

## EARLY MEDIEVAL SWORDS FROM THE TERRITORY OF ROMANIA (8<sup>TH</sup>–11<sup>TH</sup> CENTURY)

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(Abstract)

This article focuses on early medieval double-edged swords and their parts, as well as sword scabbard chapes, all of which originate from the territory of present-day Romania. Sixteen swords and fragments were identified and classified according to J. Petersen's or A. Geibig's typology based on the structural parts of the hilt. Eight of the swords are stray finds, and the archaeological context of four specimens is unclear. Three are believed to have come from burial sites, and only one sword is known with certainty to have been found in a grave.

The typological and chronological classification of the swords examined in this study is based on a comparative analysis with their foreign parallels from Central and Northern Europe, as some of them have an unsatisfactory typological classification in previously published older works. Conversely, there are instances where works have been neglected or not updated since their initial publication.

Regarding sword scabbard chapes, only two specimens are known, with unclear circumstances of discovery; their closest analogues are found in Eastern Europe according to the classification of G. F. Korzuchyna and V. Kazakevičius.

All the objects can be dated from the 8<sup>th</sup> to the 11<sup>th</sup> century.

The presented work also includes a sword from southern Banat, the province of Vojvodina, which is currently in the collections of the National Museum of Banat in Timișoara. Based on typological classification, this sword fits into the period we are studying.

### *Introduction*

The primary objective of this article is to present a systematic inventory of all swords and sword fragments, as well as sword scabbard chapes, from the territory of present-day Romania (Fig. 1), according to the aforementioned typological criteria. As previously stated, all swords and scabbard chapes that have undergone our analysis have been already published. This subject has been in the focus of research of Romanian and foreign scholars. Romanian archaeologist Radu R. Heitel, in his study on archaeological evidence of the penetration of ancient Hungarians into Transylvania, presents numerous items of military equipment originating from the Carpathian region, including early medieval double-edged swords<sup>1</sup>. In a similar vein, Hungarian archaeologist László Kovács published a database of double-edged swords from the Carpathian Basin dating from the second half of the 10<sup>th</sup> century, which also includes swords from

Transylvania<sup>2</sup>. In 1999, the Romanian archaeologist Karl Zeno Pinter published a monograph on swords and sabres from Transylvania and Banat dating from the 9<sup>th</sup> to the 14<sup>th</sup> century<sup>3</sup>. The second edition of this monograph was published in 2007<sup>4</sup>. The author included five examples of early medieval swords, dating them from the 8<sup>th</sup> to the 11<sup>th</sup> century<sup>5</sup>. The author has created a comprehensive typology which considers the shape of the blades, the size of the grips, the type of lower guards and the shape of the pommel<sup>6</sup>. In 2007, the Romanian archaeologist Erwin Gáll published an article presenting an analysis of grave and stray finds of weapons dating from the 10<sup>th</sup> to 11<sup>th</sup> centuries in Transylvania, Partium, and Banat<sup>7</sup>. The researcher presented ten double-edged swords, one sword scabbard tip, and four finds with an uncertain typological and chronological classification<sup>8</sup>. He then categorised them

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<sup>1</sup> Heitel 1994–1995, 428–439.

<sup>2</sup> Kovács 1994–1995, 153–189.

<sup>3</sup> Pinter 1999.

<sup>4</sup> Pinter 2007.

<sup>5</sup> Pinter 2007, 68–79.

<sup>6</sup> Pinter 2007, 60–67.

<sup>7</sup> Gáll 2007.

<sup>8</sup> Gáll 2007, 425–427.

based on their morphology<sup>9</sup>. He also notes that he replaced Jan Petersen's typology with Alfred Geibig's more diverse combinatorial classification, which could help to date the objects more accurately in future<sup>10</sup>. Romanian archaeologist Silviu Oța has published a monograph on funeral rites practised in the historical region of Banat between the 10<sup>th</sup> and 14<sup>th</sup> centuries<sup>11</sup>. This includes archaeological finds from present-day Romania, Hungary and Serbia-Vojvodina. In the chapter on the typological classification of grave finds, he lists double-edged swords among the weapons. Seven of these swords date from the 10<sup>th</sup> to 11<sup>th</sup> centuries and are classified according to the typology of J. Petersen and K. Z. Pinter<sup>12</sup>. In an article published in 2011, Bulgarian archaeologist Valeri Yotov, focusing on Byzantine swords from the 10<sup>th</sup> and 11<sup>th</sup> centuries from the territory of present-day Romania, mentions three early medieval swords of Scandinavian provenance stored in the National Museum of History and Archaeology in Constanța<sup>13</sup>.

### *Terminology*

The exact definition of a sword can vary depending on the historical period and geographical location. In Europe, a sword is generally understood to be a cutting or cutting-and-thrusting weapon with a long, double-edged blade and a grip designed for one, one-and-a-half or two hands. A sword consists of a hilt and a blade. The structural parts of the hilt are the pommel and the lower guard or crossguard, which are fixed to the tang of the blade. The tang then transitions into a long, straight blade with a cutting edge on both sides and a point at the end. Blades from the early to high medieval period had a fuller running almost the entire length of the blade from the lower guard to a few centimetres before the tip<sup>14</sup>. The surface of the fuller could be decorated with inscriptions and marks made of damascened or iron wire<sup>15</sup>. The pommel of early medieval swords could consist of two parts (upper hilt) – an upper guard or a base of the pommel and a head of the pommel – or be made in one-parted pommel<sup>16</sup>. There are also records of swords whose pommels consist only of an upper guard<sup>17</sup>. The

pommel could be attached to the tang of the blade in several ways. In the case of two-piece pommels, the blade tang passed through a hole in the lower part of the upper guard and was secured there. The head of the pommel was fixed to the upper guard with two iron rivets soldered from the inside or with a bent U-shaped wedge, also soldered from the inside<sup>18</sup>. The ends of these components passed through side holes in the base and were riveted there. The one-parted pommels were attached by threading the tang of the blade through the holes in the pommel on its upper and lower sides. The tang was then riveted to the pommel on the upper side. This method of fastening can also be found on some swords with two-piece pommels<sup>19</sup>. The grip was made of an organic material and, in some cases, was covered with metal elements<sup>20</sup>.

### *Typology*

The typological classification of early medieval sword hilts has been the subject of numerous scientific studies. One of the earliest classifications to be developed was that of Norwegian archaeologist Oluf Rygh<sup>21</sup>, who analysed eighteen Norwegian specimens and based his classification on the shape of the hilts. It is widely acknowledged that one of the most significant studies on this subject was conducted by the Norwegian archaeologist and historian Jan Petersen<sup>22</sup>. In his work, he analysed nearly one thousand swords from Norway dating from the 8<sup>th</sup> to the 11<sup>th</sup> century. The typology under discussion was based on morphological and decorative criteria, and the individual types were designated with 26 letters of the Norwegian alphabet from A to Æ. A further 20 subtypes were assigned to these, and designated as 'special types'. However, it should be noted that his typology focused primarily on swords from Norway and could not always be applied to all types of sword hilts outside Norway or, more generally, outside the Scandinavian environment, as evidenced by sword production records, which may have been based on traditional Nordic variants but differ in terms of technical parameters or the shape and decoration of the hilts<sup>23</sup>. Although we recognise that this typology does not fully capture the diversity of swords from the period under review, it remains one of the most widely used sources by research-

<sup>9</sup> Gáll 2007, 428–429.

<sup>10</sup> Gáll 2007, 429.

<sup>11</sup> Oța 2008.

<sup>12</sup> Oța 2008, 132–133.

<sup>13</sup> Yotov 2011, 39–40.

<sup>14</sup> Hošek-Košta-Žákovský 2019, 43.

<sup>15</sup> Kainov 2012, 8.

<sup>16</sup> Kainov 2012, 8.

<sup>17</sup> Androshchuk 2014, 69, fig. 23.

<sup>18</sup> Kainov 2012, 8.

<sup>19</sup> Androshchuk 2014, 52–54, fig. 14.

<sup>20</sup> Hošek-Košta-Žákovský 2019, 43.

<sup>21</sup> Rygh 1885.

<sup>22</sup> Petersen 1919.

<sup>23</sup> Tomsons 2012, 108–143; Moilanen 2015, 265–268.

ers for the typological classification of European swords from the 8<sup>th</sup> to 11<sup>th</sup> centuries. Many other researchers have followed Petersen's typology, either modifying it or adding new types depending on the geographical and cultural environment under study<sup>24</sup>. A relatively detailed analysis of individual sword parts was conducted by German archaeologist Alfred Geibig<sup>25</sup>. His study consisted of creating a new combinatorial typology of hilt and blade parts. It was applied to swords originating from western Germany dating from the 8<sup>th</sup> to 13<sup>th</sup> centuries. The researcher distinguishes between nineteen types of pommels and fourteen types of blades.

For the purposes of this article, we have chosen to classify the swords discussed according to Jan Petersen's typology (Fig. 2), which is based on their shape. However, we also took into account the fact that the typological classification according to the Norwegian researcher is insufficient for some types of swords that can be dated to the 11<sup>th</sup> century, and has been replaced by the combinatorial typology according to Alfred Geibig (Fig. 3).

#### *Type R and S*

Jan Petersen's classification system for R and S<sup>26</sup> type swords was based on the analysis of dimensional differences. It is stated that the height of the head's of the pommel on Norwegian R-type swords ranges from 2.2 to 2.4 centimetres, whereas on S-type swords, it extends up to 4.5 centimetres<sup>27</sup>. Furthermore, he highlights distinguishing characteristics in the morphology of both types, proposing that type S represents a subsequent phase in the evolutionary progression from the preceding type<sup>28</sup>. The pommels of type R swords are distinguished by a crown divided into five sections. Between the individual lobes are slanted grooves, which may have been filled with twisted silver wires<sup>29</sup>. The central segment of the crown is elevated, and on its lateral margins, at both terminations, there are two diminutive lobes, the terminal ones being the most diminutive. The shape of the pommel thus takes on a zoomorphic character, which is further enhanced by the detailed depiction of animal heads. The central lobe is typically connected to the side lobes by a curved inlaid

rod or a non-ferrous metal rod, thereby creating the impression of ears or eyebrows<sup>30</sup>. It has been observed that analogous decorative elements are also present on certain Z-type swords<sup>31</sup>. The head of the pommel and upper guard are connected by rivets<sup>32</sup>. When observed from a frontal perspective, the upper guards and lower guards are found to be straight, gradually widening towards the periphery until they reach a rounded conclusion. Conversely, when viewed from above, these components are observed to assume an oval shape. It is noteworthy that certain specimens may exhibit straight lower guards without any concomitant widening<sup>33</sup>. The decoration consists of intertwined bands with a dotted background, created by the fine inlaying of silver, exceptionally of copper in the Mammen style<sup>34</sup>. Type S is distinguished by a three-lobed head of the pommel, with a notably elevated and substantial central lobe and two side lobes that are lower and narrower. It is evident that there are also several examples of five-lobed heads<sup>35</sup>. The lower guard and upper guard are indistinguishable in shape. The arms of both components gradually widen towards the extremities, and the both guards are more concave than in the previous type. As with type R, the head of the pommel was connected to the upper guard with rivets<sup>36</sup>. The decoration consisted of an interlaced motif. The most prevalent configuration consists of intertwined bands that are secured by diverse types of knots<sup>37</sup>. It is evident that certain specimens were also decorated with intertwined mythical animals in the Jelling style<sup>38</sup>. The surface of the decoration was covered with silver in combination with copper lines, and in some cases brass was also used<sup>39</sup>. From a technological standpoint, two distinct methods of decoration are recognised: inlay and overlay<sup>40</sup>. The highest concentrations of these swords were observed in the territory of historical Denmark, the southern territories of Kievan Rus, especially in part of the middle and lower Dnieper, in territory of present-day Ukraine and the eastern reaches of

<sup>24</sup> Wheeler 1927; Кирпичников 1966; Evison 1967; Ruttkay 1975, 1976; Vinski 1977, 1981.

<sup>25</sup> Geibig 1991.

<sup>26</sup> Petersen 1919, 140–149, fig. 113, 114.

<sup>27</sup> Petersen 1919, 142.

<sup>28</sup> Petersen 1919, 142.

<sup>29</sup> Androshchuk 2014, 74.

<sup>30</sup> Androshchuk 2014, 74; Hošek-Košta-Žákovský 2021, 316, note 196.

<sup>31</sup> Androshchuk 2014, 74.

<sup>32</sup> Androshchuk 2014, 74.

<sup>33</sup> Hošek-Košta-Žákovský 2021, 316, note 196.

<sup>34</sup> Hošek-Košta-Žákovský 2021, 316, note 196.

<sup>35</sup> Petersen 1919, fig. 115; Müller-Wille 1973, abb. 5–6.

<sup>36</sup> Müller-Wille 1973, abb. 4.2; Moilanen 2015, 251–252.

<sup>37</sup> Hošek-Košta-Žákovský 2021, 318, fig. 105. a-b.

<sup>38</sup> Petersen 1919, fig. 115; Müller-Wille 1973, 82, abb. 17, 27. 1–2, 6–8.

<sup>39</sup> Hošek-Košta-Žákovský 2021, 318.

<sup>40</sup> Hošek-Košta-Žákovský 2021, 318.

Central Europe, particularly within Poland<sup>41</sup>. In Norway, Sweden, and the eastern Baltic region, this type is relatively rare<sup>42</sup>. Other findings have been recorded in the British Isles, Finland, France, Iceland, Hungary, and Germany<sup>43</sup>. In Geibig's typology, the hilts of Petersen type R and S swords correspond to combination type 10<sup>44</sup>.

Two sword components that can be classified among the types mentioned above originate from the territory of present-day Romania. One specimen comes from a territory of Transylvania, while the other was discovered in the Dobrogea region. A stray find of a lower guard (Pl. 1) was discovered in the vicinity of Dej (Cluj County) in 1904 or 1905<sup>45</sup>. The lower guard was transported to the museum in Cluj-Napoca without the other parts of the sword<sup>46</sup>. The lower guard is believed to have originated from a disturbed grave<sup>47</sup>. The artefact is currently stored in the collections of the National Museum of Transylvanian History in Cluj-Napoca (MNIT)<sup>48</sup>. The lower guard is oval when viewed from above. It tapers from the center towards the ends. There is a hole in the middle of the crossbar through which the blade passed. The arms of the lower guard are straight on both sides and widen slightly towards the ends that are rounded. Remains of silver wires decoration have been preserved on its surface. However, the pattern cannot be identified at present because a significant portion of the wires has fallen out. The preserved length of the crossguard is 10.7 cm, height – 1.5 cm, width – 2.8 cm, and weight 188.5 g<sup>49</sup>. From a typological point of view, the crossguard from Dej was classified as Petersen type S or Geibig combination type 10<sup>50</sup>. However, crossguards of type S swords are more massive<sup>51</sup>. In contrast, crossguards of type R are lower, reaching a height of approximately 1.5 cm, with straight arms that widen at the end<sup>52</sup>. Based on these criteria, the crossguard from the Dej area is closer to type R than type S. Analogies of swords with crossbars similar in shape to the

type discussed can be found in Norway, one such specimen comes from an unknown location in the Hedmark region (C257)<sup>53</sup> or from the Finnish location Hämeenlinna (KM27141:1)<sup>54</sup>.

The second artefact originates from the island of Păcuiul lui Soare, specifically from the site of a former fortress. The Byzantine fortress of Ostrov – Păcuiul lui Soare is located in the north-eastern part of the island of Păcuiul lui Soare, on the border between the counties of Cărași and Constanța, approximately 12 km behind the commune of Ostrov (Constanța County)<sup>55</sup>. In the spring of 1982, the head of the pommel (Pl. 2) was discovered on the beach to the west of the fortress<sup>56</sup>. Archaeological excavations conducted since 1956 have revealed layers of settlement from three distinct periods: Late Roman (4<sup>th</sup>–6<sup>th</sup> centuries), Early Medieval (10<sup>th</sup>–11<sup>th</sup> centuries) and Medieval (14<sup>th</sup>–15<sup>th</sup> centuries)<sup>57</sup>. In consideration of the circumstances surrounding the discovery, it was not possible to classify the head of the pommel within one of the layers that had been identified during archaeological excavations in the fortress area<sup>58</sup>. It was cast in bronze, with traces of silver plating evident on its surface, particularly in areas that had undergone gilding<sup>59</sup>. The head of the pommel is three-lobed. The central lobe is the largest and the structure under consideration rises upward from the lower edge and widens. The upper side of the pommel is semi-circular in shape. An aperture is present on the upper surface, the purpose of which was to facilitate the attachment of the tang to the pommel. The extremities of the central part are characterised by a stepped pattern (Pl. 2.e). The central lobe is subdivided into three sections by two grooves, which in the past may have been filled with silver twisted wire, as evidenced by a similar find of the pommel from the Danish site of Gråsand<sup>60</sup>. The surface of the lobe is covered on one side at the bottom with fragmentary silver decoration with intertwined lines<sup>61</sup>. The side lobes are of a rounded shape with cut edges towards the central segment. Their surface also features preserved decoration in the form of intertwined silver lines<sup>62</sup>.

<sup>41</sup> Pedersen 2014a, 78–79; Hošek-Košta-Žákovský 2021, 317.

<sup>42</sup> Hošek-Košta-Žákovský 2021, 318.

<sup>43</sup> Müller-Wille 1973, 102–107.

<sup>44</sup> Geibig 1991, 52–54, abb.11.

<sup>45</sup> Hampel 1907, 222; Gáll 2007, 425; Gáll 2013, 98.

<sup>46</sup> Gáll 2007, 425.

<sup>47</sup> Gáll 2007, 425.

<sup>48</sup> Gáll 2013, 98.

<sup>49</sup> Gáll 2007, 425.

<sup>50</sup> Bakay 1965, 31; Müller-Wille 1973, 106, cat. no. 63; Gáll 2013, 98.

<sup>51</sup> Geibig 1991, 52–53; Androshchuk 2014, fig. 29.

<sup>52</sup> Androshchuk 2014, 74, fig. 28.

<sup>53</sup> Peirce 2002, 96–97.

<sup>54</sup> Moilanen 2015, 251, 416.

<sup>55</sup> <https://ran.cimec.ro/sel.asp?codran=62547.02> (last accessed: 25.08.2025)

<sup>56</sup> Popa 1984, 425.

<sup>57</sup> Diaconu 1959, 653.

<sup>58</sup> Popa 1984, 425.

<sup>59</sup> Popa 1984, 426–427.

<sup>60</sup> Gustafsson 2013, 96, fig. 10.

<sup>61</sup> Popa 1984, 427.

<sup>62</sup> Popa 1984, 427.

