

FINDS OF TEXTILES AND WICKERWORK IN A BYLANY CULTURE ELITE WAGON GRAVE IN PRAGUE-LETŇANY

The discovery of two Bylany culture elite wagon graves in Prague-Letňany (fig. 1) in autumn/winter 2014 represented one of the most important finds in the field of Hallstatt period archaeology in Bohemia (Frolíková 2015). The grave inventory of one of the graves (feature no. 6) contained a four-wheeled wagon, 21 ceramic vessels of various sizes and types, a bronze bucket, an iron sword, three iron spits, parts of the horse harness and a variety of animal bones (fig. 2). The investigation of this grave, in part already published, has brought a great deal of important data acquired through the wide application of multidisciplinary research (Kozáková et al. 2017). It clarified the species of animals used in the funeral rite and specified archaeobotanical material, some of which also played a role in the funeral act; it identified the use of black paint on the imported bronze vessel appearing in the grave inventory and brought other important information making it possible to specify the details of the funeral rite and other aspects of the grave.

The importance of a multidisciplinary approach is in the fact that the research of the vast majority of Bylany culture elite graves excavated up until now was realized using traditional methods. The character of these excavations was also influenced to a considerable extent by the fact that many of these graves were already investigated in earlier times without the possibility of applying modern methods. However, this situation caused a certain disproportion concerning the knowledge of relevant aspects between Bohemia and especially Austria and southwestern Germany in the issue of textiles. During the processing of the finds from feature no. 6 at Prague-Letňany, the presence of textiles was confirmed on an iron sword (figs 3-5), on parts of the wagon (fig. 6, 1-5) and on a horse harness that were components of the grave inventory. Thus, the

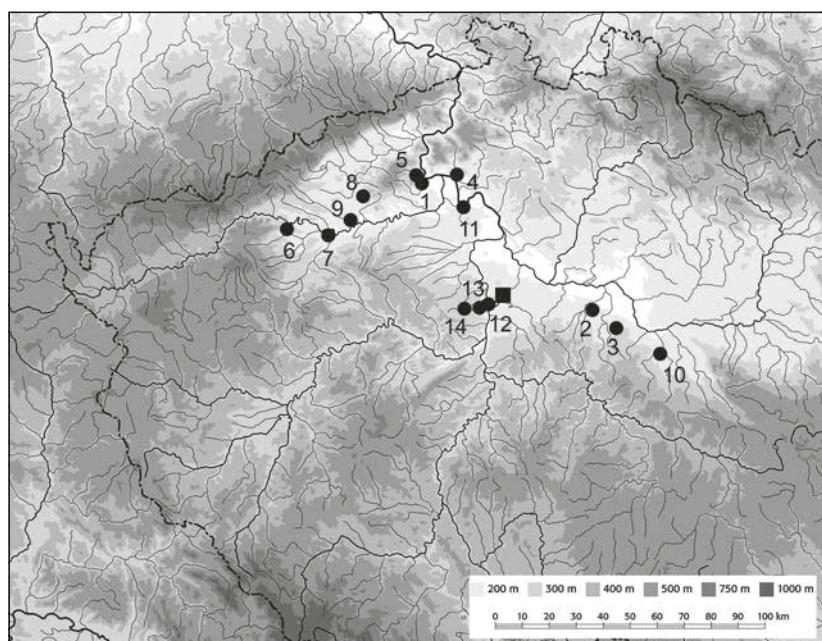


Fig. 1 Location of the site Prague-Letňany (square) and significant sites of the princely necropolises and graves of the Bylany culture: **1** Lovosice. – **2** Bylany. – **3** Hradenín. – **4** Litoměřice. – **5** Lhotka n. L. – **6** Poláky. – **7** Žatec. – **8** Skršín. – **9** Rvenice. – **10** Kutná Hora. – **11** Roudnice n. L. – **12** Prague-Bubeneč. – **13** Prague-Střešovice. – **14** Prague-Liboc. – (Map M. Trefný).

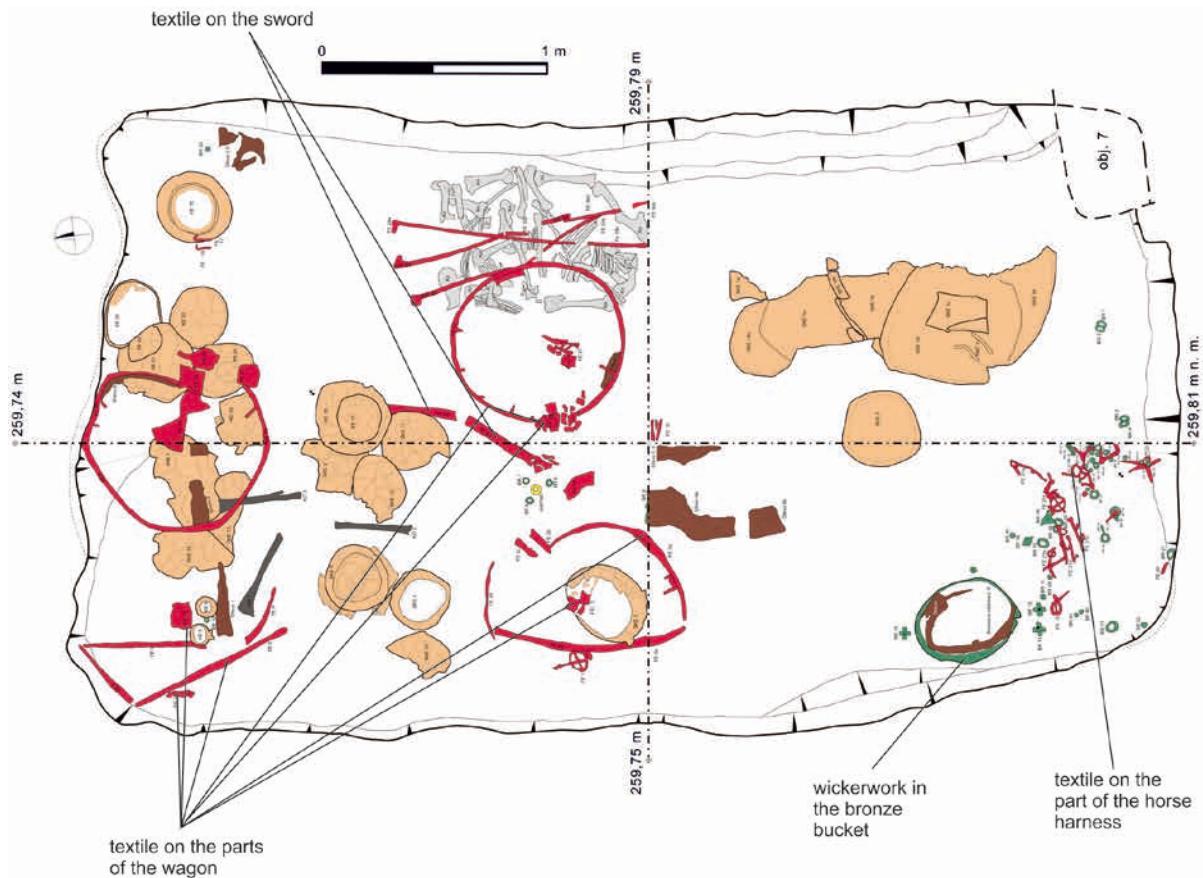


Fig. 2 Prague-Letňany. Plan of the Bylany culture wagon grave (feature no. 6). – (Illustration D. Frolíková).

article aims for a complex evaluation of this find, which, as far as we know, represents the fourth case of the identification of textiles in the milieu of Bylany culture elite graves in Bohemia, though the first case in which the textile was identified to such a large extent.

