Florin Curta

THE JÄGALA FIBULA REVISITED, OR REMARKS ON WERNER’S CLASS II D

Ever since its discovery on the site of an Iron-Age stronghold, in 1939, the Jägala fibula has been treated as evidence of the contacts with the Slavs and, at the same time, of a seventh-century occupation of that site. In the light of many new discoveries of similar fibulae, this paper’s goal is a re-evaluation of Joachim Werner’s class II D of the so-called “Slavic” fibulae, to which the Jägala specimen belongs. The cluster analysis of 34 fibulae reveals the network of links between individual specimens and the role of the Middle Dnieper region in the diffusion of this particular type of dress accessories both to the south (Crimea) and to the north. The examination of the archaeological context in which many of the specimens considered here have been found shows that the majority of finds may be dated to the first half of the seventh century, including perhaps the last decades of the previous century.

Florin Curta, Department of History, University of Florida, 202 Flint Hall, P.O. Box 117320, Gainesville, FL 32611-7320, USA; fcurta@ufl.edu

Half a century ago, Harri Moora was convinced that the Iron Age stronghold at Jägala, in northern Estonia, was still occupied in the seventh century, because of a fibula accidentally found by Erik Laid on that site in 1939 (Moora 1955, 53; Johanson & Veldi 2005, 30). Moora dated the fibula on the basis of analogies from Ukraine, without however citing Joachim Werner’s influential paper on “Slavic” bow fibulae, which had been published just a few years before his own work (Werner 1950). He must have been struck by the great resemblance between the Jägala fibula (Fig. 1: 9) and other specimens, which Werner had assigned to his class II D (“fibulae with bird-heads and circle-and-dot decoration”; Werner 1950, 161 f.).1 There are now 45 specimens known for that class, 26 (58 percent) of

1 Of all thirteen II D specimens known to Werner, only five had been discovered in Ukraine. Since none of those specimens is an exact analogy for the Jägala fibula, Moora most likely referred to the entire group.
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which have been found on the territory of present-day Ukraine, outside Crimea.\textsuperscript{2} It is therefore time to re-examine Moora’s premises in the light of the new finds and re-evaluate his conclusion regarding the northernmost find of Werner’s “Slavic” fibulae.\textsuperscript{3}

\textbf{Introduction}

For his classification, Werner relied on visual, mostly intuitive criteria, of which he named only two: the bird-head headplate crown and the circle-and-dot decoration on both head- and footplate. He did not pay any attention to differences in size. For example, the fibula from grave 28 in Suuk Su (Fig. 2: 31) was published side by side with that from Pastyrs’ke (Fig. 2: 24), but appears considerably smaller, although the two artefacts are almost of the same size (Werner 1950, pl. 40: 31 and 33). By contrast, in her recent study, Vlasta Rodinkova distinguished between large fibulae with rather realistically designed bird heads in the headplate crown (such as those found in grave 28 in Suuk Su or in Smorodino, Fig. 2: 29 and 31) and shorter specimens with stylized bird heads (such as those from Kerch’ and burial chamber 36 in Luchistoe, Figs 1: 10 and 2: 22). According to Rodinkova, specimens of the second group were imitations of the larger and more elaborate fibulae.\textsuperscript{4} She also noticed that some fibulae of her second group have a larger number of bird-heads (as many as eight in the case of the Kuz’minki fibula, Fig. 2: 21) than fibulae of the first group (e.g., Smorodino and an unknown location in the Middle Dnieper region, both with only five bird heads, Fig. 2: 29 and Fig. 3: 39). However, Rodinkova did not notice that the headplate crowns with five bird heads are themselves imitations of bow fibulae from the Danube region dated to the sixth century, such as that from the Fleissig collection of the National Museum of History in Budapest or the fragment from Orlea, which Joachim Werner treated as a specimen of his class I A (Werner 1950, 151 and pl. 27: 3; 2 Rodinkova 2004, 239 lists 46 specimens, but includes also specimens which belong to Werner’s classes I B (Litvintsi), II B (Davideni and the fibula from the Chojnowo collection in the Archaeological Museum in Warsaw, for which see Miśkiewiczowa 1998, 128 no. 15), or II E (Pastyrs’ke and Khmil’na). In addition, Rodinkova 2004, 242, fig. 1.38 and 39 illustrates two fibulae from the Trubchevsk hoard not published by Prikhodnyuk et al. 1996.

3 Werner knew of two fibulae – one of his class II B, the other of his class II D – said to have been from Västmanland and Gotland, respectively. However, he did not include any of them on the distribution map (Werner 1950, 163, fig. 5; the map shows Gotland, but not Västmanland). He may have known that both fibulae had been purchased in 1895 in Strasbourg by the director of the Museum für Völkerkunde in Berlin from the Hammer Museum in Stockholm, the collection of which had been in turn bought from an auction in Cologne (Åberg 1919, 77 n. 1). Given the uncertainties regarding their provenance, the two fibulae are most likely not from Scandinavia, which makes the Jägala fibula the northernmost specimen of the entire group.

4 It should be noted that there is some overlap between Rodinkova’s two groups, as the first includes specimens of between 13.6 and 19.4 cm, while the size of the fibulae in the second group ranges between 8.8 and 14.8 cm (Rodinkova 2004, 234). Rodinkova further distinguished six variants of her second group, of which the last one is “the final stage of the degradation and imitative process” (Rodinkova 2004, 235).
Fig. 2. Fibulae of Werner’s class II D. Numbers refer to the list of finds in the appendix. Drawings after Korzuhina 1996, Aibabin & Khair edinova 2009, and Rodinkova 2010a.
Csallány 1961, pl. 215: 6; Teodor 1992, 142 and fig. 7: 2). It is perhaps worth mentioning that a fibula from Nea Anchialos (Greece), which belongs to Werner’s class I B, has a crown of seven equal, highly stylized bird heads very similar to those on the Orlea fibula or on the specimen from the Fleissig collection (Curta 1994, 242; 2005, 135). Bird-head crowns on the headplate also appear on other fibulae, such as the pair from grave 87 in Suuk Su (Korzukhina 1996, 424 and 702, pl. 112: 3, 4), which display a rectangle with reticulated decoration in the middle of the foot-plate – a typical feature of Werner’s class II B (Curta 2009). Despite Werner and Rodinkova’s claims to the contrary, bird-head crowns are therefore not the exclusive feature of class II D.

At a close examination that class contains five variants of headplate (1A-E) and five of footplate (2A-E); four variants of bow (3A-D); three variants of bird-head crowns (4A-C); and six variants of terminal lobes (5A-F) (Figs 4–5). As each

![Fig. 4. Werner’s class II D, brooch design parts: headplates (1 A-E), footplates (2 A-E), and bows (3 A-D).](image)

5 Both fibulae are themselves imitations of the Sikenica/Kiszombor grave 88 type, for which see Hilberg 2009, 89 ff. The idea of placing two bird heads in the crown on either side of an animal head (as on the fibulae from Balaklia, Gradiz’k, Koziivka, and Smorodino, Figs 1: 1, 5, 14 and 2: 29) may have been inspired by bow fibulae with four bird heads, such as found in the sixth-century cemetery in Magyartés (Hungary; Pulszky 1881, 204, fig. 1: 7, 8) or in an unknown location in “Dacia” (most likely, Transylvania; Csallány 1961, 209, pl. 106: 12).
one of those variables appears to be independent from the others, the traditional classifications employed by Joachim Werner and Vlasta Rodinkova failed to account for the whole range of variability within the class, which explains the occasional inclusion of specimens from very different classes. In order to describe the combination of variables, I have adopted a different approach: each whole brooch in the appendix to this paper was assigned a minimal list of defining variables by means of an alphanumeric code.\(^6\) I drew inspiration for this approach from the method employed for the classification of the large number of moulds in the rubbish heap found near and below Building Group 3 at Helgö (Sweden), all of which served for the casting of various parts (headplates, footplates, and bows) of relief brooches (Lundström 1972). More recently, two key studies also employed the idea of breaking down the design into compositional elements for the classification of square-headed and bow brooches, respectively (Hines 1997; Zasetskaya 1997).

