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Keramická rolnička s plastickou výzdobou ve tvaru dvojité spirály z Kostelního Hlavna, okr. Praha-východ

Beate Maria Pomberger

Abstract

This article discusses a spherical clay rattle with a unique double spiral application. The rattle is a strayfind from Kostelní Hlavno, Praha-východ and probably dates to the transition of the Late bronze Age to the Early Iron Age, and thus to the Štítary and the Bylan cultures. Spherical clay rattles from Prague-Holešovice and Hallstatt culture in Austria confirm the dating and the belonging to grave good. Rattles are classified as indirectly struck idiophones and vessel rattles. Sound recordings and frequency analyses carried out in the Prehistoric department of the Natural History Museum Vienna show frequency ranges of 0.2 kHz – 20 kHz and a low volume. The rattle is kept in the collections of the Prague-East Regional Museum in Brandýs nad Labem – Stará Boleslav.

Keywords

clay rattle, idiophone, archaeomusicology, acoustics, spirals, symbolism

Abstrakt

Tento článek pojednává o kulovité keramické rolničce s unikátní plastickou výzdobou ve tvaru dvojité spirály. Rolnička představuje ojedinělý nález z Kostelního Hlavna, okr. Praha-východ. Pochází pravděpodobně z přechodného období mezi pozdní dobou bronzovou a starší dobou železnou, můžeme ji tedy přiřadit do sekvence pozdní štítarské a časné bylanské kultury. Kulovité keramické rolničky z Prahy-Holešovic a halštatské kultury v Rakousku potvrzují datování předmětu a také jeho příslušnost k hrobovému inventáři. Rolničky jsou klasifikovány jako zprostředkovaně rozeznívané idiofony, přesněji dutá chrastítka. Zvukové nahrávky a frekvenční analýzy prováděné v Prehistorickém oddělení Přírodovědného muzea ve Vídni ukazují frekvenční rozsahy 0,2 kHz – 20 kHz a nízkou hlasitost. Rolnička je uložena ve sbírkách Oblastního muzea Praha-východ v Brandýse nad Labem – Staré Boleslavi.

Klíčová slova

keramická rolnička, idiofon, archeomuzikologie, akustika, spirály, symbolika

1. Introduction

A year ago, I was contacted by my colleague Danica Staššíková-Štukovská, former scientist at the Slovak academy of sciences in Nitra and asked, if I would be interested to investigate an interesting spherical clay rattle from Kostelní Hlavno, Praha-východ. Jaroslav Špaček, former director of the Městské muzeum v Čelákovicích, enabled the investigation of the rattle. Clay rattles are one of the best conserved groups of shaking idiophones, because they are made from the first durable material of mankind. They appear in astonishingly different shapes in various cultures and periods and probably play important roles in the imagination, life and death of people.

2. Site and circumstances of finding

Approximately thirty kilometres north-east of Prague, in the present-day district of Praha-východ, is the old village of Kostelní Hlavno. The site of the rattle is located in the village part Bažantnice, plot number 117, now built-up area, but used for agricultural purposes at the time of discovery during the 1930s (Fig. 1a-b). A larger quantity of pottery fragments, as revealed by surface collections and earthmovings carried out in the years prior to the expansion of the village, provide evidence that the area has been inhabited since the Neolithic period (*Špaček 2016).* The rattle is probably a stray find, since there is no more precise information about the find situation. Over the course of time, it became the property of Ing. Lubomír Čamek,[1] a local who was interested in the history of the village. He lent the rattle for scientific processing at the end of 2023 and then donated it to the collections of the Prague-East Regional Museum in Brandýs nad Labem - Stará Boleslav.

3. Rattle

The rattle is nearly globe-shaped and made from two hemispherical halves, which were joined together with clay. The clay material is fine grained and fired hard to sound. The surface is smoothed carefully and has an ochre and dark brown colour, which is an indication of an oxidizing-reducing firing. The seam on the lower half is slightly open. An appliqué consisting of two spirals is attached to the upper half of the rattle. This decoration seems to be inspired by a bronze double spiral pendant. The adjacent ends of the spirals are both broken off, but were probably originally connected to each other by a "bracket", which is set in like a handle. One spiral is wound clockwise, the other counterclockwise. Both spirals are decorated each with a fingernail puncture and additionally one with V-shaped puncture.

Furthermore, two double drop-shaped ornaments are engraved on both sides of the rattle. These ornaments are created by tiny piercing marks (Fig. 2/a–d). A fingerprint can be seen at the end of the slit below the larger ornament, a second one to the right of this ornament. The surface is slightly rougher between the two fingerprints due to wet silt during moulding (Fig. 2/e–f). Inside the rattle is a pellet.

The preserved total size of the rattle is 36 mm, with a diameter of 32 mm × 30 mm × 27 mm. The object has a weight of 23.86 g. The clay rattle is stored in the collection of the Prague-East Regional Museum in Brandýs nad Labem – Stará Boleslav and has the inventory number ARCH 43342.

