

## Close to the bone: current studies in bone technologies

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Caričin Grad (Iustiniana Prima), 6th century AD

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Niš (Naissus), 4th-6th century AD

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Selena Vitezović

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## INTRODUCTION

Studies of worked osseous materials were neglected for a long time, but in the past two decades they are on the rise. In recent years, numerous methodological and theoretical innovations were introduced and the quantity and quality of publications increased, including numerous individual articles, PhD thesis, monographs. Particularly important were several conferences and thematic sessions held in Europe, North America and Asia, devoted to the problems of worked bone. As a result, several edited volumes appeared, with high quality and diverse papers – for example, those edited by H. Luik et al. (2005), Ch. Gates-St-Pierre and R. Walker (2007), A. Legrand-Pineau & I. Sidéra et al. (2010), J. Baron and B. Kufel-Diakowska (2011), F. Lang (2013), A. Choyke and S. O'Connor (2013), Märgärit et al 2014, to mention just a few.

Osseous materials began to be recognized as an important part of the archaeological finds first by the French school, and the most important theoretical and methodological work was done by French researchers. The most significant was the work by H. Camps-Fabrer, who initiated a large research program on bone industry, *La Commission de Nomenclature sur l'Industrie de l'Os Préhistorique*, later continued by other researchers. Work organized by M. Patou-Mathis on the *industrie osseuse peu élaboré* should also be mentioned. However, the most important role in spreading and promoting the research on bone artefacts and its importance in the past few decades has been that of the Worked bone research group (WBRG), formed almost 30 years ago, and one of the official working groups of the International Council for Archaeozoology (ICAZ) since 2000. The main role of the WBRG is to improve communication between individuals studying worked animal hard tissues (especially bone, antler, and ivory) with a special emphasis on archaeological finds. A broad diachronic and multi-disciplinary approach is emphasized in order to promote the exchange of ideas concerning attitudes towards and procurement of raw materials, technology, and cognitive aspects of bone working.

Since the first meeting, held in London in 1997, eight other meetings took place and in 2014 Belgrade was the host of the jubilee 10<sup>th</sup> Meeting of the WBRG (for more information, see [www.wbrg.net](http://www.wbrg.net)).

Over sixty oral and poster presentations were held during the five conference days, contributed by 100 authors. Thirty-nine papers were selected for this volume, and I. Riddler, the organiser of the very first meeting in London, also contributed a paper with N. Trzaska-Nartowski.

Selected papers encompass the wide chronological and geographical range – from the Mesolithic period to the 18<sup>th</sup> century AD, from South America to the Eurasia

and South Africa. Selected case studies do not simply present interesting archaeological material, but they also cover a wide range of topics – methodological issues, in particular traceological investigations, reconstructions of technological procedures, problems related to the interpretation of functions, problems of the identification of workshops, and also symbolic use of osseous raw materials in both prehistoric and historic times. Papers are organised by alphabetical order, since the topics overlap and it was not possible to create distinctive thematic groups.

Such a variety in topics, as well as an increasing number of researchers focusing on studies of osseous raw materials, clearly shows that these studies have an important potential to contribute to the more general archaeological studies. Osseous artefacts are no longer disregarded, but are slowly gaining more and more space and are slowly taking place alongside with lithic industries and other classes of raw materials. However, there is still much work to be done, and bone tool studies still have to show all the potential they have.

Last but not least, I would like to thank all the people who helped during the conference and afterwards, during the preparation of the book. Special thanks to all the colleagues from the Institute of Archaeology and to all the colleagues and staff from the National museum in Belgrade, which generously offered the room for the conference and also helped with the lovely post-conference excursion to the Lepenski Vir. I would also like to thank for the hospitality to Dragan Janković, curator of the City museum, who welcomed us at the site of Vinča-Belo Brdo, and to dr Mira Ružić, who welcomed us at the Archaeological collection of the Faculty of Philosophy.

Finally, special thanks to the reviewers, who helped to enhance the scientific value of this volume.