For the analysis of the matrix of variable incidences I chose the near-neighbor clustering method based on the Jaccard coefficient of similarity, since category

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\(^6\) Alphanumeric codes were also assigned to fragmentary specimens, which, because of the incomplete information, were ultimately excluded from the analysis.
membership must be based on common ornamental variables. In other words, to be included in a cluster (category), a fibula must have a specified level of similarity with other members of that cluster. Two clusters may then be joined when a member of one cluster has a specified level of similarity with a member of the other cluster. This method is particularly appropriate for data with no physical measurements, about which not much can be assumed in terms of probability functions. The Jaccard coefficient does not take into account mismatches: if two fibulae are similar because they both lack a certain variable, their similarity is not counted either as a match or in the total number of variables. Moreover, the coefficient is obtained by dividing the number of variables common to two fibulae by the sum of that number and the number of mismatches. In other words, the Jaccard coefficient takes into account the variation in the number of variables among fibulae (Wilmink & Uytterschaut 1984; Shennan 1990, 203 f. and 213 f.).

Analysis

The dendrogram resulting from this analysis (Fig. 6) reveals the existence of three clusters of unequal size (Fig. 1: 18). An examination of the sub-clusters shows
the very close neighborhood of a number of fibulae from the Middle Dnieper region (Balakliia, Igren’, Pastyrs’ke, and unknown location in the Dnipropetrovs’ke region). When plotting on the map of eastern Europe the near-neighbourhood relations shown in the dendrogram, it becomes apparent that, except pairs of fibulae from the same assemblage (Koziivka, Fig. 1: 16, 17) or site (Pastyrs’ke, Fig. 2: 24, 25), most other close neighbourhood relations are between fibulae found at considerable distance from each other (Figs 7–8). Two of the three clusters contain closely

Fig. 7. Plotting of the nearest-neighbour similarity of 32 fibulae of Werner’s class II D. Diminishing line thickness indicates the decreasing number of shared neighbours, from six (thickest) to four (thinnest).
related fibulae found as far from each other as Gradiz’k (Fig. 1: 5) and Suuk Su (Fig. 3: 34) or Trubechevsk (Fig. 3: 36) and Verkholat (Fig. 3: 41). The shortest lines on the map linking the nearest neighbours are those between specimens found in the Middle Dnieper region, between Balakliia (Fig. 1: 1) and Igren’ (Fig. 1: 8), as well as in Crimea, between Luchistoe (Fig. 2: 23) and Suuk Su (Fig. 3: 33). Besides those examples, contiguity does not imply similarity. The four fibulae found in the environs of Dnipropetrovs’ke on sites located within a few kilometres from each other – Igren’ (Fig. 1: 8), Verkholat (Fig. 3: 41), Volos’ke (Fig. 3: 42), and Zvonets’ke (Fig. 3: 44) – are not directly linked to each other. Kozivka (Fig. 1: 14) and Kurilovka (Fig. 2: 20), on the one hand, and Gradiz’k (Fig. 1: 5) and Pastyrs’ke (Fig. 2: 24, 26) have only four neighbours in common. There are practically no relations between Boķi (Fig. 1: 3) and Jägala (Fig. 1: 9) or between Budakalász and Kosewo (Figs 1: 12; 8). The Kosewo fibula is closest to specimens from Crimea, while neither Jägala nor Boķi have any close neighbourhood similarity with any other specimen of Werner’s class II D. Most nearest-neighbour links are between fibulae from Crimea (Suuk Su and Luchistoe) and fibulae from the Middle Dnieper region. In short, the plotting of the nearest-neighbour similarities does not seem to confirm Harri Moora’s idea of linking the Jägala fibula to

**Fig. 8.** Plotting of the nearest neighbour similarity of 32 fibulae of Werner’s class II D (detail). Diminishing line thickness indicates the decreasing number of shared neighbours, from six (thickest) to four (thinnest).
specimens of Werner’s class II D found in Ukraine. Nonetheless, the largest number of fibulae of that class known so far is from sites along the Middle Dnieper and from hoards of silver and bronze in the valleys of the rivers Desna and Seim, near the present-day border between Ukraine and Russia (Figs 9–10).

**Fig. 9.** The distribution of fibulae of Werner’s class II D in eastern Europe. Numbers refer to the list of finds.

7 Despite the apparent similarity between the Jägala and Trubchevsk (Fig. 3: 36) fibulae, which belong to the same cluster.
The relatively large number of specimens found in Crimea is also to be attributed to contacts between communities in the peninsula and those in the Middle Dnieper region. In fact, Vlasta Rodinkova even believed that the entire group originated in Crimea during the second or third quarters of the seventh century, and that it was immediately imitated in the Middle Dnieper region.

**Chronology**

To be sure, Vlasta Rodinkova also dated to the mid-seventh century the bow fibula of the Dnieper type from grave 55 in Suuk Su (Fig. 11, upper right), but produced no arguments in support of her dating (Rodinkova 2006a, 44, fig. 3). In fact, the associated buckle with a cross-shaped ornament (Fig. 11, lower right) has a good analogy found in burial chamber 5 in Samos together with three coins struck for Emperor Heraclius in 611/2, 612/3, and 613/4 (Martini & Steckner 1993, 127 f.). Such buckles belong to Schulze-Dörrlamm’s class D22 (Schulze-Dörrlamm 2002) and were already in use in the late sixth century, as demonstrated by a specimen found on skeleton 3 in the burial chamber 95 in Suuk Su together with a buckle with eagle-headed plate. However, they remained in use until the second half of the seventh century. Can the buckle from grave 55 in Suuk Su be
dated that late? In grave 53 of that same cemetery, a buckle of Schulze-Dörrlamm’s class D22 was associated with another of the Corinth type (Schulze-Dörrlamm’s class E6; Repnikov 1906, 14 and pl. XII: 1, 20), while in Eski Kermen, the buckle with cross-shaped plate from the burial chamber 181 was found together with another of the Pergamon type (Schulze-Dörrlamm’s class E16; Ajbabin 1982, 175). Finally, in the burial chamber 381 in Skalistoe, a buckle with cross-shaped plate was associated with another of the Bologna class (Schulze-Dörrlamm’s class E8; Vejmarn & Ajbabin 1993, 87, fig. 60: 18). Both the Bologna and Pergamon classes may be dated only to the first half of the seventh century, which suggests that the assemblage in grave 55 in Suuk Su may also be of the same date. This is further substantiated by the analysis of other burial assemblages from the Suuk Su cemetery, which produced belt buckles with eagle-headed plates. The fibula of Werner’s class II D from grave 28 was associated with a buckle of Zasetskaya’s class II B dated to the late sixth and early seventh century (Fig. 12; Zasetskaya 2004, 104, 117). The buckle from grave 154, which also produced a fibula of Werner’s class II D, belongs to Zasetskaya’s class II A dated to the first half of the sixth century (Zasetskaya 2004, 104 f. and 131). The recently discovered hoard from Kurilovka may also be dated to the same period. The hoard includes a bow fibula of the Dnieper type (Fig. 13, lower right), which belongs to Rodinkova’s class 1.2 dated to the first half of the seventh century (Rodinkova 2006a, 44, fig. 3). The strap ends with open work ornament (Fig. 13, middle right) belong to a group, which is particularly common in burial assemblages in the northern Caucasus region. Specimens with a little appendix such as that from Kurilovka appear in the Gaponovo and Nova Odessa hoards, but also in the cemetery excavated in Diurso (Gavrutikhin & Oblomskij 1996, 32 f., 225, fig. 46).

8 Its analogy from grave 131 in Suuk Su was found together with a buckle with eagle-headed plate of Zasetskaya’s class II B (Repnikov 1907, 111 f., 148, fig. 131, pl. XIV: 5; Zasetskaya 2004, 104).
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Fig. 12. Suuk Su, grave 28 with the position of the associated bow fibulae. After Repnikov 1906 and Korzukhina 1996.