4. Acoustic

Rattles are classified as indirectly struck idiophones and vessel rattles (*Hornbostel – Sachs 1914,* 566; System number 112.13;

a

b

Fig. 1. Kostelní Hlavno, Praha-východ dist. Site of the rattle, Bažantnice plot 117 (Graphics: J. Špaček; based on the maps SMO 1:5000, Brandýs nad Labem, page 8-3, Prag 1990; touristic map of Mělník and Kokořínsko 18, 1:50000, Prag 1995; https://mapy.cz/zakladni?x=14.7012978&y=50.2568032&z=16)

Obr. 1. Kostelní Hlavno, okr. Praha-východ. Místo nálezu rolničky, místní část Bažantnice, parcela č. 117 (grafika: J. Špaček; na podkladě map SMO 1:5000, Brandýs nad Labem, str. 8-3, Praha 1990; turistická mapa Mělnicka a Kokořínska 18, 1:50000, Praha 1995; https://mapy.cz/zakladni?x=14.7012978&y=50.2568032&z=16)

Fig. 2. Kostelní Hlavno, Praha-východ dist. The clay rattle (Photos: A. Rausch, NHM Vienna)
Obr. 2. Kostelní Hlavno, okr. Praha-východ, keramická rolnička (foto: A. Rausch, Naturhistorisches Museum Wien)

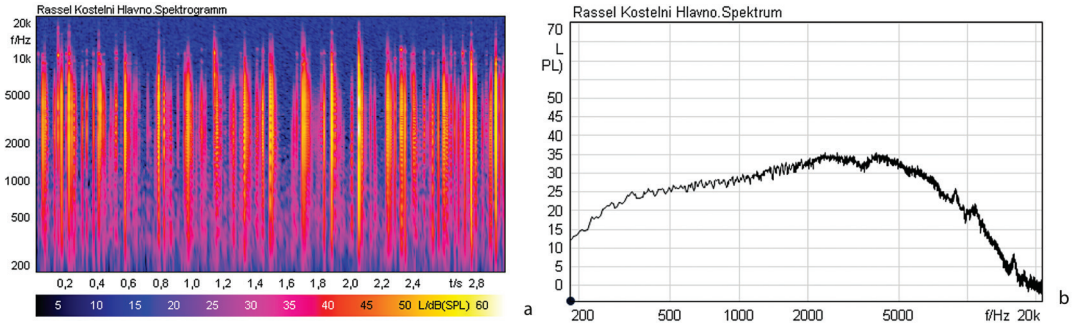


Fig. 3. Spectrogram (Hanning 1024) and spectrum (Hanning, 8192) of the clay rattle (Graphic: J. Mühlhans)
Obr. 3. Spektrogram (Hanning 1024) a spektrum (Hanning 8192) keramické rolničky (grafika: J. Mühlhans)

MIMO 2011,6; system number 112.13; *Knight 2015/2017,* 15; system number Y41). Inside the rattle are pellets, which hit against the inner wall when being shaken und thus the sound body vibrates in various modes. A vessel rattle's sound is influenced by the composition of the material, the shape, the wall thickness, the mass and size and the quality of the firing. The distribution of modes is highly complex. In principle different shapes have different vibration modes. Ireneus Czajka investigated the free vibration modes of spherical rattles by using a model and showed them up in two interesting graphics (*Czajka 2021,* 153, figs. 10, 11). In the case of an archaeological find, the storage in the ground and the state of preservation also influenced the sound. Since no computed tomography was carried out, there is no knowledge of the condition of the interior and the wall of the discussed rattle. Cracks in the wall affect the sound. The sound recordings of the rattle were carried out in a mobile sound recording studio (*Pomberger – Mühlhans 2022*) in the Department of Prehistory of the Natural History Museum in Vienna. For analysing the sound, the HEAD ArtemiS Suite (*HEAD 2023*) audio-visualising programme was used. The spectrogram shows a frequency range from 0.2 kHz up to 20 kHz. In the spectrum no partials emerge, therefore the today's sound of the rattle can be described as a noise-like and atonal. A "reverberation" is not evident (Fig. 3a–b). The sound recording of the original clay rattle is available in the repository of the Natural History Museum in Vienna (*Pomberger B. M,* editing 30. 11. 2024)

A group of spherical Hallstatt clay rattles from Austria (Roggendorf, Hallstatt, Statzendorf, Maiersch and Mitterkirchen) were investigated within the scope of the author's doctoral thesis (*Pomberger 2016*). For comparing their frequency ranges, their spectra and spectrograms are presented in Figure 4 and Table 1.

Comparing the spectrograms and spectra, one can observe that the rattles from Statzendorf, Maiersch and Mitterkirchen produce more noise-like sounds and hardly any peaks, whereas the rattles from Roggendorf and Hallstatt show two to three well developed partials in the upper range and thus have more tonal components.