A deep groove separates them from the central segment. The head of the pommel has a zoomorphic character, accentuated by the suggestion of eyes in the form of almond-shaped protrusions on each side of the central lobe, which are covered with silver<sup>63</sup>. The maximum height is 3.6 cm, length 7.3 cm, width at the base 2 cm, and weight 148 g, although it may have originally been approximately 150 g<sup>64</sup>. Radu Popa classified the head of the pommel among the three- and five-lobed pommels belonging to Petersen's type S<sup>65</sup>. According to Radu R. Heitel, the head of the pommel belongs to Petersen's type R swords and not type S. He also considers it a work of art from the Varangian environment, reflecting elements of Oriental art in combination with the Norse art styles of Jelling and Mammen, and also he suggests that the pommel may have been manufactured in Kiev rather than Scandinavia<sup>66</sup>. In addition to the specimen from Păcuiul lui Soare, eight other pommels of a similar nature have been found, but unfortunately none of these have been preserved along with the other parts of the sword. One specimen originates from Gråsand in Ginding on the Jutland peninsula in Denmark. This artefact was discovered in a bog, and it is similarly covered with yellow and silver foil. Its decoration is almost identical to the Romanian specimen<sup>67</sup>. Another pommel has been recorded from Russia and is stored in a private collection. It is alleged to have been discovered on the Taman Peninsula in Russia<sup>68</sup>. The decoration of the central lobe is only fragmentarily preserved (silver?), but it also consists of intertwined bands, and the grooves dividing the lobes are covered with yellow foil<sup>69</sup>. It is estimated that as many as six finds of such pommels originate from the island of Gotland. At the Sora Sojdeby site in the parish of Fole, a "half" of a pommel cast from a copper alloy was found<sup>70</sup>. The remaining five were discovered at the Eskelhems Alvena site in Mästerby in 2009 as part of a buried metalworking treasure trove, along with 17 pendants on the edge of the Fjäle myr marsh<sup>71</sup>. Despite their zoomorphic character, however, the pommels differ in shape from the classic R and S types as defined by Jan Petersen. All nine

specimens display a high degree of similarity to the sword pommel from the Vrångabäck site in Skåne, Sweden<sup>72</sup>, which also exhibits a zoomorphic character. Fedir Androshchuk classified the pommel as belonging to the Dybäck-Vrångabäck type, which is categorised within his group of Danish-British swords from the late Viking period<sup>73</sup>. According to Androshchuk, this type is closely related to Petersen's type Z, with decoration that exhibits parallels with the South English Winchester style<sup>74</sup>. In light of the fact that the head of the pommel from Păcuiul lui Soare is an incomplete find and that the other eight analogies mentioned above have not been preserved with the other structural parts of the hilt, the assignment to Petersen's type R/S is rather indicative. Jan Petersen dated type R swords to the first half of the 10<sup>th</sup> century<sup>75</sup>, while Finnish finds are dated between 975 and 1025<sup>76</sup>. The decoration of the hilt corresponds to the Mammen style, which dates to approximately the second half of the 10<sup>th</sup> century<sup>77</sup>. The oldest examples of type S can be dated to the first half of the 10<sup>th</sup> century<sup>78</sup>. In the environment of Kievan Rus, they were produced during the last third of the 10<sup>th</sup> century and the beginning of the 11<sup>th</sup> century<sup>79</sup>. Finds from burial sites in Hungary, Poland, and Ukraine can be dated to the end of the 10<sup>th</sup> century to the first quarter of the 11<sup>th</sup> century<sup>80</sup>. Alfred Geibig dated combination type 10 swords to between 900 and 1010<sup>81</sup>. The lower guard from Dej is estimated to date from the second half of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>82</sup>. The head of the pommel from Păcuiul lui Soare dates from the end of the 10<sup>th</sup> to the first half of the 11<sup>th</sup> century<sup>83</sup>.

#### *Type V*

V-type swords<sup>84</sup> are distinguished by their three-lobed pommels, which comprise an upper guard and the head of the pommel. These are attached to each other with a rivet in the shape of an inverted letter U (∩), as evidenced by X-ray

<sup>63</sup> Popa 1984, 427.

<sup>64</sup> Popa 1984, 425–426.

<sup>65</sup> Popa 1984, 427, 429.

<sup>66</sup> Heitel 1994–1995, 436, note 161.

<sup>67</sup> Fuglesang 1980, 130, pl. 15:B-C.

<sup>68</sup> Gustafsson 2013, 96; Androshchuk 2016, 97–99.

<sup>69</sup> Androshchuk 2016, fig. 4.2.

<sup>70</sup> Gustafsson 2013, 94, fig. 9.

<sup>71</sup> Gustafsson 2011, fig. 1; 2013, 95.

<sup>72</sup> Androshchuk 2014, fig. 43.3.

<sup>73</sup> Androshchuk 2014, 91–93.

<sup>74</sup> Androshchuk 2014, 92, 94.

<sup>75</sup> Petersen 1919, 141–142.

<sup>76</sup> Moilanen 2015, 251.

<sup>77</sup> Androshchuk 2014, 134.

<sup>78</sup> Petersen 1919, 146.

<sup>79</sup> Hošek-Košta-Žákovský 2021, 318.

<sup>80</sup> Hošek-Košta-Žákovský 2021, 319.

<sup>81</sup> Geibig 1991, 151.

<sup>82</sup> Gáll 2013, 98.

<sup>83</sup> Popa 1984, 431.

<sup>84</sup> Petersen 1919, 154–156, pl. III.

images of some swords<sup>85</sup>. The rivet was attached to the inner surface of the head of the pommel using solder, which in one case was identified as brass<sup>86</sup>. The head of the pommel is divided into three lobes by two oblique grooves filled with silver twisted wire in three rows next to each other, but we also record pommels lacking these grooves, where the division is only indicated by decoration<sup>87</sup>. The shape of the pommels of type V swords is discrepant. On some specimens, we can see how the middle lobe transitions into a smooth oval, while on others, it rises significantly and is slightly conically rounded, resembling Petersen's T2 type pommels<sup>88</sup>. Differences can also be observed in the size and shape of the side segments. Some specimens may have more pronounced concave lobes, evoking the appearance of stylized animal heads, which is another feature that connects type V with type T2, or the side segments may be only slightly concave. The upper guard and lower guard are identical in shape. When viewed from the front, they are straight with rounded ends. From above, they are oval to distinctly oval. The decoration is applied using the inlay or overlay method, mainly from silver and copper wires<sup>89</sup>. There are also variants using a three-color combination – silver, copper, and brass<sup>90</sup>. The decoration is applied vertically, mainly in a stepped pattern of alternating triangles and rhombuses<sup>91</sup>. This variant is the most widespread and is known from many sites in Northern<sup>92</sup> and Eastern<sup>93</sup> Europe. In addition, we also have records of decorations in a chessboard pattern, which can be found, for example, in two grave finds from the Hedeby and Birka<sup>94</sup>. Swords with this decoration are considered to be chronologically earlier variants<sup>95</sup>. The sword from the Pidhirci, in the Lviv oblast in Ukraine, has a pommel and crossguard decorated with an interlaced ornament, which can be found in type S<sup>96</sup>. This type also features monochrome decoration. Two swords are believed to

originate from Gnezdovo in the Smolensk oblast in Russia<sup>97</sup>, and one from Storbjørken Nedre, Steinkjer in the Trøndelag region, Norway (T17462)<sup>98</sup>. Type V swords are most widespread in Northern and Eastern Europe. While Jan Petersen reports only six finds from Norway<sup>99</sup>, there are as many as 16 swords from Sweden, eight from Denmark, including specimens from Schleswig-Holstein, and ten from Finland<sup>100</sup>. In areas inhabited by Baltic tribes, the number of swords of the type in question is around 15<sup>101</sup>. Approximately 30 Type V swords come from the Kievan Rus environment (Belarus – 3, Russia – 22, Ukraine – 12)<sup>102</sup>. Two finds of type V swords are recorded in Iceland<sup>103</sup>. One example each is recorded from the Isle of Man, Czechia, Slovakia, and Hungary<sup>104</sup>. Within Geibig's typology, swords of the type in question fall under combination type 11, together with types U and W<sup>105</sup>. Only two finds from Romania correspond to the type under consideration, one of which is uncertain as type V. A sword comes from southern Dobruja, which is believed to be a stray find discovered near the village of Albești, west of Mangalia in Constanța County<sup>106</sup>. It is stored in the Museum of National History and Archaeology in Constanța (MINAC) under inventory number 20794<sup>107</sup>. The sword (Pl. 3. a) is preserved in its entirety. The pommel is semi-circular, divided into two parts by a horizontal groove into a head of the pommel and upper guard with slanted edges (Pl. 3. b). The tang of the blade widens from the lower part of the pommel towards the lower guard. The lower guard is straight, with evenly finished edges. The blade is double-edged, straight and tapers from the cross-

<sup>85</sup> Petri 2017, 139, abb. 1; Frait 2006, 98.

<sup>86</sup> Frait 2006, 98.

<sup>87</sup> Petri 2017, abb. 3; Kainov 2012, 46, 50, fig. 36.

<sup>88</sup> Petersen 1919, pl. III; Kainov 2012, fig. 31; Petri 2017, abb. 3.

<sup>89</sup> Hošek-Košta-Žákovský 2021, 322.

<sup>90</sup> Остапенко-Саричев 2016, 56, рис. 11–13.

<sup>91</sup> Petersen 1919, 155.

<sup>92</sup> Petersen 1919, pl. III; Pedersen 2014a, 79–80; 2014b, cat. 4a, find list 1, pl. 9.1, 10.2, 13.3, 22.1, 49.1, 63. 1,4.

<sup>93</sup> Кирпичников 1966, 31–32, таб. VIII. 1, 3; Kainov 2012, fig. 34–36, 39.

<sup>94</sup> Arents-Eisenschmidt 2010, 41, taf. 10. 1a-b; Androshchuk 2014, cat. no. Up33, pl. 142a.

<sup>95</sup> Hošek-Košta-Žákovský 2021, 322.

<sup>96</sup> Liwoch 2005, fig. 15.

<sup>97</sup> Kainov 2012, fig. 32–33; Hošek-Košta-Žákovský 2021, 322.

<sup>98</sup> According to the Norwegian University Museums' internet portal (unimus.no), the pommel and lower guard are covered with silver. The sword is stored in Vitenskapsmuseet, Arkeologi, Trondheim, Norway (T17462/a.001).

<sup>99</sup> Petersen 1919, 155; The unimus lists ten more swords of Petersen's type V (B8118, B7667, B1139, B13374, B5646, C35841, C57066, T17462, T21339, S6801).

<sup>100</sup> Androshchuk 2014, 257; Pedersen 2014a, 79–80; Moilanen 2015, 255–256.

<sup>101</sup> Mandel 1991, 118; Kazakevičius 1996, 61–62; Tomsons 2012, 86–92; Dworschak 2018, 108–109; Goßler-Jahn 2019, 189–193.

<sup>102</sup> I would like to thank Sergei Y. Kainov for providing this information.

<sup>103</sup> Ísberg 2020, 62–65.

<sup>104</sup> Bersu-Wilson 1966, 51–54; Hošek-Košta-Žákovský 2021, 322–321.

<sup>105</sup> Geibig 1991, 54–56, abb. 12.

<sup>106</sup> Yotov 2011, 39; Şova 2020, 163, cat. no. 13.

<sup>107</sup> Şova 2020, 163, cat. no. 13.

guard towards the rounded tip. A fuller runs through its center, which should have the inscription Ulfberht on one side and a geometric mark in the form of three vertical bars on the left and right sides on the other side, between which a lattice pattern is placed<sup>108</sup>. This sword is the only known find of an early medieval sword from Romania bearing the inscription Ulfberht. More than 200 blades from extensive areas of northern, eastern, central, and Western Europe are known to bear the inscription Ulfberht or one of the other variants of this name<sup>109</sup>. The provenance of blades with Ulfberht inscriptions with inlaid pattern-welded characters is placed in the Frankish Empire, specifically the Rhineland region<sup>110</sup>. It is assumed that Ulfberht was the name of a Frankish blacksmith or a blacksmith's workshop, and the name could have been a kind of trademark for this workshop, since all the blades produced could not have been the work of one person, given that the first blades with this inscription date from around 850 and the last examples are known from the early 12<sup>th</sup> century<sup>111</sup>. A detailed typological analysis of Ulfberht inscriptions and geometric marks was made by Anne Stalsberg, who divided them into seven groups<sup>112</sup>. The blade of the sword from Albești is said to have a variant of the inscription +VLFBERH+T<sup>113</sup>, i.e. variant no. 1 according to A. Stalsberg<sup>114</sup>. This is the most commonly used variant of the inscription, which was made from steels with a higher carbon content<sup>115</sup>. Metallographic examinations of these blades have shown that they are high-quality products made at that time from rare hypereutectoid steel<sup>116</sup>. The total length of the sword is 97.5 cm and the length of the lower guard is 9.9 cm<sup>117</sup>. The second sword is believed to have come from the vicinity of Pașcani in Iași County<sup>118</sup>. The sword was first published by Victor Spinei in 2009 only in the form of a drawing<sup>119</sup>, without any further information about the circumstances of the find, the parameters or the condition of the sword. The sword (Pl. 3. c) has been preserved with its hilt

and a fragment of the blade without the tip. The pommel is two-part, consisting of a straight upper guard with cut ends and a three-lobed head of the pommel, divided by two oblique grooves into two smaller side segments and a larger central one. The tang widens from the pommel towards the lower guard. The lower guard is straight and oval when viewed from above. A blood groove runs through the center of the double-edged blade. It is not clear from the available drawing whether the sword has any decoration. Erwin Gáll assigned the sword to Petersen's type S or Geibig's combined type 11<sup>120</sup>. Type S can be ruled out, as the both guards are straight and do not widen at the ends. Victor Tentiuc attributes it to Petersen's type U<sup>121</sup>. Type U swords have straight crossbars, low three-part pommels with indistinct crown divisions and no thickening of the central segment<sup>122</sup>. According to Fedir Androshchuk, type U does not have clearly defined criteria, and some type V swords have been incorrectly assigned to this type<sup>123</sup>. Given that there are no detailed drawings or photographs of the sword in question, the most appropriate typological classification in this case seems to be that of Alfred Geibig, and in this case, the sword from Pașcani can be classified under Geibig's combined type 11, as suggested by Erwin Gáll<sup>124</sup>. Jan Petersen dated Norwegian Type V swords to the first half of the 10<sup>th</sup> century<sup>125</sup>. During this period, swords from Birka and Hedeby were probably also deposited into graves, while Danish swords are usually dated to the second to third quarter of the 10<sup>th</sup> century<sup>126</sup>. Swords from the Kievan Rus environment date from the middle to the last quarter of the 10<sup>th</sup> century<sup>127</sup>. According to V. Yotov, the sword from Albești can be dated from the second half of the 10<sup>th</sup> century to the beginning of the 11<sup>th</sup> century<sup>128</sup>. Due to the unclear circumstances of its discovery and the unknown condition of the object, it is relatively difficult to place the Pașcani sword within a more specific time frame. Alfred Geibig dates type 11 swords to the first half of the 10<sup>th</sup> century<sup>129</sup>, but his research focused primarily on swords from western Germany. Some type V

<sup>108</sup> Yotov 2011, 39, fig. 5. c.

<sup>109</sup> Hošek-Košta-Žákovský 2021, 124.

<sup>110</sup> Williams 2012, 117.

<sup>111</sup> Peirce 2002, 7–8; Williams 2012, 117.

<sup>112</sup> Stalsberg 2008, fig. 1.

<sup>113</sup> Yotov 2011, fig. 5. d; Hošek-Košta-Žákovský 2021, fig. 48.

<sup>114</sup> Stalsberg 2008, fig. 1.

<sup>115</sup> Williams 2012, 120.

<sup>116</sup> Williams 2012, 120.

<sup>117</sup> Šova 2020, 163, cat. no. 13.

<sup>118</sup> Gáll 2021, 260, 262.

<sup>119</sup> Spinei 2009, fig. 9. 13.

<sup>120</sup> Gáll 2021, 260, 262.

<sup>121</sup> Tentiuc-Munteanu 2022, 37.

<sup>122</sup> Petersen 1919, 153, fig. 122; Androshchuk 2014, 77, fig. 32.

<sup>123</sup> Androshchuk 2014, 78.

<sup>124</sup> Gáll 2021, 260, 262.

<sup>125</sup> Petersen 1919, 182.

<sup>126</sup> Hošek-Košta-Žákovský 2021, 322.

<sup>127</sup> Kainov 2012, 42.

<sup>128</sup> Yotov 2011, 39.

<sup>129</sup> Geibig 1991, 151.

swords found in early Hungarian burial grounds in the eastern part of Central Europe date from the second third of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>130</sup>. The sword from Olomouc in Czechia is a stray find, which, due to the absence of find circumstances, dates to the 10<sup>th</sup> or early 11<sup>th</sup> century<sup>131</sup>. Based on the above information, we can also date the sword from Pașcani to the 10<sup>th</sup> or early 11<sup>th</sup> century.

### *Type X*

This type represents a group of swords characterized by semi-circular pommels made from a single piece of iron with uniform width and rounded ends, which are relatively narrow when viewed horizontally and from the side<sup>132</sup>. The cross-guards are straight and angular, in some cases slightly bent towards the blade, with rounded or straight ends when viewed horizontally<sup>133</sup>. The tang passes through the pommel, to which it is fixed by riveting at the top, which means that this type can be classified as Geibig's construction type III<sup>134</sup>. Jan Petersen divided this type into two variants, earlier and later<sup>135</sup>, characterizing their differences based on the differences in the shape of the pommels and crossguards. He described the earlier variant as swords with a taller and wider, less massive pommel and a longer and more robust lower guard, sometimes slightly bent towards the blade, while the later variant is characterized by a smaller and more robust pommel with a thinner lower guard of the same length<sup>136</sup>. In Geibig's combination classification, this type corresponds to combination type 12, variant I<sup>137</sup>. The pommels and lower guards are undecorated, with the exception of a few types that have grooves dividing the pommel into two parts and the crown into three lobes, imitating more ornate swords with pommels of types V and W, or E<sup>138</sup>. Examples of such decoration can be found, for example, on a sword from an unknown Norwegian site (C280) or on a sword from the East Prussian site of Zohpen, today Suvorovo in the Kaliningrad oblast<sup>139</sup>. In addition, we also have records of specimens that have been preserved with inlaid decoration, plating with precious metals, or one

specimen from Sweden has a pommel decorated with punched triangles<sup>140</sup>. Petersen type X swords can be found across a relatively large area stretching from the British Isles through Scandinavia, Western and Central Europe to Eastern Europe. Their number is estimated at around 370 pieces and it is assumed that they developed from Petersen types K and N in the Frankish Empire or in areas under its influence, and thanks to their simple shape and ease of production, they gained popularity among the highest social ranks in connection with high-quality blades<sup>141</sup>. Their production and subsequent application to imported or local blades may have also taken place in local blacksmith workshops<sup>142</sup>. Similarly, pommels and lower guards were repaired, supplemented or replaced, as evidenced by the finds of three swords from Pohansko near Břeclav in Moravia<sup>143</sup>. Jan Petersen dates the oldest examples of type X swords to the first half of the 10<sup>th</sup> century and the younger ones to the 11<sup>th</sup> century<sup>144</sup>. It is possible that the process of their creation falls within the first two-thirds of the 9<sup>th</sup> century, although finds from the territory of the former Frankish Empire are random or river finds, which makes it difficult to date them within the context of the find<sup>145</sup>. In this case, swords from the Great Moravian environment are extremely important finds<sup>146</sup>. These come mainly from grave contexts and date from the second half of the 9<sup>th</sup> century to the beginning of the 10<sup>th</sup> century<sup>147</sup>. In the territories of the former Kievan Rus, they date from the 10<sup>th</sup> to the early 11<sup>th</sup> century<sup>148</sup>. In the Baltic region, their use dates from the 10<sup>th</sup> to the 12<sup>th</sup> century<sup>149</sup>. The Hungarian finds date back to the end of the 10<sup>th</sup> and beginning of the 11<sup>th</sup> centuries and are among the most widespread type of swords used in this period in the region<sup>150</sup>. Two examples correspond to this type from the area under investigation. The first is reportedly a find from the Biharea fortress<sup>151</sup> near the village of the same name, 14 km north of the city of Oradea, in Bihor County. It is said to be a grave find and was

<sup>130</sup> Hošek-Košta-Žákovský 2021, 324.

