# CATCH AND RELEASE. ROMAN BROOCHES FROM THE COLLECTION OF BUCHAREST MUNICIPALITY MUSEUM

Raluca-Iuliana Moței\* Alina Streinu\*

**Keywords**: brooches, Roman period, Bucharest. **Cuvinte cheie**: fibule, perioadă romană, București.

**Abstract:** The paper presents a lot of 43 Roman brooches from the collection of the Bucharest Municipality Museum. The brooches are typologically diverse even within their own category and chronologically span the 2<sup>nd</sup> to the 4<sup>th</sup> centuries. The catalog, followed by individual drawings and photographs, complete the information for the previously published items and at the same introduce new artifacts to the public.

Rezumat: Articolul prezintă un lot de 43 de fibule romane din colecția Muzeului Municipiului București. Piesele sunt diverse din punct de vedere tipologic, iar cronologic se încadrează începând din secolul al II-lea până în secolul IV p.Chr. Catalogul, urmat de planșele conținând desene și fotografii individuale ale pieselor, completează informațiile existente privind piesele publicate, aducând în același timp în atenția publicului piese inedite.

#### Introduction

The brooches presented in this paper are a selected lot from the Bucharest Municipality Museum's collection. The lot chosen consists of 39 Roman brooches that can be classified into 9 main categories and 4 fragmentary pieces. Although some of the brooches have been previously published this paper adds new information regarding their morphology and composition<sup>1</sup> (Tab. 1).

Of the total number of unpublished<sup>2</sup> items, only 5 were discovered during archaeological excavations in Bucharest and its adjacent area. The revisited material originates from 6 sites in the Bucharest area: Militari Câmpul Boja, Străulești Măicănești, Străulești-Lunca, Vitan Bârzești (Plate 1). Three other brooches originate from Bragadiru (Ilfov county), Poșta Buturugeni (Giurgiu county) and from Ostrovul Corbului (Mehedinti county), while the rest have an unclear context or are donations made to the Museum by private individuals. The brooches in the selected lot can be placed in the interval between the 2<sup>nd</sup> and the 4<sup>th</sup> centuries with a wide spread in the Roman provinces.

From a methodological point of view, the selected materials are presented according to the category they belong to and in a chronological order. Each item is

<sup>\*</sup> Bucharest Municipality Museum.

<sup>&</sup>lt;sup>1</sup> The composition analysis was performed by chemist Ingrid Poll, MMB, which determined the material the items were made from by means of XRF, whom we take the opportunity to thank.

<sup>&</sup>lt;sup>2</sup> No reference was found for these items.

included in the subsequent catalog that includes information regarding its dimensions, a detailed description including its composition, the place of discovery and context when known, references for the previously published brooches and analogies. The catalogue is corroborated by individual drawings and photographs included in the illustration section of the paper.

The 43 selected brooches are relevant for any research ranging from metal craftsmanship, regional economy, and not least military history, as these particular items are often related to the roman army. Furthermore, presenting this lot and updating the information for the previously published items, any specialist interested in the local history of Bucharest and its surroundings in the 2<sup>nd</sup>-4<sup>th</sup> centuries, in the context of the Roman conquest, can device and update new hypothesis. As a general remark, for this timeline, the most frequent type discovered during archaeological excavations in Bucharest consists of brooches with returned foot (Fibeln mit umgeschlagenem Fuβ) of which we included 30 items in this paper. The last 4 items (no. 39-43) are in a fragmentary state and are impossible to classify.

# Brooches with chord wrapped around the bow (No. 1)

Among the earliest types, these brooches are manufactured from one metal piece and are characterized by their curved bow and bilateral spring. Usually, the bow is separated from the foot through a notch. The bow is rectangular in section and the catch plate triangular, trapezoidal or rectangular. This type does not have a large area of distribution, it has been attested in roman Dacia as an import from the barbarian populations east of the Carpathians in the 1<sup>st</sup> century and the beginning of the 2<sup>nd</sup> century  $A.D^3$ .

# **Enamel Brooches (No. 2)**

This category includes various sub-types and the main common feature is the enamel decoration on all items. Usually, the fastening of these brooches is through a tubular hinge and the catch plate is most often trapezoidal. The bow is long, flat and can be rectangular, trapezoidal or rounded, decorated with incisions filled with enamel. The origin of these item is Celtic and found a wide distribution in the Roman world especially at the end of the 1st century and during the 2nd century A.D4.

## Strongly Profiled Brooches/ Brooches with trapezoidal foot (No. 3)

The type can be divided in several subtypes given the large variety of items discovered. The main characteristics include the highly curved bow and a long trapezoidal foot, often decorated with incised "woolf's teeth" or small triangles. Usually the spring has 8 windings and the catch plate is elongated, trapezoidal or rectangular. The items are generally found in Noricum, Pannonia, Moesia and Dacia in the 1<sup>st</sup>-2<sup>nd</sup> centuries A.D.<sup>5</sup>

<sup>4</sup> Cociş 2004, p. 86-87.

<sup>&</sup>lt;sup>3</sup> Cociş 2004, p. 41-42.

<sup>&</sup>lt;sup>5</sup> Cociş 2010, 203; Genćeva 2004, p. 101.

# Aucissa-derived brooches (No. 4-5)

This type of brooch is named after the word AVCISSA stamped on the seal placed on the head of the item. It is assumed to be a craftsman's name, one of the first producers attested<sup>6</sup>. This term is employed for the vast majority of this type of brooches, despite the fact that other names<sup>7</sup> or no name are found on their body. These two-piece hinged brooches are recognizable by their arched bow, occasionally with a median nervure, that extended into a short foot terminating in a knob. With their many variants, Aucissa brooches were one of the most widespread throughout the territories of the Roman Empire<sup>8</sup>. Our two items belong to the last phase of regional development of the traditional type, apparently evolving from the so called strongly profiled brooches<sup>9</sup>. These brooches are among the most common discoveries in Dacia<sup>10</sup>, Moesia Superior<sup>11</sup> and Moesia Inferior<sup>12</sup> during the second half of the 2<sup>nd</sup> and 3<sup>rd</sup> centuries A.D<sup>13</sup>.

# **Knee Brooches** (*Kniefibeln*) (No. 6)

These items are characterized by the presence of a semicircular plaque covering the fastening system, which can be either a spring with 8 to 10 coils or a hinge. They can be crafted from two or more parts. The bow is highly curved, resembling a knee, the catch plate is tall, the foot short and ending with a knob. The body is often facetted. It seems that these brooches began to spread in Dacia after the roman conquest and represent one of the most common types in the empire, as they have been usually associated with soldiers. Items have been predominantly attested in Dacia, Pannonia, Noricum, Germania and Britannia during the 2<sup>nd</sup> and 3<sup>rd</sup> centuries<sup>14</sup>.