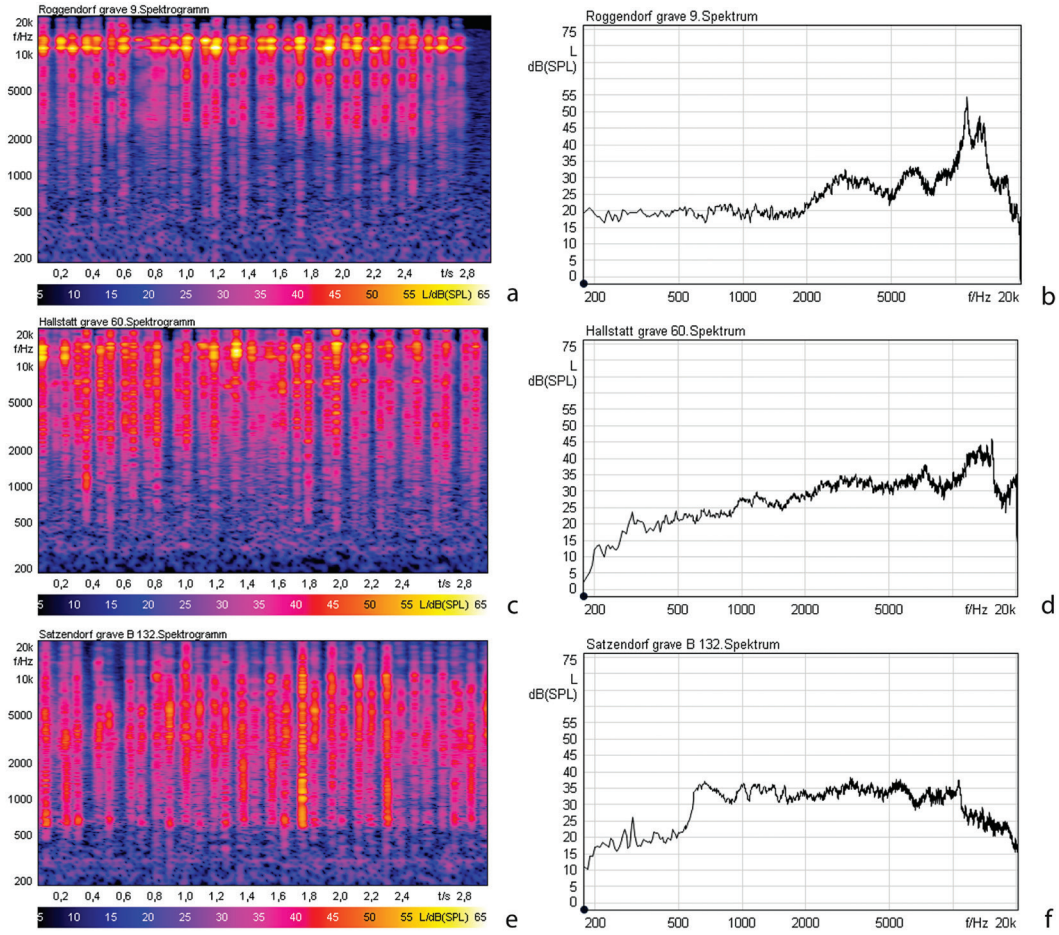
5. Dating, culture and analogies

Recalling that the clay rattle is a stray find without any further information about the find context, two indications could help. One is the spherical shape, the other the double spiral appliqué. Spherical clay rattles are not

rattle/site	range	peaks
Roggendorf, grave 9	2 kHz – 20 kHz	11.3 kHz / 13,5 kHz
Hallstatt, grave 60	1 kHz – 20 kHz	7.2 kHz / 11.8 Hz / 15 kHz
Statzendorf, grave B132	0.6 kHz – 20 kHz	no peaks
Maiersch , grave 54	1 kHz – 20 kHz	small peak 6.5 kHz
Mitterkirchen grave 6	1.5 kHz – 17 kHz	no peaks

Tab. 1. Frequency ranges and well pronounced partial/peaks of spherical Hallstatt rattles from Austria (Graphic: B. M. Pomberger)

Tab. 1. Frekvenční rozsahy a výrazné složky/píky kulovitých halštatských rolniček z Rakouska (grafika: B. M. Pomberger)