<sup>131</sup> Hošek-Košta-Žákovský 2021, 324.

<sup>132</sup> Petersen 1919, 159; Hošek-Košta-Žákovský 2021, 302.

<sup>133</sup> Hošek-Košta-Žákovský 2021, 302.

<sup>134</sup> Geibig 1991, abb. 24.

<sup>135</sup> Petersen 1919, 159.

<sup>136</sup> Petersen 1919, 159, fig. 124–129.

<sup>137</sup> Geibig 1991, 57.

<sup>138</sup> Hošek-Košta-Žákovský 2021, 303.

<sup>139</sup> Petersen 1919, fig. 125; Petri 2017, 145–150, taf. 4. b.

<sup>140</sup> Androshchuk 2014, cat. no. Dr 10, pl. 145; Hošek-Košta-Žákovský 2021, 303.

<sup>141</sup> Hošek-Košta-Žákovský 2021, 304–305.

<sup>142</sup> Košta *et alii* 2019, 220–221.

<sup>143</sup> Košta *et alii* 2019, 220–221.

<sup>144</sup> Petersen 1919 182.

<sup>145</sup> Hošek-Košta-Žákovský 2021, 304–305.

<sup>146</sup> Hošek-Košta-Žákovský 2021, 305.

<sup>147</sup> Hošek-Košta-Žákovský 2021, 305.

<sup>148</sup> Kainov 2012, 55–56.

<sup>149</sup> Kazakevičius 1996, 138.

<sup>150</sup> Bakay 1965, 31, 33.

<sup>151</sup> Horedt 1968, 422.

discovered before 1862, together with an iron stirrup, a fragment of another stirrup, and an unidentifiable vessel, which was lost, but only the sword was registered in the museum<sup>152</sup>. Today, it is stored in the collection of the Muzeul Țării Crișurilor in Oradea under inventory number 2833<sup>153</sup>. The double-edged sword has been preserved in two fragments (Pl. 4. a-b). The pommel is damaged on one side and in the middle. Nevertheless, we can see that it has a semi-circular shape with a flat base. In profile, it has a conical shape, tapering significantly towards the top. The tang of the hilt widens from the pommel towards the lower guard. The lower guard is short, straight, relatively massive and damaged at one end. The blade has a damaged edge and is broken into two pieces. The fuller is not recognizable. Preserved length – 31 cm; length of the grip with a pommel – 13.3 cm; height, width, thickness of the pommel – 3.6, 7, 2.4-0.5 cm; length, height, thickness of the lower guard – 12.2, 1.8 cm; length of the blade – 16 cm; width of the blade – 4.6–4.7 cm<sup>154</sup>. Kurt Horedt classified the sword as type S<sup>155</sup>, which cannot be agreed with given the shape of the handle components. The shape of the crossguard and pommel suggest a similarity to Petersen's type X or Geibig's combination type 12, variant I<sup>156</sup>, with the closest analogies found in Moravia<sup>157</sup> and in Hungary<sup>158</sup>. However, the possibility that the pommel consists of two parts cannot be ruled out, as there are no photographs of the sword and its description is based solely on a drawing published by K. Horedt<sup>159</sup>. Erwin Gáll estimates the sword to date from the second half of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>160</sup>. A fragmentary sword was found in Dobruja and is stored in the Museum of National History and Archaeology in Constanța (MINAC) under inventory number 38359<sup>161</sup>. The sword comes from an unknown location in northern Dobruja and it is a stray find<sup>162</sup>. No further details about the circumstances of the find could be ascertained. The

pommel of the sword is semi-circular, probably made from a single piece, and relatively high. The base is flat. The tang is relatively long and thin, widening from the pommel to the lower guard. The lower guard is flat and appears to taper slightly from the center to the ends. The double-edged blade has been preserved without a tip. The fuller is faintly visible. Preserved length – 48.2 cm; width of the pommel – 4 cm; width of the lower guard – 9 cm<sup>163</sup>. Valeri Yotov also classifies the sword as Petersen type X, dating from the second half of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>164</sup>.

### *Type Z*

Jan Petersen classified Z-type swords as belonging to the Late Viking Age<sup>165</sup>. He defined them as specimens with curved both guards and three-lobed pommels with the middle lobe being the highest and thickest, as in the S type<sup>166</sup>. Fedir Androshchuk believes that the criteria for this type presented by Jan Petersen are not sufficiently clear and that the distinctive features are precisely the curved upper guards and lower guards, as well as the fact that there are a considerable number of variants within one type, which he divided into three subtypes<sup>167</sup>. The classic type according to J. Petersen<sup>168</sup> is characterized by an upward-curved upper guard and a lower guard curved in the opposite direction, i.e., downward. The upper guards can be curved slightly or more pronouncedly. The end edges of both components are rounded, and some may widen, as in type S. The heads of the pommel are three-lobed, attached to the base by two rivets or a tang. The division of the head of the pommel is emphasized by twisted silver wires, and the side lobes are often shaped like animal heads. In some cases, the lobes may be decorated with “eyes/eyebrows/ears” made of copper alloy, as in type R, and the decoration of the sword is often provided with silver inlay<sup>169</sup>. Other variants are characterized by a pommel with a semi-circular upper side, a convex upper guard, and a downward-curved lower guard<sup>170</sup>. The components of the hilt can be made of bronze or iron<sup>171</sup>. Less common, known

<sup>152</sup> Horedt 1968, 422; Gáll 2007, 425; 2013, 60.

<sup>153</sup> Gáll 2013, 60.

<sup>154</sup> Gáll 2013, 60.

<sup>155</sup> Horedt 1968, 422.

<sup>156</sup> Gáll 2013, 60.

<sup>157</sup> Košta-Hošek 2014, fig. 26, 34, 53, 60, 83, 121; Košta et alii 2019, fig. 20.

<sup>158</sup> Bakay 1965, 23. kép 2, 27. kép 4, 28. kép 2–4, 29. kép 1.

<sup>159</sup> Horedt 1968, fig. 1; Personal consultation with Radoslav Čambal and Tomáš Vlasatý.

<sup>160</sup> Gáll 2013, 60.

<sup>161</sup> Šova 2020, 163, cat. no. 114.

<sup>162</sup> Šova 2020, 163, cat. no. 114.

<sup>163</sup> Šova 2020, 163, cat. no. 114.

<sup>164</sup> Yotov 2011, 40.

<sup>165</sup> Petersen 1919, 175.

<sup>166</sup> Petersen 1919, 175.

<sup>167</sup> Androshchuk 2014, 84–86.

<sup>168</sup> Petersen 1919, fig. 136–137; Androshchuk 2014, pl. 134, 136, 139.

<sup>169</sup> Androshchuk 2014, 84; Hošek-Košta-Žákovský 2021, 316, note 196.

<sup>170</sup> Androshchuk 2014, pl. 159.

<sup>171</sup> Androshchuk 2014, 85.

only in two cases, is a variant characterized by a five-lobed pommel and a downward-curved lower guard<sup>172</sup>. The double-edged sword stored in the collections of the National Museum of Banat in Timișoara (MNaB) under inventory number 3203<sup>173</sup> can be classified as type Z. The sword comes from Temesch – Cubin on the Danube, in the former Habsburg district of Pancsova, Torontál County, today Kovin in the territory of Vojvodina in Serbia<sup>174</sup>. Information regarding the find circumstances could not be verified, it appears to be a stray find<sup>175</sup>. It can be assumed that, based on the territorial administrative division, the sword must have been discovered before 1918. It is in relatively good condition and has been preserved almost entirely, with the exception of the tip (Pl. 5. a-b). The pommel is probably made from a one piece<sup>176</sup>, imitating the shape of a two-piece pommels. A horizontal groove can be seen dividing it into a curved base at the top and a head of the pommel with two smaller lobes on the sides and a central lobe, which is the largest of the three and separated from the smaller ones by two slanted grooves with an oval upper edge (Pl. 5. c). The tang widens from the pommel towards the lower guard. The lower guard of the sword is relatively long, massive with rounded ends and slightly bent towards the blade. The blade is almost entirely preserved, without the tip and with damage to the lower part. A distinct fuller runs through the center of the blade, which, according to Zdenko Vinski, is pattern-welded<sup>177</sup>, while Karl Z. Pinter states the exact opposite, saying that the blade has no visible traces of pattern-welding, blacksmith's marks, or inscriptions<sup>178</sup>. The parameters of the sword are as follows: Total length – 82.2 cm; length, height, thickness of the pommel – 6.9, 3.4, 1.6 cm; length, width, thickness of the tang – 9.1, 1.8–3.1, 0.31 cm; length, height, thickness of the lower guard – 13.6, x, 1.8–1.13 cm; length of preserved blade – 69.1 cm; width of the blade from the lower guard – 45/47–2.3 cm; thickness of the blade – 0.34–0.13 cm; width of the fuller – 2.1–1.4 cm. According to K. Z. Pinter, the sword could be classified as Petersen types L and X, or as

a special type L–X, dating from the beginning of the 10<sup>th</sup> century and its origin is seen in the Viking or Varangian environment<sup>179</sup>. Zdenko Vinski and László Kovács classify the sword as Petersen type Z, which is consistent with the above-mentioned morphological characteristics of this type in comparison with the specimen from Kovin<sup>180</sup>. Zdenko Vinski estimates the sword to date from the 11<sup>th</sup> century, considering it an isolated specimen in the Danube region and south-eastern Europe<sup>181</sup>. Another sword of type Z was found in south-eastern Europe. It is a fragmentary sword discovered at a medieval settlement near the village of Gradeshnitsa, in the Vratsa region in north-western Bulgaria, dating from the second half of the 10<sup>th</sup> to the middle of the 11<sup>th</sup> century<sup>182</sup>. Type Z swords are generally dated to the end of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>183</sup>. According to J. Žak, swords of this type combine specific elements of L- or R-S-type swords, or their guards may be taken from the curved guards of nomadic sabres, as also mentioned by A. N. Kirpichnikov, who admits that the change in the development of the new form of the hilt may have been influenced by the nomadic equestrian environment<sup>184</sup>. According to other opinions, the origin of this type is sought in the Baltic area, where specimens with a single-edged blade also appear and are dated from the 10<sup>th</sup> to 13<sup>th</sup> centuries<sup>185</sup>. The distribution of Z-type swords covers a relatively wide geographical area. They are found in Scandinavia, the Baltic countries, Poland, the territories of the former Kievan Rus, and the British Isles<sup>186</sup>. Close to this type is also the head of the pommel from Păcuilui lui Soare, which we described above.

#### *Geibig's Combination Type 12, variant II*

Geibig's combination type 12 swords, variant II<sup>187</sup> are characterized by a semicircular pommel, which, when viewed from the front, may correspond to Petersen's type X, but is a chronologically later variant. Alfred Geibig notes that the pommels of the second variant are narrower and the lower guards are significantly elongated, forming an elongated rectangle in their basic shape<sup>188</sup>. The

<sup>172</sup> Androshchuk 2014, 85, 135.

<sup>173</sup> Pinter 2007, 73.

<sup>174</sup> Pinter 2007, 73.

<sup>175</sup> Vinski 1983, 44, note 19.

<sup>176</sup> Vinski 1983, 44, note 19.

<sup>177</sup> Vinski 1983, 44, note 19; Zdenko Vinski provided this information based on data, drawings and photographs sent by I. Hațegan from Timișoara.

<sup>178</sup> Pinter 2007, 73.

<sup>179</sup> Pinter 2007, 75.

<sup>180</sup> Vinski 1983, 25; Kovács 1994–1995, 167.

<sup>181</sup> Vinski 1983, 27.

<sup>182</sup> Zlatkov 2014, 142–143, cat. no. 41.

<sup>183</sup> Androshchuk 2014, 86.

<sup>184</sup> Žak 1960, 333–334; Кирпичников 1966, 35.

<sup>185</sup> Kazakevičius 1996, 139–140.

<sup>186</sup> Moilanen 2015, 260.

<sup>187</sup> Geibig 1991, 57.

<sup>188</sup> Geibig 1991, 58–59.

lower part of the pommel has a lenticular shape. From the side, the pommels have the shape of a pointed arch. This variant also belongs to construction type III, i.e. the tang passes through the pommel<sup>189</sup>. Swords of this variant correspond to Oakeshott's type B, or subtype B1<sup>190</sup>. Pommels of this type occur from the mid-10<sup>th</sup> century to the 12<sup>th</sup> century, with some examples possibly in use until the mid-13<sup>th</sup> century<sup>191</sup>. There is only one piece of this type. The sword comes from Vetiş in Satu Mare County, about one kilometer south and 800 meters from the road connecting Satu Mare and Carei<sup>192</sup>. The sword is a stray find and was discovered in 1978 on the grounds of State Agricultural Enterprises during work carried out on the planting of an orchard<sup>193</sup>. The sword is stored in the collection of the Satu Mare County Museum in Satu Mare (Muzeul Judeţean Satu Mare) under inventory number 1199/A<sup>194</sup>. The double-edged sword (Pl. 6. a-c) is preserved in its entirety. The pommel is semi-circular with a straight lower edge. The tang widens towards the crossguard. The lower guard is straight with a rectangular profile. The straight blade tapers towards the tip. The edge is significantly damaged. A narrow fuller runs through the center of the blade, ending a few centimeters before the tip. Preserved length – 90.8 cm; length, height, thickness of the pommel – 4.7, 2.5, 2.0 cm; length, width of the tang – 8.5, 1.6–2.6 cm; length, width of the lower guard – 12.9, 1.2–1.3 cm; length of the blade – 79.1 cm; width of the blade – up to  $\frac{3}{4}$  reaches 5.0 cm, the last cm towards the tip narrows to 1.9 cm; width of the fuller – 1.3 cm; weight – 600 g<sup>195</sup>. The sword has no traces of decoration or inscriptions<sup>196</sup>. Doru Radosav and Gheorghe Lazin classified the sword as “Romanesque” belonging to type C according to the typology of Ada Bruhn Hoffmeyer<sup>197</sup>, dating it to the second half of the first half of the 13<sup>th</sup> century, or shortly after its midpoint, arguing that the first written mention of the Vetiş site dates back to 1238 and that disturbed dwellings with remains of pottery dating from the 13<sup>th</sup>–14<sup>th</sup> centuries were also found at the site where the

sword was discovered<sup>198</sup>. Karl Z. Pinter proposed a typological classification under Petersen's type X, dating it to the second half of the 10<sup>th</sup> century<sup>199</sup>. Erwin Gáll, based on morphological characteristics and metric data, classified the sword under Geibig's combined type 12, variant II, dating it to the end of the 11<sup>th</sup> century<sup>200</sup>. Given the absence of a more detailed archaeological context, it cannot be ruled out that the sword may date from beyond the period under consideration, pushing its dating to the 12<sup>th</sup> century.

#### *Geibig's Combination Type 16, variant I*

Alfred Geibig divided the pommels of combination type 16 swords into two variants, which he defined on the basis of their proportional characteristics, as they are identical in shape<sup>201</sup>. From our point of view, we are interested in the first variant, which corresponds to two finds from Romania. The pommels are lenticular in shape, relatively low and slender when viewed from the side. They are sometimes referred to as Brazilian-nut pommels<sup>202</sup>. In Oakeshott's typology, they can be compared to type A<sup>203</sup>. These pommels also belong to Geibig's construction type III<sup>204</sup>. The lower guards are long and rectangular in shape, but in some specimens we can also see a slight thickening in the middle, from where they taper towards the ends<sup>205</sup>. Some of them were also decorated, as evidenced by finds from the Czechia, France, and Poland<sup>206</sup>. Swords of this type are widespread throughout Europe, with the oldest examples dating from the mid-10<sup>th</sup> to the mid-12<sup>th</sup> century<sup>207</sup>. An image of this type can also be found in Ottonian art, more precisely in a manuscript for Emperor Otto III, produced in Reichenau sometime between 983 and 991/3<sup>208</sup>. On one of the pages of the manuscript, the emperor is depicted sitting on a throne, and on one side next to him stands a male figure, certainly a nobleman, holding in one hand a sword in a scabbard with a straight crossguard and a pommel in the shape of a Brazil nut<sup>209</sup>. As mentioned above, two pieces come from Romania.

<sup>189</sup> Geibig 1991, 59.

<sup>190</sup> Oakeshott 1997, 94, fig. 1; Hošek-Košta-Žákovský 2021, 359–360.

<sup>191</sup> Hošek-Košta-Žákovský 2021, 360.

<sup>192</sup> Radosav-Lazin 1986–1987, 159

<sup>193</sup> Radosav-Lazin 1986–1987, 159; Gáll 2013, 542.

<sup>194</sup> Pinter 2007, 78.

<sup>195</sup> Gáll 2013, 542.

<sup>196</sup> Pinter 2007, 78.

<sup>197</sup> Radosav-Lazin 1986–1987, 161.

<sup>198</sup> Radosav-Lazin 1986–1987, 159 – note 2, 161.

<sup>199</sup> Pinter 2007, 79.

<sup>200</sup> Gáll 2013, 543.

<sup>201</sup> Geibig 1991, 70–71.

<sup>202</sup> Pinter 2007, 81.

<sup>203</sup> Oakeshott 1997, 93.

<sup>204</sup> Geibig 1991, 71, fig. 24.

<sup>205</sup> Geibig 1991, 71.

<sup>206</sup> Hošek-Košta-Žákovský 2021, fig. 123. a-c.

<sup>207</sup> Hošek-Košta-Žákovský 2021, 359.

<sup>208</sup> Oakeshott 1997, 93; Pinter 2007, 82.

<sup>209</sup> Pinter 2007, pl. 35. a.