A belt mount very similar to those from Kurilovka (Fig. 13, middle left) is known from an inhumation grave found in Krašiukovskaia in the Rostov region of Russia. Together with the belt mount were a silver belt buckle with two opposing bird heads and a belt mount of Somogyi’s class A2, both dated to the late sixth or early seventh century (Bezuglov 1985, 249, fig. 1.10).9

9 For so-called “Martynovka mounts,” see Somogyi 1987. Such mounts – including Somogyi’s class A2 – appear in the second phase of the Mokraia balka cemetery in the northern Caucasus region, which is dated with coins from the Sassanian king Kavad I (488–531) (Afanas’ev 1979, 47). Mounts of Somogyi’s class A2 have been found on skeleton 7 in the burial chamber 180/1904 in Kerch’ together with a pair of bow fibulae of the Udine-Planis class dated to the middle or the second half of the sixth century (Kazanski 1996, 330). A date within the second half of the sixth and the first decades of the seventh century is also supported by the steatite moulds found in Caričin Grad, which were used for the production of such mounts (Bvant 1990, 221, 222 f. and pl. XXXVIII: 209–210). In the Carpathian Basin, “Martynovka mounts” were already in use during the last third of the sixth century (Balogh 2004, 260 f.).
Fig. 13. Kurilovka, hoard, selected artefacts: bow fibulae, bell- and hat-shaped pendants, belt buckle and mounts, and strap end. After Rodinkova 2010a.
Equally revealing in that respect are the bell-shaped pendants from the Kurilovka hoard. Such pendants appear frequently in contemporary hoards – Gaponovo (Gavritukhin & Oblomskij 1996, 198, fig. 23: 23), Kozivka (Korzukhina 1996, 644, pl. 54: 2, 6 ff.), Nova Odessa (Korzukhina 1996, 634, pl. 44: 5, 6, 8, 9), and Sudzha (Korzukhina 1996, 660, pl. 70: 14, 15) – as well as in burial assemblages in Crimea, such as the burial chamber 36 in Luchistoe (Fig. 14). Three specimens are known from the burial chamber 321 in Skalistoe, in which they were associated to “Martynovka mounts” of Somogyi’s class A 9, an association also attested in the burial chamber 460 from that same cemetery (Vejmarn & Ajbabin 1993, 71 ff. and 113 ff., 70, fig. 47: 25, 115, fig. 83: 35). In the burial chambers 42 and 46a from Luchistoe, bell-shaped pendants were associated with buckles with eagle-headed plates of Zasetskaya’s class II D.1 dated to the middle or second third of the sixth century (Ajbabin 1994–1995, 165, fig. 20.9, 13, 15; Khajredinova 2000, 128, fig. 14; Zasetskaya 2004, 102, 106, fig. 10), while in grave 89 in Suuk Su a bell-shaped pendant was found together with a buckle with eagle-headed plate of Zasetskaya’s class II B (Zasetskaya 2004, 104, 121).

Fig. 14. Luchistoe, burial chamber 36, skeleton no. 9 with associated artefacts: earring, bow fibulae and bell-shaped pendant. After Aibabin & Khairedinova 2009.
Six bell-shaped pendants were also found in a necklace associated with skeleton 9 in the burial chamber 38 in Luchistoe (Fig. 15).10 Their analogies in grave 77 in Suuk Su were associated with a coin struck in Chersonesus for Emperor Maurice (586–602; Repnikov 1906, 23). Strap ends with the so-called “dot and comma” ornament, such as those from Luchistoe (Fig. 15, lower left) are also known from

Fig. 15. Luchistoe, burial chamber 38, skeleton 9 with associated artifacts: bow fibulae, belt buckle and mount, strap ends, as well as the necklace with beads, a circular pendant, bell-, hat-shaped, and trapeze-shaped pendants. After Aibabin & Khairedinova 2009.

10 According to Elzara Khairedinova, the two burial assemblages from Luchistoe that produced bow fibulae of Werner’s class II D belong to a cemetery phase dated between 625 and 650 (Khairedinova 2007, 37, fig. 10).
burial chamber 460 in Skalistoe, in which they were associated with “Martynovka mounts” of Somogyi’s classes A 3 and A 9 (Vejmarn & Ajbabin 1993, 113 f., 115, fig. 83: 84). Class A 9 has recently been re-dated to the last third of the sixth century on the basis of the Early Avar assemblages in Hajdúszoboszló, Szentes-Lapistó and Klárafalva (Balogh 2004, 262). Similarly, a mount of Somogyi’s class A 3 has been found on skeleton 7 in the burial chamber 180 in Kerch’ together with a pair of bow fibulae of the Udine Planis type (Zasetskaya’s class III B 6) dated to the middle or second half of the sixth century (Zasetskaya 1997, 416 and 475, pl. XIX: 21).

As mentioned above, bell-shaped pendants appear also in the Koziivka hoard. Vlasta Rodinkova has dated the bow fibula of the Dnieper type from that assemblage to the mid-seventh century, without any arguments (Fig. 16, upper right; Rodinkova 2006a, 44, fig. 3). However, the careful examination of the assemblage strongly suggests an earlier dating. For example, the double-spiral wire pendants (Fig. 16, lower left) were in fashion in the north Caucasus region between the fourth and the sixth century (Egorejchenko 1991, 178). The shield-shaped mount with openwork ornament (Fig. 16, upper, second row) has a good analogy in a burial assemblage excavated in Vesliana (Komi Republic), which also produced coins struck for the Sassanian kings Peroz and Khusro I, the latest in 535 (Savel’eva 1979, 93 ff., 92, fig. 1: 37). While 3-shaped belt mounts such as that from Koziivka (Fig. 16, upper, second row) are also known from the Trubchevsk (Prikhodnyuk et al. 1996, 86, fig. 7: 5, 87, fig. 8: 8) and Gaponovo hoards (Gavritukhin & Oblomskij 1996, 15, 204 fig. 29: 6, 7), the specimen from the burial chamber 34 in the Crimean cemetery excavated in Chufut Kale was found together with a worn coin struck for Emperor Justinian (527–565; Kropotkin 1958, 210, 215, fig. 5a). Finally, a strap end similar to that from the Koziivka hoard (Fig. 16, middle left) is known from the burial chamber 180 in Kerch, in which it was associated with a pair of bow fibulae of the Udine Planis type of the mid- to late sixth century (Kazanski 1996, 330).

Further hints at an early seventh, if not even a sixth-century dating are offered by the assemblage in the Trubchevsk hoard. A torc made of twisted wire like the one in that hoard (Fig. 17, lower left) is known from a warrior grave under barrow 6 in Taurapilis (Lithuania), in which it was found together with an axe with damascened ornament on the blade, which was dated to the early sixth century (Tautavičius 1981, 35 f., fig. 40). The shield-like mane of the animal-shaped

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11 This dating is confirmed by the specimens found in Cebel’da in an assemblage dated to the late sixth century (Bálint 1992, 357).
12 This dating is further supported by the associated belt buckle with eagle-headed plate of Zasetskaya’s class I A (Zasetskaya 2004, 111 f.). Together with this buckle was another of the Sucidava I-Kranj type (Schulze-Dörflamm’s class D 2), which cannot be dated after ca. 600 and which was most likely in use during the second half of the sixth century (Vinski 1967, 37; Werner 1989–1990, 594; Fiedler 1992, 73; Varsik 1992, 80).
13 Another similar torc is known from grave 41 in the Łęczce cemetery in north-eastern Poland, in which it was associated with a lancehead-shaped strap end most typical for the late sixth or early seventh century (Kulakov 1990, 99 and pl. 5: 7).
mount from the Trubchevsk hoard (Fig. 17, upper left) looks remarkably similar to that of the mounts from the Martynivka hoard, which also produced a silver cup with control stamps from the reign of Justin II (Pekars’ka & Kidd 1994, pl. 14: 47–50; Szmoniewski 2008, 271), as well as a silver spoon of Hauser’s class Mytilene dated to the early seventh century (Hauser 1992, 56). Double-spiral wire pendants such as those found in the Trubchevsk hoard appear in
several burial assemblages of the large cemetery in Tumiany (north-eastern Poland) which may also be dated to the late sixth or early seventh century. For example, in grave 20, one such pendant was associated with a “Slavic” bow fibula of Werner’s class I D recently dated shortly before and after AD 600 (Curta 2006b). In grave 74 of that same cemetery, a double-spiral wire pendant was associated
with two fibulae of Werner’s class I G with a similar chronology (Curta 2006a). Four double-spiral wire pendants were associated in grave 94 of the cemetery in Kielary (north-eastern Poland) with two imitations of bow fibulae of the Mülhofen type dated to the late sixth and early seventh century (Hollack & Bezzenberger 1896–1900, 184; Hilberg 2009, 266, 268, 412).