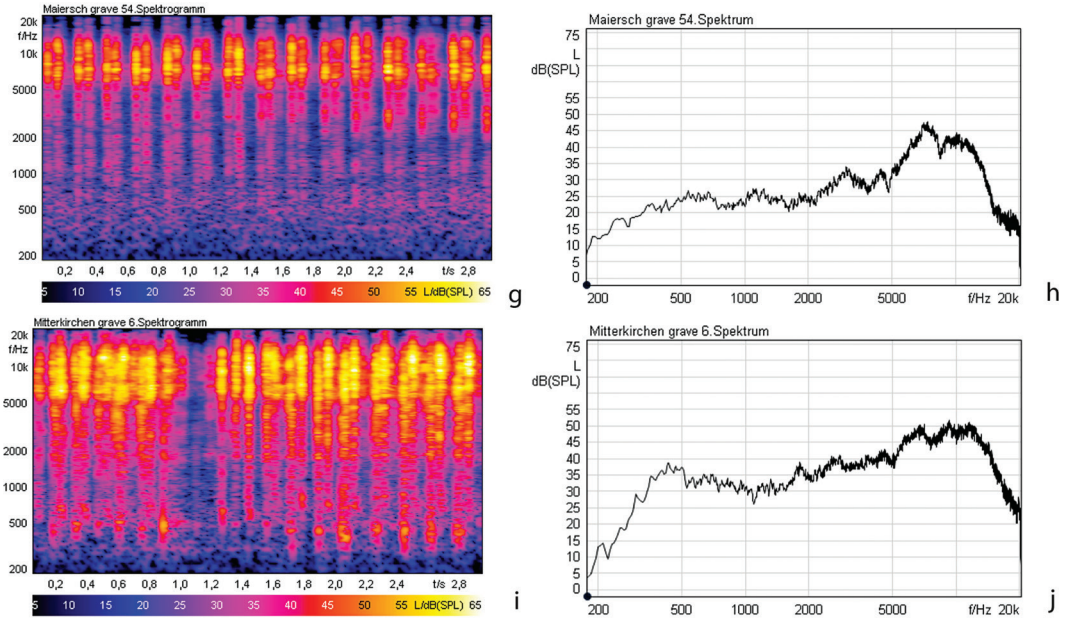


Fig. 4. Spectrograms and spectra of spherical rattles from Austrian Hallstatt culture sites. a–b – Roggendorf, grave 9; c–d – Hallstatt, grave 60; e–f – Statzendorf, grave B 132; g–h – Maiersch, grave 54; i–k – Mitterkirchen, grave 6 (Graphic: J. Mühlhans; spectrograms: Hanning 1024; spectra: Hanning, 8192; Graphic: J. Mühlhans)

Obr. 4. Spektrogramy a spektra kulovitých rolniček z rakouských lokalit halštatské kultury. a-b – Roggendorf, hrob 9; c-d – Hallstatt, hrob 60; e-f – Statzendorf, hrob B 132; g-h – Maiersch, hrob 54; i-k – Mitterkirchen, hrob 6 (spektrogramy: Hanning 1024; spektra: Hanning 8192; grafika: J. Mühlhans)

common in the Late Bronze Age.[2] None of them are known from the Middle Danube Urnfield Culture (*Pomberger 2016*) nor from Knovíz or Lusatian cultures (*Gruszczyńska-Ziółkowska – Tatón – Czajka 2021*). However, they appear in the Early Iron Age, namely in the Bylany Culture in Bohemia and the Hallstatt Culture in Austria. The Národní muzeum – Historické muzeum in Prague keeps two spherical clay rattles from the Bylany Culture in Prague. Both originate from Prague-Holešovice (Inv. Nr. H1-15165 and H1-15164) (see Fig. 5). Photos of the two rattles can be viewed in the museum's online collection.[3] Their diameters are 3.2 cm and 3.4 cm. Jaroslav Špaček informed me that three spherical clay rattles were found in a chambered tomb of the Bylany Culture in Zápy, Praha-východ.[4] Their sizes are approximately 3 cm.

From Austria we know 17 rattles in total. Nine belong to the Hallstatt-period Kalenderberg Group. They originate from Statzendorf, grave B 132 (3) and stray finds (*Rebay 2006,* 116, 155–156, pl. 137, 222), Maiersch grave 54 (*Berg 1962,* 30, Pl. 19:10) and Roggendorf grave 9 (*Pescheck 1942,* 122, 255, Pl. 42:8), all in Lower Austria. Two were found in Hallstatt-Hochtal, Upper Austria, namely in grave 60 (*Kromer 1959,* 216, Pl. 227:9). Six rattles were excavated in Mitterkirchen, Upper Austria in four burials, site Lehen 84 (*Pomberger 2016,* 256, Pl. 22; *Schumann – Leskovar – Marschler 2015*) (Fig. 6). It is interesting to note that they were used in pairs or threes as grave goods. Some do not

Rattle/ Inv.Nr.	Museum	Site	Country	Find	Dm/Size	Weight
PA 3126a	Naturhistorisches Museum Wien, Präh. Hist. Abt.	Statzendorf	AT	grave B 132	45 mm	31,9 g
PA 3126b	Naturhistorisches Museum Wien, Präh. Hist. Abt.	Statzendorf	AT	grave B 132	43 mm	35,9 g
PA 3126c	Naturhistorisches Museum Wien, Präh. Hist. Abt.	Statzendorf	AT	grave B 132	46 mm	28,2 g
PA 56298	Naturhistorisches Museum Wien, Präh. Hist. Abt.	Statzendorf	AT	strayfind	40 mm	34 g
3237	Höbarth Museum Horn	Maiersch	AT	grave 54	40 mm	31 g
A 15699	Krahuletzmuseum Eggenburg	Roggendorf	AT	grave 9	32 mm	24 g
PA 2475a	Naturhistorisches Museum Wien, Präh. Hist. Abt.	Hallstatt-Hochtal	AT	grave 60	40 mm	⊗
PA 2475b	Naturhistorisches Museum Wien, Präh. Hist. Abt.	Hallstatt-Hochtal	AT	grave 60	40 mm	⊗
M-497a	Landesmuseum Linz	MitterkirchenLehen 84	AT	grave ?	37 mm	32 g
M-497b	Landesmuseum Linz	MitterkirchenLehen 84	AT	grave ?	37 mm	40 g
M-489	Landesmuseum Linz	MitterkirchenLehen 84	AT	grave ?	40 mm	50 g
M-102	Landesmuseum Linz	MitterkirchenLehen 84	AT	grave 6	56 mm	67 g
M-101	Landesmuseum Linz	MitterkirchenLehen 84	AT	grave 6	41 mm	25 g
M-480	Landesmuseum Linz	MitterkirchenLehen 84	AT	grave ?	36 mm	38 g
H1-15165	Národní muzeum – Historické muzeum Prague	Prague-Holešovice	CZ	grave ?	32 mm	⊗
H1-15164	Národní muzeum – Historické muzeum Prague	Prague-Holešovice	CZ	grave ?	34 mm	⊗

