



Contribution to the study of spinning bowls: examples from Early Iron Age Thrace

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ABSTRACT

The identification of a specific group of ceramic and stone vessels with a handle on the interior, known in the literature as spinning bowls, has become possible due to the detailed Egyptian wall paintings and wooden models presenting different stages of textile production. These vessels were used for spinning, plying, or perhaps both, and were discovered in various regions and periods from the beginning of the 5th millennium BC until the Roman period. The article presents five ceramic bowls with a single interior handle discovered in inland Thrace and dated to the Early Iron Age, thus complementing the chronological and spatial distribution of this class of artefacts. The vessels were used for spinning flax or other plant-based material and were part of the small-scale, domestic textile production in Early Iron Age Thrace. The limited number of recorded examples, as well as their current absence in the preceding Bronze Age and the following Late Iron Age, is discussed. Like many other everyday items, after their primary use, the spinning bowls in Thrace acquired some symbolic meaning and were deposited at ritual sites.

KEYWORDS

Spinning bowls, Early Iron Age, Thrace, fabric production

Introduction

The study of textile production in ancient societies enjoys increased interest among scholars investigating various sources and topics of textile production and applying contemporary interdisciplinary approaches (for the sources and methods applied in textile studies see Andersson Strand et al. 2010, 149–173; 2022, 19–35; Gleba 2011, 2–26). After the pioneering work of G.M. Crowfoot in Egypt, Sudan, and the Near East (1931; 1941) research has been carried out in the Aegean and Eastern Mediterranean (e.g., Barber 1991; Michel, Nosch (eds) 2010; Boertien 2013; Breniquet, Michel (eds) 2014; Andersson Strand, Nosch (eds) 2015b; Ulanowska, Siennicka (eds) 2018; Muti 2020; Quillien, Sarri (eds) 2020), and in Central and Northern Europe (e.g., Grömer 2016; see also the Proceedings of the North European Symposium of Archaeological Textiles). Recent contributions to the study have been made for present-day Bulgaria as well (Georgieva 1999, 112–145; Petrova 2011; Dimova 2016b, 652–680).

Textile production involves different stages and tools, some providing a more detailed picture of the process, while others leaving little or no evidence in the archaeological record. Spinning is an important stage in the *chaîne opératoire* of textile production in which fibres are transformed into

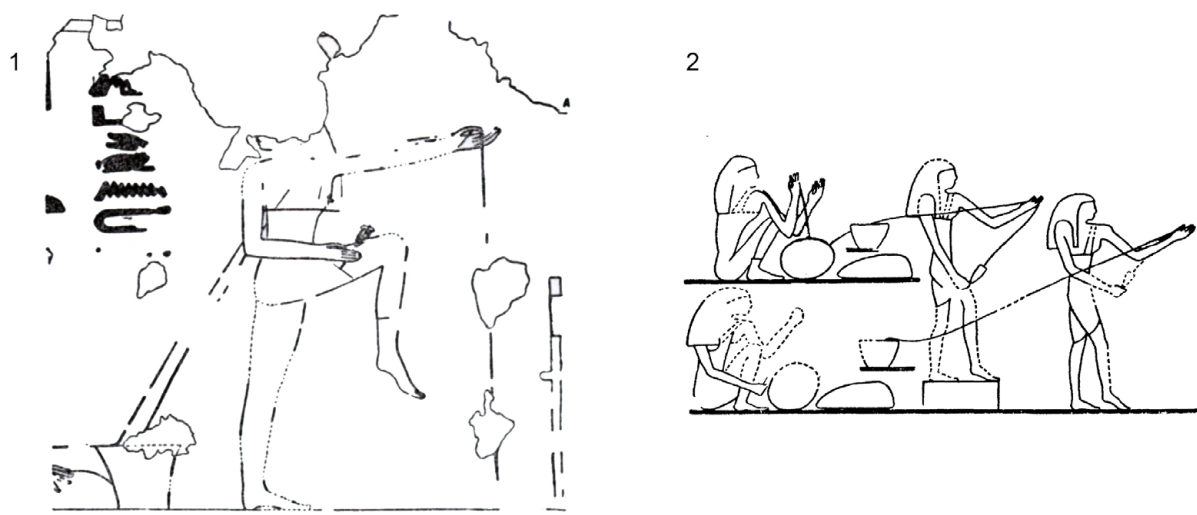


Fig. 1. Depictions of spinning bowls in Egyptian tombs: 1. Wall painting in the tomb of Daga in Thebes showing spinner using a two-handled spinning bowl (after Dothan 1963, fig. 6); 2. Wall painting in the tomb of Thuti-hetep in el-Bersheh (after Dothan 1963, fig. 5)

thread by twisting. This can be achieved by various techniques and is associated with particular tools, though not all essential. In addition, some of these (spindle and distaff) were sometimes made from perishable materials and, thus, have left no trace in the archaeological record. The function of a specific group of artefacts representing vessels with one or more handles on the interior – on the bottom, on the walls, or both as in Tell el-Amarna (Kemp, Vogelsang-Eastwood 2001, 293, fig. 8.16a), used in the process of spinning, has been initially identified by Peet and Woolley (1923, 61, Pl. XLVIII). Various interpretations have been proposed afterwards for specific finds. Thus, for instance, the examples found in Eridu, southern Mesopotamia, were interpreted as models of boats, an idea challenged by T. Strasser (1996, 920–925), while other vessels were reported as lids (Arne 1945, 219). Depictions in Egyptian tombs, as well as funerary wooden models of textile workshops, however, demonstrate the process in which these tools were employed (Crowfoot 1931; Allen 1997, 17–38; Vogelsang-Eastwood 2000, 272–274; Mączyńska 2012, 66) and their association with spinning or plying is now accepted (fig. 1).

Several points should be noted at the beginning of this study regarding the term “spinning bowl”. The recorded vessels with interior loop or loops vary in morphology, and for some, the term “bowl” is not appropriate. Regarding the word “spinning”, there is no agreement between scholars on the precise role of these vessels within the production process (see below). In this article, however, we use “spinning bowl” for convenience to denote any vessel that we believe might have been employed in the fabric production process, regardless of its typological attribution and the stage in which it was used.

A recent discovery of a spinning bowl at the Gluhite Kamani rock-cut complex in the Eastern Rhodope Mountains in Bulgaria, from an Early Iron Age context¹, provoked our interest in these specific implements. As a result, more examples from this period were found, kept in museum collections in the country, and with a single exception, these are unpublished. By examining the ceramic bowls with internal loop discovered in Thrace and dated to the Early Iron Age, the article aims to provide new data on the distribution map of this class of artefacts and complement our knowledge of the spinning practices in the region.