# T-shaped brooches (No. 7)

Items from this category are characterized by a high arched semi-circular bow, usually with a rectangular or trapezoidal cross-section, a short foot and a tubular shaped catch plate. Above the head is a simple knob. Another particularity of this type of brooches is the hinge mechanism by which the needle is connected to the body through a cylindrical transverse bar. The crossbar bar, whose length can vary, and the bow give the brooch the appearance of the letter T. This T-shaped brooches are commonly found in the *limes* provinces<sup>15</sup> and were dated from the end of the 2<sup>nd</sup> to the beginning of the 3th century AD<sup>16</sup>.

<sup>&</sup>lt;sup>6</sup> Bulgan, Feugère 2007, p. 216.

<sup>&</sup>lt;sup>7</sup> Busuladžić 2008, p. 23.

<sup>&</sup>lt;sup>8</sup> Riha 1994, p. 101.

<sup>&</sup>lt;sup>9</sup> Cociş 2011, p. 253-255.

<sup>&</sup>lt;sup>10</sup> Cociş 2004, p. 81-83.

<sup>&</sup>lt;sup>11</sup> Bojović 1983, p. 23-24.

<sup>&</sup>lt;sup>12</sup> Cociş 2011, p. 255.

<sup>&</sup>lt;sup>13</sup> Genćeva 2004, p. 106-107; Cociş 2004, p. 83; Cociş 2011, p. 255.

<sup>&</sup>lt;sup>14</sup> Cerdeno, Gamo 2013; Cocis 2010, p. 204; Cocis 2004, p. 88 – 102; Genćeva 2004, p. 107-108.

<sup>&</sup>lt;sup>15</sup> Redžić 2007, p. 60; Böhme 1972, p. 22-23.

<sup>&</sup>lt;sup>16</sup> Cocis 2011, p. 256.

# Crossbow brooches with onion-shape knobs (Zwiebelknopffibeln) (No. 8)

The name of this type of brooches comes from their particular characteristic of onion shaped knobs. Although their general shape resembles a crossbow, the shape of the knobs includes them in a separate category. The items consist of a crossbar, high arched bow, P-shaped profile, with a flat foot and a catch plate to slip in the pin. At the head of the bow and the ends of the crossbar are three knobs, often ending with a slightly pointed shape, like an onion. This type of crossbow brooches have been manufactured in the Roman world<sup>17</sup> from the late 3<sup>rd</sup> through the first half of the 5<sup>th</sup> century<sup>18</sup>. From the current territory of Dobrogea (Scythia) were found a very large number of 4<sup>th</sup> century AD crossbow brooches<sup>19</sup>, most of them discovered in funerary contexts<sup>20</sup>.

# **Brooch with tall catch plate, exterior chord and head knob** (Fibeln Mit hohem Nadelhalter) (No. 9)

New research suggests that this type of brooches, known in the specialty literature as "Sarmatian" brooches, could actually belong to the Przeworsk culture environment<sup>21</sup>. Characteristic for this brooch, crafted from two parts, is the fastening system using a spring made of 8-40 coils. The fastening system was either simple, doubled or even tripled and the support provided with one, two or three orifices according to the spring type. These type of brooches is provided with a chord attached to the upper part of the head, a curved bow, an arched foot ending with a round knob and a tall rectangular catch plate. On the bow's surface there are one or two medial grooves<sup>22</sup>. The most common decoration consists of lateral ridges and sometimes pearling. The general dating for these items starts from the end of the 2<sup>nd</sup> century to the beginning of the 4<sup>th</sup> century AD<sup>23</sup>.

# **Brooches with returned foot** (*Fibeln mit umgeschlagenem Fuß*) (**No. 10-39**)

The items in this category are among the most frequent finds and the most consistent lot in our inventory. The fastening of these brooches is by bilateral spring, commonly made of several coils, united with a chord. These brooches are made from one or several pieces of metal, generally bronze and occasionally silver or iron.

Their bow is curved, usually with a round, rectangular, slightly square, trapezoidal or semicircular cross-section. The foot returns to form the catch plate which wraps around the lower body part by several windings. Their profile seem to resemble the letter D and are sometimes described and catalogued according to this characteristic<sup>24</sup>. Brooches with returned foot are found in the roman provinces located in Central and Eastern Europe and were dated to the end of the 2<sup>nd</sup> to the 4<sup>th</sup> century AD<sup>25</sup>.

<sup>22</sup> Cocis 2004, p. 133.

<sup>&</sup>lt;sup>17</sup> Hoxha 2015, p. 47-48; Johns 2013, p. 166-167; Petković 2010a, p. 259-308; Riha 1994, p. 22; Petković 2010b.

<sup>&</sup>lt;sup>18</sup> Collins 2010; Deppert-Lippitz 2000.

<sup>&</sup>lt;sup>19</sup> Nuțu, Chiriac 2012; Aparachivei 2016.

<sup>&</sup>lt;sup>20</sup> Opris, Potârniche 2014, p. 297.

<sup>&</sup>lt;sup>21</sup> Cociş, Bârcă 2013.

<sup>&</sup>lt;sup>23</sup> Cociş, Bârcă 2014.

<sup>&</sup>lt;sup>24</sup> Bichir 1984, p. 50.

<sup>&</sup>lt;sup>25</sup> Almgren 1923, p. 71-72; Diaconu 1971; Cociş 2004, p. 146-147; Bârcă 2014, p. 23-26.

# **Unclassified Fibulae (No. 40-43)**

Given their obvious deteriorated state, preserved mainly as pins and springs, these item are almost impossible to classify. We decided to include them and offer a detailed description in order to aid specialists in pursuing further investigation.

# Catalog<sup>26</sup>

1. Inv. 24878.

Dimensions: L: 3,73cm; H: 1,23 cm; G: 4,0 g.

*Description:* brass brooch with chord wrapped around the bow, preserved completely. The bow is curved and rectangular in section, the spring is bilateral with 6 coils on each side and wrapped around the end of the bow. The catch plate is tall and rectangular.

Place of discovery/site: unknown.

Reference: unpublished.

Analogies: Cociş 2004, 41-42, type 5.

2. Inv Col.no. 1<sup>27</sup>.

Dimensions: L: 4,66 cm; H: 1,5 cm; G: 9,8 g.

Description: brass enameled brooch with a missing pin. The bow is flat and rectangular, the hinge is bilateral, made from a shaft with a round cross section. The foot is in the shape of a fan ending with a small knob. The bow is decorated with a frame of four face-to-face triangles and three central one, filled with red enamel. Transversally, the frame is flanked by a line of "eyelets" on both sides The fan foot is decorated with 5 long, tear-shaped incisions, also filled with red enamel. The foot and the bow are separated by a thin notch, both the notch and the edge of the bow are decorated with very fine line of dotted incisions.

Place of discovery/site: unknown.

Reference: unpublished.

Analogies: Cociş 2004, 86-87, type 18.

3. Inv. Col.no. 2<sup>28</sup>

Dimensions: L: 3,50 cm; H: 1,5 cm; G: 7,5 g.

*Description*: strongly profiled bronze brooch with returned foot made of three sections. Preserved completely. This brooch has a short and strongly curved bow, a trapezoidal foot, with a long, rectangular catch plate. The spring has 8 winding. The foot is decorated with "woolf's teeth", the bow shows a groove towards the foot and 2 fine ridges towards the spring.