⊗ = no information

Tab. 2. Similar clay rattles from Austria and the Czech Republic (Graphic: B. M. Pomberger)

Tab. 2. Analogie keramických rolniček z Rakouska a České republiky (grafika: B. M. Pomberger)

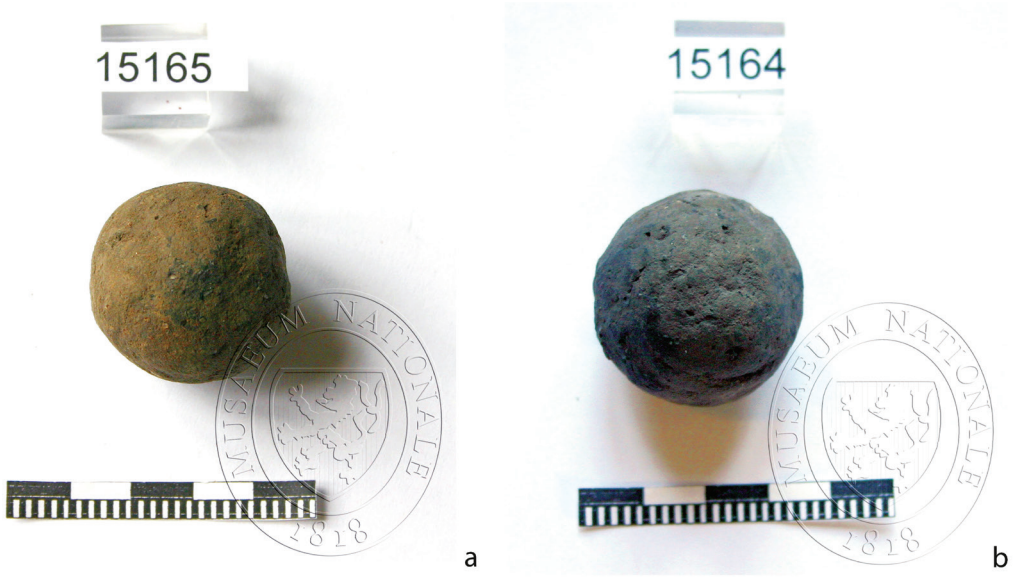


Fig. 5. Clay rattles from Prague-Holešovice H1-15165 and H1-15164; Bylany Culture (?). Kept in the collection of the Národní muzeum – Historické muzeum in Prague (Graphic: B. M. Pomberger, Fotos: https://creativecommons.org/licenses/by/4.0/)

Obr. 5. Keramické rolničky z Prahy-Holešovic H1-15165 a H1-15164; bylanská kultura (?). Uloženo ve sbírkách Národního muzea – Historického muzea v Praze (grafika: B. M. Pomberger, foto: https://creativecommons.org/licenses/by/4.0/)

have a sound hole. This is an indication that they were slowly dried at the fireplace. Clay rattles were usually made from two halves. Spherical ones could be shaped either from one lump of wet clay, which is opened and hollowed by the thumb after being shaped to a ball, or from two hemispherical halves, which were joined together with silt in the leather-hard state. Little clay balls or small pebbles rolled in ash are put inside the hollowed rattle corpus. Ash as non-stick material could help to keep the rattle body inside loose. The rattles are slowly dried and parched at the edge of the fire as has been discovered and followed in experiments (*Jiménez Pasalodos – García Benito – Padilla Fernández 2014*).

6. Decoration – spiral

A spiral is a linear curve that winds on and on from a centre point until it finally reaches infinity. The motif of spirals can be observed in nature, for example in rolled-up fern leaves or snail shells. Already in the Upper Palaeolithic, people decorated their garments with snail shells or wore them as necklaces as proved by the finds from the Aurignacian site of Grub-Kranawetberg, Lower Austria (*Antl-Weiser 2018*, 95, 97). A semicircular ivory stick from Isturitz, France, dating to the Magdalenian period, displays spiral patterns (*Leroi-Gourhan 1971*, figs. 38–44, 225). Spiral motifs can be seen on vessels and anthropomorphic clay sculptures

