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Archaeological and Bioarchaeological Evidence from the Ottoman period Bosnia: The Case Study of Doboj-Čaršija

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Abstract: The Selimiye is a mosque complex located in the old city's center of Doboj – the Upper Town (*čaršija*). We present the results of the first interdisciplinary analysis of archaeological and bioarchaeological finds from its excavations in 1994 attempting to get the first insights into living conditions of the Ottoman period Bosnia. Archaeological assemblage dated to the 16th-19th century is composed of pottery, clay tobacco pipes, small everyday metal objects, functional parts of costume, and glass fragments. Animal remains were probably associated with ritual context of food consumption during the Eid al-Adha feasts. Burial of a child inside the mosque's *harem* indicates its belonging to an upper class Muslim family of Doboj.

Keywords: Ottoman period archaeology, Selimiye Mosque, Doboj, Bosnia, Zooarchaeology, Physical Anthropology

Introduction

For nearly six centuries, the Ottoman dynasty ruled a vast empire, which at the height of its power stretched from Budapest on the Danube throughout large parts of the Middle East, and from Crimea on the northern shores of the Black Sea to Tunis on the southern shores of the Mediterranean. The geographical range and chronological extent of the Ottoman Empire was huge. It goes without saying that such a broad empire was a melting pot of different religious, linguistic and ethnic groups, which, in different times and places, lived alongside one another, all as subjects of the Ottoman Empire. Many modern countries are still dealing with territorial, cultural and legal issues stemming from the time of the Ottomans' rule.¹ Archaeological narratives of Dark Age and decline of medieval and post-medieval European culture under Ottoman rule become a paradigm and stereotype prevailed in research topics among Southeast European

scholars.² A very small number of researches have, after uncovering Ottoman components in multi-layer sites, found the artifacts from this period important enough to describe, typologically categorize, and interpret.³ But in the main, the Ottoman period has remained an unpopular period for archaeological study.⁴ The archaeology of the Ottoman Empire is considered a young branch of European academic community, one which has come to the fore only in the past decades. One example that has begun to challenge the status quo is Hungary, which was occupied by the Ottomans for a relatively short period (1541–1699). Today, it has a thriving and well-established tradition of Ottoman archaeology⁵ and zooarchaeology.⁶

² Baram / Carroll 2002, 3-4.

³ Baram / Carroll 2002, 4; Guinova 2005, 268-269; Yenişehirlioğlu 2005, 249-250.

⁴ Baram / Carroll 2002, 10; Gerelyes et al. 2020, 218; Walker 2014, 5642.

⁵ Gerelyes / Kovács 2003; Petersen 2014, 5658; Walker 2014; Gerelyes et al. 2020, 225-228.

⁶ Bartosiewicz 1999; 2020; Bartosiewicz / Gál 2003; Gál 2016; Gál / Bartosiewicz 2016; Kovács et al. 2014.

¹ Kia 2011, 13-14; Petersen 2014, 5653.

However, the countries of the Balkans have been less eager to investigate and incorporate their Ottoman past into their national heritage. In the last few decades, Serbia, Montenegro and Croatia have made remarkable progress in this field,⁷ yet Bosnia and Herzegovina, which has the most significant preserved remnants of Ottoman culture and provides the best examples of the synergies of different cultural influences from both the East and the West, is still awaiting an affirmation of Ottoman archaeology as a sub-discipline 'equal' to those concentrating on other epochs. Although archaeological research has been intensively conducted for more than a century, the number of studies devoted to the archaeology of this period is minor. Ottoman archaeology did not develop as a specialized discipline because it was not observed through the prism of the so-called 'national' medieval or post-medieval archaeology, with the material remains from this period instead being treated exclusively in the context of folklore studies (ethnology), or as objects and items belonging to the period of occupation or, at best, as things already known and understood through numerous written sources, with there being no need to 'problematicize' the era through archaeological study.⁸ There is no doubt that Ottoman culture left behind an indelible mark and became part of the collective cultural identity of Bosnia and Herzegovina, and that it is necessary to make further progress in the research of this period. Therefore, this paper is a pioneering step in affirming the archaeology and bioarchaeology of the Ottoman period in present-day Bosnia and Herzegovina. We present the results of archaeological research of the Selimiye Mosque and mosque harem (courtyard) in the Upper Town (čaršija) district of Doboj that were conducted in 1994. Analyzed archaeological and bioarchaeological (animal and human) remains are dated to the post-medieval period (16th–19th century). The goal of our study has been to get the first insights into living conditions, rituals and finally everyday life of the Muslim population from the Ottoman period in the country.

Historical overview

The medieval Kingdom of Bosnia came into closer contact with the Ottoman Empire during the late 14th century. The Ottomans were able to successfully identify the weaknesses of their opponents, and take advantage of quarrels and declining morale among the Christian inhabitants of the Balkan Peninsula.⁹ Evidence of the presence of the Ottoman army and administration deep in the medieval Bosnian territory was confirmed through written sources on the founding of the Hodidid Vilayet by no later than 1451.¹⁰ Isa-beg Ishaković, an Ottoman general and the first Governor of the Sanjak of Bosnia, built a saray (government building) in Sarajevo, after which the city obtained its name, then in 1457 a mosque, which he dedicated to Sultan Mehmed el-Fatih. Both of these buildings, the mosque and the saray, were built before 1462, when Isa-beg's *waqf* was determined, founding his endowments.¹¹ After the fall of Constantinople in 1453, the medieval states of Serbia and Bosnia were swiftly conquered, in 1459 and 1463 respectively. Doboj was conquered shortly after the fall of the temporary successor puppet-state Kingdom of Bosnia in 1476, with the fortress being handed over to the Ottomans in 1476/77 by commanders Ivaniš and Stjepan. In return, the Ottomans granted them land ownership and privileges.¹² For the next half century, Doboj was situated at the crossroads between the northern Hungarian 'estates', the Banate of Srebrenik to the north, and the Ottoman Empire to the south. But after the fall of Dobor fortress (to the north of Doboj) in 1536, the whole region found itself under the rule of a new master. The Ottoman conquest introduced a high degree of Islamic practices to everyday life. The spreading Islamic culture in Bosnia was a gradual process: the initial period of Ottoman rule was characterized by a policy of accommodation of local nobility and leaders.¹³ The reasons for conversion to Islam were manifold, but included economic privileges granted to new converts, the chaotic social and political circumstances that the Ottomans encountered

⁷ Bikić 2007; Gelichi 2014; Pluskowski / Seetah 2008; Radić 2013; Gerelyes et al. 2020, 222–224; Zaro et al. 2020; Živković et al. 2021.

⁸ Jašarević 2018, 224.

⁹ Filipović 2019, 60.

¹⁰ Šabanović 1982, 28; Rudić 2017, 104.

¹¹ Zlatar 2013, 136.

¹² Aličić 2008, 78; Handžić 1975, 39; Mrgić 2008, 146.

¹³ Lopusić 1994, 165; Rudić 2017, 118; Pinjuh 2018, 208.

in Bosnia, and the wish of subjects to climb the social ladder.¹⁴ Only 1% of the population of Bosnia was Muslims in 1468, but by 1528 they represented 46% of the population; this percentage was significantly smaller in other European provinces.¹⁵

The process of transformation from a fortified medieval to an Ottoman Balkan town started some decades after the Ottoman conquest. When the Ottomans conquered Bosnia, they found towns with relatively small populations, who lived mostly in the suburbs immediately surrounding the fortress, while the majority of the population lived in rural areas.¹⁶ In the conception of new urban development in the Ottoman town, mosques were the central place from which the city further developed, due to the fact that they united all the important components of social life within their spaces; religious rites were held, lessons were given, education of children and adults was provided, lectures on religious, moral and spiritual life given, and resolutions to community problems at the settlement level were found. In Bosnia, as in other parts of the empire, the first mosques were built as pious foundations, or *waqfs*, by the central administration in places that were of significant socio-economic importance to the empire. Such mosques bore the names of the ruling sultans, but they did not represent the *waqf* foundations of the sultan, but were only erected on their orders, from state funds, from which the costs of their maintenance were financed. When the state was no longer able to pay the costs of their subsistence, the costs of upkeep were voluntarily taken over by wealthy individuals or collectively by neighborhoods.¹⁷ In the towns, the different religious and ethnic groups lived in separate *mahalas* (neighborhoods) inhabited by people of the same religious or ethnic background, or by members of the same *esnaf* (guild).¹⁸ But above all, in order for a settlement to receive the status of a *kasaba* (town), certain conditions had to be met, i.e. a certain level of development had to be reached: a permanently settled Muslim population, at

least one larger mahala, at least one mosque; a town square, i.e. the existence of a bazaar and the holding of a weekly market day.¹⁹ Muslim quarters traced their names to the main mosque within their limits, and therefore the first mahala in Doboj mentioned in historical documents is the *mahala of the venerable Selimiye Mosque of the deceased sultan*, mentioned in 1604.²⁰ But it remains unknown to whom the term 'sultan' in this title directly refers, Selim I (1512-1520) or Selim II (1566-1574).²¹ Bearing in mind that Doboj's *kasaba* is the oldest in northern Bosnia, designated as such in the period between 1512 and 1520,²² it can be assumed with some degree of certainty that the mosque was erected before that date.

By the 16th century, the Ottoman Empire had emerged as one of the most important empires in Europe.²³ This development and recovery at all levels seems to have lasted until the 1580s, when the Golden Age came to an end, and the Ottoman Empire entered a period of political, military and social crisis, leading to inflation and fiscal exploitation of the peasantry. At the same time, in 1580, the Eyalet of Bosnia was established as a border military territory.²⁴ Historical trends determined that Doboj, as well as the entire lower course of the River Bosna, would continue to play an important role in the centuries to come. One of the major historical events of this period was the attack of the Austrian army and Prince Eugene of Savoy in 1697, when Doboj and a number of other cities were sacked in the wake of the Habsburg victory at the Battle of Zenta.²⁵ During this devastation, the Selimiye Mosque was also razed, but in 1703 the mosque was reconstructed.²⁶ At the end of the 17th century, as a result of continuous warfare and the situation of the region on the frontier of the Ottoman Empire, Bosnia's adult male population was virtually obliterated. From 1690, famine and disease prevailed throughout Bosnia. The extremely difficult living conditions are attested to by sev-

¹⁴ Rudić 2017, 114.

¹⁵ Do Paço 2013, 196; Pinjuh 2018, 209.

¹⁶ Zlatar 2013, 135.

¹⁷ Čar-Drnda 2004, 267; Handžić 1980, 247-248; Mrgić 2007, 72-73.

¹⁸ Gerelyes et al. 2020, 224; Kia 2011, 72.

¹⁹ Handžić 1976, 133-134; Mrgić 2007, 73.

²⁰ Kupusović 2000, 371.

²¹ Čar-Drnda 2004, 282; Mujezinović 1977.

²² Mrgić 2007, 72-75.

²³ Ágoston 2010, 112-113.

²⁴ Šabanović 1982, 78-79.

²⁵ Kreševljaković 1991, 157.

²⁶ Belić 2003, 107.

eral sources, which mention the phenomenon of consumption of meat from animals that are prohibited by religious law, like dogs, cats and horses; in urban areas there is even historical evidence to suggest the emergence of cannibalism.²⁷ The fiscal inflation and other harsh conditions were equally bad for Muslims as for non-Muslims. The Ottoman Empire entered the 18th century in turmoil and decline. During the Habsburg-Ottoman wars (1716-1718), numerous cities were destroyed, and their populations were displaced. For the second time in 1717, the Austrian army sacked Doboj and burned the Selimiye Mosque. However, the mosque was reconstructed once more the following year.²⁸ During the 19th century, nationalist rebellions erupted among the Christian subjects of the sultan, compromising Ottoman power and authority in the Balkans. Despite their best efforts to focus on reform, serious social challenges, both from internal rebellions and foreign hostility, ultimately undermined their efforts and resulted in the dissolution of the realm. The 1878 Congress of Berlin was a turning point in the history of the Ottoman Empire. When the congress ended, the Ottoman Empire was no longer a political and military power in the Balkans.²⁹ Bosnia became a part of the Austro-Hungarian Empire, resulting in radical changes occurring in all spheres of life. The fate of the Selimiye Mosque in the 19th century is not known, but historical sources say that it was completely destroyed in a fire in 1906/07, with yet another new mosque being built in its place in 1908.³⁰ This new mosque had pitched roofs with a flat portico (fig. 1). There is no evidence to suggest the appearance of the original 16th century mosque. Most likely it was of the most typical type of mosque dated in 16th century in Bosnia; a single-spaced mosque with a hemispherical dome, a slender minaret, and a portico with three or five bays, covered by three smaller domes, the central one normally being slightly taller higher, as with the design of the nearby Kalavun Jusuf-pasha mosque in Maglaj.³¹ The last and most devastating destruction of Selimiye Mosque happened during the 1992–



Fig. 1. *Selimiye Mosque in 1954*
(Archive of the Museum in Doboj)

1995 Bosnian armed conflict. The scale of the devastation of the cultural and religious heritage of Bosnia and Herzegovina was extensive, with Muslim or Ottoman sacral and secular monuments forming by far the greatest proportion of structures targeted during the conflict.³²

Archaeological background

The position of Doboj on the lower course of the River Bosna, at the confluence of two of its tributaries, the Spreča and Usora, was critical to forming its strategic position as an extremely important center in the control of space and communications (fig. 2). The valley of the River Bosna from its confluence with the Sava provided a direct line of communication with central Bosnia, a rich mining area, but also the center of the Kingdom of Bosnia.³³ The most important structure in Doboj, which is still seen as a symbol of the city today, is the fortress, Gradina, built at the most dominant position of the city. It was constructed in the 14th century as a fortified castle, with surrounding suburban districts.