A double-spiral pendant has also been found together with a bell-shaped pendant and a fragment of a bow fibula of Werner’s class II D in a house of the Zvonets’ke settlement in the Dnipropetrovs’ke region of the Lower Dnieper (Fig. 18). Double-spiral wire pendants are also said to have been found together with a bow fibula of Werner’s class II D in the cremation grave 7 of the Kuz’minki cemetery in central Russia, an assemblage which may well be of a similar date (Spitsyn 1901, 88). The same may also be true for the assemblage in burial 23 under mound III of the Boki cemetery in Latvia, which produced another fibula of Werner’s class II D, as well as an armband with club-shaped

Fig. 18. Zvonets’ke, house, selected artefacts: strap end, double-spiral wire pendant, fragment of bow fibula, and bell-shaped pendant. After Bodyanskij 1960.
ends (Fig. 19). Such armbands are typically found in eastern Latvia, on either side of the Middle Daugava river. In the Boki cemetery, armbands with club-shaped ends have been found in several graves, often with artefacts dated to the sixth century, such as barbed and tanged spear heads of Atgāzis’s type A2 (Atgāzis 1974, 156 f.; Ciglis 2001, 53).\textsuperscript{14} An armband similar to that from grave 23 is known from a burial assemblage in the Rites Ķebēni cemetery, in which it was associated with a later, seventh-century type of barbed and tanged spear heads (Ciglis 2001, 57). Not much may be said on the basis of the associated artefacts about the Balaklia (Fig. 20), Kosewo, Smorodino, and Volos’ke assemblages with bow fibulae of Werner’s class II D. However, given

\textsuperscript{14} Urtāns 1968, 74 f. had already dated the Boki fibula to the sixth century, but Ciglis 2001, 53 believes that it should be dated to the seventh century.
that they both produced both II C and II D fibulae, the Balakliia and Smorodino graves (if Smorodino was indeed a grave) are most likely of the same date. At any rate, judging from the existing evidence, the chronology of fibulae of Werner’s class II D seems to be restricted to the first half of the seventh century, including perhaps the last decades of the previous century. Nothing indicates a date after ca. 650.

**Origin**

The analysis of the archaeological assemblages with fibulae of Werner’s class II D and chronologically sensitive artefacts shows no substantive differences in dating between finds in Crimea and those in the Middle Dnieper region. If, as Vlasta Rodinkova has it, Werner’s class II D originated in Crimea, then imitations of such fibulae were almost immediately produced on sites in the Middle Dnieper region.
But was Werner’s class II D “invented” in Crimea at all? To be sure, a quick glimpse at the plotting of the nearest-neighbour similarities between known specimens of that class will show that Suuk Su (a site on which three specimens of Werner’s class II D have been found) has the largest number of links with other sites. The pair of II D fibulae from Kosewo most certainly came from Crimea or was modeled after fibulae produced there. The same may not however be true for the Budakalász fibula, the only specimen of the II D class known so far from the Carpathian Basin. That site has only fourth-rank links to Suuk Su, as well as to Pastyr’ske and Trubchevsk. The interpretation of the nearest-neighbour similarities is less clear in the case of the Middle Dnieper region. Very similar fibulae were found in both that region of Ukraine and in Crimea, such as the specimens from Gradiz’k and Suuk Su, on the one hand, or the fibulae from Luchistoe and Volos’ke, on the other hand. However, it is impossible to tell whether any one of those fibulae was an imitation, and if so, which fibulae were imitated. The fibula from grave 154 in Suuk Su (Fig. 2: 31) displays on the bird-head crown and on the terminal lobe a decoration imitating the niello triangles on the margins of late fifth or early sixth century fibulae dress accessories, such as fibulae and buckles. This elaborate decoration is unique, and the Suuk Su fibula may well be viewed as a “prototype” worth imitating. However, it is remarkable that this particular fibula shares only three near-neighbours with fibulae from Koziivka (Fig. 1: 14) and Kurilovka (Fig. 2: 19). Similarly, the four Greek letters (YPKM) scratched on the head of one of the birds in the crown of the fragment from Bil’s’k (Fig. 1: 2; Shramko 1980, 77, fig. 4) point to Crimea as the closest possible place in which the inscription may have been added to the artefact. However, the inscription cannot tell us anything about where the Bil’s’k fibula was manufactured.

Because of parallels with Kerch’ and Crimea, Rodinkova believed that the Koziivka hoard had in fact been formed in the peninsula and its owner was from Crimea (Rodinkova 2004, 236). That owner must have been an itinerant craftsman (so Rodinkova), because the Koziivka assemblage includes a model for the production of bow fibulae of Werner’s class II D (Fig. 1: 18; Shablavina & Szioniiewski 2006, 521, fig. 6: 1). The metallographic analysis of the bow fibulae from Koziivka has revealed that they were all made of the same alloy, perhaps in one and the same place. This is particularly important for the interpretation of the pair of very similar fibulae of Werner’s class II D (Fig. 1: 16, 17), which were perhaps cast in the same mould. Moreover, the alloy in which the model has been cast is different from those of all other artefacts in the collection, in that it conspicuously lacks any traces of arsenic, bismuth, or cobalt (Egor’kov & Shechleglova 2006, 23 f.). The conclusion seems inescapable: while the fibulae

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15 According to Pásztor 2001, 92, a fibula with a bird-head crown on the headplate was also found in grave 342 of that same cemetery.
16 Similarly, the slanted cross (perhaps a runic sign) on the back of one of the fibulae from Kosewo (Kulakov 2002, 444) is no indication of that artefact’s origin.
were of local manufacture, the model must have come from somewhere else.\textsuperscript{17} Given that a mould for casting bow fibulae is known from Kerch’ (Ajbabin 1999, 142, fig. 57) and that detailed metallographic analyses strongly suggest a local production of bow fibulae in Crimea (Minasyan 1997), Rodinkova believed that the model from Koziivka must have come from either Kerch’ or Crimea. However, no model or mould is so far known from either Kerch’ or Crimea, which could have been used for the production of II D fibulae. Only metallographic analyses of specimens from those two locations could confirm or reject Rodinkova’s idea. In their absence, one can only note that just because the Koziivka model is different from the other artefacts in the assemblage, it does not necessarily mean that it came from Crimea. Fibulae with headplates crowned with bird heads – other than II D fibulae – appear in both Crimea and the Middle Dnieper region.\textsuperscript{18} However, when added to the number of II D specimens, the number of fibulae with bird-head headplate crowns from the Middle Dnieper region is almost three times larger than that from Crimea. If the idea of decorating the headplate of a fibula with a bird-head crown originated in Crimea, it was definitely much more popular in the Middle Dnieper region.\textsuperscript{19} Wherever II D fibulae were first made, they were definitely manufactured in the Middle Dnieper region by the time the Koziivka hoard was buried in the ground.

\textbf{Context}

Koziivka, Kurilovka, and Trubchevsk belong to a group of characteristic finds from Left-Bank Ukraine and the highlands between the rivers Dnieper and Don, which have been dated to the late sixth or early seventh century, and typically include bow fibulae of Werner’s classes II A, B, C, or D, as well as “Martynovka

\textsuperscript{17} The Nova Odessa hoard contains a model for the production of bow fibulae of Werner’s class II C (Korzukhina 1996, 395 and 634, pl. 44: 1; Rodinkova 2004, 236). Just like in the Koziivka assemblage, the Nova Odessa model is made of an alloy, which is different from those in which all other artefacts in the hoard have been cast. However, unlike Koziivka, the Nova Odessa hoard also includes a fibula manufactured with that model (Korzukhina 1996, 395 and 634, pl. 44: 2). According to Ol’ga Shcheglova, Koziivka and Nova Odessa are in fact two parts of one and the same hoard, a point of view now embraced by Vlasta Rodinkova as well (Rodinkova 2004, 236; Egor’kov & Shcheglova 2006, 21 f.). In this paper, I have however followed Galina Korzukhina, who first published the finds in the collection of the History Museum in Kharkiv. Whether or not the two hoards are in fact one, single assemblage, my argument remains the same.

\textsuperscript{18} Crimea: Luchistoe, burial chamber 36, skeleton 7 (Ajbabin & Khairedinova 2009, pls 118: 6 and 119: 5) and Suuk Su, grave 87 (Korzukhina 1996, 424, 702, pl. 112: 3, 4). Middle Dnieper region: Kiev (Borovs’kij 1984, 22 and fig. 2) and unknown location in Ukraine (Miskiewiczowa 1998, 125, no. 15). Three other fibulae with bird-head crowns are known from Nea Anchialos (Sotiriou 1939, 62 f. and 63, fig. 12), Davideni (Mitrea 2001, 160, 329, fig. 68.2), and “Västmanland” (Werner 1950, 160 and pl. 38: 18).

