



Iron fibulae with bronze inlay from the Early Iron Age in Thrace

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ABSTRACT

An exceptional typological variety of fibulae was established in Thrace in the Early Iron Age. They are made mainly of bronze, less often of iron, but there are also known examples of precious metals. A precise classification of the fibulae discovered in Bulgaria was created as early as the end of the 1970s. Since then, a significant database of Thracian fibulae has been accumulated, containing new types and variants. It is also very useful in outlining the distribution of the main classes of these artefacts. Among the Early Iron Age fibulae, a group of iron fibulae is noteworthy, whose bows are decorated with three spheres, often inlaid with bronze threads. The main area of distribution, and probably production, of this type of fibulae is South Thrace and more precisely the Rhodope Mountains. A series of such fibulae have been found in another relatively remote area in present-day northeast Bulgaria. Most of the finds come from necropolises – mainly from graves in tumuli, but also from dolmens and rock tombs. The aim of this article is to present this type of fibulae by specifying the chronological framework, to provide data on the technology of their manufacture and to trace their dispersion in the lands of the Thracians and their neighbours.

KEYWORDS

Iron fibulae, bronze inlay, funerary finds, Thrace, Bulgaria, Early Iron Age

Introduction

The article discusses a group of iron fibulae dated to the beginning of the Early Iron Age that were found in areas inhabited by the ancient Thracians. The two-spiral fibulae have triangular outlines, a high triangular plate on the pin holder and three spherical thickenings on the bow. According to D. Gergova's classification of Early Iron Age fibulae from Bulgaria, they fall into type B I 1, variant "γ" (Gergova 1987, 37–38, Taf. 8).

Data and methods

So far, we are aware of a total of 38 fibulae from this group, found mainly in Bulgaria, with a few examples from northern Greece and south-eastern Romania. Only three of them are completely preserved – those from Progled (Gergova 1987, 38, Taf. 8, 107), Dren–Delyan (Mihaylov 2017, 14),