1 Excavations in 2016 led by Assoc. Prof. Georgi Nekhrizov from the National Archaeological Institute with Museum at the Bulgarian Academy of Sciences, with the author's participation.

The role of spinning bowls

The main criterion in distinguishing the spinning bowls is the presence of an internal handle which keeps the thread under tension when the fibre is drawn up from the rove. On some of the bowls, there are grooves of various depths visible on the inside of the loops and sometimes on the rim (Dothan 1963, figs 1–3; Mączyńska 2012, 67, fig. 6. 1–4, 9–10). These might have been deliberately made to guide the thread (Allen 1997, 2–28). Another option is that the grooves resulted from the already spun thread rubbing against the pottery surface in the plying process (Vogelsang-Eastwood 1987–1988, 85–86). However, not all spinning bowls have such grooves, as evident from the ones recorded in Messenia. Studies in ancient flax production and spinning, as well as ethnographic parallels, imply that these vessels contained water, as moistening the fibre is critical in setting the twist to the thread (Barber 1991, 71–73). The rove may be placed inside or outside the vessel, as evident in Egyptian scenes and from the marks on actual bowls with grooves on the rim, the loops and the rim on the opposite side (Allen 1997, 28).

When examining the spinning process, scholars have proposed different terms and explanations for the precise function of spinning bowls. In G. Vogelsang-Eastwood's interpretation, these vessels were employed for twisting together two or more previously spun threads to make a plied yarn (Vogelsang-Eastwood 1987–1988, 84–87). That makes the term “spinning bowls” inappropriate, and the author refers to these as “plying bowls”. E. Barber argues that the bowls were not suitable for spinning wool but used either in plying wool or flax, or spinning spliced flax (1991, 72). The bowls were filled with water which facilitated the spinning process, and the term “fibre-wetting bowls” has been suggested (Barber 1991, 7–73). It has been pointed out, however, that spinning bowls could be used both for the initial twisting of the fibre and for subsequent plying (Allen 1997, 28; Mączyńska 2012, 66). If used for plying, they might not necessarily be confined solely to flax, but used with any other fibre (Spinazzi-Lucchesi 2020, 277–278). S. Allen goes further in this direction when examining spinning bowls from Egypt, suggesting that the deeper bowls with broad bases of the Middle Kingdom would be better suited for drop spindle spinning, as opposed to the shallower bowls of the New Kingdom, which would be sufficient for the grasped spindle method. Finally, the heaviest stone bowls may have been used for plying as this requires the most tension (Allen 1997, 28).

The variety of shapes and sizes, the presence or absence of thread marks, and the different porosity of the vessels indicate that besides the presence of an internal loop/loops or perforated lug, there are no other specific criteria for distinguishing this class of tools which hinders their identification among the fragmented pottery.

Spatial and temporal distribution

The earliest examples of vessels with internal handles date to the 5th millennium BC and come from the north part of Southeastern Europe, Central Europe and the Levant. Two fragments of ceramic vessels with a lug attached to the bottom interior, the lug itself with multiple perforations, have been discovered at the site of Belovode, Eastern Serbia, and dated to Vinča C (one fragment) and Vinča D (the other) levels (Svilar 2017, 25, figs 1–2, 5) (fig. 2.1). Similar fragments are reported from Pločnik (Svilar 2016, 55, figs 5–7; 2017, 25, figs 3–4), while one sherd with an interior loop comes from Kovačke njive near Vranje, Southern Serbia (Vuković et al. 2016, 176, Pl. II/4) again dated to the Vinča C–D levels (fig. 2.2). Spinning vessels of different shape and size from Bulgaria have been studied by A. Chohadzhiev (2003, 16–21). These include one example from Slatino, Western Bulgaria (beginning of the Early Chalcolithic) resembling the sherd from Kovačke njive in terms of shape and position of the loop (fig. 2.3), one example from the site of Dyakovo, Western Bulgaria

(beginning of the Late Chalcolithic) (fig. 2.6), and one from Hotnitsa, Northern Bulgaria (last stage of the Late Chalcolithic) (fig. 2.4). To these, we should add one deep vessel with handles on the wall interior from Tell Kozareva mogila, Burgas region (personal communication P. Georgieva and V. Danov), as well as a recently discovered vessel with four internal horizontal loops from a Late Chalcolithic dwelling at Tell Provadia–Solnitsata, Northeastern Bulgaria (Nikolov et al. 2024, 149). Finally, a Late Chalcolithic wall sherd with a vertical handle on the exterior and a horizontal handle on the interior close to the bottom has been published from Tell Lopkite, near the village of Dolnoslav, Plovdiv region (Mitkova 2024, 51, fig. 135a–b). Late Chalcolithic examples have been reported from Căscioarele, Romania (Stefan 1925, 156, fig. 14.3) and Central Europe – at the necropolis of Krasne – Kolonia dated to 4100–3650 BC (Chmielewski 2009, 223–224, fig. 2.1) (fig. 2.5). Shallow and open spinning bowls with a single loop placed at 90° from the middle of the vessel wall to the bottom interior are recorded in the Southern Levant at sites from the Ghassulian culture (4500–3900 BC) – Neve Ur (Perrot et al. 1967, 223, fig. 17.8, Pl. 42.9–10), Abu Hamid (Breniquet 2008, 124, Pl. 29.3) and Bir es-Safadi (Levy, Gilead 2012, 133–134, fig. 4; 2013, 32, fig. 2.4) (fig. 2.7). Furthermore, the Levantine examples have grooves observed on the upper part of the loop and the rim.

Spinning bowls have been discovered at Early Minoan to Middle Minoan Cretan sites – two examples from Myrtos (Warren 1972, 112, 153, 207, 209, fig. 91: P701, Pl. 68B) (fig. 3.1) and one from a tomb at Drakones (Xanthoudides 1924, Pl. XLII, no. 5033; Carington Smith 1975, 273–274), one from Phaistos, Palaikastro, Kommos, and two from Arkhanes (Barber 1991, 73–76 with references), and at the Late Minoan South House at Knossos, which is, however, considered a stray find of an earlier date (Evely 2003, 193, fig. 7.11) (fig. 3.2). One sherd with an interior loop is kept in the Boston Museum of Fine Arts with unknown provenance, dated to the Middle Minoan II Period, part of the Ancient Greece and Rome collections (MFA online collections). Fragment of a shallow vessel with interior handle from the rim to the base is reported from Phylakopi on Melos with the note that it was not the only example from the site (Edgar 1904, 156, fig. 142) (fig. 3.3). The Cretan examples represent shallow bowls with different position of the handles – connecting the side and the base, located on the side under the rim, and on the one from Melos the handle starts below the rim and reaches the bottom interior.

