

II
Članci / Aufsätze

Metalwork from Roman doors – examples in Bosnia and Herzegovina

Adnan Busuladžić
Sarajevo

Abstract: Almost every Roman site, particularly those where sizeable buildings have been found, also yield the remains of security systems – pieces of locks, hinges, keys and so forth that served to lock and secure the buildings as a whole or separate rooms, or chests and caskets. This is also true of sites in present-day Bosnia and Herzegovina, where such material has been found at various Roman archaeological sites. Most such objects are kept in the National Museum of Bosnia and Herzegovina, but some important artefacts are also located in the Franciscan Monastery in Visoko, the Museums in Doboј, Travnik, Tuzla, Zenica and Bijeljina, and other museum institutions and collections.

Key words: Roman keys, ring keys, large keys, anthropomorphic keys, classic keys, *Schiebschloss*, lock systems, latches, deadbolts, hinges, railings, Roman period, Bosnia and Herzegovina

Introduction

As early humans began to abandon natural shelters, they started to construct simple shelters, mainly as protection against the weather and wild beasts. With the passage of time and the rise of civilizations, these shelters became more sophisticated, especially with the rise of agriculture and a more settled lifestyle, when people began to build permanent shelters. Simple drystone walls evolved into substantial masonry structures, turned with the addition of doors into habitations. This was a significant lifestyle shift; people were no longer merely taking shelter, they were taking up residence. What we now call a door or doorway became a fundamental architectural feature and symbol.

Since the great majority of doors were and are made of wood, few survive in their original form, especially from ancient times. Wood deteriorated, or was destroyed by fire or rot, so that information on wooden doors from the Roman period is extremely sparse, consisting only of a few images and a paucity of written sources. Their existence, however, is attested by the remains of metal artefacts found during archaeological ex-

cavations: bolts, latches, door-handles, hinges, locks, keys and so forth. These enable us to reconstruct the probable uses of doors in Roman times. Details associated with such finds are supplemented by comparison with more recent examples of almost identical function, manufacture and materials as those from the Roman doors their survival points to.¹ As a result, in some instances, such as keys of atypical form (Plate 14), the only factor indicating that they date from the Roman period is that they were found at Roman sites. Some objects, such as latches (Plates 21 and 22), hinges (Plates 15, 16 and 17), along with railings (Plate 25) and ring-shaped door-handles (Plate 26), may have served a variety of purposes, not necessarily as a door feature: they could be used to join stone or wooden architectural components of walls or roofs, one specimen could in fact be a horse bit, and others could have formed part of ox or horse harness. The most logical explanation is that objects of identical or very similar outward appearance, size and construction could have been used for different purposes. Several such objects dating from the Roman period

¹ Pace 2014, 57.

have been found which have direct parallels in our time, when the same object can serve wholly different purposes.

Another unresolved matter is that of dating keys. Since they were in such widespread daily use, their dating is extremely speculative. The same shapes of key, depending on context, are said to date from the late 1st,² 2nd and through to the 4th century.³ Different key shapes were in use at one and the same time throughout the Roman period. Some specimens are thus dated purely as part of a larger site itself dated on the basis of other types of archaeological material.⁴ Given the need to protect private and public property, Roman keys and locks were widely used, and have since often been found, at military, civilian, private, public, religious, agricultural and other Roman sites.⁵

Doors are a universal feature of buildings, in every civilization and every part of the world. The erection of walls necessarily entailed the introduction of an opening, usually rectangular in shape, which further required a means of closing off the opening when necessary, to protect the occupants from wild beasts, unknown or unwanted visitors, or robbery. The basic purpose of doors, from prehistory through antiquity⁶ and medieval times⁷ to this day, remains unchanged.⁸ The only changes that have occurred are of an aesthetic nature, and in the type of materials and technology used in their construction.

In Roman times, doors would be made of wood, though in some cases they could have been made of metal or a combination of the two. They were rectangular, and most were opened and closed by moving them in an arc from the left or the right. They usually had a single pane, but larger entrances, such as gateways, might have double doors.

Most doors were probably made of rough-cut timber, with boards ranging in thickness from 4 to about 10 cm. The earliest doors were probably wholly made of timber, with metal components introduced later. Boards would be nailed or sta-

pled together – both nails and U-shaped staples had sharp pointed ends so they could be knocked into the wood, always with part of the head protruding, as they were usually longer than the thickness of the board and the cross-beam that held the boards together, so the head could be bent over to hold the boards firmly.

Since timber was readily available as a building material, it was often used in Roman buildings:⁹ as roof timbers, for outbuildings, as fences, for furniture,¹⁰ and of course for doors. Where timber was scarce, many parts of a building, and even furnishings, would be made of stone or brick, but doors were always of wood. Where there was a choice, oak was the timber of preference. The Romans drew on their own experience and that of other peoples with whom they came into contact to perfect their techniques, having discovered that oak is resistant to mechanical damage and to insect and fungal attack. In addition to common oak,¹¹ fir,¹² beech,¹³ ash,¹⁴ Turkey oak,¹⁵ walnut,¹⁶ pine¹⁷ and indeed any kind of timber that grew naturally in a given area could be used. It is likely that wealthier property owners used a combination of different timbers for aesthetic reasons. In that case the basic structure would be of one kind of timber, while the decorative elements would be of softer wood, more easily worked than oak, which is very hard. Roman images survive which show elaborately decorated wooden doors.¹⁸ Wrought iron also began to be used when making doors, to join the different components, to hang the door on the jambs, and in the manufacture of hinges, latches, locks and keys. As the economy grew, and with it the need to protect buildings and their contents, metal locks came into use.

² Košćević 2000, 36-37.

³ Čargo 2002, 552.

⁴ Gregl 1989, 68-69.

⁵ Pinterović 1978, T. LXVII, 2.

⁶ Jacobi 1897, 464.

⁷ Милошевић 1997; Trifunović 2015, 231.

⁸ Jacobi 1897, 476-477.

⁹ Busuladžić 2014, 16.

¹⁰ Ulrich 2007.

¹¹ Ballian / Memišević Hodžić 2016.

¹² Ballian / Halilović 2016; Šilić 2005, 18.

¹³ Šilić 2005, 114.

¹⁴ Ibid. 420-424.

¹⁵ Ibid. 118.

¹⁶ Ibid. 92.

¹⁷ Ibid. 26-42.

¹⁸ Guhl / Koner 1994, 465.

The symbolism of keys

As well as their use in securing doors, keys had a certain symbolism. Their role was twofold – to open, and to close.¹⁹ A key could permit or refuse entry, and as such guarded the boundary between two worlds, the outer and the inner, the known and the unknown, good and evil, life and death... This is why a key often forms part of the iconography of a deity, such as Hecate,²⁰ goddess of the underworld, who holds in one hand the key to the nether regions and was responsible for admitting the souls of the dead. Other deities too feature a key as one of their attributes: among them Janus,²¹ Aphrodite,²² Cronos,²³ Helios,²⁴ Cybele and Eros.²⁵ Later, with the emergence of Christianity, a key had a symbolic function in written sources.²⁶ The keys to the Kingdom of Heaven attributed to St. Peter were those that had previously been emblems of Janus,²⁷ the two-faced, the god of transitions, passages, gates and house doors,²⁸ who held one key to secure the door and another in his capacity as conductor of souls.²⁹ As noted, among the ancient Greeks, the Titan Hecate held the keys to the gates of Hades, a symbolism that the Etruscans also upheld. Vanth, the Etruscan goddess of death, like the Erinyes or Furies, was portrayed in funerary scenes as a winged being holding keys.³⁰ Keys also had a specific symbolism among the ancient Egyptians.³¹ Sources refer to the amulet known as the *ankh*, known as the Egyptian cross but also as the key of life and the key of the Nile. Keys were placed in the hands of mummies to enable the deceased to attain the mysteries of the afterlife. The key

beside the Pharaoh bestowed breath and life.³² The symbolism of the key also manifested itself in religious processions, where the priests who possessed the keys to the temple carried a key as a status symbol.³³ Keys were an attribute of eastern deities. Opening and closing the gates to the next world³⁴ was one of their essential functions, for which reason doors are sometimes depicted on funerary stelae. Also in the religious context, keys were sometimes buried with the deceased, as grave goods,³⁵ and scenes with doors, which would undoubtedly have had a lock and key, thus also feature on some Greek and, later, Roman stelae.³⁶

The ritual context of the use of keys also relates to the household hearth, while in funerary rites they also served as a talisman. One suggestion is that when preparing food for the deceased, Romans would mark the hearth of their forebears with keys, both in the grave and on the altar above it.³⁷ Further support for this hypothesis lies in the fact that keys are often found on or near the hearth.³⁸ In Roman society, keys symbolised strength and authority, a significance in direct correlation with their functions of locking and unlocking, and corresponding association with crime and the protection of valuable objects, the status of individuals whose status depended on freedom, and so forth.³⁹ Surviving original material largely corroborates this.⁴⁰ The symbol of the key as an object that was the “solution” to opening or closing⁴¹ was still present in late antiquity, and generally in the Christian tradition,⁴² persisting into the Byzantine period.⁴³ As already noted, this was true above all of St. Peter, who held the keys to the gates of Heaven.⁴⁴

¹⁹ Colin 2004, 217.

²⁰ Srejović / Cermanović 2000, 449-450; Pace 2014, 39.

²¹ Ausführliches Lexikon der griechischen und römischen Mythologie, II, Leipzig, 1890–1897, 15-54.

²² Paulys Wissowa 1894, 2729-2787; Busuladžić 2016, 142-143.

²³ Ausführliches Lexikon der griechischen und römischen Mythologie, II, Leipzig, 1890–1897, 1452-1572.

²⁴ Paulys Wissowa 1912, 58-92.

²⁵ LIMC/III; Ausführliches Lexikon der griechischen und römischen Mythologie, I, Leipzig, 1884–1886, 1340-1371; Busuladžić 2017, 30-32.

²⁶ Čargo 2002, 551.

²⁷ Chevalier / Gheerbrant 1996, 564-565.

²⁸ Srejović / Cermanović 2000, 176-177.

²⁹ Garden / Olorenšo / Garden / Klajn 2011, 249.

³⁰ Milovanović / Mrdić 2016, 243.

³¹ For types of keys among the Egyptians, see Jacobi 1897, 468.

³² Garden / Olorenšo / Garden / Klajn 2011, 248.

³³ Ivčević 2014, 155.

³⁴ Garden / Olorenšo / Garden / Klajn 2011, 248-249.

³⁵ Ivčević 2003, 144.

³⁶ Ivčević 2014, 155.

³⁷ Golubović 2008, 97-98.

³⁸ Milovanović / Mrdić 2016, 245.

³⁹ Pace 2014, 21-36.

⁴⁰ Ibid. 36-39.

⁴¹ Colin 2004, 217.

⁴² Pace 2014, 22-23.

⁴³ Ibid. 24.

⁴⁴ Garden / Olorenšo / Garden / Klajn 2011, 248.

Material and manufacture

The keys and other metal components of doors in the museum collections covered in this paper were made almost exclusively of bronze or iron,⁴⁵ with a few of precious metal. Most of the former were similar in their simple workmanship. It is clear at a glance that each component was primarily functional, not decorative, and that no great care was taken in their manufacture, at least in the majority of cases. Where greater care was taken, it would be to ensure that the keys were strong enough not to be damaged by cracking or breaking. Of two keys that stand out from this general pattern, one was found at the site of the Roman villa in Žabljak (Plate 6, fig. 10), and the other, a large, damaged key, at Mogorjelo (Plate 13, fig. 11). The keys were decorated in niello, using inlaid silver wire,⁴⁶ while the Mogorjelo key was also gilded. This is a clear instance of care taken over the manufacture of keys and other components only for chests, caskets and similar valuable or prized objects.

Along with the common finds of iron and bronze keys, the Antiquities Collection of the National Museum of Bosnia and Herzegovina has a number of objects consisting of lock parts, lock escutcheons, hinges and door-handles. Two lock facings (Plate 20, figs 1, 4 and 5) were of silver, and were from a small chest.

Examination of the differences between keys found in Bosnia and Herzegovina, in the interior of what was the Roman province of Dalmatia, reveals that bronze keys were of finer quality than those of iron.⁴⁷ These small mainly bronze “classic” keys (Plate 1, fig. 12, Plate 2, fig. 1. 2. 4. 9. 10, Plate 3, fig. 10. 11, Plate 4, fig. 6. 8. 9. 10. 11. 12, Plate 5, fig. 4. 5. 7. 8. 11, Plate 6, fig. 1. 2. 3. 5. 6. 7. 8. Plate 7, fig. 5) or those in the shape of a ring (Plate 11, fig. 2. 3. 4. 5. 6. 7. 9. 10. 11. 12. 13. 14. 15) probably belonged to small chests in which various valuables were kept.⁴⁸ The cruder iron keys would mostly have belonged to doors, mainly interior doors, while very large keys would usually have belonged to gates and

massive entrance doors, where the lock would be correspondingly large.

In a few cases, two metals were used in combination,⁴⁹ the grip and shank of iron and the bit of bronze. Keys were made in specialist workshops. A few instances of keys made of bone or ivory have been found. A typical Roman key would be 6 to 8 cm long, though a few have been found up to 20 cm or so in length. A few extremely small keys have also been found, their very size suggesting that they belonged to a small box or lock.⁵⁰ Variations in size can be observed in the keys presented in this paper.

The metallurgical techniques used to make keys differed: bronze keys would normally be cast, while iron keys were usually wrought.⁵¹

The concept and use of the key

Keys and locks first appeared in the Orient,⁵² coming into widespread use in the last millennium BCE.⁵³ In those days, keys were so large that they were often carried or worn on the shoulder.⁵⁴ The first certain forms of key date from ancient Egypt⁵⁵ and Mesopotamia,⁵⁶ followed by the Greeks, Etruscans⁵⁷ and Romans.⁵⁸ The Egyptians were the first to develop the cylinder lock system, thereby largely perfecting the locking method.⁵⁹ Images of keys on later Greek vases and stone monuments also provide evidence of the use of keys.⁶⁰

One of the most primitive methods of securing a door against unwanted intrusion was a wooden wedge on the inside. Another was to place a wooden bar horizontally across the door, making it impossible to open. This meant that the door could be secured and opened only from

⁴⁵ These are also the most common materials used to make keys. Ožanić / Radman-Livaja / Rendić-Miočević 2003, 33.

⁴⁶ Čremošnik 1970, 106.

⁴⁷ Ivčević 2003, 144; Bogić 2017, 42.

⁴⁸ Čremošnik 1984, 44.

⁴⁹ Ivčević 2003, 144.

⁵⁰ Milovanović / Mrđić 2016, 256; Bogić 2017, 42.

⁵¹ Gaspar 1986, 40; Koch 2017, Taf. 10. 12.

⁵² Pauly's Wissowa 1923, 557-563, 565-569.

⁵³ Ciurletti 1996, 67.

⁵⁴ Jacobi 1897, 468.

⁵⁵ Pace 2014, 9-10.

⁵⁶ See Izzet 2011 on Etruscan material culture.

⁵⁷ Milovanović / Mrđić 2016, 243.

⁵⁸ Pace 2014, 18-21.

⁵⁹ Čargo 2002, 551.

the inside. There is mention in Homer⁶¹ of the simplest wooden latches,⁶² which were closed from the inside.

Two basic principles are found in Roman locks.⁶³ In the earlier system, when the key was introduced into the lock it lifted the dead bolt, which was drawn by hand,⁶⁴ freeing the lock, while the later system had a rotary mechanism,⁶⁵ activated directly by the key.

The slide key mechanism

Sliding locks first appeared in the protohistorical period, and were improved over time, until by the Roman period they were the preferred type of lock. They were operated by inserting the key into an L-shaped keyhole and then pushing it upwards. The tines or teeth of the key passed through an opening in the deadbolt, lifting the tumblers that held the deadbolt in place and were held down by a spring above the tumblers. While the key was engaged the deadbolt was freed and could be slid left and right to lock or unlock it.⁶⁶ When the key was inserted, the tines on the keys for this kind of lock⁶⁷ lifted the small tumblers (*pessuli*) that held the deadbolt in place. These tumblers fitted into corresponding holes in the metal reinforcement on the deadbolt, and could only be moved by a key that matched the tumblers. Once the deadbolt was clear of the tumblers, it would be moved in a straight line to free it from the closed groove into which it fitted when locked.⁶⁸ This type of lock, the origin of which was far back in prehistory,⁶⁹ was most commonly used in antiquity and throughout the duration of the Roman Empire.⁷⁰

The rotary key mechanism

The rotary mechanism involved a lock plate or *claustrum* and a key or *clavis*. This system consists of three groups, based on their distinct technical differences. The insertion of the key through the lock plate acted directly on the deadbolt. The key pressed against the deadbolt, and opened or closed the door by drawing the deadbolt to the side.⁷¹ Some authorities believe that this kind of key was known as a temple key.⁷² It was the simplest kind of key, being made of a metal bar that was bent twice, usually at a right-angle.⁷³

The keys known as Laconian were similar to these. They were also bent at a right-angle at the base of the shank, and had two or three tines.⁷⁴ Laconian keys remained in use over a long period, including during Roman times.⁷⁵

The other later system, the basic principles of which still apply to this day, involved a turning mechanism. Once the key was inserted into the lock, its tines would lift the pins holding the deadbolt in place. The deadbolt was locked when the pins slotted into the corresponding holes in the deadbolt, and the lock could only be operated by a key with matching tines.⁷⁶

The later system represented a technological advance. In this case the lock was not opened by horizontal movement, but by turning the key in the lock, thus moving the deadbolt to the left or right. This system is believed to have been a Roman invention, and came into widespread use in the 2nd century CE,⁷⁷ though already known before that date. As a technological innovation, it has remained in use to this day.⁷⁸ The keys for such locks come in two kinds, with a solid or a cylindrical shaft, depending on the type of lock they are designed to open.⁷⁹ They were used initially for chests and cosmetics caskets, but later became widespread and, with only minor changes, are still in use today.⁸⁰

⁶¹ Pace 2014, 14-18; Čargo 2002, 551.

⁶² Pace 2014, 43.

⁶³ Čargo 2002, 551.

⁶⁴ Ivčević 2003, 143.

⁶⁵ Ožanić / Radman-Livaja / Rendić-Miočević 2003, 33.

⁶⁶ Ivčević 2003, 144.

⁶⁷ Marić Baković 2017, 76.

⁶⁸ Galliazo 1979, 150-151.

⁶⁹ Čargo 2002, 551.

⁷⁰ Marić Baković 2017, 76.

⁷¹ Ivčević 2003, 143.

⁷² Gaspar 1986, 42.

⁷³ Paulys Wissowa 1923, 557-558.

⁷⁴ Guaitoli 1996, 19.

⁷⁵ Bassi 1996, 84.

⁷⁶ Ožanić / Radman-Livaja / Rendić-Miočević 2003, 33.

⁷⁷ Ivčević 2003, 144.

⁷⁸ Koščević 2000, 36-37.

⁷⁹ Čargo 2002, 551.

⁸⁰ Ivčević 2003, 144.

Classification of keys

Every key, regardless of the context in which it was found, its date range, size,⁸¹ material and other factors, may be said to possess basic features that allow it to be identified as a key. Every key has a handle with a grip and neck, and a shaft and bit which correspond to the structure of the lock, thus allowing for it to be locked and unlocked.⁸² The end of the handle would almost invariably have some circular perforations, by which the key could be hung: given the importance of a key and the possibility of losing it, owners would hang the key by these holes, directly or by threading a chain through them. One such has been found in Bosnia and Herzegovina, at the site of the great mining settlement of Japra-Majdanište (Plate 6, fig. 8).

Differences can be seen within the classification of Roman keys, mainly relating to their size and shape. These were not an aesthetic issue, but reflected the technical and structural differences in the lock mechanism, which was the principal factor in the production of various types of keys.

The great majority of keys were not decorated. Since they were in constant use, and were purely functional in nature, there was no need for decoration. However, very rarely a bronze key could have had some modest geometric decoration of incised straight, diagonal or X-shaped lines (Plate 2, fig. 1. 11, Plate 4, fig. 9. 12, Plate 5, fig. 8. 9. 10. 11, Plate 6, fig. 1. 2. 5. 6, Plate 8, fig. 5. 9, Plate 10, fig. 1. 4). This decoration would feature on the neck of the key, the part between the grip and the shank, or even more rarely on the shank, in the form of a row of lines.

Ring keys are a somewhat different case, since some were items of jewellery with modest decoration, but only as a function of their primary use (Plate 11). In our case, the most highly decorated example of a key is one with the figure of a human body on the ring (Plate 11, fig. 15).

Most Roman keys in the Antiquities Collection of the National Museum of Bosnia and Herzegovina would have been used with metal locks of various types.⁸³ Our museum collections have four different locks (Plate 18), together with lock

escutcheons, intact or fragmentary (Plate 19 and Plate 20).

The slide-key lock, one of several known types of Roman lock, first came into use in early Roman times and was later in widespread use,⁸⁴ particularly in High and Late Antiquity and even into the early mediaeval period.⁸⁵ Also known are wire locks, which first appeared in the 1st century and continued in use throughout the Roman period⁸⁶ and until mediaeval times,⁸⁷ and are even occurred in modern times.⁸⁸

The Antiquities Collection of the National Museum of Bosnia and Herzegovina has a significant number of simple keys for rotary locks, which also came into use in the 1st century⁸⁹ and remained in use for centuries.⁹⁰ The collections of Roman keys in the National Museum of Bosnia and Herzegovina and the Zenica Museum both include keys for slide-key locks.⁹¹ These came with a variety of mechanisms,⁹² and are represented in the collection the subject of this paper by eight examples (Plate 23, fig. 1-8).

Along with these, the most numerous, a certain number were used with the simplest of wooden locks, the primitive Laconian key, which also long remained in use (Plate 8, fig. 2, Plate 10, fig. 2. 5).⁹³

Typology of keys in museums in Bosnia and Herzegovina

The following typology is proposed for the examples presented, based on analysis of the types of key in the Antiquities Department of the National Museum of Bosnia and Herzegovina and in other museum collections and institutions covered by this analysis.

⁸⁴ Walke 1965, T. 123, 1-12.

⁸⁵ Radišić 2015, 292-293.

⁸⁶ Walke 1965, 59.

⁸⁷ Štribar / Stare 1981, 29 and 51, fig. 32. Mediaeval locks, keys, latches and deadbolts have been recorded at several sites. Trifunović 2015, 231; Radičević / Milivojević / Crnčević 2015, 243.

⁸⁸ Jacobi 1897, 477.

⁸⁹ Ulbert 1959, 77.

⁹⁰ Koščević 2000, 37.

⁹¹ Walke 1965, T. 124, 7-10.

⁹² Koščević 2000, 37.

⁹³ Ibid. 36.