Place of discovery/site: unknown.

Reference: unpublished.

Analogies: Cociș 2004, type 8a11a1 (Jobst 4F), 45, pl. XIX-XX (no. 259-272).

<sup>26</sup> Catalogue number corresponds to number on the plates.

<sup>&</sup>lt;sup>27</sup> Item is in the process of receiving an inventory number; identifiable according to its collection no 1.

<sup>&</sup>lt;sup>28</sup> Item is in the process of receiving an inventory number; identifiable according to its collection no 2.

#### 4. Inv. 17924.

Dimensions: L: 5,50 cm; H: 2,45 cm; G: 11,6 g.

*Description:* Aucissa-derived brooches bronze brooch preserved completely. The rectangular head ranges from nearly square to having pointy wings. This item has a high two-facet arched bow with one lateral deep ridge, a short foot ending in round knob and a tall rectangular catch-plate. This item shows traces of repairs: one metal patch added under the bow and trace of a second intervention on the hinged part of the pin.

Place of discovery/site: Mehedinți County, Ostrovul Corbului.

Reference: Severeanu 1935, p. 210, no. 44.

Analogies: Genéeva 2004, 106-107, type 15C; Cociş 2004, p. 81, type 14D.

#### **5**. Inv. 24877.

Dimensions: L: 4,10 cm; H: 2,15 cm; G: 8,5 g.

*Description*: Aucissa-derived brooches bronze brooch preserved completely. The rectangular head has two lateral wings. This example has a high two-facet, arched bow with three evenly-spaced lateral ridges, a short foot ending in an inverted cone like knob with a tiny button on top and a tall rectangular catch-plate.

Place of discovery/site: donation 1949.

Reference: unpublished.

Analogies: Genćeva 2004, 106-107, type 15C; Cocis 2004, p. 82, type 14D4a.

#### **6**. Inv. 63076.

Dimensions: L: 4,20 cm; H: 1,26 cm; G: 9, 7 g.

*Description*: knee bronze brooch with a missing pin and spring. The bow is high arched, both extremities of the item end in a knob. The fastening mechanism is covered by a semicircular plaque, the bow is decorated with one transversal, thin groove.

Place of discovery/site: Bucharest Militari Câmpul Boja.

Reference: Zgâbea, p. 376-377, pl. I/10, Bichir 1984, pl. XLII/8,

Place of discovery/site: Bucharest, Militari Câmpul Boja 1958, S1, L1.

Reference: Zgâbea 1963, p. 376, pl. I/10; Bichir 1984, p. 48, pl. XLII/8; Negru, Schuster, Moise 2000, p. 58, pl. 52/1; Negru 2000, p. 294, no.1.

*Analogies*: Bichir 1984, p. 48, type 2e; Cociş 2004, type 19a (Jobst 13D); Genćeva 2004, 107, type 16a; Petković 2010a, 130, type 18A.

#### 7. Inv. 15863.

Dimensions: L: 5,50 cm; H: 2,61 cm; G: 9,4 g.

*Description*: T-shaped bronze brooch with a missing pin. High arched semi-circular bow, with a rectangular cross-section and a groove wrapped in 4-5 windings. The catch plate is tubular and trapezoidal shaped.

Place of discovery/context: Bucharest – Străulești.

*Reference*: unpublished

Analogy: Cociş 2004, p. 153-154, tip 39b5c1b (Böhme 28e).

#### 8. Inv. 24886.

Dimensions: L: 7,45 cm; H: 2,48 cm; G: 29,3 g.

Description: brass crossbow brooch (*Zwiebelknopffibeln*). The pin and part of the pin holder are missing. The bow is trapezoidal in section with a longitudinal groove decoration, filled with fine oblique lines and points. The knobs are spherical, with a prominent top. The rectangular foot is longitudinally decorated with another two grooves, faceted on the beginning and the end with two pairs of "eyelets". Between the bow and the foot is noticeable a transversal perforation, with an unclear purpose.

Place of discovery/site: unknown.

Reference: unpublished.

*Analogies*: Keller 1971, p. 37–41, type 4 A; Pröttel 1989, p. 357–364, type 3/4 B; Petković 2010b, type 34 D 2; Nuţu, Chiriac 2012, p. 203, no. 9; Opriş, Potârniche 2014, p. 300, no. 3; Aparaschivei 2016, p. 239, no. 6.

# 9. Inv. 15870.

Dimensions: L: 5,80 cm; W: 12,7 g.

*Description*: half-finished bronze brooch with tall catch plate and head knob. The brooch head ends with a projecting knob. The spring is missing and there is no perforation in order to attach one. The bow is strongly curved, with a median nervure. The long arched foot ends with a half knob. The tall rectangular catch plate is also incomplete and it is not bend in order to insert a pin. These half-finished item can suggest the existence of a workshop<sup>29</sup> or presence of traveling artisans.

Place of discovery/site: Bucharest Străulești.

Reference: unpublished.

Analogies: Bichir 1984, type 2/d, pl. XLII/5, XLVII/5a-b; Cocis, Bârcă 2014, type B2.

#### **10.** Inv. 93477.

Dimensions: L: 4,63 cm; H: 1,1 cm; G: 5,3 g.

Description: brass brooch with returned foot (Armbrustfibel) preserved completely. The spring portion is long, with wire wrappings around, four to five coils on both sides of the bow. The arched bow has a trapezoidal cross-section and was decorated with horizontal grooved in the form of three crosses. The wire is wrapped two times around the bow just above the catch.

Place of discovery/site: Bucharest - Străulesti Măicănesti 1964, SXIII, L 42.

Reference: Constantiniu, Panait 1968, p. 51, fig. 8/4.

*Analogies*: Almgren 1923, group VI/162; Diaconu 1971, p. 262; Bichir 1984, p. 50, 2/m.2; Genćeva 2004, p. 110, type 19b; Mirea 2005, p. 33-34, fig. 2.

\_

<sup>&</sup>lt;sup>29</sup> Cocis, Bârcă 2013, Tejral 2015.

#### 11. Inv. 63079.

Dimensions: L: 4,70 cm; H: 1,28 cm; G: 4,4 g.

Description bronze brooch with returned foot and exterior chord made of one piece of bronze, preserved completely. The spring roller has 4 coils. The bow is curved, with a rounded cross- section and three windings from the catch plate. No decoration visible. *Place of discovery/site*: Bucharest, Militari Câmpul Boja 1958.

*Reference*: Zgâbea 1963, p. 376, pl. I/9; Negru, Schuster, Moise 2000, p. 312, pl. 70/5. *Analogies*: Almgren 1923, group VI, type 158; Bârcă 2014, p. 22, fig. 5/4.

# **12.** Inv. 18019.

Dimensions: L: 6,34 cm; H: 1,81 cm; G: 5,3 g.