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*Selena Vitezović*



# BONE FIBULAE AS GRAVE GIFTS IN UPPER MOESIA

Sofija Petković

*Abstract: This paper deals with the bone specimens of Roman fibulae in Moesia Superior. Although, some parts of some types of Roman brooches were made of bone or ivory, it is quite unusual that whole fibula, or its major part is manufactured of osseous material. Generally, bone fibula would not be functional – it could easily break or bend, especially considering the composite construction of Roman brooches. The reason for the use of bone material for the production of fibulae may be their ritual character. Namely, in Upper Moesia Roman bone brooches were discovered only in burial context, as grave gifts.*

*Apstrakt: U ovom radu prikazani su koštani primerci rimskih fibula iz provincije Moesia Superior. Mada su pojedini delovi rimskih kopči rađeni od slonovače, sasvim je neobična pojava da su cele fibule ili njihov veći deo izrađeni od koštanih materijala. U principu, koštana fibula ne bi bila dovoljno funkcionalna – ona bi lako mogla da se slomi ili savije, posebno u slučaju složene konstrukcije rimskih kopči. Razlog za upotrebu koštanih materijala za proizvodnju fibula mogao bi biti ritualnog karaktera. Naime, u Gornjoj Meziji se rimske koštane fibule pronalaze isključivo u pogrebnom kontekstu, kao grobni priloz.*

Roman fibulae (also known in the literature as brooches) were made in great variety of forms and types, evolving over nearly one millennium. Different materials, mainly metals and metal alloys were used in their manufacture. More rarely, osseous materials were used in the production of fibulae. Although, some parts of some types of Roman brooches were made of bone or ivory (Ríha 1979, 26, 184-185, Typ 7.7, Typ 7.9, Abb.59, 1562-1568, 1577; Bíro 1987, 35-36, Fig. 85. 145/765-3),<sup>1</sup> it is quite unusual that the whole fibula, or a major part of it, would be manufactured from some kind of osseous material. Generally, if we take into account its functional aspect, a bone fibula would not be too useful – it could easily break or bend, especially considering the composite construction of Roman brooches. Nevertheless, some other Roman items, usually made of metal, have also been made of bone, antler or ivory such as like belt buckles and strap-ends or chest plating (Bíro 1994: 22, Pl. VIII, 48-40; Petković 1995: 39, T. XXV, 6-9; Deshler-Erb 1998: Katalogband, 324, 330, 333). These items were substitutes for luxurious, expensive objects and ornaments made of precious metals, gold, silver, gilded bronze or bronze, artistically cast and engraved. However, this must not have been the only reason for manufacturing bone brooches, as such fibulae were mostly simply cast objects made of bronze or brass. There must have been another reason for the use of osseous materials in their production. Leaving aside functional and economic reasons for the manufacture of bone brooches in Roman period, such brooches may also have had a special symbolic value.<sup>2</sup> Since their origin, fibulae had a symbolic significance as social, cult or religious designations, a kind of ancient badge (RGA, Fibel und Fibeltracht, II, § 2-5, 11). In this

context, the case of bone fibulae found in the territory of Upper Moesia (*Moesia Superior*) may shed light on one aspect of this problem. Namely, such brooches were found only in burial context as grave goods.

Among the Roman brooches from *Moesia Superior* we noted two specimens made of bone. The first one is a knee-fibula completely executed from bone, discovered in a rich tumulus – the grave of a Thracian woman in *Ulpiana*, dated to the first half of the 3<sup>rd</sup> century AD (Срејовић 1986: 179 *et sequ.* T. I, 2-3) (Fig. 1). The second fibula, in the shape of a dove, comes from a cremation burial in *Viminacium* and dates to the second half of the 2<sup>nd</sup> – the first half of 3<sup>rd</sup> century AD. This bone fibula has probably once had a bronze spring and pin. (Fig. 2) Both burials belonged to the type of cremation grave reflecting a strong indigenous tradition, in the first case in *Ulpiana*, Thracian (Срејовић 1986: 186-187), and in the second case a Dardanian or Triballian background in *Viminacium* (Golubović 1998: 251-253). These fibulae may reflect autochthonous beliefs about afterlife. In the case of these brooches the reason for using osseous materials in their manufacturing may well be their ritual character.