As for the other finds made of organic materials, Prague-Letňany feature no. 6 also yielded the remnants of a wickerwork product (fig. 6, 6-8). The article thus also presents the first findings on this significant topic.

THE FIND OF THE TEXTILE AND THE WICKERWORK

During the restoration, the remnants of organic materials were identified on the iron sword found under the wagon (Fe 4a, 4b), on parts of the wagon (Fe 2a, Fe 3, Fe 5, Fe 7, Fe 13, Fe 19, Fe 28), on the horse harness (Fe 23) and in the bronze bucket (Br 9) situated close to the southwestern corner of the grave chamber (fig. 2).

Textile fragments on the sword

The remnants of four distinct textile structures are preserved on the surface of the iron sword – textiles A, B, C and D (figs 3-5). The sword is preserved in several smaller fragments that were reassembled to make



Fig. 3 Prague-Letňany, wagon grave. Iron sword. – (Photos K. Moravcová).

two larger parts – part 1 with the point of the sword (length 325 mm, width 25-40 mm) and part 2 with the body of the sword (length 235 mm, width 40 mm). To simplify the description of the preserved textiles, each side of the two sword parts was labelled 1a, 1b, 2a, and 2b; however, given the sword's find situation, it is not clear which sides of the individual parts belong together.

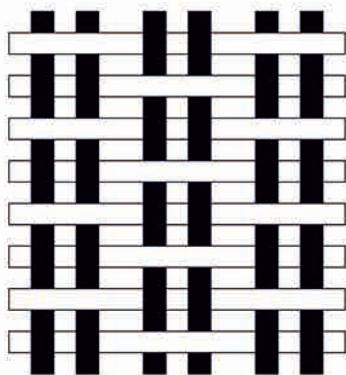
The remnants of textile A are visible on the entire surface of both sides of both parts of the sword; the structure of this textile is clinging to the surface of the sword, and layering in two and more layers is visible. The threads of one of the textile systems (the weft?) run parallel in one direction, suggesting that the textile regularly wound around the body of the sword in one direction. Textile B is preserved in a highly fragmented form in multiple layers on top of one another on all sides. Although it appears primarily along the edges of the sword, remnants are also preserved on the surface, where it is readily apparent that it covers layers of textile A everywhere. Textile C is preserved only on side 2a, on a small area of 60 mm × 15 mm. It covers here a very small layer of textile A and is also covered itself by a layer of wood originally from the wagon or burial chamber. Textile D is identifiable only as remnants of heavier plied threads, the original binding of which



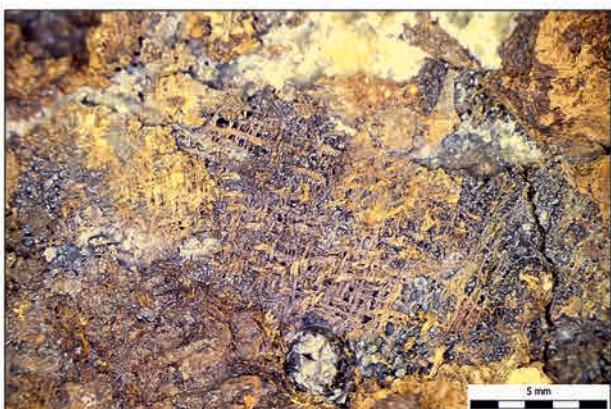
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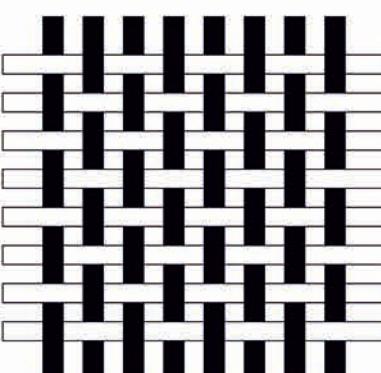
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cannot be determined. These are found on an area of 120 mm × 10 mm in the middle part of side 1b, where they cover a layer of remnants of textile A and textile B.

With all types of textile, the textile material showed a high degree of degradation, so that the used textile materials could not even be determined using REM imaging.

Technical details of the textile fragments A-D

Textile A (fig. 4, 1-3. 8)

Weave: extended plain weave (half-basket weave)

Density: 12-14 pairs of thread per cm (system 1), 55 threads per cm (system 2)

Thread thickness: 0.2 mm (system 1), 0.3 mm (system 2)

Thread twist: z-twist (system 1), s-twist (system 2)

Description: A side selvedge that would enable the determination of the warp and the weft is not preserved on any fragment. System 1 is composed of a double thread with a lower thread count; the thicker threads of system 2 are bound very densely so that the threads of the opposing system virtually overlap.

Textile B (fig. 4, 4)

Weave: twill weave (?)

Density: 35? threads per cm (system 1), 50? threads per cm (system 2)

Thread thickness: 0.3 mm (system 1), 0.2 mm (system 2)

Thread twist: plied twist S/2z (warp?), z-twist (weft?)

Description: The relatively fine and free structure of the textile is preserved in several stacked layers that are heavily damaged; the threads of individual layers mingle with one another. As the surface of the upper layer is disturbed, the determination of the weave is extremely difficult since very few binding points are preserved. It is not a plain weave but probably a twill weave variant.

Textile C (fig. 4, 5-6)

Weave: plain weave

Density: indeterminable

Thread thickness: 0.3 mm (system 1), 0.3 mm (system 2)

Thread twist: z-twist? (system 1), z-twist? (system 2)

Description: a small remnant of a simple textile structure.

Textile D (fig. 4, 7)

Weave: indeterminable

Density: indeterminable

Thread thickness: c. 1 mm

Thread twist: plied twist S/2z

Description: small fragments of plied thread without preserved binding points.

Fig. 4 Prague-Letňany, wagon grave. Textile fragments preserved on the sword: **1** textile A. – **2** detail of textile A. – **3** scheme of half-basket weave. – **4** textile B. – **5** textile C. – **6** scheme of plain weave. – **7** textile D. – **8** superposition of textile B and textile A. – (Photos and illustrations H. Březinová).