⁸¹ Keys of different sizes have been found at numerous sites. Guhl / Koner 1994, 465.

⁸² Pace 2014, 47.

⁸³ For types and variaties of keys and locks with reconstructions, see Gáspár 1986.

Anthropomorphic keys, *Stechschlüssel* (catalogue nos. 1-14, Plate 1)

Keys in the stylised form of the human body constitute one distinct type, within which there are certain differences. Some keys have a grip resembling legs, body, neck, head and arms (Plate 1, fig. 6. 8. 9. 12. 13). The keys forming another group have a grip resembling legs, body, neck and head without arms (Plate 1, fig. 1. 2. 3. 4. 10. 11. 14), while a third is represented by a single example which appears to have only one arm (Plate 1, fig. 5). Another, also represented by a single example, appears to have arms, a neck, body and head, but only one leg (Plate 1, fig. 7). In each case, the circular top part or handle of the key, suggesting a stylised head above the long neck, enabled the key to be hung. In every case but one, the head is in the same plane as the rest of the key (Plate 1, fig. 1. 2. 4-14), the exception being one in which the head is at a right-angle (Plate 1, fig. 3).

These keys are quite commonly found at ancient sites, particularly in Bosnia and Herzegovina, where they have been recorded at Graci, Vojkovići, Dračevica, Panik and Gorica,⁹⁴ and were used to open the moving parts of a lock, usually a padlock.⁹⁵ Such keys were also used in other provinces.⁹⁶

Classic keys, *Schiebschloss* locks (catalogue nos. 15-117, Plate 2-10)

These, the most numerous keys found at archaeological sites, constitute another type of Roman key. They were made of bronze or iron, the latter the most common (Plate 2, fig. 3. 5-8. 11, Plate 3, fig. 1-9. 12-15, Plate 4, fig. 1-5. 7, Plate 5, fig. 1-3. 6. 9. 10, Plate 6, fig. 4. 9-11, Plate 7, fig. 1-4. 6-10, Plate 8, fig. 1-10, Plate 9, fig. 1-10, Plate 10, fig. 2-13). Bronze keys (Plate 1, fig. 12, Plate 2, fig. 1. 2. 9. 10, Plate 3, fig. 10. 11, Plate 4, fig. 6. 8. 9. 10. 11. 12, Plate 5, fig. 4. 5. 7. 8. 11, Plate 6, fig. 1. 2. 3. 5. 6. 7. 8, Plate 7, fig. 5, Plate 10, fig. 1) were probably for locks on chests, caskets or other valuable objects. The main structural feature of these keys is their L-shape. This type belongs to the type known in scholarly works as *Schiebschloss*.⁹⁷

They were in widespread use,⁹⁸ and most are of the usual, familiar shape and similar size.⁹⁹ Such keys were used to operate sliding bolts, and first appeared in the early Roman period.¹⁰⁰ This system involved pressure from the key on a spring when it was inserted into the lock plate, the tines on bit of the key corresponding to the perforations of the deadbolt. Such locks are known as spring locks.¹⁰¹

In most cases keys of this type have a handle set at a right-angle to the shaft, though in one example it is set horizontally (Plate 3, fig. 10). There are differences in the shape of the bit, and in the number of tines, of which there may be two (Plate 3, fig. 9. 11. 15, Plate 6, fig. 4. 8, Plate 8, fig. 3. 5, Plate 9, fig. 6),¹⁰² three (Plate 2, fig. 1. 7. 9, Plate 3, fig. 1-4. 6-8, Plate 4, fig. 4. 9. 11, Plate 5, fig. 3. 8. 11, Plate 6, fig. 1. 5. 6. 9. 11, Plate 7, fig. 3. 7, Plate 8, fig. 1, Plate 9, fig. 9, Plate 10, fig. 2-5) or four (Plate 2, fig. 10. 11, Plate 4, fig. 5. 10, Plate 5, fig. 4-7, Plate 6, fig. 2. 3, Plate 7, fig. 5. 10, Plate 9, fig. 7. 8).¹⁰³ One example had five tines (Plate 10, fig. 1). There is usually a single row of tines, though two examples (Plate 3, fig. 12, Plate 4, fig. 12) have two rows of tines.¹⁰⁴

The handle and shank of the key also display differences. This part is flat, of varying thickness, and always ends in a ring. The ring may be wide (Plate 2, fig. 1. 2. 5-10, Plate 3, fig. 2-15, Plate 4, fig. 1-7. 9, Plate 5, fig. 1-8. 11, Plate 6, fig. 2-4. 6-11, Plate 7, fig. 1. 3. 5. 9. 10, Plate 8, fig. 1. 2. 5-8. 10, Plate 9, Plate 10, fig. 1-5. 7. 8. 12. 13). There are also differences of detail in the treatment of the ring. Most are circular, but a few are octagonal in shape (Plate 2, fig. 3. 5. 6, Plate 3, fig. 1, Plate 4, fig. 10. 11, Plate 6, fig. 5, Plate 7, fig. 4. 7. 8, Plate 8, fig. 3. 9, Plate 10, fig. 6. 9), or of an inverted V-shape, like the roof of a house (Plate 4, fig. 8, Plate 5, fig. 9, Plate 6, fig. 1, Plate 10, fig. 11).

The shank of the classic Roman key also varies somewhat, particularly in shape. In some, it

⁹⁸ Boržić et al. 2014, 204, fig. 33. 34; Bogić 2017, T. I, fig. 5. 6, T. II, 7-14.

⁹⁹ Čremošnik 1970, 106.

¹⁰⁰ Košćević 2000, 36.

¹⁰¹ Bogić 2017, 37.

¹⁰² The last example, though differing in the number of tines, is very similar to one discovered in Burnum. Boržić et al. 2014, 193, fig. 7.

¹⁰³ Jacobi 1897, 474.

¹⁰⁴ Čremošnik 1976, 126.

⁹⁴ Čremošnik 1976, 126.

⁹⁵ Bogić 2017, 35.

⁹⁶ Ibid. 41.

⁹⁷ Čremošnik 1958, 44-45.

consists of a simple elongated triangle, widening from the bit to the handle (Plate 2, fig. 1. 3. 7. 8, Plate 3, fig. 5. 7-9. 11. 13, Plate 4, fig. 9. 11. 12, Plate 5, fig. 1. 3-5. 6. 8. 10. 11, Plate 6, fig. 2. 6. 9. 11, Plate 7, fig. 1. 4. 5. 7. 9. 10, Plate 8, fig. 1. 3. 4, Plate 9, fig. 2. 5. 8. 9, Plate 10, fig. 1. 5. 6). Others are more decorative, with a narrow neck that widens abruptly (Plate 2, fig. 2. 4. 5. 10. 11, Plate 3, fig. 1. 4. 10. 12. 14. 15, Plate 4, fig. 3. 4. 5. 7. 8. 10, Plate 5, fig. 2. 7. 9, Plate 6, fig. 1. 3-5. 7. 8. 10, Plate 7, fig. 2. 3. 6. 8, Plate 8, fig. 2. 5-9, Plate 9, fig. 1. 3. 4. 7. 10, Plate 10, fig. 2-4. 7-12). In a few cases the keys are decorated with transverse lines, mouldings and X's on the shank (Plate 2, fig. 1. 11, Plate 4, fig. 9. 12, Plate 5, fig. 4. 8. 9-11, Plate 6, fig. 1-3. 5. 6, Plate 8, fig. 5. 9, Plate 10, fig. 1).

A general characteristic of keys of this type is that several determinant features may be found on the same key, making it impossible or very difficult to classify them into distinct variants.

Some keys of this type are known to have been found at sites and very close to buildings where a gateway or entrance to a building has been identified. Three keys of this among our examples were found respectively in a tower to the west of a gateway, in the gateway of the west rampart, and by a door by the ramparts at the site of Kastrum military camp near Doboј (Plate 2, fig. 7, Plate 3, fig. 2. 3).

Many examples of keys of this type have been found at Roman and Late Antiquity sites, evidence that they were in widespread use throughout the Roman Empire.¹⁰⁵

Ring keys (catalogue nos. 118-132, Plate 11)

Another distinct category of Roman keys consists of ring keys.¹⁰⁶ These were a practical way of keeping keys, particularly important ones that unlocked chests and caskets in which important items were kept.¹⁰⁷ One of their principal features is that they were not purely utilitarian, but also served as jewellery. Analysis of these rings reveals various designs for the bit, among them a meander or Greek key motif, a heart, and a horseshoe, which may also have had a symbol-

ic element. Most were of bronze, though some have been found of iron or of silver. The many such keys found throughout the Roman Empire also include some made of two kinds of metal – bronze for the ring, and iron for the bit. Some ring keys have been found with seals applied to the ring, highlighting their utilitarian purpose.¹⁰⁸

Their very shape suggests a range of possibilities for the way they were worn. They could have been hung as pendants from a belt or around the wrist or neck, attached to clothing, or worn on a finger like jewellery – this latter particularly in the case of silver ring keys.¹⁰⁹ Also suitable to be worn on the finger were those with the bit set next to the ring, so that they would appear to be a decorative ring. Ring keys with the bit at a right-angle to the ring were neither practical nor aesthetically suitable to be worn on a finger.

Their shape is an important factor in identification. Their small size suggests that they belonged to the small locks of chests, caskets and other such objects in which personal effects were kept.¹¹⁰ Ring keys were mainly used with slide-key and spring locks.¹¹¹

Various factors, depending on the archaeological context in which they were found, relate to the social role of these objects. Ring keys have been found as grave goods,¹¹² but also on private property or in public edifices.¹¹³ Analysis of the examples found at Lauricum and Viminium indicates that they were worn by women, men and even children.¹¹⁴

The collection forming the subject of analysis in this paper has fifteen examples of this type.¹¹⁵ Even a superficial analysis reveals certain differences or variants, based on their technical differences, mainly as regards the bit.

Variant 1: In this variant (Plate 11, fig. 2-4) the keys have a ring that may be circular or flat in section. The bit is set horizontally to the ring, and takes the form of a plate pierced to create various geometric designs: the letter E,¹¹⁶ a rectangle,

¹⁰⁵ Jacobi 1897, T. XXXXIV, fig. 7-14; Koščević 2000, 122-124; Junio 2016, 96; Bogić 2017, 38.

¹⁰⁶ Guhl / Koner 1994, 465.

¹⁰⁷ Ivčević 2014, 155.

¹⁰⁸ Milovanović / Mrđić 2016, 243-244.

¹⁰⁹ Koščević 1991, 86-87.

¹¹⁰ Milovanović / Mrđić 2016, 244.

¹¹¹ Bogić 2017, 35.

¹¹² Zotović / Jordović 1990, 31.

¹¹³ Milovanović / Mrđić 2016, 244.

¹¹⁴ Bogić 2017, 42.

¹¹⁵ The gold ring resembling a ring key is shown by way of analogy only (Plate 11, fig. 1).

¹¹⁶ Ivčević 2014, T. 8, fig. 80.

meander, swastika, heart, inverted letter U, broken circle and so forth. The bit is designed for a slide-key lock. Their shape is mainly suitable for wearing as a ring.¹¹⁷ The keys shown in this paper are of bronze, but despite this their primary function was no doubt practical rather than decorative.

Further indications that these shapes were also seen as items of jewellery or rings is that many keys of this kind in silver and gold have been found, as well as rings of similar design but could not have been used as keys, but rather bore images from mythology or religion. An illustrative example of this kind was found at the large mining settlement of Japra-Majdanište (Plate 11, fig. 1).¹¹⁸

Ring keys of this variant have been found in various contexts at archaeological sites.¹¹⁹ Some were found among grave goods in various types of burial, at sacrificial areas, but also among everyday items in public edifices or private property. They were quite popular, which explains their long use from the 2nd to the 4th century, particularly during the 3rd century.¹²⁰

Their popularity is also indicated by the number of finds at various sites in Germania,¹²¹ at Burnum¹²² and in Noricum, Pannonia, Dalmatia, Moesia and other provinces.¹²³

Variant 2: In this variant the ring is flat, round or half-round in section (Plate 11, fig. 5-12). The feature that distinguishes them as forming a separate group is that the bit is set vertically in relation to the ring. These ring keys were used with spring locks. The position of the bit reveals that they were above all keys, with no aesthetic aspirations to serve as jewellery. They were thus classic keys but miniature in size. The bit set vertically on the ring was shorter than in ordinary keys, with a more or less elongated neck. Though

diminutive in size, the bit is identical in form to the bit of larger keys.¹²⁴

They probably date from the 2nd to the 4th century, particularly the late 2nd and first half of the 3rd centuries, as in the case of variant 1.¹²⁵

Comparable examples have been found in the provinces of Dalmatia,¹²⁶ Pannonia,¹²⁷ Germania, Moesia, Dacia, Macedonia and elsewhere in the Roman Empire.¹²⁸

Variant 3: Two examples belong to the third variant (Plate 11, fig. 13, 14). The defining features of this group are the semi-circular section of the ring and a horizontal, cylindrical or solid-cast bit in the shape of a spike. These keys operated rotary locks. As in other variants, this kind has been found in a wide range of contexts from grave goods to finds within a residential building. It ranges in date from the 2nd to the 3rd century.¹²⁹ The rotary lock was invented by the Romans, and remains in use to this day.¹³⁰

Many comparable examples have been found in Germania,¹³¹ Noricum, Pannonia, Moesia, Macedonia and elsewhere in the Roman territories.¹³² An interesting, possibly analogous example, with the bit set horizontally and no fewer than eight tines in two rows, was found at Burnum.¹³³

Variant 4: One key, classified as belonging to a distinct variant (Plate 11, fig. 15), has the bit set at a right-angle, like those of variant 2, and could not for functional reasons have served as an item of jewellery. The very interesting shape of the ring is what sets it apart as a distinct variant. The ring is in the shape of an inverted human figure, with arms and legs extended to form a semicircle with the body. This ring key could not have been

¹¹⁷ Milovanović / Mrđić 2016, 247.

¹¹⁸ Ibid. 251, 252-255.

¹¹⁹ Giunio 2016, 94.

¹²⁰ Koščević 2000, 61.

¹²¹ Nikolić / Pop-Lazić 2005, 34-35; Petrović 1997, 124, cat. 126-127; Koščević 1988, T. XXXV, 569. 599; Vágó / Bóna 1976, T. 15, 1041, 7, 1050, 5; Marcea / Gudea / Moțu 1993, 107, Pl. XXVI, 6; Henkel 1913, 183. 248-249; Beckmann 1969, 40. 52; Milovanović / Mrđić 2016, 249-251 and many others.

¹²² Milovanović / Mrđić 2016, 255.

¹²³ Bogić 2017, 41.

¹²⁴ Jacobi 1897, T. XXXIV, fig. 21-25. 27.

¹²⁵ Pop Lazić 2002, 69-70, fig. 22. 6; Koščević 1988, T. XXXV, 589-591; Petru 1972, 74, T. LVI, 12; Milovanović / Mrđić 2016, 255 and many others.

¹²⁶ Boržić et al. 2014, 274, fig. 40.

an item of jewellery, a finger-ring, but nonetheless was of aesthetic value.

The available literature reveals no comparable examples, while the most nearly similar ring, on which the figure of a standing orator is portrayed and which dates from the 1st and 2nd centuries, is kept in the Metropolitan Museum.¹³⁴

Large keys (catalogue nos. 133-152, Plate 12. 13)

Large keys have been found at numerous sites.¹³⁵ Analysis of such examples reveals certain differences in the way they were used as well as structural differences, of both the keys and the locks which they operated. Such keys were probably latch lifters, designed to operate wooden latches.¹³⁶ Thus there were several variants which differed significantly one from another.

Variant 1: The largest group consists of anchor-shaped keys (Plate 12, fig. 1-7. 9), with two curved hooks, to left and right,¹³⁷ a long, flat shank, and with the top bent into a circle, probably so they could be hung, as is the case with other types of key. Their common feature is their size, ranging from 10.06 to 19.05 cm. The popularity of this type is revealed by the fact that such keys have been found at various sites throughout the Empire.¹³⁸

Variant 2: We have only one example of a large key with the bit on one side only, consisting of two large tines (Plate 12, fig. 8). This type of key, which was operated by rotating to the right or left, had from two to five tines. Analogies (Plate 12, fig. 8) have been found at Saalburg,¹³⁹ Svrljig,¹⁴⁰ and Čečan, and date from Late Antiquity.¹⁴¹

Variant 3: One of the many different groups consists of exceptionally large keys, ranging from 21 to 24 cm (Plate 13, fig. 1-4). These are flat in profile, with a thinner section on the lower part of the shank. The bit is bent to one side at an acute angle and ends in a circle or cylinder with three tines (Plate 13, fig. 3), or none (Plate 12, fig. 1. 2. 4). These keys are known in scholarly works

as *Vexirschlüssel*, and operated the large locks of massive doors or gates. The locks themselves are known as *Drehschloss* or *Vorhängeschloss* locks.¹⁴²

Variant 4: One example, of which the shank is circular in section and has an opening at the top so it can be hung, belongs to this variant. It is of simple workmanship and operated a rotary lock (Plate 13, fig. 5). It is probably of latish date, given its structural features and the shape of the bit and shank

Variant 5: Another distinct variant is represented by a number of examples with flat shanks and a circular perforation at the end, so they could be hung. The bit is fairly primitive, with a bent tip which served to turn the mechanism, thus unlocking what were most likely wooden locks (Plate 13, fig. 6. 7).

Variant 6: This variant is represented by a single example which, though sharing certain features with the larger group, has two curved tines with which the lock was unlocked (Plate 13, fig. 8). Directly comparable examples have been found at other Roman sites.¹⁴³

Variant 7: Yet another key belongs to a variant with the bit bent to one side, and with three tines that turned the lock system (Plate 13, fig. 9). This too has analogies at known Roman sites, such as the Roman edifice in Saalburg.¹⁴⁴

Variant 8: The structure of a large iron key with a flat shank and flat bit bent to one side, a narrow neck, and a wider upper shank (Plate 13, fig. 10), also defines it as belonging to another variant, though there are similarities between this and examples from variant 3 and 8.

Variant 9: Based on its principal feature, its size, this variant is represented by one example (Plate 13, fig. 11). This key was gilded, and undoubtedly operated a luxury lock. Unfortunately it is too badly damaged to allow for closer analysis.

It should be noted that large keys, especially those of variants 3, 4 and 5, were used only to operate large locks on massive doors, such as the entrance gates to fortifications at Mogorjelo and elsewhere.¹⁴⁵

¹³⁴ Pace 2014, 104.

¹³⁵ Jacobi 1897, 469; Guhl / Koner 1994, 465.

¹³⁶ Bogić 2017, 35.

¹³⁷ Jacobi 1897, 469.

¹³⁸ Ibid. 469, T. XXXXIV, fig. 1.

¹³⁹ Ibid., T. XXXXIV, fig. 2.

¹⁴⁰ Bogić 2017, 36, fig. 4.

¹⁴¹ Ivanišević / Špehar 2006, 148.

¹⁴² Čremošnik 1976, 126.

¹⁴³ Jacobi 1897, 469, fig. 17.

¹⁴⁴ Ibid., T. XXXXIV, fig. 3-5.

¹⁴⁵ For Mogorjelo see Dyggve / Vettters 1966.

Atypical Roman keys (catalogue nos. 153-159, Plate 14)

Since locks and keys were so widely used, there can be no doubt that they were manufactured in a variety of ways, reflecting basic, familiar technical principles. Interesting examples of keys have thus been found at typical Roman sites. That keys could be made from materials at hand, so as to secure portable and real property, is evidenced by examples from the preceding group, of which some (Plate 14, fig. 2. 3), were probably made on site.

This and similar examples were often in use later, in the mediaeval period, to secure large doors or gates.

The continued use of keys that were very similar to those of the Roman period, Late Antiquity and the early mediaeval period, may be observed at numerous sites, where determinant archaeological material and keys formed part of the finds.¹⁴⁶ Analogues to some of our examples, very similar in appearance, have been found at the site of a burg at Wittelsbach.¹⁴⁷ As well as the sites at which they were found, very similar or identical examples have been found at Saalburg,¹⁴⁸ Sisak (Siscia) and Aquileia,¹⁴⁹ supporting the claim that our examples are indeed Roman, or date from Late Antiquity.

In two instances our examples display almost identical features to those of classic keys (Plate 14, fig. 2. 3).

The other four examples (Plate 14, fig. 1. 4. 5. 7) have a cylindrical shank with tines at the end, set at a right-angle to form the bit. As with other examples, the handle ends in a ring, enabling it to be hung. These keys were used to turn a lock plate, and were in use from the 1st century, remaining in use for a long period.¹⁵⁰ Direct analogies to our examples have been found at Aquileia and Sisak.¹⁵¹

A very interesting key was found at Žabljak (Plate 14, fig. 6). According to the available literature and other examples found, this is a unique

find, no analogies to which have been found in Bosnia and Herzegovina.

Hinges (catalogue nos. 160-189, Plate 15. 16. 17)

The Antiquities Collection of the National Museum of Bosnia and Herzegovina has examples of various kinds of hinge. Hinges were an essential component of doors and locking systems. They were the functional bearing component connecting the door and door frame, enabling the door to be opened and closed as easily as possible. Hinges differ in design, as can be seen in the examples in our collection, which are of varying shapes and manner of operation.

One method by which doors could be opened and close was known among the Etruscans, in which the door pane fitted into a spike top and bottom, or in some cases extended into a pivot at the top and bottom, forming the axis around which it could be turned. In such cases the threshold serving as the base had to be provided with a groove along which the lower pivot could move. This method was in widespread use in various areas, as confirmed by archaeological excavations.¹⁵² A new method of fitting doors was developed in the Roman period, using iron spike-shaped hinges. These were ideal for solid, heavy doors, and were usually of wrought iron. This system consisted of two identical spikes bent in the middle, when they fitted into each other; one was attached to the door pane, the other to the door frame. To ensure they remained securely attached, they were very long, penetrating deep into the timber. If they protruded on the other side of the door frame, the ends would be bent over. Each door would have at least two such hinges, but depending on the weight and size of the door could have three or more. Examples of this design can be seen on eight of our hinges (Plate 15, fig. 12-14, Plate 16, fig. 8-10, Plate 17, fig. 3. 5), and another two examples (Plate 15, fig. 11, Plate 17, fig. 6) were probably of similar design.

Another variant consisted of a hinge with both parts joined in the form of a closed or curved ring, which meant that the door could not be removed from the door frame. The hinges were fixed to the door frame and door by rivets or nails, and could be removed only by extract-

¹⁴⁶ Radišić 2015, 292-293.

¹⁴⁷ Koch 2017, Taf. 10.

¹⁴⁸ Jacobi 1897, T. XXXXIV, fig. 16-18.

¹⁴⁹ Koččević 2000, 125-126.

¹⁵⁰ Ulbert 1959, 77.