In G. Gavalas' study on textile tools and manufacture in the Early Bronze Age Cyclades, the author reports one bowl sherd with a perforated lug below the rim interior discovered in Early Cycladic II Dhaskalio on Keros (Gavalas 2021, 179, fig. 16.5.b; Sotirakopoulou 2016, 195–196, fig. 4.14). He further quotes earlier examples with internal lugs or handles from Chios and Leros. While the first find from Chios (Emporio VII) represents a neckless closed jar with an internal perforated lug below the rim (Hood 1981, 332, fig. 155: 656; Sotirakopoulou 2016, 195–196) and may be interpreted as used for spinning, the examples from Emporio X–VIII (Hood 1981, 247–248, fig. 119.20, 24, 28, pl. 30: 24, 28; 203, fig. 105: 37) and the Late Neolithic II site at Partheni on Leros (Sampson 1987, 90, fig. 127: 108–109, fig. 129, pl. 47), however, come from vessels termed as baking pans or cheese pots. They have horizontal, not always perforated lugs on the inside below the rim, and some have perforated rims. The original publications suggest that these lugs might have supported lids or facilitated handling, and we believe that these vessels should not be included in the group of spinning bowls.

In the Peloponnese, there is an Early Bronze Age deep bowl with a horizontal handle at the lower part of the interior from Tiryns in the Argolis (Gavalas 2021, 179) and one fragment from Mygdalia in Achaia (Eder, Hadzi-Spiliopoulou 2021, 68, note 17 with references). The majority of the specimens, however, are discovered in Messenia, both in settlements and tombs from the Middle Helladic III to the Late Helladic IIA periods, at Nichoria (Carington Smith 1992, 687, Pl. 11–34), Maryeli Koutsouveri (Davis et al. 1997, 442, Pl. 89: d), the palace of Nestor at Pylos and Kephala-

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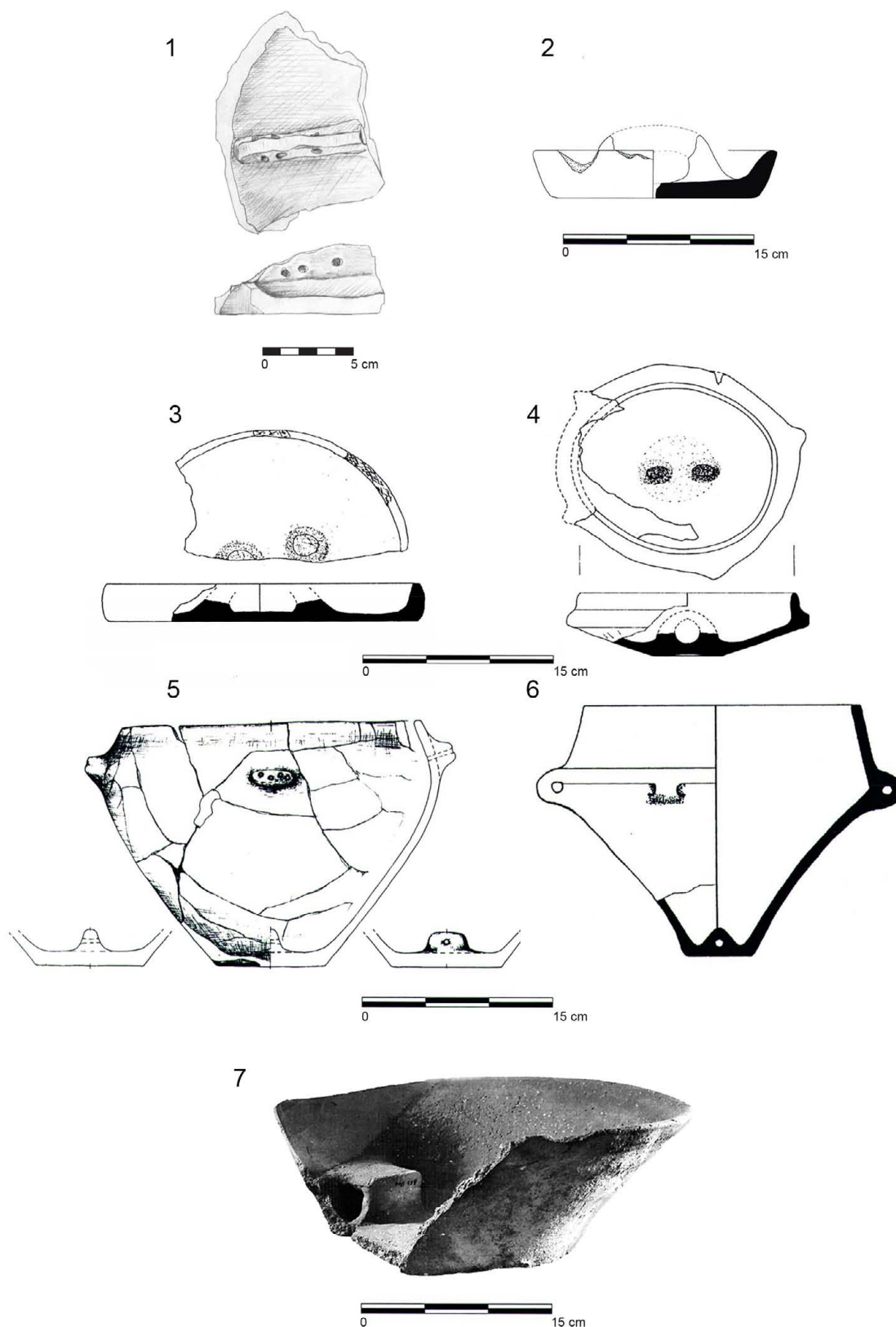


Fig. 2. Chalcolithic spinning bowls: 1. Belovode, Serbia (after Svilar 2017, 25, fig. 2); 2. Kovačke njive, Serbia (after Vuković et al 2016, 176, Pl. II/4); 3. Slatino, Bulgaria (after Chohadzhiev 2003, fig. 6); 4. Hotnitsa, Bulgaria (after Chohadzhiev 2003, fig. 5); 5. Krasne Kolonia, Poland (after Chmielewski 2009, fig. 2.1); 6. Dyakovo, Bulgaria (after Chohadzhiev 2003, fig. 3); 7. Bir es-Safadi, southern Levant (after Levy, Gilead 2012, fig. 4)