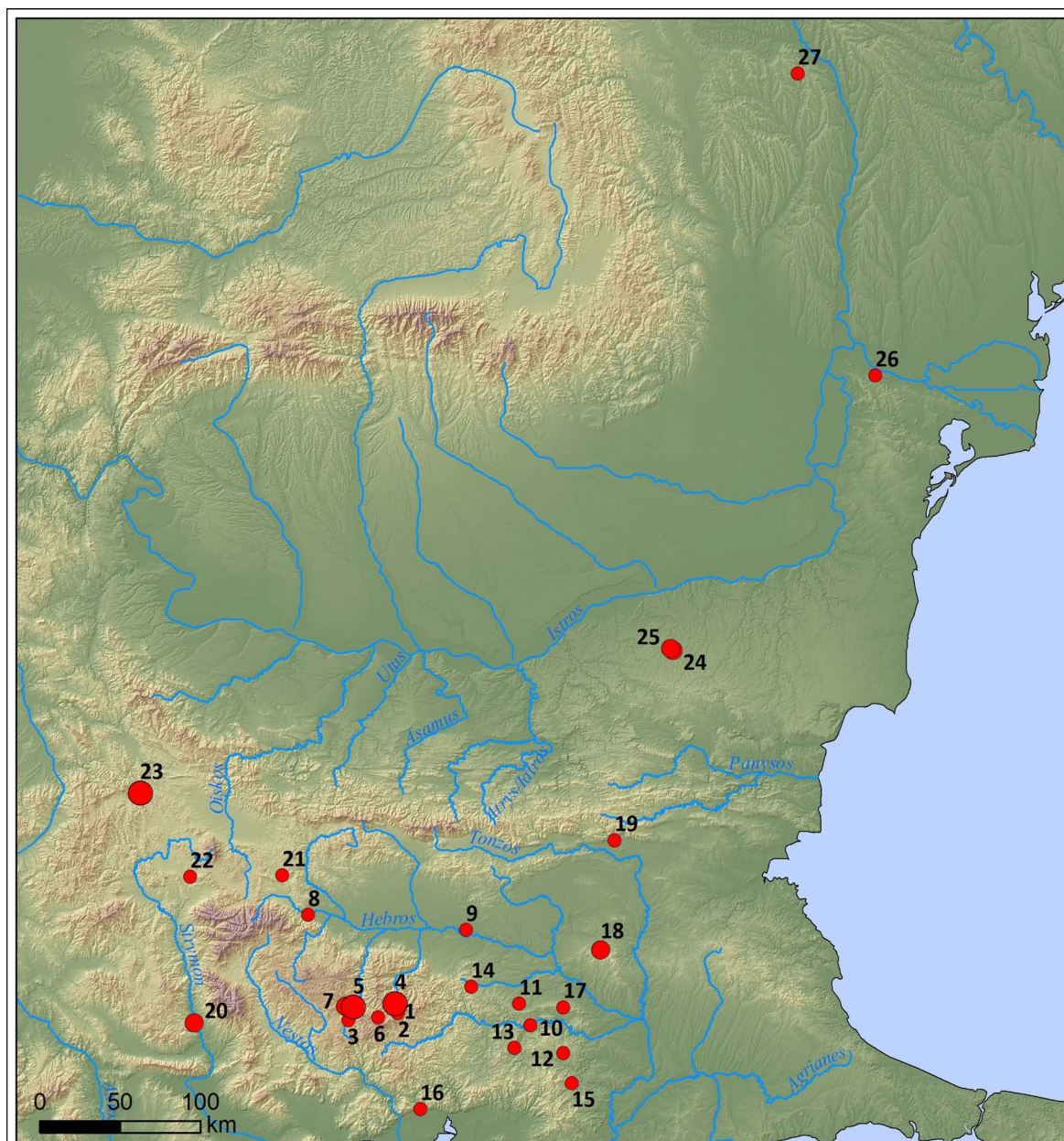


Fig. 1. Distribution of iron fibulae type BI 1 γ (author I. Kirilova)

and Vrabcha (Mihaylov 2021, 390, fig. 5/1). The approximate reconstruction of the shape can be done for another four – Sboryanovo (Stoyanov 1997, table XVIII/127) Kamen rid (Gergova 1986, 22, fig. 10), Stambolovo (fig. 4), and Chepelare (Kisyov 1991, 4, fig. 10). The size of the better-preserved fibulae is between 5.5 cm (Stambolovo) and 10.8 cm (Progled) – the variable dimensions probably depended on the gender and age of the people who wore them. Regardless of their size, the significant diameter of the spirals, often over 1 cm, is notable. Most of the spheres decorating the bow of the fibulae are up to 0.6 – 0.8 cm in diameter, but in some cases these spheres are quite prominent, with diameter over 1.5 cm or even over 2 cm (Angel voyvoda, Pchelari, Ihtiman and Zhelezino) (figs 2.1, 4–5, 7; 3.3–4, 6). None of them are fully preserved making it difficult to determine their overall dimensions.

In many cases, there are oblique cuts inlaid with bronze threads on the surface of the spheres. In a few cases, such as the fibulae from Pchelari and Stambolovo, such inlays are present on both

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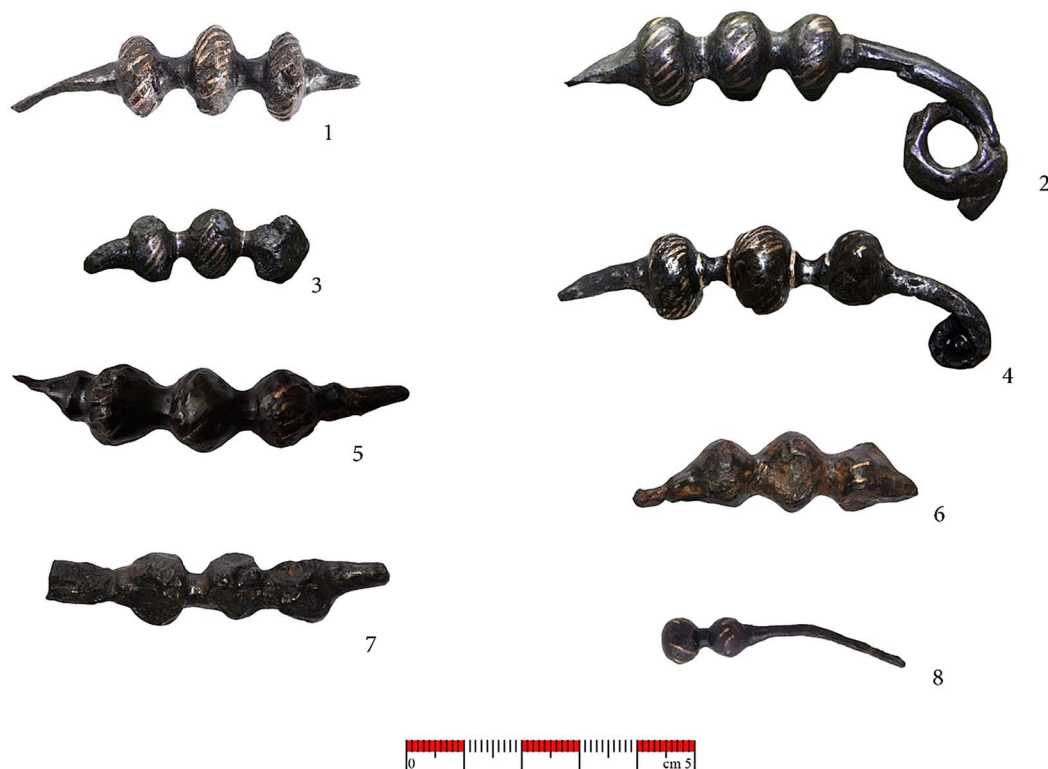