¹⁵¹ Koččević 2000, 125.

¹⁵² Walton 1954, 43-46.

ing the rivets or nails (Plate 15, fig. 4-8, Plate 16, fig. 6. 7).

There was another, similar method of attaching a door to the door frame. The ends of a hinge curved into a narrow U- or O-shape, forming a ring, were driven into the inner side of the door and set on a second, L-shaped part, the longer arm of which was driven into the door frame. The iron part of the hinge that was set into the door was then fitted onto the shorter arm of the L. The L-shaped part was usually on the inside of the door. This design enabled the door to be lifted off its hinges when it needed to be removed, and most closely resembles the hinges used in our time.¹⁵³ Such hinges could also serve another purpose, that of consolidating architectural elements.¹⁵⁴

In some cases, certain designs could be multi-purpose in nature. It is possible, based on observation of their structural features, that the supports for the insulating layer of a ceiling¹⁵⁵ could also have been used as door hinges. These were T-shaped, and if the longer arm was hammered into the door one of the shorter arms could have served as the upper part of the hinge that rested on the lower part of the hinge in the door frame (Plate 17, fig. 1. 2). Much the same is true of other examples of hinge that could equally have been part of the harness of draft animals.¹⁵⁶

It may thus be concluded that the basic principle on which a hinge operates remains unchanged, in various forms, to this day. The hollow, ring-like or inverted cup-shaped lower part of the hinge fitted onto the upper spike, the latter being fixed to the door and the lower part to the wooden door frame. Both upper and lower parts could be fixed to the door frame and door in a variety of ways. A very striking example is that of a hinge found at Zecovi near Prijedor (Plate 17, fig. 4). Hinges found at Lepenica (Plate 16, fig. 2. 5) operated on a similar principle, except as regards the moving part fitted to the door frame, where the lower spike fitted into the upper part of the hinge.

One method consisted of fitting both parts of the hinge into the edge of the door frame and door. In this case the hinges had to have point-

ed ends to enable them to be hammered into the wood (Plate 15, fig. 1. 2. 9. 10). This meant that the lower part was L-shaped. The longer arm would be hammered into the door frame, leaving the shorter arm exposed so that the upper part of the hinge could be hung on it. These parts were identical in shape to the spikes with bent head that were used to affix wall facings or other structural elements,¹⁵⁷ so that they are identified at the hypothetical level, in other words, their discovery at archaeological sites may be interpreted in two ways – they may be identified as hinges or as bent plates used to affix structural elements. This hypothesis finds support in the fact that they may be found in large numbers, in which case it is likely that they were used to attach wall facings in a given room or building, or in roof structures and the like, whereas hinges would occur only in small numbers, reflecting the limited number of doors in a building.

Some of the hinges represented in this paper lack one of the determinant features that would enable them to be identified with certainty (Plate 15, fig. 3, Plate 16, fig. 3. 4).

The technical solutions applied to hang doors onto door frames in the Roman period were very similar, and almost identical or similar examples have been found at the known Roman site at Saalburg.¹⁵⁸

Locks

(catalogue nos. 190-193, Plate 18)

A door serving only the basic function of protection from animals or the cold did not need to be locked, but when people sought to protect their property from others of malign intent, it became necessary to develop various kinds of lock. These locks, reflecting the experience of different peoples and parts of the world, came in numerous forms and with different operating systems, as evidenced at Roman archaeological sites.

Roman locks can be roughly divided into two basic groups, according to the method and purpose of their use. The first consists of large locks intended for the large doors of houses and public edifices, courtyard gates and the like. The other consists of small locks intended for caskets, small

¹⁵³ Матић 2007, 27-28.

¹⁵⁴ Ivčević 2014, 183, no. 119.

¹⁵⁵ Basler 1977, Plate IV, fig. 3. 5.

¹⁵⁶ Šeper 1962, 335-428; Ratković 2008, 793-815.

¹⁵⁷ Basler 1977, T. I, 7. 8. 9.

¹⁵⁸ Jacobi 1897, T. XXXXV, fig. 22-28. 30, T. XXXXVI, fig. 13. 22.

doors, and other small articles, mainly caskets in which objects of value, jewellery, money, important documents, cosmetics and medicines, etc., were kept.

Both kinds of lock were in widespread use throughout the Empire both geographically and chronologically, sites at which they have been found revealing that they were used from western Europe¹⁵⁹ to the central¹⁶⁰ and eastern regions of the Empire.¹⁶¹

Structurally, too, Roman locks consist of two basic parts, one being fixed, the other a movable element attached by a hinge to the fixed part.¹⁶² For the lock to function, the movable part was lowered and inserted through the rectangular lock plate, where a pin passed through it on the inside. This part of the lock was visible, and was treated with particular care, with the addition of various decorative features: straight or intersecting lines, scored triangles and the like.

The National Museum of Bosnia and Herzegovina has examples of locks from Stolac, Mogorjelo, Japra-Majdanište and Lisičići near Konjic (Plate 18, fig. 1. 2. 3. 4). The first two locks were probably of the kind most commonly in use in the interior of the Roman province of Dalmatia. A lock that has survived intact was operated by inserting and turning a key.

The example from Japra-Majdanište (Plate 18, fig. 4) has a direct analogy found at Sisak.¹⁶³ It had a metal ward and was probably a padlock,¹⁶⁴ as suggested by its structure. This hypothesis is further supported by the fact that the two sites are quite close, and must have mutually influenced each other. The lock from Lisičići (Plate 18, fig. 5) is of almost identical structure, and is also more likely to have been a padlock than a classic lock.

The evolution of different lock systems in the Roman period is evidenced by finds at several sites that could be defined as padlocks. They worked in various ways, and though relatively few in number, are represented throughout the Roman Empire. As well as serving to lock lids

and caskets, they could also be used for wallets, bags and similar items.¹⁶⁵

Analysis of keys also allows for the general conclusion that rotary locks were used in Roman times in Bosnia and Herzegovina, operated by anthropomorphic keys (Plate 1), *Schibschloss* locks operated by classic keys (Plate 2 – Plate 10), and *Drehschloss* and *Verhängeschloss* locks operated by large keys (Plate 13, fig. 1-4). The distribution of locks is further revealed by keys that provide evidence of simple wooden locks (Plate 8, fig. 2, and Plate 10, fig. 2. 5).

Locks of different types continued in use into the late mediaeval period.¹⁶⁶

Lock escutcheons

(catalogue nos. 194-208, Plate 19. 20)

Lock covers or escutcheons also display marked differences. Thus far the surviving examples from Bosnia and Herzegovina reveal the presence of substantial locks for entrance doors or gateways (Plate 19, fig. 1. 6). Direct analogies to our escutcheons (Plate 19, fig. 4. 5), have been found at Magura, which are placed in the context of locks on cages and stakes.¹⁶⁷ Another analogy was found at Tilurium.¹⁶⁸ Escutcheons have also been found belonging to smaller locks, probably for wooden caskets, small door locks and the like. These last are represented in our collection by bronze¹⁶⁹ and silver examples from Konjević Polje, Aquae S.... Panik and Mogorjelo (Plate 19, fig. 2. 3, Plate 20, fig. 1. 4. 5). In a very few cases, such as the luxury silver finds from Konjević Polje near Srebrenica¹⁷⁰ and from Panik near Bileća, the escutcheon was of silver, which together with their small size indicates that they evidently belonged to a small lock on a casket or similar object, as does the discovery of the lamina with which the casket was clad (Plate 20, fig. 1).¹⁷¹ Both precious metal and luxury of design are to be seen in the decorated escutcheon from Panik near Bileća (Plate 20, fig. 4. 5). Comparative examples reveal that this is not unusual. The presence of decorated locks and escutcheons of

¹⁵⁹ Gáspár 1986, 123, cat. 265; Istenič 2000, T. 15. 23, gr. 75; Plesničar-Gec 1972, T. CL, 20 gr. 653, T. CLX, 10 gr. 700.

¹⁶⁰ Koščević 2000, 127.

¹⁶¹ Ivčević 2003, 143.

¹⁶² Oltre la porta 1986, 97, fig. 33. 35.

¹⁶³ Koščević 2000, 127.

¹⁶⁴ Ibid. 37.

¹⁶⁵ Koščević 1990, 25-28.

¹⁶⁶ Koch 2017, Taf. 12, fig. 13

¹⁶⁷ Popović 2009, 318-319.

¹⁶⁸ Ivčević 2014, 177, no. 85.

¹⁶⁹ Pace 2014, 41-42.

¹⁷⁰ Bojanovski 2001, 179.

¹⁷¹ Ibid. 186-197.

zoomorphic or anthropomorphic form has been recorded at various archaeological sites.¹⁷²

Small keys, particularly ring keys of a size that indicates they belonged to small locks, are also evidence of such small-sized locks on caskets and chests of a personal nature.¹⁷³ Lock escutcheons were designed to protect the lock and its surroundings from damage that might arise while operating the lock.¹⁷⁴ These too could be of different materials, depending on the lock. In the case of large door locks, which were in frequent use, iron escutcheons were used of which examples are found in the archaeological evidence presented in this paper (Plate 19, fig. 1. 4-9).

The lock escutcheons in the National Museum of Bosnia and Herzegovina and the Museum in Doboj point to two basic shapes – circular (Plate 19, fig. 1. 2. 3, Plate 20, fig. 1-5. 7) and rectangular (Plate 19, fig. 4. 5. 7. 8. 9, Plate 20, fig. 6).¹⁷⁵ In each case, they have a central L-shaped aperture to allow the key to be inserted into the lock. The perforations at the corners of the rectangular escutcheons allowed for the escutcheon to be affixed to the wooden door, surrounding the lock.

The popularity of such escutcheons is demonstrated by finds of rectangular¹⁷⁶ and circular¹⁷⁷ examples throughout the Roman Empire.

Latches

(catalogue nos. 209-237, Plate 21 and Plate 22)

A latch may also be an integral part of a door and its locking system. The simplest method of closing a door was with a latch. This consisted of two parts, one of which was attached to the door frame. It is often difficult to distinguish this from the double-ended cramps used to join two timber or stone architectural elements. The second, moving component of a latch took the form of a metal or wooden bar, usually flat, part of which was attached to the door while the other engaged with the fixed part on the door frame. Doors with

latches were locked from the inside. Locks using the latch principle were still in use later, in mediaeval times – parts of latches similar to those of the Roman period have been found, usually the parts fixed to the door frame. Very similar examples have been found at the mediaeval site of Wittelsbach.¹⁷⁸ Similar mechanisms were also used in ancient times, as evidenced by examples found. In some cases, depending on their size, these latches may have been used on very small locking systems.¹⁷⁹ One interesting example (Plate 22, fig. 16) consisted of an annular movable component attached to the door, of which the free end was lowered onto or raised from the fixed component on the door frame. This is the simplest form of latch. In this case the fixed component on the door frame must have had an opening on the upper side to enable the moving part to be raised or lowered. In another variant, the moving metal part of the latch fitted horizontally from the side into the fixed component on the door frame. Parts of latches found at Roman sites in Bosnia and Herzegovina reveal that this system is represented by quite a large number of examples (Plate 21, fig. 1. 2. 4-9, Plate 22, fig. 1-3. 7-15). All this suggests that there were two different latch systems, the horizontal and the vertical. It may be assumed that wood was used to make a significant number of latches identical to these systems, which, being of perishable material, have not survived.

Some parallels may be drawn with examples from the 18th and 19th centuries, when the same principles applied to a new latch system which had a handle, a concealed mechanism, and a concealed latch lifter.¹⁸⁰

In addition to the above methods, our examples also include some of which one component was affixed by driving a nail through a perforation. One end of the latch was bent, and served as the holder, while the other end was lifted to open and lowered to close the door from the inside (Plate 21, fig. 3. 12, Plate 22, fig. 4).

A significant proportion of surviving metal latch components are almost identical to the cramps used to join the various architectural components of a building (Plate 21, 1, 2, 5-8,

¹⁷² Mellink 1989, 103-133.

¹⁷³ See the section dealing with ring keys.

¹⁷⁴ Pace 2014, 40-41.

¹⁷⁵ Some of the examples presented in this paper are too badly damaged for their shape to be identified (Plate 19, fig. 6, Plate 20, 6).

¹⁷⁶ Jacobi 1897, T. XXXXV, fig. 10. 11; Bernabò-Brea / Cavalier 1965, T. CCXVIII, fig. 4. 17.

¹⁷⁷ Bernabò-Brea / Cavalier 1965, T. CCXVIII, fig. 10.

¹⁷⁸ Koch 2017, Taf. 12, fig. 1-6.

¹⁷⁹ Ivčević 2014, 184, no. 128.

¹⁸⁰ Matić 2007, 49-50.

Plate 22, fig. 8-13). As a result, the parts of a latch that were attached to the door frame could have served other purposes, making it impossible to identify them with certainty.

Bolts and parts of *Schiebschloss* locks (catalogue nos. 238-245, Plate 23)

Bolts are another item used in locking systems. Our specimens are of iron, rectangular in section and with a rectangular frame with openings¹⁸¹ or indentations. Examples with no openings have swastika-shaped indentations. The tines on the bit of the key engaged with these openings or indentations. The indentations could also be triangular,¹⁸² semi-circular, or rectangular.¹⁸³ The same principle applied to bolts of a different shape with a number of holes forming a circle: here too the tines of the bit engaged with the holes so the bolt could be drawn.¹⁸⁴ They were in very common use, as reflected by finds of such bolts at numerous sites. Several analogous specimens have been found at Saalburg,¹⁸⁵ Sisak and Aquileia,¹⁸⁶ and the British Museum,¹⁸⁷ the Museum of Croatian Archaeological Monuments in Split,¹⁸⁸ and many other institutions, possess a significant number.

Door handles (catalogue nos. 246-253, Plate 24)

The National Museum of Bosnia and Herzegovina and the Franciscan Monastery in Visoko have some quite fine examples of door handles. Made of bronze, these are in the shape of heads. They are of high-quality workmanship, and undoubtedly belonged to the substantial entrance doors to a building. Those presented in this paper are from known sites (Plate 24, fig. 1. 3. 4): the urban administrative centre and spa known as Aqua S.... in Ilijadža near Sarajevo,¹⁸⁹ and the important site of Mogorjelo, already referred to several times in this paper. This too suggests that door handles of this kind belonged to the (probably large) doors of handsome edifices. Some of our door handles

¹⁸¹ Ivčević 2014, 177, fig. 84.

¹⁸² Busuladžić 2012, T. XVI.

¹⁸³ Šeparović / Uroda 2009, 78.

¹⁸⁴ Križ / Stipančić / Škedelj Petrić 2009, 348, fig. 50a.

¹⁸⁵ Jacobi 1897, 473 and T. XXXXV, fig. 1-5.

¹⁸⁶ Koščević 2000, 126.

¹⁸⁷ Pace 2014, 54.

¹⁸⁸ Šeparović / Uroda 2009, 78.

¹⁸⁹ Kellner 1895, 161-198.

are in the shape of human heads (Plate 24, fig. 1-3. 6), and lions' heads (Plate 24, fig. 4. 5. 8).

The Franciscan Monastery in Visoko has one example in the shape of a clothed girl (Plate 24, fig. 7). Unfortunately, the site where it came from is unknown, but was probably local, though the handle itself was probably imported.

Similar door handles in the form of animal heads – horse, lion, leopard, ram, bull – or of human hands, heads or entire figures, have been recorded in many places.¹⁹⁰

Fragments of iron railings or gates (catalogue nos. 254-255, Plate 25)

The Antiquities Collection of the National Museum of Bosnia and Herzegovina has some very interesting and pieces from a decorative railing or gate found in Mogorjelo. In the form of floral tendrils, these have not previously been published in scholarly works, and it appears from the available literature that no similar examples have been recorded. Comparing with known examples of wrought iron components of furniture – tables, chairs and the like¹⁹¹ – it may confidently be assumed that these wrought iron objects formed part of a railing or gate.

Further support for the hypothesis that these surviving fragments date from the Roman period is provided by the large number of iron tools and implements found at the same site. These would have been used for a variety of agricultural, animal farming and artisanal activities in the Roman period.¹⁹² Furthermore, the gateways identified at Mogorjelo, and the large number of edifices and other premises within the architectural complex, make it likely that there were iron railings or gates. Though this remains a hypothesis, there is no reason not to attribute these fragments to the same cultural and chronological context. Their large size also suggests that they were from a gate or railing, rather than from items of furniture.

Based on broader comparisons, they could have been from Roman chariots.¹⁹³ In any event, we remain open to alternative suggestions concerning the exact identification of these objects.

¹⁹⁰ Pace 2014, 100-105.

¹⁹¹ Guhl / Koner 1994, 446-447.

¹⁹² Busuladžić 2014.

¹⁹³ Maise 2004, 9-12.

Ring door handles (catalogue nos. 256-261, Plate 26)

These are another everyday object belonging to doors, both large entrance doors and those within a building, and could also feature on smaller chests, caskets and the like, where they served the same purpose as door handles. On the other hand, they could also have other purposes, serving for example as parts of carts and the like.¹⁹⁴

Conclusion

Analysis of the many finds relating broadly to the subject under discussion in ancient times suggests a number of general conclusions.

The interior of the Roman province of Dalmatia and the outer regions of the province of Pannonia, to which the area of present-day Bosnia and Herzegovina belonged, was in no way separate from general trends in the use of different locking systems for buildings, gateways, entrance doors, casket and chests in which valuable personal effects were kept.

These objects have been found at numerous sites known to date from Roman times, such as the Roman villas¹⁹⁵ in Višići,¹⁹⁶ Panić,¹⁹⁷ Lisičići,¹⁹⁸ Mala Ruiška,¹⁹⁹ Stolac,²⁰⁰ Stup,²⁰¹ Mušići,²⁰² Proboj,²⁰³ Mogorjelo,²⁰⁴ Vitina²⁰⁵ and Tišina,²⁰⁶ military facilities such as Makljenovac near Doboj,²⁰⁷ Gračina,²⁰⁸ urban settlements such as Aqua S.... near Sarajevo²⁰⁹ and Japra-Majdaništa,²¹⁰ refugia, hill forts and forts such as Zecovi near Prijedor²¹¹ and Debelo Brdo near Sa-

rajevo,²¹² Gradac near Neum,²¹³ the early Christian religious buildings in Mokro,²¹⁴ Grude,²¹⁵ and the wider region, where Roman remains of similar use have been recorded, such as Livno, Tomislavgrad, Lepenica, Klobuk, Gradac, Mosko kod Bileće, Mostar and elsewhere.

Analysis of these objects reveals that wherever people lived and worked in the Roman period in what is now Bosnia and Herzegovina, some locking system or another was in use. Roman keys, locks, bolts and other components of locking systems have been found not only at known Roman sites but also in places where no significant Roman site has been recorded: among them Vojkovići near Sarajevo, Velika Kladuša, Rakitno near Ljubuški, Amajlije near Bijeljina, Usora near Tešanj, Šipovljani near Bosanski Petrovac, Drvar, and Glogovac near Jajce.

The picture of locking systems and key forms is supplemented by a number of examples found at sites in Narona and Albania and kept in the National Museum of Bosnia and Herzegovina.

These objects reveal that the population of these parts in Roman times secured their property in exactly the same way as people living in other provinces. They kept up with technical innovations as every new patent reached the province, albeit with a slight time lag.

The archaeological material tells us that the owners and occupants of different buildings, whether private or public, civilian, military or religious, used locks and keys to secure their property, estates and personal affairs.

Finds from local sites reveal that a variety of different keys were in use: anthropomorphic keys, ring keys, large keys and classic keys, along with latches, bolts, hinges, elaborate door handles, locks and lock escutcheons. This wide range of objects used for or related to locking reveals further details. Most keys were used to lock typical entrance doors and represent the majority of finds. In addition, given their greater size, a certain number of keys probably belonged to large locks that could have been used only on gates and big, heavy doors. At the other end of the range are miniature keys that could have been used only to lock small objects such as caskets

¹⁹⁴ Ratković 2008, 793-815.

¹⁹⁵ Busuladžić 2011, 98.

¹⁹⁶ Ibid. 150-151.

¹⁹⁷ Čremošnik 1976, 41-164.

¹⁹⁸ Busuladžić 2011, 157-158.

¹⁹⁹ Ibid. 165.

²⁰⁰ Ibid. 152-153.

²⁰¹ Ibid. 159.

²⁰² Ibid. 159-160.

²⁰³ Ibid. 151-152.

²⁰⁴ Ibid. 149.

²⁰⁵ Ibid. 151.

²⁰⁶ Busuladžić 2012, 211.

²⁰⁷ Žigić 2017, 125-168.

²⁰⁸ Atanacković-Salčić 1978, 73-77.

²⁰⁹ Pašalić 1959, 113-136.

²¹⁰ Basler 1977, 121-216.

²¹¹ Čremošnik 1956, 136-146.

²¹² Fiala 1894, 107-140; 1896, 97-107.

²¹³ For this site see Marijan 1989, 35-59.

²¹⁴ Sergejevski 1961, 211-228.

²¹⁵ Arheološki leksikon Bosne i Hercegovine, vol. III, 1988, 324.

in which valuable personal effects, jewellery and the like were kept.

The number of these finds reveals that it was common practice to use locks in Roman Bosnia and Herzegovina. Securing ones property, house, household goods and furniture, livestock, valuables in the home, military equipment and arms in military facilities, and early Christian religious buildings, was part of daily routine. Homes in rural as well as urban areas were secured.

This called for sets of locks and ancillary components to be manufactured. It is difficult to imagine that a majority of locks would be imported from remote regions, and more likely that locks were produced in major local centres by specialist locksmiths, probably those who were also engaged in metallurgy and metal-working. Analysis of the types of material reveals that most were made of iron, with a few of bronze, and two were silver-plated. Iron locks were more robust and were suited to more substantial doors. The bronze and two silver examples belonged to smaller, luxury items – boxes or caskets of some kind.

It is safe to assume that the small locks, escutcheons and ring keys used on small caskets, perhaps brought here from distant places and large urban centres, were themselves imported. Examples that stand out are part of the silver escutcheon of the lock of a small box found with other grave goods in Konjević Polje near Srebrenica,²¹⁶ and a decorated silver escutcheon from Panik.