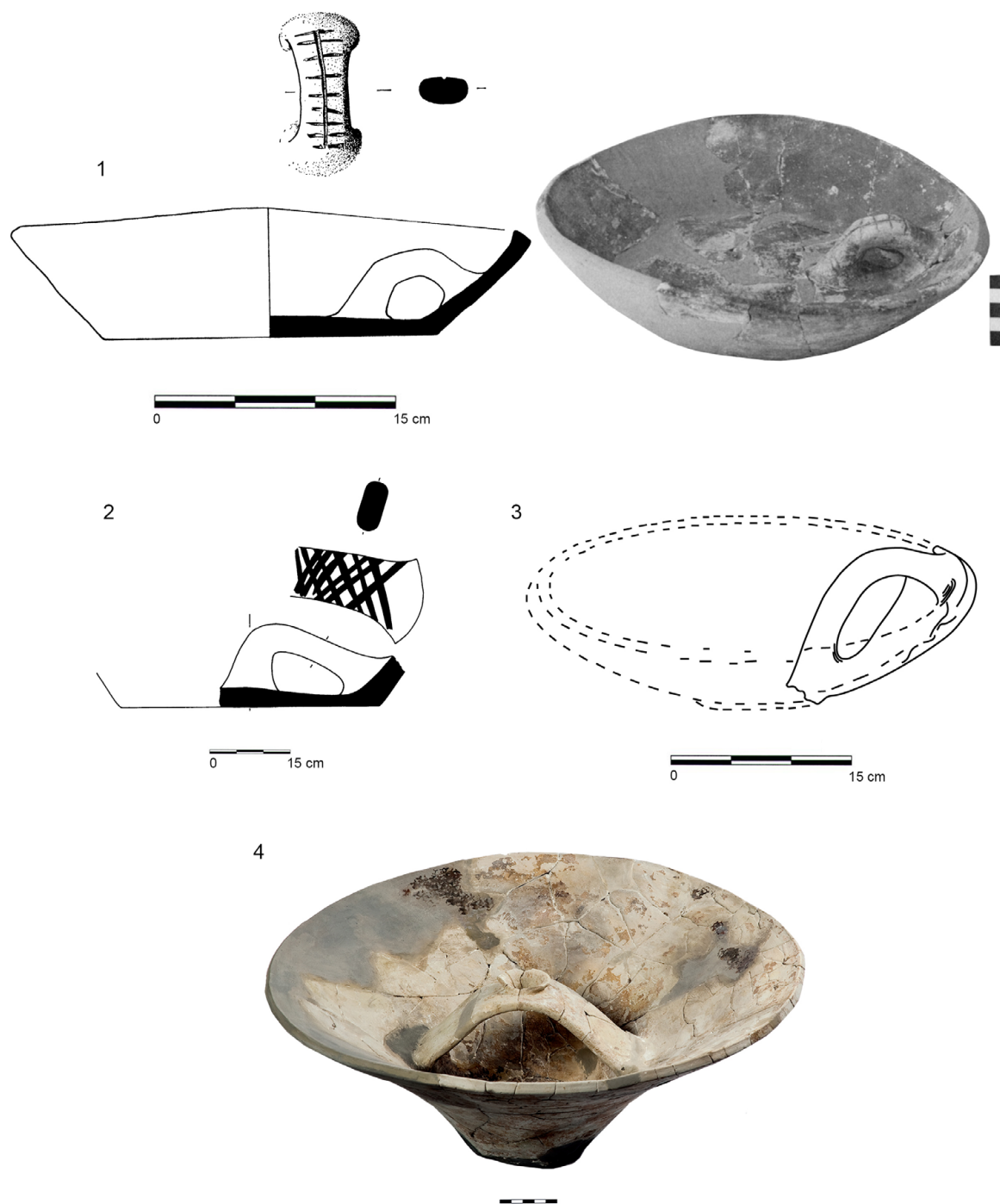


Fig. 3. Spinning bowls from the Bronze Age Aegean islands and the Peloponnese: 1. Myrtos, Crete (after Warren 1972, fig. 46: P107; Pl. 68B); 2. Knossos, Crete (after Evely 2003, fig. 7.11); 3. Phylakopi, Melos (after Edgar 1904, fig. 142); 4. Kakovatos, Peloponnese (after Eder, Hadzi-Spiliopoulou 2021, fig. 7)

ovryso Tomb 1 at Volimidia (Davis et al. 1997, 442, note 217 with references), at Koukounara, Ilklaina, Koryphasion and Malthi (Eder, Hadzi-Spiliopoulou 2021, fig. 8) and fragments from at least eight bowls from Kakovatos in Elis (Eder, Hadzi-Spiliopoulou 2021, 67–68, fig. 7)² (fig. 3.4). The Messenia vessels represent large bowls with a single interior handle with no grooves on the loops

² The Centre for Textile Research database of textile tools from the Aegean and the Eastern Mediterranean during the Bronze Age includes 17 entries of spinning bowls (Andersson Strand, Nosch 2015a, fig. 5.1.7).

or the rims. A ceramic bowl with an interior loop has been reported from a site in Romania of the Wietenberg culture (Petrova 2011, 62 with references).

Recently, spinning bowls have been identified at the site of Tell el-Farkha (Mączyńska 2012, 65–75) in levels dated to the Predynastic period (first part of the Naqada III period) in Egypt (fig. 4.1) and one example attributed to this time is kept in the Egyptian Museum of Turin from Ernesto Schiaparelli's excavations of Heliopolis (Spinazzi-Lucchesi 2020, 271–279) (fig. 4.2) taking back the date of their appearance in Egypt to the late 4th millennium BC. These bowls, so far the earliest known in Egypt, have an interior divided in two by a perforated partition attached to the bottom. Bowls with interior handles are discovered at Early Bronze Age sites in the Near East – at Shah Tepe, Iran (Arne 1945, 219, fig. 466a; Pl. LVIII) and Habuba Kabira, Syria of the late 4th and early 3rd millennium BC (Strommenger, Sørenhagen 1970, 66, 69, Abb. 24) (fig. 4.5), but identified as kitchen utensils. The majority of spinning bowls, both of clay and stone, come from Middle and New Kingdom Egypt (Allen 1997, 25–27; Kemp, Vogelsang-Eastwood 2001, 291–306) (fig. 4.3) and Late Bronze Age to 7th c. BC Palestine area (Dothan 1963, 97–101) (fig. 4.4). Besides two examples with a single interior handle at Tell Jerishe, the remaining ones have two or more joined handles and it has been noted that typologically the spinning bowls from Palestine and Egypt are generally similar with minor variations according to the specific period and archaeological site (Dothan 1963, 104).