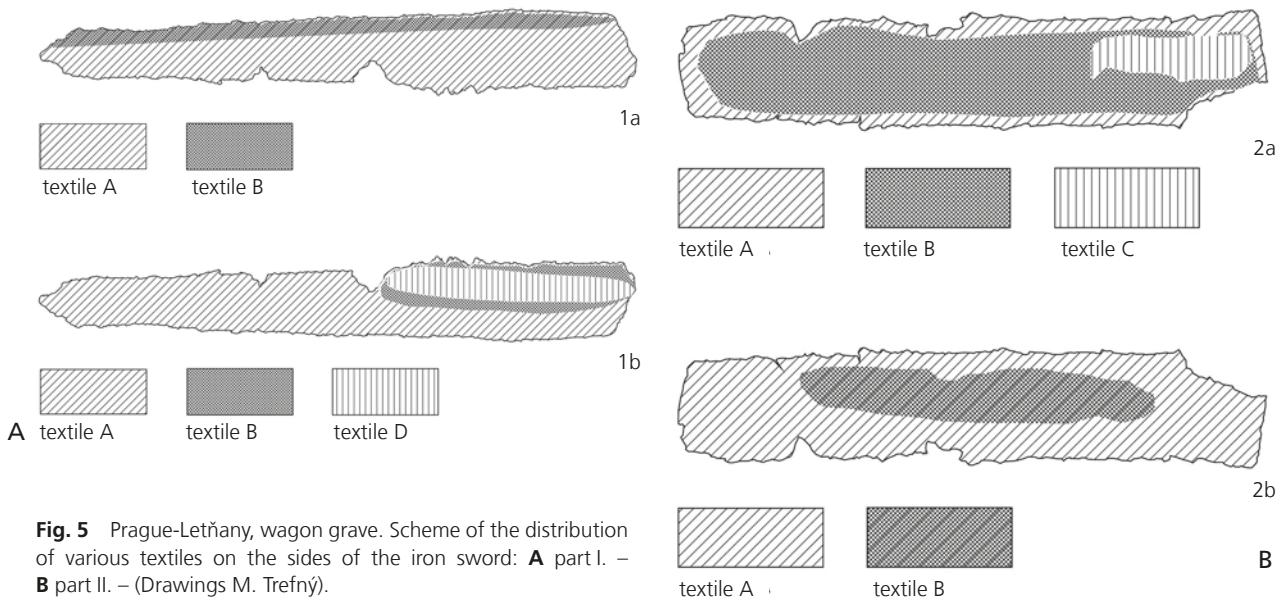


Fig. 5 Prague-Letňany, wagon grave. Scheme of the distribution of various textiles on the sides of the iron sword: **A** part I. – **B** part II. – (Drawings M. Trefný).

The evaluation of the textile fragments A-D

During an evaluation of the preserved textile fragments, four different textile structures in varying degrees and quality of preservation were identified.

The largest and best-preserved is textile A, the remnants of which are found on the entire surface of the sword. Thanks to the preservation in oblique bands and multiple layers, it is clear that these are remnants of a fabric in which the sword was wrapped before its deposition. The fabric was woven with a basket weave, i.e. a variation of the plain weave in which two or more threads are bundled and then woven as one in the warp or weft (half-basket), or both. In the case of a prevailing weft, the fabric can be labelled weft-faced, or in the case of a dominant warp, warp-faced. A basket weave is also documented in a small number of cases in assemblages of textile finds from the salt mines of Hallstatt (Bez. Gmunden/A), where these textiles are characterised by a relatively thin thread from 0.1 to 0.3 mm and a relatively high thread count exceeding 40 threads/10 mm (Grömer et al. 2013, 61-62). An identically composed structure with doubled thread in a single system also appears in hems, both starting borders and side selvedges (Grömer et al. 2013, 74-75). In the case of textile A, it is not possible to distinguish warp from weft; therefore, establishing whether this was a broad fabric with a double warp woven in a basket weave or just a hem with a double weft from a fabric in a different weave is not possible. Both variants are realistic: suggesting a textile with doubled warp thread is a high thread count and low thread thickness, which are parameters characterising a fabric of very fine quality.

Another textile structure is represented by remnants of textile B also preserved on the surface of the sword, especially along the edges of the sword, albeit in fragmented form. Under each part of textile B, textile A is visible, raising the possibility that textile B could come from another layer of the sword's fabric wrap. However, it could also be a remnant of the deceased individual's clothing or other textile funeral furnishing. And yet, their occurrence on both sides of the sword probably indicates that the fabric belongs directly to the sword. Although the fabric's weave was not precisely identified due to the poor state of preservation, it is probably a certain type of twill weave. Twill weaves were highly popular in the Hallstatt period; their appearance and utility qualities surpassed the simpler plain weave (Grömer et al. 2013, 61-62). The high thread

count (not established precisely due to the state of preservation) is relatively unusual and differs from the standard thread counts determined on other fabrics from the same period (Grömer et al. 2013, 63; Rast-Eicher 2008, 16). The use of plied threads also is not very common; when they do appear in finds, they are warp threads combined with a weft with a simple twist (Grömer 2012, 42). Even in the case of textile B, it can, therefore, be assumed that the plied threads are warp threads.

A small remnant of textile C preserved only on a single location on the body of the sword could be related to clothing or some other textile furnishing. Plain weave is the simplest weave in textile production of the period and appears very often in Iron Age finds (Grömer et al. 2013, 61). While the fragmented preservation of textile C remnants does not permit a more detailed determination, an interesting trait is the relatively thin threads (0.3 mm), which indicate a finer and higher quality fabric (Grömer et al. 2013, 57).

The minute fragment of textile D does not permit a more detailed description or determination of its function. Only small remnants of individual plied threads are preserved, and these could have been used either individually (laces, fringe) or were parts of other textile structures. In this case, they could have been parts of the fabrics involving textile A or textile B, in whose proximity they were found.

The preserved textile remnants on the sword from the rich grave with a wagon demonstrate the wealth and diversity of textile products made and used in the Hallstatt period. Four different textile products were preserved on a single artefact from the inventory of the grave, three of which can be classified as a fabric of very fine quality and are therefore consistent with the higher social status of the buried individual.

Textile fragments on other parts of the grave inventory

Textile remnants were also identified on other artefacts among the grave goods (**fig. 6, 1-5**). Most of the fragments were preserved on parts of the wagon wheels – on the tyres, the hubs and a lynchpin; one fragment was also observed on a bridle bit found in a cluster of artefacts from a horse harness in the south-western corner of the grave pit.

Only minute and poorly visible remnants of textiles that could not be precisely identified are preserved on the tyres of both front wheels and the rear right wheel. Fragments in a better condition were observed on hub fragments and the lynchpin.

The remnants of textile E were identified on parts of the hub of the front left wheel and small rings from near the lynchpin of the front right wheel. Here, however, the remnants of textile E are covered by the different structures of textile F. The remnants of textile G are preserved on the entire surface of the hub of the rear right wheel. Although textile F and textile G have a very similar structure, the state in which the fragments are preserved does not make it possible to determine whether they were originally the same textile. Similarly, small traces of the structure of textile H were observed on the bridle bit from the horse harness, as were traces of textile E, though not even in this case is it possible to say if these were originally a single textile. The more distant placement of the bit and wagon wheels inside the grave pit perhaps suggests the use of different fabrics.