Na engleski jezik prevela Saba Risaluddin

Sažetak

Metalni dijelovi rimskih vrata – primjeri iz Bosne i Hercegovine

U Zemaljskom muzeju Bosne i Hercegovine, ali i drugim muzejskim ustanovama poput muzeja u Zenici, Doboju, Travniku, Tuzli, Franjevačkom samostanu u Visokom, pohranjeno je više predmeta koji se mogu determinirati kao metalni dijelovi rimskih vrata. Riječ je o ključevima, rezama, zasunima, bravama,

²¹⁶ Bojanovski 2001, 207, fig. 3.

katancima, baglamama, ogradama, halkama za vrata, drškama vrata i oplatama od brava. Od samih početaka čovjek je stvarajući prva organizirana staništa pokušao napraviti i način zaštite. Ti oblici podrazumijevali su i prve forme vrata, koja su se protokom vremena razvijala. U rimsko doba vrata postaju univerzalni i neizostavni element objekata. Ključevi dobijaju i simboličku ulogu. Oni postaju simbol graničara, jasne razlike između vanjskog i unutarnjeg, dobrog i lošeg, poznatog i nepoznatog. Ključevi postaju dio ikonografije božice Hekate, Janusa, Afrodite, Kronos-a, Heliosa, Cibale i Erosa. Materijal od kojeg su u rimsko doba metalni dijelovi vrata izrađeni najčešće je željezo, bronza, ali i srebro i pozlata. Ovi predmeti su primarno imali funkcionalnu, a tek sekundarno dekorativnu namjenu. Prvi tipovi ključeva zabilježeni su još kod starih Egipćana, stanovnika Mezopotamije, a potom Grka, Etruščana i Rimljana. Rimski sistem brava podrazumijeva je dva osnovna principa. Stariji sistem predstavlja dvostruko guranje s bravom koja je imala zasun na ručno potezanje, dok je mlađi bio okretni sistem. Sistemom dvostrukog guranja brava se otvarala na način da se zupcima koji su bili na bradi ključa, pošto se ključ uvuče u bravu, podižu mali kliničići koji su fiksirali zasun. Ovaj tip se koristio u antici i tokom cijelog perioda Carstva. Okretni sistem je funkcionirao uz pomoć mehanizma s ključaonicom – *clastrum* i uz pomoć ključa – *clavis*. Guranjem ključa zasun se direktno pomicalo. Ovaj je sistem predstavljao tehnički napredak i smatra se rimskim izumom. U masovniju upotrebu ulazi od II stoljeća. Ključevi se u odnosu na materijal od kojeg su izrađeni, konstrukcijske razlike, različite oblike, dijele na više tipova. Tako su u ovom radu obrađeni primjeri više tipova. Na prvom mjestu to su *anthropomorfni ključevi Stechschlüssel* tip. Ovaj tip ključeva nalikuje na ljudske figure (T. 1). Drugu veliku skupinu predstavljaju *klasični ključevi* tzv. *Schiebschloss* tipa (T. 2-10). Ovi su ključevi služili za manipuliranje brava sa zasunom na potezanje. Razlike među njima očituju se u broju zubaca na glavi ključa koji mogu biti u jednom i u dva reda te ih može biti od dva do pet. Najveći broj ih je željeznih, dok ih je manji broj bio i od bronze. Razlike su uočene i u odnosu na držać, koji je gotovo po pravilu imao na vrhu prstenasti završetak koji je mogao biti uokviren kružno ili u obliku slova V ili oktogonalne forme. Ako su u pitanju ukrasni elementi, onda su to kose, prave i poprečne linije. Treći tip odnosi se na *prsten ključeve* (T. 11), koji su mogli imati željezne i bronzane primjerke, te glave koje su mogle biti četvrtaste, okrugle ili sa zupcima. Glave su mogle biti horizontalno postavljene i kod takvih primjera predmeti su mogli služiti i kao prstenovi, te okomito – vertikalno postavljene glave koje su imale isključivo funkciju ključa. Ovakva rješenja korištene su i kod zlatnih prstenova koji su imali isključivo

dekorativnu ulogu (T. 11, sl. 1). Četvrti tip ključeva odnosio se na *velike primjerke* (T. 12. 13) koji su služili za otvaranje velikih brava, na kapijskim i velikim ulaznim vratima. Ti ključevi su bili naglašeno većih dimenzija. Neki primjeri su imali oblik sidra (T. 12, sl. 1-7. 9), dok su neki imali dva zupca sa strane (T. 12, sl. 8). Četiri primjerka služila su za otvaranje velikih brava *Drehschloss* ili *Vorhängeschloss* tipa. Ovi ključevi (T. 13, sl. 1-4) poznati su u literaturi pod nazivom *Vexirschlüssel*. Zanimljive primjere predstavljaju i ključevi jednostavne izrade sa savijenom glavom (T. 13, sl. 6. 7), s dva (T. 13, sl. 8), ili tri zuba (T. 13, sl. 9), te primjerak rađen u pozlati (T. 13, sl. 11). U manju skupinu mogu se uvrstiti *atipični ključevi* (T. 14). Ovi ključevi, iako oblika koji podsjeća na recentnije primjerke, pripadaju rimskodobnim. Osnovni razlog ovakve determinacije je činjenica da su pronađeni na lokalitetima potvrđene rimske provenijencije, kao i komparativni primjeri pronađeni također na rimskim lokalitetima. Posebna kategorija metalnih dijelova vrata predstavljaju *baglame* (T. 15-17). Osnovna funkcija baglama jest da drže vrata i povezuju štokove s vratima. Na ovaj način olakšavaju upotrebu vrata. U odnosu na konstrukcijske karakteristke baglame mogu biti sastavljene iz dva odvojena dijela od kojeg jedan dio ima trn, a drugi čašicu ili kružni otvor na koje je prvi dio stavljan (T. 15, sl. 1. 2. 9. 10. 11, T. 16, sl. 2. 5, T. 17, sl. 1. 2. 6). Druga vrsta baglama podrazumijeva primjerke koji su imali oba dijela povezana u formi zatvorenih halki, koje su se za štokove i vrata povezivali nitnama i ekserima (T. 15, sl. 4. 5. 6. 7. 8, T. 16, sl. 6. 7). Treća skupina baglama predstavlja primjerke koji su podsjećali na oblik slova U ili O te su oštrim špicastim krajevima bili pričvršćivani na štokove i ivice vrata (T. 15, sl. 12. 13. 14, T. 16, sl. 8. 9. 10, T. 17, sl. 3. 5). Znatan broj primjeraka definiranih kao baglame mogao je imati i dvojaku namjenu. Osim kao baglame, mogli su služiti i kao dio zaprežnih kola (T. 15, sl. 7. 8), konjske opreme (T. 16, sl. 1), nosača arhitektonskih dijelova (T. 15, sl. 1. 2. 9. 10), nosača izolacionih ploča (T. 17, sl. 1. 2) i slično. Na prostoru današnje Bosne i Hercegovine pronađeno je i nekoliko ostataka *rimskih brava i lokota* (T. 18). Primjeri koji su imali limena pera za blokiranje su predstavljali katance (T. 18, sl. 4. 5). U kontekstu brava na području naše zemlje pronađeno je i više *oplata od brava* (T. 19. 20), koji su se nalazili na vanjskoj strani brave pričvršćeni na drvenu podlogu. Uloga oplate bila je da zaštiti bravu prilikom svakodnevnog korištenja. U odnosu na oblik, materijal i dimenzije razlikujemo željezne, bronzane i srebrenе, okrugle, četvrtaste, velike i male oplate. Srebreni primjeri manjih dimenzija (T. 20, sl. 1. 4. 5) korišteni su za male bravice škrinja i malih kutija, dok su veće željezne oplate služile za velike brave ulaznih vrata. Sastavni dio vrata i sistema zaključavanja bile su i *reze* (Tab. 21. 22). Ovaj je meh-

anizam imao dva osnovna dijela. Jedan je bio fiksiran i pričvršćen za štok (T. 21, sl. 1. 2. 3-9, T. 22, sl. 1. 8-15), dok je drugi dio bio fleksibilan i u formi prečke se uvlačio u fiksni dio, čime su se vrata zatvarala. Fleksibilni dio mogao je biti stavljen sa strane ili je, ako je fiksni dio bio otvoren u gornjem dijelu, postavljen odozgo prema dolje (T. 21, sl. 3, T. 22, sl. 4. 16). Prisustvo brave tipa *Schiebschloss* potvrđuju i nalazi *zasuna* – elemenata koji su bili sastavni dio mehanizma ovog tipa brave (T. 23). Zupci glave ključa prihvatali su zasun prilikom otključavanja dodirujući udubljenja u obliku četvrtastih, sročlikih, trokutastih i okruglih profilacija ili ulegnuća u obliku svastike. Vrlo reprezentativne primjere *drški* s bogatijih ulaznih vrata oblika ljudskih ili glava lavova (T. 24) te čitavih ženskih figura zabilježeni su također u muzejskim institucijama u Bosni i Hercegovini. Analogni primjeri diljem Rimskog Carstva potvrđuju hronološku determinaciju naših predmeta. Dva do sada nepublicirana primjera željezne ograde, vjerovatno od kapije s lokaliteta Mogorjelo, također predstavljaju metalnu opremu (T. 25). Ovi fragmenti po svojim većim dimenzijama vjerovatno pripadaju dijelu ograde ili kapije, ali nije isključena ni mogućnost da je riječ o kovanim dijelovima namještaja ili dijelovima zaprežnih kola. U posljednju grupu metalnih dijelova vrata mogu se uvrstiti halke od vrata koje su zabilježene u nekoliko slučajeva (T. 26). Ovi primjeri mogli su podjednako služiti kako za velika ulazna vrata i kapije, tako i u slučajevima otvaranja škrinja, sanduka i dijelova namještaja.

Katalog

Antropomorfni ključevi

- Inv. br. 3134 (T. 1, sl. 1). Lokalitet: Mogorjelo, Čapljina. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 9 cm. Literatura: nepublicirano.
- Inv. br. 483 (T. 1, sl. 2). Lokalitet: Mosko, Bileća. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 6,2 cm. Literatura: nepublicirano.
- Inv. br. 761 (T. 1, sl. 3). Lokalitet: Šipovljani, Bosanski Petrovac. Opis: antropomorfni željezni ključ, pločast, drška postavljena okomito u odnosu na donji dio. Dimenzije: visina 6,5 cm. Literatura: nepublicirano.
- Inv. br. 976 (T. 1, sl. 4). Lokalitet: Bosna i Hercegovina. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 4,6 cm. Literatura: nepublicirano.
- Inv. br. 764 (T. 1, sl. 5). Lokalitet: Vojkovići, Sarajevo. Opis: antropomorfni željezni ključ, pločast.

- Dimenzije: visina 6,6 cm. Literatura: Fiala 1893, 327, sl. 22.
6. Inv. br. 808 (T. 1, sl. 6). Lokalitet: Gorica, Ljubuški. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 7,4 cm. Literatura: Patsch 1902, 78, sl. 10.
 7. Inv. br. 901 (T. 1, sl. 7). Lokalitet: Velika Kladuša. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 7 cm. Literatura: nepublicirano.
 8. Inv. br. 3487 (T. 1, sl. 8). Lokalitet: Mogorjelo, Čapljina. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 9 cm. Literatura: nepublicirano.
 9. Inv. br. nepoznato (T. 1, sl. 9). Lokalitet: Panik, Bileća. Opis: željezni ključ antropomorfognog izgleda; vidljiva sva četiri ekstremita; na gornjem dijelu kružno-prstenasto rješenje. Dimenzije: visina 8,6 cm. Literatura: Čremošnik 1976, 126, T. XXV, 8.
 10. Inv. br. 997 (T. 1, sl. 10). Lokalitet: Bosna i Hercegovina. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 6,6 cm. Literatura: nepublicirano.
 11. Inv. br. 1032 (T. 1, sl. 11). Lokalitet: Livanjsko polje. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 6,5 cm. Literatura: Mandić 1935, 14, sl. 4.
 12. Inv. br. 1083 (T. 1, sl. 12). Lokalitet: Debelo brdo, Sarajevo. Opis: antropomorfni bronzani ključ, pločast. Dimenzije: visina 8,9 cm. Literatura: nepublicirano.
 13. Inv. br. 217 (T. 1 sl. 13). Lokalitet: Gradac, Posušje. Opis: antropomorfni željezni ključ, pločast. Dimenzije: visina 8,6 cm. Literatura: Fiala / Patsch 1895, 265, sl. 40.
 14. Inv. br. 5676 (T. 1, sl. 14). Lokalitet: Mušići, Višegrad. Opis: antropomorfni željezni ključ. Dimenzije: dužina 5,5 cm. Literatura: Čremošnik 1970, T. IV, sl. 8.
- Klasični ključevi**
15. Inv. br. 4686 (T. 2, sl. 1). Lokalitet: Kastrum, Doboј. Opis: bronzani ključ s vidljivim ukrasnim znakom "X". Dimenzije: visina 6,7 cm. Literatura: Čremošnik 1984, 74, T. III, 2.
 16. Inv. br. 5747 (T. 2, sl. 2). Lokalitet: Japra-Majdanište. Opis: bronzani ključ, oštećene površine. Dimenzije: visina 5 cm. Literatura: Basler 1977, T. V, sl. 2.
 17. Inv. br. 5772 (T. 2, sl. 3). Lokalitet: Japra-Majdanište. Opis: oštećeni željezni ključ. Dimenzije: visina 8,3 cm. Literatura: nepublicirano.
 18. Inv. br. 5746 (T. 2, sl. 4). Lokalitet: Japra-Majdanište. Opis: bronzani ključ bez ukrasa. Dimenzije: visina 6,3 cm. Literatura: Basler 1977, T. V, sl. 3.
 19. Inv. br. 6339 (T. 2, sl. 5). Lokalitet: Japra-Majdanište. Opis: željezni ključ, grublje izrade, oštećene površine. Dimenzije: visina 10,6 cm. Literatura: nepublicirano.
 20. Inv. br. 6354 (T. 2, sl. 6). Lokalitet: Japra-Majdanište. Opis: željezni ključ, oštećen. Dimenzije: visina 7,7 cm. Literatura: nepublicirano.
 21. Inv. br. 6730 (T. 2, sl. 7). Lokalitet: Kastrum, Doboј. Opis: željezni ključ, oštećen. Dimenzije: visina 6 cm. Literatura: nepublicirano.
 22. Inv. br. 2871 (T. 2, sl. 8). Lokalitet: Višići, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,6 cm. Literatura: Čremošnik 1965, 198.
 23. Inv. br. 195 (T. 2, sl. 9). Lokalitet: Stolac. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 3,7 cm. Literatura: Fiala / Patsch 1895, 278, sl. 99.
 24. Inv. br. 395 (T. 2, sl. 10). Lokalitet: Bosna i Hercegovina. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6,5 cm. Literatura: nepublicirano.
 25. Inv. br. 1021 (T. 2, sl. 11). Lokalitet: Glogovac, Jajce. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; na ključu vidljivi ukrasni detalji u obliku poprečnih i kosih urezanih duplih linija. Dimenzije: visina 10 cm. Literatura: nepublicirano.
 26. Inv. br. 6725 (T. 3, sl. 1). Lokalitet: Kastrum, Doboј. Opis: željezni ključ oštećene gornje kružne perforacije na drški. Dimenzije: visina 8 cm. Literatura: Čremošnik 1984, 46.
 27. Inv. br. 6733 (T. 3, sl. 2). Lokalitet: Kastrum, Doboј. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,2 cm. Literatura: Čremošnik 1984, 46.
 28. Inv. br. 6735 (T. 3, sl. 3). Lokalitet: Kastrum, Doboј. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,6 cm. Literatura: Čremošnik 1984, 46.
 29. Inv. br. 6735/a (T. 3, sl. 4). Lokalitet: Kastrum, Doboј. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7 cm. Literatura: Čremošnik 1984, 46.
 30. Inv. br. 6735/b (T. 3, sl. 5). Lokalitet: Kastrum, Doboј. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6,9 cm. Literatura: Čremošnik 1984, 46.
 31. Inv. br. 6709, pogrešan inventarni broj (T. 3, sl. 6). Lokalitet: Kastrum, Doboј. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6 cm. Literatura: nepublicirano.
 32. Inv. br. 6709/a (T. 3, sl. 7). Lokalitet: Kastrum, Doboј. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7 cm. Literatura: nepublicirano.

33. Inv. br. 6709/b (T. 3, sl. 8). Lokalitet: Kastrum, Doboj. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 5 cm. Literatura: nepublicirano.
34. Inv. br. 1961 (T. 3, sl. 9). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 4,6 cm. Literatura: nepublicirano.
35. Inv. br. 6743 (T. 3, sl. 10). Lokalitet: Kastrum, Doboj. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 5,8 cm. Literatura: Čremošnik 1984, 75, T. IV, 1.
36. Inv. br. 753 (T. 3, sl. 11). Lokalitet: Narona, Vid. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 4 cm. Literatura: nepublicirano.
37. Inv. br. 697, pogrešan broj (T. 3, sl. 12). Lokalitet: Proboj, Ljubuški. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8,2 cm. Literatura: Fiala 1897, 164.
38. Inv. br. 3670 (T. 3, sl. 13). Lokalitet: Višići, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6,6 cm. Literatura: Čremošnik 1965, 198.
39. Inv. br. 3670/a (T. 3, sl. 14). Lokalitet: Višići, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8,6 cm. Literatura: Čremošnik 1965, 198.
40. Inv. br. 4794 (T. 3, sl. 15). Lokalitet: Zecovi, Prijedor. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 10,7 cm. Literatura: nepublicirano.
41. Inv. br. 4863 (T. 4, sl. 1). Lokalitet: Zecovi, Prijedor. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 10 cm. Literatura: nepublicirano.
42. Inv. br. 4859 (T. 4, sl. 2). Lokalitet: Zecovi, Prijedor. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8,1 cm. Literatura: nepublicirano.
43. Inv. br. 4860 (T. 4, sl. 3). Lokalitet: Zecovi, Prijedor. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8,2 cm. Literatura: nepublicirano.
44. Inv. br. 4671 (T. 4, sl. 4). Lokalitet: Kastrum, Doboj. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7 cm. Literatura: Čremošnik 1984, 46.
45. Inv. br. 4877 (T. 4, sl. 5). Lokalitet: Zecovi, Prijedor. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8 cm. Literatura: nepublicirano.
46. Inv. br. 6710 (T. 4, sl. 6). Lokalitet: Kastrum, Doboj. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7 cm. Literatura: Čremošnik 1984, 46.
47. Inv. br. 3667 (T. 4, sl. 7). Lokalitet: Višići, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 9,5 cm. Literatura: nepublicirano.
48. Inv. br. 4698 (T. 4, sl. 8, 8a). Lokalitet: Kastrum, Doboj. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške; na vrhu završetak u obliku krova na dvije vode. Dimenzije: visina 6 cm. Literatura: Čremošnik 1984, 75, T. IV, 9.
49. Inv. br. 1019 (T. 4, sl. 9). Lokalitet: Grkovci, Livanjsko polje. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške; na tijelu vidljivi ukrasni detalji u obliku poprečnih kanelura. Dimenzije: visina 4,2 cm. Literatura: nepublicirano.
50. Inv. br. 1038 (T. 4, sl. 10). Lokalitet: Amajlje, Bijeljina. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6 cm. Literatura: nepublicirano.
51. Inv. br. 396 (T. 4, sl. 11). Lokalitet: Bosna i Hercegovina. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 3,6 cm. Literatura: nepublicirano.
52. Inv. br. 1690 (T. 4, sl. 12). Lokalitet: Mogorjelo, Čapljina. Opis: bronzani ključ s oštećenim gornjim dijelom. Dimenzije: visina 7,3 cm. Literatura: nepublicirano.
53. Inv. br. 4695 (T. 5, sl. 1). Lokalitet: Kastrum, Doboj. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6,5 cm. Literatura: Čremošnik 1984, 46.
54. Inv. br. 4674 (T. 5, sl. 2). Lokalitet: Kastrum, Doboj. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8 cm. Literatura: nepublicirano.
55. Inv. br. 4675 (T. 5, sl. 3). Lokalitet: Kastrum, Doboj. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,4 cm. Literatura: Čremošnik 1984, 46.
56. Inv. br. 451 (T. 5, sl. 4). Lokalitet: Mostar. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 5,3 cm. Literatura: nepublicirano.
57. Inv. br. 352 (T. 5, sl. 5). Lokalitet: Grude, Ljubuški. Opis: bronzani ključ s gornjim dijelom koji nedostaje. Dimenzije: visina 3,7 cm. Literatura: nepublicirano.
58. Inv. br. 696 (T. 5, sl. 6). Lokalitet: Proboj, Ljubuški. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7 cm. Literatura: Fiala 1897, 164.
59. Inv. br. 216 (T. 5, sl. 7). Lokalitet: Gradac, Posušje. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6,6 cm. Literatura: Fiala / Patsch 1895, 265, sl. 39.
60. Inv. br. 700 (T. 5, sl. 8). Lokalitet: Proboj, Ljubuški. Opis: bronzani ključ s kružnom perforacijom na

- kraju pločaste drške. Dimenzije: visina 4,6 cm. Literatura: Fiala 1897, 165.
61. Inv. br. nepoznato (T. 5, sl. 9). Lokalitet: Tutnjevac, Bijeljina. Opis: bronzani ključ sa šest poprečnih linija u tri para na tijelu; na vrhu ključa završetak u formi krova na dvije vode; ispod se nalazi kružna perforacija. Dimenzije: dužina 9,3 cm. Literatura: Čremošnik 1958, 44.
62. Inv. br. nepoznato (T. 5, sl. 10). Lokalitet: Tutnjevac, Bijeljina. Opis: željezni ključ s teže vidljivim ukrasnim detaljima u dnu, oblika linije, slova Z i oznake X; ključ se prema vrhu postepeno širi; na samom vrhu kružna perforacija. Dimenzije: nepoznate. Literatura: Čremošnik 1958, T. V, sl. 5.
63. Inv. br. nepoznato (T. 5, sl. 11). Lokalitet: Makljenovac, Kastrum, Doboј. Opis: bronzani ključ s nabrenim stranama na kružnom otvoru; na vrhu kružnog otvora stepeničasto ispupčenje; drška se postepeno sužava; na glavi četiri zupca; u donjem dijelu ključa ukrasni detalji u vidu poprečnih linija. Dimenzije: visina 5,4 cm. Literatura: Žigić 2017, 135.
64. Inv. br. 758 (T. 6, sl. 1). Lokalitet: Klobuk, Ljubuški. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške; na dršci vidljivi ukrasni detalji u obliku urezanih znakova X. Dimenzije: visina 9 cm. Literatura: nepublicirano.
65. Inv. br. 196 (T. 6, sl. 2). Lokalitet: Stolac. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 5,6 cm. Literatura: Fiala 1893, 516; Fiala / Patsch 1895, 278, sl. 100.
66. Inv. br. 718 (T. 6, sl. 3). Lokalitet: Usora, Tešanj. Opis: bronzani ključ s oštećenim gornjim dijelom. Dimenzije: visina 3,7 cm. Literatura: nepublicirano.
67. Inv. br. 712 (T. 6, sl. 4). Lokalitet: Usora, Tešanj. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 9,6 cm. Literatura: Radimsky 1893, 268, sl. 16.
68. Inv. br. 812 (T. 6, sl. 5). Lokalitet: Gradac, Neum. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške; na vrhu trokutasti oblik. Dimenzije: visina 5,3 cm. Literatura: nepublicirano.
69. Inv. br. 876 (T. 6, sl. 6). Lokalitet: Proboj, Ljubuški. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6,5 cm. Literatura: Fiala 1897, 163.
70. Inv. br. 877 (T. 6, sl. 7). Lokalitet: Proboj, Ljubuški. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 5,3 cm. Literatura: Fiala 1897, 163.
71. Inv. br. 5820 (T. 6, sl. 8). Lokalitet: Japra-Majdanište. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške; na kružnom otvoru pričvršćen lanac. Dimenzije: visina ključa 4,7 cm, dužina lanca 11 cm. Literatura: Basler 1977, T. V, sl. 1.
72. Inv. br. neinventarizirano (T. 6, sl. 9). Lokalitet: Žabljak, Višegrad. Opis: željezni ključ korodiran; od glave prema gornjem dijelu se širi; na vrhu kružna perforacija. Dimenzije: nepoznato. Literatura: Čremošnik 1970, 106, T. V, sl. 5.
73. Inv. br. neinventarizirano (T. 6, sl. 10). Lokalitet: Žabljak, Višegrad. Opis: željezni ključ korodiran; iznad glave vrat, nakon čega se tijelo naglo širi u obliku pravougaonika; na vrhu kružna perforacija; ključ ukrašen nielo tehnikom. Dimenzije: nepoznato. Literatura: Čremošnik 1970, 106, T. V, sl. 7.
74. Inv. br. neinventarizirano (T. 6, sl. 11). Lokalitet: Žabljak, Višegrad. Opis: željezni ključ korodiran; od glave prema gornjem dijelu se širi; na vrhu kružna perforacija. Dimenzije: nepoznato. Literatura: Čremošnik 1970, 106, T. V, sl. 6.
75. Inv. br. 1687 (T. 7, sl. 1). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,3 cm. Literatura: nepublicirano.
76. Inv. br. 1533 (T. 7, sl. 2). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; na vrhu drške trokutast oblik. Dimenzije: visina 12 cm. Literatura: nepublicirano.
77. Inv. br. 1526 (T. 7, sl. 3). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 9,9 cm. Literatura: nepublicirano.
78. Inv. br. 1525 (T. 7, sl. 4). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,5 cm. Literatura: nepublicirano.
79. Inv. br. 2113 (T. 7, sl. 5). Lokalitet: Čučkovića kula. Opis: bronzani ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,4 cm. Literatura: nepublicirano.
80. Inv. br. 3630 (T. 7, sl. 6). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; na vrhu drške trokutast oblik. Dimenzije: visina 9,4 cm. Literatura: nepublicirano.
81. Inv. br. 2385 (T. 7, sl. 7). Lokalitet: Lisičići, Konjic. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; na vrhu drške trokutast oblik. Dimenzije: visina 7,5 cm. Literatura: Čremošnik 1957, 152.
82. Inv. br. 2322 (T. 7, sl. 8). Lokalitet: Lisičići, Konjic. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; na vrhu drške trokutast oblik. Dimenzije: visina 13 cm. Literatura: Čremošnik 1955, 115, sl. 7.
83. Inv. br. 2393 (T. 7, sl. 9). Lokalitet: Klobuk. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,2 cm. Literatura: Sergejevski 1954, T. XIV.