Bowls with internal handles are recorded in the north-west of the Iberian Peninsula (the area of the Castreña culture between northern Portugal and southern Galicia, Spain) dated to the Late Bronze Age (9th c. BC), but also used throughout the Iron Age until the Roman period (Rey Castiñeira 1986–1987, 186–187; Ruiz de Haro 2018a, 86–87; 2018b, 9–109). Once again, there is no uniformity in the vessels' shape and position of the handles, the latter placed on the sides in most cases horizontally but also vertically. Grooves are observed on the inside of the handles (Ruiz de Haro 2018a, 87).

There is a marked difference in the number of the loops between regions, with the finds from Egypt and Palestine having two to four loops arranged in a single or multiple lines. Most spinning bowls from prehistoric Europe have a single loop in the centre of the base interior. However, the early 5th millennium BC sherds from Belovode and Pločnik bear several perforations on the internal lug, and the Late Chalcolithic examples from Tell Kozareva mogila and Tell Provadia–Solnitsata have multiple handles. The example from Tell Lopkite is in a fragmentary state, and it remains unknown whether the vessel had more handles. The number of loops provides insights into the production process. Thus, the bowls with two or more handles might have been used for spinning by more than one spinner, as attested in Egyptian wall paintings where one spinner is sometimes using two spindles simultaneously (Dothan 1963, 108, fig. 6), or for twisting together two or more previously spun threads.

Textile production in ancient Thrace

The soils in present-day Bulgaria are not favourable for organic materials preservation. Therefore, actual finds of textile, fabrics and leather are very rare. For the Early Iron Age these include only two examples. The analysis of the grave inventory and soil of an 8th–7th c. BC burial mound at Belish, northern Bulgaria, revealed hemp fabric and some threads of different colours, as well as leather remains (Nikolova 2008a, 194–195). Traces of leather were visible on the bronze belt fragments from the find at Dalbok dol, Troyan (Hristov 2004, 43–67). More finds derive from the second half of the 1st millennium BC or the Late Iron Age in Thrace. They originate mainly from funerary contexts and are already discussed in the academic literature³. Further evidence about the textile

3 For specific finds see: Filov 1934, 102–104, 123–124; 1937, 68, 73; Kisiov 1989, 13–14; Nikolova 2008b,

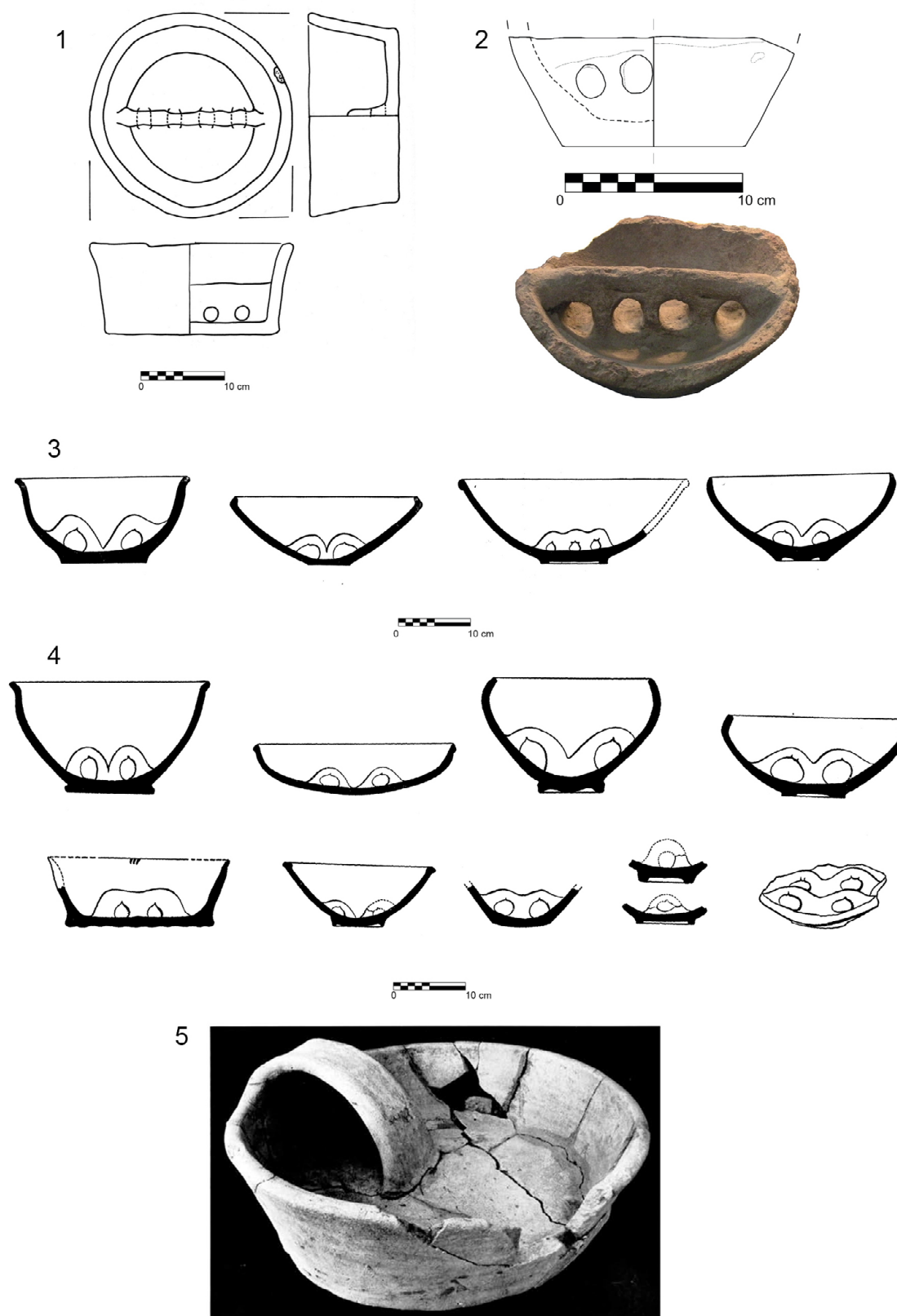


Fig. 4. Spinning bowls from Egypt and the Near East: 1. Tell el-Farkha, Egypt (after Mączyńska 2012, fig. 3); 2. Spinning bowl S. 4086 from the Museo Egizio of Turin (after Spinazzi-Lucchesi 2020, figs 3–4); 3. Different types of spinning bowls from Egypt, Middle and New Kingdom (after Dothan 1963, fig. 3); 4. Different types of spinning bowls from Palestine (selected from Dothan 1963, fig. 1); 5. Habuba Kabira, Syria (after Strommenger, Sührenhagen 1970, Abb. 24)

production, exchange and clothing in Thrace during the 1st millennium BC is provided by analysis of grave deposits related to the costume (Gergova 1982, 63–70; 2016, 7–10; Georgieva 1999, 119–124; Dimitrova 2016, 10–11), and functional and spatial analysis of production tools – spindle whorls and loom weights (Petrova 2011; Dimova 2016b, 652–680)⁴.