Technical details of the textile fragments E-H

Textile E (fig. 6, 1-3**)**

Weave: extended plain weave (basket weave)

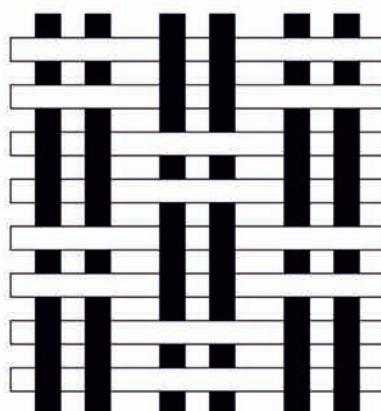
Density: 25 pairs of thread per cm (system 1), 25 pairs of thread per cm (system 2)



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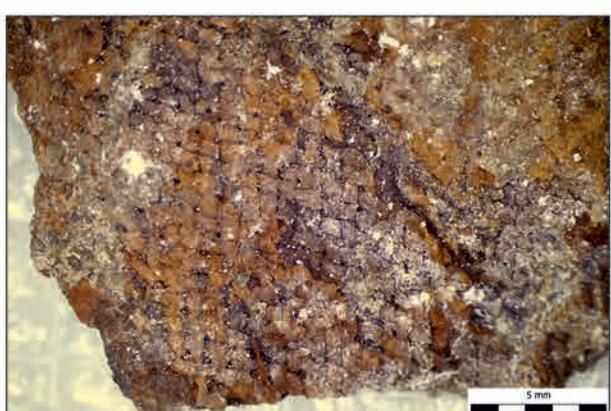
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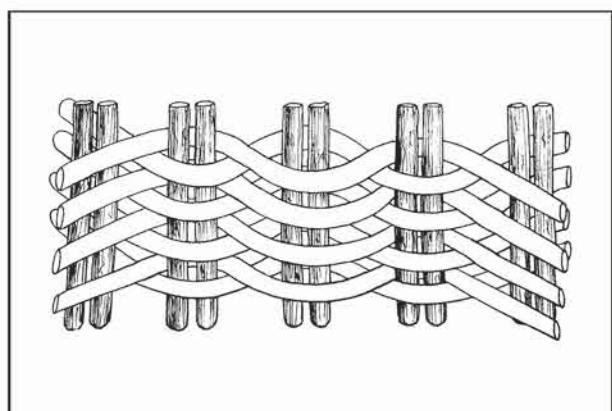
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Thread thickness: 0.2 mm (system 1), 0.2 mm (system 2)

Thread twist: z-twist (system 1), z-twist (system 2)

Description: Both systems (warp and weft) are composed of a double thread.

Textile F (fig. 6, 4)

Weave: plain weave

Density: indeterminable

Thread thickness: 0.5 mm (system 1), 0.5 mm (system 2)

Thread twist: indeterminable

Description: a small remnant of a simple textile structure.

Textile G (fig. 6, 5)

Weave: plain weave

Density: indeterminable

Thread thickness: 0.6 mm (system 1), 0.6 mm (system 2)

Thread twist: s-twist, plied twist S/2z (system 1), s-twist (system 2)

Description: a small remnant of a simple textile structure.

Textile H

Weave: extended plain weave (basket weave)

Density: indeterminable

Thread thickness: indeterminable

Thread twist: indeterminable

Description: undetermined imprints of the threads of the original textile structure.

Wickerwork

The wickerwork (fig. 6, 6-8) was found on the rim and inside the bronze bucket. It was originally placed on the top of the bucket. When the wooden mantle of the chamber made of individual boards collapsed, the whole rim of the bucket with the wickerwork was pressed by these boards into the bucket, as the presence of wood in the bronze vessel documents.

The remnants of wickerwork were preserved in four larger fragments with dimensions of 62 mm × 21 mm, 60 mm × 20 mm, 40 mm × 20 mm and 30 mm × 20 mm, whereas additional small artefacts, including fragments of individual twigs, were preserved on roughly a quarter of the whole upper rim of the vessel.

The wickerwork was made from twigs of a round cross-section with a diameter of c. 1 mm. It was constructed from a thicker pair of vertical (warp twigs) and two thinner horizontal twigs. The relatively dense plait was woven regularly, with always a horizontal twig below and a second twig above a pair of horizontals set side by side (see fig. 6, 8).

Fig. 6 Prague-Letňany, wagon grave. Textile fragments preserved on parts of the wagon and fragments of the wickerwork product from the bronze vessel: **1** textile E. – **2** multiple layers of textile E. – **3** scheme of basket weave. – **4** textile F. – **5** textile G. – **6** remnants of wickerwork on the collapsed rim of the bronze vessel. – **7** a small fragment with visible plaiting method. – **8** plaiting scheme. – (Photos and illustrations 1-5 H. Březinová; 6-7 K. Moravcová; 8 K. Vytejčková).