²⁷ Sućeska 1984, 145-146.

²⁸ Belić 2003, 107; Kreševljaković 1953, 21.

²⁹ Kia 2011, 22.

³⁰ Belić 2003, 107.

³¹ Hartmuth 2011, 25; Jahić 2013, 96; Redžić 1983, 95-96.

³² Meskell 1998; Walasek 2015, 25-26.

³³ Mrgić 2007, 50.

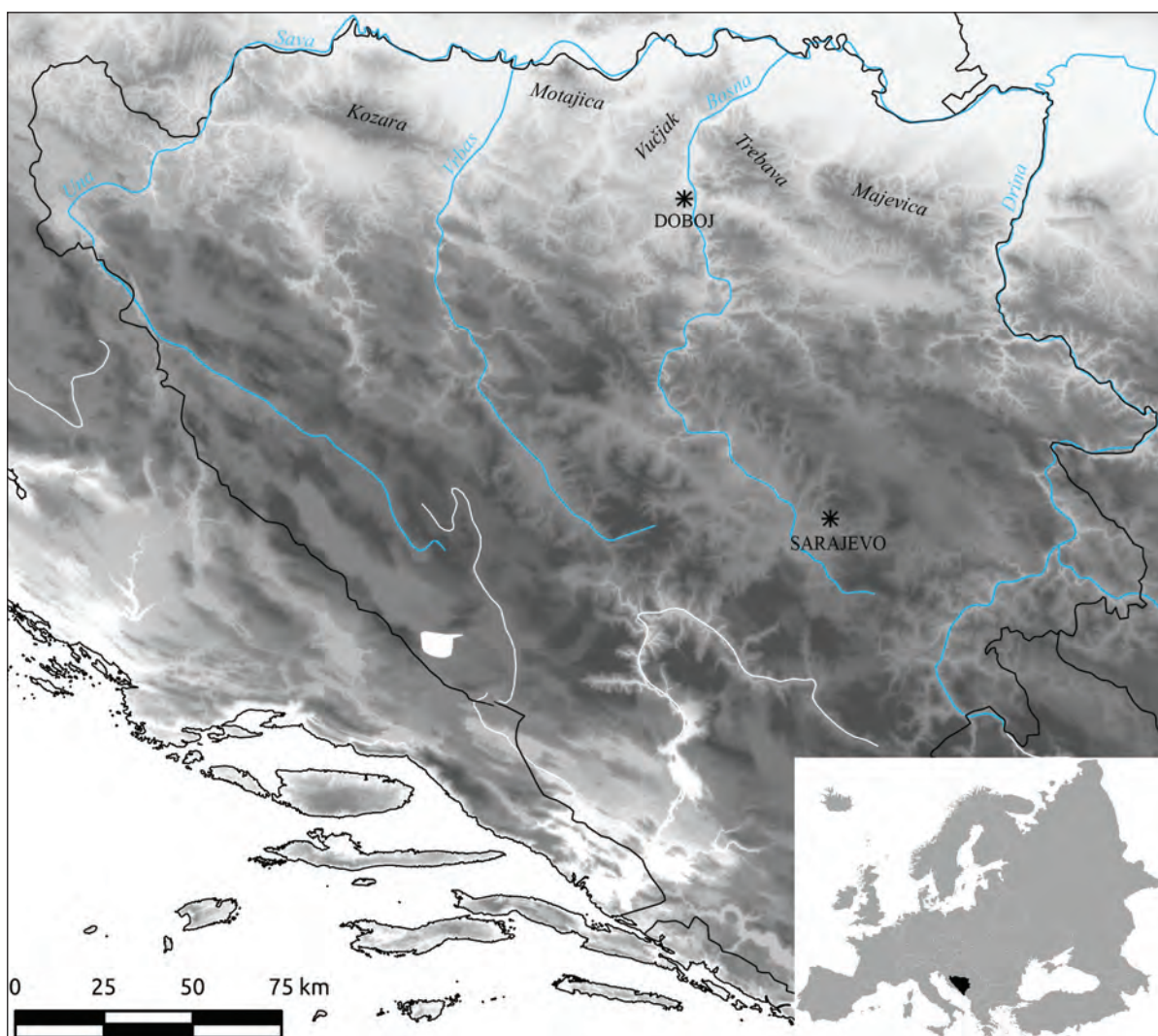


Fig. 2. Topographic map of Bosnia and Herzegovina

In the 15th century, it played an important role in the relations between medieval Bosnia and Hungary, and was first mentioned in 1415, in relation to military conflicts between the Bosnian and Hungarian kings. It was a typical fortified castle, with strong walls and towers, while most of the everyday activities were carried out in the suburbs located immediately to the west of the fortress.³⁴ The arrival of the Ottomans marked one of the greatest turning points, not only in the further development of Doboj, but of the entire region. New cultural habits, religion and social relations significantly changed the medieval European feudal culture. All these new characteristics were marked by the construction of the Selimiye Mosque in Doboj in the 16th century.

³⁴ Kreševljaković 1953, 21; Kajmaković 1964, 45; Jašarević 2017, 43; Mazalić 1958, 237; Truhelka 1904, 78.

The Selimiye Mosque was built in the most prominent position within the town's medieval suburbs (fig. 3). It has been demolished and rebuilt several times throughout history, with the last major devastation being in 1992, during the Bosnian armed conflict of the early 1990s. The unnecessary and barbaric demolition of the mosque was related to the presumption that under the structure lay an older one, assumed to be a medieval church. Perhaps even more importantly, archaeology in this region was deeply embedded within contemporary political ideologies and narratives that Ottoman cultural heritage should be removed as part of the search for older layers of the glorious medieval past.³⁵ During the second half of the 20th century, in

³⁵ Baram / Carroll 2002, 10; Walasek 2015, 25-26.



Fig. 3. Urban plan of Doboj from 1882 with the position of the Selimiye Mosque (Archive of the Museum in Doboj)

the course of minor construction works around the mosque, several undocumented graves and walls were discovered, resulting in the formation of narratives about the remains of a church lying beneath the mosque.³⁶ Archaeological research was conducted in 1994 by Đorđe Janković from the Faculty of Philosophy in Belgrade. Unfortunately, since the excavations were conducted during the war, the documentation has not been preserved in total, except for a brief report that was published.³⁷ All material has been preserved, and was deposited in the Regional Museum in Doboj. The results of the research showed the existence of two objects under the mosque and harem (courtyard), but their function has not been fully confirmed. There are indications that one of them was some form of medieval palace or church complex. Although the area was only partially excavated, the size of the building was determined to be 11 meters by 9 meters, with wall thicknesses ranging from 0.75 meters on the northwestern and northeastern sides to 1-1.2 meters on the southwestern side. This southwestern side was interpreted to have formed a part of the medieval suburban fortifications. The remains of fresco paintings, mostly geometric motifs, which decorated the walls of the building, were found, and the remains of a

wooden floor were also recorded.³⁸ Regarding the second building, only a portion of the western wall was discovered, up to 5 meters long and half a meter wide, with a porch supported by wooden pillars in front. This building most likely dates to the Ottoman period, more specifically to the 16th or 17th century. North of the first building, the remains of a medieval cemetery were discovered, with four graves from this being excavated.³⁹

Archaeological findings

The findings from Selimiye Mosque include a wide array of pottery fragments. The fragmentation is a result of the fact that most of the finds are from occupation layers, as opposed to backfills or refuse pits. Late medieval and post-medieval finds were recovered at depths from 0.20 meters to 1.5 meters, covering the entire excavation surface of 150m². Pottery comprises the best-represented category of finds primarily dated on the basis of typological characteristics. Finds of medieval pottery are extremely rare, and were mostly retrieved from the deepest layers next to the presumed medieval building. Pottery assemblages from the Ottoman period include a variety of shapes such as storage vessels, cooking

³⁶ Belić 1988, 64; Belić 2003, 106.

³⁷ Janković 1995, 208-210.

³⁸ Janković 1995, 208-209.

³⁹ Ibid., 209-210.

pots, medium-sized jars, small serving ewers (*ibrik*), coffee cups, bowls, bread-baking covers and stove tiles. The period of the 16th century is exclusively represented by finds of cooking pots, the form and decoration of which are in accordance with the late medieval production of the region (fig. 4/1-2). The situation is similar in the layers from the 17th century, where a slightly larger amount of chronologically dated specimens was found. This includes bread-baking covers comparable to finds from the Belgrade Fortress (fig. 4/5).⁴⁰ Oriental-type vessels (*ibrik* type) begin to appear in larger quantities from the early 18th century. Decorated tableware consists mainly of plain-glazed serving jugs and large painted dishes with broad everted rims, most of which belong to the late ceramic production of the 19th to early 20th century. Pottery produced locally during the Ottoman period is noted to have lost the refinement of shape and decoration that characterized the ceramics of the medieval period. What is more important, however, is the increased availability of glazed wares in comparison to unglazed/domestic wares at urban and rural sites during the Ottoman period.⁴¹ These were skillfully manufactured from red clay on a foot-driven potter's wheel, and coated with a monochrome lead glaze. There is also a relatively large group of kaolin clay vessels with red-colored ornamentation, dated mostly from the late 18th to the late 19th century. From the beginning of the 19th century, fragments of coffee cups begin to appear in the archaeological record (fig. 4/3), which were found together with clay tobacco pipes (fig. 4/6-10) and fragments of *narghiles* (fig. 4/11).

Ceramic finds of everyday use include a variety of tobacco pipes. These form a highly characteristic group of finds that often appear in post-medieval sites.⁴² All tobacco pipes found can be classified as belonging to the Eastern or Mediterranean type, commonly used in the Ottoman Empire. A total of 13 pipes, mostly fragmented, were found in the archaeological layer below the layer leveled during the 1908 reconstruction of the mosque.⁴³ Typologically, all of these finds have analogies in the 19th century

types. All pipes are baked in red tones, with a red slip. Of note among the fragmented finds are pipes with horizontal facets (fig. 4/9), or *Type I* according to the typology of Sauro Gelichi. Their production, as interpreted from finds from the Old Town of Bar in Montenegro, began in the early 18th century, continuing until the end of the 19th century.⁴⁴ Pipes with a plate base (fig. 4/8), whose production was widespread throughout the Balkans, are represented by three fragmented finds. Such pipes belong to one of the most recent groups, and mostly date to the 19th century. Gelichi classifies them as *Type III*, and dates them to between the beginning of the 19th century and the beginning of the 20th century.⁴⁵ This date range is supported by finds of pipes from Dubrovnik and Sinj in Croatia and Corinth in Greece.⁴⁶ The mouthpiece of a *narghile* dating to the 19th century was also found in the harem space of the mosque (fig. 4/11).⁴⁷

In comparison to ceramic finds, glass finds are extremely rare. The small group of glass artifacts consists largely of base and rim fragments of vessels. The range of forms is rather modest, being limited to jugs and bottles, and the majority of identified forms date to the 18th and 19th centuries. Two imported specimens are particularly interesting: small glass vessels for alcohol (*rakia*) consumption, with glass coats-of-arms of the Principality of Serbia as applied decoration (fig. 4/12-13). They represent imports from first Serbian glass workshops in Jagodina, and date to the mid-19th century. The coins yielded by the excavations are for the most part chance and surface finds, heavily corroded and mostly illegible, with the few that have been identified being German or Austrian coins and tokens from the 19th century, all dating to before 1878 (the date of the Austro-Hungarian occupation of Bosnia and Herzegovina). Most of the other metal finds are made of iron. Unfortunately, most of these iron pieces are so fragmentary that their original function is almost impossible to determine, but many of them may very well be parts of bindings, hinge straps, nails, corner brackets, and other fittings from structures or furniture. A few identifiable items were items of everyday use, such as

⁴⁰ Bikić 2003, 77.