84. Inv. br. 2487 (T. 7, sl. 10). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,6 cm. Literatura: nepublicirano.
85. Inv. br. 2488 (T. 8, sl. 1). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 7,7 cm. Literatura: nepublicirano.
86. Inv. br. 2490 (T. 8, sl. 2). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 10,6 cm. Literatura: nepublicirano.
87. Inv. br. 2544 (T. 8, sl. 3). Lokalitet: Mala Ruiška. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8,3 cm. Literatura: Skarić 1928, Taf. VIII, sl. 15.
88. Inv. br. 2765 (T. 8, sl. 4). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 9,3 cm. Literatura: nepublicirano.
89. Inv. br. 2646 (T. 8, sl. 5). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; u donjem širem dijelu vidljivi ukrasni detalji u obliku poprečne dvije urezane linije. Dimenzije: visina 12 cm. Literatura: nepublicirano.
90. Inv. br. 2160 (T. 8, sl. 6). Lokalitet: Lepenica, Kiseljak. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 11,7 cm. Literatura: nepublicirano.
91. Inv. br. 1531 (T. 8, sl. 7). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 9 cm. Literatura: nepublicirano.
92. Inv. br. 1532 (T. 8, sl. 8). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6 cm. Literatura: nepublicirano.
93. Inv. br. 1530 (T. 8, sl. 9). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške; na pločastom središnjem dijelu ključa vidljivi tragovi poprečnih linija. Dimenzije: visina 9,5 cm. Literatura: nepublicirano.
94. Inv. br. 1528 (T. 8, sl. 10). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 5,2 cm. Literatura: nepublicirano.
95. Inv. br. 1689 (T. 9, sl. 1). Lokalitet: Zecovi, Prijedor. Opis: Oštećeni željezni ključ, nedostaje gornji dio; korozija oštetila veći dio ključa. Dimenzije: dužina 6,5 cm. Literatura: Čremošnik 1956, 142-143.
96. Inv. br. 1534 (T. 9, sl. 2). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ bez gornjeg dijela. Dimenzije: visina 4,2 cm. Literatura: nepublicirano.
97. Inv. br. 2035 (T. 9, sl. 3). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 8,9 cm. Literatura: nepublicirano.
98. Inv. br. 2015 (T. 9, sl. 4). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 9 cm. Literatura: nepublicirano.
99. Inv. br. 1529 (T. 9, sl. 5). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 6 cm. Literatura: nepublicirano.
100. Inv. br. neinventarizirano (T. 9, sl. 6). Lokalitet: Zecovi, Prijedor. Opis: Veći željezni ključ s pločastom drškom i kružnom perforacijom na vrhu; na glavi dva zupca. Dimenzije: nepoznate. Literatura: Benac 1956, 149, sl. 11.
101. Inv. br. neinventarizirano (T. 9, sl. 7). Lokalitet: nepoznat. Opis: željezni klasični ključ s užim donjim dijelom i širim gornjim dijelom drške; na vrhu kružna perforacija; na glavi četiri zupca. Dimenzije: nepoznate. Literatura: nepublicirano.
102. Inv. br. neinventarizirano (T. 9, sl. 8). Lokalitet: Putićev, Travnik. Opis: željezni ključ jednostavan; na glavi četiri zupca. Dimenzije: nepoznate. Literatura: Truhelka 1893, 694, sl. 10.
103. Inv. br. neinventarizirano (T. 9, sl. 9). Lokalitet: Putićev, Travnik. Opis: željezni ključ jednostavan; na glavi tri zupca. Dimenzije: nepoznate. Literatura: Truhelka 1893, 694, sl. 11.
104. Inv. br. neinventarizirano (T. 9, sl. 10). Lokalitet: Varošluk, Travnik. Opis: željezni ključ pločaste drške s kružnim završetkom na vrhu; na dijelu koji ide prema glavi drška iz pločastog širokog oblika prelazi u uži dio. Dimenzije: nepoznate. Literatura: Truhelka 1893, 699.
105. Inv. br. nepoznato (T. 10, sl. 1). Lokalitet: Panik, Bileća. Opis: bronzani ključ koji se od glave prema vrhu širi; na vrhu prstenasti završetak; na tijelu ukrasni detalji u vidu poprečnih linija i znaka X; na glavi pet zubaca. Dimenzije: visina 5,3 cm. Literatura: Čremošnik 1976, 96, T. XII, sl. 3.
106. Inv. br. nepoznato (T. 10, sl. 2). Lokalitet: Panik, Bileća. Opis: željezni ključ s glavom koja ima rješenje u formi savijenog vrha; na užem vratu naglo se širi tijelo koje se opet postupno sužava prema prstenastom vrhu; na glavi postoje i dva zupca. Dimenzije: visina 10,5 cm. Literatura: Čremošnik 1976, T. XXV, sl. 3.
107. Inv. br. nepoznato (T. 10, sl. 3). Lokalitet: Panik, Bileća. Opis: željezni ključ s tri zupca; od glave se vrat naglo širi prema vrhu, da bi se opet postupno sužavao; na vrhu prstenasto rješenje. Dimenzije: visina 7,5 cm. Literatura: Čremošnik 1976, T. XXV, sl. 4.

108. Inv. br. nepoznato (T. 10, sl. 4). Lokalitet: Panik, Bileća. Opis: željezni ključ s tri zupca; uski vrat naglo se širi prema vrhu koji ima kružnu formu; na tijelu vidljivi ukrasni detalji u obliku dva para poprečnih linija. Dimenzije: visina 6,2 cm. Literatura: Čremošnik 1976, T. XXV, sl. 14.
109. Inv. br. nepoznato (T. 10, sl. 5). Lokalitet: Panik, Bileća. Opis: željezni ključ s tri zupca i savijenim krakom; od glave prema vrhu ključ se postepeno širi; na vrhu prstenasto rješenje. Dimenzije: visina 7,5 cm. Literatura: Čremošnik 1976, T. XXV, sl. 16.
110. Inv. br. nepoznato (T. 10, sl. 6). Lokalitet: Panik, Bileća. Opis: željezni ključ s četiri zupca; ključ se od glave prema vrhu postepeno širi; na glavi prstenasto rješenje koje ima oktogonalni oblik. Dimenzije: visina 7 cm. Literatura: Čremošnik 1976, T. XXV, sl. 11.
111. Inv. br. 4794 (T. 10, sl. 7). Lokalitet: Zecovi, Prijedor. Opis: željezni ključ s tri zupca; na vrhu prstenasto rješenje. Dimenzije: nepoznate. Literatura: nepublicirano.
112. Inv. br. 6431 (T. 10, sl. 8). Lokalitet: Breza. Opis: željezni ključ koji se nakon vrata naglo širi; na vrhu kružno prstenasto rješenje. Dimenzije: visina 11,2 cm. Literatura: nepublicirano.
113. Inv. br. 7212 (T. 10, sl. 9). Lokalitet: Biograci. Opis: željezni dosta korodirani ključ; nakon vrata ključ se naglo širi; na vrhu prstenasto rješenje uokvireno u oktogonalni okvir. Dimenzije: visina 8,5 cm. Literatura: nepublicirano.
114. Inv. br. 2034 (T. 10, sl. 10). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ jako korodiran; nedostaje gornji dio; nakon užeg vrata ključ se naglo širi prema vrhu. Dimenzije: nepoznate. Literatura: nepublicirano.
115. Inv. br. 2050 (T. 10, sl. 11). Lokalitet: Mogorjelo, Čapljina. Opis: željezni korodirani ključ; nakon užeg kratkog vrata ključ se naglo širi; na vrhu kružni otvor i rješenje na dvije vode. Dimenzije: dužina 8,7 cm. Literatura: nepublicirano.
116. Inv. br. 3905 (T. 10, sl. 12). Lokalitet: Višići, Čapljina. Opis: željezni ključ vrlo korodiran; nedostaje gornji dio. Dimenzije: visina 7 cm. Literatura: nepublicirano.
117. Inv. br. 3667 (T. 10, sl. 13). Lokalitet: Višići, Čapljina. Opis: željezni loše očuvan ključ s oštećenim vrhom. Dimenzije: visina 9,3 cm. Literatura: nepublicirano.
119. Inv. br. 876 (T. 11, sl. 2). Lokalitet: Beirut. Opis: bronzani prsten s pločastom četvrtastom glavom ključa, horizontalno postavljen. Dimenzije: prečnik 1,9 cm. Literatura: nepublicirano.
120. Inv. br. 877 (T. 11, sl. 3). Lokalitet: Beirut. Opis: bronzani prsten s pločastom okruglom otvorenom glavom, horizontalno postavljenom. Dimenzije: prečnik 1,9 cm. Literatura: nepublicirano.
121. Inv. br. neinventarizirano (T. 11, sl. 4). Lokalitet: nepoznato. Opis: bronzani prsten s pločastom četvrtastom glavom, horizontalno postavljenom. Dimenzije: prečnik 2 cm. Literatura: nepublicirano.
122. Inv. br. 541 (T. 11, sl. 5). Lokalitet: Albanija. Opis: bronzani ključ oblika prstena, s tri zupca na glavi; glava postavljena okomito u odnosu na obruč. Dimenzije: prečnik 2 cm, visina 3,2 cm. Literatura: nepublicirano.
123. Inv. br. 3695 (T. 11, sl. 6). Lokalitet: Višići, Čapljina. Opis: bronzani ključ oblika prstena; glava postavljena okomito u odnosu na obruč. Dimenzije: prečnik 1,9 cm, visina 3,2 cm. Literatura: Čremošnik 1965, T. XI, sl. 14.
124. Inv. br. 2891, pogrešan broj (T. 11, sl. 7). Lokalitet: Višići, Čapljina. Opis: bronzani prsten ključ s vertikalno postavljenom glavom; na glavi tri zupca. Dimenzije: nepoznate. Literatura: Čremošnik 1965, T. XI, sl. 13.
125. Inv. br. 760 (T. 11, sl. 8). Lokalitet: Drvar. Opis: željezni ključ oblika prstena; glava postavljena okomito u odnosu na obruč. Dimenzije: visina 6 cm. Literatura: nepublicirano.
126. Inv. br. 3891 (T. 11, sl. 9). Lokalitet: Višići, Čapljina. Opis: mali bronzani ključ oblika prstena, bez ukrasnih elemenata; na glavi tri zupca. Dimenzije: visina 2,9 cm. Literatura: nepublicirano.
127. Inv. br. 4697 (T. 11, sl. 10). Lokalitet: Kastrum, Doboј. Opis: bronzani ključ oblika prstena; glava postavljena okomito u odnosu na obruč. Dimenzije: prečnik 1,9 cm, visina 2,7 cm. Literatura: Čremošnik 1984, 73, T. II, 5.
128. Inv. br. 3214 (T. 11, sl. 11). Lokalitet: Mogorjelo, Čapljina. Opis: bronzani ključ oblika prstena; glava s tri zupca postavljena okomito u odnosu na obruč. Dimenzije: prečnik 2,4 cm, visina 3,6 cm. Literatura: nepublicirano.
129. Inv. br. 1320, pogrešan broj (T. 11, sl. 12). Lokalitet: nepoznat. Opis: bronzani ključ oblika prstena; glava s tri zupca postavljena okomito u odnosu na obruč. Dimenzije: prečnik 1,3 cm, visina 3,8 cm. Literatura: nepublicirano.
130. Inv. br. 579 (T. 11, sl. 13). Lokalitet: Ljubuški. Opis: bronzani ključ oblika prstena, s cilindričnom glavom horizontalno postavljenom. Dimenzije: prečnik 2,3 cm. Literatura: nepublicirano.

Prsten ključevi

118. Inv. br. 3790 (T. 11, sl. 1). Lokalitet: Japra, Majdanište. Opis: zlatni prsten s pločicom na kojoj je prikazan Jupiter Imperator i Viktorija. Dimenzije: prečnik 2,5 cm, težina 13,4 gr. Literatura: Basler 1977, T. XI, 1.

131. Inv. br. 1258 (T. 11, sl. 14). Lokalitet: Iliča, Sarajevo. Opis: bronzani prsten s ključem u obliku trna horizontalno postavljen. Dimenzije: prečnik 2 cm. Literatura: nepublicirano.
132. Inv. br. 2138 (T. 11, sl. 15). Lokalitet: Usora, Tešanj. Opis: bronzani ključ oblika prstena; halka prstena u obliku na leđima savijene ljudske figure. Dimenzije: visina 5,3 cm. Literatura: nepublicirano.

Veliki ključevi

133. Inv. br. 5677 (T. 12, sl. 1). Lokalitet: Mušići, Višegrad. Opis: veliki pločasti željezni ključ s dva savijena kraka i kružnim završetkom na vrhu. Dimenzije: dužina 17 cm. Literatura: nepublicirano.
134. Inv. br. 6358 (T. 12, sl. 2). Lokalitet: Japra, Majdanište. Opis: veliki pločasti željezni ključ s dva savijena kraka, vrh oštećen. Dimenzije: dužina 13 cm. Literatura: Basler 1977, T. I, sl. 9.
135. Inv. br. 1524 (T. 12, sl. 3). Lokalitet: Mogorjelo, Čapljinica. Opis: veliki pločasti željezni ključ s dva savijena kraka i kružnim završetkom na vrhu. Dimenzije: dužina 10,6 cm. Literatura: nepublicirano.
136. Inv. br. neinventarizirano (T. 12, sl. 4). Lokalitet: nepoznat. Opis: željezni ključ većih dimenzija, pločastog oblika s dva savijena kraka i kružnim završetkom na vrhu. Dimenzije: nepoznate. Literatura: nepublicirano.
137. Inv. br. 2157 (T. 12, sl. 5). Lokalitet: Lepenica, Kiseljak. Opis: veliki pločasti željezni ključ s dva savijena kraka i kružnim završetkom na vrhu. Dimenzije: dužina 13,6 cm. Literatura: nepublicirano.
138. Inv. br. 2037 (T. 12, sl. 6). Lokalitet: Mogorjelo, Čapljinica. Opis: veliki pločasti željezni ključ s dva savijena kraka i oštećenim kružnim završetkom na vrhu. Dimenzije: dužina 19,5 cm. Literatura: nepublicirano.
139. Inv. br. neinventarizirano (T. 12, sl. 7). Lokalitet: Zecovi, Prijedor. Opis: veliki željezni ključ s drškom, oštećenog vrha; na glavi dva kriva kraka. Dimenzije: nepoznate. Literatura: Benac 1956, 149, sl. 18.
140. Inv. br. 3150 (T. 12, sl. 8). Lokalitet: Mokro. Opis: veliki pločasti željezni ključ s dva savijena kraka na jednoj strani; na vrhu kružni završetak. Dimenzije: dužina 13,5 cm. Literatura: nepublicirano.
141. Inv. br. 3408 (T. 12, sl. 9). Lokalitet: Gradina Veliki Badanj, Duvanjsko polje. Opis: željezni ključ s dva kraka, dosta oštećen. Dimenzije: visina 18,6 cm. Literatura: nepublicirano.
142. Inv. br. 1523 (T. 13, sl. 1). Lokalitet: Mogorjelo, Čapljinica. Opis: veliki željezni pločasti ključ u obliku nedovršenog pravougaonika; na vrhu kružni završetak; poprečna greda u donjem dijelu nešto uža; na samoj ivici donjeg dijela dva kružna otvora. Dimenzije: visina 24 cm. Literatura: nepublicirano.
143. Inv. br. 282 (T. 13, sl. 2). Lokalitet: Duvno. Opis: veliki željezni pločasti ključ u obliku nedovršenog pravougaonika; na vrhu kružni završetak; poprečna greda u središnjem dijelu nešto uža. Dimenzije: visina 21 cm. Literatura: Patsch 1904, 195, sl. 37.
144. Inv. br. 770 (T. 13, sl. 3). Lokalitet: Podklečani, Rakitno, Ljubuški. Opis: veliki željezni pločasti ključ; na vrhu kružni završetak; poprečna greda u donjem dijelu nešto sužena; na kraćem kraku kružni završetak s tri trna. Dimenzije: visina 23,5 cm. Literatura: Patsch 1904, 214, sl. 77.
145. Inv. br. nepoznato (T. 13, sl. 4). Lokalitet: Panik, Bileća. Opis: željezni ključ velikih dimenzija od velike brave; na pločastom ključu glava savijena u kružnu formu; na vratu postoji uži dio; na vrhu ključa kružno rješenje. Dimenzije: visina 18 cm. Literatura: Čremošnik 1976, 128, T. XXV, sl. 10.
146. Inv. br. 2159 (T. 13, sl. 5). Lokalitet: Lepenica, Kiseljak. Opis: veliki željezni ključ s kružnim otvorom na vrhu. Dimenzije: dužina 18,5 cm. Literatura: nepublicirano.
147. Inv. br. 698 (T. 13, sl. 6). Lokalitet: Proboj, Ljubuški. Opis: željezni ključ s kružnom perforacijom na vrhu. Dimenzije: dužina 17,3 cm. Literatura: Fiala 1897, 164.
148. Inv. br. 6342 (T. 13, sl. 7). Lokalitet: Japra-Majdanište. Opis: željezni ključ oštećene površine. Dimenzije: visina 10,5 cm. Literatura: nepublicirano.
149. Inv. br. neinventarizirano (T. 13, sl. 8). Lokalitet: Lašva, Travnik. Opis: željezni ključ većih dimenzija s debljom pločastom drškom i kružnom perforacijom na vrhu, koja je prekinuta; u donjem dijelu drške neznatno proširena; na vrhu glave dva zupca koja su savijena prema naprijed. Dimenzije: nepoznate. Literatura: Truhelka 1893, 685-686.
150. Inv. br. neinventarizirano (T. 13, sl. 9). Lokalitet: Debelo Brdo, Sarajevo. Opis: veliki željezni ključ s drškom koja je u gornjem dijelu pločasta i na vrhu u obliku kružne perforacije; u donjem dijelu drška nepravilno okruglog presjeka; na glavi tri zupca. Dimenzije: nepoznate. Literatura: Fiala 1894, 121.
151. Inv. br. 2158 (T. 13, sl. 10). Lokalitet: Lepenica, Kiseljak. Opis: željezni ključ s kružnom perforacijom na kraju pločaste drške. Dimenzije: visina 16,5 cm. Literatura: nepublicirano.

152. Inv. br. 1688 (T. 13, sl. 11). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s oštećenom kružnom perforacijom na kraju pločaste drške; na željeznoj površini vidljivi tragovi pozlate. Dimenzije: visina 13,5 cm. Literatura: nepublicirano.

Atički rimski ključevi

153. Inv. br. 763 (T. 14, sl. 1). Lokalitet: Narona, Vid. Opis: željezni ključ s kružnim završetkom u gornjem dijelu; na vrhu vidljivo zadebljanje; ključ cjevast; u donjem dijelu vidljivo oštećenje. Dimenzije: visina 10,5 cm. Literatura: nepublicirano.

154. Inv. br. 5668 (T. 14, sl. 2). Lokalitet: Dabrvina, Vareš. Opis: željezni ključ s velikim kružnim otvorom na vrhu. Dimenzije: visina 5,8 cm. Literatura: Sergejevski 1956, 31.

155. Inv. br. 2156 (T. 14, sl. 3). Lokalitet: Lepenica, Kiseljak. Opis: željezni ključ s velikim kružnim otvorom na vrhu. Dimenzije: visina 5,6 cm. Literatura: nepublicirano.