One is a grave find. The sword was found in 1975 in the town of Deva (Hunedoara County) in the Micro 15 quarter, near School No. 6, between Aleea Streiului and Bejan streets, where an Old Hungarian burial ground was discovered during the installation of a gas pipeline<sup>210</sup>. The sword comes from grave No. 3, which contained skeletal remains, probably of a man, and other objects such as stirrups, a fire strike with a stone, a whetstone, a bronze bracelet with pointed ends, an earring, and arrowheads<sup>211</sup>. The grave was marked as an equestrian, and the sword was supposed to be located in the upper part of the grave, next to the skeleton<sup>212</sup>. The sword is stored in the Museum of Dacian and Roman Civilization (Muzeul Civilizației Dacice și Romane) in Deva, under inventory number 27.1011<sup>213</sup>. The sword (Pl. 7. a) has a lenticular pommel. The underside of the pommel is slightly convex and transitions into a tall oval at the ends. The tang is relatively short and widens towards the lower guard. The lower guard is long and straight, evenly finished on the sides. The blade of the sword is double-edged, corroded with a damaged edge and missing tip. Due to corrosion, the fuller is only faintly visible on both sides and ends a few centimeters before the broken tip. Preserved length – 89,2 cm; length, height, thickness of the pommel – 8.5, 3.6, 2.9 cm; length, width of the tang – 10.0, 2.4-0.5 cm; length, thickness of the lower guard – 16.2, 1,1 cm; length, width of the blade – 76,2, 4,5 cm<sup>214</sup>. Karl Z. Pinter classified the sword as Petersen type X<sup>215</sup>. Smaller versions of the so-called “brazilian-nut” type pommels have been known to be mistakenly confused with Petersen’s type X, however, in general, the underside of the lenticular pommels curves upwards and is longer than in type X<sup>216</sup>. The sword from the equestrian grave from Deva can be clearly classified as Geibig’s combined type 16, variant I based on its shape. The dating of the sword from Deva is based on the grave inventory, which places it in the period spanning from the second half of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>217</sup>. The second sword is a water find that was pulled out of the Danube at an unknown location in the town of Orșova

(Mehedinți County)<sup>218</sup>. No further details are known about the archaeological context. Today, it is stored in the Hungarian National Museum in Budapest (Magyar Nemzeti Múzeum) under inventory number 53.119<sup>219</sup>. The double-edged sword appears to be relatively well preserved in the available photograph (Pl. 7. b). The pommel is lenticular with convex arms on the underside. It transitions into an oval shape at the ends of the lower arms. The tang is short and widens slightly towards the lower guard. The lower guard is relatively long, with pointed ends. The blade is straight and long. It tapers slightly from the lower guard towards the tip. The fuller runs almost the entire length of the blade and appears to end a few centimeters before the tip, similar to the previous specimen (Pl. 7. a). According to L. Kovács, there should be an unspecified brass mark in fuller on both sides of the blade<sup>220</sup>. A more detailed typological classification of the sword could not be verified in the literature, but based on the shape of the hilt, it can be concluded that the sword could belong to Geibig’s combined type 16. Alexandru Madgearu dates it to the 10<sup>th</sup> century<sup>221</sup>, Silviu Oța dates it to the 11<sup>th</sup> century<sup>222</sup>, and L. Kovács to the end of the 11<sup>th</sup> century<sup>223</sup>. Given that this is a water find and the archaeological context of the object is missing, dating it is relatively difficult. Based on this information, the sword can only be dated approximately from the mid-10<sup>th</sup> to the mid-12<sup>th</sup> century, although the brass marks mentioned by L. Kovács may indicate a date at the end of the 11<sup>th</sup> century, as the blades of later swords have inlaid marks and inscriptions commonly made of non-ferrous metals, compared to early medieval swords<sup>224</sup>.

#### *Other double-edged swords*

This group includes swords whose condition does not allow for a more detailed typological classification according to either Petersen’s or Geibig’s typology. These are fragmentary finds that have been preserved only with a crossguard or are separate blades.

A fragmentary find of a double-edged sword tip comes from an unspecified location in Aiud. It is stored in the local history museum (Muzeul de Istorie, Aiud) under inventory number 4793,

<sup>210</sup> Gáll 2013, 94.

<sup>211</sup> Gáll 2013, 20. tábla. 1–16.

<sup>212</sup> Pinter 1992–1994, 325, 239; Gáll 2013, 95.

<sup>213</sup> Pinter 2007, 80.

<sup>214</sup> Gáll 2013, 965

<sup>215</sup> Pinter 2007, 81.

<sup>216</sup> Moilanen 2015, 269.

<sup>217</sup> Gáll 2013, 96.

<sup>218</sup> Madgearu 2019, 102.

<sup>219</sup> Kovács 1994–1995, 172.

<sup>220</sup> Kovács 1994–1995, 172.

<sup>221</sup> Madgearu 2019, 102.

<sup>222</sup> Oța 2008, 132.

<sup>223</sup> Kovács 1994–1995, 172.

<sup>224</sup> Hošek-Košta-Žákovský 2021, 148.

where it arrived in 1964<sup>225</sup>. The circumstances of the find are unknown. Its preserved length is 20.5 cm and its width is 4.0 – 2.3 cm. The fuller is 0.9 cm wide and disappears 12 cm before the end of the blade tip<sup>226</sup>. Based on the size and characteristics of the object, Erwin Gáll concludes that it can be dated to the end of the 11<sup>th</sup> century<sup>227</sup>. Given the condition of this fragment, any typological classification is impossible.

A fragmentary find of a double-edged blade comes from Alba Iulia (Alba County). All that is known about it is that it was found in an unknown location, probably on the banks of the Mureş River, and appears in Csernis's 1905 register as an item taken from the Batthyaneum collection under inventory number 5229<sup>228</sup>. No further information about the context of the find is known. The blade is stored in the National Museum of the Union in Alba Iulia (MNUAI) under inventory number 226<sup>229</sup>. The double-edged corroded blade is straight (Pl. 9. a). At its widest point, a trapezoidal tang protrudes from the arms. Only part of it has been preserved. The blade tapers from the shoulders towards the tip. The tip has not been preserved, but one of the older photographs confirms that it was still present at an unspecified time<sup>230</sup>. In the center of the blade is a fuller, the core of which was reportedly damascened over its entire surface, meaning that the core consisted of patterned twisted panels onto which the cutting edges were welded<sup>231</sup>. The surface of the fuller should show a distinct herringbone pattern in the form of two lines pointing away from each other, one line pointing towards the tang and the other towards the tip of the blade (<<<>>>). At a distance of 100 mm from the arms of the blade, there are forged marks on both sides made of patterned twisted wires – a spiral and a cross with perpendicular lines (⊕)<sup>232</sup>. Preserved length – 72.2 cm; length of the blade – 64.4 cm; width of the blade – 5.0–4.2 cm; width of the fuller – 2.9–2.4–1.8 cm; length of the tang – 5.8 cm; width of the tang – 3.2–1.9 mm; thickness of the tang – 0.28–0.16 cm<sup>233</sup>. Radu R. Heitel

assumed that the sword was the product of a blacksmith who probably tried to imitate the symbols on the blade based on Norse models from the second half of the 10<sup>th</sup> century, but failed to break through it, and traces of attempts to insert additional decorations are visible under the symbol of the cross<sup>234</sup>. According to K. Z. Pinter, the blade could have belonged to a sword with a hilt that falls under type V or L in Petersen's typology and at the same time, he dates the blade to the 8<sup>th</sup>–9<sup>th</sup> century<sup>235</sup>. The practice of full-surface pattern-welding of blades was a standard technique within the Frankish Empire during the Merovingian period, persisting until the 8<sup>th</sup> century<sup>236</sup>. The decoration of pattern-welded blades with simple marks began to be applied more frequently in the early Carolingian period in the 8<sup>th</sup> century and was not unusual in the 9<sup>th</sup> century and the early 10<sup>th</sup> century, as evidenced by the discovery of Moravian swords combining surface pattern-welding with simple symbols – omega (Ω), spiral/circle or horizontal letter “S” / 8<sup>237</sup>. This fact is also confirmed by the Arab philosopher Al-Kindí (803–870), who mentions Frankish swords decorated with gold or brass crosses in his work<sup>238</sup>. The symbols of the cross or spiral are relatively common elements on the blades of early medieval swords. According to Moilanen, there are up to 24 examples of swords and separate blades from Finland on which symbols of crosses and spirals are applied<sup>239</sup>. Seven swords have been found in the territory of present-day Germany, including Hedeby<sup>240</sup>, and three swords have been found in territory of Czechia<sup>241</sup> and Russian site Gnězdovo, in Smolensk oblast<sup>242</sup>. Two are known from Poland, from Ostrów Lednicki<sup>243</sup>. One sword is known from the Latvian cemetery Aizkraukles<sup>244</sup> and one from Marcelová in Komárno district in Slovakia<sup>245</sup>. From a typological point of view and in terms of their chronological classification, these are a diverse group of finds. Crosses and spirals were identified on sword types E, D, H/I, L/Z, S, Z,

<sup>225</sup> Gáll 2013, 346.

<sup>226</sup> Gáll 2013, 346.

<sup>227</sup> Gáll 2013, 346.

<sup>228</sup> Heitel 1994–1995, 430.

<sup>229</sup> Pinter 2007, 68.

<sup>230</sup> Heitel 1994–1995, abb. 18. a. The photograph clearly shows that the blade is complete, ending in a rounded tip with a fuller that ends just a few centimeters in front of it.

<sup>231</sup> Pinter 2007, 68, pl. 21. 1; Hošek-Košta-Žákovský 2019, fig. 41. 6.

<sup>232</sup> Pinter 2007, 68.

<sup>233</sup> Pinter 2007, 68.

<sup>234</sup> Heitel 1994–1995, 431.

<sup>235</sup> Pinter 2007, 68–69.

<sup>236</sup> Košta et alii 2019, 220.

<sup>237</sup> Košta-Hošek 2020, 346.

<sup>238</sup> Hošek-Košta-Žákovský 2021, 147.

<sup>239</sup> Moilanen 2015, 349, 353, 355, 357, 366, 369–370, 374, 380–383, 386, 390–391, 393, 400–403, 410–411, 421.

<sup>240</sup> Geibig 1991, taf. 46, 54. 1–3, 119. 1–4, 141, 143; 1999, taf. 2, 5.

<sup>241</sup> Hošek-Košta-Žákovský 2019, 189, 295, 321.

<sup>242</sup> Kainov 2012, fig. 6. 3-a, 7, 12. 3, 13, 19, 20.

<sup>243</sup> Marek 2004, tab. 30. A, C.

<sup>244</sup> Kazakevičius 1996, 70, 80 pav., 115.

<sup>245</sup> Kovács 1994–1995, 3. kép. 1.

X, Y, Æ and special type 1 according to Petersen, on four specimens of type Kirpičnikov II A and Geibig's combination types 5 (V I), 8, 12 (V I, V II), 12/13 (V I), 13 (V II), 14, 15 (V III) and 16 (V I). Of all the types mentioned, only two are known to have a pattern-welded blade decorated with a spiral. One is Petersen's type Y from the Czech site of Náklo – Lhota nad Moravou (or Příkazy), in the district of Olomouc in Moravia, dated to the end of the 9<sup>th</sup> century to the 10<sup>th</sup> century<sup>246</sup>. The fuller has a spiral-shaped insert with a diameter of 20 mm on one side, approximately 60–80 mm below the crossguard<sup>247</sup>. The second find is a sword of Petersen's special type 1 from Turku, Kaarina, Ristimäki, Finland (KM 6746:49), which has a pattern-welded core on both sides of the fuller, in its upper part below the crossguard, with a circle symbol on one side and a spiral on the other side<sup>248</sup>. Petersen's special type swords are dated between 750 and 800, with the possibility that they were used until 850<sup>249</sup>. The closest analogies to the Alba Iulia blade with the common symbols of a cross and a spiral can again be found in Finland. The L or Z type sword from Lempäälä (KM 1996:73) has two crosses with perpendicular arms applied on one side, between which there is a spiral<sup>250</sup>. The same variation decorates a Y-type sword from the Ikaalinen site (SatM 10330)<sup>251</sup>. Another Petersen type Z sword from Kangasala (KM 11242) has a cross with perpendicular lines on one side of the blade and a spiral on the other<sup>252</sup>. A sword of type E comes from Gnëzdovo, Russia, whose blade is also decorated on one side with two crosses with arms in the shape of the letter T, between which there is a spiral, and the other side bears a stylized decoration in the form of a man<sup>253</sup>. This is usually dated to the first half of the 9<sup>th</sup> century, but Sergei Y. Kainov notes that they could have existed until the end of the 10<sup>th</sup> century or the beginning of the 11<sup>th</sup> century in the form of archaic objects<sup>254</sup>. The fragmentary nature of the blade from Alba Iulia, as well as the absence of a crossguard with a pommel, do not allow for a more precise typological classification. Based on the above analogies, it is possible to determine the time frame in a broader

sense as the period from the 8<sup>th</sup> to the end of the 10<sup>th</sup> century.

A sword originating from Cheglevici in Timiș County in the Banat region of western Romania was brought to the museum in Sânnicolau Mare (Expoziția Memorială Béla Bartók) in 1955 as a stray find<sup>255</sup>. More detailed information about the context of the find could not be verified. The sword is preserved in its entirety (Pl. 8. a). It can be described on the basis of a drawing. From the drawing, it appears that the pommel may be in two parts, divided into three segments in the upper part and with a flat base, or the pommel may be made from a single piece.

The tang is straight, only at the lower guard can it be seen that it widens. The lower guard appears to be straight. The blade is covered along its entire length with traces of the wooden construction of the scabbard, so the fuller cannot be visible<sup>256</sup>. Preserved length – 97.5 cm; length, height of the pommel – 7.25, 5.25 cm; length, width of the tang – 8.25, 1.5–4.5 cm; length, width of the lower guard – 12.0, 1.8 cm; length, width of the blade – 82.5, 6.0 cm<sup>257</sup>. Erwin Gáll classified the sword as Petersen type S/Geibig type 10 based on the shape of the pommel, which he considers to be multi-part, and the boat-shaped crossguard<sup>258</sup>. Given that the sword has reportedly not been restored and its condition is currently unknown, and that no photographs of the object are available, it is difficult to classify it more precisely according to Petersen's or Geibig's types.

The third fragmentary double-edged sword from the Dobruja region is also a stray find, originating from an unknown location in the northern part of the region<sup>259</sup>. The sword is stored in the Museum of National History and Archaeology in Constanța (MINAC) under inventory number 6618<sup>260</sup>. It has been preserved without a pommel, with a trapezoidal tang with two circular holes. The lower guard is straight and short. The blade is wide below the lower guard and gradually tapers. The width of the blade seems to correspond to the length of the crossguard. The tip has not been preserved. The fuller is faintly visible. Preserved length – 70.5 cm; length of the lower guard – 6.3 cm<sup>261</sup>. Based on the condition of the object, Valeri Yotov

<sup>246</sup> Hošek-Košta-Žákovský 2019, 182, ID No. 148.

<sup>247</sup> Hošek-Košta-Žákovský 2019, 183.

<sup>248</sup> Moilanen 2015, 380.

<sup>249</sup> Petersen 1919, 65, 182; Moilanen 2015, 241.

<sup>250</sup> Moilanen 2015, 355.

<sup>251</sup> Moilanen 2015, 421.

<sup>252</sup> Moilanen 2015, 400.

<sup>253</sup> Kainov 2012, fig. 12–13.

<sup>254</sup> Petersen 1919, 182; Каинов-Новиков 2024, 194.

<sup>255</sup> Gáll 2013, 241.

<sup>256</sup> Gáll 2013, 241.

<sup>257</sup> Gáll 2013, 241.

<sup>258</sup> Gáll 2013, 241.

<sup>259</sup> Șova 2020, 163, cat. no. 112.

<sup>260</sup> Șova 2020, 163, cat. no. 112.

<sup>261</sup> Șova 2020, 163, cat. no. 112.

compared the sword to Petersen's types E and W, dating it to the turn of the 9<sup>th</sup> and 10<sup>th</sup> centuries<sup>262</sup>. Both variants proposed by Yotov can be ruled out with certainty for the following reasons: all the hilt components of the type W were made out of copper alloy<sup>263</sup>, and in the case of type E, both hilt parts bear decoration in the form of circular or oval pits, sometimes accompanied with inlay of silver and/or copper wire<sup>264</sup> (Androshchuk 2014: 52–53; Moilanen 2015: 244). Two relatively close finds have been recorded in the Czech Republic and Finland. One comes from the Moravian site of Mikulčice – Valy<sup>265</sup> and the other from Turku (KM 6482)<sup>266</sup>. Both specimens are characterized by a short crossguard and a wide blade and an absent pommel, similar to the sword from Dobruja discussed above. While Mikko Moilanen classified the Finnish sword as Petersen type B<sup>267</sup>, the Czech specimen is designated as early Carolingian, without typological classification<sup>268</sup>. Type B swords are dated to the period 750–800, but their use may have continued into the first quarter of the 9<sup>th</sup> century<sup>269</sup>. The specimen from Mikulčice-Valy dates back to the end of the 8<sup>th</sup> century – the third quarter of the 9<sup>th</sup> century<sup>270</sup>. Due to the absence of the pommel and the lack of circumstances surrounding the find, the sword can only be dated approximately to the 9<sup>th</sup> to 10<sup>th</sup> century based on the above-mentioned analogies.

The discovery of a double-edged blade from Gâmbaş, Alba County (Pl. 9. b) was originally considered to be a sabre, which was found during archaeological excavations in 1905<sup>271</sup>. According to Erwin Gáll, it should be a grave find<sup>272</sup>. The sword is stored in the Historical Museum in Aiud under inventory number 3478<sup>273</sup>. A fragment of a double-edged blade has been preserved with an incomplete tang. The fuller is visible along the entire length of the blade. The lower guard and pommel have not been preserved. A significant part of the blade has broken<sup>274</sup>. Preserved length – 65.3 cm; width of the blade – 4.9–4.5–4.0 cm;

width of the fuller – 1.7–1.3 cm; length, width of the tang – 8.5, 2.5–1.0 cm; weight – 560 g<sup>275</sup>. Due to the absence of hilt components, it is impossible to classify the sword typologically. Its approximate dating can be based on information relating to archaeological excavation at the cemetery, which was part of the estate of the Zeyk noble family<sup>276</sup>. In 1905, János Bodrogi excavated five graves, which remained unpublished<sup>277</sup>. Among the objects found during the archaeological excavations are several arrowheads and a type 1b lock ring, as well as two type 2d bronze bracelets that could not be identified in the museum in Aiud<sup>278</sup>. According to E. Gáll, the type 1b lock ring<sup>279</sup> belongs to the second chronological phase, dating from the mid-10<sup>th</sup> to the early 11<sup>th</sup> century<sup>280</sup>. It seems that the blade from Gâmbaş could hypothetically fall within this time period.