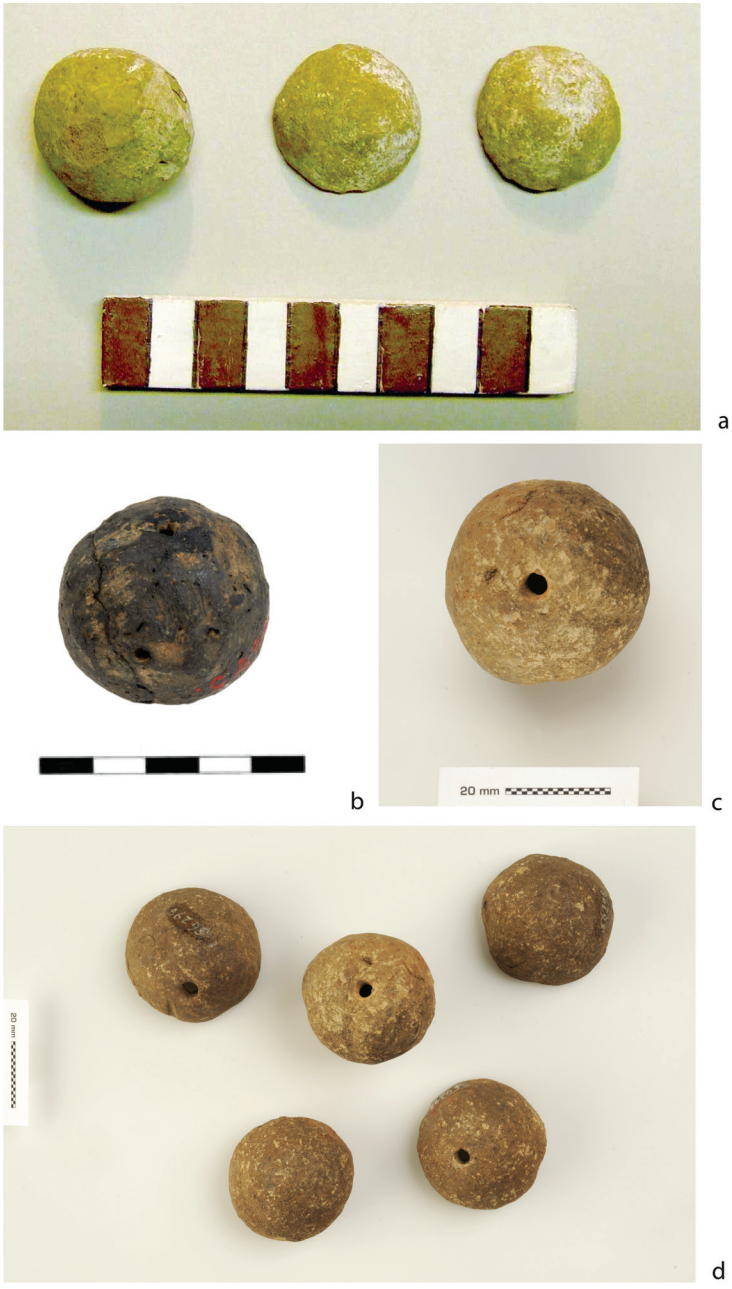


Fig. 6. Rattles from Hallstatt Culture in Austria: a – Roggendorf, grave 9, b – Hallstatt-Hochtal, grave 60, c – Statzendorf, strayfind, d – Statzendorf grave B 132 (Graphic: B. M. Pomberger; Photos: a – b: B. M. Pomberger; c – d: A. Schumacher, © NHM Wien)

Obr. 6. Rolničky halštatské kultury z Rakouska: a – Roggendorf, hrob 9, b – Hallstatt-Hochtal, hrob 60, c – Statzendorf, ojedinělý nález, d – Statzendorf, hrob B 132 (grafika: B. M. Pomberger; foto: a–b: B. M. Pomberger; c–d: A. Schumacher, © NHM Wien)

of the Early Neolithic period, for example from the Linear Pottery Culture settlements of Brunn am Gebirge, Wolfholz, sites 2a and 3, Lower Austria (*Stadler – Kotova 2019*, 662, Pl. 62:39; *Stadler – Kotova 2021*, Pl. 154, 196), from Náklo near Olomouc, Czech Republic (*Grömer – Kern 2018*, 103) or the Starčevo Culture site of Ovčarovo-Gorata, Bulgaria (*Krauß 2014*, 163–165, Abb. 97:7, 12, Abb. 98:8, 10–12, Abb. 99:4–5, Abb. 101:4, 7, Pl. 36:4, 54:13–15). Spirals decorate stones of the Megalithic Culture as are known from the Hagar Qim Temple in Malta, from Newgrange in Ireland or from the Orkney Islands (United Kingdom) (*Dendrinos 2016*). Since the metal ages, double spiral pendants made from one piece of metal wire were used as jewellery on garments in Central Europe. They were made from copper, bronze and gold, undecorated as well as decorated with notches or hallmarking (*Wels-Weyrauch 1978*, 77–113, Pl. 19–38; *Wels-Weyrauch 1991*, 69–78, Pl. 19–26, 30–33, 69). Some of the oldest copper spirals were found in the hoard with golden discs from Stollhof, Lower Austria, dating to the Early Chalcolithic (*Angeli 1967*; *Grömer – Kern 2018*, 37). In Slovakia, double spiral pendants appear from the Late Tumulus Culture until the Late Urnfield Culture (*Furmánek 1980*, Pl. 44) and in South Germany, belt hooks in a double spiral form were used during the Tumulus Culture (*Kilian-Dirlmeier 1975*, Pl. 70). Spiral plate fibulae with one spiral appear in Central-Northern Europe during the Montelius periods II–V. Double spiral fibulae show two spirals with a bow in the centre and are common from the Late Bronze Age until the Early Iron Age (*Heynovski 2019*, 36–48). In Moravia, Southern Germany, Austria, Switzerland and Slovakia, they were fashionable from the Middle Urnfield Culture onward till the Early Iron Age/Hallstatt Culture, stage Ha D (*Říhovský 1993*, Pl. 1–12, 24; *Betzler 1974*, Taf. 1–65, 90; *Novotná 2001*, Taf. 1–15, 31).

If we consider that double spirals – especially fibulae and pendants – appear very frequently from the Late Bronze Age onwards, but spherical ceramic rattles are more common in the Early Iron Age in Central Europe, the clay rattle from Kostelní Hlavno would have to be dated to the transitional phase Late Bronze Age/Early Iron Age, i.e. around 800 BC. The author dates to the transition from Knovíz culture (Štítary phase) to Bylany culture, affirmed by parallel rattle finds from Prague-Holešovice and Hallstatt culture in Austria.