156. Inv. br. 5731 (T. 14, sl. 4). Lokalitet: Japra, Majdanište. Opis: bronzani ključ s kružnim otvorom u gornjem dijelu; na vrhu vidljiv trn. Dimenzije: visina 8,6 cm. Literatura: Basler 1977, T. V, sl. 5.

157. Inv. br. nepoznato (T. 14, sl. 5). Lokalitet: Iličići, Sarajevo. Opis: željezni ključ s cilindričnim otvorom na vrhu glave; na kraju ključa kružno rješenje iznad kojeg je ukrasni element oblika broja 8. Dimenzije: visina 7 cm. Literatura: Kellner 1895, 175, sl. 23.

158. Inv. br. nepoznato (T. 14, sl. 6). Lokalitet: Žabljak, Višegrad. Opis: željezni ključ korodiran, većih dimenzija. Ključ neobičnog oblika s kružnom perforacijom na vrhu, uskim tijelom oblika šipke koji ima proširenje ispod gornje perforacije; glava u obliku okomito postavljene forme, odnosno dva kraka koja su savijena tvoreći krug. Dimenzije: nepoznate. Literatura: Čremošnik 1970, 106, T. V, sl. 4.

159. Inv. br. 2686 (T. 14, sl. 7). Lokalitet: Mogorjelo, Čapljina. Opis: željezni ključ s cilindričnom glavom i jednim okomito postavljenim zubom; na gornjem dijelu ukrasna profilacija; vrh izveden u obliku oble elipse. Dimenzije: visina 8,2 cm. Literatura: nepublicirano.

Baglame

160. Inv. br. 377 (T. 15, sl. 1). Lokalitet: Lepenica, Kiseljak. Opis: željezna baglama nepravilno četvrtastog presjeka; jedan kraj špicast, predviđen za ukucavanje u štok; drugi kraj povijen prema gore, predviđen za stavljanje halke

– gornjeg dijela baglame od vrata. Dimenzije: dužina 11,5 cm. Literatura: nepublicirano.

161. Inv. br. 377/a (T. 15, sl. 2). Lokalitet: Lepenica, Kiseljak. Opis: željezna baglama nepravilno četvrtastog presjeka; jedan kraj špicast, predviđen za ukucavanje u štok; drugi kraj povijen prema gore, predviđen za stavljanje halke – gornjeg dijela baglame od vrata. Dimenzije: dužina 10 cm. Literatura: nepublicirano.

162. Inv. br. 2861/b (T. 15, sl. 3). Lokalitet: Višići, Čapljina. Opis: željezni fragment pločastog dijela baglame s otvorom na jednom kraku. Dimenzije: visina 12,5 cm. Literatura: nepublicirano.

163. Inv. br. 369 a (T. 15, sl. 4). Lokalitet: Lepenica, Kiseljak. Opis: željezna baglama s dva pločasta kračka i po tri rupice, predviđene za pričvršćivanje na štok i vrata. Dimenzije: dužina 10,5 cm. Literatura: nepublicirano.

164. Inv. br. 369 b (T. 15, sl. 5). Lokalitet: Lepenica, Kiseljak. Opis: željezna baglama s dva pločasta kračka i po tri rupice, predviđene za pričvršćivanje na štok i vrata. Dimenzije: dužina 11 cm. Literatura: nepublicirano.

165. Inv. br. 368 (T. 15, sl. 6). Lokalitet: Lepenica, Kiseljak. Opis: željezna baglama s dva pločasta kračka i po dvije rupice, predviđene za pričvršćivanje na štok i vrata. Dimenzije: dužina 16,5 cm. Literatura: nepublicirano.

166. Inv. br. 241 (T. 15, sl. 7). Lokalitet: Gradac, Posušje. Opis: bronzana okrugla baglama sa sačuvanim fragmentom druge halke, koja se pričvršćivala na vrata. Dimenzije: prečnik 4 cm. Literatura: nepublicirano.

167. Inv. br. 242 (T. 15, sl. 8). Lokalitet: Gradac, Posušje. Opis: bronzana okrugla baglama s dvije sačuvane halke za pričvršćivanje na vrata. Dimenzije: prečnik 4 cm. Literatura: nepublicirano.

168. Inv. br. neinventarizirano (T. 15, sl. 9). Lokalitet: Zecovi, Prijedor. Opis: željezna baglama oblika klina, na kojoj je jedna strana u obliku špicastog vrha za zakivanje u drveni štok, a druga u obliku savijenog kraja, čineći slovo L; na drugi kraj se aplicirala baglama u obliku halke koja je bila pričvršćena na vrata. Dimenzije: dužina 10,5 cm. Literatura: Benac, 1956, 149, sl. 3.

169. Inv. br. neinventarizirano (T. 15, sl. 10). Lokalitet: Zecovi, Prijedor. Opis: željezna baglama na kojoj je na jednoj strani špicasti dio za zakivanje na drveni štok, a druga u obliku savijenog kraja čini slovo L; na drugi kraj se aplicirala baglama u obliku halke koja je bila pričvršćena na vrata. Dimenzije: nepoznate. Literatura: Čremošnik 1956, 142-143.

170. Inv. br. neinventarizirano (T. 15, sl. 11). Lokalitet: Debelo brdo, Sarajevo. Opis: željezni predmet, s jedne strane više špicast, s druge strane savi-

- jen u krug; prema konstrukciji najvjerovatnije dio baglame koji se učvršćivao na vrata i kroz okrugli dio pričvršćivao na fiksni dio u štok vrata. Dimenzije: nepoznate. Literatura: Fiala 1894, 122.
171. Inv. br. 5784 (T. 15, sl. 12). Lokalitet: Japra Majdanište. Opis: željezna jednostavna baglama u obliku savijenog komada željezne deblje šipke s dva oštra kraka koja su se aplicirala u štok vrata. Dimenzije: nepoznate. Literatura: nepublicirano – slučajni nalaz.
172. Inv. br. 5802 (T. 15, sl. 13). Lokalitet: Japra Majdanište. Opis: željezna jednostavna baglama u obliku savijenog komada željezne deblje šipke s dva oštra kraka koja su se aplicirala u štok vrata. Dimenzije: dužina 11 cm. Literatura: nepublicirano – slučajni nalaz.
173. Inv. br. nepoznato (T. 15, sl. 14). Lokalitet: Tuttijevac, Bijeljina. Opis: željezna jednostavna baglama u obliku savijenog komada željezne deblje šipke s dva oštra kraka koja su se aplicirala u štok vrata. Dimenzije: dužina 11 cm. Literatura: Čremošnik 1958, 43.
174. Inv. br. 1679 (T. 16, sl. 1). Lokalitet: Mogorješlo, Čapljina. Opis: željezna baglama s trnom za pričvršćivanje na štok vrata. Dimenzije: dužina 20 cm. Literatura: Busuladžić 2014, 319.
175. Inv. br. 371 (T. 16, sl. 2). Lokalitet: Lepenica, Kiseljak. Opis: željezna pločasta baglama od vrata, ukrašena u obliku ljiljana; na sredini četvrtasti otvor za pričvršćivanje na vrata; na drugom kraju savijeni trn za nasadihanje vrata. Dimenzije: dužina 13 cm. Literatura: nepublicirano.
176. Inv. br. 2375 (T. 16, sl. 3). Lokalitet: Lisičići, Konjic. Opis: željezna baglama s trnom za pričvršćivanje na vrata i kružnom halkom za pričvršćivanje na fiksni dio baglame. Dimenzije: dužina 9,5 cm. Literatura: nepublicirano.
177. Inv. br. 2375/a (T. 16, sl. 4). Lokalitet: Lisičići, Konjic. Opis: željezna baglama s trnom za pričvršćivanje na vrata i kružnom halkom za pričvršćivanje na fiksni dio baglame. Dimenzije: dužina 15,5 cm. Literatura: nepublicirano.
178. Inv. br. 2176 (T. 16, sl. 5). Lokalitet: Lepenica, Kiseljak. Opis: željezna baglama iz jednog dijela, namijenjena za manji predmet; u jednom kraku pločasta, a u drugom u obliku trna za pričvršćivanje na štok vrata. Dimenzije: dužina 3,5 cm. Literatura: nepublicirano.
179. Inv. br. 367 (T. 16, sl. 6). Lokalitet: Stolac. Opis: željezna baglama s tri perforacije na pločastom dijelu za pričvršćivanje na vrata i kružnom halkom za pričvršćivanje na fiksni dio; sačuvan i eksler za pričvršćivanje. Dimenzije: dužina 13 cm. Literatura: nepublicirano.
180. Inv. br. 367/a (T. 16, sl. 7). Lokalitet: Stolac. Opis: željezna baglama s tri perforacije na pločastom dijelu za pričvršćivanje na vrata i kružnom halkom za pričvršćivanje na fiksni dio. Dimenzije: dužina 13 cm. Literatura: nepublicirano.
181. Inv. br. 6731 (T. 16, sl. 8). Lokalitet: Kastrum, Doboј. Opis: željezna jednostavna gruba baglama, sastavljena iz dva kraka. Dimenzije: dužina 15 cm. Literatura: Čremošnik 1984, 46.
182. Inv. br. 6726/1 i 2 (T. 16, sl. 9). Lokalitet: Kastrum, Doboј. Opis: jednostavna željezna gruba baglama, sastavljena iz dva kraka. Dimenzije: dužina 12 cm jedne i 10 cm druge baglame. Literatura: Čremošnik 1984, 46.
183. Inv. br. nepoznato (T. 16, sl. 10). Lokalitet: Kastrum, Makljenovac, Doboј. Opis: jednostavna željezna baglama, sastavljena iz dva dijela; u jednom dijelu koji je oštro savijen postoji kružna perforacija na jednom kraku; na drugom kraju kraka također kružna perforacija u koju se provlači drugi krak, koji je nastao savijanjem. Dimenzije: dužina 23 cm. Literatura: Žigić 2017, 136.
184. Inv. br. 5792 (T. 17, sl. 1). Lokalitet: Japra Majdanište. Opis: željezna baglama s dva kraka na kojima je mogao stajati gornji ili donji dio baglame; donji dio iskucan, predviđen za eksler. Dimenzije: dužina 17 cm. Literatura: Basler 1977, T. IV, sl. 3.
185. Inv. br. 5800 (T. 17, sl. 2). Lokalitet: Japra Majdanište. Opis: željezna baglama s dva kraka na kojima je mogao stajati gornji ili donji dio baglame; donji dio iskucan, predviđen za eksler; vidljiva i četvrtasta perforacija. Dimenzije: dužina 16 cm. Literatura: Basler 1977, T. IV, sl. 5.
186. Inv. br. 4869 (T. 17, sl. 3). Lokalitet: Zecovi, Prijedor. Opis: željezni element baglame, prstenasto savijena baglama s dva kraka. Dimenzije: nepoznato. Literatura: nepublicirano.
187. Inv. br. 4850 (T. 17, sl. 4). Lokalitet: Zecovi, Prijedor. Opis: željezna baglama s dva elementa, od kojih je jedan ulazio u štok, a drugi u vrata. Dimenzije: nepoznate. Literatura: nepublicirano.
188. Inv. br. 4122 (T. 17, sl. 5). Lokalitet: Grudine, Bugojno. Opis: željezni dio baglame. Dimenzije: dužina 8,5 cm. Literatura: nepublicirano.
189. Inv. br. 3676 (T. 17, sl. 6). Lokalitet: Višići, Čapljina. Opis: željezni klinac koji ima u obliku prstena savijenu jednu stranu; ovaj prstenasti krak mogao je služiti kao držač za postavljanje gornjeg dijela baglame – na to ukazuju dimenzije klinca. Dimenzije: dužina 29 cm. Literatura: nepublicirano.

Brave

190. Inv. br. 895 (T. 18, sl. 1). Lokalitet: Stolac. Opis: četvrtasti uzdužni dio željezne brave s dijelom predviđenim za mehanizam. Dimenzije: dužina 7 cm. Literatura: nepublicirano.
191. Inv. br. 3478 (T. 18, sl. 2 i 3). Lokalitet: Mogorjelo, Čapljina. Opis: okrugla željezna brava s hal-kom i djelomično sačuvanim mehanizmom za zaključavanje. Dimenzije: prečnik 4,8 cm. Literatura: nepublicirano.
192. Inv. br. 6352 (T. 18, sl. 4). Lokalitet: Japra, Majdanište. Opis: željezni lokot fragmentiran. Dimenzije: dužina 22 cm. Literatura: Basler 1977, T. I, 11.
193. Inv. br. 2290 (T. 18, sl. 5). Lokalitet: Lisičići, Konjic. Opis: željezna reza koja se učvršćivala na štok vrata; jedan krak špicast, a drugi krak s okomitim vrhovima koji su služili da se sprječi izvlačenje reze iz štoka. Dimenzije: visina 5,7 cm. Literatura: Čremošnik 1955, 115.

Oplata od brave

194. Inv. br. 370 (T. 19, sl. 1). Lokalitet: Lepenica, Kisnjak. Opis: okrugla željezna limena oplata od brave, dosta oštećena. Dimenzije: prečnik 15 cm. Literatura: nepublicirano.
195. Inv. br. 1984 (T. 19, sl. 2). Lokalitet: Mogorjelo, Čapljina. Opis: okrugla bronzana limena oplata od bronze; u sredini vidljiv otvor namijenjen za bravu; po ivicama maleni otvori za pričvršćivanje na drvenu podlogu vrata. Dimenzije: prečnik 8,3 cm. Literatura: nepublicirano.
196. Inv. br. 1266 (T. 19, sl. 3). Lokalitet: Ilijadža, Sarajevo. Opis: okrugla bronzana limena oplata od bronze; u sredini vidljiv otvor namijenjen za bravu; po rubovima otvori od eksera za pričvršćivanje na drvenu podlogu vrata. Dimenzije: prečnik 7,6 cm. Literatura: nepublicirano.
197. Inv. br. 2030 (T. 19, sl. 4). Lokalitet: Mogorjelo, Čapljina. Opis: četvrtasta željezna oplata od brave, sa slabo vidljivim otvorom u središnjem dijelu namijenjenom za bravu i otvorima na uglovima za pričvršćivanje; ivice savijene. Dimenzije: dužina i širina 8,5 cm. Literatura: nepublicirano.
198. Inv. br. 2386 (T. 19, sl. 5). Lokalitet: Lisičići, Konjic. Opis: četvrtasta željezna oplata od brave, s vidljivim otvorm u središnjem dijelu namijenjenom za bravu i otvorima na uglovima za pričvršćivanje; ivice savijene. Dimenzije: dužina i širina 5,6 cm. Literatura: Čremošnik 1957, 152.
199. Inv. br. 2387 (T. 19, sl. 6). Lokalitet: Lisičići, Konjic. Opis: oštećena oplata od brave; nazire se središnji četvrtasti otvor za bravu i kružni otvori za pričvršćivanje. Dimenzije: dužina 12 cm. Literatura: Čremošnik 1957, 153, sl. 7/5.

200. Inv. br. 1277 (T. 19, sl. 7). Lokalitet: Ilijadža, Sarajevo. Opis: četvrtasta željezna oplata od brave; vidljivi ostaci unutarnjeg mehanizma; ivice uzdignute. Dimenzije: dužina 10,2 cm. Literatura: Kellner 1895, 175 sl. 21.
201. Inv. br. 2154 (T. 19, sl. 8). Lokalitet: Lepenica, Kisnjak. Opis: željezna oplata od rimske brave, četvrtastog oblika; vidljiva četiri kružna otvora za pričvršćivanje na drvena vrata; u sredini vidljiv otvor oblika slova L kroz koji je uvlačen ključ. Dimenzije: dužina 9 cm, širina 8 cm. Literatura: nepublicirano.
202. Inv. br. nepoznato (T. 19, sl. 9). Lokalitet: Kastrum, Makljenovac, Dobojski. Opis: djelomično očuvana željezna oplata od brave, na kojoj se vidi dio otvora u sredini i kružna perforacija kojom je učvršćivana za drvenu podlogu od vrata; riječ je o četvrtastoj oplati. Dimenzije: visina 8,2 cm. Literatura: Žigić 2017, 136.
203. Inv. br. 7805 (T. 20, sl. 1). Lokalitet: Konjević Polje, Srebrenica. Opis: okrugla dobro očuvana manja oplata s vidljivim otvorima sa strane koji su služili za pričvršćivanje na podlogu te koncentričnim krugovima; u sredini otvor oblika slova L u koji je uvlačen ključ. Dimenzije: prečnik 6,01 cm. Literatura: Bojanovski 2001, 179 i 207, sl. 3.
204. Inv. br. nepoznato (T. 20, sl. 2). Lokalitet: Panik, Bileća. Opis: bronzani kružni okov; na opati koncentrični reljefno izvedeni krug; u sredini otvor za ključ; s obzirom na dimenzije, oplata pripada bravi tipa *Drehschloss*. Dimenzije: prečnik 3 cm. Literatura: Čremošnik 1976, 124-125, T. XXII, 5.
205. Inv. br. nepoznato (T. 20, sl. 3). Lokalitet: Panik, Bileća. Opis: željezna oplata kružnog okova manje brave; na opati nema ukrasnih detalja; u sredini otvor za ključ. Dimenzije: prečnik 3,9 cm. Literatura: Čremošnik 1976, T. XXV, sl. 9.
206. Inv. br. nepoznato (T. 20, sl. 4, 5). Lokalitet: Panik, Bileća. Opis: srebreni okov brave kružnog oblika; na opati vidljivi otvori za klince kojima je bila pričvršćena za podlogu; ukrašen tehnikom punciranja; vidljivi ukrasni detalji u formi prstenastih koncentričnih polja s nizom tačkica; u unutrašnjem dijelu niz znakova oblika slova S; u drugom polju niz ornamenata oblika slova V; okov je podijeljen u tri koncentrična prstenasta pojasa; treći pojas ima prikaz niza glava. Dimenzije: prečnik 8,8 cm. Literatura: Čremošnik 1976, 96-97, T. XII, sl. 1 i T. XVIII, sl. 5.
207. Inv. br. 2489 (T. 20, sl. 6). Lokalitet: Mogorjelo, Čapljina. Opis: željezna oplata od brave vrlo oštećena s klinicima uz pomoć kojih je pričvršćivana za pozadinu. Dimenzije: dužina 6,3 cm. Literatura: nepublicirano.

208. Inv. br. 2118 (T. 20, sl. 7). Lokalitet: Čučkovića kula. Opis: bronzana oplata od brave, okruglog oblika; dio odlomljen; na opati ukrasni detalji u vidu kružnih koncentričnih krugova; vidljive dvije rupice za pričvršćivanje na podlogu i otvor oblika slova L za ključ. Dimenzije: prečnik 8,7 cm. Literatura: nepublicirano.

Reze za brave

209. Inv. br. 373 (T. 21, sl. 1). Lokalitet: Lepenica, Kiseljak. Opis: željezna reza tordirane prečke. Dimenzije: dužina 8,5 cm. Literatura: nepublicirano.
210. Inv. br. 373/a (T. 21, sl. 2). Lokalitet: Lepenica, Kiseljak. Opis: željezna reza tordirane prečke. Dimenzije: dužina 8,1 cm. Literatura: nepublicirano.
211. Inv. br. 2383 (T. 21, sl. 3). Lokalitet: Lisičići, Konjic. Opis: željezna reza sa sačuvanim jednim krakom; na poprečnoj pločastoj gredi vidljiv otvor. Dimenzije: dužina 14 cm. Literatura: Čremošnik 1957, 153, sl. 7/2.
212. Inv. br. 372 (T. 21, sl. 4). Lokalitet: Lepenica, Kiseljak. Opis: željezna reza s pločastom poprečnom gredom. Dimenzije: dužina 19,5 cm. Literatura: nepublicirano.
213. Inv. br. 375 (T. 21, sl. 5). Lokalitet: Lepenica, Kiseljak. Opis: željezna reza okomito pločasto postavljena; krakovi oblo savijeni. Dimenzije: dužina 9 cm. Literatura: nepublicirano.
214. Inv. br. 374 (T. 21, sl. 6). Lokalitet: Lepenica, Kiseljak. Opis: željezna reza pločaste poprečne grede. Dimenzije: dužina 9,3 cm. Literatura: nepublicirano.
215. Inv. br. 376 (T. 21, sl. 7). Lokalitet: Lepenica, Kiseljak. Opis: željezna reza sa sačuvanim krakovima. Dimenzije: dužina 8,3 cm. Literatura: nepublicirano.
216. Inv. br. 3483 (T. 21, sl. 8). Lokalitet: Mogorjevo, Čapljina. Opis: željezna reza s pločastom poprečnom gredom. Dimenzije: dužina 9,5 cm. Literatura: nepublicirano.
217. Inv. br. 2442 (T. 21, sl. 9). Lokalitet: Stup, Sarajevo. Opis: željezna reza savijena. Dimenzije: prečnik 5 cm. Literatura: Čremošnik 1930, T. XV.
218. Inv. br. 2486 (T. 21, sl. 10). Lokalitet: Vitina, Ljubuški. Opis: željezna reza, pločastog presjeka; oštećeni krakovi. Dimenzije: dužina 9,6 cm. Literatura: nepublicirano.
219. Inv. br. 2873 (T. 21, sl. 11). Lokalitet: Višići, Čapljina. Opis: velika željezna oštećena pločasta reza. Dimenzije: dužina 18 cm. Literatura: Čremošnik 1965, 198.
220. Inv. br. 2880 (T. 21, sl. 12). Lokalitet: Višići, Čapljina. Opis: velika željezna pločasta oštećena reza; na jednoj strani vidljiva kružna perforacija. Dimenzije: dužina 16 cm. Literatura: nepublicirano.
221. Inv. br. 2548 (T. 21, sl. 13). Lokalitet: Mala Ruiška. Opis: željezna baglama, koja posjeduje kružnu perforaciju za fiksni dio baglame i trn za pričvršćivanje na vrata. Dimenzije: dužina 8 cm. Literatura: nepublicirano.
222. Inv. br. 1326 (T. 22, sl. 1). Lokalitet: Turbe, Travnik. Opis: željezna reza s dva kružna otvora na pločastoj poprečnoj gredi. Dimenzije: dužina 9,3 cm. Literatura: nepublicirano.
223. Inv. br. 2447 (T. 22, sl. 2). Lokalitet: Stup, Sarajevo. Opis: željezna reza oštećena. Dimenzije: dužina 9,2 cm. Literatura: nepublicirano.
224. Inv. br. 2449 (T. 22, sl. 3). Lokalitet: Stup, Sarajevo. Opis: željezna reza s naglo savijenim dijelom poprečne grede. Dimenzije: dužina 6 cm. Literatura: nepublicirano.
225. Inv. br. 6439 (T. 22, sl. 4). Lokalitet: Breza. Opis: željezna reza od vrata s lučno savijenom jednom stranom; na drugom kraku vidljiva oštećena kružna perforacija koja je vjerovatno služila za kačenje. Dimenzije: dužina 4,5 cm. Literatura: nepublicirano.
226. Inv. br. 2448 (T. 22, sl. 5). Lokalitet: Stup, Sarajevo. Opis: željezna reza s oštećenim jednim krakom; poprečna greda pločasta. Dimenzije: dužina 8 cm. Literatura: nepublicirano.
227. Inv. br. 2450 (T. 22, sl. 6). Lokalitet: Stup, Sarajevo. Opis: željezna reza oblika slova L. Dimenzije: visina dužeg kraka 6 cm. Literatura: nepublicirano.
228. Inv. br. 2382 (T. 22, sl. 7). Lokalitet: Lisičići, Konjic. Opis: željezna reza sa savijenim krakovima i visoko savijenom poprečnom pločastom gredom. Dimenzije: visina 8 cm. Literatura: Čremošnik 1957, 152.
229. Inv. br. nepoznato (T. 22, sl. 8). Lokalitet: Zecovi, Prijedor. Opis: željezna reza s presavijenim vrhovima; na sredini proširenje u vidu romba. Dimenzije: dužina 12 cm. Literatura: Čremošnik 1956, 142-143.
230. Inv. br. 2441/a (T. 22, sl. 9). Lokalitet: Stup, Sarajevo. Opis: željezna reza pločastog presjeka. Dimenzije: dužina 8,7 cm. Literatura: nepublicirano.
231. Inv. br. 2441/b (T. 22, sl. 10). Lokalitet: Stup, Sarajevo. Opis: željezna reza pločastog presjeka. Dimenzije: dužina 6,3 cm. Literatura: nepublicirano.
232. Inv. br. 2441/d (T. 22, sl. 11). Lokalitet: Stup, Sarajevo. Opis: željezna reza horizontalno postavljene pločaste poprečne grede. Dimenzije: dužina 9,3 cm. Literatura: nepublicirano.
233. Inv. br. 2441/c (T. 22, sl. 12). Lokalitet: Stup, Sarajevo. Opis: željezna reza pločastog presjeka.