Bone brooches from *Moesia Superior* belong to two ordinary types of Roman fibulae, very often found at our sites. The brooch from tumulus in Čerkesko polje – *Ulpiana* belongs to the hinge knee-fibula type, known as type Petković 19 C (Срејовић 1986, Petković 2010: 144-146, 421, 433, T. XXVI, 5-8, T. XXVII, 1-2, Tabele 5, Map 7) and the specimen from G1-27 from a grave in the necropolis Više grobalja – *Viminacium* is a zoomorphic fibula in the shape of dove, type Petković 25 C (Golubović 2004: 83, Pl. I, 5; Redžić 2007: 53, kat. 275, T. XXIV, 275; Petković 2010: 202, T. XXXVII, 1-8). Since these objects were found in rich burials with luxurious grave goods, the economic reason for use of bone to manufacture a fibulae (bone as a cheaper raw material) is not feasible.

<sup>1</sup> M. Bíro identifies a fragment of a bone bird fibula found in the area of *nymphaeum* in *Gorsium* as a representation of a magpie although this brooch has rather had form of an eagle or a dove, both familiar decorative themes in Roman minor art.

<sup>2</sup> Deshler-Erb 1998, Text und Tafelband, 5-87. – The author discusses the symbolic meaning of different kinds of osseous raw material.

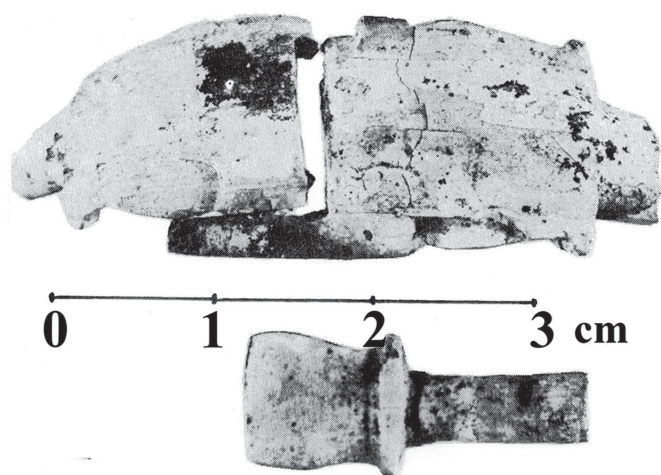


Figure 1: The bone knee-fibula (Petković type 19 C) from the burial at Čerkesko polje – Ulpiana (according to Srejović 1986).

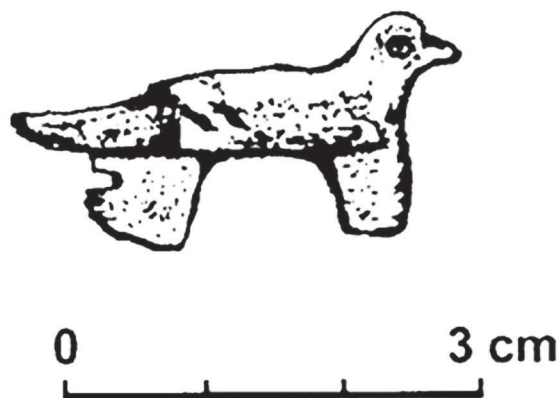


Figure 2: The bone dove-fibula (Petković type 25 C) from the grave G1-27 at necropolis Pećine – Viminacium.