Fig. 2. Iron fibulae with bronze inlay type B I 1 γ : 1. Angel voyvoda, 2–3. Hlyabovo, 4. Pchelari, 5. Ihtiman, 6. Gradina, 7. Zhelezino, 8. Gluhite kamani (author I. Kirilova)

sides of the spheres (figs 2, 4). For other fibulae, such as those from the necropolis in Sboryanovo, no inlay was detected, meaning that not all items were decorated in this manner. Some of the fragments belonging to such fibulae are highly corroded and it is possible that the bronze threads have fallen out, such as those from Gorna kula and the second fibula from Progled (Damyanov 2002, 144, fig. 18). In the cases where the fibulae were found in graves with cremation, such as the fibulae from the Vrabcha and Dren–Delyan necropolises, the copper alloy has melted and upon discovery only traces of a green patina could be seen on the spheres, but the oblique cuts are visible.

Most such fibulae were found during excavations of necropolises, while those from settlements are far fewer. Some stray finds are kept in museum storage rooms, such as those from Sliven region (Gergova 1987, 37, Taf. 8, 110), Belovo¹, Palat², and Gorna kula³.

During excavations of the Late Antique fortress of Asara near the village of Angel voyvoda, which also contains remains from earlier periods, an iron fibula of type B I 1, variant “ γ ” was discovered⁴ (figs 2.1; 3.3). During the excavations of a Late Antique building near the town of Ihtiman, a fibula of this type was discovered. The researchers report that during the excavations they also found

1 The fibula, kept in the Belovo town museum, originates from a destroyed tumulus with inhumation. It was found together with bronze beads, a ring, a type A I 3 fibula, and spiral beads. Only a part of the bow with two biconical thickenings were preserved from the fibula, the iron being heavily corroded.

2 Two poorly preserved iron fibulae of type B I 1, variant “ γ ” originating from a destroyed tumulus near the village of Palat were handed over to the Sandanski town museum together with fragmented iron swords of Nenzingen type and other finds.

3 A bow from an iron fibula with three spherical thickenings was discovered during field surveys in the municipality of Krumovgrad in 2000. It is kept in the Kardzhali Regional Museum of History.

4 We would like to thank the head of the investigations, Dr. Zdravko Dimitrov, who provided us with a photo of the fibula and allowed us to present it here.