\textsuperscript{19} That popularity is to be explained in terms of the symbolism of the bird of prey (eagle), and most certainly had nothing to do with the Slavic goddess Mokosh (Georgiev 1984, 23).
The Jägala fibula revisited, or remarks on Werner’s class II D

mounts” with open-work ornament (Shcheglova 1990; Curta 2007b, 39 f.). Although broken objects are relatively common, none of those hoards contains any tools or metalworking residues. They cannot therefore be interpreted as collections of bullion in the possession of some craftsman specializing in the production of silver or bronze jewelry. The artefacts in the Gaponovo hoard were carefully wrapped in linen, which suggests a particular concern with the assemblage in its entirety (Gavritukhin & Oblomskij 1995, 136). Moreover, the specific location in which some of those hoards have been found, often near water or in marshy areas, suggests a votive deposition. At a closer examination, the composition of those hoards appears to be a matter of deliberate choice of items (Table 1).

Although Gaponovo, with its 394 items, is the largest hoard so far known, Koziivka has by far the greatest variety of artefacts. By comparison, the Gaponovo

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Hoards: A – Nova Odessa; B – Nizhniaia Syrovatka; C – Koloskove; D – Kurilovka; E – Koziivka; F – Sudzha; G – Gaponovo; H – Trubchevsk.

Artefact categories: 1 bell-shaped pendants, 2 lead mounts, 3 rectangular pendants, 4 chains, 5 beads, 6 armbrads, 7 rings, 8 fibulae with bent stem, 9 trapeze-shaped pendants, 10 torcs, 11 double-spiral wire pendants, 12 bow fibulae, Dnieper type, 13 “Slavic” bow fibulae, 14 hat-shaped pendants, 15 tubular ornaments, 16 strap ends, 17 earrings, 18 pseudo-buckles, 19 belt mounts, 20 buckles.

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21 Traces of linen have also been found on several artefacts in the Kurilovka hoard (Rodinkova 2010a, 85, 86, 87).

22 The Nizhniaia Syrovatka, Kurilovka, Sudzha, Trubchevsk, and Gaponovo hoards have all been found on the banks of neighboring rivers or creeks (Syrovatka, Sudzha, Seim, and Igraevka, respectively).
hoard lacks such items as bow fibulae of the Dnieper type, armbands, chains, or rectangular pendants, which are otherwise attested in the Trubchevsk and Nova Odessa assemblages. It is important to note that hoards containing belt mounts and pseudo-buckles do not have either rectangular or bell pendants, while trapezeshaped pendants appear only in hoards with tubular ornaments. The only artefact category that appears in all hoards is “Slavic” bow fibulae.

The specific combination of those dress accessories is also attested in burial assemblages from Crimea. On skeletons 9 in burial chamber 36 and 9 in burial chamber 38 in Luchistoe archaeologists found necklaces consisting of glass and amber beads, but also hat-, bell-, and trapeze-shaped pendants hanging from two fibulae worn at the shoulders (Fig. 15).\textsuperscript{23} Trapeze-shaped pendants have also been found in Kuz’minki and Smorodino in association with fibulae of Werner’s class II D, but without beads. Conversely, a very large necklace of 280 beads is known from Balakliia, but no pendants have been found in that assemblage. The inhumation grave in Balakliia produced, however, a tubular ornament. Occasionally, tubular ornaments also appear in Crimea, strung onto necklaces, but they are more often found underneath the skeleton, in a position parallel, or at a slight angle to the spine suggesting that they were used for braid ornamentation (Shcheglova 1999, 300 f.).

The fashion of wearing a few beads hanging from individual fibulae was known in the sixth century in the Carpathian Basin (Csallány 1942). However, the idea of hanging an entire necklace of both beads and metal pendants onto two fibulae at the shoulders has no precedent in eastern Europe. Some have regarded hat-shaped pendants, such as those on the necklace found on skeleton 9 in burial chamber 38 in Luchistoe or those from the Gaponovo, Koziiivka, Kurilovka, and Sudzha hoards as cheap imitation of gold medallions with precious stones, which were in fashion in the sixth and seventh century among female members of the imperial or of aristocratic families in Byzantium (Shcheglova 1999, 302). If so, then it is curious that no examples are known of Byzantine necklaces with medallions attached to pairs of fibulae worn at shoulders. Such examples appear only in Scandinavia and the western Baltic region (Hinz 1978). Sporadic contacts with the North are implied by the relatively large number of amber beads found in burial and hoard assemblages in the Middle Dnieper region, as well as the occasional find of a crossbow brooch with animal head (Kazanski 1999, 411 f.; Curta 2007a, 71 and 70, map 4: 2). The necklace of beads and pendants found on skeleton 9 in burial chamber 38 in Luchistoe may therefore be interpreted as a fashion from the Middle Dnieper region, which is otherwise documented in Crimea by bow fibulae of the so-called Dnieper type (Ajbabin 1988; Rodinkova 2006a, 47 f.; Rodinkova 2006b, 58, figs 7–8). Conversely, fibulae of the Kerch’ class and

\textsuperscript{23} It has been noted that in Crimea, pairs of bow fibulae of the unequal size appear only with skeletons of mature individuals, while child burials contain fibulae of equal size (Khairedinova 2007, 21). This is directly contradicted by the fibulae found with skeletons of infants in burial chambers 36 and 38 in Luchistoe (see Figs 14–15).
amphora finds from the Middle Dnieper region bespeak the influence of Crimea on local communities. The candle holder in the shape of a standing man, which was found in the environs of Khorol near Lubni (Panchenko 2000, 1 f., fig. 1), and the belt buckle with a plate in the form of a human face from an unknown location in the Middle Dnieper region (Korsenko 1948) most likely came from Crimea. Similarly, the pair of gold earrings with pyramid-shaped pendants from an unknown location in Ukraine, now in the National Museum of History of Ukraine, is either of Crimean origin or imitations of Crimean earrings (Rolle et al. 1991, 248).

The archaeological evidence thus substantiates the conclusions drawn from the plotting of the nearest-neighbour similarity relations between specimens of Werner’s class II D, which delineate a corridor of communication from Crimea to the north, along River Dnieper (Fig. 7). It is nonetheless remarkable that specimens of Werner’s class II D have not been found on a number of key sites on the upper course of that river, which were most certainly occupied during the first half of the seventh century. For example, there are no II D fibulae on the fortified site at Nikadzimava near Horiki in eastern Belarus, which has produced “Slavic” bow fibulae otherwise known from hoards of bronze and silver in the Middle Dnieper region (Sedin 1994; 2000). Equally significant is the absence of II D fibulae from the numerous settlement assemblages in the area to the south and east from the Carpathian Mountains, which has the largest concentration of “Slavic” bow fibulae in the whole of east central and eastern Europe (Teodor 1992). The only settlement sites with II D fibulae are those of the Dnipropetrovsk province in southern Ukraine. In Volos’ke, one such fibula was found in a sunken-floored building together with a bell-shaped pendant, a fragment of an earring with spiral end, and a tubular ornament – all artefact categories known from hoards (Prikhodnyuk 1998, 98, fig. 18: 10–17). A fragment of a II D fibula was also

24 For fibulae of the Kerch’ class in Crimea, see Gavritukhin 1997, 28; Zasetskaya 1997, 401, 457 and pls 1–2. Such fibulae have been found in the Middle Dnieper region in Kniahzha Hora (Bobrinskij 1894, pl. 20.3) and an unknown location in the environs of Kaniv (Bobrinskij 1901, pl. 1: 12). For amphorae of Opaiţ’ class B-Id from Kiev, see Shovkoplyas 1957, 101; 1963, 140. For a fragment of a Late Roman 2 amphora from Budysche, see Prikhodnyuk 1980, 127 and 130. For a Late Roman 1 amphora from laitsevoi near Zaporizhzhia, see Bodianskij 1960, 276 and 275, fig. 2: 3. For Late Roman 2 amphorae from Pastyr’ske, see Prikhodnyuk 2005, 267 f. A Byzantine anchor was found at Khortytsia, across the Dnieper from Zaporizhzhia (Shapovalov 1990).

25 A candle-holder similar to that from Khorol is known from Chersonesus (Golofast et al. 1991, 97 and fig. 96). For such candle-holders, in general, see Borisov 2007.

26 In Crimea, such earrings have been found in Skalistoe and Suuk Su (Repnikov 1906, 38 and pl. 1: 1, 3, 7; Vejmarn & Ajbabin 1993, 35, fig. 20: 25 and 55, fig. 35: 17).

27 The upper course of River Dnieper is a section beginning at its source in the range of hills between Smolensk and Moscow and ending at Kiev. The section between Kiev and Zaporizhzhia, at the southern end of the 70 km-long stretch of rapids in the steppe belt, is the Middle Dnieper.