⁴¹ Gerelyes et al. 2020, 221.

⁴² Bikić 2012, 1; Gačić 2011, 34; Robinson 1985, 186-188.

⁴³ Jašarević 2018, 221.

⁴⁴ Gelichi 2013, 11.

⁴⁵ Ibid., 12.

⁴⁶ Jašarević 2018, 221; Robinson 1985, 188.

⁴⁷ Jašarević 2018, 222.

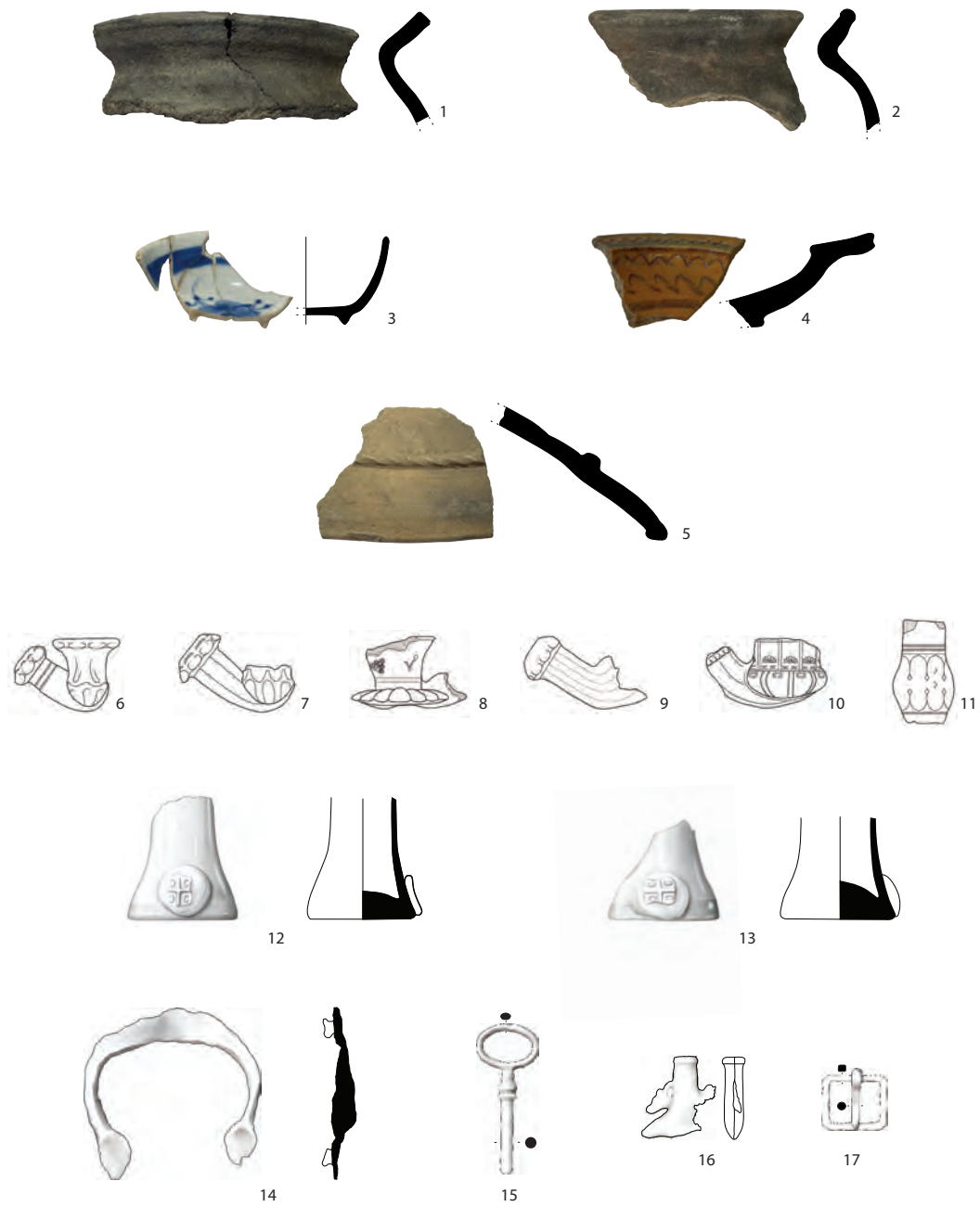


Fig. 4. Archaeological findings from the Selimiye Mosque

strap buckles, keys, horseshoes and metal linings for shoes (fig. 4/14-15, 17). These are utilitarian objects that changed little in appearance from the Middle Ages until the dawn of the Industrial Age in the 19th century.⁴⁸ Only one object can be definitively categorized as relating to armaments: a lead gunpowder flask dated to the 18th or early 19th century (fig. 4/16).

Zooarchaeological analysis

Methods

During the excavation in 1994, animal remains were hand-collected from the post-medieval (17th–19th century) cultural layer in the *harem* of the mosque. The animal remains were recorded following the protocol developed by Russell and Martin (2005). All animal remains were recorded individually to the lowest possible taxonomic category. The level of taxonomic identification depended on specimen's fragmentation and preservation. Specimens identified to the lowest possible taxonomic category – usually to a genus or species level, were analyzed in detail and (beside taxon) the following data were recorded where appropriate: element, element part, symmetry, diagnostic zones,⁴⁹ epiphyseal fusion, tooth eruption/wear, sex, surface condition, burning, gnawing, metrics, maximum length (in millimeters) and weight (in grams). For remains with butchery or modification marks, or pathological changes, their location and description were recorded, and these specimens were considered 'identified' even if they did not meet the other criteria.⁵⁰ Unidentifiable specimens were only counted by body size category (large (cattle-sized) or medium (sheep-sized) mammal) and element type; weathering, gnawing and burning marks were just counted. Unidentifiable specimens included skull fragments that cannot be identified to skull element; all ribs; vertebrae other than the atlas, axis and sacrum; blade fragments of the scapula and pelvis; long-bone shaft fragments that include less than half the

circumference of the shaft; and fragments that cannot be identified to element.⁵¹

Taxonomic identification was carried out using the reference collection of the Laboratory for Bioarchaeology of the Faculty of Philosophy in Belgrade, aided by published morphological criteria.⁵² Measurements were taken wherever possible following Driesch (Appendix 1/ Table 5)⁵³. Number of identified specimens (NISP) and diagnostic zones (DZ), following Watson's⁵⁴ system as modified by Bogucki⁵⁵ – were used as quantification measures.

Slaughter age for cattle and caprines were based on the mandibular tooth eruption and wear, and on the state of epiphyseal fusion of the appendicular skeletal elements. For caprines, tooth eruption/wear was recorded according to both Payne's⁵⁶ and Grant's⁵⁷ systems, while for cattle Grant's system was followed. Payne's mandibular wear stages (A-I) were applied and scaled using suggested ages from Payne⁵⁸ for caprines, from Halstead⁵⁹ for cattle. Reitz and Wing's⁶⁰ fusion stages were used for both cattle and caprines (early, middle and late) based on Silver's⁶¹ suggested age for the fusion of epiphyses.

Results

The zooarchaeological assemblage comprises 149 fragments, 95 (64%) of which could be identified to species (or genus). Although the sample is small in absolute terms, it is worth of studying considering its archaeological and chronological contexts. The assemblage is exclusively constituted by domestic animals (Fig. 5, Appendix 1 / Table 1). Remains of seven species were identified. Remains of cattle (*Bos taurus*) and caprines (*Ovis/Capra*) dominate, and taken together

⁵¹ Russell / Martin 2005.

⁵² Boessneck 1969; Boessneck et al. 1964; Cohen / Serjeantson 1996; Gheţie 1976; Halstead et al. 2002; Helmer / Rocheteau 1994; Payne 1985; Prummel 1988; Prummel / Frish 1986; Schmid 1972; Zeder / Lapham 2010; Zeder / Pilaar 2010.

⁵³ Driesch 1976.

⁵⁴ Watson 1979.

⁵⁵ Bogucki 1982.

⁵⁶ Payne 1973.

⁵⁷ Grant 1982.

⁵⁸ Payne 1973.

⁵⁹ Halstead 1985.

⁶⁰ Reitz / Wing 2008.

⁶¹ Silver 1969.

⁴⁸ Jašarević 2017, 93, 96.

⁴⁹ Dobney / Reilly 1988.

⁵⁰ Russell / Martin 2005.

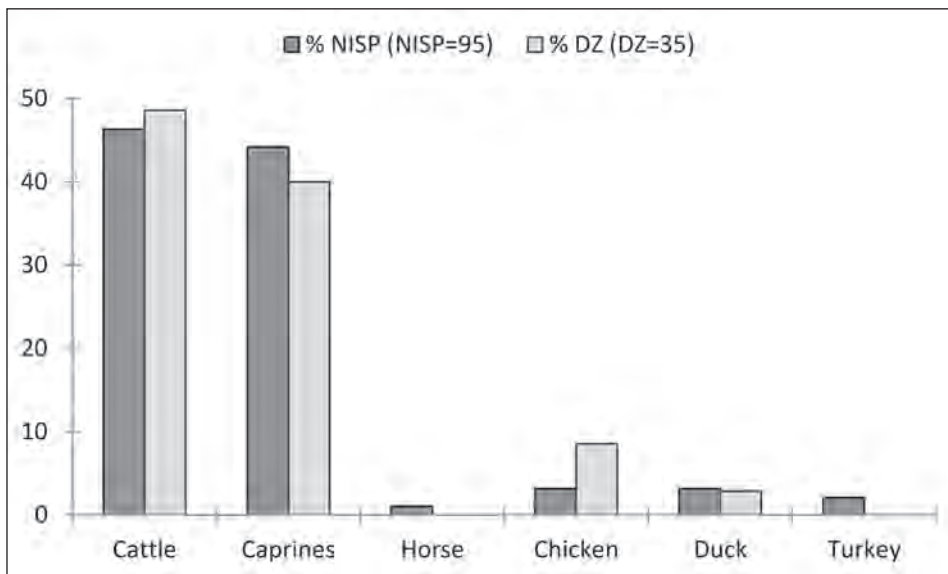


Fig. 5. Relative distribution (%) of various taxa based on NISP (Number of Identified Specimens) and DZ (Diagnostic Zones)

represent around 90% of the assemblage both in terms of NISP and DZ (Fig. 5). A small number of caprine remains could be identified to the species level. Among them, sheep (*Ovis aries*) are more abundant than goats (*Capra hircus*) in a proportion of 5:1 based on both NISP and DZ (Appendix 1 / Table 1), and so it is reasonable to assume that the unidentifiable caprines are mostly also sheep remains. In total, eight poultry bones belonging to three different species – chicken (*Gallus gallus domesticus*), duck (*Anas* sp.), and turkey (*Meleagris gallapano*), as well as only one horse (*Equus caballus*) specimen (upper third molar (M³)) were also identified in the assemblage (Appendix 1 / Table 1). Despite the lack of direct evidence of dog remains, dog gnawing marks on the remains of other species imply the presence of dogs on the site. Around 16% of the total assemblage has gnawing marks, suggesting that these remains were probably lying around for some time at the ground. However, good surface preservation and only slight weathering marks on few specimens indicate a relatively short exposure to climatic conditions following their disposal of and before their final deposition. No burnt animal remains were present, while 20% of the total assemblage had butchery marks.

Owing to the small size of the Selimiye faunal assemblage and taxonomic abundance, only the body parts distributions of cattle and caprines can be analyzed (Fig. 6, Appendix 1 /

Table 2). NISP 1 values represent count of all certainly identified cattle or caprine remains excluding their loose teeth, while in the NISP 2 counts are included rib fragment of large- and medium-sized mammals which were supposed to belong to cattle and caprines respectively. Based on NISP 1, the cattle body parts distribution shows that meatless parts – lower limbs (hindfoot and forefoot) and skull fragments are the most frequent, while the meat-bearing regions (hindquarter and forequarter) represent only 25% of cattle remains. However, based on NISP 2, the meatless and meat-bearing regions of cattle are almost evenly distributed (52:48%) comprising approximately one half each (Fig. 6, Appendix 1 / Table 2). Cattle phalanges are barely represented, while carpals and smaller tarsals are absent, presumably due to hand-collection. Astragalus is the most numerous skeletal element of cattle, followed by pelvis, tibia, ulna and radius. Except two astragali and one third phalanx, no other cattle skeletal elements were preserved complete. The caprine body parts distribution based on NISP 1 also shows the dominance of the meatless anatomical regions (heads and lower limbs) which comprise 68% of their remains, while based on NISP 2 their frequency decreases to 50% (Fig. 6, Appendix 1 / Table 2). Except one caprine calcaneus, other small bones, such as carpals, tarsals and phalanges are completely missing due to the recovery bias (i.e.