Morești/Brăișoru – The collection of the National Museum of Romanian History in Bucharest (MNIR) includes an incomplete double-edged blade with a lower guard, inventory no. 54484<sup>281</sup>, whose place of discovery is a matter of debate. The sword was discovered in 1896 and later donated to the historical museum in Cluj by collector Count Teleki Domokos in 1918, under inventory number IV. 1920<sup>282</sup>. According to Erwin Gáll, it was transferred to the MNIR in 1968<sup>283</sup>. Researchers Martin Husár and Silviu Oța state that it arrived in Bucharest in 1974, which they confirm on the basis of information in the museum's register<sup>284</sup>. Kurt Horedt presented the sword in question as a find from the fortress at Morești – Podeiu, Târgu Mureș district<sup>285</sup>, while elsewhere he argued that when he discovered the sword in the museum depository in Cluj – Napoca, he noted: *F(und)O(rt) Malomfalva, Maros Torda, alter Zettel auf dem Gegenstand. Nach Inv(entar) Malomszeg* (Place of discovery Malomfalva, Mureș Turda, old label on the object. After inventory Malomszeg)<sup>286</sup>. According to him, this information was supposed to be written on a yellow label measuring 5×2 cm, which was stuck to the sword but was

<sup>262</sup> Yotov 2011, 40.

<sup>263</sup> Vlasatý 2018.

<sup>264</sup> Androshchuk 2014, 52–53; Moilanen 2015, 244.

<sup>265</sup> Hošek-Košta-Žákovský 2019, 169–171, ID No. 134.

<sup>266</sup> Moilanen 2015, 379.

<sup>267</sup> Moilanen 2015, 379.

<sup>268</sup> Hošek-Košta-Žákovský 2019, 169.

<sup>269</sup> Moilanen 2015, 240.

<sup>270</sup> Hošek-Košta-Žákovský 2019, 169.

<sup>271</sup> Gáll 2007, 426.

<sup>272</sup> I would like to thank Erwin Gáll for this information.

<sup>273</sup> Gáll 2013, 322.

<sup>274</sup> Gáll 2013, 322.

<sup>275</sup> Gáll 2013, 322.

<sup>276</sup> Gáll 2013, 320.

<sup>277</sup> Gáll 2013, 322.

<sup>278</sup> Gáll 2013, 322.

<sup>279</sup> Gáll 2013, 159. tábla. 2.

<sup>280</sup> Gáll 2013, 654.

<sup>281</sup> Gáll 2013, 317.

<sup>282</sup> Husár-Oța 2024, 654.

<sup>283</sup> Gáll 2013, 317.

<sup>284</sup> Husár-Oța 2024, 663, note 107.

<sup>285</sup> Horedt 1952, 329.

<sup>286</sup> Horedt 1967, 509.

destroyed during cleaning before it was moved to Bucharest<sup>287</sup>. Nicolae Vlăsa was of the opinion that the sword must have been found at the Brăișoru site, which he supported with the claim that the object was handed over to the museum between November 30 – 2 December 1918 by archaeologist Sándor Ferenczi, who, due to his knowledge of the Hungarian language and topographical locations, could not have confused the names Malomfalva and Malomszeg when inventorying the object<sup>288</sup>. Erwin Gáll also leans towards this theory<sup>289</sup>. The sword is significantly corroded<sup>290</sup>. The sword (Pl. 8. b-d) has been preserved without the pommel and part of the blade with the tip. The tang is trapezoidal in shape and part of it has not been preserved. The lower guard is straight with rounded edges when viewed from the front. It is oval in shape from above and tapers from the center towards the ends. The cutting edge is damaged, and there are clear traces of the wooden construction of the sword scabbard on the lower side of the blade. A relatively distinct fuller runs through the center of the blade, decorated on one side with seven short vertical lines, between which are placed the Latin letters S, one of which is reversed (II & III S II)<sup>291</sup>. Today, only four vertical lines and both letters are visible to the naked eye, while the inverted letter S probably remained inlaid with copper<sup>292</sup>. The other side of the blade is inlaid with twelve circular motifs connected by short lines, which have been partially preserved. This pattern was filled with brass, which is visible on 10 circles<sup>293</sup>. X-ray images revealed that, in addition to the central vertical connecting line, two others have been preserved, one in the shape of the letter V and the other in the shape of an inverted letter M<sup>294</sup>. The surface of the crossbar probably also bears traces of incrustation with some non-ferrous metal containing zinc<sup>295</sup>. Preserved length – 68.35 cm; length of the tang – 10.5 cm; length, height (at its middle)<sup>296</sup>, thickness of the lower guard – 9.5, 1.55, 0.25–2.3–0.25 cm; length of the blade – 57.85 cm; width of the blade – 5.55–3.8 cm;

thickness of the blade – 0.3–0.5 cm<sup>297</sup>. Due to the absence of the pommel, it is difficult to determine the exact typological classification of the sword fragment. However, based on the lenticular shape of the lower guard, it is possible that the pommel could have been two-part with a head of the pommel divided into three, five, or seven segments, or it could have been triangular in shape. Erwin Gáll classified the sword under Geibig's combination type 11<sup>298</sup> based on the shape of the lower guard<sup>299</sup>. M. Husár and S. Oța also based their classification on Geibig's combination typology. According to them, the blade can be compared to types 2 or 3, dating from approximately 750–950 and 780–980<sup>300</sup>. The lower guard can belong to combination type 6<sup>301</sup>, dating from 790 to 890, or combination type 11, dating from 900 to 950<sup>302</sup>. At the same time, researchers point to some lenticular shaped lower guards according to Petersen's classification – special type 1, E, H/I, K, O–3, U, and V<sup>303</sup>. Personally, I believe that type E can be ruled out with certainty, as the lower guards and pommels of this type are decorated with pit decoration<sup>304</sup>, which, as can be seen from the drawing and photographs, is not present on the surface of the crossguard of the sword from Morești/Brăișoru. The sword may therefore be similar to one of the above types (special type 1, E, H/I, K, O–3, U, and V), dating from a relatively broad period ranging from the second half of the 8<sup>th</sup> century to the first half of the 11<sup>th</sup> century.

Three more swords should be included in the period under review, but there is no information about their archaeological context or their current condition and storage in museums, and no drawings or photographs are available. Specifically, these are three swords from Transylvania and Banat. According to Radu R. Heitel, there should be a sword from Cluj-Napoca, a copy of which is reportedly located in the National Military Museum in Bucharest. Apart from the fact that it is supposed to be a Petersen type Y sword, dated to the end of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century, nothing else is known about it<sup>305</sup>; Jimbolia (Timiș

<sup>287</sup> Horedt 1967, 509.

<sup>288</sup> Vlăsa 1967, 511.

<sup>289</sup> Gáll 2013, 317.

<sup>290</sup> Husár-Oța 2024, 663–664.

<sup>291</sup> Husár-Oța 2024, fig. 4. 1e-f.

<sup>292</sup> Husár-Oța 2024, 664–665.

<sup>293</sup> Husár-Oța 2024, 664.

<sup>294</sup> Husár-Oța 2024, 664, fig. 4. 1c-d.

<sup>295</sup> Husár-Oța 2024, 665.

<sup>296</sup> Martin Husár and Silviu Oța also mention the height of the lower guard at the ends, which in the case of the sword in question is 1.4 – 1.6 cm.

<sup>297</sup> Husár-Oța 2024, 660–662, tabe 1. no. 5.

<sup>298</sup> This variant corresponds to Petersen's types U, V and W. Geibig 1991, 54.

<sup>299</sup> Gáll 2013, 317.

<sup>300</sup> Husár-Oța 2024, 665.

<sup>301</sup> This variant corresponds to Petersen's type K. Geibig 1991, 45.

<sup>302</sup> Husár-Oța 2024, 665–666.

<sup>303</sup> Husár-Oța 2024, 666.

<sup>304</sup> Petersen 1919, 75–80, fig. 61–65.

<sup>305</sup> Heitel 1994–1995, 438.

County) – allegedly a 10<sup>th</sup>-century Western-type sword, which, however, could not be identified in any museum<sup>306</sup>; Tomnatec – another sword that is said to have been lost; no further information is available<sup>307</sup>.

### *Sword scabbard chapes*

Only two finds of sword scabbard chapes are known from the territory of present-day Romania. The bronze sword scabbard chape with an oriental palmette motif comes from Alba Iulia and was added to the collections of the National Museum of Transylvanian History in Cluj Napoca (MNIT) in 1943, where it is stored under inventory number VI. 4151<sup>308</sup>. The scabbard chape allegedly came from a grave, but this cannot be verified as the context of the find is unknown<sup>309</sup>. The bronze sword scabbard chape (Pl. 11) is characterized by a smooth body. The upper part is damaged, lined with two rows of pearl decoration, between which is incorporated an intertwined braid-like pattern. The elongated, semi-oval object tapers towards the end and is finished with a cylindrical projection with a rounded end, which shows signs of wear. The surface is decorated on both sides, in the lower part, with a relief palmette pattern, which ends at the sides in the form of two horizontal lines, as if stretching towards the cylindrical projection, but then continues upwards, as if towards the top of the end, and ends and/or transitions into a plant ornament stem that branches out on the sides and upwards towards the top into three parts ending in a heart-shaped leaf. In the lower part of the ornament, where the lines from the sides transition to the top of the stem, they are separated by a gap between two additional vertically placed relief bands, which are shaped into a kind of double leaf or trefoil in the lower part. Metric data: Height in the middle – 9.8 cm; height of the side – 9.1 cm; opening width: 4.9 cm; weight – 62.4 g<sup>310</sup>. The closest analogies to this sword scabbard chape were found in Belarus, at the Staraya Belitsa site, then in Bulgaria, Russia, and at a burial site in Beszterec, Hungary (Szabolcs-Szatmár-Bereg County), where the scabbard chape was found in a grave together with a Petersen type S sword<sup>311</sup>. Gali F. Korzuchina assigned this type of sword scabbard chapel to

group V, which includes a relatively wide range of pommels with a smooth body, relief decoration of plant ornamentation in the lower part and upper decoration in the form of a zoomorphic or ornitomorphic head with several centers of production – the Danube region, eastern Prussia<sup>312</sup>. Based on specimens from Beszterec and Bulgar, it can be concluded that the center of the upper part of the Alba Iulia scabbard chape was decorated with stylized bird heads turned in profile<sup>313</sup>. The dating of this group was estimated to be the end of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century<sup>314</sup>. Peter Paulsen classified the scabbard chape from Beszterec as an oriental palmette (orientalische palmette) and included it in the so-called Varangian-Baltic group (Eine warägisch-baltische Gruppe)<sup>315</sup>. Vytautas Kazakevičius classified the Lithuanian finds of Paulsen's type of oriental palmette and the so-called Baltic-East Prussian group (Eine baltisch-ostpreußische Gruppe) into group III and subgroup III b, with their place of manufacture somewhere in the south of the Slavic territories of Russia, Hungary or even Bulgaria<sup>316</sup>. It should be noted, however, that among the Lithuanian finds, not a single specimen decorated on both the upper and lower sides corresponds to the Alba Iulia find or its analogues from Belarus, Hungary, and Russia. Given that this is a diverse group of sword scabbard chape, which differ mainly in their decoration, I have decided to classify them typologically under Paulsen's type of oriental palmette, without further classification into the groups of this type created by him. The grave from Beszterec is dated to the end of the 10<sup>th</sup> to the beginning of the 11<sup>th</sup> century, and the same dating is proposed by S. Kainov and O. Makušnikov for the specimen from Staraya Belitsa<sup>317</sup>. Erwin Gáll dates the find from Alba Iulia to the turn of the 10<sup>th</sup> and 11<sup>th</sup> centuries<sup>318</sup>.

The second sword scabbard chape comes from an unknown location near the city of Bârlad (Vaslui County), which lies in eastern Romania in the historical region of Moldavia<sup>319</sup>. In this case, too, the find context is unknown. According to Ion Tentiuc, the scabbard chape is not located in the museum in Bârlad, and it is even possible that

<sup>306</sup> Kovács 1994–1995, 179; Gáll 2013, 556, 741.

<sup>307</sup> Heitel 1994–1995, 430 – note 138.

<sup>308</sup> Ciugudean-Dragotă 2002, 47, cat. no. 103; Gáll 2013, 199.

<sup>309</sup> Roska 1944, 102; Gáll 2013, 199.

<sup>310</sup> Gáll 2013, 199.

<sup>311</sup> Каинов-Макушников 2022, 165, рис. 2, 3.1,3.

<sup>312</sup> Каинов-Макушников 2022, 163.

<sup>313</sup> Paulsen 1953, 66, abb. 79.

<sup>314</sup> Каинов-Макушников 2022, 163.

<sup>315</sup> Paulsen 1953, 66, abb. 78–79, 67–84.

<sup>316</sup> Kazakevičius 1992, 99–100.

<sup>317</sup> Каинов-Макушников 2022, 165.

<sup>318</sup> Gáll 2013, 199.

<sup>319</sup> Spinei 1973, 277.

Victor Spinei examined it in a private collection while conducting archaeological research in the area. It was also allegedly not sketched or photographed<sup>320</sup>. From the available literature, we only know that the scabbard chape dates between the 11<sup>th</sup>–12<sup>th</sup> centuries<sup>321</sup>. In terms of typological classification, it should be type VII according to Korzuchina<sup>322</sup>, with analogies from Livonia and Courland<sup>323</sup>. In Kazakevičius' typology, these scabbard chapes belong to type V, which he divides into two groups – Va and Vb<sup>324</sup>. Artūrs Tomsons classified Latvian finds under type V, dividing them into groups 1, 2, and 3<sup>325</sup>. They are considered to be the product of masters from the Baltic region, as their greatest concentration is found throughout the Baltic Sea area, especially in Courland and western Lithuania<sup>326</sup>. According to T. J. Arne<sup>327</sup>, they date from the 11<sup>th</sup> to the 12<sup>th</sup> centuries or from the 11<sup>th</sup> to the 13<sup>th</sup> century<sup>328</sup>.

### Conclusions

There may be several reasons for the occurrence of this type of weapon in the monitored area within the historical context. Three swords and one pommel discovered in the historical region of Dobruja are mainly associated with the military or commercial activities of the Scandinavians and Kievan Rus from the 9<sup>th</sup> to the 11<sup>th</sup> century, or with the presence of the so-called Varangian Guard of the Byzantine emperors<sup>329</sup>. In addition to Romania, similar artifacts have also been found in various locations in Bulgaria, and these are exclusively military items such as spearheads, axes, one find of a Scandinavian shield boss of type R562<sup>330</sup> and a find of a copper alloy decorative rosette, undoubtedly a part of the so-called Black Mound type helmet<sup>331</sup>. We can also add to these finds of four swords of types H<sup>332</sup>, K, and Z according to Petersen, one

head of the pommel of type R/S or Kirpichnikov type IIA<sup>333</sup> and fourteen finds of scabbard chapes<sup>334</sup>. Some of these objects may be evidence of the military campaign of the Kievan Rus prince Svyatoslav in 968, 969–971, during which he and his army managed to conquer most of the important centers of the First Bulgarian Empire<sup>335</sup>. This event was also recorded by the Byzantine chronicler Leon Diakon<sup>336</sup>. Svyatoslav allegedly managed to conquer the entire Dobrudja, where he ruled directly, and was to control eastern Bulgaria under the formal authority of the Bulgarian Tsar Boris II<sup>337</sup>. Rescue archaeological research from 2000–2003 in the village of Nufăru (Tulcea County), located on the right bank of the Sfântu Gheorghe branch of the Danube, in northern Dobruja, revealed the presence of wooden house structures dating from the 10<sup>th</sup> to 13<sup>th</sup> centuries<sup>338</sup>. Parallels to such structures from the 10<sup>th</sup> to 11<sup>th</sup> centuries are known from Novgorod and Staraya Ladoga<sup>339</sup>. Based on navigation maps and notaries documents, Nufăru is even identified with the medieval trading center of Pereyaslavets on the banks of the Danube, which Svyatoslav wanted to make the center of his empire<sup>340</sup>. The discovery of a head of the pommel from the Păcuiul lui Soare fortress, located near the Dorostolon fortress, today Silistra on the Bulgarian side of the Danube, may also be related to these events. It is believed that the fortress was built by the Byzantines as a military counterweight to Dorostolon<sup>341</sup>. These places were the site of a military clash between Svyatoslav and his army and the Byzantines, when Svyatoslav's retreating army was trapped in the Dorostolon fortress<sup>342</sup>. Valeri Yotov assumes that the aforementioned items could have also reached the Balkans through the nomadic Pechenegs, who had both commercial and military contacts with Kievan Rus<sup>343</sup>. A similar situation can be observed in eastern Romania, in the historical region of Moldavia. The sword from Pașcani

<sup>320</sup> I would like to thank Ion Tentiuc for this information.

<sup>321</sup> Spinei 1973, 277.

<sup>322</sup> Корзучина 1950, 67–68, table 1; Spinei 1973, 277.

<sup>323</sup> Arne 1913, 387, fig. 34–37; Spinei 1973, 277-note 317.

<sup>324</sup> Kazakevičius 1992, 102–106, fig. 9–10.

<sup>325</sup> Tomsons 2012, 211–219, fig. 118–123.

<sup>326</sup> Arne 1913, 387; Tomsons 2012, 211.

<sup>327</sup> Arne 1913, 388.

<sup>328</sup> Tomsons 2012, 211.

<sup>329</sup> Yotov 2011, 40; 2016, 249.

<sup>330</sup> Yotov 2016, 247, 249, fig. 10.6–10.12.

<sup>331</sup> Каинов 2018, 47–52, fig. 1.

<sup>332</sup> Petersen type H swords are characterized by a triangular pommel (Petersen 1919, fig. 79), but the sword found at an unknown location in the Sliven oblast, in the eastern part of the country, has a two-part pommel with a semicircular head of the pommel (Zlatkov 2014, 138). In addition, the lower guard and pommel are covered with fragments of decoration

made of silver, copper and brass wire (Zlatkov 2014, 139). The sword resembles the Albești specimen in shape, so it cannot be ruled out that it could be a Petersen type V.

<sup>333</sup> Yotov 2016, 242–244, fig. 10.1: 1–2, 6, 10.2: 2; Viskupič 20223.

<sup>334</sup> Yotov 2016, 244, fig. 10.3–10.5.

<sup>335</sup> Yotov 2016, 252.

<sup>336</sup> Téra 2019, 206.

<sup>337</sup> Téra 2019, 208.

<sup>338</sup> Damian-Vasile 2011, 275–276.

<sup>339</sup> Yotov 2016, 252.

<sup>340</sup> Damian-Vasile 2011, 275–276; Téra 2019, 210.

<sup>341</sup> Yotov 2016, 251.

<sup>342</sup> Téra 2019, 209.