7. Considerations of clay rattles as grave goods and their possible functions

Vessels with hollow feet containing rattle bodies, which turn the objects into vessel rattles, have been known since the Neolithic period. They were discovered in graves like those of the Bell Beaker Culture in Moravia (*Dvořák 1992*; *Dvořák 1999*) or at burials like the one of the Linear Pottery Culture in Rossleben, Thuringia (*Kaufmann 2006*). Since the Early Bronze Age, clay rattles had been given to the deceased, as is known from the Encrusted Pottery Culture in Hungary (*Bóna 1975*). During the Late Bronze Age, especially in the Lusatian Culture, rattles as grave goods in burials increased (e.g. *Podborský 1993*; *Bente – Manschus – Sobott 2021*). This trend continued into the Early Iron Age/Hallstatt Culture (*Pomberger 2016*) and there are numerous interpretations of their functions. They are considered to be musical instruments but their noises and sounds are rather quiet. They could have been children's toys but why they are found in adults' burials (*e.g. Kaus 1971*)? They are cult instruments that are associated with certain symbolism (*Šaldová 1968*; *Staššíková-Štukovská 1994*). They are charms and apotropaic amulets that

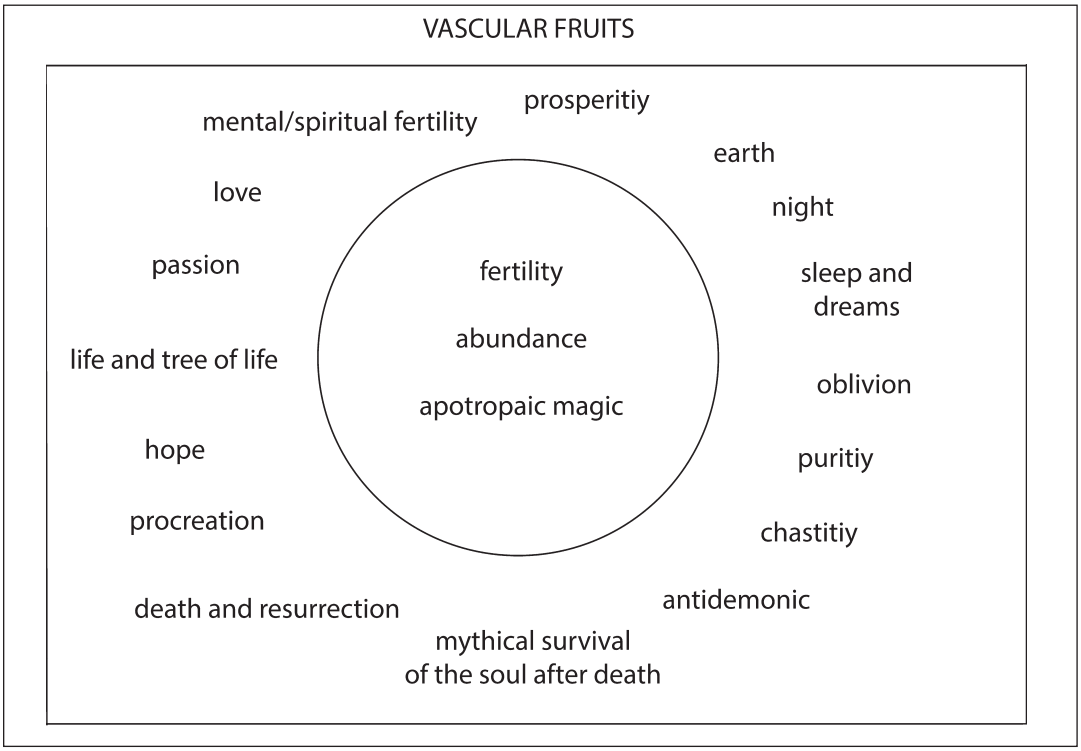


Fig. 7. Symbolism of vascular fruits (Graphic: B. M. Pomberger)
Obr. 7. Symbolika rostlinných plodů (grafika: B. M. Pomberger)

protect against evil spirits and demons (*e.g. Adámek 1961*; *Filip 1934/35*) and are mainly discovered in women's and children's burials, because "... women and children were exposed to a wider variety of dangers..." (*Rustoiu – Berecki 2015,* 268). The noises/sounds of clay rattles are considered apotropaic and probably could have accompanied the funeral rituals (*Bente – Manschus – Sobott 2021*). Gisa Jähnichen states that on one hand the filling of the rattles has special meanings in different cultures and on the other hand also the form of the sound bodies themselves is the subject of cultic ideas. The diffuse sounds and noises of the rattles are used to create surprising interpretations and also to articulate wishes and hopes for a supernatural world of gods and spirits (*Jähnichen 1998,* 73*)*. The author wants to bring an additional idea to all those interpretations. Vessel rattles imitate, among others, vascular fruits, which contain numerous seeds or fruits with more than one seed. They most probably developed from dried seed capsules and pulses (*Jähnichen 1998*, 78). Many seeds mean many descendants, fertility, wealth, and consequently long or eternal life or the life after death (*Grömer – Pomberger 2023*; *Pomberger in print*). Therefore, vessel rattles could be symbols for hope or belief in eternal life or life after death. And these thoughts and ideas about afterlife can help to achieve a positive attitude towards life, regardless of whether an afterlife with the associated beings and possibilities actually exists (*Köst 2024*).

