, Fritware: Fatimid Egypt or Saljuk Iran?, *L'Egypte Fatimide; son art et son histoire*, Barrucand M. (ed.), Universté de Paris-Sorbonne, Paris, 299–310.
- Watson, O.** 2004, Revisiting Samarra: the rise of Islamic glazed pottery, *Beiträge zur islamischen Kunst und Archäologie*, Vol. 4, 123–142.
- Whitehouse, D.** 1972, Chinese porcelain in Medieval Europe, *Medieval Archaeology*, Vol. 16, 63–78. <https://doi.org/10.1080/00766097.1972.11735347>
- Wilson, T. H.** 1993, Renaissance ceramics, in: *Western Decorative Arts, Part I: Medieval, Renaissance and Historicizing Styles including Metalwork, Enamels and Ceramics*, Distelberger R., Luchs A., Verdier P., Wilson T. H. (eds.), National Gallery of Art, Washington – Cambridge University Press, Washington, 119–263.
- Zay, O.** 2014, Egri, hódoltság korabeli porcelán- és fajansztöredékek vizsgálata régészeti szemmel és SEM-EDS módszerrel, in: *A múltnak kútja. Fiatal középkoros régészek V. konferenciájának tanulmánykötete / The fountain of the past. Study volume of the Fifth annual conference of young medieval archaeologists*, Rácz T. A. (ed.), Ferenczy Múzeum, Szentendre, 343–353, 443, 474.

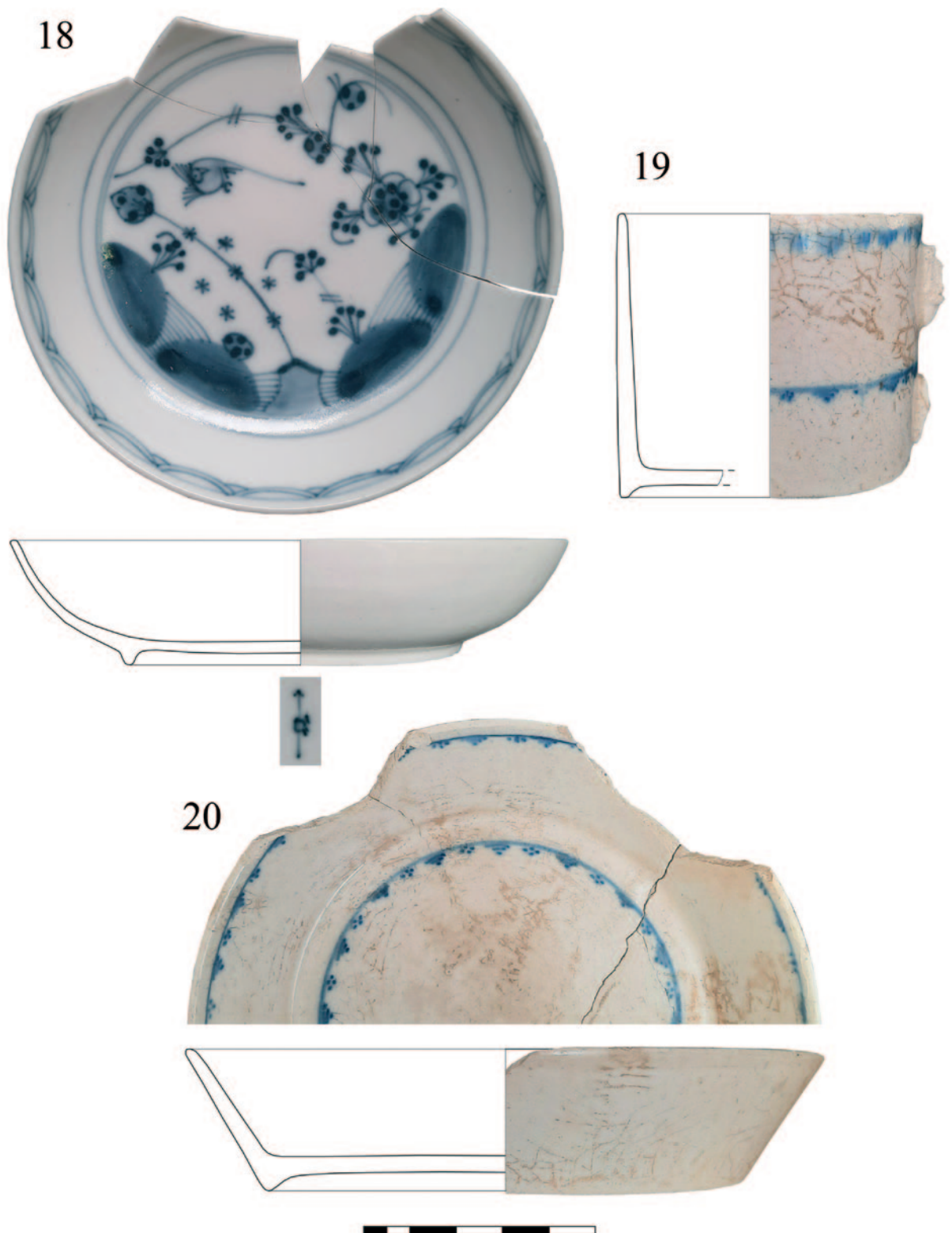


T. 1 – Šalice iz Osijeka. SJ 28/81: 1–2, 4, 7; SJ 51: 3, 8–9, 11; SJ 51/257: 5; SJ 88: 12; SJ 257: 6, 13; SJ 1: 10 (izradila: M. Korić, 2023.)

Pl. 1 – Cups from Osijek. SU 28/81: 1–2, 4,7; SU 51: 3, 8–9, 11; SU 51/257: 5; SU 88: 12; SU 257: 6, 13; SU 1: 10 (made by: M. Korić, 2023)



T. 2 – Šalice i tanjurići iz Osijeka. SJ 107: 14, 16–17; SJ 17: 15 (izradila: M. Korić, 2023.)  
Pl. 2 – Cups and saucers from Osijek. SU 107: 14, 16–17; SU 17: 15 (made by: M. Korić, 2023)



T. 3 – Šalica i tanjurići iz Osijeka. SJ 107: 18–20 (izradila: M. Korić, 2023.)  
Pl. 3 – Cup and saucers from Osijek. SU 107: 18–20 (made by: M. Korić, 2023)