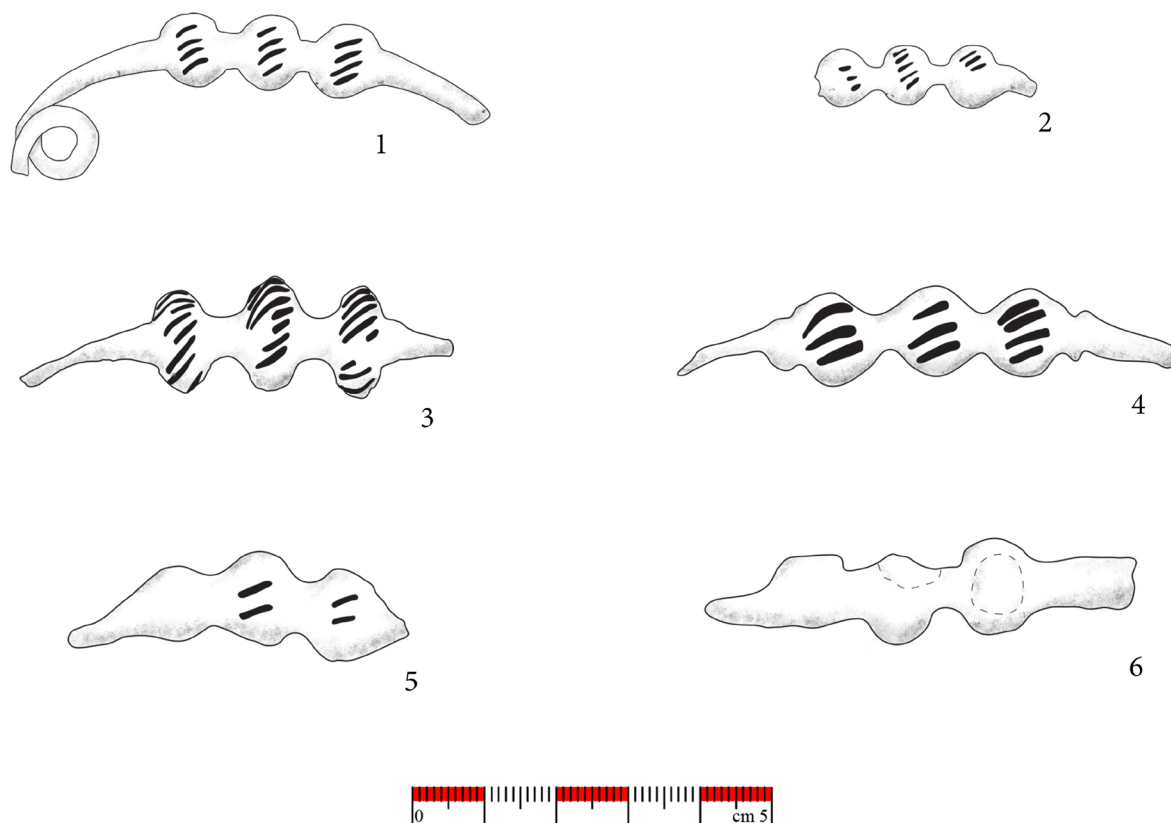


Fig. 3. Iron fibulae with bronze inlay type B I 1 γ: 1–2. Hlyabovo (after Gergova 1987, Taf. 8, 108–109), 3. Angel voyvoda, 4. Ihtiman, 5. Gradina, 6. Zhelezino (author I. Kirilova)

pottery from the Early Iron Age⁵ (figs 2.5; 3.4). Another one is part of a private collection and originates from the area of the village of Gradina, Plovdiv region⁶ (figs 2.6; 3.5).

In order to date this group of fibulae, it is important to present their archaeological context.

The necropolis near Stambolovo consists of three small tumuli, built up from stones and earth (Nekhrizov 2009; Nekhrizov, Tzvetkova 2010). They contained graves from the Late Bronze and Early Iron Ages. Four burials in pithoi were part of the second tumulus (fig. 5). In one of the ceramic containers, a small iron fibula of type B I 1 γ was found among the bones of a child aged about 12 years (fig. 4). The skeletons in the pithoi are incomplete and not in anatomical order, with two of the jars containing bones from two individuals. The grave goods are relatively rich and consist of various ceramic vessels with features of the pottery from the first period of the Early Iron Age. Five different fibulae, bronze bracelets, rings, glass, bronze and amber beads, iron knives, an anthropomorphic figurine, and a whetstone were found (Nekhrizov 2009, 267, fig. 1).

An iron fibula of this type was also found in a pithos burial explored during rescue excavations near the village of Vafaiika, in the Xanthi region, northern Greece. The pithos contained remains of a man aged around 37–38 years. The adjacent pithos burial contained the bones of three individuals – a man and two women. It is particularly important that an iron sword of type Nenzingen or Noua 2 was found in this case. This allows us to assume an earlier date for this necropolis than the one proposed by the excavators – 8th c. BC (Triantafyllos, Kallintzi 1998, 1–4, Eικ.1–6).

5 The fibula was found during excavations, directed by V. Hadzhiangelov. We thank him for giving us the opportunity to publish the fibula in this article.