<sup>343</sup> Yotov 2011, 40.

and the tip of the sword scabbard from Bârlad are likely to be related to the military and/or commercial activities of the Scandinavians and Kievan Rus<sup>344</sup>. These activities can be confirmed by the discovery of other military objects associated with Scandinavia and Kievan Rus. Several types of axes have been found in various parts of the Romanian region of Moldavia, which have parallels in Kievan Rus and Scandinavia<sup>345</sup>. Another object that may corroborate these activities is a stray find scabbard chape from the Mîrzoaia site, Nisporeni district in the Republic of Moldova, with a zoomorphic motif in the Jelling style, which could fit into the so-called Scandinavian group of scabbard chapes according to P. Paulsen's typology, dating to the second half of the 10th century<sup>346</sup>.

According to L. Kovács, double-edged swords appear in graves in the Carpathian Basin from the second half of the 10th century to the beginning of the 11th century<sup>347</sup>, with their use occurring after 955<sup>348</sup>. It is also impossible to rule out the presence of foreign elements in the Hungarian army during their military campaigns in the 10th century, whose origins differed from the population of the steppe horizon, or whose language and culture differed from the Hungarian cultural sphere and who used double-edged swords<sup>349</sup>. Erwin Gáll assumes the presence of Slavic or other contingents in the Hungarian army and indicates the use of double-edged swords in the Carpathian basin from the beginning of the 10th century<sup>350</sup>. In the case of the Transylvanian Basin, Banat, and Partium, dating is assumed to be from the second half of the 10th century<sup>351</sup>. Some swords from Transylvania, Banat, and western and north-western Romania (the provinces of Crișana, Sătmar, Oaș, Maramureș) come from locations where fortresses or centers of power have been identified, such as Biharea and Kovin, which, based on archaeological research, can be dated to the period from the 9th to the 11th century<sup>352</sup>. In the vicinity of Cheglevici, where a double-edged sword was found, lies Cenad, where a fortress is believed to have been located at the end of the 10th and beginning of the 11th century<sup>353</sup>. A similar situation can be assumed in the case of the

sword found in Vetîș. The site is located near the town of Satu Mare. The Anonymous Chronicle mentions the fortification of Castrum Zothmar, but from an archaeological point of view, the existence of a 10th-century fortress in the territory of the present-day town of Satu Mare has not been confirmed; contemporary sources mention it only at the beginning of the 13th century<sup>354</sup>. According to K. Horedt, the sword from the MNIR collection in Bucharest is associated with the fortified medieval settlement from the Morești -Podei<sup>355</sup>. Given the existence of another version regarding the possible origin of the sword, it is not possible to determine with certainty where exactly it was found. From the above information, we can conclude that almost all of the discussed sword finds, including two sword scabbard chapes, do not have a clear archaeological context, and given the current state of research, we are unable to draw any further conclusions regarding not only the archaeological but also the chronological context of the examined objects. Eight swords are stray finds (Alba Iulia, Albești, 2x Dobrudja, Cheglevici, Orșova, Păcuil lui Soare, Vetîș), and the circumstances of their discovery could not be verified, with the exception of the sword from Vetîș. For the other five, we cannot confirm with certainty where exactly, when, and under what circumstances were they discovered (Aiud, Bârlad, Pașcani), with one find presumed to belong to a settlement (Morești/Brăișoru) and the other presumed to be a stray find (Kovin). Three swords and one scabbard chape are believed to come from graves (Bihar, Dej, Gâmbaș, Alba Iulia), and only the sword from Deva is known to have been found in a grave. Dating the swords from Orșova and Vetîș can be complicated given that the time frame for the use of Geibig's combined types 12 and 16 spans two centuries<sup>356</sup>. The unclear classification within a specific time frame also applies to sword fragments that are missing parts of the hilt, such as the blade from Alba Iulia and the blade with a lower guard from Dobruja, whose structural parts or method of manufacture suggest that they may be chronologically older.

## ABBREVIATIONS

MNUAI – Muzeul Național al Unirii, Alba Iulia (The National Museum of the Union in Alba Iulia).

MNIR – Muzeul Național de Istorie a României,

<sup>344</sup> Gáll 2021, 260; Tentiuc-Munteanu 2022, 39.

<sup>345</sup> Gáll 2021, 260, fig. 12. 3–4, 13. 1–3, 4. 2–3, 5.

<sup>346</sup> Tentiuc-Munteanu 2022, 28, 32, 37, fig. 3. 1–2.

<sup>347</sup> Kovács 1994–1995, 153.

<sup>348</sup> Gáll 2013, 745.

<sup>349</sup> Gáll 2013, 745, 747.

<sup>350</sup> Gáll 2013, 747.

<sup>351</sup> Gáll 2013, 743.

<sup>352</sup> Cosma 2002, 42; Oța 2016, 444.

<sup>353</sup> Gáll 2013, 241.

<sup>354</sup> Cosma 2002, 51.

<sup>355</sup> Husár-Oța 2024, 654.

<sup>356</sup> Gáll 2013, 743.

București (The National Museum of Romanian History in Bucharest).

MNIT – Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca (The National Museum of Transylvanian History in Cluj-Napoca).

MINAC – Muzeul de Istorie Națională și Arheologie, Constanța (The Museum of National History and Archaeology in Constanța).

MNaB – Muzeul Național al Banatului, Timișoara (The National Museum of Banat in Timișoara).

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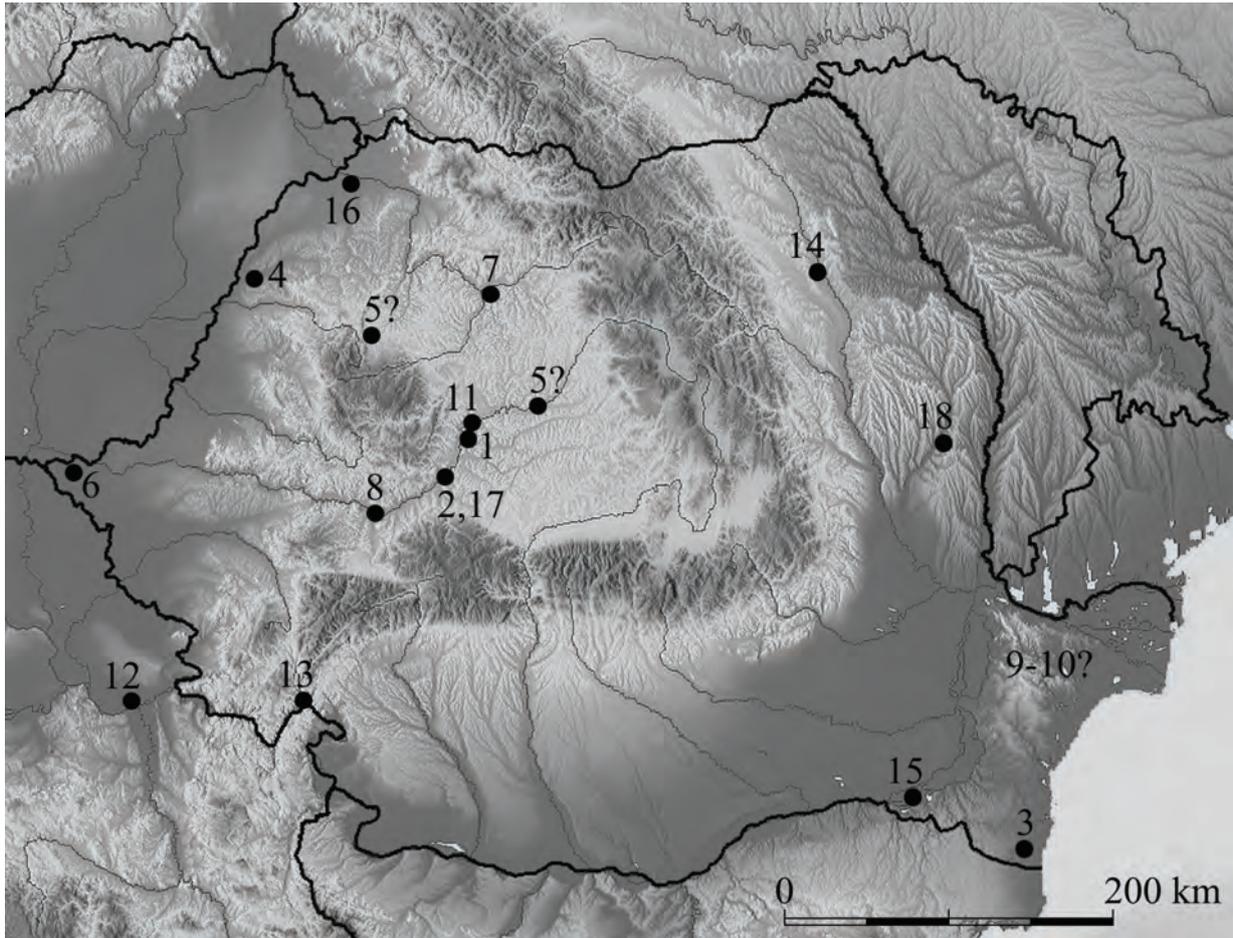
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*Fig. 1. Map of early medieval double-edged swords and sword scabbard chapes from the territory of present day Romania (8th – 11th century) mentioned in the catalogue. Swords: 1. Aiud (Alba County); 2. Alba Iulia (Alba County); 3. Albești (Constanța County); 4. Biharia (Bihor County); 5. Brăișoru (Cluj County)/Morești (Mureș County); 6. Cheglevici (Timiș County); 7. Dej (Cluj County); 8. Deva (Hunedoara County); 9.-10. unknown location in northern Dobruja; 11. Gâmbaș (Albă County); 12. Kovin (South Banat district, Serbia); 13. Orșova (Mehedinți County); 14. Pașcani (Iași County); 15. Păcuiul lui Soare (Constanța County); 16. Vetîș (Satu Mare County). Sword scabbard chapes: 17. Alba Iulia (Albă County); 18. Bârlad (Vaslui County).*

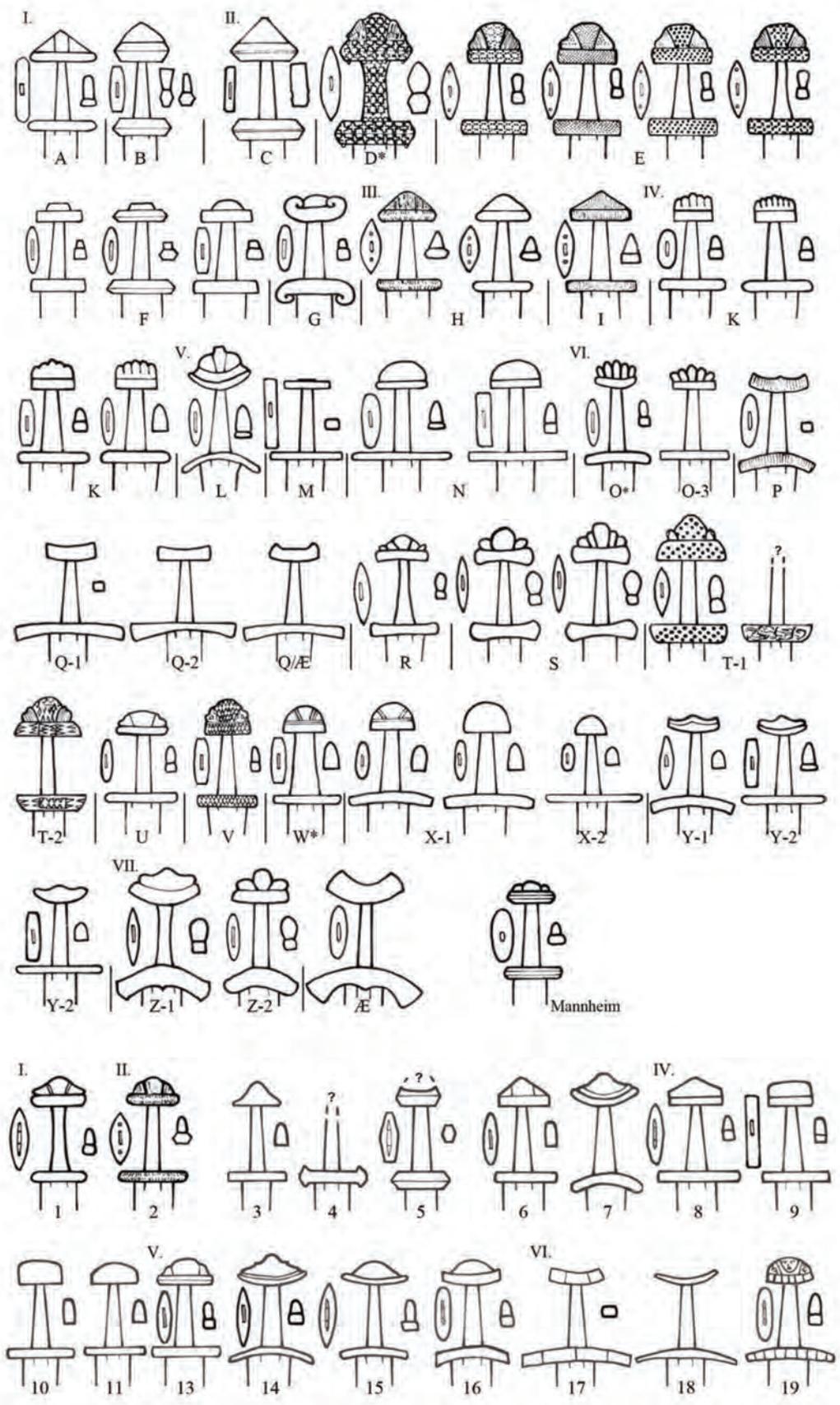


Fig. 2. Jan Petersen's typology of swords (after Košta-Hošek 2014).