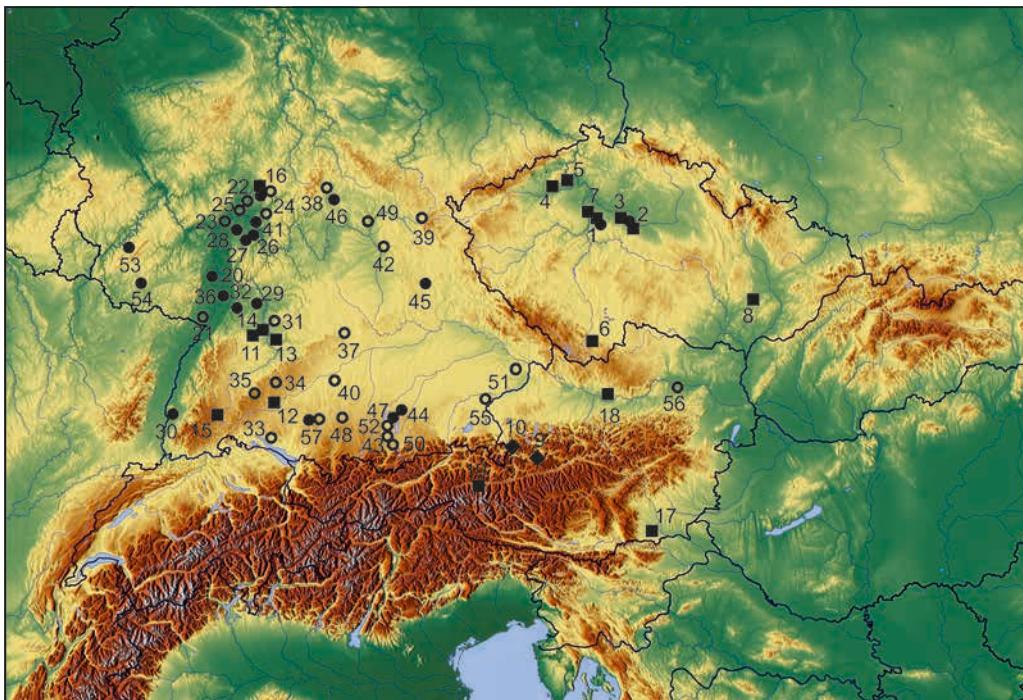


Fig. 7 Finds of Hallstatt and Early La Tène textiles in broader central Europe (sites mentioned in the text). – ◆ textiles in salt mines; ■ textiles in graves detected on other finds than swords; ● textiles in graves detected on a sword; ○ textiles in graves detected on a scabbard. – 1 Prague-Letňany. – 2 Hradenín. – 3 Bylany. – 4 Rvenice. – 5 Lovosice. – 6 Zahrádka. – 7 Prague-Vinoř. – 8 Pustiměř. – 9 Hallstatt. – 10 Dürrnberg. – 11 Eberdingen-Hochdorf. – 12 Hohmichele. – 13 Bad Cannstatt. – 14 Grafenbühl. – 15 Magdalenenberg. – 16 Glauberg. – 17 Kleinklein. – 18 Mitterkirchen. – 19 Uttendorf. – 20 Dannstadt. – 21 Wörth. – 22 Eichen. – 23 Frankfurt am Main »Stadtwald-Sandhof«. – 24 Marköbl. – 25 Windecken. – 26 Schaafeheim. – 27 Semd/Altheim. – 28 Urberach. – 29 Bad Rappenau. – 30 Gundlingen. – 31 Marbach. – 32 Menzingen. – 33 Salem. – 34 Steingebrohn. – 35 Tailfingen-Truchtfelfingen. – 36 Walldorf. – 37 Röhlingen. – 38 Bastheim. – 39 Berndorf. – 40 Bubesheim. – 41 Dettingen am Main. – 42 Eggolsheim. – 43 Etting. – 44 Gauting. – 45 Gehrsricht. – 46 Kleinwenkenheim. – 47 Maising. – 48 Mindelheim. – 49 Neudorf. – 50 Riegsee. – 51 Steinkirchen. – 52 Wielenbach-Wilzhofen. – 53 Horath. – 54 Remmesweiler. – 55 Höresham. – 56 Gemeinlebarn. – 57 Tannheim. – (Map M. Trefný).

A sample from the wickerwork was identified as belonging to the *Betula* genus (Kozáková et al. 2017). According to the find context, the wickerwork can be interpreted as a remnant of a wicker cover or lid of a bronze vessel.

THE TEXTILES AND WICKERWORK IN THE CENTRAL EUROPEAN HALLSTATT AND EARLY LA TÈNE MILIEU

Textiles

Hallstatt period textiles are a complex topic researched especially in countries where numerous examples of textiles have been archaeologically identified (fig. 7). First, finds from the Hallstatt salt mines must be mentioned. Thanks to the appropriate conservation conditions, over 560 textile fragments connected with local mining activities in the Bronze and Iron Ages have been identified up to now (Hofmann-de Keijzer et al. 2013, 125). The great progress in the knowledge of Early Iron Age textiles generated by the finds from Hallstatt involves more than just an understanding of various types but also the identification of dyeing techniques and methods and other aspects of textile production (cf. Hofmann-de Keijzer et al. 2005; 2013;



Fig. 8 Finds of Hallstatt and Early La Tène wickerwork products (sites mentioned in text): **1** Prague-Letčany. – **2** Vladař, Záhořice. – **3** Býčí skála. – **4** Hohmichele. – **5** Ertingen. – **6** Kappel-Grafenhausen. – **7** Magdalenenberg. – **8** Hillesheim. – **9** Graben. – **10** Pürgen. – **11** Uffing. – **12** Reinheim. – **13** Tannheim. – (Map M. Trefný).

Grömer et al. 2013). Although many methods of dyeing were known already in the Bronze Age (Hofmann-de Keijzer et al. 2013, 125), the Hallstatt period represents a time of great development in textile production, including a boom in decorative techniques and the quality of individual types (Bichler et al. 2005; Hofmann-de Keijzer et al. 2005, 925-926; Hofmann-de Keijzer/Kern/Putz-Plecko 2012a; 2012b; Joosten et al. 2006; Grömer 2010; Grömer/Rösel-Mautendorfer/Reschreiter 2014; Grömer/Pritchard 2015, 16).

As regards the situation at the second most important salt mine in Austria, at the Dürrnberg (Bez. Hallein/A), the group of the textile finds is similar. Over 600 finds of Iron Age textiles have been registered here (Stöllner 2002; 2005). However, these roughly 600 pieces date from the 6th until the 3rd century BC (Grömer 2012, 42).

The textile finds are in the milieu of the Hallstatt or Early La Tène culture, especially in Germany and Austria, known also outside the salt mines as part of many grave inventories (fig. 7; Banck-Burgess 1999, 197-211, 217-219). First and foremost, the sumptuous grave from Eberdingen-Hochdorf (Lkr. Ludwigsburg/D) must be emphasised (Banck-Burgess 1999; 2014). At this site, we encounter a different textile function than in the Hallstatt mines, namely a fabric intended to wrap the deceased's body as well as other items of the grave inventory.

The situation was similar in another tumulus in Hohmichele (Lkr. Biberach/D). Numerous remnants of textiles have been identified here in graves nos I, VI and IX (Riek/Johannsen 1952; Hundt 1962, 199-214; Banck-Burgess 1999, 201-204). The textiles in grave no. I were spread out on the bottom and probably also on the walls of the grave chamber. The textiles in grave no. VI were identified also on many metal parts of the wagon, suggesting that the wagon was perhaps originally covered by these textiles. A carbonised strip of textile found in grave no. IX was identified as a part of the cremation (Banck-Burgess 1999, 204).

As for other significant elite graves in southwestern Germany, textiles are known from the burials in Bad Cannstatt (Stuttgart/D; Paret 1935), Grafenbühl (Asperg, Lkr. Ludwigsburg/D; Zürn/Herrmann 1966, 74-102; Kimmig 1988, 24) and Magdalenenberg (Villingen-Schwenningen, Schwarzwald-Baar-Kreis/D; Spindler 1971, 41). However, mineralised textiles or other remnants thereof are known in southwestern Germany from many other grave contexts as evidenced by the finds from Schleswig-Holstein, Lower Saxony, Mecklenburg, Brandenburg, North Rhine-Westphalia, Rhineland-Palatinate, Hesse, Bavaria, Saarland and Saxony (Banck-Burgess 1999, 197-211).

The site of Glauberg (Wetteraukreis/D) in Hesse must be mentioned as a place of special significance for textiles of the Early La Tène period. Two bronze vessels – a Celtic *Schnabelkanne* and a *Röhrenkanne* – were found here wrapped in textiles (Bartel 2002a; 2002b; Peek 2018, 363-366. 381-385).