*Description*: bronze brooch with returned foot and exterior chord made of one piece of bronze. The pin and part of the spring fastening mechanism are missing. The body is curved, with a trapezoidal cross- section. The foot returns to form the catch plate which wraps the lower body part with five windings. The lower part of the bow is decorated with three crossed grooves and two incisions.

Place of discovery/site: uncertain, possibly Bucharest Tei.

Reference: unpublished.

Analogies: Almgren 1923, group VI, type 158; Bârcă 2014, p. 22, fig. 5/4.

# 13. Inv. 98837.

Dimensions: L: 6,68 cm; H: 2,15 cm; G: 14,8 g.

Description: bronze D shaped brooch with returned foot made of three sections. Preserved completely. The curved brooch has a round cross-section bow and a trapezoidal shaped foot, with 4-5 winding wrapped around the bow starting from the catch plate. The spring roller is made up of four coils.

Place of discovery/site: Străulești Măicănești 1967.

Reference: Constantiniu 1969, 18, fig. 1/2.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### 14. Inv. 64082.

*Dimensions*: L: 6,35 cm; H: 2,62 cm; G: 12,3 g.

*Description*: bronze D shaped brooch with returned foot made of three sections. The pin is partially preserved. The curved brooch has a round cross-section bow and a trapezoidal shaped foot, with 3 winding wrapped around the bow starting from the catch plate. The spring roller is made up of four coils.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1958.

Reference: Zgâbea 1963, p. 374-375, pl. I/5; Negru, Schuster, Moise 2000, p. 313, pl. 71/2.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### 15. Inv. 101624.

Dimensions: L: 5,90 cm; H: 2,3 cm; G: 11,4 g.

*Description*: copper D shaped brooch with returned foot made of three sections. Preserved completely, but the pin is separated and slightly distorted. The curved brooch has a round cross-section bow and trapezoidal foot, with 3 winding wrapped around the bow starting from the catch plate. The spring roller is made up of 4 coils

Place of discovery/site: unknown.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **16.** Inv. 15869.

Dimensions: L: 6,27 cm; H: 2,55 cm; G: 12,8 g.

*Description*: brass D shaped brooch with returned foot made of three sections. The pin is missing and the chord is distorted. The curved brooch has a round cross-section bow, a spring roller made up of four coils and a trapezoidal shaped foot. The catch plate wraps the lower body part of the brooch with five windings.

Place of discovery/site: unknown.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### 17. Inv. 63097.

Dimensions: L: 5,45 cm; H: 1,75 cm; G: 7,5 g.

Description: bronze D shaped brooch with returned foot made of three sections, with a partial catch plate and in a bad condition. The curved brooch has a rectangular cross-section bow and a trapezoidal foot. The windings wrapped around the bow are not preserved. The spring roller is made up of 5 coils.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1958.

Reference: Zgâbea 1963, p. 375, pl. I/7; Negru, Schuster, Moise 2000, 312, pl. 70/4. Analogies: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m; Genćeva 2004, p. 110, type 19b "dacian".

## 18. Inv. 143755.

Dimensions: L: 5,65 cm; H: 1,75 cm; G: 7,6 g.

*Description*: copper D shaped brooch with returned foot made three sections. Preserved completely. The curved brooch has a rectangular cross-section bow and trapezoidal foot, with 3-5 windings wrapped around the bow from the catch plate. At the end of the foot towards the bow there 2 fine grooves.

Place of discovery/site: Giurgiu County, Poșta Buturugeni 1986, B2.

Reference: Turcu 1992b, p. 231, pl. II/1.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m; Genćeva 2004, p. 110, type 19b "dacian".

# 19. Inv. Col.no. 7<sup>30</sup>.

Dimensions: L:6,49 cm; H: 1,97 cm; G: 9,4 g.

Description: bronze D shaped brooch with returned foot made of three sections. Preserved completely. The curved brooch has a round cross-section bow and a trapezoidal shaped foot, with 4-5 winding wrapped around the bow starting from the catch plate. The spring roller is made up of four coils. The foot is decorated with fine horizontal grooves.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1997, B4, pl. 84/11.

Reference: Negru, Schuster, Moise 2000, p. 60, pl. 63/4.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **20**. Inv. 15852.

Dimensions: L: 5,95 cm; H: 2,7 cm; G: 8,5 g.

*Description*: brass D shaped brooch with returned foot made of three sections. Only the bow, the foot and eleven windings wrapped on the bow are preserved. The curved brooch has a round cross-section bow and a trapezoidal shaped foot, decorated at the upper part with incised ornaments.

Place of discovery/site: Bucharest, Străulești.

*Analogies*: Cociş 2004, p. 142-147; Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **21.** Inv. 15854.

Dimensions: L:7,20 cm; H: 2,4 cm; G: 11,6 g.

Description: brass D shaped brooch with returned foot made of three sections. The pin is missing. The curved brooch has a round cross-section bow, a spring roller made up of four coils and a trapezoidal shaped foot. The catch plate wraps the lower part of the item with eight windings. The edge of the upper part of the foot is decorated with incised "wolf's teeth" ornament.

Place of discovery/site: Bucharest - Lacul Tei.

Reference: Bichir 1984, pl. XLIV/2.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

## **22.** Inv. 15857.

Dimensions: L: 6,30 cm; H: 2,45 cm; G: 7,7 g.

*Description*: brass D shaped brooch with returned foot made of three sections. Only the bow, the foot and three windings wrapped on the bow are preserved. The curved brooch has a round cross-section bow and a trapezoidal shaped foot, decorated on the upper part with two incised, horizontal lines. Two perforations are noticed on the edge of the foot.

Place of discovery/site: unknown

<sup>&</sup>lt;sup>30</sup> Item is in the process of receiving an inventory number; identifiable according to its collection no. 7.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### 23. Inv. 15879.

Dimensions: L: 5,55 cm; H: 2,07 cm; G: 7,0 g.

Description: silver D shaped brooch with returned foot. The pin and spring are missing. The curved brooch has a round cross-section bow and wide trapezoidal foot, with 3 windings wrapped around the bow. The wire is broken, so it could have had several more windings. At the end of the bow towards the foot there is a rectangular frame decoration.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1961, B11.

Reference: Zgâbea 1963, p. 374, pl. I/3; Negru, Schuster, Moise 2000, p. 60, pl. 63/4. Analogies: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, type 2m, pl. XLV 15-19;

Genćeva 2004, p. 110, type 19b "dacian".

#### **24.** Inv. 15878.

Dimensions: L: 7,28 cm; G: 11,2 g.

*Description*: copper D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and trapezoidal foot, with 4 winding wrapped around the bow starting from the catch plate.

Place of discovery/site: unknown.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

# **25.** Inv. 15853.

Dimensions: L: 4,83 cm; H: 1,5 cm; G: 4,8 g.

*Description*: bronze D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and trapezoidal foot, with 3 winding wrapped around the bow starting from the catch plate.

*Place of discovery/site*: unknown.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **26**. Inv. 174842.

*Dimensions*: L: 4,64 cm; H: 1,92 cm; G: 5,8 g.