Despite the scarcity of the available data on textile production and consumption for the Early Iron Age, the studies demonstrate that spindle whorls and loom weights in this period were roughly made by hand and used in weaving of a limited range of fabrics with thick yarn. Textile production was relatively unspecialised and low in intensity (Dimova 2016b, 662). A change has been attested during the Late Iron Age with the appearance of a wider range of fabrics and more intensified production as a result of the emergence of elites and the rise of urban centres (Dimova 2016b, 674). Spinning and weaving were practised mostly by women as evidenced by the spindle whorls discovered in female graves (Dimova 2016b, 671), as well as from iconographic sources and grave inventory in Central Europe from the Hallstatt period (Grömer 2013, 38–39). Depictions on Greek painted pottery (Bundrick 2008, 283–334), among many, the famous lekythos by the Amasis painter (Beazley 1956, 154.57, 688) dated to the 6th c. BC, as well as the written record regarding Thrace (Euripides, *Hecuba* 1150–54; Herodotus, *Histories* 5.12) and one scene on the gilded silver greave from the Golyamata Mogila tumulus near the villages of Malomirovo and Zlatinitsa (Agre 2011, 60, fig. III–12) dated to the middle of the 4th c. BC illustrate once again that women were involved in the weaving and spinning stages of textile production.

The Early Chalcolithic appearance of spinning bowls should be related to their use with plant fibres. In Early Iron Age Thrace textiles were made from both animal-based (wool) and plant-based (hemp, flax) materials, which were further coloured with dyes and set with mineral mordants (Georgieva 1999, 114; Dimova 2016b, 670). Other vegetable fibres such as nettle might have been used as well, as there is an example from Late Bronze Age Khania on Crete, but might have remained unrecognized (Andersson Strand 2012, 24). In Europe, the Aegean and the Eastern Mediterranean the wool's leading role in textile production was not recognized before the Bronze Age (Rast-Eicher 2005, 127–128; Shamir 2015, 16–17; Skals et al. 2015, 63, 66; Grömer, Saliari 2018, 135–136), and it has been suggested that in Crete the termination of spinning bowl use by the Late Bronze Age might be due to the increasing dominance of wool (Barber 1991, 77). That may be an explanation for the small number of spinning bowls recorded in Early Iron Age Thrace as well, and their absence in the Late Iron Age, at least at the current state of research, as opposed to regions where linen continued to play a leading role in textile production, such as Egypt and the Levant. Another possible explanation for the small number of these artefacts is that they have remained unrecognized, if for example, only the handle is preserved without the vessels' profile. Another possibility is also the predominant use of other tools, such as distaffs, which have been attested in iconography, though in a later period.

Spinning bowls from Early Iron Age Thrace

Five examples of ceramic vessels with a single loop on the interior (or traces of such) have

186–191; Tonkova 2008, 243; 2011, 6; Agre 2011, 200; Gergova 2014, 184; Dimitrova 2015, 137, fig. 107, 130, 144, fig. 113, cat. no. 51. For summary on the topic, see: Dimova 2016a, 141–155; Izdimirski 2017, 427–433.

4 The prehistoric textile production in Bulgaria and its related finds have been thoroughly examined by V. Petrova in her PhD thesis (Petrova 2011) and several articles (Petrova 2004, 87–112; 2006, 30–34; 2008, 118–123). The textile production for the Late Iron Age is supplemented by the written (Katsarov 1913, 28–30; Georgieva 1999, 112–154; Izdimirski 2017, 433–436) and iconographic sources: tomb paintings (Georgieva 1999, 112–154; 2024, 1–32; Ivanova 2016, 13–20; Izdimirski 2017, 436–437), pottery decoration (Reho 1999, 155–164), and images on ancient toreutics (Georgieva 1999, 124–127, 130–131; Ivanova 2016, 13–20).

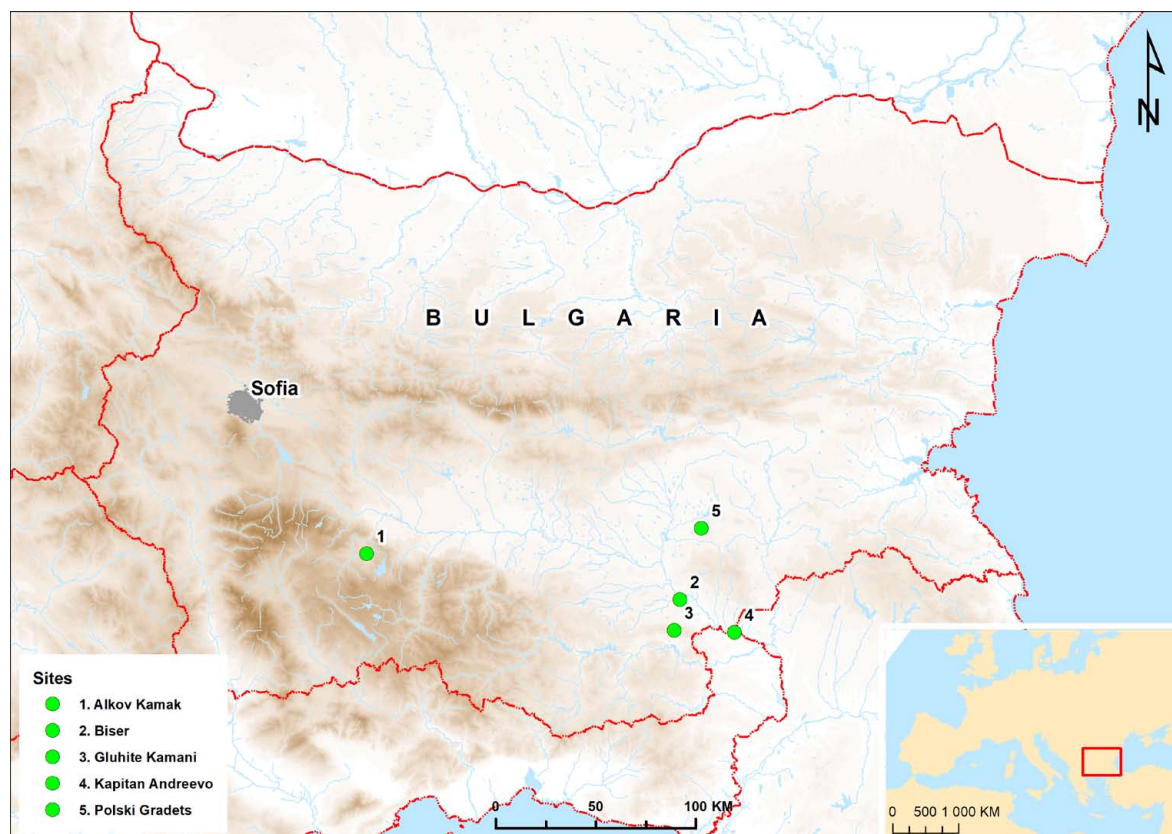


Fig. 5. Map of the sites with Early Iron Age spinning bowls in present-day Bulgaria (author A. Grigorov)