We have already mentioned finds from the salt mines in Hallstatt and Dürrnberg. However, Austrian textiles are also represented by some grave finds. This is the case at the tumulus of Kröllkogel in Styrian Kleinklein (Bez. Leibnitz/A), which also included a small fragment of textiles. Nevertheless, it was identified on the horse harness only as a very modest remnant that did not permit a full classification or the interpretation of its function in the grave chamber (Egg/Goedecker-Ciolek 2013). Remnants of textiles were also found in a grave in Mitterkirchen (Bez. Perg/A) and in Uttendorf (Bez. Zell am See/A; Pertlwieser 1988, 55-56; Hundt 1987, 271. 273; Moosleitner 1992).

In addition to German and Austrian Early Iron Age finds of textiles, evidence of these artefacts also comes from Belgium, France, Luxembourg, the Netherlands, Silesia, Switzerland, Slovenia and Slovakia (Banck-Burgess 1999, 196-197. 211-225). Outside the broader central European and adjacent territory, textiles are also widely represented in Apennine Italy and Greece (Banck-Burgess 1999, 227-232).

As regards the territory of the Czech Republic, the presented textile finds from the grave in Prague-Letčany is not the first known example of textile preservation. Nevertheless, the group of known finds is not such extensive (Belanová-Štolcová 2012). It is not surprising that textile remnants were registered in graves nos 29 and 46 in Hradenín (okr. Kolín/CZ), both of which contained four-wheeled wagons (Dvořák 1938, 70. 86; Banck-Burgess 1999, 223). A Hallstatt period chamber grave with cremation in Pustiměř near Vyškov (okr. Vyškov/CZ) in Moravia also yielded a find of a harp fibula with fragments of textiles (Kostelníková 1990; Banck-Burgess 1999, 223). Mineralised textile remnants are also known from grave no. 41/1 from the eponymous site of the Bylany culture in central Bohemia (okr. Kolín/CZ; Slabina/Vykouková 2006) and from Rvenice (okr. Louny/CZ), where the textile was preserved on the rim of a bronze vessel (Pleinerová 1973, 295). Finally, some very minute remains of textiles were identified on several finds from grave no. 24 in Lovosice (okr. Litoměřice/CZ; Půlpán 2012, 66). One of the latest finds representing textiles was discovered in the tumulus excavated in Zahrádka (okr. Český Krumlov/CZ) in southern Bohemia in 2011. Here, the textiles were preserved in the corrosion products around two hollow bronze rings (Šálková et al. 2015, 103-105).

As evident from the short preceding survey, textiles are not rare finds in the broader central European zone during the Early Iron Age, thanks to which it is possible to determine several ways they were used. Logically, textiles have been frequently discovered in the magnificent chamber graves of the Hallstatt and Early La Tène social elite, where they were used to cover wagons, the walls or floors of the chambers, the bodies of the deceased or as part of the bed arrangement, etc. Many textiles were used to wrap various parts of the grave inventory. The most known examples of this type of use are the aforementioned cases of the Eberdingen-Hochdorf inventory items and two bronze flagons from Glauberg.

A special group is made up of finds from the Austrian salt mines, where not only remnants of various garments have been discovered but also textiles used for carrying (sacks, etc.) and probably for binding (Grömer/Rösel-Mautendorfer/Reschreiter 2013, 121-125).

Our textiles from Prague-Letňany were also used to wrap the sword-part of the grave inventory. The same feature can be observed on the tip of the sword in Hradenín, grave no. 46 (Dvořák 1938, 86). This feature does not seem to be entirely rare in the Hallstatt period, as evidenced by many textile finds in connection with swords. In Dannstadt (Rhein-Pfalz-Kreis/D) in Rhineland-Palatinate, a textile was identified on a sword in a grave dated to the Ha C period (Schauer 1971, 207; Gerdzen 1986, 113; Sehnert-Seibel 1993, 67). Interestingly, the sword provided evidence of two types of textile – one coarse and one fine. Also, other examples of textiles on swords in Hesse, Baden-Württemberg, and Bavaria documented the wrapping of swords directly, without a scabbard (see [list 1](#)). The textile from Wörth am Rhein (Lkr. Germersheim/D) was identified on fragments of the sword along with remnants of wood. It was interpreted as a sword set in a scabbard wrapped in textiles (Kilian 1969, 40; Gerdzen 1986, 145). The same situation was documented in Eichen (Main-Kinzig-Kreis/D; Gerdzen 1986, 116), Frankfurt am Main »Stadtwald-Sandhof« (Fischer 1961, 178-179; Schauer 1971, 207; Gerdzen 1986, 117), Marköbl (Main-Kinzig-Kreis/D; Wolf 1913, 75; Gerdzen 1986, 117), Windecken (Main-Kinzig-Kreis/D; Schumacher 1972-1974, 175-177; Gerdzen 1986, 144-145) or other sites (see [list 2](#)).

Swords with textiles are also discovered in the Early La Tène period, as documented by finds from Horath in Rhineland-Palatinate (Lkr. Bernkastel-Wittlich/D; Haffner 1976, 228-229), Remmesweiler in Saarland (Lkr. St. Wendel/D; Haffner 1976, 199) and Höresham in Bavaria (Lkr. Altötting/D; Uenze 1974, 73-113). In addition to the exemplars from Germany, swords and scabbards wrapped in textiles in the Hallstatt or Early La Tène milieu are known in France (cf. Schönfelder 2004), the Netherlands or Switzerland (Banck-Burgess 1999, 211-222). One of the most recent finds of this kind comes from the grave of an Early La Tène warrior from Gemeinlebarn (Bez. St. Pölten/A) in Austria (Preinfalk/Preinfalk 2014). It contained a sword in a scabbard with very well-preserved textile remnants.

Although a great progress has been made in our knowledge of the presence of textiles in Early Iron Age graves in various parts of Europe, we are still at the beginning of a full understanding of their function, role, meaning or significance.

Considering the general meaning of wrapping various items in the grave inventory in textiles, many interpretations prefer the explanation of this phenomenon on the cult, ritual or social level. For example, J. Banck-Burgess assumed, based on the situation in Eberdingen-Hochdorf, that the wrapping of objects removes them from visibility and transfers them to a different semantic level or changes the status of the deceased (Banck-Burgess 1999; 2012, 139-148; 2014, 153). Similarly, S. Harris speaks in the case of the wrapping of corpses in Scandinavian Bronze Age burials of the »reordering of the social world following death« (Harris 2014, 116). In various places of Europe during the Early Iron Age, the wrappings had a similar function but also the role of a simple sack to keep the ashes of the deceased together, as seen in many examples presented by M. Gleba (2014). In other Italian examples, whole urns are sometimes wrapped in the sack, where they are interpreted as »clothing of urns and thus as representations of the deceased« (Gleba 2014, 140). In this regard, particular notes in Greek and Roman literary sources are very interesting. These indicate that the body of the deceased should not be exposed before the proper burial, because it could be understood as a kind of sacrilege (Gleba 2014, 144).