*Description*: brass D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and trapezoidal foot, with 3 winding wrapped around the bow starting from the catch plate.

Place of discovery/site: Chitila Cetate 2002, SIII, c. J, -0,20 m.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

## **27.** Inv. 63077.

Dimensions: L: 4,87 cm; H: 1,85 cm; G: 4,5 g.

*Description*: copper D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and trapezoidal foot, with 4 winding wrapped around the bow starting from the catch plate.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1958, S1, L1.

Reference: Negru, Schuster, Moise 2000, p. 58, pl. 52/2.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **28.** Inv. 77526.

Dimensions: L: 6,38 cm; H: 2,3 cm; G: 10,1 g.

*Description*: bronze D shaped brooch with returned foot. Only the bow, the foot and 3-4 windings wrapped on the bow are preserved. The curved brooch has a round cross-section bow and a trapezoidal shaped foot with a one-sided groove.

Place of discovery/context: Bucharest, Străulești Măicănești 1961, S VII, -0,30 m.

Reference: Constantiniu, Panait 1965, p. 155, fig. 66.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **29**. Inv. 15859.

Dimensions: L: 5,65 cm; H: 1,70 cm; G: 5,2 g.

*Description*: copper D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and trapezoidal foot, with 7 winding wrapped around the bow starting from the catch plate.

Place of discovery/site: unknown.

Reference: unpublished.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m.1; Genćeva 2004, p. 110, type 19b "dacian".

#### **30**. Inv. 15864.

Dimensions: L: 6,90 cm; H: 1,88 cm; G: 8,6 g.

*Description*: bronze D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and so does the foot, with 8-9 winding wrapped around the bow starting from the catch plate.

*Place of discovery/site*: unknown.

Reference: unpublished.

Analogies: Almgren 1923, group VI, type 157; Diaconu 1971, p. 256, pl. XI "gotische"; Genćeva 2004, p. 111, type 19c "gothic".

#### 31. Inv. 101628.

Dimensions: L: 6,95 cm; H: 2,0 cm; G: 9,2 g.

Description: brass D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and a narrow, trapezoidal shaped foot, with 6 winding wrapped around the bow starting from the catch plate. The windings are flanked by two relief rectangular frames decorated with two fine grooves each. The end of the bow towards the spring is also decorated with a rectangular frame with two fine grooves and two crossed incisions.

Place of discovery/site: Bucharest, Străulești Măicănești

Reference: Constantiniu, Panait 1965, p. 155, fig. 67.

Analogies: Almgren 1923, group VI, type 157; Diaconu 1971, p. 256, pl. XI "gotische"; Genćeva 2004, p. 111, type 19c "gothic".

# **32.** Inv. col.no. 8<sup>31</sup>.

Dimensions: L: 8,55 cm; G: 9,5 g.

*Description*: copper D shaped brooch with returned foot. The pin and the spring are missing. The curved brooch has a round cross-section bow and a long narrow foot, with 7 winding wrapped around the bow starting from the catch plate.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1998.

Reference: Negru 2000, p. 63, pl. 6/7.

Analogies: Almgren 1923, group VI, type 157; Diaconu 1971, p. 256, pl. XI "gotische"; Genćeva 2004, p. 111, type 19c "gothic".

#### 33. Inv. 107461.

Dimensions: L: 7,70 cm; G: 11,2 g.

Description: brass brooch with returned foot made of three sections; broken and distorted. Missing the bar inserted in the spring and part of the catch plate; the spring and pin are separated from the bow. The slightly curved brooch has a semicircular cross-section bow for the most part, while towards the foot it turns to rectangular. The foot is long and from the catch plate 2 winding are wrapped around the bow. The spring roller is made up of 4 coils. The rectangular area of the bow is decorated with and X made from fine incised lines. The foot is also decorated with 2 reliefs, rectangular frames, each with an incised X.

Place of discovery/site: Bucharest, Bragadiru.

Reference: Bichir 1984, pl. XLII/7; Turcu 1992a, p. 45-47, fig. VI/5.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m; Genćeva 2004, p. 110, type 19.

#### **34**. Inv. 138252.

Dimensions: L: 5,60? cm; G: 12,7 g.

Description: brass brooch with returned foot made of five sections. Preserved completely, but pin is frozen in a distorted state. The curved brooch has a trapezoidal

<sup>&</sup>lt;sup>31</sup> Item is in the process of receiving an inventory number; identifiable according to its collection no. 8.

cross-section bow and a long foot. The windings wrapped around the bow are not preserved. The spring roller is made up of 8 coils with end stoppers applied on each side. At the end of the bow and beginning of the foot there are 2 rectangular, relief frames, each with parallel incised lines. The connection of the head to the bow shows a noticeable intervention at an uncertain moment.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1984, S14.

Reference: Negru, Schuster, Moise 2000, pl. 76/12.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m; Genćeva 2004, p. 110, type 19.

## **35**. Inv. 98836.

Dimensions: L: 5,70 cm; G: 9,4 g.

Description: bronze brooch with returned foot made of three sections. Preserved completely, but the pin and bow are distorted. The curved brooch has a round cross-section bow and a rectangular foot, with 5 winding wrapped around the bow, starting from the catch plate. The spring roller is made up of 7-8 coils. The windings are flanked by two relief rectangular frames, but the decoration is poorly preserved. The end of the bow towards the spring is also decorated with a rectangular frame.

Place of discovery/site: Bucharest, Străulești Măicănești 1967.

Reference: Constantiniu 1969, p. 18, fig. 1/3.

*Analogies*: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m; Genćeva 2004, p. 110, type 19.

#### **36.** Inv. 138263.

Dimensions: L: 5,90 cm; G: 7,3 g.

*Description*: brass brooch with returned foot made of three sections. Poorly restored and deformed. The curved brooch has a semicircular cross-section bow and a long foot. Six windings are wrapped around the bow. The spring roller is made up of 6 coils.

Place of discovery/site: Bucharest, Vitan Bârzești.

Reference: unpublished.

Analogies: Almgren 1923, group VI, type 157; Bichir 1984, p. 50, 2/m; Genćeva 2004, p. 110, type 19.

#### **37**. Inv. 76047.

Dimensions: L: 5,68 cm; H: 1,00 cm; G: 4,8 g.

*Description*: brass brooch with returned foot made of three sections. The pin is missing. The curved brooch has a rectangular cross-section bow and a tubular catch plate, no windings are preserved. The spring is long, with 18 and 13 coils.

Place of discovery/site: Bucharest, Străulești Măicănești 1960.

Reference: Constantiniu, Panait 1962, p. 82, fig. 5.

Analogies: Genćeva 2004, 110, type 19c ("gothic brooches no. 11-12, 3<sup>rd</sup>-4<sup>th</sup> centuries).

#### **38**. Inv. 15996.

Dimensions: L: 4,10 cm; H: 1,07 cm; G: 4,3 g.