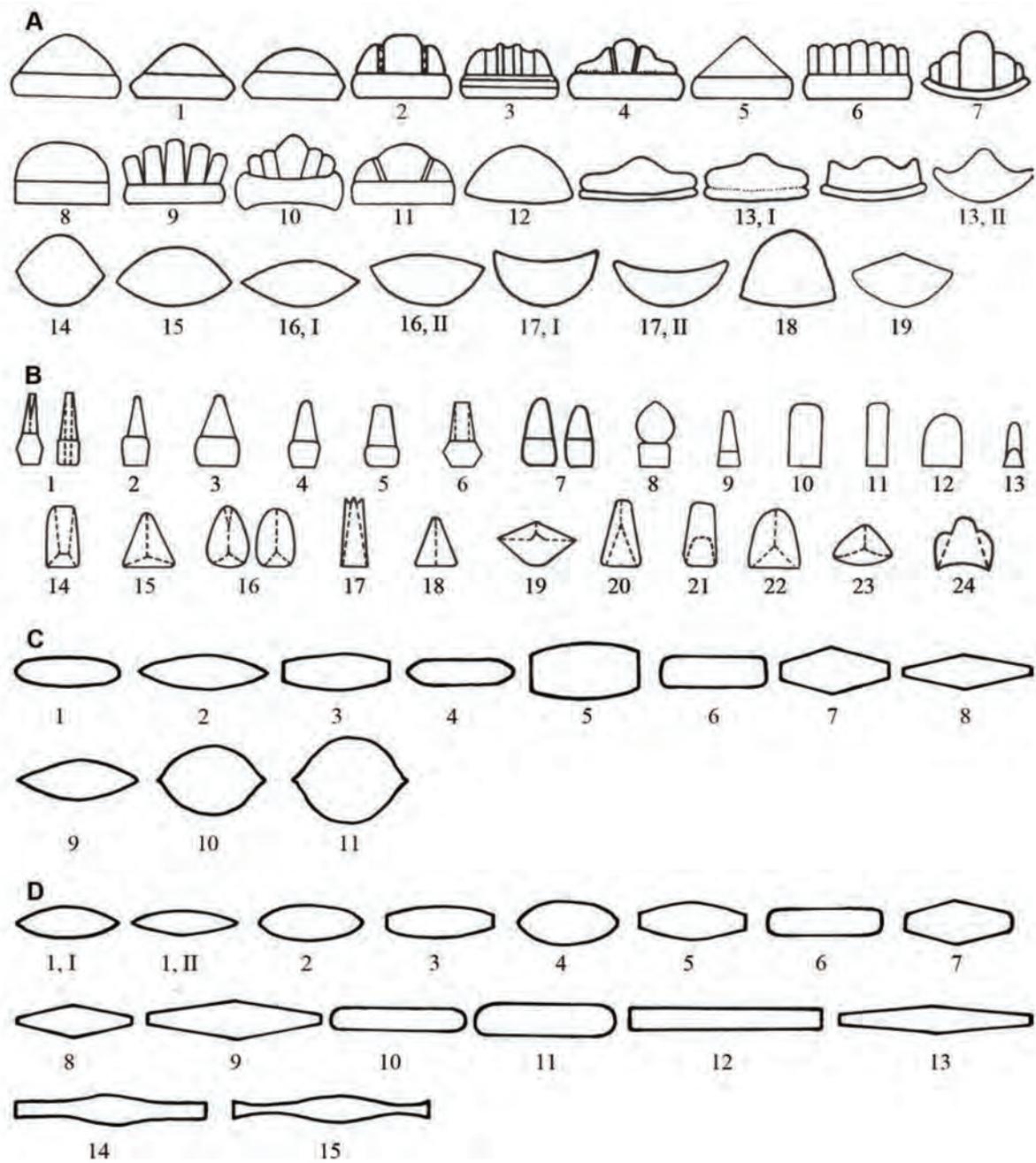
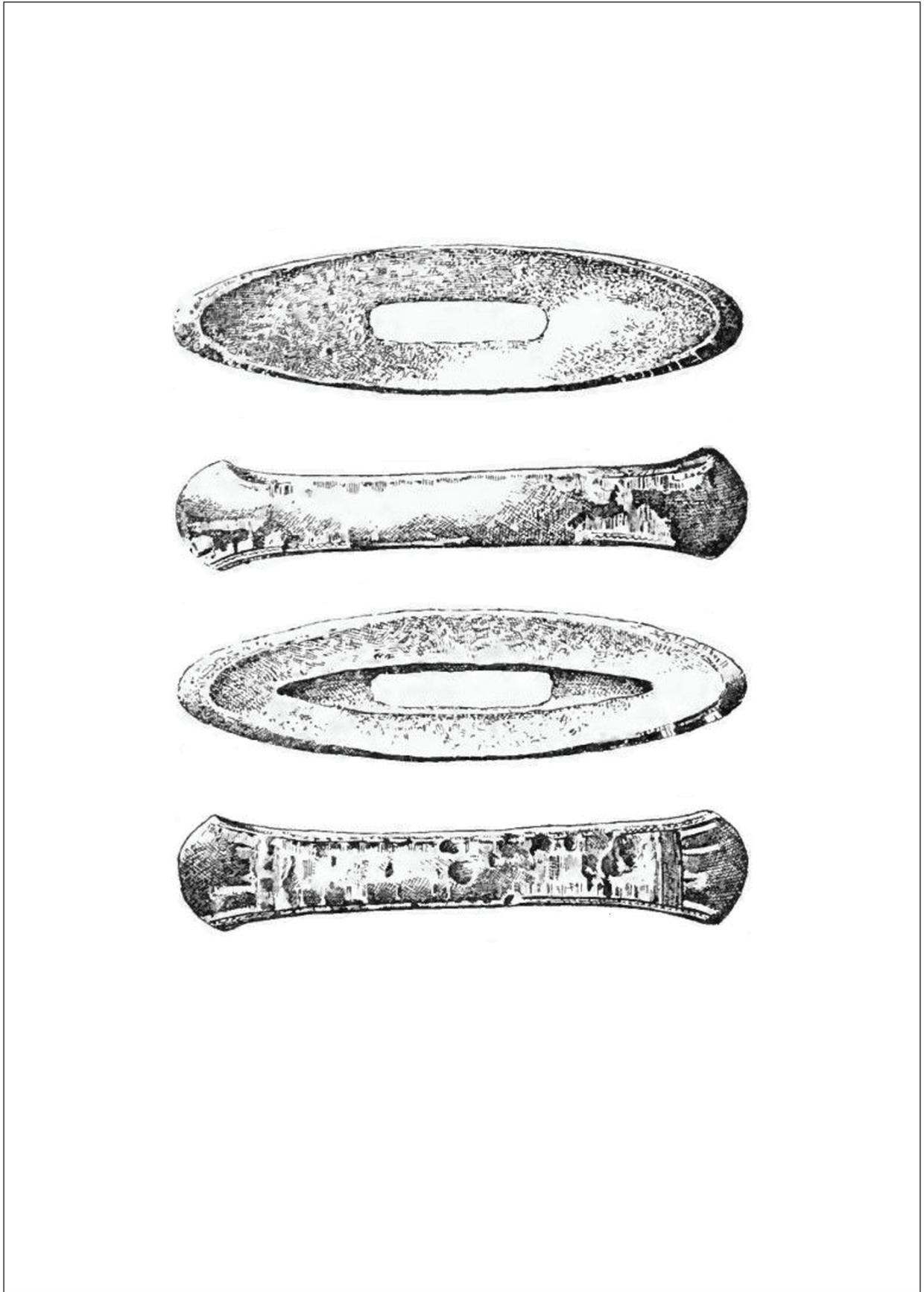
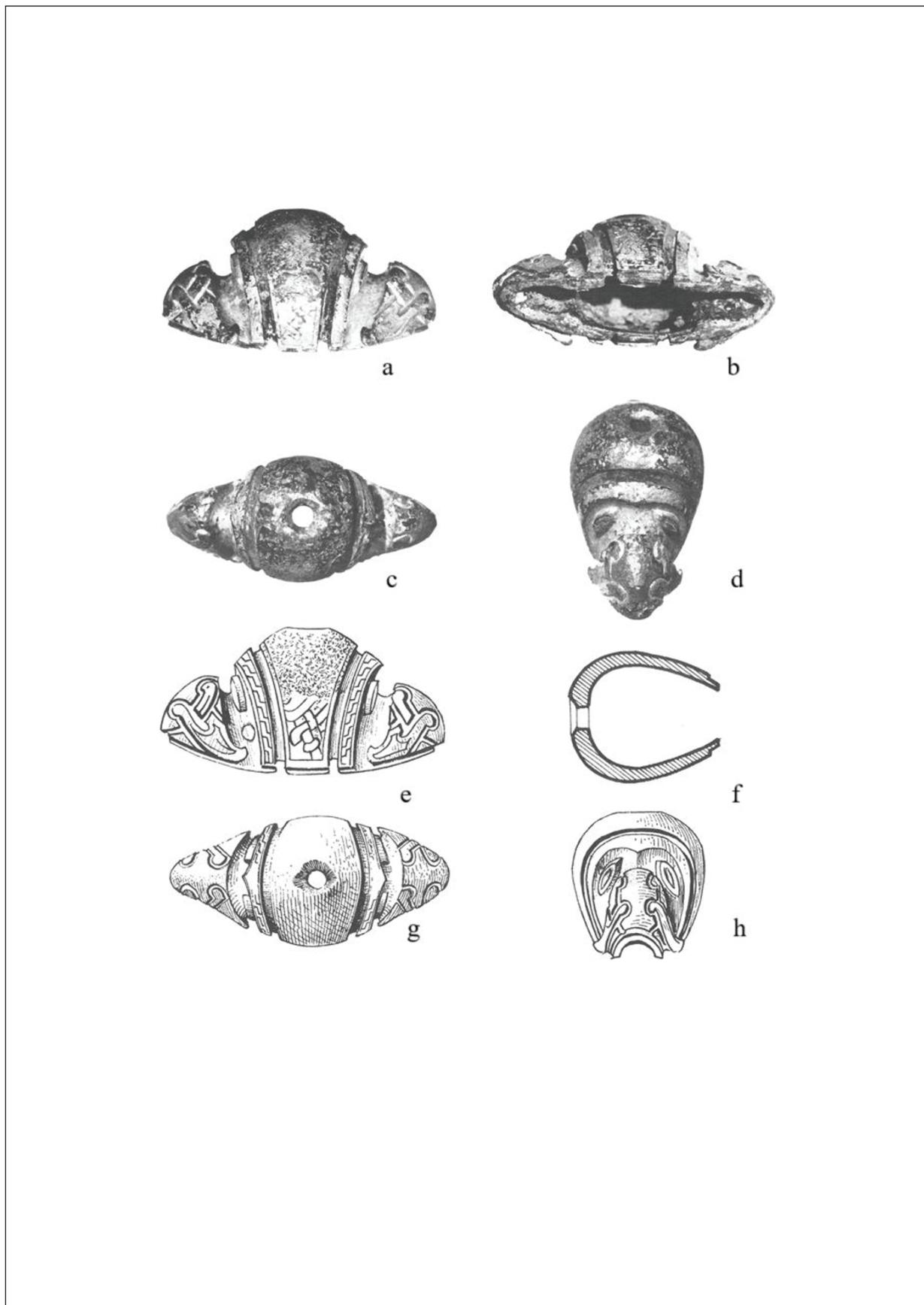


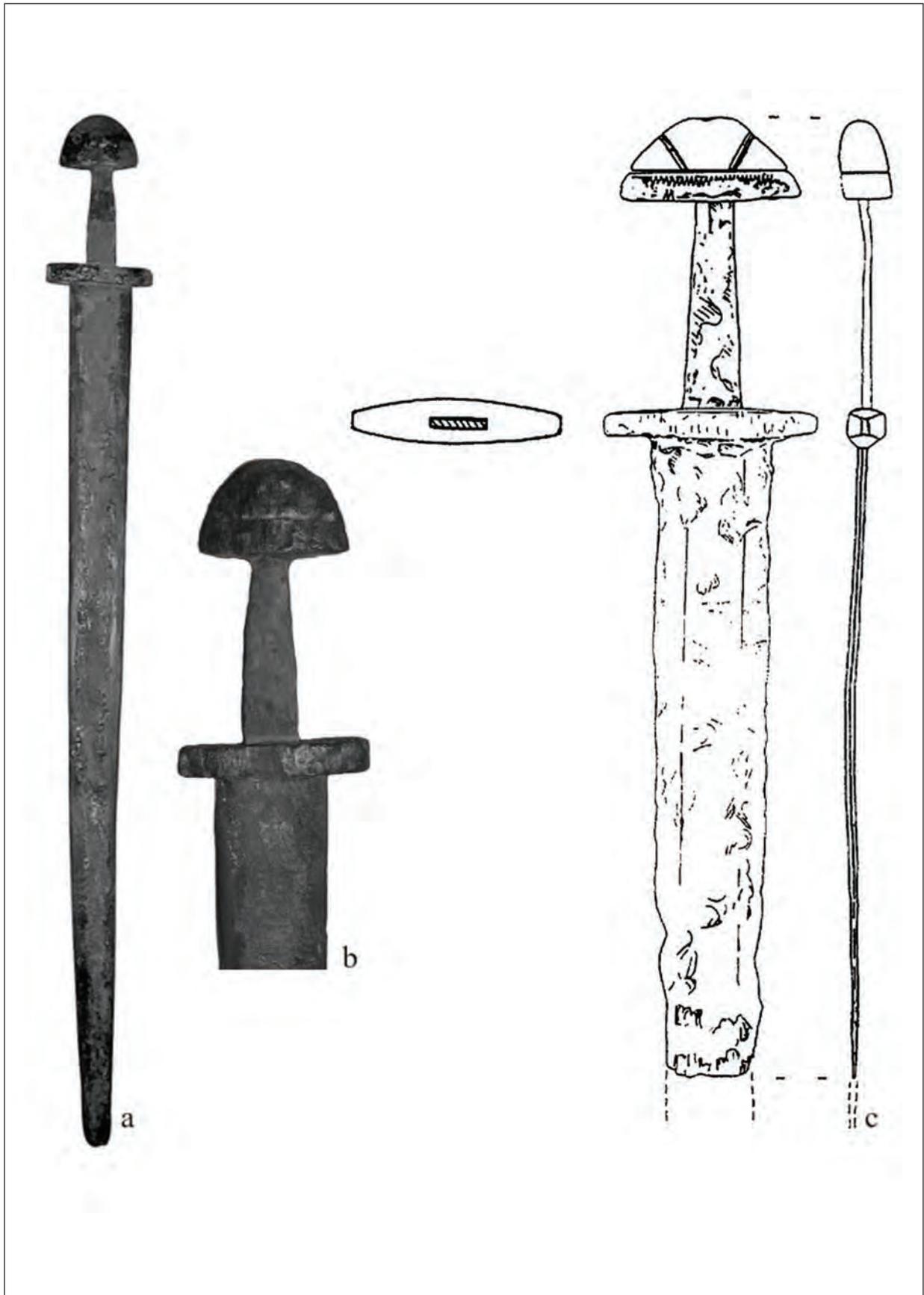
Fig. 3. Alfred Geibig's combinative typology of sword hilts: A – front view on the pommel; B – side view on the pommel; C – horizontal (undersurface) view on the pommel; D – horizontal (undersurface) view on the guard (after Košta-Hošek 2014).



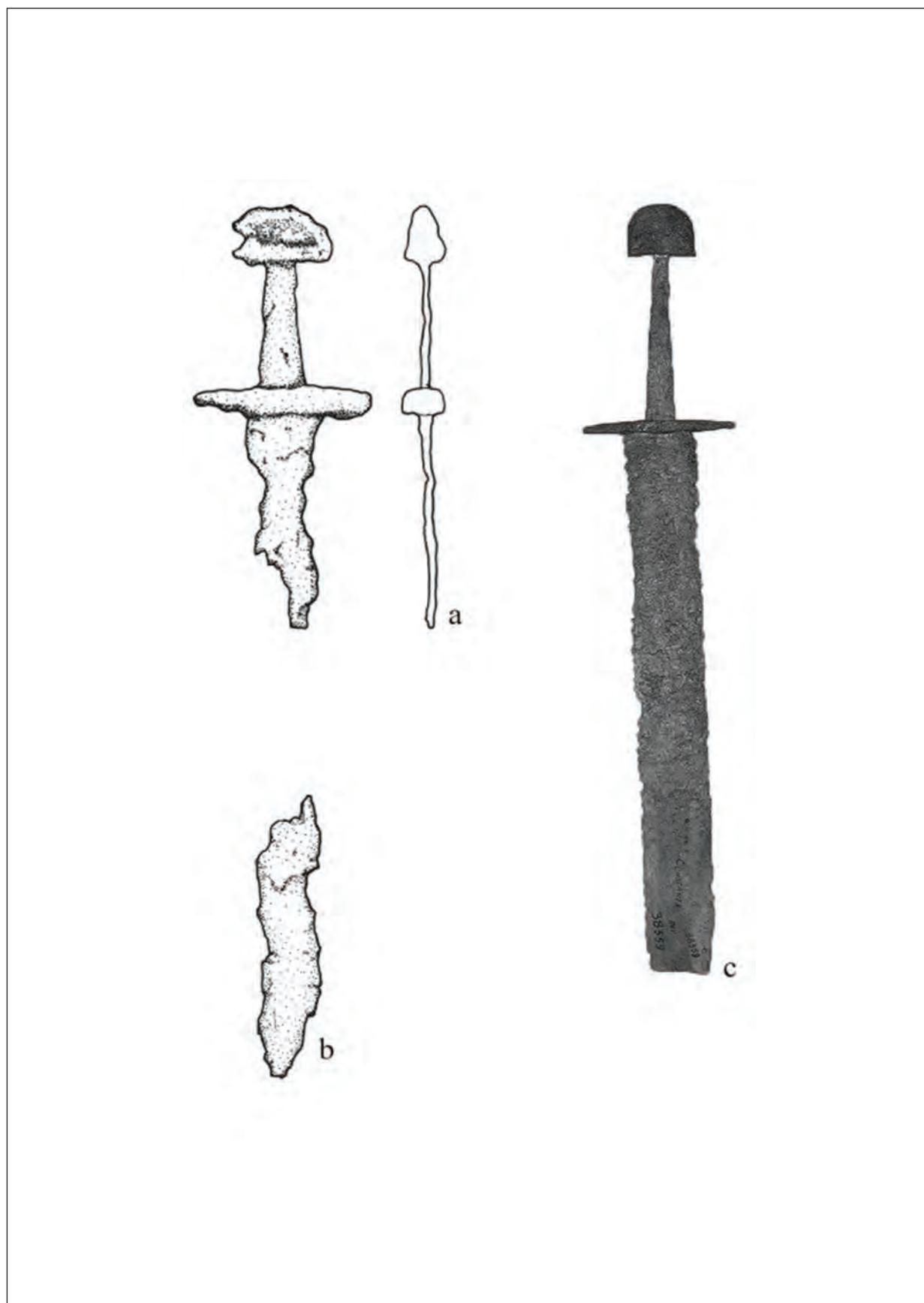
Pl. 1. Dej (after Hampel 1907, 222, a-d).



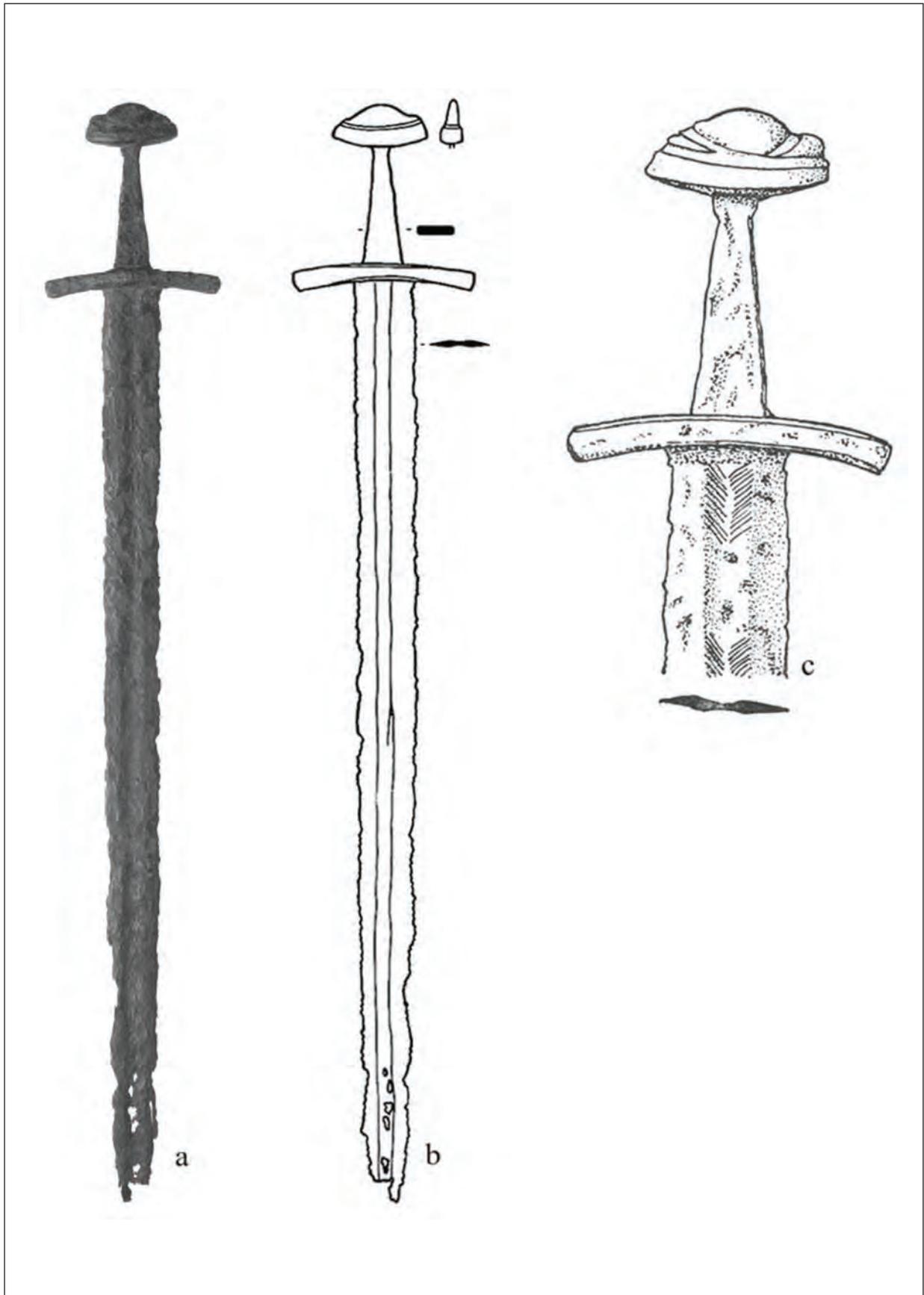
Pl. 2. Păcuil lui Soare, a-h (after Popa 1984, abb. 2, 3).