A cremated woman of a high social rank was buried in the Ulpiana tumulus. The grave comprised a rectangular two-level pit, similar to the simple cremation burials in *Moesia Superior* of the same period known as burial type Mala Kopašnica II (Garašanin 1968, 6-16; Зотовић 1968, 25-27; Јовановић 1984, 103-105).<sup>3</sup> The burial pit measured 3.10 x 2.10 x 0.80 m while the lower level – the inner pit, that is, the grave itself in the narrow sense (1.40 x 0.40 x 0.50 m), had sides built of *tegulae* and a cover comprising two stone slabs. Nevertheless, a large mound (R=30 m, h=5 m) was erected over the grave and various luxurious utensils were placed inside the burial (Срејовић 1986: 185). Grave-gifts were placed inside the built grave after the cremated remains of deceased were placed, gathered in a luxurious purple cloth with golden thread. In addition to ceramic and glass vessels, silver and gold jew-

<sup>3</sup> D. Srejović considered this burial to be a *bustum*, but the evidence shows it is more likely an *ustrinum*. As in Mala Kopašnica II graves, the sides of the burial pit were burned, but the amount of carbonized wood and ashes found in the pit was too small to have come from a *bustum* type burial. Also, the jewelry of deceased as well as other grave-gifts were untouched by fire. The objects were placed in the grave together with the cremated bones and ashes brought from the pyre.

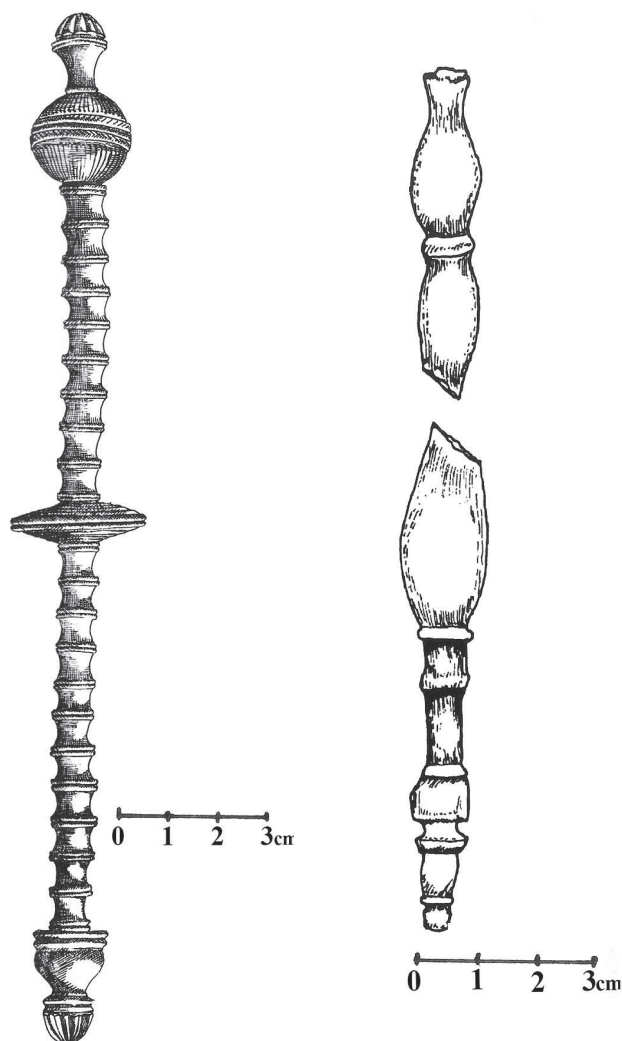


Figure 3: The gilded silver spindle from the burial at Čerkesko polje – Ulpiana (according to Srejović 1986).

Figure 4: The bone spindle from the burial at Čerkesko polje – Ulpiana (according to Petković 1995).

elry was discovered in this grave, a pair of gilded sandals and two silver boxes, as well as a gilded silver spindle and also fragments of a bone spindle (Срејовић 1986: 180-185, T. I-IV).<sup>4</sup> (Figs. 3-4) The grave goods indicated that the deceased was female although unfortunately anthropological analysis has not been carried out.<sup>5</sup> If we assume that these Late Roman grave goods were the property of the deceased woman (or at least objects appropriate for her age, gender and social status), it is interesting that she used two spindles with whorls, the silver one and another made of bone. However, there is another explanation for the deceased receiving two spindles in her burial – one of

<sup>4</sup> Originally, finds from this grave were held in Museum of Kosovo and Metohija in Priština. Some of the grave-goods were brought to Belgrade in 1998 to be presented at an exhibition of Serbian Academy of Science and Art *Arheološko blago Kosova i Metohije od neolita do ranog srednjeg veka (Archaeological Treasure of Kosovo and Metohija from the Neolithic to Early Middle Age)* and were never returned back. These finds are now held in the National Museum in Belgrade. Unfortunately, the bone items from the burial remained in Museum of Kosovo and Metohija and were lost during the civil war in 1998-1999.