Description: brass brooch with returned foot made from five sections. The pin is missing. The curved brooch has a rectangular cross-section bow and wide trapezoidal foot, with 2 windings wrapped around the bow. The foot is wider towards the end, much more similar to a rhomboidal shape, from its center departs the connection to the tubular catch plate. The spring is deteriorated, but still preserves 4 and 3 coils, as well as the end stoppers applied on each side. The rhomboidal foot is decorated with fine zig-zag lines on the edges and one crossing the center.

Place of discovery/site: unknown.

Reference: unpublished.

Analogies: Mirea 2005, p. 34, Fig.3; Tau, Nicu 2010, p. 101, pl.6/2.

# **39.** Inv. Col.no. 9<sup>32</sup>.

Dimensions: L: 4,40 cm; G: 6,0 g.

Description: brass brooch preserved completely. The curved brooch has a rectangular cross-section bow and wide trapezoidal foot, with 2 windings wrapped around the bow. The foot is wider towards the end, much more similar to a rhomboidal shape, from its center departs the connection to the tubular catch plate. The spring has 5 coils on each side and preserves end stoppers applied on each side. Poorly preserved "woolf' s teeth" decoration on the edges of the foot.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1998.

Reference: Negru 2000, p. 62, pl. 6/8.

Analogies: Mirea 2005, p. 34, Fig.3; Ţau, Nicu 2010, p. 101, pl.6/2.

# **40**. Inv. 143764.

Dimensions: L of spring: 2,94 cm, L of pin: 4,5 cm.

*Description*: silver brooch, only the pin and half of the spring are preserved. Made from two pieces. The spring has 13 coils, wrapped around a bar.

Place of discovery/site: Bucharest, Militari Câmpul Boja 1984, S14, B7.

Reference: Turcu 1992a, p. 42, fig. VI/6; Negru, Schuster, Moise 2000, p. 318, pl.76, 1.

#### **41**. Inv. 98841.

Dimensions: L: 5,30 cm; G: 2,4 g.

*Description*: bras fragmentary brooch with only the pin and part of the spring roller preserved with 2 coils.

Place of discovery/site: Bucharest, Străulesti-Maicănesti, 1967, S XXIII, - 0.40m.

#### **42**. Inv. 98842.

Dimensions: L: 4,20 cm; G: 2,1 g.

*Description*: bronze fragmentary brooch with only the pin and spring roller preserved with 4 visible coils.

<sup>&</sup>lt;sup>32</sup> Item is in the process of receiving an inventory number; identifiable according to its collection no. 9.

Place of discovery/site: Bucharest, Străulesti-Maicănești 1967, passim.

## **43**. Inv. 98853.

Dimensions: L: 3,4 cm; G: 0,8 g.

*Description*: copper brooch with returned foot from witch only the foot and partially the bow are preserved. The curved brooch has a round cross-section bow and trapezoidal foot, with 3 winding wrapped around the bow.

Place of discovery/site: Bucharest, Străulesti-Maicănești 1965, SXVI, B59.

Proba/%	Mn	Fe	Ni	Cu	Zn	Sn	Sb	Pb	Ag	Au	Observations
15.852	-	-	-	82,5	16,0	0,9	0,1	0,3	-	-	brass
15.853	-	-	-	94,6	0,1	4,6	0,1	0,4	-	-	bronze
15.854	-	-	-	78,7	21,1	-	-	-	-	-	brass
15.857	-	0,1	-	82,1	16,4	0,9	-	0,2	-	-	brass
15.859	-	-	-	99,1	-	0,5	-	0,2	-	-	copper
15.863	1,2	0,7	-	87,1	2,5	7,0	0,1	1,2	-	-	bronze
15.864	-	4,9	0,3	83,5	0,1	10,2	0,5	0,3	-	-	bronze
15.869	-	0,1	-	82,3	16,1	0,8	-	0,5	-	-	brass
15.870	-	-	-	93,6	2,0	2,5	0,1	1,6	-	-	bronze
15.878	-	-	-	95,0	4,4	0,3	-	0,1	-	-	copper
15.879	-	0,1	-	45,3	1,0	-	-	0,2	53,2	-	silver alloy
15.996	-	-	-	88,5	9,6	0,7	-	1,0	-	-	brass
17.924	-	0,5	0,1	72,0	9,3	5,2	0,2	12,4	-		bronze
18.019	-	-	-	94,3	1,5	3,7	-	0,4	-	-	bronze
24.886	-	0,4	-	82,0	15	1,2	-	1,2	-	-	brass
24.877	0,1	-	-	92,0	-	6,2	0,2	1,4	-	-	bronze
24.878	-	-	0,1	92,2	4,5	2,6	0,1	0,3	-	-	brass
63.076	-	0,3	-	84,4	7,7	5,5	0,2	1,7	-	-	bronze
63.077	-	0,6	0,1	96,7	-	1,5	0,2	0,6	-	-	copper
63.079	-	0,1	0,1	95,8	0,1	3,2	-	0,4	-	-	bronze

64.082	-	0,7	0,1	74,0	5,6	5,6	0,3	13,5	-	-	bronze
63.097	0,1	0,2	0,3	85,0	-	14,0	-	0,1	-	-	bronze
76.047	-	-	-	79,2	18,7	1,2	0,1	0,5	-	-	brass
77.526	-	0,2	-	81,5	8,3	7,0	0,1	2,7	-	-	bronze
93.477	0,1	1,2	0,1	76,4	12,0	6,5	0,3	3,2	-	-	brass
98.836	0,2	3,8	0,7	60,8	0,2	28,4	1,0	4,6	-	-	bronze
98.837	-	2,7	0,5	89,7	0,2	3,8	2,8	0,1	-	-	bronze
98.841	-	2,0	0,2	83,6	12,8	-	-	1,1	-	-	brass
98.842	0,4	1,0	1,2	65,2	-	28,3	-	3,6	-	-	bronze
98.853	-	-	-	98,8	-	0,2	-	0,8	-	-	copper
101.624	-	-	-	98,0	0,6	0,4	-	0,8	-	-	copper
101.624 rivet area	-	11	0,2	87,4	0,4	0,2	0,1	0,4	-	-	The presence of the iron occurs due to the rivet
101.628	-	1,3	0,1	89,4	5,5	1,2	-	2,3	-	-	brass
107.461	-	-	-	84,3	14,3	0,7	0,1	0,3	-	-	brass
138.252	-	0,3	-	77,4	15,5	6,0	0,2	0,3	-	-	brass
138.263	-	-	-	85,4	6,7	-	-	-	0,8	7,0	golden brass
143.755	0,4	-	0,1	97,0	-	1,8	0.1	0,3	-	-	copper
143.764	-	-	-	2,6	0,6	-	-	-	95,5	1,0	silver
174.842	-	-	-	78,0	20,9	0,5	-	0,3	-	-	brass
collection no. 1	-	0,5	0,3	79,0	14,5	4,5	0,4	0,6	-	-	brass
collection no. 2	_	0,5	0,2	59	4	10,6	0,4	25,2	-	-	bronze
collection no. 7	-	-	0,3	86,8	-	12,2	0,2	0,3	-	-	bronze
collection no. 8	-	-	-	95,2	3,4	0,8	-	0,5	-	-	copper
collection no. 9	-	0,3	0,1	81,0	13,4	2,7	0,1	2,2	-	-	brass
		•						·			

**Table 1.** Determination of elemental concentrations in metals using X-Ray Fluorescence technique (XRF).

# Bibliography / Bibliografie

Almgren 1923: O. Almgren, Studien über nordeuropäische Fibelformen der ersten nachchristlichen Jahrhunderte, mit Berücksichtigung der provinzialrömischen und südrussischen Formen, Mannus Bibliothek 32, Leipzig: C. Kabitzsch 1923.