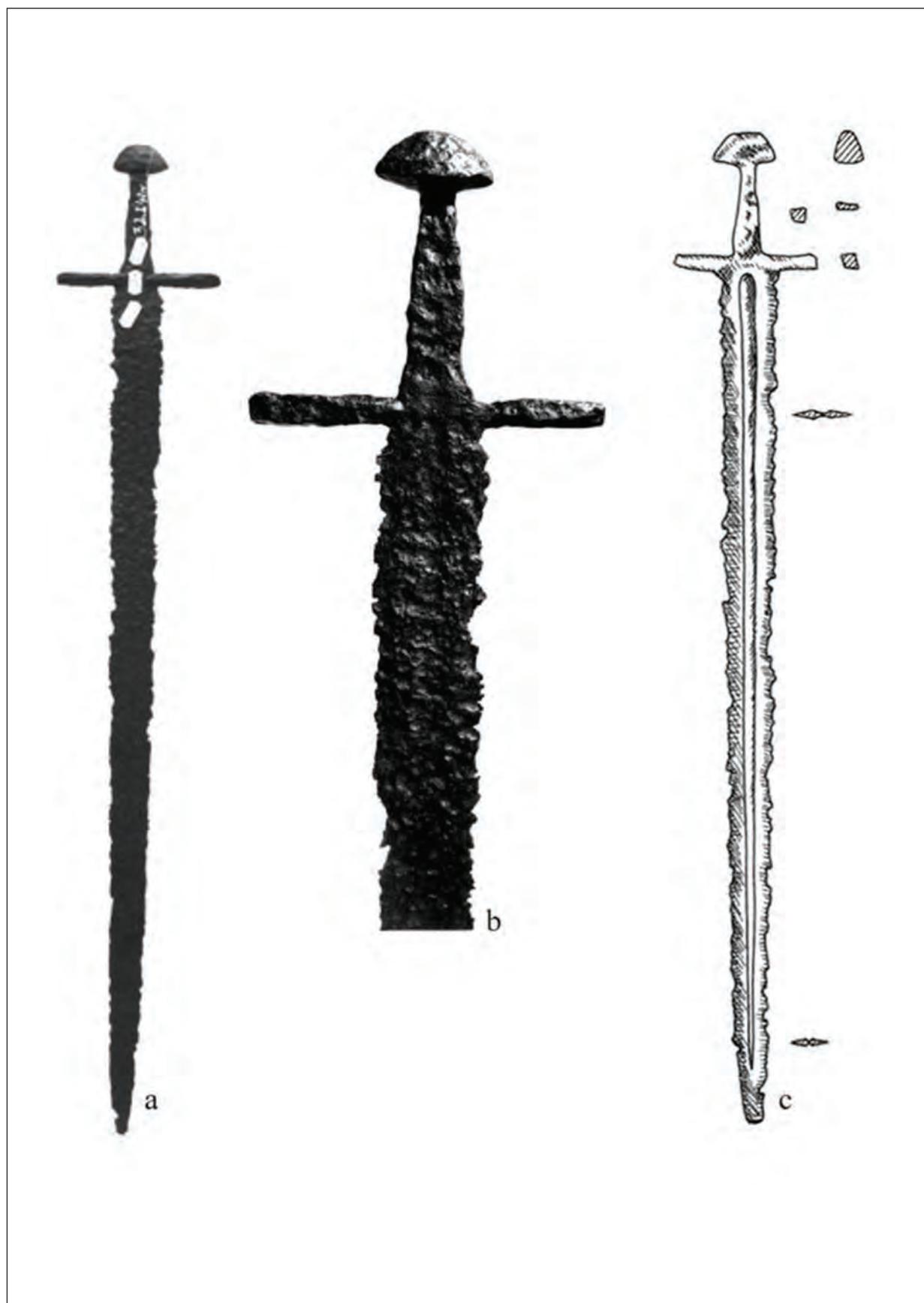
Pl. 3. a-b. Albești (after Yotov 2011: fig. 5: a, b); c. Pașcani (after Spinei 2009, fig. 9.13).



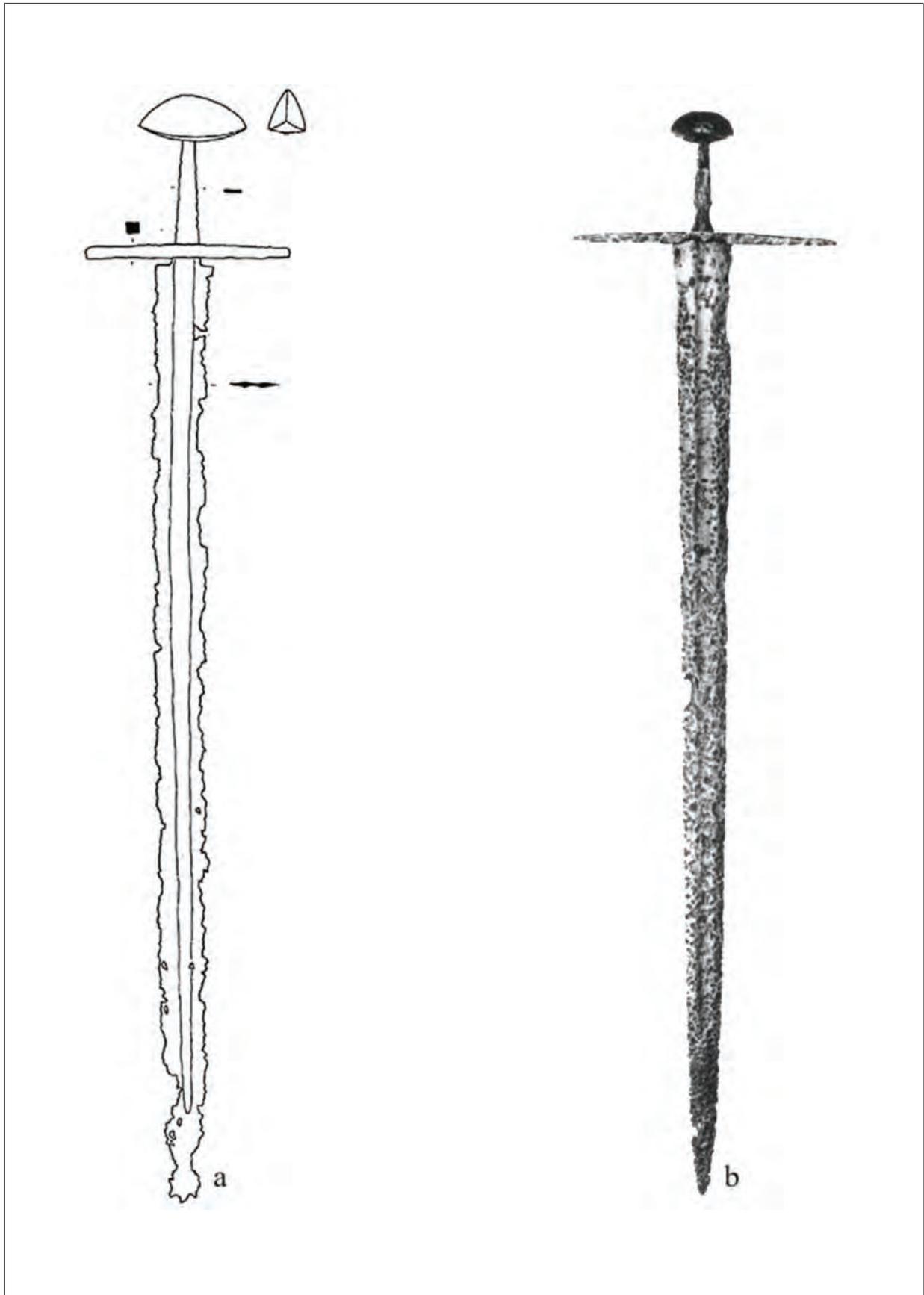
Pl. 4. a-b. Biharia (after Gáll 2013, 17. tábla. 1); c. Dobruja I (after Yotov 2011, fig. 6).



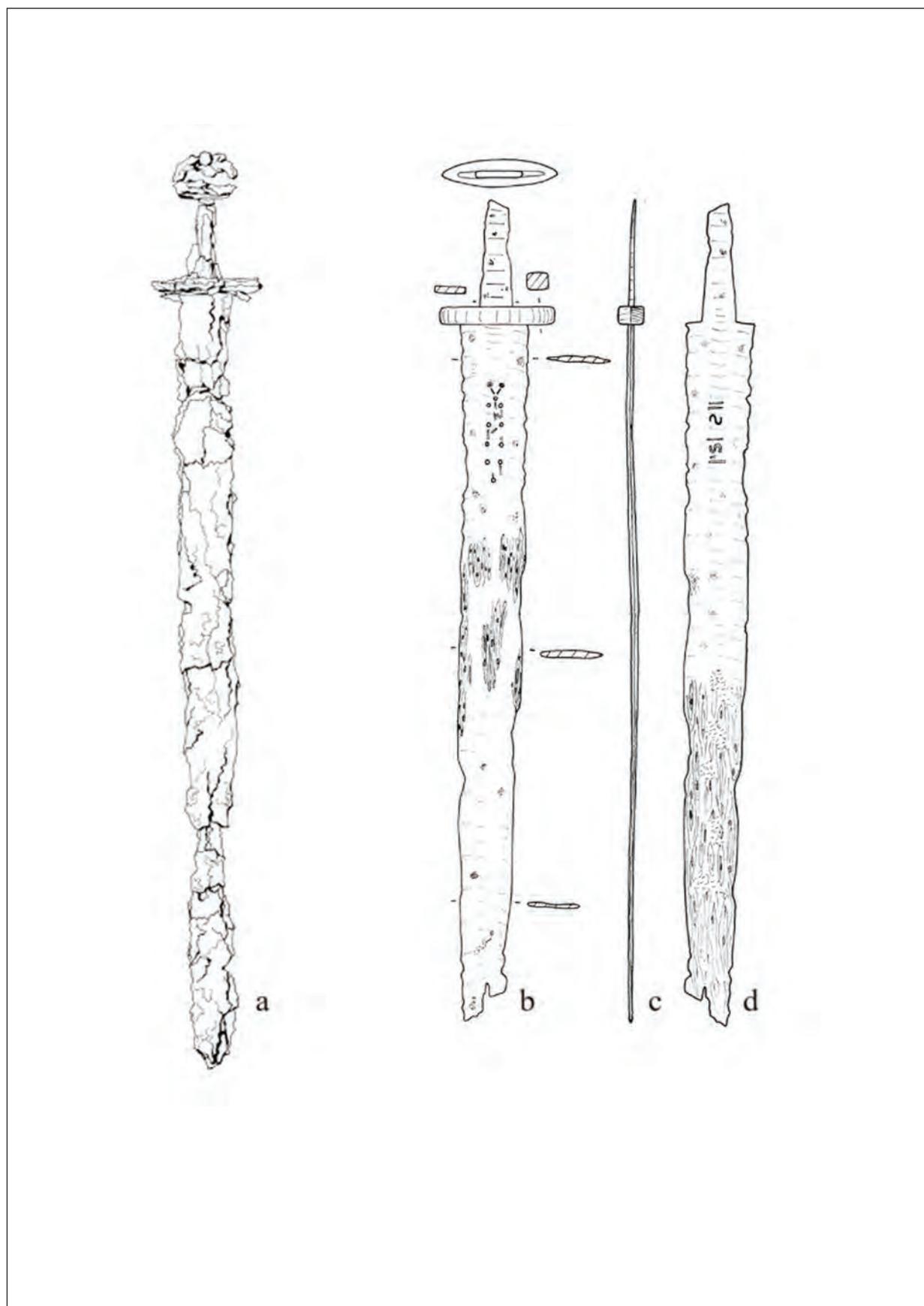
Pl. 5. Kovin, a (after mnab.ro); b (after Pinter 2007, planșa 33: c); c (after Vinski 1983, tab. III, 3).



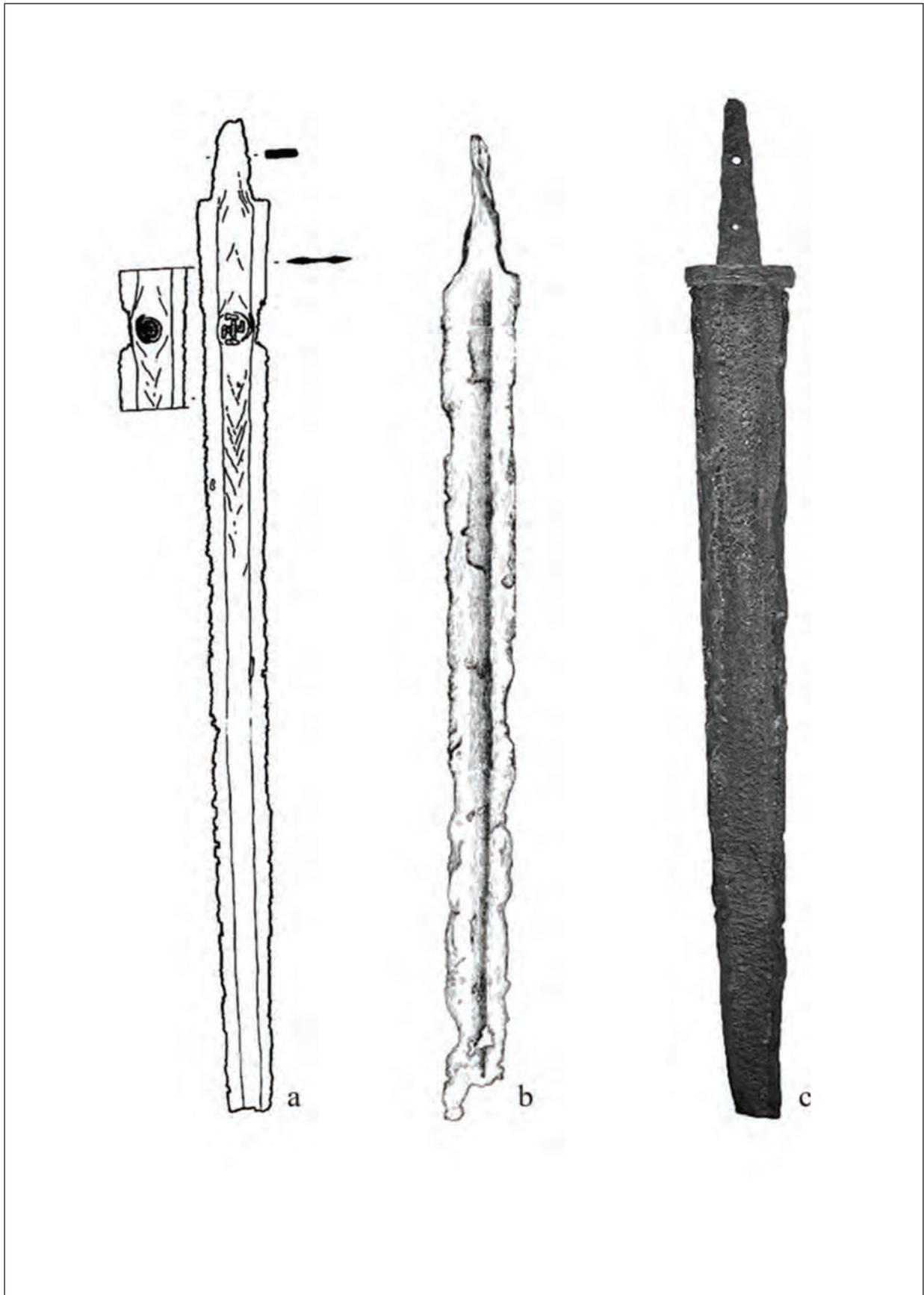
Pl. 6. Vetiș, a-b (after Gáll 2013, 292. tábla); c (after Cosma 2002, pl. 63. 3).



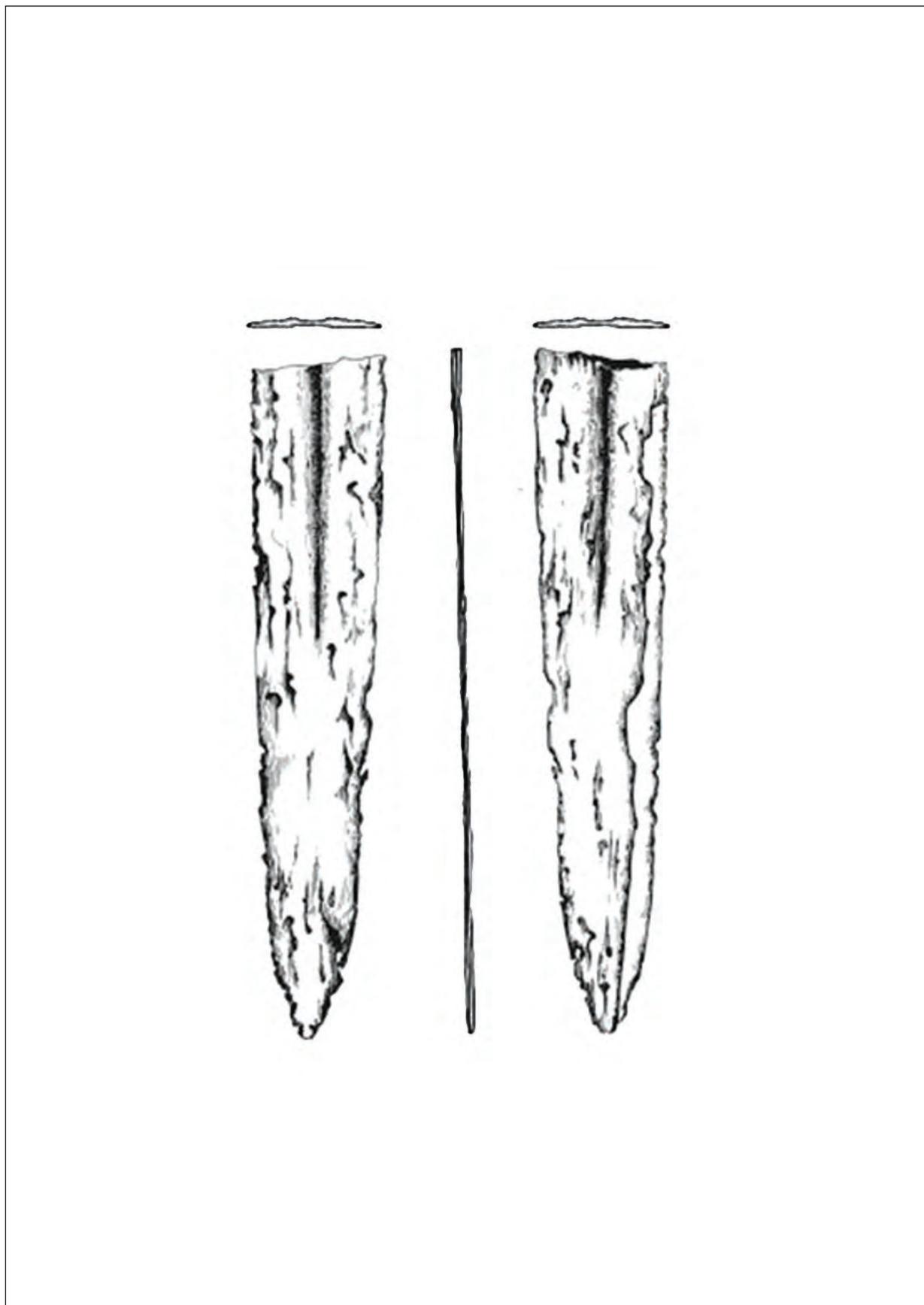
Pl. 7. a. Deva (after Pinter 2007, planşa 34: b); b. Orşova (after Kovács 1994-1995, abb. 11, 5).



Pl. 8. a. Cheglevici (after Gáll 2013, 111. tábla. 1); b-d. Brăișoru/Morești (after *Husár-Oța 2024, fig. 3. 1 e-g*).



Pl. 9. a. Alba Iulia (after *Pinter 2007, planşa 33: b.*); b. Gâmbaş (after *Gáll 2013, 159. tábla. 1*); c. Dobruja I (*Yotov 2011, fig. 7*).



Pl. 10. Aiud (after Gáll 2013, 150. tábla.1).



Pl. 11. Alba Iulia, a-c.(after Gáll 2013, 85. tábla. 1. a-c); d. (after Ciugudean-Dragotă 2002, 47, *cat. no. 103*).