28 No II D fibulae have so far been found further to the north, in south-eastern Estonia or around Lake Peipus, a region otherwise known for exceptional imports from Byzantium (Quast et al. 2010).
among the artefacts collected from an above-ground house with drystone walls excavated in Zvonets’ke-Maiorka, less than three kilometres to the south from Volos’ke, on the right bank of the Dnieper (Prikhodnyuk 1998, 98, fig. 18: 1–9). Some of the other artefacts found in that building are also known from hoards: strap ends with open-work ornament, double-spiral wire, and bell-shaped pendants (Fig. 18). That the Zvonets’ke fibula was broken may be interpreted as an indication that it served as bullion for the production of other copper-alloy dress accessories, such as those with which it was found. However, the same cannot be said about the fibula found in Volos’ke, which could still be used as a fastener by the time it was discarded. In fact, it may well have been intentionally left behind when the house was abandoned (Cameron 1991; Curta 2004, 72). In any case, the fact that in both Volos’ke and Zvonets’ke only one fibula was found is not necessarily an indication of the absence of the fashion with two fibulae on the shoulders linked by means of a necklace with beads and metal pendants. Besides fibulae of Werner’s class II D, the two features also produced bell-shaped pendants, which in Crimea are typically found in necklaces.

Several specimens found outside the corridor of communication along the Middle Dnieper are linked to sites in that area. Both the easternmost (Kuz’minki) and one of the westernmost specimens of Werner’s class II D known so far (Kosewo) have been found in cremation burials. The assemblage in grave 7 in Kuz’minki included trapeze-shaped pendants, glass beads, and fragments of spiral ornaments (Spitsyn 1901, 88), which strongly suggest a necklace similar to that found on skeleton 9 in burial chamber 38 in Luchistoe. However, there was only one fibula in grave 7 in Kuz’minki. Moreover, in its simplified form, that fibula is not quite like any member of Werner’s class II D, which suggests an artefact of local production (as opposed to an artefact brought from afar). The same is not true for the pair of fibulae from grave 172 in Kosewo, which share five near neighbours with the fibula from grave 55 in Suuk Su. In fact, the Kosewo fibulae appear as half-sized replicas of the Suuk Su specimen (Figs 1: 12; 3: 32). If they were not manufactured in Crimea, they certainly imitated fibulae produced there. However, there appears to have been no interest in Eastern Prussia for the fashion with a necklace of beads and pendants attached to a pair of fibulae. The cremation burial assemblage in grave 172 produced two fibulae and twelve beads (four of amber), but no remains of pendants, except a few fragments of spiral ornaments. Kosewo is also the only burial assemblage so far known to include two almost identical fibulae of Werner’s class II D. A pair of almost identical fibulae is also known from the Koziivka hoard, but in most other cases in which there is more than one fibula per assemblage, II D specimens appear together with

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29 The strap end with open-work ornament from Zvonets’ke belongs to a type well represented in assemblages from the Ural region. In the Middle Dnieper area, such strap ends are rather rare and appear mostly in the region of the formidable rapids between Dnipropetrov’ske and Zaporizhzhia (Gavritukhin & Oblomskij 1996, 32).
II C specimens – in hoards (Kurilovka), as well as burials (Balakliia, Luchistoe, and Suuk Su). Unlike II B and II C fibulae, pairs of II D specimens never appear alone in hoards (Table 2).

There are 5 fibulae of Werner’s class II D in the Koziivka hoard, and another of his class II C. This can only mean that one pair of “Slavic” bow fibulae in that assemblage consisted of a combination of II C and II D specimens, which is otherwise known from burial assemblages in Crimea and in the Middle Dnieper region. Hoards thus mirror the fashions employed in contemporary funerary practices in Crimea and the Middle Dnieper region. Although none of the skeletons with II D fibulae has been properly sexed, it is likely that those were females, in which case the hoards would also be collections of female dress accessories.

This makes the context stand out in which a II D fibula was found in Ābeļu Boķi near Jēkabpils in eastern Latvia. This is in fact the only fibula of its class to be found not only in a barrow grave, but also together with weapons – a battle axe and a battle knife (Fig. 19). Nothing is known either about the sex of the deceased with whom the weapons were buried or about the other 22 graves found under burial mound III excavated in 1961 by Liucija Vankina (Vankina 1985, 44). Boķi belongs to a relatively large group of cemeteries in south-eastern Latvia and north-eastern Lithuania, the main characteristic of which is collective inhumations under barrows surrounded by stone circles (Kazakevičius 2000, 8 f.). Grave 23 was most likely dug into an earlier barrow, but nothing is known about the date of the first burials associated with mound III.

Table 2. Fibulae in hoards from the Middle Dnieper region

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R – Vlasta Rodinkova’s classification; W – Joachim Werner’s classification.
Equally regrettable is the absence of any information about the grave orientation, because in Boķi, as on many other sites in eastern Latvia and north-eastern Lithuania, male and female bodies were buried in opposite directions (Vankina 1985, 45). If indeed grave 23 was that of a man, as suggested by the presence of weapons, one still has to find an explanation for the presence of a typically female dress accessory, such as the II D fibula. Was it a symbolic deposition of an artefact associated with a female member of the man’s family, such as his wife? Or was the cultural meaning of an “exotic” artefact converted to fit the status representation of a man, a phenomenon otherwise known from other parts of the Baltic region (Bliujienė & Curta 2011)? Only the proper publication of the burial assemblages associated with the nine barrows excavated until 1985 could provide reliable answers to those questions. In any case, since only one fibula was deposited in grave 23 in Åbeļu Boķi, the cultural meaning of the artefact, whatever it was, does not seem to have been related to the fashions and mortuary practices in existence in the Middle Dnieper region or in Crimea. Of particular significance is the absence of any similarity relations between Boķi and sites in those two regions, which produced II D fibulae. Jānis Ciglis has noted, on the other hand, that grave 23 in Boķi illustrates a number of remarkable changes taking place in the material culture of the lands around the confluence of the Daugava and Aiviekste rivers in the late sixth and early seventh century, many of which are linked to a new form of status representation through funerary rituals (Ciglis 2001, 63).

Conclusion

Such changes were also visible in northern Estonia, the region in which the northernmost specimen of Werner’s class II D was found. In an area which during the previous centuries knew no such symbolic language, a number of cemeteries with stone burials were opened in the sixth and seventh centuries, the most remarkable feature of which is the deposition of weapons – mostly spear heads, but also swords. The cemetery excavated in Lehmja Loo III, about 20 km to the south-west from Jägala, is perhaps the best illustration of this sudden phenomenon which Priti Ligi has linked to the martial posturing of a social group surrounding and supporting the local elites (Lõugas 1973; Ligi 1995, 228). However, weapons – five spear heads, eight battle axes, and a sword – have also been found in the Kunda hoard, which can be dated to the seventh century and may equally be linked to the rise of a military elite in north-eastern Estonia (Tamla 1995, 105; Õras 2010, 134).

30 According to Vankina 1985, 45, most graves found in mounds III, IV, and VIII had male skeletons, but there were also females and children.

31 This is, in fact, a solid argument (if any was needed) against Valentin Sedov’s interpretation of the Boķi fibula as an indication of a Slavic migration to the territory of present-day Latvia (Sedov 1992, 36; 1994, 129).
A seventh-century occupation of the northern plateau at Iru near Tallinn suggests that forts, or at least the re-occupation of prehistoric forts, was another facet of the dramatic social changes taking place in northern Estonia around AD 600 (Lang 1995; 1996, 235 ff.).