**Aparaschivei 2016**: D. Aparaschivei, "Zwiebelknopffibeln" din complexul de fortificații romane târzii de la Ibida, provincia Scythia ("Zwiebelknopffibeln" uncovered in the Late Roman fortifications of Ibida, Province of Scythia), ArhMold, XXXIX, Bucuresti/Suceava 2016, p. 231-248.

**Bichir 1984**: Gh. Bichir, Geto-Dacii *din Muntenia în epoca romană*, Ed. Academiei RSR Bucharest 1984.

**Böhme 1972**: A. Böhme, *Die Fibeln der Kastelle Saalburg und Zugmantel*, Saalburg Jahrbuch 29, 1972, p. 5-112.

Bojović 1983: D. Bojović, Rimske fibule Singidunum, Beograd, 1983.

**Bârcă 2014**: V. Bârcă, Returned foot exterior chord brooches made of a single metal piece (Type Almgren 158) recently discovered in the Western Plain of Romania. Notes on origin and chronology, JAHA, 1/2, 2014, p. 21–39.

**Bulgan, Feugère 2007**: F. Bulgan, M. Feugère, *Les fibules romaines du musée de Gaziantep, Anatolia Antiqua*, vol. 15, no. 1, 2007, p. 215-224.

**Busuladžić 2008**: A. Busuladžić, *Zbirka fibula iz mogorjela*, Opuscula *Archaeologica*, 32, p. 21-54, 2008 (2009).

**Cerdeno, Gamo 2013**: M. L. Cerdeño, E. Gamo, *Fibula romana "de rodilla"* (kniefibeln) procedente de hijes (Guadalajara), Zephyrus, vol. 72, 2013, p. 175-182.

Cociş 2004: S. Cociş, Fibulele din Dacia romană, Cluj-Napoca 2004.

Cociş 2011: S. Cociş, Fibule romane din Dobrogea, Peuce, S.N. IX, 2011, p. 253 – 260. Cociş, Bârcă 2013: S. Cociş, V.e Bârcă, The workshops and production of "Sarmatian" brooches (Almgren Group VII, Series I), Dacia, N. S. LVII, 2013, p. 161-175.

Cociş, Bârcă 2014: S. Cociş, V. Bârcă, The "sarmatian" brooches (headknob and full catchplate variant, Almgren group VII, series I) in the Dacia province and the barbarian environment of the Tisza river basin, Dacia N. S., LVIII, 2014, p. 189-214.

**Collins 2010**: R. Collins, *Brooch use in the 4th- to 5th-century frontier*, Finds from the frontier: material culture in the 4th-5th centuries, CBA Research Report 2010, p. 64-68.

**Constantiniu, Panait 1962**: M. Constantiniu, P. I. Panait, *Săpăturile de la Bucureștii-Noi din 1960*, CAB, 1, 1962, p. 77-137.

**Constantiniu, Panait 1965**: M. Constantiniu, P. I. Panait, *Şantierul arheologic Băneasa – Străuleşti. Așezarea prefeudala I*, CAB, 2, 1965, p. 142-174.

**Constantiniu, Panait 1968**: M. Constantiniu, P. I. Panait, *Şantierul Băneasa - Străuleşti III Sectorul Măicăneşti*, MIM, 6, 1968, p. 43-82.

**Constantiniu 1969**: M. Constantiniu, *Săpăturile arheologice de la Străulești -1967*. *Așezările prefeudale*, MIM, 7, 1969, p. 13-28.

**Diaconu 1971**: Gh. Diaconu, *Uber die Fibeln mit umgeschlagenem Fuss in Dazien*, Dacia N.S. XV, 1971, p. 239-267.

**Deppert-Lippitz 2000**: B. Deppert-Lippitz, *A Late Antique Crossbow Fibula in The Metropolitan Museum of Art*, Metropolitan Museum Journal, 35, 2000, p. 39-70.

**Genćeva 2004**: E. Genćeva, *Les fibules romaines de Bulgarie de la fin du Ier s.av. J.-C. la fin du VIe s. ap. J.-C.*, Sofia 2004.

**Jobst 1975**: W. Jobst, *Die römischen Fibeln aus Lauriacum*, *Forschungen in Lauriacum*, Linz 1975.

Keller 1971: E. Keller, Die spätrömischen Grabfunde in Südbayern, MBV 14, München 1971.

**Negru 2000**: M. Negru, *Descoperiri arheologice din secolul al III-lea p.Chr. la Bucuresti-Militari "Campul Boja" (Archaeological discoveries from 3rd century AD at Bucharest-Militari "Campul Boja")*, MIM, 14, 2000, p. 49-55.

**Negru, Schuster, Moise 2000**: M. Negru, C. Schuster, D. Moise, *Militari-Câmpul Boja*. *Un sit arheologic pe teritoriul Bucurestilor*, Bucuresti, 2000.

Nuțu, Chiriac 2012: G. Nuțu, C. Chiriac, Late Roman brooches from Dobroudja, ISTROS, XVIII, 2012, p. 199-212.

**Hoxha 2015**: G. Hoxha, *Nekoliko kasnoantickih fibula iz sela Kaldrun (Koplik)* / *Some Late Roman Fibulae from the village of Kalldrun (Koplik)*, Nova anticka Duklja Vl, 2015, p. 37-66.

**Johns 2013**: C. Johns, *The Jewellery of Roman Britain: Celtic and Classical Traditions*, Routledge 2013.

**Opriș, Potârniche 2014**: I. C. Opriș, T. Potârniche, *Piese ornamentale inedite de la Capidava*, Pontica XLVII, 2014, p. 295-314.

**Petković 2010a**: S. Petković, *Rimske fibule u Srbiji od I do V veka n.e.*, Arheloski Institut, Beograd 2010.

**Petković 2010b**: S. Petković, *Crossbow fibulae from Gamzigrad (Romuliana)*, STARINAR LX/2010, (2011), p. 111–136.

**Prőttel 1988**: P. M. Prőttel, *Zur Chronologie der Zwiebelknopffibeln, Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz*, 35, Teil 1, 1989, p. 347-372.

**Popescu 1945**: D. Popescu, *Fibeln aus dem Nationalmuseum für Altertümer in Bucureşti*, Dacia, IX–X, 1941–1944, 1945, p. 485-505.

**Redžić 2007**: S. Redžić, *Nalazi rimskih fibula na nekropolama Viminacijuma*, Arheologija i prirodne nauke 2, Beograd 2007.