As is evident from several presented examples in central Europe, the Italian milieu and the Mediterranean, the role of textiles in the burial process is anything but a simple matter. On the contrary, it represents a complex issue strictly connected with particular notions of past populations and can be approached from many points of view (cf. e.g. Harris/Douny 2014). The use of the textile, respectively its identification in the Prague-Letňany burial on the sword implies a specific function, which could be the preservation of the item. In this context, it is possible to point out another find from the grave inventory, namely a bronze bucket covered with black paint (Kozáková et al. 2017). Among other possibilities, black paint is considered to

perhaps be an element intended to protect the bronze vessel against corrosion. Furthermore, the care of metal items, e.g. bronze statues, is documented by some sources in prehistory (Brinkmann 2008). However, although such an interpretation of the textile on the sword from the Prague-Letňany grave does not seem completely improbable, it is obvious that such an assumption cannot be fully confirmed.

The same considerations may be connected with the textile identified on the wagon and horse harness. It may again be an element intended for protection against damage, etc., but it is not possible to rule out that it could have had any other special purpose. The fact that the textile was also identified on the surface of other artefacts placed in the grave suggests that it could have been used here to a much greater extent. This assumption permits a comparison with contexts such as Hochdorf or Hohmichele, where a considerable number of the grave goods were wrapped in the textile. It also suggests that a comparable rite could also have been applied in the Prague-Letňany grave.

Wickerwork

As far as we know, the wickerwork from the grave in Prague-Letňany represents the second example of its kind in Bohemia (fig. 8). The first one, however, has nothing to do with the burial ceremony or grave inventory. It was represented by fragments of a basket discovered in the unique wooden cistern in the suburb of the West Bohemian Vladař hillfort (okr. Karlovy Vary/CZ; Chytráček et al. 2012, 299). A find of several wickerwork fragments known from Býčí skála Cave (okr. Blansko/CZ) in Moravia has a highly similar interlacing and identical *Betula* wood material as the find from Prague-Letňany (Rast-Eicher 1995, 169. 171. 173).

Finds of wickerwork in the form of remnants of baskets or mats are considerably fewer than textile finds in the central European Early Iron Age, though they must have been a very common part of everyday life. It must be mentioned that the wickerwork was also used in the design of the helmets with a combined construction (cf. Egg/Neuhäuser/Skoberne 1998, fig. 12). The individual finds in Baden-Württemberg, Bavaria, Rhineland-Palatinate, and Luxembourg interpreted as remnants of baskets are connected with important elite graves or other tumuli graves (Banck-Burgess 1999, 225-227). They are known from Hohmichele, grave no. VI, Ertingen (Lkr. Biberach/D), Kappel-Grafenhausen (Ortenaukreis/D), Magdalenenberg, Hilleshheim (Lkr. Vulkaneifel/D), Graben (Lkr. Landsberg am Lech/D), Pürgen (Lkr. Landsberg am Lech/D) and Uffing (Lkr. Garmisch-Partenkirchen/D). A non-specified sample of the shallow wickerwork is known also from Helpfau-Uttendorf (Bez. Braunau am Inn/A; Egg 1985, 377). For our situation, the case of Pürgen in Bavaria is of a greater significance, since the find circumstances here were very similar to the situation in the Prague-Letňany grave. The Pürgen grave included a bronze bowl with a pearl-studded rim, which contained remnants of a wickerwork basket. The basket held a small clay vessel and everything was then covered by birch bark (Kossack 1959, 209; Hundt 1962, 182). This phenomenon, namely the remnants of the wickerwork near or in the bronze vessel was noted already by M. Egg (1985, fig. 41).

The aforementioned contexts indicate that the wickerwork detected in the inventory of the Prague-Letňany grave could have represented either a basket or a mat. Since it was preserved only in a poor state, this question cannot be answered with certainty. It also seems that the presence of the wickerwork vessels or matting was an important feature of the grave inventories in the rich elite tumulus graves, which is also consistent with the assumed status of the Prague-Letňany grave.

However, not all finds are interpreted as baskets, as indicated, for example, by the exemplars from Reinheim (Saarpfalz-Kreis/D) in Saarland and Tannheim (Lkr. Biberach/D) in Baden-Württemberg. Grave no. XI in Tannheim contained very fine wickerwork, which could originally have been part of the mat. The mat could

also have been present in the inventory of the grave in Reinheim (Keller 1965, 19 note 37). Grave no. II in Tannheim contained a cist, which included also wickerwork. The authors of the excavation considered this find to be the lid of the mentioned cist (Hundt 1962, 182; Banck-Burgess 1999, 226). Based on the similarity to the situation in the Prague-Letňany grave, it cannot be ruled out that the remains of the wickerwork could have originally represented the lid of the bronze bucket.

CONCLUSION

The use of textiles in the central European Early Iron Age milieu was a very frequent phenomenon, as indicated by the numerous presented examples in various regions. The lack of relevant knowledge in the area of the Bohemian Hallstatt or Early La Tène cultures, i.e. the huge disproportion in the status of textile research compared to other central European regions, cannot be explained by the non-use or sparse use of textiles in Bohemia. On the contrary, this disproportion is caused by insufficient attention paid to relevant aspects during the earlier research. This assumption seems to be confirmed, for example, by the contemporary processing of some earlier excavations, such as the Bylany culture wagon grave in Prague-Vinor discovered in 1988. During the revision of the metal finds from this grave, a co-author of this article identified two minor remnants of textiles on two iron finds among the grave goods (unpublished).

The enormous benefit of the wide application of interdisciplinary research conducted in recent times, for instance, in the case of the Prague-Letňany grave (Kozáková et al. 2017) and other relevant contexts (cf. e.g. Šálková et al. 2015; Chytráček et al. 2015; Kozáková/Trefný/Postránecká 2016), clearly showed the scientific potential of this approach. These studies raised significant questions on the form of the proper funeral ritual, the handling of particular items, or other previously unknown aspects. Such interdisciplinary insight indicates that this approach is very desirable and seminal also for textile research. The authors of this article thus hope that it could represent a small contribution to overcoming the aforementioned disproportion or to stimulate exhaustive research of prehistoric textiles and other finds from organic materials in the Bohemian territory.