come to light during our research. They all date to the Early Iron Age in Thrace (10th–6th c. BC) and are all discovered on sites located in the southern part of present-day Bulgaria (fig. 5). The example from the Gluhite Kamani rock-cut cult complex was discovered in the North area of the site where there is evidence for ritual practices such as clay hearth-altars and various offerings – pottery vessels, anthropomorphic figurines, everyday items, weapons and tools, among which a small number of spindle whorls and loom weights. The spinning bowl comes from a context dated to the second stage of the Early Iron Age (8th–6th c. BC), particularly its end (fig. 6.1). It represents a shallow conical bowl with a rounded lip and a flat base (fig. 6.2). It is 11 cm high with a 19.5 diameter of the rim, and 3.5 cm diameter of the base. Nearly half of the bowl is preserved and there is a single loop with a rectangular cross-section situated on the base interior, thus forming a semicircular opening. No thread marks are visible on the loop or the preserved part of the rim.

A similar bowl comes from the rescue excavations of site no. 27 at Kapitan Andreevo, municipality of Svilengrad, where a pit complex from both stages of the Early Iron Age and the transition to the Late Iron Age has been recorded, as well as Early Bronze Age structures and an Early Medieval settlement (Popov 2006, 151–153; Popov et al. 2007, 194–198). The vessel was discovered within a pit together with a ceramic jug and dated to the 9th–8th c. BC (fig. 7.1). The bowl is completely preserved with parts of the rim chipped off. It has a shallow conical body, a rounded lip and a flat base. Its height is 5.2 cm with a 17 cm diameter of the rim and 4.5 cm diameter of the base. A single loop with a rectangular cross-section is situated on the bottom interior, thus forming a semicircular opening (fig. 7.2). There is an elongated shallow groove on one of the loop's internal sides, possibly a thread mark (fig. 7.3).

Another spinning bowl has come to light during rescue excavations in 2014 of site no. 35 at the village of Biser, Municipality of Harmanly (Nekhrizov 2015, 124, fig. 2). It was discovered

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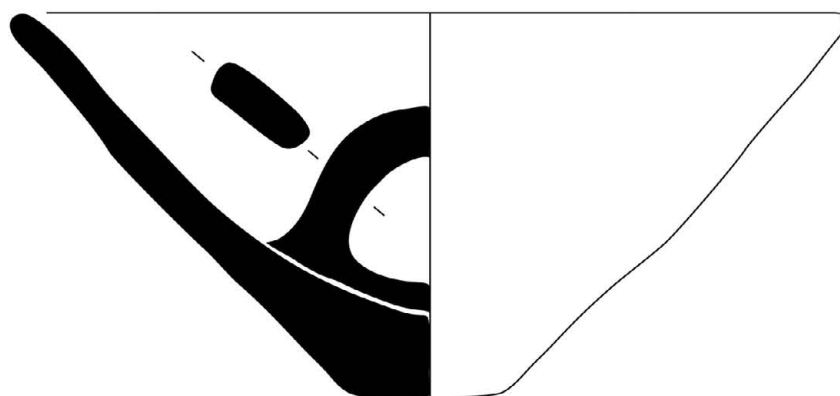


Fig. 6. Gluhite Kamani: 1. Area North, sq. A1 (photo N. Ivanova); 2. Spinning bowl (drawing Y. Dimitrova, photo M. Raykovska)

among the destructions of a possible burnt dwelling dated to the second stage of the Early Iron Age. The bowl has a conical shape with a flat base and slightly bevelled lip. It is 6 cm high, with a 19 cm diameter of the rim and 5 cm diameter of the base. Just below the rim, opposite each other, there are traces of a single loop of irregular section, attached to the interior walls (fig. 8).

Fragment of a spinning bowl with a single interior handle on the bottom, has been recorded during the rescue excavations of the site at Selishteto locality, Polski Gradets village, municipality of Radnevo (Georgieva 2016, 119, note 25; Nikov, Georgieva 2023, 159–160, fig. 6). It was discovered next to a circular hearth situated in the centre of an earthen structure of unknown function dated to the second stage of the Early Iron Age. To the northeast a ditch and a pit complex including also several unusual graves from the 1st millennium BC have been studied. The bowl's description and dimensions await publication.

Finally, a completely preserved small bowl with traces of a single loop on the bottom interior has been recorded during excavations at the Alkov Kamak locality, municipality of Rakitovo, where layers from the Early Iron Age have been recorded, as well as numerous marble votive reliefs from the Roman period (Gizdova, Panayotov 1977, 47–48; Panayotov et al. 1978, 55–58; 1979, 61–62). The bowl is 4.0 cm high with a rim diameter of 11.8 cm. It has a conical shape, a flat base and a profiled rim on the inside, of which a small part is missing (fig. 9).