6 The fibula is owned by Balyo Balev, to whom we thank for the opportunity to document and study it.

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Fig. 4. Iron fibula with bronze inlay from a mound necropolis near Stambolovo, southeastern Bulgaria (author J. Tzvetkova)

The largest number of iron fibulae of type B I 1 γ originate from the Western Rhodopes where they were part of grave goods. Some were found in small tumuli of stones and earth near the village of Progled (Mikov 1942, 20, fig. 1g; Gergova 1987, 38, Taf. 8, 107) and in tumuli near Progled (Damyanov 2002, 145, fig. 18), Yagodina (Kisyov 1988, 26, fig. 11), Chepelare (Kisyov 1991, 4, fig. 10)⁷ and Devin (Borislavov, Ivanova 2007, 89). Other such fibulae are stored in the museum in Smolyan. They were found during excavations of tumuli in the area near the villages of Gela, Grohotno – three items, and another two near the town of Chepelare⁸. The burials were both by cremation and inhumation. Important features of the ritual, which hint to an early chronology of the contexts, are the bronze spearhead placed next to the urn in the first tumulus at Progled (Mikov 1942, 20), as well as the ceramic vessels with features close to those of the Late Bronze Age pottery in the tumuli near Chepelare (Kisyov 1991, 5, figs 12–15) and Devin (Borislavov, Ivanova 2007, 89).

During the investigation of a necropolis of four rock tombs near the village of Pchelari in the eastern Rhodopes, poorly preserved traces of burials were found – single human bones, ceramic sherds, iron knives and fibulae, one of which is from the group presented here (fig. 2.4). The carving and use of the rock tombs is dated to the 9th–8th c. BC (Nekhrizov 1994).

A solid iron fibula bow of type B I 1 γ (figs 2.7; 3.6) was discovered in a dolmen that was tightly surrounded by a circle of vertically erected gneiss slabs near the village of Zhelezino (Nekhrizov, Mikov 2002, 77). Traces of long-term use of the monument at the end of the 2nd and throughout the 1st mill. BC were found, but no evidence of human bones or cremation remains were recorded. A part of a bronze fibula and a jewel of amber beads strung on a bronze wire were also found.