8. Conclusion

The spherical rattle with a double spiral appliqué from Kostelní Hlavno, Praha-východ is unique in its appearance. It was found – better said picked up – without any further find context, but probably belonged to a burial. Spherical rattles are more common in the Early Iron Age than in the Late Bronze Age. The author dates it to the transition from Knovíz Culture (Štítary phase) to Bylany Culture, affirmed by parallel rattle finds from Prague-Holešovice and the Hallstatt Culture in Austria. The rattles are used as grave goods especially in children's and women's burials. As regards the function of rattles in burials, they are considered to be symbols of hope for the life after death and tools of apotropaic magic. Analyses of the sound recordings show that the rattle has a frequency range from 0.2 kHz up to 20 kHz and thus a noise-like sound character with low volume.

Acknowledgment

The author thanks Jaroslav Špaček, former director of the Městské muzeum v Čelákovicích and Danica Staššíková-Štukovská, former scientist at the Slovak Academy of Sciences in Nitra, for contacting and informing me about the rattle as well as for the possibility to investigate the instrument. And also, thanks go to Jörg Mühlhans from the MediaLab of the University of Vienna for preparing the frequency analyses.

1) Kostelní Hlavno, No. 159.

2) So far known to the author.

3) https://www.esbirky.cz/predmet/139208?searchParams=%7B%22filter%22%3A%7B%22material%22%3A%5B%2217361%22%5D%7D%2C%22order%22%3A%22name%22%2C%22itemsPerPage%22%3A24%2C%22path%22%3A%22eJyLrlbKS8xNVbJS8shJTUksUSjIT8lJtVLITSxJLcqMKTUwSDXMUdJRysnMywYqitHPACuL0YcoSMxRqtWpVspMUbIyNDc2MdeBmeaVmQfWbAnUmwxUmp5fVAkUhuvCY2KMPtgoZIPNDOEGe6cWJeZmZieSaa6ZoVJtLADfVk5v%22%7D&sequencePointer=39;
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4) The rattles were found by Mgr. Lukáš Baloun.

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Keramická rolnička s plastickou výzdobou ve tvaru dvojité spirály z Kostelního Hlavna, okr. Praha-východ

Před rokem mě oslovila kolegyně Danica Staššíková-Štukovská, bývalá vědecká pracovnice Slovenské akademie věd v Nitře, s otázkou, zda bych neměla zájem prozkoumat zajímavou kulovitou keramickou rolničku z Kostelního Hlavna v okrese Praha-východ. Jaroslav Špaček, bývalý ředitel Městského muzea v Čelákovicích, prozkoumání rolničky umožnil. Keramické rolničky jsou jednou z nejlépe dochovaných skupin úderových idiofonů, protože jsou zhotoveny z prvního materiálu s dlouhou životností, vyrobeného člověkem. Objevují se v překvapivě odlišných podobách v různých kulturách a obdobích a pravděpodobně hrají důležitou roli v představách, životě a smrti lidí.

Obec Kostelní Hlavno leží přibližně třicet kilometrů severovýchodně od Prahy, v dnešním okrese Praha-východ. Místo nálezu rolničky se nachází v místní části Bažantnice, na parcele č. 117. Dnes ji tvoří zastavěná plocha, ale v době objevu ve 30. letech 20. století byla využívána k zemědělským účelům (obr. 1a-b). Větší množství zlomků keramiky, pocházející z povrchových sběrů a zemních prací prováděných ještě před rozšířením obce, svědčí o osídlení území již od neolitu (*Špaček 2016*). Jelikož nemáme k dispozici žádné přesnější údaje o nálezových okolnostech, rolnička pravděpodobně představuje ojedinělý nález. Postupem času se stala majetkem Ing. Lubomíra Čamka, místního obyvatele, který se zajímá o historii obce. Ten rolničku na konci roku 2023 zapůjčil k vědeckému zpracování a následně ji daroval do sbírek Oblastního muzea Praha-východ v Brandýse nad Labem – Staré Boleslavi.

Kulovitá rolnička s plastickou výzdobou ve tvaru dvojité spirály z Kostelního Hlavna, okr. Praha-východ je jedinečná svým vzhledem. Byla nalezena – lépe řečeno vyzvednuta z povrchu terénu – bez dalšího nálezového kontextu, ale pravděpodobně patřila k hrobové výbavě. Kulovité rolničky jsou častější ve starší době železné než v mladší době bronzové. Autorka nález datuje do období přechodu od knovízské kultury (štítarská fáze) k bylanské kultuře, což dokládají i soudobé analogie z Prahy-Holešovic a halštatské kultury v Rakousku. Rolničky se vyskytují jako části hrobové výbavy zejména u pohřbů dětí a žen. Rolničky využívané při pohřbech jsou považovány za symboly naděje na posmrtný život a za prostředky apotropaické magie. Z analýz zvukových nahrávek vyplývá, že zkoumaná rolnička má frekvenční rozsah od 0,2 kHz do 20 kHz, vytváří tedy zvuk s nízkou hlučností.

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