Discussion and conclusions

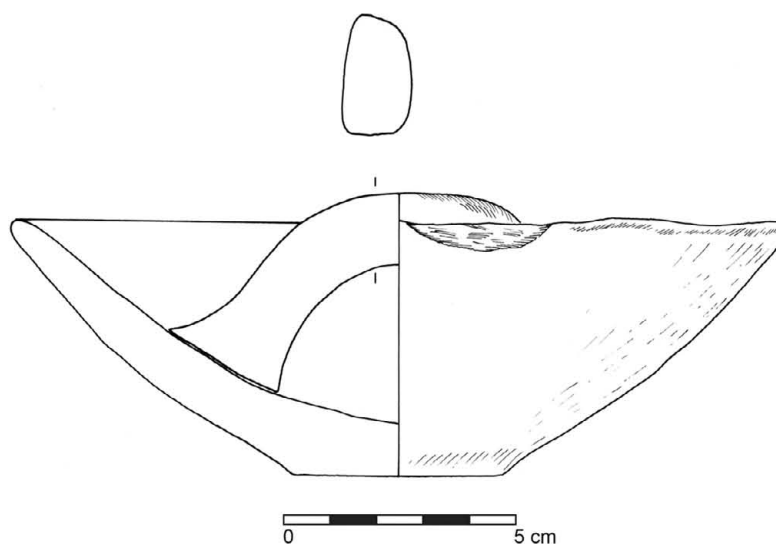
The presented geographical and chronological distribution of spinning bowls reveals that the earliest known examples come from present-day Serbia and Bulgaria, dating to the beginning of the 5th millennium BC. The Chalcolithic vessels from Southeastern Europe are diverse in shape, and the internal handle or perforated lug is situated in the bottom centre. In three cases, the handles are horizontal and attached to the vessel's wall, among which two pots have multiple loops. In contrast, the earliest Levantine examples from the Chalcolithic Ghassulian culture all represent shallow vessels with a handle connecting the wall and the bottom at a right angle. In the late 4th and early 3rd millennium BC, spinning bowls appeared in Egypt, Iran and Syria, later on, in Early Minoan II and Middle Minoan Crete and Melos, followed by the Peloponnese at the end of the 3rd millennium BC. Their use in Egypt continued throughout the 3rd and 2nd millennia BC. It has been suggested that the examples from Palestine were the result of Egyptian influence (Dothan 1963, 97–101).

At the current state of research, the 1st millennium BC spinning bowls recorded in present-day Bulgaria are confined to the southcentral and southeastern part of the country and dated to the middle or second stage of the Early Iron Age, thus representing a regional phenomenon for this period. The lack of spinning bowls from the Bronze Age and their rarity in the Early Iron Age may be due to the fact that these have remained unrecognized in the archaeological record and/or that other spinning tools were preferred. Most probably, their limited number reflects a domestic, small-scale textile production during this period and is in accordance with the rest of the studied materials. The closest parallels for the use of spinning bowls in Thrace are in Late Bronze Age II and Early Iron Age Palestine. However, the examples there are typologically different from the Thracian ones. While Levantine influence of the technology may be assumed, at the current state of research, there is not enough evidence to confirm this. Both wool and plant-based fibres were used in textile production in Early Iron Age Thrace. The comprehensive studies on spinning bowls, however, have pointed out that these tools were suitable for spinning flax, and if used with wool, they were involved in the second stage of the process, in particular, plying – the twisting together of one or more previously spun threads to create a stronger yarn (Barber 1991, 72). Plying, however, requires more than one loop since the threads would get tangled otherwise. Thus, it seems reasonable to suggest that the examples

1



2



2



3



Fig. 7. Kapitan Andreevo: 1. Pit 19 (photo H. Popov); 2. Spinning bowl (drawing K. Nikov, photo M. Raykovska); 3. Possible tread mark on the inside of the loop (photo N. Ivanova)

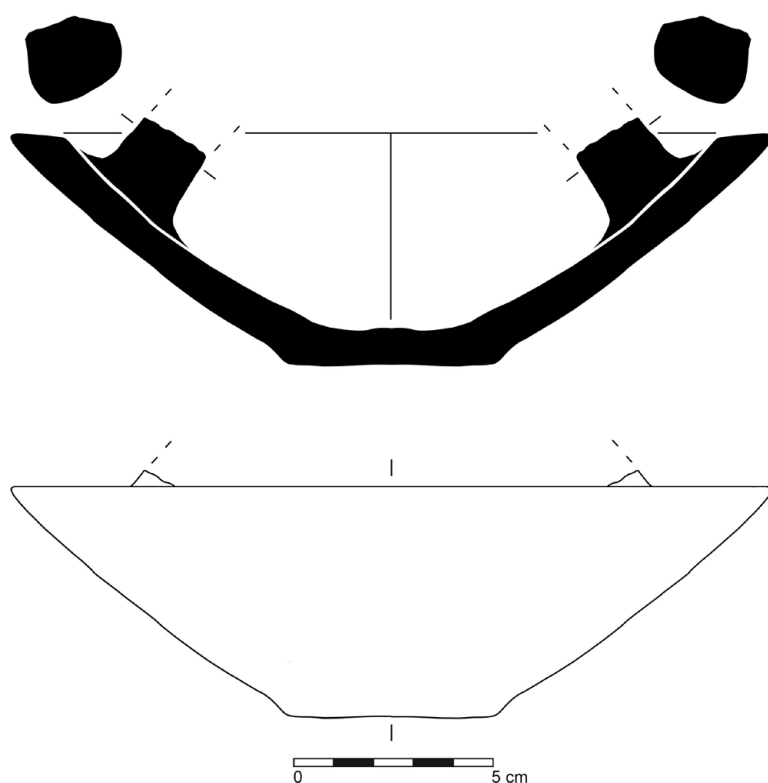


Fig. 8. Spinning bowl from Biser (drawing Y. Tzvetkova)



Fig. 9. Spinning bowl from Alkov Kamak (photo K. Stoychev)

from Thrace are related to the spinning of flax or other plant-based materials.

Besides the spinning bowl from Biser, the remaining examples from Early Iron Age Thrace come from a ritual context. Here we include also the find from Polski Gradets, although according to the excavators, the function of the earthen structure where the bowl had been deposited is unknown. Utilitarian objects, including spindle whorls and loom weights, as well as items deliberately made for ritual purposes, are among the common offerings deposited in cult sites in the region – both at ritual pit sites and peak sanctuaries. V. Petrova examined in detail the deposition of textile-related tools at

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ritual sites in the Early Iron Age, pointing out that some of the discovered loom weights and spindle whorls bear clear use-wear traces, while others were certainly made for non-utilitarian purposes – spindle whorls with rare and specific decoration or miniature models of loom weights (Petrova 2011, 269–270). Thread marks, which represent more certain evidence for the actual use of spinning bowls, are observed only on the loop of the bowl from Kapitan Andreevo. However, such grooves are not a compulsory feature as the examples from Messenia lack such marks, and some are discovered in a domestic context. Furthermore, the loop is preserved only on two of the specimens in Thrace – Kapitan Andreevo and Gluhite Kamani, and parts of the rim are often missing as well. The fact that at least one bowl comes from a settlement context together with the attested groove on the example from Kapitan Andreevo suggest that the spinning bowls in Early Iron Age Thrace were intended for their primary function in the spinning process, while later acquiring some symbolic meaning they were deposited at ritual sites.

This article presents a brief report on the small number of spinning bowls from Early Iron Age Thrace, the appearance of which is, however, far from insignificant as it fills a gap in the spatial and chronological distribution of these tools. For the moment, it poses more questions than gives answers, but we hope that more examples of spinning bowls will come to light in the future, allowing for further discussion.

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