**Riha 1994**: E. Riha, *Die römischen Fibeln aus Augst und Kaiseraugst. Die Neufunde seit 1975*, Römermuseum, 1994.

**Severeanu 1935**: G. Severeanu, *Fibules appartenant aux collections du Musée Municipal de Bucarest et du dr. Severeanu*, Bucureștii, 2, 1935, p. 184-217.

**Țau, Nicu 2010**: S. Țau, M. Nicu, *Accesorii vestimentare, fibule din necropola de la Barcea cultura Sântana de Mureș-Cerneahov, secolul al IV-lea d. Chr*, Acta Musei Tutovensis V, 2010, p. 99-115.

**Tejral 2015**: J. Tejral, *Some remarks on the transitional phase between Early Roman and Late Roman Periods in the region north of the Middle Danube*, Přehled výzkumů / Brno: Turcu - Archeologický ústav AV ČR Roč. 56, č. 2 (2015), p. 43-101.

**Turcu 1992a**: M. Turcu, *Descoperiri arheologice la Militari-Câmpul Boja (București)*. *Secolele II-II și VI e.n.*, CAB IV, 1992, p. 37-56.

**Turcu 1992b**: M. Turcu, *Şantierul arheologic lac Mihăileşti. Sondaj archeologic în situl Poșta-Buturugeni*, I, CAB IV, 1992, p. 229-240.

**Turcu 1979**: M. Turcu, *Geto-dacii din Cîmpia Munteniei*, Editura Științifică și Enciclopedică, București 1979.

**Zgâbea 1963**: M. Zgâbea, Fibulele din secolele II și VI e.n. descoperite în săpăturile de la Militari, CAB, 1, 1963, p. 373 – 384.

**Zirra, Cazimir 1963**: V. *Zirra*, Gh. Cazimir, *Unele rezultate ale săpăturilor de pe Cîmpul Boja din cartierul Militari*, CAB 1, 1963, p. 49-75.

# List of illustrations / Lista ilustrațiilor

**Plate I.** Archaeological sites were the brooches were discovered.

Planșa I. Siturile arheologice unde au fost descoperite fibulele.

**Plate II.** Brooch with chord wrapped around the bow (1); enamel brooch (2); strongly profiled brooch (3); Aucissa-derived brooches (4-5); knee brooch (6); T-shaped brooch (7).

**Planșa II.** Fibulă cu coarda înfășurată de arc (1); fibulă emailată (2); fibulă puternic profilată (3); fibule de tip Aucissa/derivate (4-5); fibulă cu genunchi (6); fibula în formă de T (7).

**Plate III.** Crossbow brooch - with onion-shape knobs (8); brooch with tall catch plate, exterior chord and head knob - "Sarmatian" type (9); brooches with returned foot (10-12).

**Planșa III.** Fibulă cu capetele în formă de ceapă (8); fibulă de tip sarmatic (9); fibule cu piciorul întors pe dedesubt (10-12).

**Plate IV.** Brooches with returned foot (14-18).

Planşa IV. Fibule cu piciorul întors pe dedesubt (14-18).

**Plate V.** Brooches with returned foot (19-24).

Planșa V. Fibule cu piciorul întors pe dedesubt (19-24).

Plate VI. Brooches with returned foot (25-31).

**Planșa VI.** Fibule cu piciorul întors pe dedesubt (25-31).

Plate VII. Brooches with returned foot (32-36).

Plansa VII. Fibule cu piciorul întors pe dedesubt (32-36).

Plate VIII. Brooches with returned foot (37-39); unclassified brooches (40-43).

**Planșa VIII.** Fibule cu piciorul întors pe dedesubt (37-39); fibule neclasificate (40-43).



Plate 1. Archaeological sites were the brooches were discovered.



Plate II. Brooch with chord wrapped around the bow (1); enamel brooch (2); strongly profiled brooch (3); Aucissa-derived brooches (4-5); knee brooch (6); T-shaped brooch (7).



Plate III. Crossbow brooch - with onion-shape knobs (8); brooch with tall catch plate and head knob (9);brooches with returned foot (10-12).

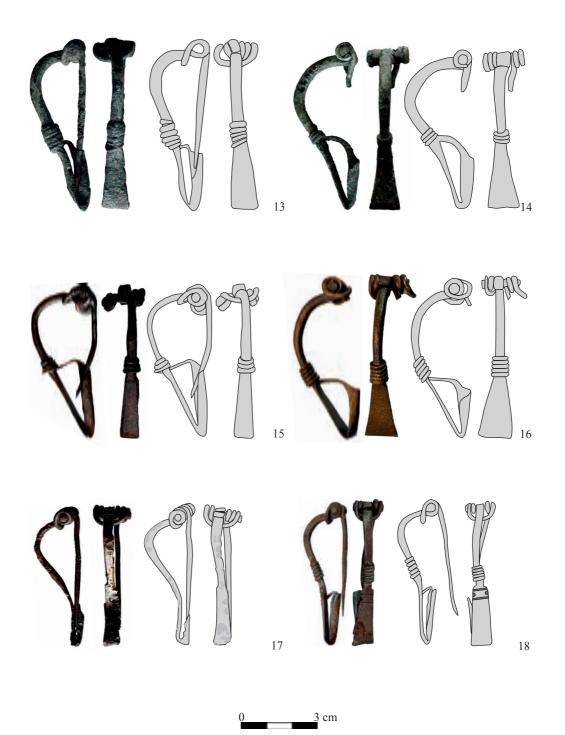


Plate IV. Brooches with returned foot (14-18).



Plate V. Brooches with returned foot (19-24).



Plate VI. Brooches with returned foot (25-31).

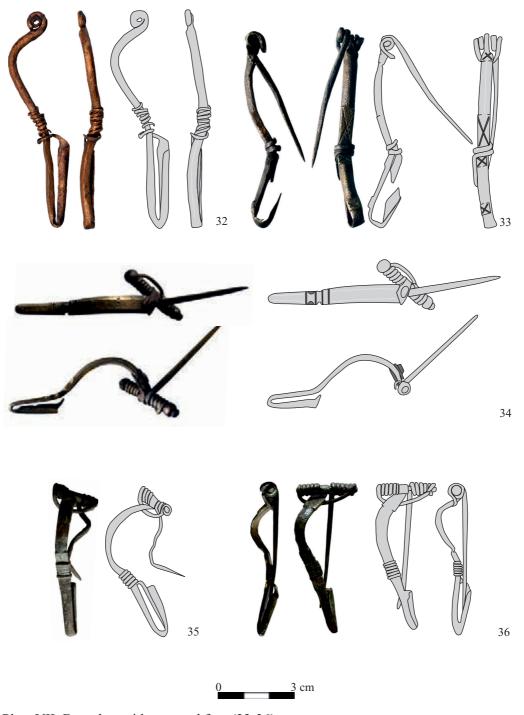


Plate VII. Brooches with returned foot (32-36).





Plate VIII. Brooches with returned foot (37-39); unclassified brooches (40-43).