Translation: D. Gaul

LIST 1: FINDS OF TEXTILES DIRECTLY ON SWORDS IN CENTRAL EUROPE DURING HA C - LT A

- | | |
|--|---|
| Bad Rappenau, Lkr. Heilbronn, Baden-Württemberg/D
(Gerdzen 1986, 134). | Glauberg, Wetteraukreis, Hesse/D (Peek 2018, 370-376.
390-391). |
| Dannstadt, Lkr. Rhein-Pfalz, Rhineland-Palatinate/D (Schauer 1971, 207; Gerdzen 1986, 113; Sehnert-Seibel 1993, 67). | Gündlingen, Lkr. Breisgau-Hochschwarzwald, Baden-Württemberg/D (Gerdzen 1986, 121). |
| Dettingen am Main, Lkr. Aschaffenburg, Bavaria/D (Gerdzen 1986, 114). | Horath, Lkr. Bernkastel-Wittlich, Rhineland-Palatinate/D (Haffner 1976, 228-229). |
| Gauting, Lkr. Starnberg, Bavaria/D (Gerdzen 1986, 119). | Hradenín, okr. Kolín/CZ (Dvořák 1938, 86). |
| Gehrsricht, Lkr. Sulzbach-Rosenberg, Bavaria/D (Hörmann 1925, 175; Torbrügge 1979, 375; Gerdzen 1986, 119). | Kleinwenkheim, Lkr. Bad Kissingen, Bavaria/D (Gerdzen 1986, 125). |
| | Maising, Lkr. Starnberg, Bavaria/D (Gerdzen 1986, 127). |

- Menzingen, Lkr. Karlsruhe, Baden-Württemberg/D (Gerdzen 1986, 127).
- Remmesweiler, Lkr. St. Wendel, Saarland/D (Haffner 1976, 199).
- Schaafheim, Lkr. Damstadt-Dieburg, Hesse/D (Gerdzen 1986, 136).
- Semd/Altheim, Lkr. Damstadt-Dieburg, Hesse/D (Gerdzen 1986, 137).
- Tannheim tumulus no. 9, Lkr. Biberach, Baden-Württemberg/D (Gerdzen 1986, 140).
- Urberach, Lkr. Offenbach, Hesse/D (Schumacher 1972, 42; Gerdzen 1986, 142).
- Walldorf, Lkr. Rhein-Neckar, Baden-Württemberg/D (Gerdzen 1986, 143).

LIST 2: FINDS OF TEXTILES ON SCABBARDS IN CENTRAL EUROPE DURING HA C - LT A

- Bastheim, Lkr. Rhön-Grabfeld, Bavaria/D (Hundt 1963, 180-185; Kossack 1970, 16; Gerdzen 1986, 108-109).
- Berndorf, Lkr. Kulmbach, Bavaria/D (Gerdzen 1986, 110-111).
- Bubesheim, Lkr. Günzburg, Bavaria/D (Stroh 1952, 20; Kossack 1959, 154-155; Schauer 1971, 195).
- Eichen, Main-Kinzig-Kreis/D (Gerdzen 1986, 116).
- Eggolsheim, Lkr. Forchheim, Bavaria/D (Pescheck 1972, 269; Gerdzen 1986, 115).
- Etting, Lkr. Weilheim-Schonau, Bavaria/D (Kossack 1959, 234).
- Frankfurt am Main »Stadtwald-Sandhof«, Hesse/D (Fischer 1961, 178-179; Schauer 1971, 207; Gerdzen 1986, 117).
- Glauberg, Wetteraukreis, Hesse/D (Peek 2018, 370-376, 390-391).
- Höresham, Lkr. Altötting, Bavaria/D (Uenze 1974, 73-113).
- Marbach, Lkr. Ludwigsburg, Baden-Württemberg/D (Sixt 1899, 33).
- Marköbl, Main-Kinzig-Kreis/D (Wolf 1913, 75; Gerdzen 1986, 117).
- Mindelheim, Lkr. Unterallgäu, Bavaria/D (Kossack 1959, 167; Gerdzen 1986, 127).
- Neudorf, Lkr. Lichtenfels, Bavaria/D (Schwarz 1955, 123; Gerdzen 1986, 130).
- Riegsee, Lkr. Garmisch-Partenkirchen, Bavaria/D (Kossack 1959, 238-240; Gerdzen 1986, 134).
- Röhlingen, Lkr. Ostalbkreis, Baden-Württemberg/D, it was not clear if the sword contained the remnants of a textile or leather (Gerdzen 1986, 135; Banck-Burgess 1999, 205).
- Salem, Lkr. Bodensee, Baden-Württemberg/D (Gerdzen 1986, 136).
- Steingeborn, Lkr. Reutlingen, Baden-Württemberg/D (Rieth 1938, 238; Gerdzen 1986, 138).
- Steinkirchen, Lkr. Passau, Bavaria/D (Kossack 1959, 250; Schauer 1971, 200; Gerdzen 1986, 138).
- Tailfingen-Truchelfingen, Lkr. Zollernalb, Baden-Württemberg/D (Gerdzen 1986, 139-140).
- Tannheim tumuli no. 13 and 22, Lkr. Biberach, Baden-Württemberg/D (Gerdzen 1986, 140).
- Wielenbach-Wilzhofen, Lkr. Weilheim-Schonau, Bavaria/D (Kossack 1959, 243).
- Windecken, Main-Kinzig-Kreis, Hesse/D (Schumacher 1974, 175-177; Gerdzen 1986, 144-145).
- Wörth am Rhein, Lkr. Germersheim, Rhineland-Palatinate/D (Kilian 1969, 40; Gerdzen 1986, 145).

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Zusammenfassung / Summary / Résumé

Textilfunde und Korbwaren in einem Elitegrab mit Wagen der Bylany-Kultur in Prag-Letňany

Im Zusammenhang mit anderen europäischen Hallstattfunden stellt der Aufsatz mehrere Typen von Textilien vor, die an der Oberfläche eines Eisenschwerts, von Wagenteilen und Pferdegeschirr konserviert sind, sowie Reste von Korbblech- arbeiten, die sich an Rand und Innenseite eines Bronzegefäßes erhalten haben. Alle diese Funde gehören zu einem reich ausgestatteten Wagengrab der Bylany-Kultur aus Prag-Letňany (Grab Nr. 6) und leisten einen wichtigen Beitrag zu unserer Kenntnis über den organischen Anteil der materiellen Kultur im weiteren Mitteleuropa.

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Finds of Textiles and Wickerwork in a Bylany Culture Elite Wagon Grave in Prague-Letňany

In the context of other European Hallstatt finds, the article presents several types of textiles preserved on the surface of an iron sword, parts of the wagon and horse harness and the remains of a wicker product preserved on the rim and inside a bronze vessel from a rich Bylany grave with a wagon from Prague-Letňany (grave no. 6). All finds represent important additions to the knowledge of organic material culture in the broader central European area.

Découverte de textiles et de vannerie dans la tombe à char de la culture de Bylany de Prague-Letňany

Dans le contexte d'autres découvertes hallstattiques en Europe, cet article présente plusieurs types de textiles préservés sur la surface d'une épée en fer, les parties du chariot et du harnais de cheval ainsi que les restes d'un produit en osier conservés sur le bord et à l'intérieur d'un récipient en bronze provenant d'une riche tombe à char de la culture de Bylany découverte à Prague-Letňany (tombe n° 6). Toutes ces pièces représentent des apports importants à la connaissance des matières organiques en Europe centrale.

Traduction: L. Bernard

Schlüsselwörter / Keywords / Mots clés

Tschechische Republik / Böhmen / Hallstatt / Textilien / Korbblechwaren

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