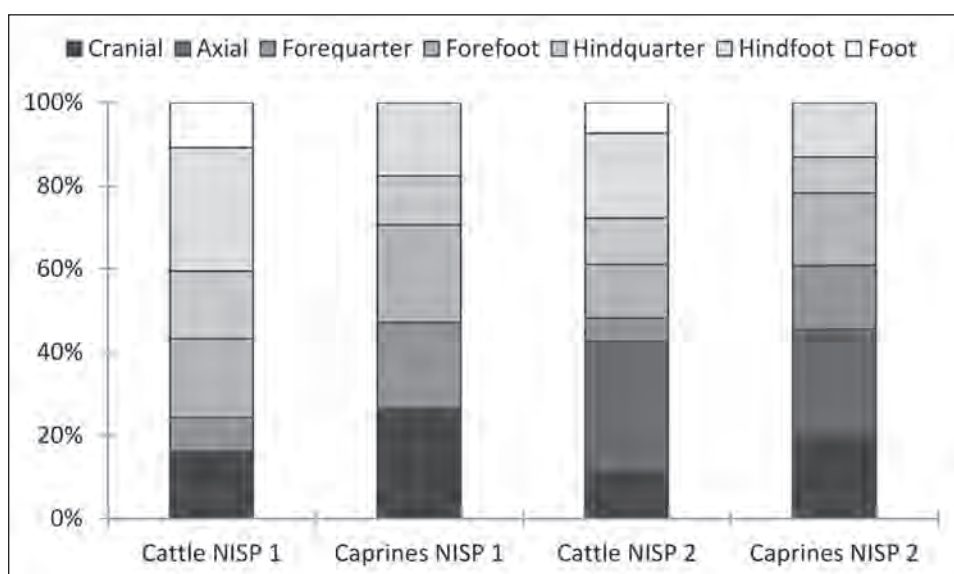


Fig. 6. Relative distributions of anatomical skeletal regions of cattle and caprines based on NISP (Number of Identified Specimens)

hand-collection). The most common skeletal element of caprines is mandible, followed by radius and femur. Only one sheep metatarsal bone was complete (GL = 139.6 mm) allowing estimation of withers height (using the factor of Teichert⁶²), which was 63.4 cm.

The body parts distributions of cattle and caprines (Fig. 6, Appendix 1/ Table 2) show that these animals had been slaughtered, butchered and consumed within the *harem* of the mosque. The presence of cranial elements (skulls and horn cores), fore- and hind-foot indicates that the animals were slaughtered on-site, while the presence of skeletal elements from the other regions is indicative of their carcasses procession and meat consumption on-site, also.

Butchery marks also suggest on-site slaughtering and processing of the carcasses for consumption within the mosque *harem*. These marks in the form of short and long cuts, as well as chops, were observed on 30 specimens from the Selimiye assemblage (Appendix 1 / Table 3). Cut marks were probably made by knives during skinning, when disjuncting the carcass, or when removing meat before or after cooking.⁶³ On the other hand, chop marks are evidence that some large instruments, such as cleavers or axes, were used in the carcasses dismembering.⁶⁴ The

analysis of butchery marks shows that all three stages of butchery are represented in the assemblage, from the initial slaughtering and skinning, to the first major division of the carcass into specific portions, and to the final division before and during consumption.⁶⁵

Ten cattle remains had the butchery marks (Appendix 1 / Table 3). Chop marks were observed on two cattle astragali (Fig. 7a-b), calcaneus (Fig. 7d), pelvis and radius, while short or long cuts are noticed on metacarpal bone (Fig. 7c), astragalus, pelvis, frontal bone (skull) and ulna. Cuts on cattle frontal bone, metacarpal bone and astragalus can be attributed to the skinning of the animal. Chops on the astragali and calcaneus indicate the butcher's waste when the meatless distal limbs (fore- and hind-foot portions) of cattle were discarded. The division (disarticulation) of the cattle carcass into specific portion for further preparation is evidenced by chop marks on pelvis (i.e. disarticulation of the femur) and radius (i.e. disarticulation from the carpals).

Butchery marks were the most frequently found on the ribs of large- and medium-sized mammals which are supposed to belong to cattle and caprines respectively. Out of the total number of ribs with butchery marks, nine belong to a cattle-sized (large) mammal, and four

⁶² Teichert 1975.

⁶³ Reitz / Wing 2008.

⁶⁴ Ibid. 2008.

⁶⁵ Landon 1996.

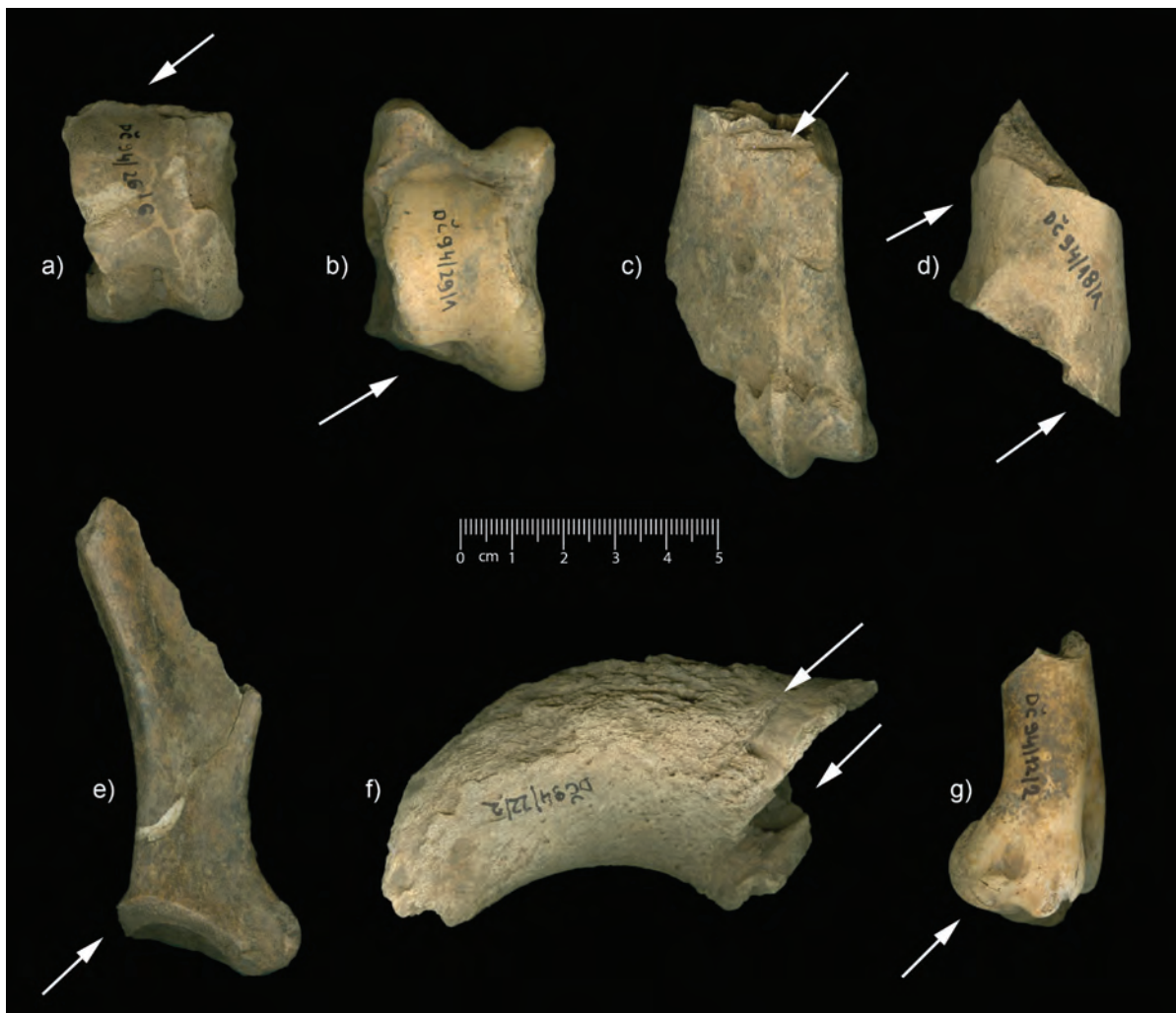


Fig. 7. Various skeletal elements with butchery marks: (a) – (b) cattle astragalus, (c) cattle metacarpal, (d) cattle calcaneus, (e) caprines scapula, (f) sheep horn core, (g) goat humerus

to a sheep-sized (medium) mammal (Appendix 1 / Table 3). The majority of the butchery marks (seven out of nine) on the large mammal ribs are chops (Fig. 8a, d-f) suggesting that the rib slab of animal was cut free, that this anatomical region were divided into smaller portions, more suitable for further preparation. Short cuts on lateral (Fig. 8b) and medial (Fig. 8c) side of two large mammal ribs imply meat removal (filleting) during the meat preparation or consumption. Chop (Fig. 8g, i) and cut (Fig. 8h) marks also observed on four ribs of medium (sheep-sized) mammals were made during the same butchery activities.

Three caprine remains had the butchery marks (Appendix 1 / Table 3). One sheep horn core with chop marks (Fig. 7f) is indicative of the horn had been cut off during the skinning of the animal. A chop mark on the distal end of the

caprine scapula (Fig. 7e) indicates its disarticulation from the humerus, as do the short cut marks on the distal end of the goat humerus (Fig. 7g) suggest that it was disarticulated from the radius and ulna.

All eight poultry specimens belonged to the adult individuals. Only four skeletal elements – three tibiotarsi, three femurs, coracoid and humerus, from meaty body regions (the hind- (“drumstick”) and fore-quarters) were present in the Selimiye faunal assemblage. The butchery marks are observed on four of them (Fig. 9, Appendix 1 / Table 3). One short cut and one chop marks were observed on a chicken femur (Fig. 9a), while short and slight cut mark was noticed on a duck humerus shaft (Fig. 9b). Both turkey bones – femur and tibiotarsus, had butchery marks. Two short cuts made during the meat



Fig. 8. Butchery marks on the ribs of: (a) – (f) large (cattle-sized) mammals, (g) – (i) medium (sheep-sized) mammals

removal were observed on the femur (Fig. 9c), while the chop mark was found on the tibiotarsus (Fig. 5d). The poultry body parts distribution and butchery marks show that animals were dismembered and consumed within the *harem* of the mosque.

Considering the small size of the Selimiye faunal assemblage, the age-at-death data are quite modest for both, cattle and caprines. Fusion data (Appendix 1 / Table 4) are available for only eleven

cattle specimens, as well as for twelve caprine remains. Besides one unfused distal metacarpal and proximal femur indicating subadult individuals, all the other cattle skeletal elements are fused and probably belong to the adult animals. It was possible to determine the age for only two cattle mandibles – one belonged to a young adult (Halstead's stage F) while the other was of an adult individual (Halstead's stage G). All caprine specimens (Table 4) from the early and middle fusing groups are



Fig. 9. Poultry bones with butchery marks: (a) chicken right femur, (b) duck right humerus, (c) turkey left femur, (d) turkey left tibiotarsus

fused and probably belonged to the adult individuals, while all three skeletal elements (two proximal humeri and one distal radius) from the late fusing group are unfused and they indicate the presence of the subadult caprines. Dental data were available for four caprine mandibles (Payne's stages: D (12 – 24 months), E (24 – 36 months) (two mandibles), and G (48 – 72 months)), and they also suggest the slaughter of subadult and adult individuals. The lack of younger individuals could be to the taphonomic reasons.