- Dimenzije: dužina 8,2 cm. Literatura: nepublicirano.
234. Inv. br. 2441/e (T. 22, sl. 13). Lokalitet: Stup, Sarajevo. Opis: željezna reza horizontalno postavljene pločaste poprečne grede. Dimenzije: dužina 8,3 cm. Literatura: nepublicirano.
235. Inv. br. neinventarizirano (T. 22, sl. 14). Lokalitet: Debelo Brdo, Sarajevo. Opis: željezna reza napravljena od savijenog komada metalne šipke četvrtastog presjeke; vrhovi oštiri radi aplikacije na drvenu osnovu. Dimenzije: nepoznate. Literatura: Fiala 1894, 140, sl. 2.
236. Inv. br. nepoznato (T. 22, sl. 15). Lokalitet: Tutnjevac, Bijeljina. Opis: željezna reza napravljena od savijenog komada metalne šipke; vrhovi oštiri radi aplikacije na drvenu osnovu. Dimenzije: dužina 10 cm. Literatura: Čremošnik 1958, 43.
237. Inv. br. 2549 (T. 22, sl. 16). Lokalitet: Mala Ruiška. Opis: željezna reza, koja ima halku, trn koji je služio kao drška te šiljati kraj koji se navlačio na drugi fiksirani dio na štoku. Dimenzije: dužina 14,5 cm. Literatura: nepublicirano.

Zasuni

238. Inv. br. 6740 (T. 23, sl. 1). Lokalitet: Kastrum, Doboj. Opis: željezni dio zasuna brave tipa *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste perforacije. Dimenzije: visina 5,5 cm. Literatura: nepublicirano.
239. Inv. br. 1278 (T. 23, sl. 2). Lokalitet: Iličići, Sarajevo. Opis: željezni dio zasuna brave tipa *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste perforacije. Dimenzije: visina 6,2 cm. Literatura: Kellner 1895, 175, sl. 24.
240. Inv. br. 6724 (T. 23, sl. 3). Lokalitet: Kastrum, Doboj. Opis: dio zasuna željezne brave *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste perforacije. Dimenzije: nepoznate. Literatura: Čremošnik 1984, 46.
241. Inv. br. neinventarizirano (T. 23, sl. 4). Lokalitet: Kastrum, Doboj. Opis: dio zasuna željezne brave *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste perforacije. Dimenzije: nepoznate. Literatura: Čremošnik 1984, 44.
242. Inv. br. nepoznato (T. 23, sl. 5). Lokalitet: Iličići, Sarajevo. Opis: dio zasuna željezne brave *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste perforacije, s vidljivim kosim linijama na dvije perforacije. Dimenzije: dužina 7 cm. Literatura: Kellner 1895, 175, sl. 22.
243. Inv. br. 1555, Muzej Zenice (T. 23, sl. 6). Lokalitet: Tišina, Zenica. Opis: dio bronzane brave *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste, trokutaste i okrugle per-

- foracije. Dimenzije: dužina 4,7 cm. Literatura: Busuladžić 2012, 211.
244. Inv. br. 2025, Muzej Zenice (T. 23, sl. 7). Lokalitet: Tišina, Zenica. Opis: dio bronzane brave *Schiebschloss* sa sačuvanim dijelom na kome su vidljive četvrtaste, trokutaste i okrugle perforacije. Dimenzije: dužina 4,2 cm. Literatura: Busuladžić 2012, 211.
245. Inv. br. nepoznato (T. 23, sl. 8). Lokalitet: Panik, Bileća. Opis: željezni zasun od brave tipa *Schiebschloss* s vidljiva četiri četvrtasta otvora. Dimenzije: dužina 6,5 cm. Literatura: Čremošnik 1976, 128, T. XXVI, sl. 12.

Drška vrata

246. Inv. br. 1251 (T. 24, sl. 1). Lokalitet: Iličići, Sarajevo. Opis: bronzana drška vrata s ljudskim prikazom; na glavi je vidljiva kapa u obliku niza kanelura. Dimenzije: visina 7,5 cm. Literatura: Kellner 1895, 184, sl. 73.
247. Inv. br. 68, Franjevački samostan u Visokom (T. 24, sl. 2). Lokalitet: nepoznat. Opis: bronzana drška vrata s ljudskim prikazom; na glavi je vidljiva kapa u obliku niza kanelura. Dimenzije: visina 7 cm. Literatura: nepublicirano.
248. Inv. br. 1866 (T. 24, sl. 3). Lokalitet: Mogorjelo, Čapljina. Opis: bronzana drška od vrata s ljudskim prikazom, vjerovatno žene; glava s jasno izrađenom frizurom. Dimenzije: visina 6,7 cm. Literatura: nepublicirano.
249. Inv. br. 1250 (T. 24, sl. 4). Lokalitet: Iličići, Sarajevo. Opis: bronzana drška od vrata s prikazom lavlje glave. Dimenzije: visina 8,2 cm. Literatura: Kellner 1895, 184, sl. 72.
250. Inv. br. 1250/a (T. 24, sl. 5). Lokalitet: Iličići, Sarajevo. Opis: bronzana drška od vrata s prikazom lavlje glave. Dimenzije: visina 8,4 cm. Literatura: Kellner 1895, 184.
251. Inv. br. 70, Franjevački samostan u Visokom (T. 24, sl. 6). Lokalitet: nepoznat. Opis: bronzana drška vrata s ljudskim prikazom; na glavi je vidljiva kapa u obliku niza kanelura; nedostaje kuka s ledne strane. Dimenzije: visina 7,2 cm. Literatura: nepublicirano.
252. Inv. br. neinventarizirano, Franjevački samostan u Visokom (T. 24, sl. 7). Lokalitet: nepoznat. Opis: bronzana drška s prikazom djevojke s velom na glavi; s jedne strane kuka za pričvršćivanje na vrata. Dimenzije: visina 14 cm. Literatura: nepublicirano.
253. Inv. br. neinventarizirano, Franjevački samostan u Visokom (T. 24, sl. 8). Lokalitet: nepoznat. Opis: bronzana drška od vrata s prikazom lavlje glave. Dimenzije: visina 8 cm. Literatura: nepublicirano.

Ograda – kapija

254. Inv. br. 1182 (T. 25, sl. 1). Lokalitet: Mogorjelo, Čapljina. Opis: fragmenti veće ograde ili kapije od željeza, s floralnim i geometrijskim motivima; vidljiva dva kraka, krug unutar kojeg se nalaze ukrasni detalji u obliku spiralno završenih krankova i vitica. Dimenzije: dužina 56 cm. Literatura: nepublicirano.
255. Inv. br. 1183 (T. 25, sl. 2). Lokalitet: Mogorjelo, Čapljina. Opis: fragmenti veće ograde ili kapije, sastavljene u obliku floralnih ukrasa oblika vitiča. Dimenzije: dužina 80 cm. Literatura: nepublicirano.

Halka od vrata

256. Inv. br. 2392 (T. 26, sl. 1). Lokalitet: Klobuk. Opis: željezni pločasti okov od vrata, odnosno halka od vrata; sastoji se od oštećenog okruglog štita i tri karike. Dimenzije: prečnik 7,5 cm, dužina lanca 14,5 cm. Literatura: Sergejevski 1954, T. XIV.
257. Inv. br. 5791 (T. 26, sl. 2). Lokalitet: Japra, Majdanište. Opis: željezna halka za vrata sa sačuvanim trnom za pričvršćivanje na vrata. Dimenzije: prečnik 6 cm. Literatura: Basler 1977, T. IV, 4.
258. Inv. br. 5817 (T. 26, sl. 3). Lokalitet: Japra, Majdanište. Opis: željezna halka za vrata sa sačuvanim trnom za pričvršćivanje na vrata. Dimenzije: prečnik 8 cm. Literatura: Basler 1977, T. IV, 6.
259. Inv. br. neinventarizirano (T. 26, sl. 4). Lokalitet: Zecovi, Prijedor. Opis: željezna halka s oštećenim privjeskom na kojem je halka visila. Dimenzije: prečnik 8 cm. Literatura: Čremošnik 1956, 142-143.
260. Inv. br. nepoznato (T. 26, sl. 5). Lokalitet: Kaštrum, Makljenovac, Doboј. Opis: željezna halka s trnom za pričvršćivanje; na jednoj strani je imala petlju kroz koju je provućena halka. Dimenzije: prečnik 6,3 cm. Literatura: Žigić 2017, 158, T. III, sl. 6.
261. Inv. br. nepoznato. Lokalitet: Panik, Bileća. Opis: bronzana halka bez ukrasa, namijenjena za velika vrata. Dimenzije: dužina 7,2 cm. Literatura: Čremošnik 1976, 124-125, T. XXII, sl. 7.

Bibliography

Atanacković-Salčić, A. 1978, Gračine, Humac, Ljubuški – antički vojni logor sa naseljem, Arheološki pregled, 20, Beograd, 73-77.

Arheološki leksikon Bosne i Hercegovine, I, II, III, Sarajevo 1988.

Ausführliches Lexikon der griechischen und römischen Mythologie, I, Leipzig 1884–1886.

Ausführliches Lexikon der griechischen und römischen Mythologie, II, Leipzig 1890–1897.

Ballian, D. / Memišević Hodžić, M. 2016, Varijabilnost hrasta lužnjaka (*Quercus robur* L.) u Bosni i Hercegovini, Sarajevo 2016.

Ballian, D. / Halilović, V. 2016, Varijabilnost obične jеле (*Abies alba* Mll.) u Bosni i Hercegovini, Sarajevo 2016.

Bassi, C. 1996, Catalogo e osservazioni di carattere tipo cronologico, Oltre la porta. Serrature, chiavi e forzieri dalla preistoria all' età moderne nelle Alpi orientali, a cura di Umberto Raffaelli, Trento 1996.

Basler, D. 1977, Rimski metalurški pogon i naselje u dolini Japre, Glasnik Zemaljskog muzeja Bosne i Hercegovine, n. s. A, XXX/XXXI, Sarajevo, 121-216.

Beckmann, Ch. 1969, Metallfingerringe der römischen Kaiserzeit im freien Germanien, Saalburg Jahrbuch, 26, Saalbur, 5-106.

Benac, A. 1956, Prethistorijska gradina Zecovi kod Prijedora, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XI, Sarajevo, 147-166.

Bernabò-Brea, L. / Cavalier, M. 1965, Meligunis – Lipàra. La necropoli greca e romana nella contrada Diana, Palermo 1965.

Bojanovski, I. 2001, Rimski grobni nalaz iz Konjević Polja u istočnoj Bosni, Glasnik Zemaljskog muzeja Bosne i Hercegovine, 48/49, Sarajevo, 164-212.

Bojović, D. 1981, Nakit iz zbirke Muzeja grada Beograda, Beograd, 1981.

Bogić, J. 2017, Antički ključevi sa teritorija Svrlijiga, Etno-kulturološki zbornik XXI, Svrlijig, 31-45.

Borzić, I. / Cambi, N. / Glavičić, M. / Miletić, Ž. / Jadrić Kučan, I. / Zaninović, J. 2014, Arheološka zbirka Burnum, Šibenik 2014.

Bruckner, O. 1976, Vicus i villa rustica u pograničnoj zoni panonskog limesa između Cusum-a i Bononia-e, Građa za proučavanje spomenika kulture Vojvodine, VI-VII, Novi Sad, 19-43.

Busuladžić, A. 2011, Rimske vile u Bosni i Hercegovini, Sarajevo 2011.

Busuladžić, A. 2012, Rimska vila na lokalitetu Mlinčići – Podmočilo u selu Tišina kod Zenice, Glasnik Zemaljskog muzeja Bosne i Hercegovine, br. 53, Sarajevo, 137-245.

Busuladžić, A. 2014, Antički željezni alat i oprema sa prostora Bosne i Hercegovine, Sarajevo 2014.

Busuladžić, A. 2016, Predmeti i prikazi erotskog sadržaja iz antičke zbirke Zemaljskog muzeja Bosne i Hercegovine, Godišnjak Centra za balkanološka ispitivanja, vol. 45, Sarajevo, 127-205.

- Busuladžić, A.* 2017, Tragovi antičkog teatra, muzike, gladijatorskih brobi i takmičenja iz arheoloških zbirki u Bosni i Hercegovini, Sarajevo 2017.
- Chevalier, J. / Gheerbrant, A.* 1996, The Penguin Dictionary of Symbols, 2nd ed. (trans. John Buchanan-Brown), Penguin Books, 1996.
- Ciurletti, G.* 1996, La chiave in età romana, Oltre la porta. Serrature, chiavi e forzieri dalla preistoria all' età moderna nelle Alpi orientali, a cura di Umberto Rafaelli, Trento 1996.
- Colin, D.* 2004, Rječnik simbola, mitova i legendi, Zagreb 2004.
- Čargo, B.* 2002, Ključevi i lokot, Longae Salonae, Split 2002.
- Čremošnik, G.* 1930, Nalazi iz rimskog doba na Stupu kod Sarajeva, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XLII, Sarajevo, 211-225.
- Čremošnik, I.* 1955, Nova antička istraživanja kod Konjica i Travnika, Glasnik Zemaljskog muzeja Bosne i Hercegovine, X, Sarajevo, 107-136.
- Čremošnik, I.* 1956, Rimski ostaci na gradini Zecovi, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XI, Sarajevo, 136-146.
- Čremošnik, I.* 1957, Dalja istraživanja na rimskom naselju u Lisičićima, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XII, Sarajevo, 143-162.
- Čremošnik, I.* 1958, Rimska vila sa slavenskim naseljem u Tutnjevcu, Članci i građa za kulturnu istoriju istočne Bosne, II, Tuzla, 37-49.
- Čremošnik, I.* 1965, Rimska vila u Višićima, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XX, Sarajevo, 147-260.
- Čremošnik, I.* 1970, Istraživanja u Mušićima i Žabljaku i prvi nalazi najstarijih slavenskih naselja kod nas, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XXV, Sarajevo, 45-117.
- Čremošnik, I.* 1976, Rimsko naselje na Paniku kod Bileća, Glasnik Zemaljskog muzeja Bosne i Hercegovine, n. s. A, XXIX, Sarajevo, 41-164.
- Čremošnik, I.* 1984, Rimski castrum kod Doboja, Glasnik Zemaljskog muzeja Bosne i Hercegovine, n. s. A, 39, Sarajevo, 23-84.
- Dautova-Ruševljanić, V.* 1995, Zanatski proizvodi i numizmatički nalazi, Fruška Gora u antičko doba – prilozi za staru istoriju i arheologiju, Novi Sad 1995, 111-170.
- Dyggve, E. / Vettors, H.* 1966, Mogorjelo, Schriften der Balkankommision Antiquarische Abteilung, Band, XIII, Wien 1966.
- Galliazzo, V.* 1979, Bronzi Romani del Museo Civico di Treviso, Collezioni dei Musei Archeologici del Veneto, Roma 1979.
- Garden, N. / Olorenšo, R. / Garden, Ž. / Klajn, O.* 2011, Larousse mali rečnik simbola, Beograd 2011.
- Gáspár, D.* 1986, Römische Kästchen aus Panonien I-II, Antaeus Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften 15, Budapest 1986.
- Giunio, A. K.* 2016, Medicamina facie feminae. Odijevanje, frizure, kozmetika i mirisi starog Rima kroz fundus Arheološkog muzeja Zadar, Zadar 2016.
- Golubović, S.* 2008, Grobovi u obliku bunara sa nekropolama Viminacijuma, Beograd 2008.
- Gregl, Z.* 1989, Rimskodobna nekropola Velika Gorica – Visoki Brijeg (istraživanja 1993), Opuscula Archaeologica, 14, Zagreb, 67-73.
- Guaitoli, M. T.* 1996, Le più antiche chiavi fra documentazione archaeologica e citazioni nelle fonti classiche. Oltre la porta. Serrature, chiavi e forzieri dalla preistoria all' età moderna nelle Alpi orientali, a cura di Umberto Rafaelli, Trento 1996.
- Guhl, E. / Koner, W.* 1994, The Romans their Life and Customs, London 1994.
- Henkel, F.* 1913, Die römisch Fingeringe der Rheinlande und der benachbarten Gebiete, Berlin 1913.
- Fiala, F.* 1893, Prilozi rimskoj arheologiji Hercegovine, Glasnik Zemaljskog muzeja Bosne i Hercegovine, V, Sarajevo, 511-532.
- Fiala, F.* 1893, Archäologische Beiträge, Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina, I, Wien, 323-328.
- Fiala, F.* 1894, Jedna prehistorička naseobina na Debeldom brdu kod Sarajeva, Glasnik Zemaljskog muzeja Bosne i Hercegovine, VI, Sarajevo, 107-140.
- Fiala, F.* 1896, Izvještaj o prekopavanju na Debeldom Brdu kod Sarajeva, Glasnik Zemaljskog muzeja Bosne i Hercegovine, VIII, Sarajevo, 97-107.
- Fiala, F.* 1897, Beiträge zur römischen Archäologie der Herzegovina, Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina, V, Wien, 163-173.
- Fiala, F. / Patsch, C.* 1895, Untersuchungen römischer Fundorte in der Herzegovina, Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina, III, Wien, 257-283.
- Istenič, J.* 2000, Poetovio, zahodna grobišča II, Katalogi in monografije, 33, Ljubljana 2000.
- Ivanović, V. / Špehar, P.* 2006, Early Byzantine Finds from Čečen and Gornji Streoc (Kosovo), Starinar, LV/2005, Beograd, 133-161.
- Ivčević, S.* 2003, Antički metalni predmeti iz Narone, Arheološka istraživanja u Naroni i dolini Neretve, Izdanja Hrvatskog arheološkog društva, Vol. 22, Zagreb – Metković – Split 2003, 129-169.
- Ivčević, S.* 2014, Metalni nalazi, Tilurium III, Istraživanja 2002. – 2006., Zagreb, 147-225.
- Izzet, V.* 2011, The Archaeology of Etruscan Society, Cambridge 2011.
- Jacobi, L.* 1897, Das Römerkastell Saalburg, Homburg v. d. Höhe 1897.