<sup>5</sup> The cremated remains of deceased were lost during the civil war 1998-1999.

them (the silver one) could have been used by the dead woman during her lifetime, but the other, made of bone, was put in the grave as a grave-gift, designed to be used by deceased in her afterlife (*ad usus mortuum*). Silver as material symbolize Moon, water, fertility and female principal, and, in a way, is connected to the underworld. Bones were, from prehistory, the symbols of the underworld and death, but also they symbolize rebirth. In the case of Ulpiana grave luxurious silver spindle as well as bone spindle could be used in her lifetime, but the bone fibula was definitely manufactured for the “underworld use”. In this case osseous material symbolizes imperishability, permanence and eternity. The same meaning, but perhaps even more accentuated could have been given the bone fibula from the same burial as it is a completely unusable item. The bone fibula might have been used to fasten clothing if it had had a metal pin and spring mechanism, but the bone pin and bone hinge-mechanism it was equipped with would have made its practical use impossible. (Fig. 1) In some way it represents a model of a fibula made of bone.

Grave G1-27 from the necropolis of *Viminacium* at the site of Pećine also belongs to the Mala Kopašnica II type of cremation grave. According to S. Golubović, this type of grave in *Viminacium* (type *Viminacium* III b) should be considered to be a provincial Late Roman form combined with an autochthonous (Dardano-Mysian or Triballo-Mysian) tradition (Golubović 1998: 251-253). The anthropological analysis was carried out in this case but the age and gender of the deceased could not be estimated (Golubović 2004: 82). In addition, the grave finds have not yet been published, except for a general statement that the bone fibula was found together with “several ceramic vessels dated to 2<sup>nd</sup> century” (Redžić 2007: 53, kat. 275, T. XXIV, 275). There are drawings in the documentation materials of the archaeological excavation from 1978 at the necropolis of Pećine. The documentation includes descriptions (C – charts) of two jugs and two ceramic lamps. Three more pottery items were noted (one more jug, a pot and a plate).<sup>6</sup> Based on the types of these jugs and lamps, the ceramic finds from grave G1-27 could be dated to the second half of the 2<sup>nd</sup> – first half of the 3<sup>rd</sup> century AD (Brukner 1981: 114, 116, T. 137, 50-51, T. 142, 103; Raičković 2011: 131, T. XVI, 13-14; Крунић 2011: 64-70, type VIII 2 a; 91-98, type X).

Comparing these two sets of burial data connected to the archaeological contexts of bone fibulae finds from *Moesia Superior*, beyond the form of the two-level grave-pit and the dating in the 2<sup>nd</sup>-3<sup>rd</sup> century AD, we are confronted to two quite different concepts – a tumulus-grave of a wealthy woman at Čerkesko polje – *Ulpiana* and the simple Mala Kopašnica II type grave at Pećine – *Viminacium*. Nevertheless, these burials originate from the Dardanian Mala Kopašnica I type grave which developed from the indigenous cremation graves during the 1<sup>st</sup> cen-