Anthropological analysis

Material and Methods

The human skeletal remains discovered inside burial 7 from the Ottoman horizon (17th century) which have been found inside the *harem* of the mosque were analyzed in this study. Age at death was determined by using primarily dental

eruption,⁶⁶ length of long bones⁶⁷ and epiphyseal fusion.⁶⁸ Within the dental analysis presence of caries and dental macrowear were observed, while other oral pathologies were not present. Dental caries, a progressive infectious disease, is characterized by the demineralization of the hard dental tissue by organic acids which are produced by bacterial fermentation of carbohydrates, especially sugars.⁶⁹ In this study caries was noted following the method proposed by Buikstra and Ubelaker⁷⁰. The tooth numbering system proposed by the Fédération Dentaire Internationale⁷¹ was used.

The nonspecific stress markers (cribra orbitalia, cribra femoris, dental enamel hypoplasia), and non-specific infectious diseases (periostitis) were also noted and examined following the

⁶⁶ Ubelaker 1989.

⁶⁷ Stloukal / Hanáková 1978.

⁶⁸ Scheuer / Black 2004.

⁶⁹ Larsen 1987.

⁷⁰ Buikstra / Ubelaker 1994.

⁷¹ Fédération Dentaire Internationale 1971.

methods proposed by Buikstra and Ubelaker⁷², Ortner⁷³ (2003), and Waldron⁷⁴. Both cribra femoris and cribra orbitalia are characterized by hypertrophy of the bone, in the form of porous lesions, which are manifested as tiny holes, one over the orbital roof,⁷⁵ and the other over the femoral neck.⁷⁶ They usually develop during childhood, and although their etiology is still unknown, they most probable result from a non-specific or some chronic nutritional disease or problems with the absorption of nutrients produced by avitaminosis, diarrhea or anemia.⁷⁷ Dental enamel hypoplasia presents the defect on the tooth enamel, caused by the disturbance in enamel matrix secretion.⁷⁸ It is formed exclusively during childhood, at the time of crown formation, and it can develop as a consequence of systemic metabolic disruption, local trauma, or hereditary conditions. Specific etiology of hypoplasia is still unknown, but it is generally interpreted as a consequence of some non-specific physiological disruption.⁷⁹ The most common is linear enamel hypoplasia.⁸⁰ Timing of hypoplastic events was calculated following method proposed by Reid and Dean⁸¹.

Periostitis is a type of a nonspecific skeletal lesion which can occur in relation with a wide variety of pathological conditions.⁸² It is most often a reaction to pathological changes of the underlying bone, like bacterial infections, trauma, specific infectious diseases which spread through blood or metabolic diseases.⁸³

Metrical analyses of cranial and postcranial skeleton were done by using standard anthropological measurements as defined by Martin. All the measurements in centimeters are represented in Appendix 2/ Table 1.

Results

The preservation degree of the examined skeleton is given in Fig. 10. The skeleton is well preserved. According to the dental eruption and development, and diaphyseal length, age is between 6 – 7 years. Teeth 64, 65, 22, 26, 27, 74, 75, 36, 84, 85, 32, 37 and 47 are found inside alveolar sockets, while teeth 63, 11, 21, 16 and 83 are found outside of the alveolar sockets. Teeth 11, 16, 21, 26, 32 and 36 are in eruption, while teeth 22, 27, 37, 47 are still in the crypt. Abrasion of the first degree (in enamel) is noted on the teeth 16, 26 and 36, while of the second degree (exposed dentin) is present on teeth 63-65, 74, 75, 83-85. The presence of caries was noted on three teeth: 63 (mesial side, smooth surface), 64 (mesial side, on the contact with cemento-enamel junction; distal on smooth surface), 65 (mesial side, on the smooth surface). The presence of precarious lesions was noted on the teeth 75 (buccal-distal side) and 36 (buccal side). Linear enamel hypoplasia was noted on the teeth: 11 and 21 (one line per tooth, 5 mm from cemento-enamel junction) (one hypoplastic defect on each tooth formed between 2.4 – 2.9 years). Cribra orbitalia was noted on the roofs of both orbits (degree score 2, activity score 3). In addition, cribra femori was noted on both femoral necks. Small porosity was noted in front of the left mastoid process. Active mild periosteal reaction was noted on the front side of the mandible along the lower edge and on anteromedial sides of both tibiae. The distal part of the right femur is slightly enlarged with diaphysis turned slightly inwards.

It is possible that this child belonged to wealthy family since its remains were found inside the *harem* of the mosque, the place where usually members of the upper class were buried. The presence of caries detected on deciduous teeth (Fig. 11) shows that the diet of this child was probably enriched in carbohydrates. Linear enamel hypoplasia was noted on both upper first incisors (Fig. 12). This nonspecific metabolic stress indicator develops during childhood usually due to poor diet and infectious diseases as well as hereditary conditions, or localized trauma.⁸⁴ The line was noted on 5 mm from cemento-enamel junction, which points that stressful event happened between 2.4 – 2.9 years. In

⁷² Buikstra / Ubelaker 1994.

⁷³ Ortner 2003.

⁷⁴ Waldron 2009.

⁷⁵ Stuart-Macadam 1989.

⁷⁶ Miquel-Feucht et al. 1999.

⁷⁷ El-Najjar et al. 1976; Miquel-Feucht et al. 1999; Stuart-Macadam 1989; Walker et al. 2009; Wapler et al. 2004.

⁷⁸ Hillson 1996.

⁷⁹ Goodman / Armelagos 1985.

⁸⁰ Ortner 2003.

⁸¹ Reid / Dean 2006.

⁸² Mensfort et al. 1978.

⁸³ Ortner 2003.

⁸⁴ Goodman / Rose 1991; Solomonos / Keusch 1981.

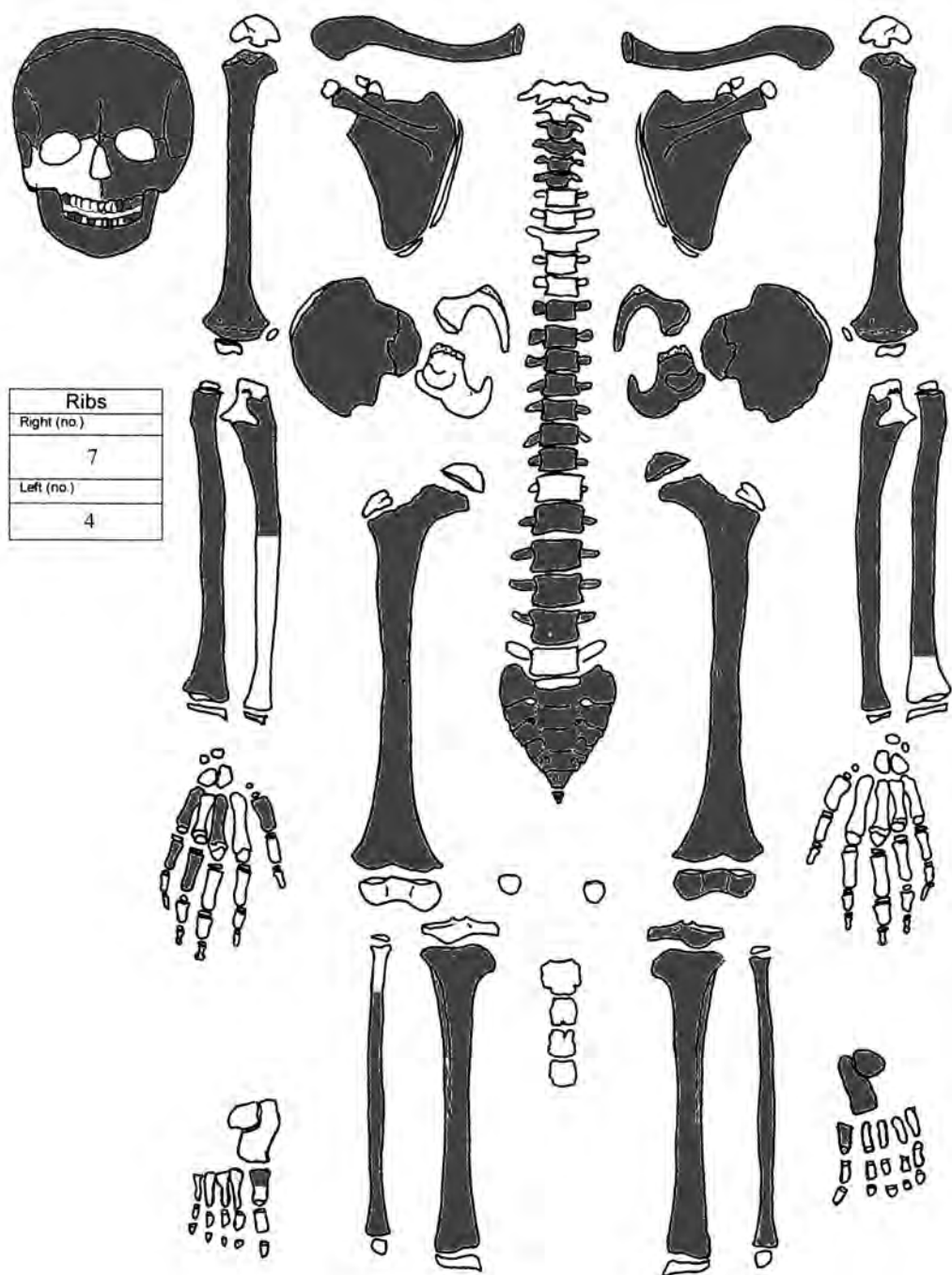


Fig. 10. Schematic representation of the skeletal preservation of Burial 7 (gray represents present parts)



Fig. 11. Caries on tooth: (a) upper left deciduous canine, (b) upper left deciduous first molar



Fig. 12. Linear enamel hypoplasia on the first upper permanent incisors



Fig. 13. Cribra femoris on the neck of right femur



Fig. 14. *Cribra orbitalia on the roofs of both orbits*

general, the age between 2 – 4 years is sensitive period in growth and development of child. This is the time when most of the stressful events happened, and they are usually connected to the cessation of breastfeeding and diet completely based on solid food. There is a decline in immunity, which, in combination with poor nutrition, poor vitamins and minerals, can leave traces on bones in the form of dental hypoplasia or some other nonspecific stress indicator. Furthermore, the presence of other nonspecific stress markers, such as *cribra femuri* (Fig. 13) and *cribra orbitalia* (Fig. 14) lends weight to the argument that this child suffered from some nutritional disbalance. However, since some of the lesions of *cribra orbitalia* were healed at the time of death, it seems that this child in one moment tried to recover from this nutritional deprivation, but unfortunately it was not successful.

Active periosteal reaction on both tibiae indicates that this is most likely the result of some systemic infection, considering its bilateral presence. On archaeological skeletons periostitis is in general most often noted on tibiae, probably because this is the bone very close to the skin surface. Bones that are near the skin surface tend to be more exposed to trauma than bones which are protected by overlying muscles and

fat.⁸⁵ Furthermore, periosteal reaction on the mandible points also to the mild inflammation, which could be caused by infection or metabolic disorder.

Discussion and conclusion

The Ottoman conquest and subsequent long rule in the Balkans left a deep mark on history. After the consolidation of power, the Ottomans established a completely new general framework of social and private behavior in almost all areas of life.⁸⁶ The current state of research raises more questions than answers. From the published archaeological research, one gets the impression that the Ottoman period did not leave behind any major traces, except in architecture. The archaeological materials from the post-medieval period, although highly numerous, remained mostly insufficiently studied or only partially researched or published. Ceramics certainly represent the most numerous group of finds, although the identification and chronology of local wares remains the greatest challenge to Ottoman archaeology, primarily because of the methodologies employed in previous excavations. However, in the last decade, knowledge of ceramics from the

⁸⁵ Ortner / Putschar 1981.

⁸⁶ Fotić 2005, 30-31.

16th to 18th centuries has expanded significantly, thanks to an increased tendency to publish this material among European researchers.⁸⁷

The majority of pottery fragments from the area around the Selimiye Mosque shows a high degree of standardization in production and decoration, which continued until the beginning of the 20th century. There is no evidence of imported pottery, such as majolica or sgraffito ceramics. Most of the ceramic fragments were parts of everyday kitchen or tableware. Special emphasis is placed on special types of ceramics, like clay tobacco pipes and coffee cups. The consumption of coffee and tobacco is a defining feature of the modern world, and both are likewise intimately connected with the economic and social life of the Ottoman Empire. The origins of coffee within the Ottoman Empire characterize it as a global commodity first exploited within the Islamic world. The consumption of coffee went hand-in-hand with smoking tobacco, which was introduced to the Ottoman Empire in the early 17th century. The history of both commodities illustrates the extent to which the Ottoman Empire was an integral part of world systems. There was no 'Iron Curtain' between the Ottoman and other worlds, but rather a long-established vivid network of diplomatic, economic, cultural and religious connections.⁸⁸ Although the Quran is explicit about the avoidance of such intoxicants, the presence of *narghiles*, tobacco pipes and coffee cups in the archaeological record of the Selimiye Mosque is strongly suggestive of the widespread consumption of these intoxicating stimuli.