Was Jägala occupied in the seventh century, as Harri Moora thought? During the 1999 excavations of the southern part of the hill fort, samples from trial trenches were radiocarbon dated to 531–603, but the more recent excavations of 2005 revealed no structures and no finds that could be dated to the sixth or early seventh century (Johanson & Veldi 2005, 30, 37 ff.). The fibula found by Erik Laid in 1939 remains therefore a unique artefact for both Jägala and Estonia in general. Given the good state or preservation, it may have been from a disturbed, isolated burial, although other explanations are also possible. Like the Boķi fibula, the one found in Jägala has no near-neighbour links to other members of Werner’s class II D found in the Middle Dnieper region, although it looks remarkably similar to one of the fibulae from the Trubechsvsk hoard (Fig. 3: 36). However, if the chronology of Werner’s class II D advanced in this paper is correct, the Jägala fibula coincided in time with the dramatic social and political changes taking place in northern Estonia, which are visible in the archaeological record. In the absence of a clear archaeological context, the meaning of this fibula must be related to that of the other members of Werner’s class II D found in hoards, burials, and settlements in the Middle Dnieper region. The hoards were neither collections of bullion for re-melting by itinerant craftsmen, nor valuables in the possession of merchants. Given that many of them were buried near the water or in swampy areas, the deposition of hoards may have been votive. That combinations of artefacts typically found in hoards are also known from well furnished burials in the Middle Dnieper region, such as Balakliia, suggests that both hoards and burials were linked to a social group of prominent status. Similarly, in Crimea, the presence or absence of bow fibulae has been interpreted in terms of the social status of females (Khaidedinova 2007, 22). There is to date no special study of the aristocracy of the Middle Dnieper region during the sixth and seventh centuries, but the “exotic” character of the Jägala fibula in the archaeological record of early medieval Estonia suggests that it (or its model) came from the south, perhaps from the Middle Dnieper region as a gift from one aristocrat to another. In the absence of more contextual information, nothing more can be learned about the political and cultural circumstances of its arrival on the southern coast of the Gulf of Finland. However, it is quite clear that, far from being a badge of any particular ethnic identity, the “Slavic” fibula from Jägala reflects the social pretensions of the emerging elites in early medieval Estonia.

According to Selirand 1983, 29, the Jägala fibula is a dress accessory most typical of the Antes mentioned in the written sources pertaining to the sixth century. Leaving aside the pervasive culture-historical approach to material culture inherent in such a statement, Selirand’s interpretation is impossible, because the II D fibulae were in fashion after the last mention of the Antes in the written sources (Theophylact Simocatta VIII 6: 1; see Litavrin 1999).
Post-scriptum

A new fibula of Werner’s class II D has been recently published by Vlasta Rodinkova (Rodinkova 2010b, 262, 271, fig. 2.1). The fibula is said to have been found in Ivan’ki, either in the Lypovets’ or Yampil’ districts of the region of Vinnitsia in Ukraine. Leaving aside the uncertainty surrounding the exact finding spot (Lypovets and Yampil’ are at a distance of almost 120 km from each other, one on the Southern Bug, the other on the Dniester River), the Ivan’ki fibula does not change in any way the conclusions of this paper. Judging from the published illustration, the alphanumeric code of the Ivan’ki fibula is 1B2B3C4A5A. If this characterization is correct, then it is remarkable that the Ivan’ki fibula shares no nearest neighbours with any other specimen of Werner’s class II D (Fig. 21).

![Near Neighbour Clustering of wernerID](image)

Fig. 21. Near-neighbour analysis of the fibulae of Werner’s class II D, including the specimen from Ivan’ki.


**Appendix**

**WERNER’S CLASS II D – A LIST OF FINDS**

1. Balakliia (Cherkasy district, Ukraine); found in an inhumation burial, together with another bow fibula (II C Werner), a copper-alloy bracelet, 30 amber beads, 250 glass beads, and a copper-alloy tube; copper-alloy; E2A4A5A; Werner 1950, 162 and pl. 40: 40; Rybakov 1953, 58, fig. 9/3; Korzukhina 1996, 374 and 613, pl. 23: 2.
2. Bil’s’k (Poltava district, Ukraine); copper-alloy; fragment with Greek inscription (YPKM); 1A4B; Shramko 1979, 426; 1980, 76, fig. 3: 9 and 77, fig. 4: 1, 2; Prikhodnyuk 1997, 507, fig. 6: 7.
3. Boki (Jēkabpils district, Latvia); found in mound III, burial 23, together with a dagger with bronze-covered handle, a bracelet with widened ends, a battle axe, and tweezers; L = 14; 1A2A3B4A5B; Vankina 1985, 45; Sedov 1994, 129 and 128, fig. 2: 1; 1995, 174; Korzukhina 1996, 414; Atgāzis 2001, 286, fig. 199: 1; Ciglis 2001, 53 and 58, fig. 7: 2.
4. Budakalász (Pest district, Hungary); found in the inhumation burial no. 439; copper-alloy; 1A2A3C4A5D; Peter Stadler, personal communication.
5. Gradiz’k (Poltava district, Ukraine); stray find; copper-alloy; 1A2A3C4A5E; Gavritukhin 2001, 30 and fig. 1/2.
6. Gradiz’k (Poltava district, Ukraine); stray find; copper-alloy, fragment; 1B3A4A; Krakalo 2001, 85 and 86, fig. 1.1.
7. Gradiz’k (Poltava district, Ukraine); stray find; copper-alloy, fragment; 1B4A; Levchenko 2001, 26 and 27, fig. 10.4.
8. Igren’ (Dnipropetrovs’ke district, Ukraine); stray find; copper-alloy; 1A2A3A4A5A; Korzukhina 1996, 421 and 699, pl. 109: 2.
10. Kerch’ (Crimea, Ukraine); stray find; copper-alloy; 1D2D3A4B5F; Ajbabin 1990, 23, fig. 18: 3.
11. Koloberda (Pereiaslav-Khmeln’kyi district, Ukraine); copper-alloy, fragment; 2A5C; Korzukhina 1996, 409 and 672, pl. 82: 5.
12. Kosewo (former Alt-Kossewen, Mrągowo district, Poland); found in the cremation burial 172, together an identical fibula, with tweezers, as well as amber and glass beads; 1B2C3B4A5C; Kühn 1981, 57 and pl. 2: 9; Kulakov 1989, 183, 215, fig. 3a, and 236, fig. 20: 1; Hilberg 2009, 359 f., 579, pl. 3: 21.
13. Kosewo (former Alt-Kossewen, Mrągowo district, Poland); found in the cremation burial 172, together an identical fibula, with tweezers, as well as amber and glass beads; 1B2C3B4A5C; Kühn 1981, 57; Kulakov 1989, 183; Hilberg 2009, 359 f.
14. Koziivka (Bohodukhiv district, Ukraine); found in a hoard, together with four identical brooches and other bow fibulae (one of Werner’s class II C), spectacle- and hat-shaped pendants, repoussé copper-alloy pendants, and perforated strap ends and mounts; 1A2A3C4B5E; Shcheglova 1990, 198, fig. 7:11; Korzukhina 1996, 397 and 637, pl. 47: 2.

15. Koziivka (Bohodukhiv district, Ukraine); found in a hoard, together with four identical brooches and other bow fibulae (one of Werner’s class II C), spectacle- and hat-shaped pendants, au repoussé copper-alloy pendants, and perforated strap ends and mounts; 1B2B3A4C5A; Shcheglova 1990, 198, fig. 7: 11; Korzukhina 1996, 397 and 638, pl. 47: 3.

16. Koziivka (Bohodukhiv district, Ukraine); found in a hoard, together with four identical brooches and other bow fibulae (one of Werner’s class II C), spectacle- and hat-shaped pendants, au repoussé copper-alloy pendants, and perforated strap ends and mounts; 1D2D3A4B5F; Shcheglova 1990, 198, fig. 7: 11; Korzukhina 1996, 397 and 638, pl. 48: 1.

17. Koziivka (Bohodukhiv district, Ukraine); found in a hoard, together with four identical brooches and other bow fibulae (one of Werner’s class II C), spectacle- and hat-shaped pendants, au repoussé copper-alloy pendants, and perforated strap ends and mounts; 1D2D3A4B5F; Shcheglova 1990, 198, fig. 7: 11; Korzukhina 1996, 397 and 638, pl. 48: 2.

18. Koziivka (Bohodukhiv district, Ukraine); found in a hoard, together with four identical brooches and other bow fibulae (one of Werner’s class II C), spectacle- and hat-shaped pendants, au repoussé copper-alloy pendants, and perforated strap ends and mounts; 1C2E3B4B5E; Shcheglova 1990, 198, fig. 7: 11; Korzukhina 1996, 397 and 638, pl. 48: 3.

19. Kurilovka (Sudzha district, Russia); found in a hoard, together with five other fibulae (two of Werner’s class II C and two of the Dnieper type), hat- and bell-shaped pendants, belt mounts and strap ends with open work ornament, a buckle, as well as glass and amber beads; copper-alloy; L = 14.3; 1A2A3C4B5B; Rodinkova 2010a, 85, 79, fig. 1: 4.

20. Kurilovka (Sudzha district, Russia); found in a hoard, together with five other fibulae (two of Werner’s class II C and two of the Dnieper type), hat- and bell-shaped pendants, belt mounts and strap ends with open work ornament, a buckle, as well as glass and amber beads; copper-alloy; L = 13: 7; 1A2A3D4B5E; Rodinkova 2010a, 85, 79, fig. 1: 5.