tury AD (Јовановић 1984: 105-106). New excavations at the Mala Kopašnica – Sase type of necropolis in Mala Kopašnica near Leskovac and in Davidovac near Vranje confirmed this hypothesis (Petković 2012: 88; Stamenković 2013: 59-63; Ivanišević, Stamenković 2014: 71-73; Petković 2016: 324-334, Plans 4-5, Figs. 1, 18-19, 21). At the site of Davidovac – Gradište 39 cremation graves, among them burials from the earliest phase of Mala Kopašnica I type burials with elements of autochthonous burial practices (burning on the sides of grave, remains of a funeral feast within the grave or among a group of graves, placing weapons in grave, etc.) (Petković 2016: 328). On the other hand, two-level burial pits placed underneath a tumulus should not be considered originally a Thracian form, although they are numerous in the Eastern Balkans (*Thracia, Moesia Inferior, Dacia Ripensis*), because both elements, tumuli (Garašanin 1968: 18-23; Гертов 1970: 7-8; Јовановић 1984: 112 *et sequ.*) and two-level grave-pits (Garašanin 1968: 18-23; Јовановић 1984: 112 *et sequ.*) were appropriated from other cultures. Such graves only appear after the Roman conquest of the Balkan Peninsula in the 1<sup>st</sup> century AD. It is important to emphasize that during the protohistoric period, there was an intense exchange of economic, political and religious traditions between the Balkan tribes (Papazoglu 2007: 334-394). This process resulted in the synthesis of their cultures in the Late La Tène period (Iron Age), which comprises the Early Imperial period, in the 1<sup>st</sup> – mid-3<sup>rd</sup> centuries AD (Петковић 2012 b: 75-77).

An interesting attempt to define ethnic and territorial borders among the Iron Age tribes of Central Balkans based on burial customs was carried out by Dragoslav Srejšević (Срејовић 1979: 79-87). The evidence from the distributions of different burial forms indicted the presence of three zones, among them a middle territory that supposedly were inhabited by the *Dardani* and *Triballi* tribes. This territory, generally comprising the Morava Basin, was indeed confirmed in Greek and Roman sources as the region inhabited by these tribes (Papazoglu 2007: 47-54, 143-161). In the Roman period this was the territory of the province of *Moesia Superior*, later divided into *Moesia I, Dacia Ripensis, Dacia Mediterranea* and *Dardania*. The names of Late Roman provinces reflect these former ethnic communities, keeping in mind that the *Moesi* were very similar peoples to the Dacians and the *Triballi* to the Dardanians. Nevertheless, the grave at Čerkesko polje-*Ulpiana* could be considered a burial proper to ones from Dardanian territory and the grave at Pećine – *Viminacium* was found inside a large necropolis in the capital of province. In first burial, the ritual character of bone fibula is more obvious because the item has no functional value of the item and given the luxurious gold and silver grave goods from the same grave. In grave G1-27 at Pećine, except for the ceramics, only the bone dove-fibula was found and this item could be used as a brooch if it had had a bronze or silver spring and pin.

<sup>6</sup> At this point, I must express my gratitude to my colleague Saša Redžić, Ph.D. for the verbal information.



On the other hand, doves were familiar symbols on Roman tombstones in the Central Balkans, where the dead women were represented holding them in their hands. The dove symbolizes the soul of the deceased, especially a pure soul. Also, it was an animal devoted to an autochthon goddess, together with dogs, snakes and goats based on evidence from sets of female silver jewelry (Петковић 2012b: 72-77, Fig. 2, Figs. 4-6, T. V, 2). These sets always comprise a pair of brooches, anchor-fibulae (Petković type 15 C) or knee-fibulae (Petković Type 19 C), connected by silver chains with pendants in the form of ivy-leaves. They are often found in sacred hoards of silver items and coins, discovered in the territory of Upper Moesia and Dacia, marking the migration of the indigenous mining population in the first three centuries AD, probably the Dardanians or some other Illyrian tribe (Петковић 2012b: 65-72). Thus, it seems likely that the cremated person buried in grave G1-27 containing the bone dove-fibula as a grave-gift was a woman or a girl.

It may be concluded that both burials with bone brooches belonged to deceased women, cremated at *ustrinum* and buried in two-level grave-pits. This may mark these graves as created for funerals taking place in an indigenous tradition, including the items manufactured from bone (brooches, spindle whorls, etc.) meant as grave-gifts designed for the afterlife.

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*Close to the bone...*

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