Archaeological finds have shown that the *harem* space in the mosque was a place where many vices were practiced, especially during the 18th and 19th centuries, although this seems to be completely contrary to strict religious norms and Sharia jurisprudence. In addition to the use of tobacco and coffee, there is also evidence of the consumption of alcohol. Small glass jars (*čokanjčić*) are proof of rakia (fruit brandy) consumption. It is important to note that, alongside their intoxicating effects, alcoholic drinks like rakia also have numerous medical or healing effects attributed to them.⁸⁹ We can explain from this

that the harem area was actually a place where, in addition to religious practices, other daily activities were practiced, a place where people met and relaxed while consuming these vices. It had the 'power' to build and strengthen interpersonal bonds among a group of people, first and foremost males. Furthermore, strict Islamic rules have never been applied in their original form in the region, as the local population has largely retained numerous habits that are local or regional in nature. Some Ottoman habits were directly adopted, while others were transformed and adapted to the local context.

Animal remains comprise the second most numerous group of findings from the Selimiye Mosque that have provided us an exceptional insight into the dietary habits from one Ottoman period context. Preparation, serving, and consumption of food were of utmost importance to the social life of every urban and rural community in every corner of the Ottoman Empire.⁹⁰ The faunal assemblage from the Selimiye Mosque, although small, is of great importance because it provides us a window, a pioneer step forward into the animal economy from one Ottoman archaeological context in present-day Bosnia and Herzegovina. It is the first example connecting culinary practices, specific ritual feasts and social identity to be published from the country that can be doubtlessly connected with a Muslim population of Dobož. The zooarchaeological analysis showed that beef and mutton, as well as poultry meat, were prepared and consumed within the *harem* of the mosque. The total absence of pig remains is linked with universally outlawing pork across Islamic world, as defined by the Qur'an or Hadith.⁹¹ The animal remains from the *harem* of the mosque represent leftovers of food most likely consumed during the feast of Kurban Bayram (*Eid al-Adha*), while the rest may be from the food consumption within the *harem* during the various communal activities. The ritual killing of animals (goats, sheep, cattle or camels) or the *halal* butchery practice is strictly defined according to Islamic law. It is only specific in the case of the animal slaughtering which involves killing through a cut of the throat to rapidly exsanguinate the animal. Further specific guidance for the

⁸⁷ Bikić 2003; Gelichi 2014; Gerelyes / Kovács 2003; Živković et al. 2021.

⁸⁸ Kia 2011; Petersen 2014, 5657.

⁸⁹ Mrgić 2017. 1310.

⁹⁰ Kia 2011, 223.

⁹¹ Gaastra / Insoll 2020, 24.

skinning or butchering of animals is not given in the Qur'an or Hadith.⁹² During the feast of Kurban Bayram, the meat was divided into three equal parts, of which one was given to the poor, another was given to close relatives, and the third was kept for domestic consumption. The animal had to be of a fixed age and free from certain blemishes like lack of an eye, lameness, etc.⁹³

The Selimiye mosque complex was not linked only to the life activities; it was also a place where prominent members of the local community and their families were buried. Anthropological analysis showed that inside the *harem* of the mosque, a 6-7-year-old child was buried. Although presumably, it was belonging to the upper class, it had very poor health and suffered from nutritional deprivation and systemic infection, which could likely be the cause of death. This is also well documented in historical sources from the same period, where the principal causes of death in the provinces of the empire was associated with malnutrition and lack of access to clean water.⁹⁴ The skeleton of this child is the first one to be anthropologically analyzed from the Ottoman Bosnia, and its analysis represents a step forward better understanding of life and death from this period and region.

Archeology of the Ottoman period is still a young branch in scientific research and it will take a lot of time and exhaustive methodological and theoretical work on the complete affirmation of the discipline. Stereotypical narratives about the Ottoman period in the Balkans as a dark age of history will need to be revised and to be viewed on an equal footing with other pre-historic and historical periods. As a step forward to this issue, this paper showed that the material from the old excavations still has the potential for new interpretations and to fill in certain gaps in the archaeological context from historical periods. The interpretation provide us interesting and exhaustive data on a relatively small sacral mosque complex around which the entire city was formed. Each new research will only supplement the knowledge about a completely unique and exciting period of this area.

⁹² Gaastra / Insoll 2020, 21.

⁹³ Kia 2011, 145.

⁹⁴ Ibid., 261.

Rezime

Arheološka i bioarheološka svjedočanstva iz otomanskog perioda u Bosni na primjeru nalazišta Doboj – Čaršija

Osmanska osvajanja i duga istorija prisutnosti na Balkanu ostavili su dubok trag u svim sferama javnog i privatnog života. No, arheološka građa iz postsrednjovjekovnog razdoblja, iako vrlo brojna, ostala je uglavnom nedovoljno proučena i/ili samo djelomično istražena ili objavljena. U ovom radu predstavili smo prve interdisciplinarne analize arheoloških i bioarheoloških nalaza s iskopavanja džamije Selimije, najstarijeg islamskog sakralnog objekta lociranog u starogradskoj jezgri Doboja – Gornjem gradu (čaršiji). Arheološka kolekcija nalaza većinom se sastoji od predmeta datiranih u širokom vremenskom periodu 16–19. vijeka; keramike, glinenih lula za duhan, sitnih metalnih predmeta, funkcionalnih dijelova nošnje, novca i ulomaka stakla. Keramika iz osmanskog razdoblja uključuju različite oblike kao što su posude za skladištenje, lonci za kuhanje, ibrici, crepulje, vršnici, šoljice za kavu, zdjele i pećnjaci. Ukrašeno stolno posuđe uglavnom se sastoji od glaziranih posuda za posluživanje i velikog oslikanog posuđa sa širokim izvijenim rubovima, od kojih većina pripada kasnoj keramičkoj proizvodnji od 19. do početka 20. vijeka. Ostaci životinja čine drugu najbrojniju skupinu nalaza iz harema džamije koji su nam pružili izniman uvid u prehranbene navike iz konteksta osmanskog razdoblja. Priprema, posluživanje i konzumacija hrane bili su od najveće važnosti za društveni život svake gradske i seoske zajednice u svakom kutku Osmanskog carstva. Faunalni skup iz Selimije, iako mali, od velike je važnosti, jer nam pruža prozor, pionirski iskorak u razumijevanju ekonomije i uloge životinja u specifičnom kontekstu. To je prvi primjer povezivanja kulinarskih običaja, specifičnih obrednih gozbi i društvenog identiteta koji je objavljen i koji se nedvojbeno može povezati s muslimanskim stanovništvom Doboja. Životinjski ostaci vjerojatno su povezani s ritualnim kontekstom konzumiranja hrane tokom praznika Kurban-bajrama. Nadalje, prostor Selimije nije bio vezan samo za životne aktivnosti; bilo je i mjesto gdje su se ukopavali istaknuti članovi mjesne zajednice i njihove porodice. Antropološka analiza pokazala je da je unutar harema džamije pokopano dijete uzrasta 6–7 godina. Arheologija osmanskog razdoblja još je mlada grana u naučno-istraživačkom radu i za potpunu afirmaciju discipline bit će potrebno dosta vremena i iscrpan metodološki i teorijski

rad. Stereotipni narativi o osmanskome razdoblju na Balkanu kao mračnom istorijskom periodu trebat će revidirati i posmatrati ravnopravno s drugim praiistorijskim i istorijskim razdobljima. Kao iskorak prema ovoj problematici, ovaj je rad pokazao da materijal iz starih iskopavanja još uvijek ima potencijal za nova tumačenja i popuniti određene praznine u arheološkom kontekstu iz predmetnog razdoblja. Tumačenje nam daje zanimljive i iscrpne podatke o relativno malom kompleksu oko kojeg se formirao cijeli grad. Svako novo istraživanje samo će nadopuniti spoznaje o jednom posve jedinstvenom i uzbudljivom životu ovog područja.

References

- Ágoston, G. 2010, Empires and warfare in east-central Europe, 1550–1750: the Ottoman–Habsburg rivalry and military transformation. In: Tallett, F. / Trim, D. J. B. (eds.), *European Warfare, 1350–1750*. Cambridge University Press, Cambridge 2010, 110–134.
- Aličić, A. 2008, Sumarni opis sandžaka Bosna 1468/69. Islamski kulturni centar Mostar, Mostar 2008.
- Baram, U. / Carroll, L. 2002, *Historical Archaeology of the Ottoman Empire. Breaking New Ground*. Kluwer Academic Publishers, New York 2002.
- Bartosiewicz, L. 1999, Turkish period bone finds and cattle trade in south-western Hungary. In: Becker, C. / Manhart, H. / Peters, J. / Schibler, J. (eds.), *Historia Animalium Ex Ossibus. Beiträge zur Paläo-anatomie, Archäologie, Ägyptologie, Ethnologie und Geschichte der Tiermedizin*. Verlag Marie Leidorf GmbH, Rahden/Westf. 1999, 47–56.
- Bartosiewicz, L. 2020, Turkey (Meleagris gallapavo Lineé, 1758) remains from Hungary. *Quaternary International* 543, Amsterdam 2020, 135–141.
- Bartosiewicz, L. / Gál, E. 2003, Animal exploitation in Hungary during the Ottoman Era. In: Gerelyes, I. / Kovács, G. (eds.), *Archaeology of the Ottoman Period in Hungary*. Hungarian National Museum, Budapest 2003, 365–376.
- Belić, B. 1988, Džamija na Čaršiji. In: Čović, B. (ed.), *Arheološki leksikon Bosne i Hercegovine*, Tom 2. Zemaljski muzej Bosne i Hercegovine, Sarajevo, 64.
- Belić, B. 2003, O bogomoljama u staroj varoši Doboj. *Glasnik UMRS 1*, Banja Luka 2003, 104–107.
- Bikić, V. 2003, Gradska keramika Beograda (16–17. vek). *Arheološki institut*, Beograd 2003.
- Bikić, V. 2007, The Early Turkish stratum on the Belgrade Fortress. *Byzas* 7, Istanbul 2007, 515–523.
- Bikić, V. 2012, Tobacco pipes from the Belgrade Fortress: context and chronology. *Journal of the Academie Internationale de la Pipe* 5, Garth 2012, 1–8.
- Boessneck, J. 1969, Osteological Differences between Sheep (*Ovis aries* Linn.) and Goat (*Capra hircus* Linn.). In: Brothwell, D. / Higgs, E. (eds.), *Science in Archaeology*. Thames and Hudson, London 1969, 331–358.
- Boessneck, J. / Müller, H. / Teichert, M. 1964, Osteologische Unterscheidungsmerkmale zwischen Schaf (*Ovis aries* Linné) und Ziege (*Capra hircus* Linné). *Kühn-Archiv* 78, Quedlinburg 1964. 1–29.
- Bogucki, P. 1982, Early Neolithic Subsistence and Settlement in the Polish Lowlands. *British Archaeological Reports International Series* 150, BAR, Oxford 1982.
- Brothwell, D. R. 1981, *Digging up Bones*. British Museum and Oxford University Press, London and Oxford 1981.
- Buikstra, J.E. / Ubelaker, D.H. 1994, *Standards for Data Collection from Human Skeletal Remains*. Archaeological Survey Research Series 44, Arkansas 1994.
- Cohen, A. / Serjeantson, D. 1996, *A Manual for the Identification of Bird Bones from Archaeological Sites*. Revised ed. Archetype Publications, London 1996.
- Čar-Drnda, H. 2004, Vakufski objekti u Bosanskom sandžaku – sedma decenija 16. stoljeća. *Prilozi za orijentalnu filologiju* 52-53, Sarajevo 2004, 267–294.
- Dobney, K. / Reilly, K. 1988, A method for recording archaeological animal bones: the use of diagnostic zones. *Circaea* 5, York 1988, 79–96.
- Do Paço, D. 2013, Un islam approprié. La Bosnie et l'Herzégovine au XVIe et XVIIe siècle. In: Dakhli, J. / Kaiser, W. (eds.), *Les musulmans dans l'histoire de l'Europe*, vol. 2: Passages et contacts en Méditerranée. Albin Michel, Paris 2013, 191–217.
- Dreisch, A. 1976, *A Guide to the Measurements of Animal Bones from Archaeological Sites*. Harvard University Peabody Museum, Cambridge USA 1976.
- El-Najjar, M. Y. / Ryan, J. D. / Turner, C. G. / Lozoff, B. 1976, The etiology of porotic hyperostosis among the prehistoric and historic Anasazi Indians of southwestern United States. *American Journal of Physical Anthropology* 44, Washington 1976. 417–488.
- Federation Dentaire Internationale 1971, Two-digit system of designating teeth. *International Dental Journal* 21, 104–106.
- Filipović, E. 2019, *Bosansko kraljevstvo i Osmansko carstvo (1386-1463)*. Orijentalni institut Univerziteta u Sarajevu, Sarajevo 2019.