21. Kuz’minki (Riazan’ district, Russia); found in the cremation burial no. 7, together with two copper-alloy bracelets with widened ends, two au repoussé copper-alloy pendants and two copper-alloy spirals; copper-alloy; 1B2C3B4C5E; Spitsyn 1901, 88 and pl. XIV: 8; Kalitinskij 1928, pl. 38; 66; Werner 1950, 161 and pl. 40: 38; Smirnov 1952, 139 with n. 6 and 149 pl. 35: 6; Korzukhina 1996, 418 and 697, pl. 107: 4.

22. Luchistoe (Bakhchesaray district, Crimea, Ukraine); found in the burial chamber no. 36, skeleton no. 9 (infant), together with two bronze earrings,
amber and glass beads (including specimens with eye-shaped inlays and mosaic-glass beads), another bow fibula, and a bell-shaped pendant; copper-alloy; \( L = 9.4 \); 1C2D3B4B5D; Ajbabin 1988, fig. 2; Aibabin & Khairedinova 2009, 134 and pl. 121: 1.

23. Luchistoe (Bakhchesaray district, Crimea, Ukraine); found in the burial chamber no. 38, skeleton no. 9, together with a bow fibula of Werner’s class II C, bronze belt mounts, glass beads, hat- and bell-shaped pendants, and a bronze belt buckle; copper-alloy; \( L = 11.6 \); 1B2C3B4A5D; Ajbabin 1990, 22 and fig. 17: 4; Aibabin & Khairedinova 2009, 137, 141, and pl. 142/2.

24. Pastys’ke (Cherkasy district, Ukraine); stray find; copper-alloy; 1A2A3A4A5A; Werner 1950, 161 and pl. 40: 33; Rybakov 1953, 58, fig. 9: 6; Korzukhina 1996, 380 and 619 pl. 29/3; Prikhodnyuk 2000, 55 and 54, fig. 2/4; 2005, 142, fig. 36: 1.

25. Pastys’ke (Cherkasy district, Ukraine); copper-alloy; 1A2A3A4A5A; Rybakov 1953, 58, fig. 9: 7; Korzukhina 1996, 380 and 620, pl. 30: 2; Prikhodnyuk 2005, 143, fig. 37: 7.

26. Pastys’ke (Cherkasy district, Ukraine); stray find; copper-alloy; 1A2A3A4A5D; Werner 1950, 161 and pl. 40: 39; Rybakov 1953, 58, fig. 9: 5; Korzukhina 1996, 380 and 619, pl. 29: 2; Kazanski 1999, 111; Prikhodnyuk 2005, 137, fig. 31: 3.

27. Pastys’ke (Cherkasy district, Ukraine); copper-alloy; 1B2B3B4B5D; Korzukhina 1996, 380 and 620, pl. 30: 3; Prikhodnyuk 2005, 141, fig. 35: 1.

28. Sloboda Likhachevka (Bohodukhiv district, Ukraine); copper-alloy, fragment; 2C5D; Korzukhina 1996, 395 and 633, pl. 43: 6.

29. Smorodino (Graivoron district, Russia); stray (burial?) find, together with three other bow fibulae (one of Werner’s class II B, the other two of class II C) and au repoussé copper-alloy pendants; fragment; 1E2A3A4B; Rybakov 1953, 59, fig. 10: 4; Scheglova 1990, 199; Korzukhina 1996, 402 and 650, pl. 60: 3.

30. Sukhiny (Kaniv district, Ukraine); stray find; copper-alloy; \( L = 0.14 \); 1A2A3A4A5C; Korzukhina 1996, 368 and 673, pl. 83: 2.

31. Suuk Su (Yalta district, Crimea, Ukraine); found in the inhumation burial no. 28, together with another bow fibula (Werner’s class II C), a silver, eagle-headed belt buckle, two silver bracelets, and amber and glass beads; \( L = 0.145 \); 1A2A3D4B5F; Repnikov 1906, 8 f. and pl. VI: 3; Kalîtnskij 1928, pl. 38: 64; Werner 1950, 161 and pl. 40: 31; Korzukhina 1996, 424 and 701, pl. 111: 1.

32. Suuk Su (Yalta district, Crimea, Ukraine); found in the inhumation burial no. 55, together with another bow fibula (Werner’s Dnieper class), amber, copper-alloy, and glass beads, and a copper-alloy buckle with cross-shaped plate; 1B2C3A4C5C; Repnikov 1906, 15 and pl. 6: 16; Korzukhina 1996, 424 and 701, pl. 111: 4.

33. Suuk Su (Yalta district, Crimea, Ukraine); found in the inhumation burial no. 154, together with another bow fibula (Werner’s class II C) and an eagle-
headed buckle; copper-alloy; 1B2C3B4A5D; Werner 1950, 161; Korzukhina 1996, 424 and 701, pl. 111: 6.

34. Suuk Su (Yalta district, Crimea, Ukraine); stray find; copper-alloy; 1A2A3C4A5E; Kalitinskij 1928, pl. 38: 65; Werner 1950, 161 and pl. 40: 32.

35. Trubchevsk (Briansk district, Russia); found in a hoard, together with other bow fibulae (two of Werner’s class II A, two other of Werner’s class II B), silver- and copper-alloy torcs, *au repoussé* copper-alloy pendants, and perforated strap ends and mounts; copper-alloy; 1A2A3A4A5E; Prikhodnyuk et al. 1996, 79, 80, fig. 1: 2, 81, fig. 2: 4.

36. Trubchevsk (Briansk district, Russia); found in a hoard, together with other bow fibulae (two of Werner’s class II A, two other of Werner’s class II B), silver- and copper-alloy torcs, *au repoussé* copper-alloy pendants, and perforated strap ends and mounts; copper-alloy; 1B2B3B4A5E; Prikhodnyuk et al. 1996, 79, 83, fig. 4.

37. Unknown location (Gotland, Sweden); copper-alloy; fragment; 1D2B3B4A; Åberg 1919, 77 and fig. 73; Werner 1950, pl. 40: 37.

38. Unknown location (Dnipropetrov’s’ke district, Ukraine); stray find; 1A2A3A4A5A; copper-alloy; Korzukhina 1996, 421 and 699, pl. 109: 1.

39. Unknown location (Middle Dnieper region, Ukraine); copper-alloy; 1A2A3C4B5A; Werner 1950, 162 and pl. 40: 41; Korzukhina 1996, 411 and 672, pl. 82: 7.

40. Unknown location (Middle Dnieper region, Ukraine); copper-alloy; fragment; 1A4A; Werner 1950, 161 and pl. 40: 34; Korzukhina 1996, 411 and 673, pl. 83: 4.

41. Verkholat (Dnipropetrov’s’ke district, Ukraine); stray find; copper-alloy; 1B2B3B4A5E; Korzukhina 1996, 422 and 699, pl. 109: 3.

42. Volos’ke (Dnipropetrov’s’ke district, Ukraine); found in a sunken building, together with a leaden bracelet, a copper-alloy strap end, a handmade pot, a spindle-whorl, and a copper-alloy earring; 1D2B3B4A5D; Kukharenko 1959, 144 fig. 60: 5; Rutkivs’ka 1974, 38 and 35, fig. 4: 6; Korzukhina 1996, 421 and 699, pl. 109: 4; Prikhodnyuk 1998, 89, fig. 18: 11; Kazanski 1999, 108.

43. Zvonets’ke (Dnipropetrov’s’ke district, Ukraine); found in a house with stone walls, together with a perforated strap end, a spectacle-shaped pendant, and a bell; copper-alloy, fragment; 2A5A; Bodyanski 1960, 274 and 273, fig. 1: 1; Korzukhina 1996, 422 and 698, pl. 108: 10; Prikhodnyuk 1996, 114 and 518, fig. 2: 2; 1998, 89, fig. 18: 2.

44. Zvonets’ke (Dnipropetrov’s’ke district, Ukraine); stray find; copper-alloy; 1B2B3A4C5E; Berezovets 1963, fig. 25: 2; Korzukhina 1996, 421 and 699, pl. 109: 5; Prikhodnyuk 1997, 507, fig. 6: 6.

45. Zvonets’ke (Dnipropetrov’s’ke district, Ukraine); settlement find; copper-alloy, fragment; 1B2B3B4B; Prikhodnyuk 1997, 507, fig. 6: 4.
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