7 The same fibula features on the photo, which is referred in an earlier publication as found in Yagodina.

8 This information was provided by our colleague D. Damyanov to whom we would like to express our gratitude.

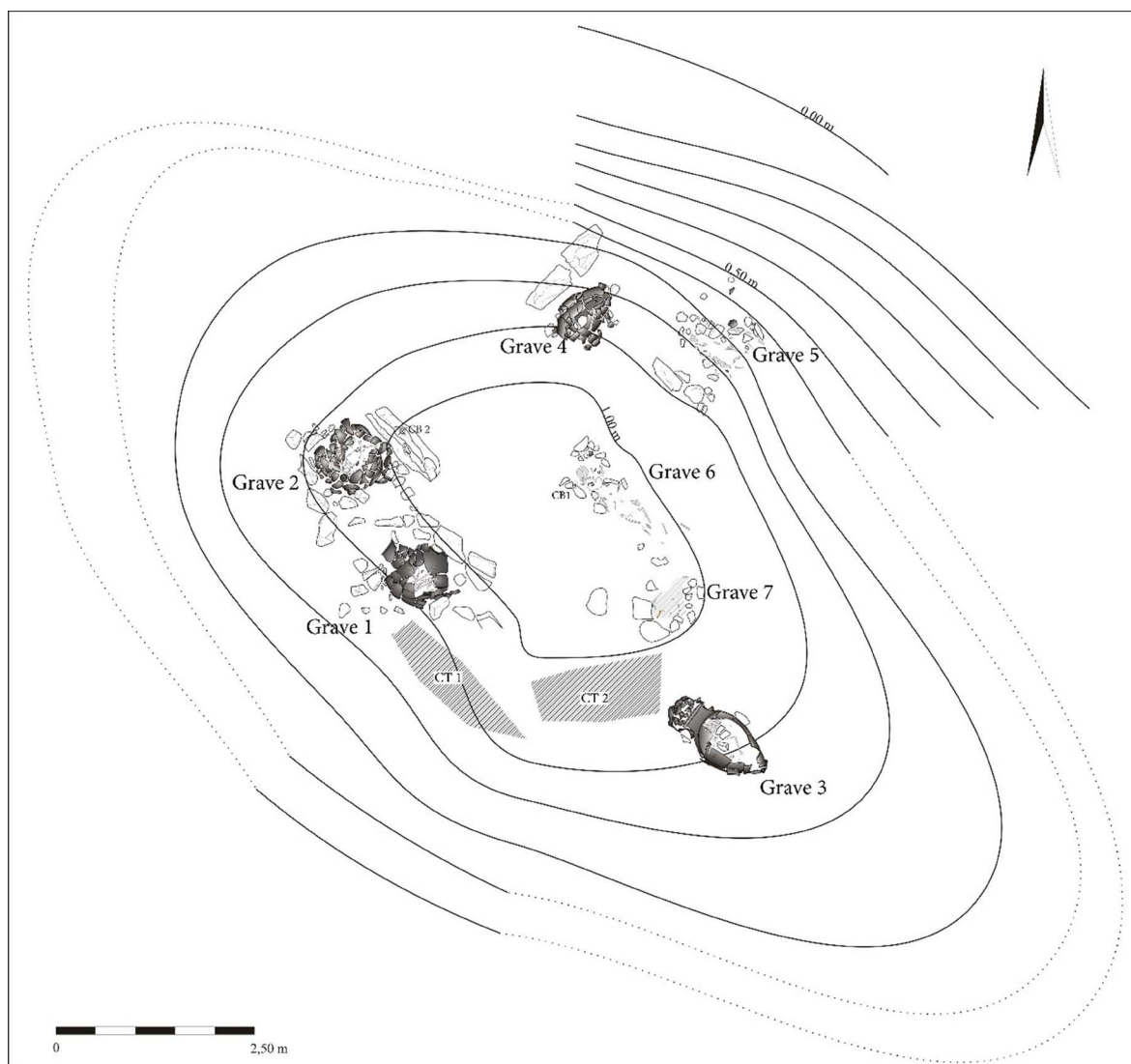


Fig. 5. Tumulus 2 of necropolis near Stambolovo, southeastern Bulgaria (author J. Tzvetkova)

Another such fibula came to light during the excavations of dolmens in the Eastern Rhodopes – near the village of Roussa, northern Greece. The publication does not mention the context of the find and the fibula is presented on an image together with seven bronze fibulae of different types. The photograph is not particularly clear and shows that the fibula is heavily corroded – only the bow with three spherical thickenings and one of the spirals is preserved (Triandaphyllos 1983, 155, fig. 13).

During the excavations of the dolmen in the locality of Nachevi chairi near the village of Hly-abovo in the Sakar mountain, two partially preserved iron fibulae were found (Delev 1982, 197, figs 111–112; Gergova 1987, Taf. 8, 108–109). One of them was found in front of the facade of the dolmen and the other – inside the smaller side chamber, in which human remains were also found. Only the bow with three spheres decorated with transverse bronze threads is preserved from both fibulae (figs 2.2–3; 3.1–2). Sherds of Early Iron Age pottery were found, some of which may postdate the fibulae. The excavator places the construction of the dolmen at the very beginning of the Early Iron Age, while the fibulae are dated to the 11th–9th c. BC.

Five low tumuli were excavated from the necropolis located within the Sboryanovo Archaeological Reserve. They were built up from stones and earth with some surrounded by stone circles. In

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some cases, the inhumations bear traces of burning. Several individuals of different age and sex were buried in the tumuli. The grave goods are not particularly rich – mainly ceramic vessels and small objects. A total of four fibulae were found – two iron and two bronze ones, similar in type. The iron fibulae were found in female graves, in one case of a woman over 55 years old, and in the second case – of a girl aged 16–17 (Stoyanov 1997, 33, dr. 4, 45, Table XVIII/127–128).

Two iron fibulae with bead decoration on the bow were found during the excavations of the Early Iron Age settlement in the locality of Kamen rid, also in the Sboryanovo area (Gergova 1986, 22, fig. 10). However, they have a different shape of the pin holder plate.

It should be noted here that almost identical fibulae made from iron and bronze were found in the Sboryanovo necropolis. They differ only by the plate of the pin holder, which in the case of the iron fibulae is high and triangular in shape, while the bronze ones have trapezoidal plates that are slightly cut on the sides. T. Stoyanov has grounds to suggest an earlier date for the iron fibulae (10th c. BC) from the necropolis, if compared to the bronze ones (mid-10th–early 9th c. BC). Very similar in outlines and manufacturing technique, and also decorated with thickenings on the bow, are some bronze and iron fibulae placed by D. Gergova in type B II 1. They were more widely distributed and differ from type B I 1 mainly in the outlines of the plate of the pin holder – also high, but trapezoidal in shape and with more or less pronounced arched cuts on the sides (Gergova 1987, 44–46, Taf. 13; Kisyov 1991, 4, figs 11, 16). In most cases, there are more than three beads on the bow of these fibulae, often biconical in shape. This fibula type is also found mostly in the Rhodope Mountains, but in later contexts. T. Stoyanov considers the fibulae with a concavely shaped pin holder plate (sanderhformiger Fussplatte) to be a local Thracian variant of those of type B I 1 (Stoyanov 1997, 75).