- Fotić, A. 2005, Privatni život u srpskim zemljama u osvit modernog doba. Clio, Beograd 2005.
- Gaastra, J. / Insoll, T. 2020, Animal economies and Islamic conversion in eastern Ethiopia: zooarchaeological analyses from Harlaa, Harar and Ganda Harla. *Journal of African Archaeology* 18, Leiden 2020, 1–28.
- Gačić, D. 2011, Lule iz muzejskih zbirki Srbije. Muzej grada Novog Sada, Novi Sad 2011.
- Gál, E. 2016, Object made from tusk, bone, and antler from the Ottoman-Turkish fort at Barcs, Hungary. In: Kovács, G. / Zatykó, C. (eds.), ‘per sylvam et per lacus nimios’ The Medieval and Ottoman Period in Southern Transdanubia, Southwest Hungary: the Contribution of the Natural Science. Institute of Archaeology Research Centre for Humanities Hungarian Academy of Science, Budapest 2016, 133–143.
- Gál, E. / Bartosiewicz, L. 2016, Animal remains from the Ottoman-Turkish palisaded fort at Barcs, Southwest Hungary. In: Kovács, G. / Zatykó, C. (eds.), ‘per sylvam et per lacus nimios’ The Medieval and Ottoman Period in Southern Transdanubia, Southwest Hungary: the Contribution of the Natural Science. Institute of Archaeology Research Centre for Humanities Hungarian Academy of Science, Budapest 2016, 181–252.
- Gelichi, S. 2014, Stari Bar in Epoca Ottomana. In: Gelichi S. / Sabbionesi L. (eds.), Bere e fumare ai confini dell'impero. Caffè e tabacco a Stari Bar. All'Insegna del Giglio, Firenze 2014, 7–16.
- Gerelyes, I. / Kovács, G. 2003, Archaeology of the Ottoman Period in Hungary. Hungarian National Museum, Budapest 2003.
- Gerelyes, I. / Vionis, A. / Bikić, V. / Dinu, D. / Biliaieva, S. 2020, Ottoman Europe. In: Walker, B. J. / Insoll, T. / Fenwick, C. (eds.), The Oxford Handbook of Islamic Archaeology. Oxford University Press, Oxford 2020, 217–239.
- Gheție, V. 1976, Atlas de Anatomie a Pasarilor Domestice. Editura Academiei Republicii Socialiste România, Bucuresti 1976.
- Goodman A. H. / Armelagos G. J. 1985, Factors affecting the distribution of enamel hypoplasias within the human permanent dentition. *American Journal of Physical Anthropology* 68 (4), Washington 1985, 479–93.
- Goodman, A. H. / Armelagos, G. J. / Rose, J. C. 1980, Enamel hypoplasias as indicators of stress in three prehistoric populations from Illinois. *Human Biology* 52, Detroit 1980, 515–528.
- Grant, A. 1982, The use of tooth wear as a guide to the age of domestic ungulates. In: Wilson, B. / Grigson, C. / Payne, S. (eds.), Ageing and Sexing Animal Bones from Archaeological Sites. British Archeological Reports British Series 109. BAR, Oxford 1982, 91–108.
- Guinova, G. 2005, Etat de la recherche archéologique concernant la période ottomane en Bulgarie. *Turcica* 37, Paris 2005, 267–279.
- Halstead, P. 1985, A study of mandibular teeth from Romano-British contexts at Maxey. In: Pryor, F. / French, C. (eds.), Archaeology and Environment in the Lower Welland Valley, 1. East Anglian Archaeology 27, Norwich 1985, 219–224.
- Halstead, P. / Collins, P. / Isaakidou, V. 2002, Sorting sheep from goats: morphological distinctions between the mandibles and mandibular teeth of adult Ovis and Capra. *Journal of Archaeological Science* 29, Amsterdam 2002, 545–553.
- Handžić, A. 1975, Tuzla i njena okolina u XVI vijeku. Svjetlost, Sarajevo 1975.
- Handžić, A. 1976, O formiranju nekih gradskih naselja u Bosni u XVI stoljeću. Prilozi za orijentalnu filologiju 25, Sarajevo 1976, 133–169.
- Handžić, A. 1980, O gradskom stanovništvu u Bosni u XVI stoljeću. Prilozi za orijentalnu filologiju 28–29, Sarajevo 1976, 247–256.
- Hartmuth, M. 2011, The history of centre-periphery relations as a history of style in Ottoman provincial architecture. In: Hartmuth, M. (ed.), Centres and Peripheries in Ottoman Architecture: Rediscovering a Balkan Heritage. Cultural Heritage without Borders, Sarajevo 2011, 18–29.
- Helmer, D. / Rocheteau, M. 1994, Atlas du Squelette Appendiculaire des Principaux Genres Holocenes de Petits Rumiant du Nord de la Méditerranée et du Proche-Orient (Capra, Ovis, Rupicapra, Capreolus, Gazella). Juan-les Pins 1994, APDCA.
- Hillson S. 1996, Dental Anthropology. Cambridge University Press, Cambridge 1996.
- Jahić, E. 2013, Ottoman architectural heritage in the Balkans. In: Nuroğlu, N. / Korkut, H. / Mulalić, M. (eds.), Turkish-Balkans Relations: The Future Prospects of Cultural, Political and Economic Transformations and Relations. Tasam Publication, Istanbul 2013, 85–102.
- Janković, Đ. 1995, Zapadna Usora u srednjem veku. Značenja 21, Doboj 1995, 203–211.
- Jašarević, A. 2017, Tvrdave na Bosni. Muzej u Doboju, Doboj 2017.
- Jašarević, A. 2018, Keramičke lule za duvan iz arheološke zbirke Muzeja u Doboju. Radovi Filozofskog fakulteta u Sarajevu 5, Sarajevo 2018, 213–237.
- Kajmaković, Z. 1964, Stari grad Doboj. Naše starine 9, Sarajevo 1964, 43–61.
- Kia, M. 2011, Daily Life in the Ottoman Empire. The Greenwood Press, Santa Barbara 2011, California.
- Kovács, G. / Bartosiewicz, L. / Éder, K. / Gál, E. / Miklós, Z. / Rózsás, M. / Tóth, A. J. / Zatykó, C.

- 2014, Medieval and Ottoman Period (14th–17th c.) archaeology in the Drava River region, Hungary. Results of an interdisciplinary project. *Acta Archaeologica Academiae Scientiarum Hungaricae* 65, Budapest 2014, 155–168.
- Kreševljaković, H.* 1953, Stari bosanski gradovi. Naše starine 1, Sarajevo 1953, 7–44.
- Kreševljaković, H.* 1991, Izabrana djela I. Veselin Masleša, Sarajevo 1991.
- Kupusović, A.* 2000, Opširni popis bosanskog sandžaka iz 1604. godine. sv. III. Orijentalni institut, Sarajevo 2000.
- Landon, D.* 1996, Feeding colonial Boston: a zooarchaeological study. *Historical Archaeology* 30 (1), Bethlehem USA 1996, 1–153.
- Larsen, C. S.* 1987, Bioarchaeological interpretations of subsistence economy and behavior from human skeletal remains. In: Schiffer, M. B. (ed.), *Advances in Archaeological method and theory*. Academic Press, San Diego 1987, 339–445.
- Lopušić, A.* 1994, Islamisation of the Balkans with special reference to Bosnia. *Journal of Islamic Studies* 5 (2), Oxford 1994, 163–186.
- Mazalić, Đ.* 1958, Vinac i Dobož. *Glasnik Zemaljskog muzeja u Sarajevu* 13, Sarajevo 1958, 233–240.
- Mensforth R. P. / Lovejoy C. O. / Lallo J. W. / Armelagos, G. J.* 1978, The role of constitution factors, diet, and infectious disease in the etiology of porotic hyperostosis and periosteal reactions in prehistoric infants and children. *Medical Anthropology* 2, Arlington 1978, 1–59.
- Meskel, L.* 1998, *Archaeology under Fire: Nationalism, Politics and Heritage in the Eastern Mediterranean and the Middle East*. Routledge, London – New York 1998.
- Miquel-Feucht, M. J. / Polo-Cerdá, M. / Villalain-Blanco, J. D.* 1999, Cribra orbitalia vs. cribra femora: new contributions to the cribrose syndrome. *Journal of Paleopathology* 11, Trieste 1999, 84.
- Mrgić, J.* 2007, Transition from Late Medieval to Early Ottoman settlement pattern: a case study on Northern Bosnia. *Südost-Forschungen* 65–66, Regensburg 2007, 50–86.
- Mrgić, J.* 2008, Severna Bosna 13–16 vek. Institut za istoriju, Beograd 2008.
- Mrgić, J.* 2017, Aqua vitae – notes on geographies of alcohol production and consumption in the Ottoman Balkans. *Etnoantropološki problemi* 12, Beograd 2017, 1309–1328.
- Mujezinović, M.* 1977, *Islamska epigrafika u BiH*. Veselin Masleša, Sarajevo 1977.
- Ortner, D. J.* 2003, *Identification of Pathological Conditions in Human Skeletal Remains*. Academic Press, New York 2003.
- Ortner, D. J. / Putschar, W. G. J.* 1981, *Identification of Pathological Conditions in Human Skeletal Remains*. Smithsonian Institution Press, Washington DC 1981.
- Payne, S.* 1973, Kill-off patterns in sheep and goats: the mandibles from Aşvan Kale. *Anatolian Studies* 23, Ankara 1973, 281–303.
- Petersen, A.* 2014, Ottoman Empire: historical archaeology. In: Smith, C. (ed.), *Encyclopedia of Global Archaeology*. Springer, New York 2014, 5653–5664.
- Pinjuh, D.* 2018, Conversions to Islam in Bosnia and Herzegovina, and the connections between converts and their christian families, from the Ottoman conquest to the end of the seventeenth Century. *Povijesni prilozi* 55, Zagreb 2018, 205–229.
- Pluskowski, A. / Seetah, K.* 2008, The animal bones from the 2005 Excavations. In: Gelichi, S. (ed.), *A Town Through the Ages: the 2006–2007 Archaeological Project in Stari Bar*. All'Insegna del Giglio, Firenze 2008, 83–89.
- Prummel, W.* 1988, Distinguishing features of postcranial skeletal elements of cattle, *Bos primigenius* f. *taurus*, and red deer, *Cervus elaphus*. *Schriften aus der Archäologisch-Zoologischen Arbeitsgruppe Schleswig-Kiel* 12, Kiel 1988, 1–52.
- Prummel, W. / Frisch, H.* 1986, A guide for the distinction of species, sex and body side in bones of sheep and goats. *Journal of Archaeological Science* 13, Cambridge USA 1986, 567–577.
- Radić, M.* 2015, *Osijek and Surrounding in the Ottoman Period*. Muzej Slavonije, Osijek 2015.
- Reid, D. J. / Dean, M.C.* 2006, Variation in modern human enamel formation times. *Journal of Human Evolution* 50 (3), Amsterdam 2006, 329–346.
- Redžić, H.* 1983, *Studije o islamskoj arhitektonskoj baštini*. Veselin Masleša, Sarajevo 1983.
- Reitz, E. / Wing, E.* 2008, *Zooarchaeology*. 2nd ed. Cambridge University Press, Cambridge 2008.
- Robinson, R.* 1985, Tobacco pipes of Corinth and the Athenian Agora. *Hesperia* 54, Athens 1985, 149–203.
- Rudić, S.* 2017, Bosnian nobility after the fall of the kingdom of Bosnia 1463. In: Rudić, S. / Aslantaş, S. / Emre Enstitüsü, Y. (eds.), *State and Society in the Balkans Before and After Establishment of Ottoman Rule*. Turkish Cultural Centre Belgrade-Institute of History Belgrade, Belgrade 2017, 103–126.
- Russell, N. / Martin, L.* 2005, The Çatalhöyük mammal remains. In: Hodder, I. (ed.), *Inhabiting Çatalhöyük: Reports from the 1995–1999 seasons*. McDonald Institute for Archaeological Research: Cambridge 2005, 33–98.
- Scheuer, L. / Black, S.* 2004, *The Juvenile Skeleton*. Elsevier Academic Press, London 2004.