- Kellner, I.* 1895, Rimski gragjevni ostaci u Ilijama kod Sarajeva, Glasnik Zemaljskog muzeja Bosne i Hercegovine, VII, Sarajevo, 161-198.
- Koch, R.* 2017, Die Ausgrabungen in der Burg Wittelsbach 1978–1981, Bayerisches Landesamt für Denkmalpflege, Band 105, Kallmünz 2017.
- Kohlert Németh, M.* 1992, Römische Bronzen I – aus Nida-Heddernheim Götter und Dämonen, Katalog, Arshäologische Reihe, 14, Frankfurt am Main 1992.
- Koščević, R.* 1988, Antički brončani predmeti sa Jugoslovenskog dijela provincije Gornje Panonije, doktorska disertacija u rukopisu, Zagreb/Beograd 1988.
- Koščević, R.* 1990, Poklopac antičke brave iz Siska, Pri-lozi, 5/6, Institut za povijesne znanosti Sveučilišta u Zagrebu, Zagreb, 25-28.
- Koščević, R.* 1991, Antička bronca iz Siska. Umjetničko-obrtna metalna produkcija iz razdoblja rimskog carstva, Zagreb 1991.
- Koščević, R.* 1995, Siscia, Pannonia Superior – Finds and Metalwork Production, British Archaeological Reports, International Series, 621, Oxford 1995.
- Koščević, R.* 2000, Arheološka zbirka Benko Horvat, Zagreb 2000.
- Križ, B. / Stipančić, P. / Škedelj Petrić, A.* 2009, Arheološka podoba Dolenjske, Novo Mesto 2009.
- LIMC/III, 1986, Lexicon Iconographicum Mythologiae Classicae, vol. III, Artemis – Winkler Verlag, Zürich, München, Düsseldorf 1986.
- Maise, C.* 2004, Ein römisches rad bauen: Gewusst wie, Augusta Raurica, 2004/1, 9-12.
- Mandić, M.* 1935, Gradine, gromile i druge starine u okolini Livna, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XLVII, Sarajevo, 7-16.
- Marić Baković, M.* 2017, Rimski nadgrobni spomenici s Groblja sv. Ive u Livnu: prilog istraživanju rimskih nekropola na Livanjskom polju, Glasnik Zemaljskog muzeja Bosne i Hercegovine, sv. 54, Sarajevo, 53-92.
- Marijan, B.* 1989, Grobni nalaz iz Graca kod Neuma, Glasnik Zemaljskog muzeja Bosne i Hercegovine, 42/43, Sarajevo, 35-59.
- Marcea, M. / Gudea, N. / Moțu și, I.* 1993, Praetorium. Castrul și așezarea Romană de la Mehadia, București 1993.
- Marijanski-Manojlović, M.* 1987, Rimska nekropola kod Beške u Sremu, Novi Sad 1987.
- Матић, М. 2007, Врата капија два света, Београд 2007.
- Mellink, M. J.* 1989, Archaeology in Anatolia, American Journal of Archaeology, 93, no. 1, 103-133.
- Милошевић, Г. 1997, Становање у средњовековној Србији, Београд 1997.
- Mihovilić, K.* 1979, Prstenje i naušnice rimskog doba Slovenije, Arheološki Vestnik, XXX, Ljubljana, 223-242.
- Milovanović, B. / Mrđić, N.* 2016, Prsten-ključevi iz Viminacijuma, Glasnik Srpskog arheološkog društva, 32, Beograd, 243-263.
- Nikolić, S. / Pop-Lazić, S.* 2005, Ostaci antičke urbane zone na dunavskoj padini, Singidunum 4, Beograd, 7-44.
- Oltre la porta* 1996, Oltre la porta, Serrature, chiavi e forzieri dalla preistoria all' età moderna nelle Alpi orientali, Trento 1996.
- Ožanić, I. / Radman-Livaja, I. / Rendić-Miočević, A.* 2003, Na tragovima vremena, Iz arheološke zbirke Mateja Pavletića, Zagreb 2003.
- Pace, T. D.* 2014, A Typology of roman Locks and Keys, Southwestern Baptist Theological Seminary – rukopis, 2014.
- Pašalić, E.* 1959, Rimsko naselje u Ilijama kod Sarajeva, Glasnik Zemaljskog muzeja Bosne i Hercegovine, sv. XIV, Sarajevo, 113-136.
- Patsch, C.* 1902, Archäologische-epigraphische Untersuchungen zur Geschichte der römischen Provinz Dalmatien, Wissenschaftliche Mittheilungen aus Bosnien und der Herzegovina, VIII, Wien, 61-131.
- Patsch, C.* 1904, Archäologisch-epigraphische Untersuchungen zur Geschichte der römischen Provinz Dalmatien, Wissenschaftliche Mitteilungen aus Bosnien und der Herzegovina, IX, Wien, 171-301.
- Paulys Wissowa, G.* 1894, Real-Encyclopädie der klassischen Altertumswissenschaft, Stuttgart 1894.
- Paulys Wissowa, G.* 1912, Real-Encyclopädie der klassischen Altertumswissenschaft, Stuttgart 1912.
- Paulys Wissowa, G.* 1923, Real Encyclopädie der Clas-sischen Altertumswissenschaft, Stuttgart 1923.
- Petrović, B.* 1997, Nakit, Antička bronza Singidunuma, Beograd 1997, 85-160.
- Pinterović, D.* 1978, Mursa i njeno područje u antičko doba, Centar za znanstveni rad JAZU, Osijek, Po-sebna izdanja I, Osijek 1978.
- Plesničar-Gec, Lj.* 1972, Severno emonsko grobišće, Katalogi in monografije 8, Ljubljana 1972.
- Pop-Lazić, S.* 2002, Nekropole rimskog Singidunuma, Singidunum, 3, Beograd, 7-100.
- Popović, I.* 1992, Prstenje. Rimski nakit u Narodnom muzeju u Beogradu, Beograd 1992.
- Popović, I.* 2009, Novi pogled na arheološke nalaze iz konsektrativnog spomenika 1 na Maguri, Zbornik Narodnog muzeja, XIX-1, arheologija, Beograd, 315-342.
- Radičević, D. / Milivojević, V. / Crnčević, D.* 2015, Đurine Ćelije na Rudniku: Preliminarni rezultati arheoloških istraživanja u 2014. i 2015. godini, Glasnik Srpskog arheološkog društva, 31, Beograd, 233-255.

- Radimsky, W.* 1893, Die römische Befestigung auf der Crkvenica und das Castrum bei Doboј, Wissenschaftliche Mittheilungen aus der Bosnian und der Herzegovina, I, Wien, 262-273.
- Radišić, M.* 2015. Kasnoantički i ranovizantijski slučajni nalazi sa lokaliteta Gradac-Grbavče u okolini Svrljiga, Glasnik Srpskog arheološkog društva, 31, Beograd, 285-302.
- Ratković, D.* 2008, Wagon and Harness Bronzes from the Roman Collection of the National Museum in Belgrade, Thiasos Festschrift für Erwin Pochmarski zum 65. Geburtstag, Wien 2008, 793-815.
- Sergejevski, D.* 1954. Staro-hrišćanska bazilika u Kloku, Glasnik Zemaljskog muzeja Bosne i Hercegovine, IX, Sarajevo, 189-210.
- Sergejevski, D.* 1956, Dabrovina, Sarajevo 1956.
- Sergejevski, D.* 1961, Bazilika u Mokrom, Glasnik Zemaljskog muzeja Bosne i Hercegovine, n. s. A, XV-XVI, Sarajevo 1960/61, 211-228.
- Skarić, V.* 1928. Römische Ansiedlung in Mala Ruiška, Glasnik Zemaljskog muzeja Bosne i Hercegovine, XL, Sarajevo 1928, 99-107.
- Srejović, D. / Cermanović, A.* 2000, Rečnik grčke i rimske mitologije, Beograd 2000.
- Šeparović, T. / Uroda, N.* 2009, Antička zborka Muzeja hrvatskih arheoloških spomenika (izbor), Split 2009.
- Šeper, M.* 1962, Rimska kola iz Poljanca kod Ludberga, Arheološki radovi i rasprave, II, Zagreb, 335-428.
- Šilić, Č.* 2005, Atlas dendroflore (drveće i grmlje) Bosne i Hercegovine, Čitluk 2005.
- Štribar, V. / Stare, V.* 1981, Srednjeveško naselje Otok pri Dobravi, Ljubljana 1981.
- Trifunović, S.* 2015, Poluzemunica predturskog doba iz Banatskog Karlovca, Glasnik Srpskog arheološkog društva, 31, Beograd, 221-231.
- Truhelka, Č.* 1893, Iskopine u dolini Lašve, Glasnik Zemaljskog muzeja Bosne i Hercegovine, V, Sarajevo, 685-699.
- Ulbert, G.* 1959, Die römische Donau – Kastelle Aislingen und Burghöfe, Limesforschungen Römisch-Germanische Kommission des Deutschen Archäologischen Instituts, 1, Berlin 1965.
- Ulrich, R. B.* 2007, Roman Woodworking, New Haven – London 2007.
- Vágó, E. B. / Bóna, I.* 1976, Die Gräberfelder von Intercisa I. Budapest 1976.
- Walton, J.* 1954, Carved Wooden Doors of the Baavenda, Man, vol. 54, London, 43-46.
- Walke, N.* 1965, Das römische Donaukastell Straubing – Sorviiodurum, Limesforschungen Römisch-Germanische Kommission des Deutschen Archäologischen Instituts, 3, Berlin 1965.
- Zotović, Lj. / Jordović, Č.* 1990, Viminacium 1 – Ne-kropola Više grobalja, Beograd 1990.
- Žigić, V.* 2017, Rezultati prvih arheoloških istraživanja antičkog utvrđenja u Makljenovcu kod Doboja 1959. i 1960. godine, Godišnjak za balkanološka ispitivanja, knj. 46, Sarajevo, 125-168.



Plate 1: *Anthropomorphic keys* / Tabla 1: *Antropomorfni ključevi*



1 (4686)



2 (5747)



3 (5772)



4 (5746)



5 (6339)



6 (6354)



7 (6730)



8 (2871)



9 (195)



10 (395)



11 (1021)

Plate 2: *Classic keys* / Tabla 2: *Klasični ključevi*



1 (6725)



2 (6733)



3 (6735)



4 (6735a)



5 (6735b)



6 (6709)



7 (6709a)



8 (6709b)



9 (1961?)



10 (6743)



11 (753)



12 (697?)



13 (3670)



14 (3670a)



15 (4794)

Plate 3: *Classic keys* / Tabla 3: *Klasični ključevi*



1 (4863)



2 (4859)



3 (4860)



4 (4671)



5 (4877)



6 (6710)



7 (3667)



8 (4698)



8a (4698)



9 (1019)



10 (1038)



11 (396)



12 (1690)

Plate 4: *Classic keys* / Tabla 4: *Klasični ključevi*



Plate 5: *Classic keys* / Tabla 5: *Klasični ključevi*



1 (758)

2 (196)

3 (718)

4 (712)

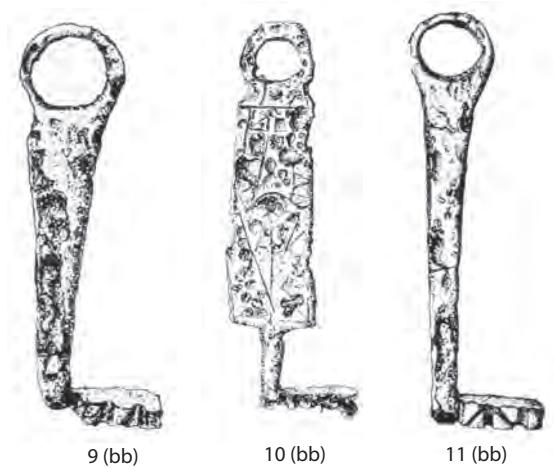


5 (812)

6 (876)

7 (877)

8 (5820)



9 (bb)

10 (bb)

11 (bb)

Plate 6: *Classic keys* / Tabla 6: *Klasični ključevi*



1 (1687)



2 (1533)



3 (1526)



4 (1525)



5 (2113)



6 (3630)



7 (2385)



8 (2322)



9 (2393)



10 (2487)

Plate 7: *Classic keys* / Tabla 7: *Klasični ključevi*



1 (2488)



2 (2490)



3 (2544)



4 (2765)



5 (2646)



6 (2160)



7 (1531)



8 (1532)



9 (1530)



10 (1528)

Plate 8: *Classic keys* / Tabla 8: *Klasični ključevi*



Plate 9: *Classic keys* / Tabla 9: *Klasični ključevi*



1. (Prema I.
Čremošnik, 1976.)



2. (Prema I.
Čremošnik, 1976.)



3. (Prema I.
Čremošnik, 1976.)



4. (Prema I.
Čremošnik, 1976.)



5. (Prema I.
Čremošnik, 1976.)



6. (Prema I.
Čremošnik, 1976.)



7. (4794)



8. (6431)



9. (7212)



10. (2034)



11. (2050)

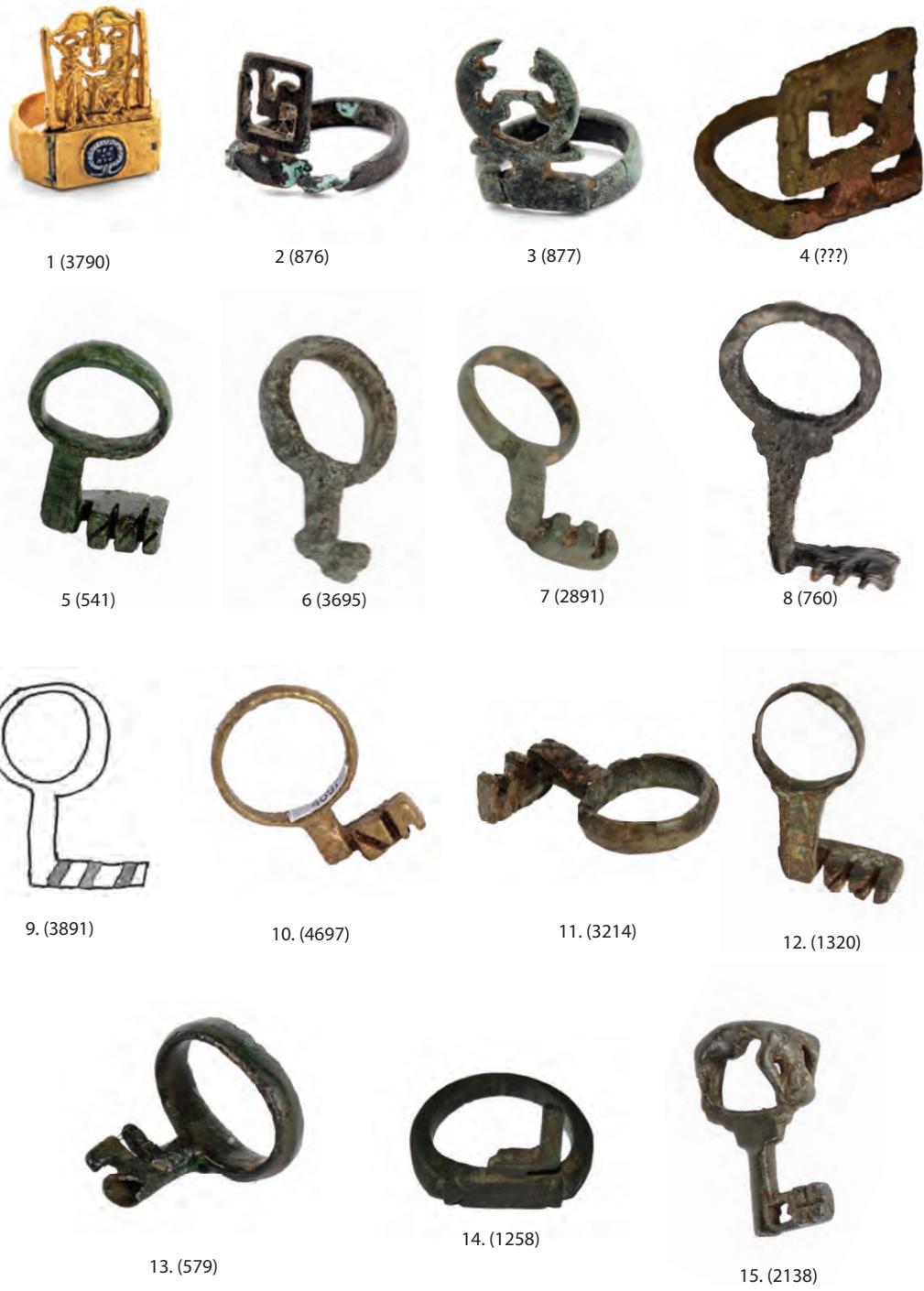


12. (3905)



13. (3667)

Plate 10: *Classic keys* / Tabla 10: *Klasični ključevi*





1 (5677)

2 (6358)

3 (1524)

4 (bb)



5 (2157)

6 (2037)

7 (bb)

8 (3150)

9. (3408)

Plate 12: *Large keys* / Tabla 12: *Veliki ključevi*



Plate 13: Large keys / Tabla 13: Veliki ključevi



Plate 14: *Atypical Roman keys* / Tabla 14: *Atipični rimske ključevi*



1 (377)



2 (377a)



3 (2861b)



4 (369a)



5 (369b)



6 (368)



7 (241)



8 (242)



9 (bb)



10 (bb)



11 (bb)



12 (5784)



13 (5802)



14 (bb)

Plate 15: *Hinges* / Tabla 15: *Baglame*



1 (1679)



2 (371)



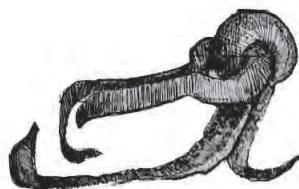
3 (2375)



5 (2176)



4 (2375a)



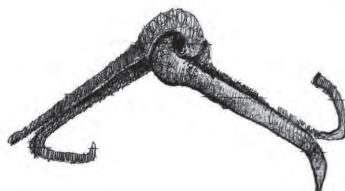
8 (6731)



6 (367)



7 (367a)



9 (6726)



10 (bb)

Plate 16: *Hinges* / Tabla 16: *Baglame*

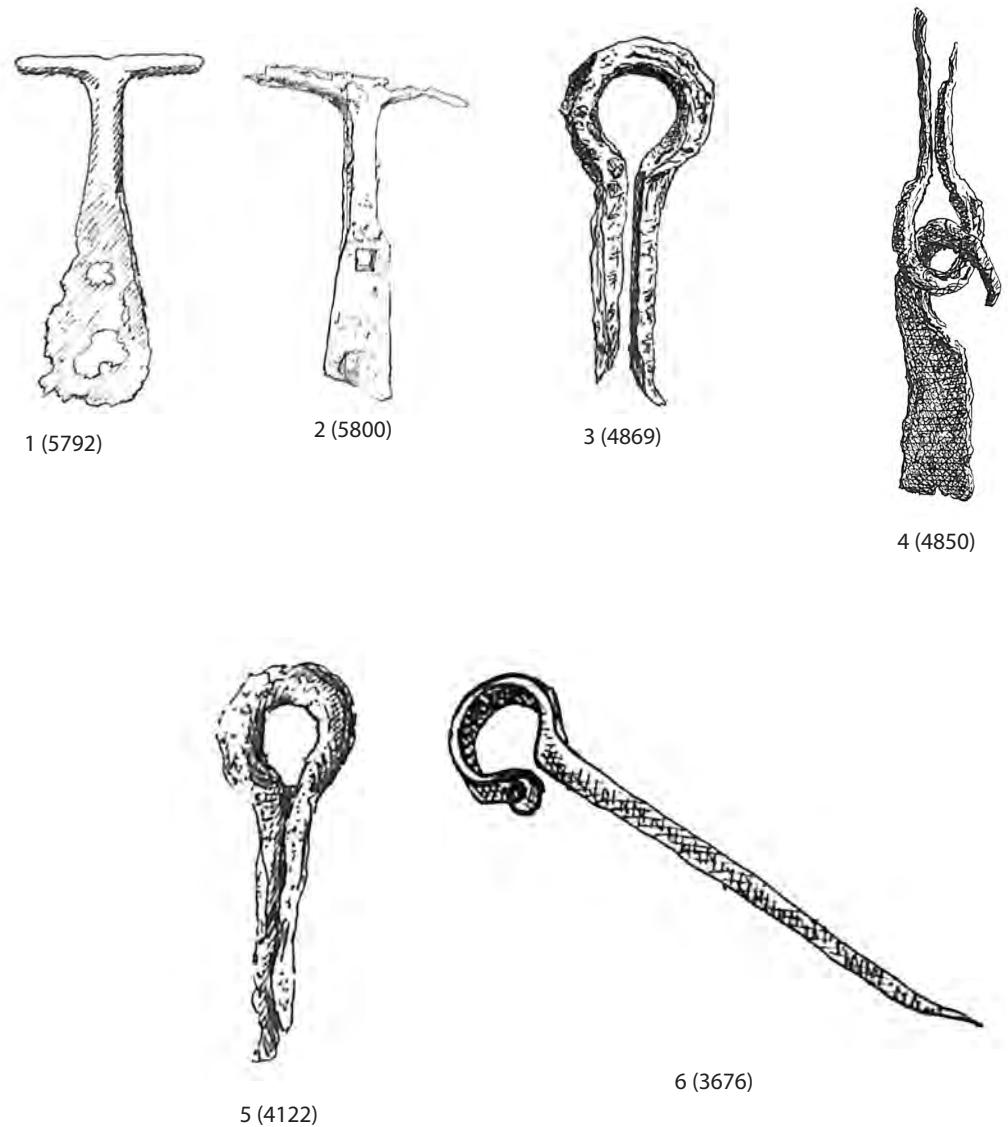


Plate 17: *Hinges* / Tabla 17: *Baglame*



Plate 18: Locks / Tabla 18: Bravos



1 (370)

2 (1984)

3 (1266)



4 (2030)

5 (2386)

6 (2387)



7 (1277)

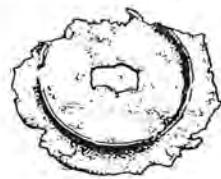
8 (2154)

9 (bb)

Plate 19: Lock escutcheons / Tabla 19: Oplata od brave



1. (7805)



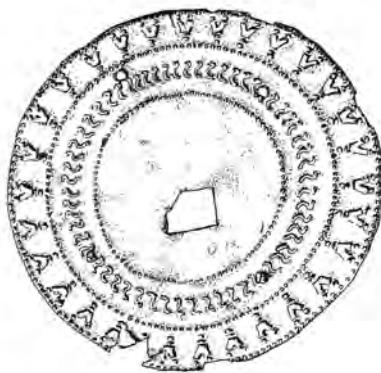
2. (Prema I. Čremošnik, 1976.)



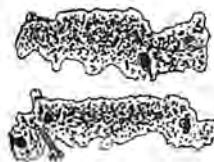
3. (Prema I. Čremošnik, 1976.)



4. (Prema I. Čremošnik, 1976.)



5. (Prema I. Čremošnik, 1976.)



6. (2489)



7. (2118)



Plate 21: *Latches* / Tabla 21: *Reza*



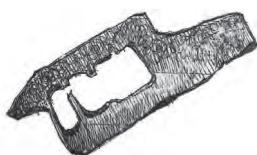
Plate 22: *Latches* / Tabla 22: *Reza*



1 (6740)



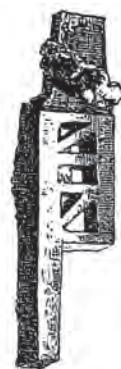
2 (1278)



3 (6724)



4 (bb)



5 (bb)



6 (1555)



8 (Prema I. Čremošnik, 1976.)

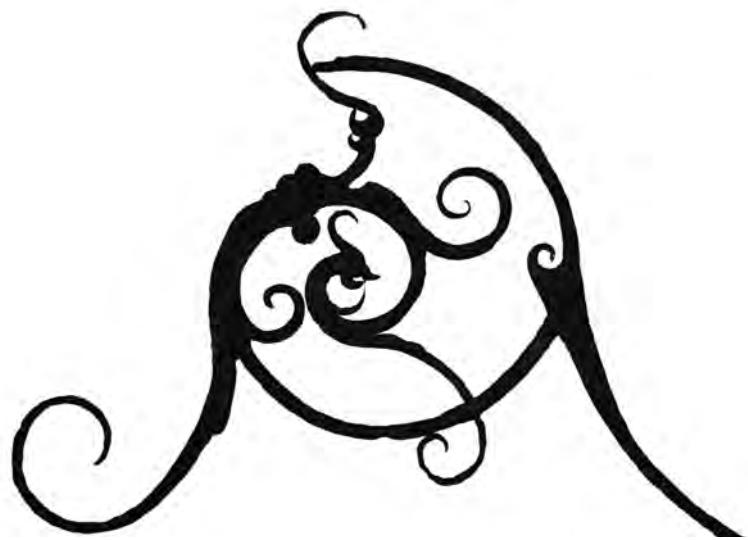


7 (2025)

Plate 23: Bolts and parts of Schiebschloss locks / Tabla 23: Zasuni – dio brave tipa Schiebschloss



Plate 24: *Door handles* / Tabla 24: *Drška vrata*



1 (1182)



2 (1183)

Plate 25: *Fragments of iron railings or gates* / Tabla 25: *Ograda – kapija*



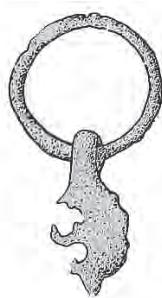
1 (2392)



2 (5791)



3 (5817)



4 (bb)



5 (bb)