M. Kašuba's article focuses on fibulae with bows decorated with three spheres (Fibel mit drei Bügelkugeln) found in Romania and Moldova. It features several broken fibulae originating from sites that are part of the early Early Iron Age Kozia culture group. Most items are made of bronze and only one, made of iron, could be of the type presented here (Kašuba 2006, 227, Abb. 12, 1).

As a result of the rescue excavations of the Dren–Delyan necropolis in Western Bulgaria, a series of stone structures were discovered in which burials took place. Cremations in urns predominated during the first chronological phase of the necropolis (late 11th–8th c. BC). During the second phase (6th–4th c. BC) the remains from the cremation were placed inside stone structures. Among the diverse finds from the necropolis – weapons, jewellery, vessels, there is an iron fibula with features similar to those of type B I 1 γ (Mihaylov 2017, 14).

The necropolis near Vrabcha, Western Bulgaria, is a rampart of small stone tumuli placed next to each other. About 30 graves were excavated. Cremations and inhumations are both present. A variety of grave goods were found – bronze and iron adornments, weapons, ceramic vessels, as well as one entirely preserved and parts of two other iron fibulae of type B I 1 γ with traces of inlay (Mihaylov 2021; 2022, 47). Based on the pottery and finds of the Basarabi type, the excavator dates the necropolis between 8th–6th c. BC, however we think that the necropolis also had an earlier period.

An interesting find related to this topic is an iron needle discovered during the excavations of the Gluhite kamani rock complex in the Eastern Rhodopes. The upper part of the needle ends with two spheres decorated with threads of bronze inlay – identical in workmanship to those of the iron fibulae of type B I 1 γ (fig. 2.8). It is possible that this adornment was made from part of a disused similar fibula. A similar object originates from the Pocreaca–Cetățuia site in Romania, which we believe was incorrectly identified as part of a fibula in M. Kašuba's publication (Kašuba 2006, 225, Abb. 8, 1).

The mapping of iron fibulae of type B I 1 γ according to D. Gergova's classification shows that most of them were found to the south of Stara Planina, mainly in the Rhodope Mountains (fig. 1). Based on this information, we can assume that they were produced mainly in the Rhodope Moun-

Elements	Concentration	(Std. Dev.)
Fe	77.137%	(0.064)
Cu	12.442%	(0.024)
Sn	7.902%	(0.031)
P	1.736%	(0.159)
Pb	0.447%	(0.011)
As	0.191%	(0.009)
Ni	0.144%	(0.006)

Table 1. X-ray fluorescence analysis of iron fibula from Stambolovo

tains. The high concentration of such fibulae in both the western and eastern parts of the mountain suggests that workshops for their production probably existed in both parts. It is also possible that a workshop for such fibulae also functioned in the lands of the Getae in present-day northeastern Bulgaria.

Analyses

An attempt to shed light on the possibility of local production of these artefacts is the laser induced plasma spectroscopy of several of the fibulae presented here and two iron fibulae of a different type, all originating from the Rhodope Mountains. The qualitative and semi-quantitative analysis showed the same composition of the alloy elements, but the two iron fibulae with a later date differ by a significantly higher content of barium (Ba), lithium (Li), cadmium (Cd), and aluminium (Al)⁹.

In the laboratory of the National Archaeological Institute with Museum at the BAS, an X-ray-fluorescence analysis was carried out, aiming to clarify the composition of the inlaid threads on the iron spheres of the bow of the fibula from Stambolovo. The results show that they are made from an alloy of copper and tin, that is, they are made of bronze. No such analyses have yet been made on other fibulae of this type, but it can be assumed that the same inlay material was used for all of them (tabl. 1).

Anthropological analyses from the sites at Sboryanovo, Stambolovo, Xanthi, and Vrabcha show that fibulae from the group under consideration are found in graves of both adults and young individuals of both sexes. The differences in their size also suggest that they were worn by people of different genders and age.