- Schmid, E.* 1972, Atlas of Animal Bones: for Prehistorians, Archaeologists and Quaternary Geologists. Elsevier, New York 1972.
- Silver, I.* 1969, The ageing of domestic animals. In: Brothwell, D. / Higgs, E. (eds.), Science in Archaeology: A Survey of Progress and Research. Thames and Hudson, London 1969, 283–302.
- Solomons, N. W. / Keusch, G. T.* 1981, Nutritional implications of parasitic infections, Nutrition Reviews 39, Oxford 1981, 149–160.
- Stloukal, M. / Hanakova, H.* 1978, Die Länge der Längsknochen altslawischer Bevölkerungen – Unterbesonderer Berücksichtigung von Wachstumsfragen. Homo 29, Amsterdam 1978, 53–69.
- Stuart-Macadam, P.* 1989, Nutritional deficiency diseases: a survey of scurvy, rickets and iron deficiency anemia. In: Iscan, M. Y. / Kennedy, K. A. R. (eds.), Reconstruction of life from the skeleton. Alan Liss, New York 1989, 201–222.
- Sučeska, A.* 1984, Prilike u Bosni prije i poslije osvajanja Sarajeva od strane princa Eugena Savojskog (prema domaćim i osmansko-turskim izvorima). Prilozi Instituta za istoriju 20, Sarajevo 1984, 143–151.
- Šabanović, H.* 1982, Bosanski pašaluk. Sarajevo 1982.
- Teichert, M.* 1975, Osteometrische Untersuchungen zur berechnung der Widerristhöhe bei Schafen. In: Clason, A. (ed.), Archaeozoological Studies. North-Holland Publishing Company/Elsevier, Amsterdam 1975, 51–69.
- Truhelka, Č.* 1904, Naši gradovi. Sarajevo 1904.
- Ubelaker, D. H.* 1989, Human Skeletal Remains: Excavation, Analyses, Interpretation. Taraxacum, Washington D. C. 1989.
- Walasek, H.* 2015, Bosnia and the Destruction of Cultural Heritage. Routledge, London – New York 2015.
- Waldron, T.* 2009, Palaeopathology. Cambridge University Press, Cambridge 2009.
- Walker, J. B.* 2014, Ottoman archaeology: localizing the imperial. In: Smith, C. (ed.), Encyclopedia of Global Archaeology. Springer, New York 2014, 5642–5653.
- Walker, P. L. / Barthurst, R. R. / Richman, R. / Gjedrum, T. / Andrushko, V. A.* 2009, The causes of porotic hyperostosis and cribra orbitalia: A reappraisal of the iron-deficiency-anemia hypothesis. American Journal of Physical Anthropology 139, New York 2009, 109–125.
- Wapler, U. / Crubezy, E. / Schultz, M.* 2004, Is cribra orbitalia synonymous with anemia? Analysis and interpretation of cranial pathology in Sudan. American Journal of Physical Anthropology 123 (4), New York 2004, 333–339.
- Watson, J.* 1979, The estimation of relative frequencies of mammalian species: Khirokitia 1972. Journal of Archaeological Science 6, Cambridge USA 1979, 127–137.
- Yenişehirlioğlu, F.* 2005, L'archéologie historique de l'Empire ottoman. Turcica 37, Paris 2005, 245–265.
- Zaro, G., Gusar, K. and Čelhar, M.* 2020, On the edge of empires: exploring an Ottoman legacy on the Venetian frontier. Journal of Field Archaeology 45 (1), Boston 2020, 1–21.
- Zeder, M. / Lapham, H.* 2010, Assessing the reliability of criteria used to identify postcranial bones in sheep, Ovis, and goats, Capra. Journal of Archaeological Science 37, Amsterdam 2010, 2887–2905.
- Zeder, M. / Pilaar, S.* 2010, Assessing the reliability of criteria used to identify mandibles and mandibular teeth in sheep, Ovis, and goats, Capra. International Journal of Archaeological Science 37, Amsterdam 2010, 225–242.
- Zlataar, B.* 2013, Balkanski grad u osmanskom periodu (XV i XVI stoljeće). Godišnjak CBI 42, Sarajevo 2013, 135–140.
- Živković, J. / Bikić, V. / Georgakopoulou, M.* 2021, Archaeology of craft and artisans in the Ottoman Empire: a case of ceramic production in Belgrade during the sixteenth and seventeenth centuries. Archaeological and Anthropological Sciences 13 (4), DOI: 10.1007/s12520-021-01306-3.

APPENDIX 1.

Table 1 *Distribution of various taxa based on NISP (Number of Identified Specimens) and DZ (Diagnostic Zones)*

TAXON	COMMON NAME	NISP	DZ
<i>Bos taurus</i>	Cattle	44	17
<i>Ovis aries</i>	Sheep	5	5
<i>Capra hircus</i>	Goat	1	1
<i>Ovis/Capra</i>	Caprines (sheep or goat)	36	8
<i>Equus caballus</i>	Horse	1	0
Large mammal uid	Unidentified large mammal	32	0
Medium mammal uid	Unidentified medium mammal	22	0
Total mammal		141	31
<i>Gallus domesticus</i>	Chicken	3	3
<i>Anas</i> sp.	Duck	3	1
<i>Meleagris gallapavo</i>	Turkey	2	0
Total bird		8	4
TOTAL		149	35

Table 2 *Distribution of various anatomical skeletal regions of cattle and caprines based on NISP (a loose teeth excluded, b including all large (cattle-sized) and medium (sheep-sized) mammal ribs (axial region) in the NISP 2 calculations)*

SKELETAL PORTION	NISP 1	%	NISP 2b	%
Cattle portion distribution				
Craniala	6	16.2	6	11.1
Axial	0	0	17	31.5
Forequarter	3	8.1	3	5.6
Forefoot	7	18.9	7	13
Hindquarter	6	16.2	6	11.1
Hindfoot	11	29.7	11	20.4
Foot	4	10.8	4	7.4
Total	37	100	54	100
Caprines portion distribution				
Craniala	9	26.5	9	19.6
Axial	0	0	12	26.1
Forequarter	7	20.6	7	15.2
Forefoot	8	23.5	8	17.4
Hindquarter	4	11.8	4	8.7
Hindfoot	6	17.6	6	13
Foot	0	0	0	0
Total	34	100	46	100

Table 3 *Distribution of skeletal elements with butchery marks by taxa*

Element	Cattle	Caprines	Large	Medium	Chicken	Duck	Turkey	Total
Skull	1	1	–	–	–	–	–	2
Rib	–	–	9	4	–	–	–	13
Scapula	–	1	–	–	–	–	–	1
Humerus	–	1	–	–	–	1	–	2
Radius	1	–	–	–	–	–	–	1
Ulna	1	–	–	–	–	–	–	1
Metacarpal	1	–	–	–	–	–	–	1
Pelvis	2	–	–	–	–	–	–	2
Femur	–	–	–	–	1	–	1	2
Tibia	–	–	–	–	–	–	1	1
Astragalus	3	–	–	–	–	–	–	3
Calcaneus	1	–	–	–	–	–	–	1
Total	10	3	9	4	1	1	2	30

Table 4 *Epiphyseal fusion data (NISP) for cattle and caprines*

SKELETAL ELEMENT	UNFUSED	FUSED	AGE AT FUSION (MONTHS)
CATTLE (NISP=11)			
Early fusing elements	0	3	(c. 6 – 24)
acetabulum – pelvis	0	2	6 – 10
phalanx 1 prox.	0	1	18 – 24
Middle fusing elements	1	3	(c. 24 – 42)
tibia dist.	0	2	24 – 30
metapodial dist.	1	1	24 – 36
Late fusing element	1	3	(c. 36 – 48)
radius dist.	0	2	42 – 48
femur prox.	1	0	42
tibia prox.	0	1	42 – 48
CAPRINES (NISP=12)			
Early fusing elements	0	7	(c. 6 – 16)
scapula	0	1	6 – 8
humerus dist.	0	2	3 – 10
radius prox.	0	4	3 – 10
Middle fusing elements	0	2	(c. 16 – 36)
tibia dist.	0	1	15 – 24
metapodial dist.	0	1	18 – 28
Late fusing element	3	0	(c. 36 – 42)
humerus prox.	2	0	36 – 42
radius dist.	1	0	36 – 42

Table 5 *Metric data of various animal species from the site of Doboj-Čaršija (all measurements were taken following Driesch (1976) and are expressed in mm)*

Specimen ID	Taxon	Element	1	2	3	4	5
			Bd	Dd	BT		
DČ 94/12/2	<i>Capra hircus</i>	humerus	31.6	26	29.2		
DČ 94/26/4	<i>Ovis aries</i>	humerus	29	22.7	27.2		
			Bp	Dp	Bd	Dd	
DČ 94/13/3	<i>Ovis aries</i>	radius	30.9	16.2	/	/	
DČ 94/17/2	<i>Ovis/Capra</i>	radius	23.1	12.6	/	/	
DČ 94/19/3	<i>Ovis/Capra</i>	radius	29.7	15.6	/	/	
DČ 94/33/14	<i>Bos taurus</i>	radius	/	/	70.9	53	
			BPC				
DČ 94/24/1	<i>Bos taurus</i>	ulna	38.8				
			GL	Bp	Bd	Dd	
DČ 94/17/4	<i>Gallus domesticus</i>	femur	73.6	14.9	15	12.9	
			Bd	Dd			
DČ 94/23/1	<i>Ovis aries</i>	tibia	28.2	21.4			
DČ 94/12/1	<i>Bos taurus</i>	tibia	55.2	40.8			
DČ 94/14/1	<i>Bos taurus</i>	tibia	51.1	35.8			
			GL	Bp	Dp	Bd	Dd
DČ 94/23/2	<i>Ovis aries</i>	metatarsal	139.6	22	21.4	27	17.3
			GL	Bd	GLm		
DČ 94/16/3	<i>Bos taurus</i>	astragalus	54.9	34.4	49.3		
DČ 94/20/1	<i>Bos taurus</i>	astragalus	/	39	56.7		
DČ 94/24/6	<i>Bos taurus</i>	astragalus	67	40.7	61.3		
DČ 94/29/1	<i>Bos taurus</i>	astragalus	/	/	52.5		

APPENDIX 2.

Table 1 *Measurements (in cm) of cranial and postcranial bones*
(l. = left; r. = right; rec. = reconstructed)

CRANIAL MEASUREMENTS	
Mandible	
Bicondylar breadth	9.9
Bigonial breadth	8.5
Height of ascending ramus	4.1
Thickness of mandible body	1.2
Height of mandible body	2.2
Minimum breadth of ascending ramus	1.0
POSTCRANIAL MEASUREMENTS	
Clavicle	
Maximum length	8.6 (l.); 8.8 (r.)
Circumference at middle of bone	2.3 (l., r.)
Humerus	
Maximum length	15.9 (l.); 15.8 (r.)
Maximum diameter midshaft	1.3 (l.); 1.2 (r.)
Minimum diameter midshaft	1.3 (l.); 1.2 (r.)
Least circumference of the shaft	4.3 (l.); 4.2 (r.)
Biepicondylar width	3.7 (l.); 3. 8 (r.)
Radius	
Maximum length	12.5 (r.)
Ulna	
Maximum length	13. 9 (l.; rec.)
Least circumference of the shaft	2. 4 (l.)
Femur	
Maximum length	22.5 (l.); 23 (r.)
Anterior-posterior diameter of the midshaft	1.3 (l.); 1.5 (r.)
Mediolateral diameter of the midshaft	1.6 (l.; r)
Subtrochanteric anterior-posterior diameter	1.6 (l.); 1.8 (r.)
Subtrochanteric mediolateral diameter	1.9 (l.; r.)
Circumference of the midshaft	4.7 (l.); 5 (r.)
Tibia	
Maximum length	18.8 (r.)
Anterior-posterior diameter at the nutritional foramen	1.7 (l.); 1.9 (r.)
Mediolateral diameter at the nutritional foramen	1.5 (l.); 1.6 (r.)
Circumference at the nutritional foramen	5 (l.); 5.1 (r.)
Proximal width	4 (l.); 4.3 (r.)
Fibula	
Maximum length	18. 4 (l.)

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