Chronology

Regarding the chronology of production and use of type B I 1 γ fibulae, most scholars agree and date them to the first period of the Early Iron Age. This chronology is also supported by the discovery context of the artifacts found during archaeological excavations. Such a chronology for the B I 1 γ type iron fibulae is indisputably confirmed by the radiocarbon dates from the Stambolovo necropolis. The bone sample from the grave in which such a fibula was found has a calibrated date of 1003–927 cal BC (68% probability) and 1054–896 cal BC (95% probability) (fig. 6)¹⁰.

⁹ The analyses were performed by Vani Tankova, PhD from the Institute of Solid State Physics at the BAS for which we would like to thank her.

¹⁰ Radiocarbon dating was performed by Scottish Universities Environmental Research Centre, Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK.

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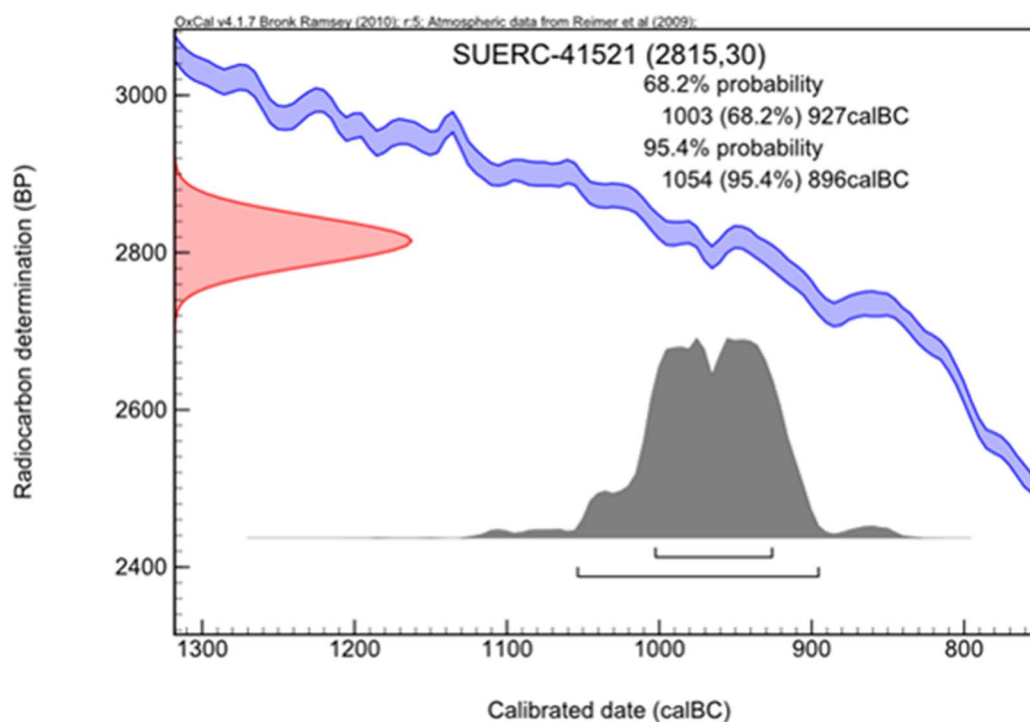


Fig. 6. Radiocarbon date from Stambolovo necropolis

Conclusions

It is widely believed that the appearance of the double-spiral fibula with a sphere-decorated bow was influenced by earlier types of single-spiral fibulae with beads on the bow that were common in the Eastern Mediterranean and the Aegean basin (Stoyanov 1997, 77–80, dr. I, map 3). Of similar opinion is M. Kašuba, who believes that the fibulae with three beads on the bow appeared in the Aegean world during the Protogeometric period and then spread to the north. Moreover, these fibulae are evidence for the Aegean influence on the costume of all Early Iron Age cultures with pottery with incised and stamped decoration from the Eastern Balkans and the Danube area (Kašuba 2006, 229–233). It is important to emphasise, however, that while the prototypes of these fibulae were made of bronze, during the first centuries of the Early Iron Age in Thrace a group of specific iron fibulae has emerged, the bows of many of which were inlaid with bronze threads.

In D. Gergova's classification scheme variant "γ" of type B I 1 includes both bronze and iron fibulae, and among the iron ones there are also those without bronze inlay. For this reason, we propose that the group of iron fibulae with bronze inlay should be separated into a separate sub-variant "γ 1" of type B I 1 in this classification.

Acknowledgements

This work is supported by the project "The Gluhite Kamani research project: Interdisciplinary research of the Early Iron Age in Thrace" КП-06-H80/6 from 2023 of the Bulgarian National Science Fund.

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